

STEEL RAIN

**The History of the
3rd BATTALION, 27th FIELD ARTILLERY REGIMENT
and the
MULTIPLE LAUNCH ROCKET SYSTEM
During the Persian Gulf War**



by: Charles W. Bissett (Staff Sergeant, Retired)

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"AUTHOR'S PROLOGUE"

On the 2nd of August 1990, Iraq invaded the Kingdom of Kuwait. As a result of this act, and for a variety of reasons the United States with other nations sent a military force into the Persian Gulf region. These forces were sanctioned by the United Nations to restore the sovereignty and political integrity to the former government of Kuwait.

This is the story of the soldiers in the 3/27th Field Artillery battalion. Here is also the only comprehensive tactical level record of the Multiple Launch Rocket System in its first combat employment as told by the soldiers who manned this weapon system. Filings with U.S. Army historical archives indicate that this is the only known tactical level unit history produced for the Persian Gulf War.

Over forty interviews were taken from the people who were actually involved in the events depicted in this book. My goal has been to preserve the personal experiences of this war. These are the actual events, without fictionalizing or embellishment.

The focus of this book is not on any one person, since wars aren't fought by individuals. It is on a team of men and women as they stood together through a crisis and the tools that contributed to their success. Together, these people were a battalion that deployed, fought and returned home as a unit. And like a family, they bonded together in a way that gave this battalion its own identity and character.

The value of history is that it shows us who we are. It helps us to define ourselves as a people, a culture, and a species. This is done by looking at where we have come from, and the journey we have taken to get to where we are. From out of the raw chronology of events steps the pattern of choices we have made, as contrasted with what we could have otherwise made. Once we see these patterns with understanding, it is possible to shine a light upon the opportunities of the future. Regardless of how we may feel about war, in a society such as the United States, anything that we can learn about our military institution is of no small value.

For the American people, this was the first major war since the middle of the 1970s. It was the first rapid buildup of a theater size operation since the early 1950s. The battle at the Rumaylah Oil Fields and the adjacent Medina Ridge now stand as the largest armor against armor battle for Americans, since World War II. Furthermore, there were also whole host of subtle changes in the military's doctrines, policies, and its inner working as a subculture. To show the effect of these changes on the American Army, I have chosen to focus on the human factors; the process of how, from the battalion to the individual level, these people functioned as a military entity.

To these events, I am a witness; and these achievements are our legacy.



Charles W. Bissett

Staff Sergeant, U.S. Army (Retired)

"THE ALERT"

Chapter 1

The sergeant on duty stood at the front door to his barracks looking out toward Gruber Road. It was shortly after mid-night, Tuesday morning on the 7 August 1990. From the door he watched a HMMWV, one of those boxy looking military pick-up trucks speeding full out down the road. "The military police are going to crucify that guy when they catch him," the sergeant mused, out loud.

Traffic was usually dead quiet at this time of night on post. However, within the next half hour, he saw eight more speeding vehicles. Three of them were police cars with lights flashing; all of them going in different directions. "This isn't right. Something is going on around here." Thought the sergeant, "Too many vehicles racing around, for this late at night." Shortly, he would learn why all the activity. SGT Marc Weiler would learn, he was going to war.

The barracks faces Gruber Road, a four lane boulevard that runs the length of the major combat unit commands at Fort Bragg in North Carolina. This is the home of XVIIIth Airborne Corps, and the Special Operations Command (also a corps level command). Here is also the home of the 82nd Airborne Infantry Division (abr., 82nd Abn), and the home of the Special Forces. In total over a hundred thousand soldiers, civilians and their families live and work here. This post holds the command centers that are the heart of America's rapid deployment forces.

It is here at Fort Bragg that the 3rd Battalion, 27th Field Artillery Regiment (abr. 3/27th FA) is stationed. This battalion is armed with one of the Army's newest and most powerful weapons, the Multiple Launch Rocket Systems (abr., MLRS). The MLRS is a ground to ground rocket system. It can fire a rocket over 18 miles to disperse more than 600 grenade like munitions across an area larger than a football field. At full strength, the 3/27th FA has almost 500 soldiers assigned to it. This battalion is also referred to as a regiment, because here is the home of the regimental flag for the six sister battalions of the 27th Field Artillery that are stationed around the world.

The alert and deployment of the 3/27th FA to the Persian Gulf had actually begun late Monday evening on 6 August 1990. Major Leonard Finley sat in the living room of his home watching the late news on CNN. MAJ Finley was the new executive officer for the 3/27th FA. He had only just been assigned to the battalion earlier that week. Beside him sat his wife, leaning against him. Together, they sat on their sofa watching news broadcasts of the Iraqi invasion of Kuwait. Someone had made a video recording of Iraqi assault helicopters descending on the city of Kuwait while armored cars drove up to the government buildings shooting machine guns at the windows. Copies of this video had been passed to all the news services. It was now being shown regularly on the major networks.

During the news segment, commentators hinted that the United States might become directly involved. They said that high level government officials were traveling to the Middle East for consultations with the Saudi Arabian and other Persian Gulf governments. It was the American government's effort to protect its oil interests from the threat of a regional conflict. News commentators were openly speculating about a possible military show of force, such as an increased naval presence.

At the end of the news segment about the invasion of Kuwait, Mrs. Joanne Finley turned to her husband and asked him his thoughts.

MAJ Finley thought a second and then answered, "We're not serious, unless we plan to send armored forces and launchers. The desert isn't the type of place for light forces."

About ten minutes later, the telephone rang. MAJ Finley answered the phone, and an officer from the XVIIIth Corps, Emergency Action Center introduced himself. "Sir, how many C-5As would it take to move an MLRS battery?" he asked the major.

After he got off the telephone, MAJ Finley turned to his wife who was still sitting watching the news. "Dear," he said. "Help me get my gear together. We are serious."

It was an hour later when the Finley's telephone rang, again. This time the Staff Duty Officer from the 18th Corps Artillery headquarters introduced himself. He asked for the phone number where LTC Alan "Bud" Thrasher, the battalion commander could be reached. LTC Thrasher had just arrived at Fort Bragg from an assignment in Germany. Being a new arrival, he had not been assigned quarters nor had a chance to find a home, yet. Until he could set up residence, he was staying at a friend's home. Only MAJ Finley knew the phone number. However, MAJ Finley could not give out anyone's phone number over the telephone. At that time in the military, soldiers were not permitted to give out numbers to strangers over the telephone. "I understand," said the Staff Duty Officer, "Have LTC Thrasher report to the Commanding General's office in thirty minutes."

At about 0330 hours, on 7 August that 1LT Michael O'Neil was awoken by the telephone. The lieutenant was a platoon leader in Alpha Battery, 3/27th FA. "Sir, this is SGT Weiler. I'm the CQ (Charge of Quarters) tonight. Sir, we have an alert, full gear, officers and platoon sergeants only, at this time."

When the Charge of Quarters got off the phone, the lieutenant immediately called his platoon sergeant, SFC Jackey D. Cockerham and told him the news. The message was the same, short and to the point. Usually, during practice alerts, the platoon sergeant had to call all the married soldiers that did not live in the billets. He would let them know about the alert. From that point everyone had one hour to be back at the billets, with full combat gear, ready to board a plane.

This time the message was a little different. This alert was for officers and key NCOs only. That was different enough to tip off the lieutenant that this was not going to be a practice exercise. If an alert was being used to call in only the decision makers, it meant that right now some very important decisions had to be made. He had been following the news. He knew that Iraq's invasion of Kuwait threatened the petroleum resources in which the United States held a vested interest. He had to be cautious of whatever he did. He did not want to say the wrong thing or create a false impression. This was no time to cause a panic by voicing some unfounded speculations. He would find out what was really happening when he got to the battery. If what he had heard on the news and now this phone call was any indication, this was not a training exercise.

It was 0430 hours when 1SG Jon H. Cone, Alpha Battery's First Sergeant arrived at the battery. SGT Weiler had a sign-in sheet and the Alert Roster set up on the front desk. Although there was no one to sign in yet, the young sergeant on duty could see what was about to happen. Once battalion initiated an alert, it would be the Charge of Quarter's job to keep track of personnel as they reported to work. Signing in would begin once the rest of the battery started arriving. "Is the BC (Battery Commander) in, yet?" the First Sergeant asked the Charge of Quarters.

"Yes, he's at battalion getting briefed," answered the Charge of Quarters. The battery commander had been called in almost an hour earlier.

Just then CPT Dwayne Smith, the battery commander walked in, "First Sergeant, let me see all the leaders and platoon sergeants in my office. Have the CQ initiate a battery wide alert and wake up the barracks." Now began the task of to assembling the whole battery. The first formation would be held within the next hour. Alpha Battery was going to war.

CPT Smith went to his office followed by 1SG Cone. There, they found the battery's officers and key NCOs already waiting. Immediately, Alpha Battery's commander held his first meeting. He told his key personnel that the battalion would deploy this time. It was not a surprise to hear that the country had chosen to make a military response to the growing crises in the Persian Gulf. Most of these men had followed the news close enough to understand the situation the nation faced. Still, some of them were surprised to hear that an MLRS unit would be deployed. With the nation's history of restrained commitment in Korea and Vietnam, plus the MLRS having not been used during the Grenada or Panama operations, they did not expect to be deployed for anything other than a major war. Many of these professionals thought MLRS was too destructive a weapon system to be used for minor conflicts and police actions.

The First Sergeant looked at the faces of the men in the room. Excitement filled the young officers. It was a chance to go on a "real world mission," (a phrase used to describe an assignment of national value apart from training). Along with the excitement at that meeting the First Sergeant saw some very mixed feelings on the faces of many older soldiers. Deployment was a lot of work and responsibility. Between the personal risks of going to war, and the responsibility of defending their country, the mixed feelings that grew weighed heavily in that room. This deployment would be a historic first for this unit's weapon system. It would be an event of great pride for these professionals. Although there had been alerts and move outs before, those had only been readiness exercises. This time it would be into an actual threat situation. This time it was a situation with real dangers. That was a good reason for apprehension.

Alpha Battery was the "hot battery" that week. That meant it was scheduled to be the first unit from the battalion to move on a deployment. This morning, the XVIIIth Airborne Corps had tasked the 3/27th FA to send a battery of MLRS with the 82nd Airborne to support them with heavy-rocket artillery. The 82nd Airborne was a parachute unit, lightly armed so that the soldiers could jump out of planes. However, if they expected to stand up against an armored force, they borrowed from other units the powerful heavy armored weapons they needed to reinforce themselves. The artillery equipment that the 82nd Airborne used was good for short range point targets, small targets at a specific location. When the need arose for artillery fire that could blanket large areas, the 82nd Airborne's organic artillery needed outside help. One platoon with three MLRS launchers could provide protection across a thirty-five mile division front. With a single salvo of thirty-six rockets they could blanket almost a half square mile area with artillery.

CPT Smith told 1LT O'Neil that his platoon was going to be deployed. They would leave as soon as their vehicles were loaded up with the planned equipment and supplies. The instructions from 18th Corps Artillery (abr., 18th CORARTY) said that first platoon would fly out as soon as a plane could be scheduled. Any shortages that 1LT O'Neil's first platoon had would be filled in by the other platoons.

When the First Sergeant walked out of the meeting he went to the Charge of Quarters' desk. There, he checked to see how the alert was going. He found SGT Weiler on the phone still working the alert. At this point, last person from each platoon on the telephone roster, was making their return telephone call. This would confirm that their platoon had been told about the alert. In front of the Charge of Quarters' desk soldiers stood in line waiting to get at the sign-in roster. The first of the off-post soldiers, the married soldiers that did not live in the billets, were beginning to arrive. They were busy dragging their duffel bags through the halls. Down the central hallway, 1SG Cone could see that headquarters was going through the same pandemonium. The barracks that housed Alpha Battery also housed Headquarters & Service Battery (abr., HSB).

[Editor's Note: Understand that the HSB is made of three different elements; the battery headquarters (Btry Hq), the battalion headquarters (Bn Hq) or command section, and the support

sections. The Btry Hq is administratively accountable for the personnel of the HSB. Although the Btry Hq accounts for the Bn Hq, the lieutenant colonel who commands the battalion and his staff make up the Bn Hq, or command section. The support sections comprise the motor pool, medical section, personnel, logistics, and so forth. The support sections are likewise accounted for by the battery, but they take directions from their related staff officer, within Bn Hq. The command section is linked but not bonded to the support sections by a simple division of labor. The different support sections handled the routine procedures. The staff officers under the direction of the executive officer handle the discretionary non-routine decisions related to their support sections. If the reader is confused by all of this, that is understandable. Many soldiers never figure out this relationship. Suffice it to say, all of this falls under the heading of being the HSB.]

After the meeting with the commander, 1LT O'Neil and SFC Cockerham went to the office where they shared a desk. They knew what had to be done. Their formal traditional roles would dictate what each of these two leaders would do. The officer would handle all the issues external to the platoon. The noncommissioned officer would handle the platoon's internal affairs. The lieutenant would make all the discretionary decisions. The platoon sergeant would initiate all the routine activity that was outlined in the battalions Standard Operating Procedures (abr., SOP). The first task they needed to accomplish would be coordinating their activities so the platoon could reorient itself to the mission before it. This coordination threatened to be a problem because of a personality clash that had developed between them.

The lieutenant's work as a leader in the Army excited him. Mike O'Neil was an intelligent young person in top physical condition. He was very proud of having found a job of influence and responsibility right out of college. Few of his college peers could say the same. At work, he was always striving for professional perfection. He was a competitive person, pushing those around him to their limits.

The platoon sergeant didn't share the lieutenant's views of the Army. Jackey Cockerham was serious about his work, but couldn't get excited about pushing everything or everyone to their limits. With as many years as he had been in the Army, he had learned not to push the system. What needed to happen, would happen in its own time. Trying to be pushy with an institution as big and as conservative as the Army didn't get things done any faster. It only made people upset, and the high blood pressure was not worth the aggravation. Working with people and within the system he felt was a better approach.

Bo these men took their work seriously and treasured the responsibilities that rested on their shoulders. Neither of them believed in giving up ground to anyone else. Consequently, in the past these two leaders' differences of opinion and strengths of character had provoked some bitter disagreements.

SFC Cockerham sat down behind the desk and opened the drawer with his "soldier's book." This book contained his notes on all of his soldier's personal and personnel information. He had to identify which of his people would within the next eight hours, need to see the medical section for shots, legal affairs for powers of attorney and a will, personnel, finance, supply, and a host of other agencies. At the same time, he would have to make an inventory of all material and equipment; both the soldier's individual issue and that of the platoon at large. He had eighteen hours to have his platoon ready to board a transport plane.

1LT O'Neil stood by his desk reviewing his notes and copying numbers from the phone book. The lieutenant would have to contact each of the agencies his platoon needed to visit, in advance of the platoon sergeant's arrival. He needed to coordinate with Bravo Battery for assistance in loading, and configuring the platoon for air movement. Bravo Battery was on support cycle. They would be helping the lieutenant accelerate his platoon's deployment. He needed to find the Air Movement

Officer (abr., AMO) to arrange for the Air Force to transport the platoon. Next, came the question of ammunition and then a legion of other details.

As the platoon sergeant got up to go gather his platoon together, 1LT O'Neil spoke, "Sergeant, before you go....." The sergeant stopped and looked at the lieutenant. "Sergeant, I know we've had our differences..... But, this is different. We need to pull together."

SFC Cockerham looked down at the desk and thought about their past differences for a second. He then looked back at the lieutenant and said, "Your right. The guys are depending on us."

Nothing was ever said again about their past differences. The presence of a real war made it possible to focus on real issues, and act as appropriate to the real situation.

At 0600 hours, SFC Ronald Jones arrived at work to find everyone running around in a frenzy. "What's going on around here?" he asked the Charge of Quarters.

SGT Weiler looked at the sergeant with a look of open disbelief. "Didn't anyone call you?"

"No, I don't have a phone yet," said SFC Jones. "I just got here." SFC Jones had just arrived from Fort Bragg's In-Processing-Center. This was supposed to be his first full day of duty with his newly assigned unit. Here, he was scheduled to assume duty as a new platoon sergeant. When he had arrived at the battery the day before, it was already late in the day. The only thing the Training NCO told him was to be ready for physical training in the morning. He had not suspected that the next morning they would be going to war.

"Oh," mused SGT Weiler. "Oh, we've got an alert going on.... I mean a real one, this time. Get into uniform, and draw your weapon." SFC Jones looked around and saw soldiers running around in duty uniform, the battle dress uniform (BDU). Many of the soldiers had formed a line in front of the arms room. One at a time, the soldiers presented their weapons cards to the armorer, withdrew their weapons, and signed for the weapons on a sign-out log.

Once everyone had signed in, Alpha Battery held its first formation. The soldiers gathered behind the barracks, reporting on who was present and hear the official news. After the formation, they started to work on preparing the equipment and vehicles for imminent deployment. The first platoon this week was "hot platoon," the platoon that had to be ready for accelerated deployment. The battalion's SOP called for the battery on "mission cycle" to have a hot platoon capable of deployment within eighteen hours of being notified. The remainder of the battery had to be able to follow in under twenty-four hours. This platoon could provide fire support for a contingency task force in a crisis, until the rest of the battalion arrived, and an operational force formed. Those soldiers designated to fly out with first platoon went to the clinic to get their vaccination shots. Then they went to the motor pool, and joined the rest of the battery. From there, the hot platoon soldiers worked to load up their vehicles.

For the first seventy-two hours of the alert, the battalion restricted the soldiers to their units. The husbands called home to say that they would be working late and to not hold dinner for them. However, for security reasons a supervising NCO had to listen in on what was said. He had to witness that the true nature of what was going on was not discussed over an unsecure telephone line.

With the world situation being what it was, the wives became suspicious. Rumor of a deployment spread among the wives. They first called the First Sergeants asking questions that could not be answered over unsecured telephones. When the First Sergeants couldn't answer their questions, the wives became upset. It was hard, but the First Sergeants had to withhold information, even with the wives being belligerent, or crying. Some wives even called news agencies trying to see if they could get information about their men that way. Out on the grass lawn in front of the battery

several wives stood hoping this was all an elaborate mistake, and that their husbands would be coming home. Anxiously they waited, trying to get what might be the last glimpse of their husbands.

For Alpha Battery, the battalion held a Family Support Group meeting for the wives of soldiers. The wives gathered in the battery's lounge, the day room. There, MAJ Finley, Chaplain Cook, CPT Smith and 1SG Cone spoke to the women. They explained to them what they knew of the mission the battery was being sent to perform, and the resources that would be available to them in their husbands' absence. After the formal talk, the husbands were released to spend the next two hours with their wives. For the men who were being deployed with the hot platoon on advanced party, this was to be the last time they would see their spouses until their return.

Around lunch time the excitement and machismo of going to war was starting to wear thin. It did not take long for the strain of this deployment to become visible. Soldiers that had earlier that day been making a lot of gung-ho noise, could be found standing around staring into space. People who had jobs to do were working, but the soldiers were strangely quiet. Mostly, the soldiers went about their jobs in a very serious manner; a bit more serious than usual.

That night, the married soldiers who lived outside the billets moved into the billets with the single soldiers. Officers slept on their desks in the offices. The night was short, many only stopping to sleep for five or six hours; only bothering to take off their boots. Preparing the hot platoon to meet its eighteen hour and the battery's twenty-four hour deadlines required all the battery personnel, working around the clock. The Air Movement Officer did not have any details about the actual time the planes would be ready to airlift, to transport the hot platoon and the battery. Just the same, they had to be ready to make the deployment within the limited time allowed.

Going to war is not an experience that can be described in the simple terms that are so often used in popular literature. Everyone took the news differently. There was not a lot of precedence for the experience of going to war. By 8 August, the second day of the alert, everyone was beginning to show outward signs of the stress this situation was building. The mature men, in spite of their apprehensions accepted their situation and faced it with resolve. This could not be said for everyone. Not all men were equally strong. Many depended on others to bolster them along until they could come to terms with their inner feelings. The alert had caught almost everyone by surprise, emotionally speaking. At some point or another, everyone needed to talk to someone.

Although Fort Bragg had sent units to Panama, that operation was beginning to look as if that had been small surgical operation, in comparison to the activity going on throughout the post. Moreover, as events in the Persian Gulf began to unfold, it was becoming obvious that this would become a major effort. Iraq's invasion of Kuwait had involved thousands of soldiers. The decisive manner of their assault into Kuwait revealed their bent toward violent means. Further, Iraq had recently been involved in a major war with Iran. That gave many Americans cause to worry about the cost of trying to stand against Iraq's aggression. The soldiers could see the large scale political activity, both at home and internationally. It foreshadowed the magnitude of risk that this venture would involve.

Battalion leadership divided up the jobs that had to be done and set about trying to move the unit. As new information became available about issues affecting the deployment, senior officers held meetings and made plans. Most of the routine work that went into organizing the deployment fell on the shoulders of the young officers and junior non-commissioned officers. The remainder of the more subjective issues went to the senior sergeants. They helped the younger soldiers cope with their apprehensions and emotionally prepare for the deployment.

1SG Jon Cone shared his experiences in trying to ready his battery for deployment. His experiences serve as a good example of the type of challenges that called for the maturity and insight.

A good senior NCO is very important to a unit; their vast experience helps a unit perform its mission with smooth solid skill.

It was the second day of the alert. In Alpha Battery's dayroom (lounge) the television was left on to the news. By late afternoon, the world was being told that the American military forces were going hot. President Bush announced that the United States was going to help defend Saudi Arabia.

On television, there was a press conference with British Prime Minister, Margaret Thatcher. When told that Saddam Hussein had threatened to use chemical weapons, and asked to respond, she said, "We have nuclear weapons. If he uses chemical weapons, we will not hesitate to use nuclear weapons."

Hearing this, the guys started whistling and applauding the Prime Minister. The soldiers thought, it was great to hear that someone would back them up, if they got into a tough spot out there.

1SG Cone sat in his office studying a memo from battalion, when a knock came at his door. He looked up to see one of his new soldiers, a private who was twenty-two years old standing there. "First Sergeant, I must talk with you... please." the private asked.

"Come in." said 1SG Cone. The private walked into the office and stood in front of the First Sergeant's desk. "What have you got?" the First Sergeant asked.

"First Sergeant, can you help me? I can't go with you all. I'm just not ready for this yet."

Sooner or later it had to happen, and 1SG Cone thought he knew what was coming. "What's wrong? Why can't you go?"

"First Sergeant, I'm not ready to go to war. I'm not ready. I only just got here. I only just got into the Army. This is not a good time for me to go. First Sergeant, you must understand, I only just got married before I joined the Army."

Yes, it was what the First Sergeant thought it was. 1SG Cone was a veteran of the Vietnam War. He remembered how it had been for him. He had been to basic training at Fort Ord, California, and sent straight to combat without a break after artillery school. This, he thought is going to require some tact. If it's not handled right, the private might go AWOL (Absent Without Official Leave) and that would really mess up his life. "Have a seat, son. Tell me what's bothering you."

"First Sergeant, I can't go to war just now. I haven't had enough time with my family. You got'a understand, that when my baby was born, I was in basic training, and they wouldn't let me go to be with my wife. The Army never lets me have enough time with my family. And, it isn't right." At this point the private started crying. "I need to spend more time with my family. I can't go to war." the private sobbed. "There are a lot of things that I have to do, yet. I've been making plans for my family that I need to look after before I risk getting killed in a war. Please, you've got to help me."

After trying to console the private, 1SG Cone told the private to go to the latrine and collect himself. Once he was collected, the First Sergeant told him to come back and he would see what he could do for the private.

The private went to the water fountain in the hall way to get a drink of water. While standing at the fountain thinking about his situation, Chaplain (CPT) John Cook walked by on the way to his office. The chaplain had an office mid-way between the Headquarters Command offices and Alpha Battery's offices. The thought of getting the chaplain's support came to the private, and he followed the chaplain to his office. There with the chaplain, the private had a talk about his situation.

The chaplain had empathy for him, but pointed out that a lot of the men had families that they would miss during the deployment. The chaplain shared his own concerns for his family. He pointed out that the risk of being sent to war was part of his enlistment contract.

Chaplain Cook was a former commander of a field artillery battery for the 82nd Airborne. The deployment to the Persian Gulf was not his first deployment into combat. During the invasion of Grenada, he had led his battery into combat. This gave him a very real and unique insight into what the soldiers around him were experiencing.

After the private talked with the chaplain, the private returned to the First Sergeant's office. He asked the First Sergeant about his chances of being declared a conscientious objector, saying that he didn't believe in war.

This did not surprise or impress the First Sergeant. If this was true, and if the private had deep convictions why didn't he mention this the first time he was in the office? In fact, if he was a person of such deep moral values, then wasn't his oath of enlistment a fraudulent act? Here, he was accepting a government paycheck, a retainer to make himself available to bear arms to enforce national policy. Now, the nation was depending on him to fulfill his promise. Now, when a situation arose where his nation called on him to provide this forsworn service, he was hunting for ways to renege on his enlistment. This private had no honor, or moral integrity. He was just someone trying to manipulate the system. Well, this wasn't the first devious rascal the First Sergeant had ever met, and so he decided it wasn't worth getting upset about this guy.

The First Sergeant started the papers to have the private declared a conscientious objector. However, on the day the battalion flew out to Saudi Arabia, the response to the papers had not come back. The private ended up going to Saudi Arabia, and stayed overseas with the unit the whole time it was deployed.

Later on the second afternoon after the alert, 1SG Cone went down to motor pool to see how the deployment of his First Platoon was going. Preparing the First Platoon for deployment had become the center of activity for the battery. The platoon was ready, but was still sitting in the motor pool waiting for movement orders from the Corps Artillery. (Corps Artillery was waiting for combat rockets to be shipped from the manufacturer, since only training rockets were stored on post.)

Just outside the motor pool gate, there was a small group of soldiers taking a smoke break when the First Sergeant arrived. There, he came across one of his mechanics; SPC Spangler. The mechanic just sat on a curb staring into the distance while holding his weapon, flipping the selector switch from safe to automatic fire and back again to the safe position, again. The First Sergeant watched the soldier for a while, and concluded that the soldier was not aware of what he was doing. The First Sergeant didn't even think his soldier even knew he was standing in front of him.

The First Sergeant walked up closer to the mechanic and spoke, "Spangler, why are you doing that?"

"Huh... Oh, First Sergeant," said SPC Spangler, startled back to reality. "What did you say?"

"I said, why are you just sitting there clicking your selector switch?"

"Oh, I was just thinking."

"You must have been in deep thought," said 1SG Cone. "Why? What are you thinking about?"

"Well, in spite of all the training we've had, I just wish it were another field training problem, but it doesn't seem like it." SPC Spangler said as he turned to stare again into the distance, "It's the real thing this time.... Isn't it?"

"GREEN RAMP"

Chapter 2

Alpha Battery prepared the hot platoon for deployment in twelve hours. Less time than most MLRS planners had thought possible. The real challenge came next; getting the system deployed. The lack of a solid plan, bureaucracy, new technology, and rivalry for recognition now stood between a small platoon of rocket soldiers and their mission.

It was Friday night, 10 August 1990 when 1LT O'Neil arrived at Green Ramp with his platoon. Green Ramp was an air terminal at Pope Air Force Base, immediately adjacent to Fort Bragg. Army soldiers use it for deployments into combat operations. The arrival of the MLRS launchers created a stir among the paratroopers at Green Ramp.

The paratroopers always viewed themselves as the best of the best. They were supposed to be able to react faster than any other type of unit in deploying. However, up to that point only two battalions of infantry (about 1,200 soldiers) had actually made it off the ground. The paratroopers liked to boast that the 82nd Airborne could put at least a brigade in the air, before a unit of "tread heads" could move out of the motor pool. "Tread heads," is slang for troops in armored units that drove tracked vehicles.

By the end of the war, the United States military would learn some good news about the latest generation of armored vehicles. The mechanical improvements of these vehicles would later cause military planners to look at armored forces differently. These vehicles could be readied for deployment faster, and on the battle field outrun their Vietnam era predecessors. It was now four days into the alert, three days since the President had announced the commitment of troops; and it looked as if the 82nd Airborne was falling behind on their beer hall boasts. Now, the paratroopers felt that they were being crowded by the competition.

The soldiers at Fort Bragg were among the most competitive professionals in the world. Such competitiveness bred an intense rivalry between the different units. In their pursuit for prominence and recognition, units had given nick-names to berate their rivals. The primary rivalry was between the Legs and the Yard-Darts. The term "Legs," dates back to World War II. The first paratroopers had given that name to the foot soldiers that had to march into battle. Now, Legs was a reference to any non-paratrooper, and inferred that the Legs lacked the courage to be paratroopers.

The term "Yard-Dart" was a reference to a toy that when thrown, falls from the sky and plants itself in the back yard. The regulars (non-elite troops) viewed the risk of having a parachute failure and getting "planted under the ground" as proof that paratrooper's behavior was nothing more than the foolish pursuit of vain glory by boys with weak egos. Only a few years earlier, it was common for this rivalry to cause fights, and find its resolution in the hospital.

The idea that an armored unit could keep up with the paratroopers was a point of pride for the MLRS crews. It put the paratroopers in a position where they had to share the spot light with "Tread Heads," operators of armored tracked vehicles.

It is wrong to fault the 82nd Airborne for not getting off the ground as quickly as they had during their past deployments. On 19 December 1989, the 82nd was able to, on short notice deploy a brigade of infantry plus attachments, in under eighteen hours to Panama. The problem here, was that the transport aircraft had other priorities, before picking up the Army. Furthermore, because of the distances that had to be traveled, C-130 Hercules' could not be used as they had been during the Panama invasion.

The next point of contention was the rivalry between the cannon artillery that usually referred to themselves as “Pure Artillery,” and the rocket artillery who sometimes called themselves “Rocketmen.” This rivalry was not as explosive as the Leg vs. Yard Dart enmity, but it still showed up in many subtle ways. Here at Green Ramp the arrogance of the “Cannon Cockers” or “Gun Bunnies” (the names that everyone else called the cannon artillery people) manifested itself as indifferent snobbery. The 3/27th FA was attached to the 82nd DIVARTY (abr., for; DIVision ARTillery). Alpha Battery’s 1st Platoon got all their equipment ready and rolled to Green Ramp in record time. The platoon would have been ready in eighteen hours, except that the combat rockets needed for the launchers had to be shipped in from another state. Now, that they were ready to depart, just like the paratroopers, the MLRS crews had to wait for aircraft.

During the wait, an artillery major from the division general staff that passed by. He stopped for a moment and watched the MLRS crews prepare their launchers for air movement. When 1LT O’Neil came over, he commented, “You know, MLRS wasn’t in the original plan? You’re really not needed there.”

“Well, fine,” responded the lieutenant. “Send me home, then.”

“Well, don’t get me wrong. I know what you can do, but you’re really not needed for this conflict.”

The lieutenant looked over at his launchers. Next to it was a 107mm mortar; a light artillery piece used by the infantry. These mortars had a range of about five miles, with a burst area of fifteen meters in diameter. His rockets had an eighteen mile range, with coverage at least the size of a football field. 1LT O’Neil found it ironic that the tube artillery people could not appreciate the value of the rockets. The infantry, armor, and even the aviation people openly expressed their joy at seeing the MLRS launchers going with them to Saudi Arabia. The people who needed artillery support could see that these launchers carried some big rockets, with a big punch. No, thought the lieutenant, the only thing those little guns are going to do is piss the Iraqis off. If we really want to stop someone, we’ll need the rockets.

Unknown to the lieutenant, COL Howard Von Kaenel and LTC Osborne voiced this very same argument before the commanding general of the 82nd Airborne. COL Von Kaenel and LTC Osborne, the commander of the 82nd DIVARTY and the executive officer had strong words for MLRS. They argued with the general and the infantry brigade commanders about calling in the MLRS and big cannons of the 18th CORARTY. COL Von Kaenel understood the need for the type of range and area effectiveness that MLRS could afford the mission.

Back at green ramp, the DIVARTY’s staff officers gave the MLRS officers, CPT Smith and 1LT O’Neil the impression that they had no idea of what this rocket system could do. It was a frustrating irony that the officers in the DIVARTY who were to be controlling the MLRS did not have a grasp of how the MLRS worked. It made the lieutenant nervous because they were the next higher headquarters to whom they were attached, at least for the time being.

1LT O’Neil would later work with a couple of majors and captains to get them to understand what the MLRS could do. They still knew the basic numbers about the range of the rockets, the time it would take to reload, the destruction it could do, and the like. It was fine that they understood what MLRS could do, but they were in the fog about how to make it work. There, he had to explain to them how Operational Areas (abr., Op Areas) worked; explained how the MLRS launchers could shoot and move and did not stay fixed in one area where they could be located and attacked by counter-artillery fires. Yet on that day, 1LT O’Neil clearly saw how they didn’t understand the tactics involved. They were tube (slang for cannon) artillery, and that they didn’t understand MLRS because

it's a Corps asset. He continued to encounter this lack of understanding until the day that the MLRS finally began firing rockets in combat.

The crews still had a hard time accepting that they were really about to deploy on a mission. The younger men still hoped it was only an elaborate exercise. The older soldiers knew it was all too real, since no exercise of a magnitude like this had ever been staged. Rumors began to fly around Green Ramp about the situation in the Persian Gulf. Trying to find out what was going on from the staff that was running the Green Ramp only increased the anxiety.

The staff controlling Green Ramp and processing departures wouldn't answer questions about what was really going on at the receiving side (Saudi Arabia). If asked a question, they would say that they didn't have any answers, or that the subject was classified. A lot of information about what was going on at Fort Bragg was finding its way to the news media. Too much information threatened to tip our hand, reveal our intentions and weaknesses before we were truly ready to mount a credible defense at the landing zone where our forces were being deployed. Until the ocean going cargo ships with the heavy equipment (and more rockets) began to arrive in Saudi Arabia, the Americans were limited in how they could defend themselves. The young soldiers were talking too much. This frightened the more mature soldiers who understood the danger.

Yet, the questions that departure coordinators asked had implications that gave everyone else a very creepy feeling about what was supposedly happening in Saudi Arabia. There were a couple of people in the DIVARTY S-3 (the department that handles planning) who asked about the MLRS. For example, 1LT O'Neil recalled a captain who asked, "How soon can this weapon shoot after you get off the plane?" This question left the impression with the lieutenant that they were going to be landing in the middle of a hot LZ (a Landing Zone [like an airport] interdicted by live combat). Such comments caused rumors to spread that they would be getting off the plane and immediately be forced to shoot missions right off the end of the runway. With no real information about what was happening in the Persian Gulf, the mood at Green Ramp filled with apprehension. The lack of information caused stress, which increased as time passed. Usually during peace time, soldiers at green ramp will often joke around to keep themselves entertained. Now everyone was very somber and the joking around was noticeably absent. Many of the soldiers believed that a ground war was imminent; that they would land in the middle of it, fighting for their lives to hold onto an airfield.

When aircraft finally became available, the platoon had to be split up. It required four C-5A Galaxy cargo planes to move a platoon of MLRS, including six trucks with trailers for ammunition. MAJ Finley (the battalion executive officer), and SSG Kelly H. Forbey, the AMO (Air Movement Officers and NCOs) from Charlie Battery had tried, but could only obtain three planes; C-141A1 Starlifter and two C-5A Galaxy cargo planes. There were not enough planes available to carry the whole platoon. As it was the Starlifter had to be shared with another unit, and would only carry the Fire Direction Control's M-577 command tracked vehicle. To save space the ammunition support was limited to one truck per launcher, and that was without trailers.

CPT Smith was able to get two thirds of the platoon on the two planes made available. The first group consisted of two launchers, two HEMTT's carrying ammunition, an M-577 Command Track, and a few HMMWV's. This group was lead by CPT Smith; the FDC consisted of 1LT M. Faiello and SSG William Johnson, launcher chiefs were SSG Ron Crandle and SGT Darryl Sprau, along with SSG Curtis Hearn as ammo section chief, and 1LT Lawrence Hall from battalion headquarters. They flew out late on Saturday afternoon of 11 August 1990.

The captain left 1LT O'Neil and Warrant-Officer 2 "Chief" Charles Sherman, along with SSG Lonell Jones behind to arrange for the movement of the second half of the platoon. The second group consisted of one launcher, one HEMTT to carry the ammunition, a HMMWV with the

maintenance team, and the lieutenant's HMMWV. Somehow 1LT O'Neil had to find his own way to catch up with the first half of his platoon.

On 5 August 1990, Defense Secretary Richard Cheney obtained permission from King Fahd for United States forces to be moved into Saudi Arabia. When President George Bush's orders to deploy these forces reached the Pentagon, everyone went ballistic (colloquial for rushing around in a near panic) trying to make the near impossible happen. This was before the public announcement of 8 August 1990. Although it wasn't evident at the time, scope of this mobilization would exceed anything ever seen since the Korean War.

During the late 1970's the Pentagon had talked of a "Rapid Deployment Force" that could project approximately three divisions worth of assets, and two or three wings of Air Forces into any corner of the world. When the Persian Gulf Crisis came along, those contingencies were hopelessly out of date. Over the years, a lot of ideas had been discussed and even war gamed, but no one had ever taken the time to put in writing a formal plan for deploying virtually the entire Corps into the Middle East.

The XVIIIth Corps had geared itself for sending a "tailored package" (or simply, a package) organized as a task force. These are sub-units pulled from a division or two, custom structured to respond to the types of conflicts that strategists had anticipated. Such a task force or package might consist of at most two brigades from out of the 82nd Airborne with a few extra assets from other divisions and subunits of the XVIIIth Corps. The demand for not only the 82nd Airborne, but for the whole of the XVIIIth Corps to deploy ended up creating a lot of turbulence at Green Ramp. Everyone had to work hard readjusting to recurrent unplanned for challenges.

On the first day of the alert, the Material Airlift Command put virtually every cargo aircraft that it had in the United States into the air. The primary destination was Langley Air Force Base where the Air Force was preparing several air wings of F-15s for deployment. Saudi Arabia needed air protection as fast as the ground crews could fix the packages (Air Force slang, a plane load of cargo, along with manifest papers) for Material Airlift Command to pick up. If at any point in time, Langley AFB had more aircraft parked waiting for cargo than what the ground crews could readily load, the control tower would divert the extra inbound planes to Pope AFB.

At the receiving end, Pope AFB never was sure what was coming in until the aircraft pilots called in for landing clearance at the outer marker of the final approach. The notice of the plane's arrival then was sent to Corps EOC (Emergency Operations Center) about five miles away from Green Ramp. Then the message was forwarded to the ADAG (Airfield Departure & Arrival Group) at Green Ramp. The Army people responsible for matching the packages (colq., cargo and personnel to be moved) with the tail fins (colq., the registration numbers of a specific plane) were running ragged trying to keep up. During the first three days, the ADAG team at Green Ramp was made up mostly of people from the 82nd Airborne. They worked around the clock with little sleep, subsisting on coffee and fast food. They fought to hold back the tide of chaos that threatened to overwhelm their operations.

Outside the ADAG offices, Green Ramp and the surrounding areas were swarming with people and equipment awaiting transport. Clusters of soldiers could be seen formed along the fence around Green Ramp. They waited for their leaders to return with the news that it was their turn to load up next. Almost two thousand soldiers sat around waiting for a plane to pick them up. They could be seen playing cards, listening to their radios, reading, with others milled around trying to cope with their anxiety and boredom. During the night, they pulled out their sleeping bags, or just rolled up in a plastic poncho and slept on the grass.

As the days wore on, a steady flow of vehicles arrived at Green Ramp. More soldiers in HMMWV's, cargo trucks, and along with them their weapons systems arrived trying to find passage. Out of the warehouses and ammunition bunkers the Quartermaster riggers, who specialized in preparing cargo for air transport, sent aircraft pallets covered with tons of supplies down to the airfield.

On Sunday evening of 12 August 1990, 1st COSCOM's (abr., for; CORps Support COMmand) special ADAG team from the 7th Transportation Battalion was scheduled to take over control from the 82nd Airborne's AMOs. Virtually every deployment plan on file only called for the 82nd Airborne to move no more than two brigades (a process that would normally take not more than five days). At the end of that time the emphasis would shift from deployment to support. The shift of control over Green Ramp from being controlled by the 82nd Airborne's AMOs to control by 1st COSCOM was scheduled to reflect this change.

Exactly what happened during that scheduled change over is not exactly clear. Substantial evidence indicates that at first the 82nd Airborne's team started to release control of the ADAG site at Green Ramp, as they had been trained to do. It appears that when the 82nd Airborne's command realized that it was time to release control of the ADAG site, they saw that it conflicted with their mission. They still needed to finish deploying the rest of the division. Half way through the change over the 82nd Airborne's command ordered its AMO team to reassume (take back control of) Green Ramp's operations. This happened very late at night, almost mid-night.

It was during this confusion that Chief Sherman saw a giant C-5A Galaxy cargo plane taxi up to Romeo-1. This was the first parking spot in front of the vehicles from the 3/27th FA. They had been waiting on the ready line for a ground controller from ADAG to match them up with a plane. When the plane pulled to a stop, Chief Sherman didn't see any ground controllers. "Well," thought the Chief. "If no one else is going to take care of us, I guess I will have to do it myself." Over the past 24 hours the Chief had been repeatedly promised the next plane, only to be bumped from the flight by some impatient colonel from the 82nd Airborne. His loyalty wasn't to the 82nd Airborne. The 3/27th FA was his unit, and LTC Thrasher was his boss; and that was where his loyalties laid.

"SSG Jones," the Chief called to the launcher crew chief who was sitting on top of his track. When the SSG Jones arrived, the Chief put his arm around the sergeant's shoulders, and said "Sergeant, ADAG is in the process of changing over control from the 82nd' to COSCOM." The Chief grinned, and said, "Have your launcher ready to roll on to that plane when I call. We're going to catch them in the shuffle, while they're too busy to notice."

As bold as brass, the Chief just walked up to the plane, found the Load Master standing up on the tail ramp, and announced, "Hello. This is my plane. Are you ready to load up?"

"Have you got a JTI (Joint Technical Inspection approval form)?" asked the Load Master. This is a certificate of an inspection performed by Air Force ground crews to verify that cargo from the other services is safe for transport aboard the Air Force cargo planes.

"I have the forms, but they're not signed until we can match the package with a plane," rued Chief Sherman.

"Well, where's your package?" asked the Load Master. "If you've got the load plans, I'm ready to start loading anytime now."

"Here is the paperwork, and there's the cargo," Chief pointed at the launcher, and then handed up the documents to the Load Master. "I'll send the cargo over and get an inspector."

Chief then sprinted back to the waiting launchers and walked them out the gate of the Green Ramp area on to the flight line. As they passed the gate, a sergeant first class from COSCOM stopped

them. He wore an orange reflective vest that the ADAG staff usually wore on the flight line. "Hold up there," the sergeant yelled. As the procession of MLRS vehicles slowed to a stop, the sergeant walked over to Chief. "Excuse me sir, where are you folks going?"

"We've got a plane to catch," said Chief Sherman. "We're supposed to load up on that bird that just pulled up."

"Well, I haven't gotten any word on you taking that plane, and you're not on my list," said the ADAG sergeant first class. "You need to go back and wait."

"Listen sergeant, I've got my paperwork right here," said the Chief as he flashed the manifest papers he had in front of the sergeant. "Half my platoon has already gone, and I've got to go. I'm not waiting any longer." Saying that, the Chief started walking toward the plane with the launcher right behind him.

When the launcher reached the ramp of the plane, the Chief went and found an inspector. The Air Forces load safety inspection was performed while the soldiers were chaining the vehicles down to the bed of the cargo bay. Since the JTI inspector was Air Force and not a part of the Army's ADAG team, they were able to load up on the plane without the 82nd Airborne's interference.

Once the soldiers had the launcher secured to the deck of the plane, the Chief went to the ADAG's offices to finish processing the manifest papers. Avoiding the 82nd Airborne personnel, the Chief went to one of the COSCOM ADAG officials who had just arrived and shoved the papers under his nose. "Okay, sir," he said to the young officer. "We've got the package up loaded, like you guys wanted. Sign here and stamp this form." The young officer assumed that the warrant officer knew what he was doing and signed off on the documents. Oh yes, the Chief knew what he was doing. The Army had just officially approved the release of the manifested cargo to the Air Force for transport.

Once the AMO's of the 82nd Airborne and 1st COSCOM started getting the operations in ADAG sorted out, they next had to reasserted control over the Green Ramp. They sent out a staff sergeant, who wore an orange vest out to investigate the new plane that had just landed. When he got to the plane he found it half loaded with MLRS equipment. "What's going on here!"

SSG Jones turned around to see one of the 82nd Airborne's ADAG ground controllers; the personnel who controlled activity on the flight line, standing at the tail ramp of the cargo plane. "We're just about finished loading up," he answered nonchalantly. SSG Jones knew that sooner or later someone would come around and discover what they were up to. Now, it was a matter of standing his ground and playing dumb long enough for the Chief to return.

"No, no, wait a second here," the ADAG ground controller said in an arrogant tone. "You just can't load up on any plane you feel like. You're not authorized to get on this plane. Unhook this shit and take it back off the flight line, now!"

"Sorry Sarge, but my Chief told me to load up," countered SSG Jones. "I can't unload this stuff unless he says so first. You don't think that after my Chief tells me to do something, I'm going to do what I feel like, in spite of what he said. No, he's from my Chain of Command. I don't have the authority to turn around on him."

Anger began to show in the ground controller's face, resounding itself in his voice, "Well, I do have the authority! I'm telling you, get off this plane and take your vehicles back to Green Ramp until I call for you."

"Sorry, I can't do that," SSG Jones shrugged his shoulders. "You'll have to talk to my Chief or eL-Tee (slang for lieutenant)."

“Sergeant, you’re playing games with me,” said the ground controller. “Fine. I’ll get someone with the authority you need. Then, you’ll regret having messed with me.” He then turned around and headed toward the Green Ramp ADAG offices.

In the Green Ramp offices, Chief Sherman made his way over to the Air Force logistics liaison officer. Copies of the manifest and Army approval papers had to be filed with the Air Force to formalize their taking control of the cargo. “Hello, sir. I have a manifest for you to sign off, on,” said Chief Sherman.

The Air Force captain looked up from his desk and took the papers that the warrant officer held out to him. “Okay Chief, let me see what you got here,” said the captain. “I take it that you are already up-loaded?”

“Yes, sir.”

“Hummm,” the captain mused to himself as he looked over the papers. “Okay, Chief. It looks like everything is here. Wait a second while I log your manifest. I need to make copies. I’ll be right back.”

Back at the aircraft, SSG Jones followed the Air Force Load Master as they went through the cargo hold of the giant C-5A cargo plane. Together they inspected the vehicles and equipment one last time to make sure that all the tie-down chains were secure.

In through the back of the plane, SSG Jones saw the ground controller approaching with a sergeant first class; apparently the NCOIC (Non-Commissioned Officer in Charge). As the duo neared him, the ground controller pointed out SSG Jones to the senior NCO. “Excuse me sergeant,” said the sergeant first class. “Are you in charge of these vehicles?”

“Well, yes,” said SSG Jones. “I’m the senior person right now.”

The new ground controller drew himself up in front SSG Jones and drew in a large breath, “Fine! I want you to off load your vehicles from this plane and move back to Green Ramp. I want this plane cleared, now!”

“Wait a second here. What are you talking about, clearing this plane?” said the Air Force Load Master.

“Sergeant,” the senior ground controller said to the Load Master. “These people and their equipment are not supposed to be on this plane. It’s going to have to be taken off and a new load brought out.”

“No.... I’m sorry, but you’re not moving anything off this plane,” answered the Load Master. “We haven’t got time for you Army fools to play musical chairs with these aircraft. Right now, this equipment is loaded on my plane, and as far as I am concerned it’s staying here.”

A few minutes after the two ADAG sergeants from the 82nd Airborne left, the sergeant first class returned with a captain. “Hello sir, what can I do for you?” said the Load Master, as he saluted the officer.

“Hello sergeant,” said the captain as he returned the salute. “There’s been a mix up here. We need to take this load off and put on another load.

“Sir, I’m sorry,” responded the Air Force sergeant. “But, we’ve spent too much time getting this plane loaded up. Right now, I’ve got to get this plane turned around and readied for takeoff. My cockpit crew is trying to catch some sleep before departure. I don’t have the time to drop what I’m doing to down load and up load a new package. This cargo is staying right where it’s at.” The captain tried to argue with the Load Master, but the airman firmly refused to back down before the

officer. The airman was a professional, who would not allow being intimidated by an officer's rank to interfere with his responsibilities.

Chief Sherman was standing next to the Air Force liaison's desk when the Army major who was in charge of the ADAG came up to him. Along with the major was a captain wearing an orange reflective vest. "Chief, are those rocket launchers on that C-5 out there yours?"

"Ah, yes sir," the Chief answered.

Across the office, the Air Force liaison headed back from the photocopier. When he arrived back at his desk the Army major called him over to where he was standing with the Chief. "Excuse me sir," the Army major said to the Air Force captain. "There's been an error here. That load on that C-5 out there needs to be taken off and another put on it."

This news was not acceptable to the Air Force. Flight crews are restricted to twenty-four hours with the aircraft, after which they must take a mandatory eight hour sleep break. This time includes the time on the ground loading a plane. If they are in flight when their time is almost up, they must land before the time limit. The idea that the plane would waste time on the ground, off loading a cargo package that was scheduled to go to Saudi Arabia sooner or later, was not acceptable. "I'm sorry sir," said the Air Force officer as he held up the papers he had just finished copying. "But, that package belongs to the Air Force now. I can't have you guys switching packages back and forth after they've already been up loaded.

After a few minutes of heated arguing, the major relented before the captain. "Take the plane," the major said to the Chief. "Get your stuff and get out of here!"

As the Chief crossed the Green Ramp area he ran into 1LT O'Neil. "Hi Chief. What's happening?"

"Hello sir. We got a plane." answered Chief.

"Great! When can we load up?"

"Sir, it's already done."

On Monday morning, 13 August 1990, a C-5A with the last of the 3/27th FA's advanced party lifted off from Pope Air Force Base. They had bragging rights; the Rocketmen had gotten over on the Yard Darts.

"MLRS HISTORY"

Chapter 3

When the MLRS was first fielded by the United States Army, many artillery professionals around the world recognized it as the most advanced artillery system in the world. During the final years of the Cold War, this weapon system was one of the most feared NATO weapons by the Warsaw Pact nations. According to the doctrine of the former Soviet Union, if an MLRS launcher was observed on the battlefield they were instructed to have every artillery piece within the nearest division to fire on the whole area within a kilometer of where the launcher was last seen. They were willing to do this even if they had to reveal the locations of their hidden artillery.

Nevertheless, the significance of MLRS to combined arms operations was not immediately recognized by everyone in the Army, before the Persian Gulf War. In fact, one of the biggest obstacles for the 3/27th FA (and for all the other MLRS units) was winning acceptance from the other branches of the Army, and attaining inclusion in the operational planning. To understand how this oversight occurred, it is important to understand the history of MLRS development, and the tactical role this weapon evolved into playing. The importance of this chapter (and this book) is best expressed by a quote from the military correspondence course on military history (Army IPB; IS-7032, Jan 1987):

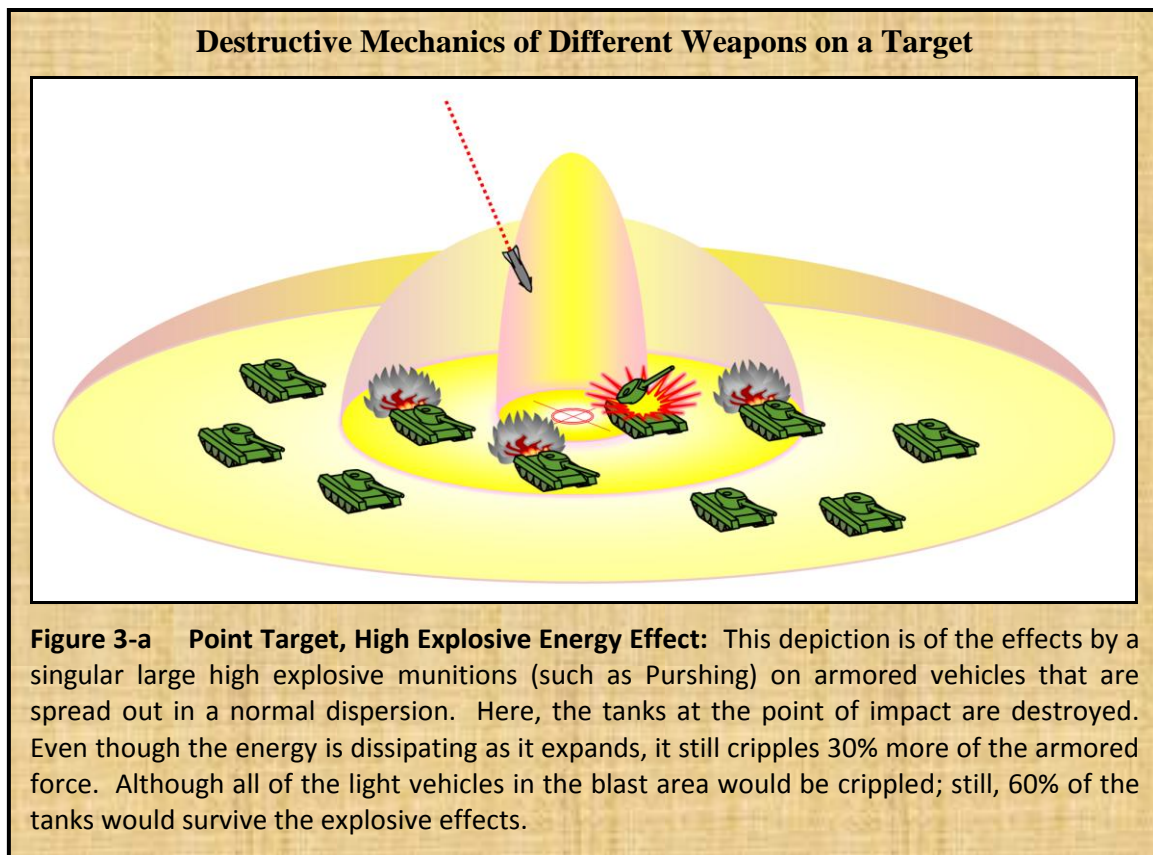
Combined arms tactics and operations are the actual roles performed. Also included are the techniques applied by these different arms and weapons in supporting each other once they have been organized into integrated teams. This area is of most concern to professional soldiers. Yet, within this area, historical records and tactical manuals often neglect important details. Combined arms tactics and techniques at the level of battalion or lower are the most difficult aspects to examine historically. This is because combined arms tactics at battalion or lower are most subject to frequent changes in technology.

To understand this story of the 3/27th FA, it is important to understand how the Army originally developed the MLRS weapon system. Furthermore, this chapter will explain the tactical niche and technological innovations that defined the role that the 3/27th FA played in the Persian Gulf War. The MLRS was the focus of our battalion's mission. Up to this time, this rocket and missile system had never been used in combat. Not knowing what to expect became a challenge for everyone, both inside and outside the battalion. Here, the Army was sending this weapon to fight in an environment for which it was not specifically designed to face. Likewise, the Army had not trained these soldiers for this type of desert warfare, and no tactical doctrine existed. Military professionals were asking the question, will this weapon be able to really stop an enemy force? To understand this controversy, let us look at how the MLRS was developed, the characteristics of this weapon system, and its various munitions.

The Army had given up on conventional rockets after World War II. Massed rocket attacks by multiple launch rockets (abr., MLR) were terrifyingly impressive. Yet, close analysis found that multiple rocket launchers were less effective than hoped. They were inaccurate often missing their targets, or causing collateral damage. Small and medium caliber rocket systems were viewed as not being easy to reload, either. They required comparatively larger crews than their cannon counterparts. Further, reload times were so long they developed a reputation for not being responsive to rapid changes in battlefield activity. In terms of commercial logic, MLR's were simply not cost effective.

The advances in computer technology made in the late 1960s forced many changes in military science and technology. Out of these advances came a revival in the idea of the multiple rocket

weapons. In the mid-1970s the United States Army started investigating the use of artillery rockets. By this time, the Air Force and Navy enjoyed some wonderful successes with improved rocket and missile effectiveness. By virtue of these developments, the Soviet Union, Germany, France and Brazil had all been working with or deploying MLR weapons. They showed themselves to be effective with area targets; that is to saturate a large area with destructive force. This made it possible for commanders to take out a number of threats simultaneously. As a result, the Army started reconsidering whether the historical handicaps of battlefield rockets could be surmounted.

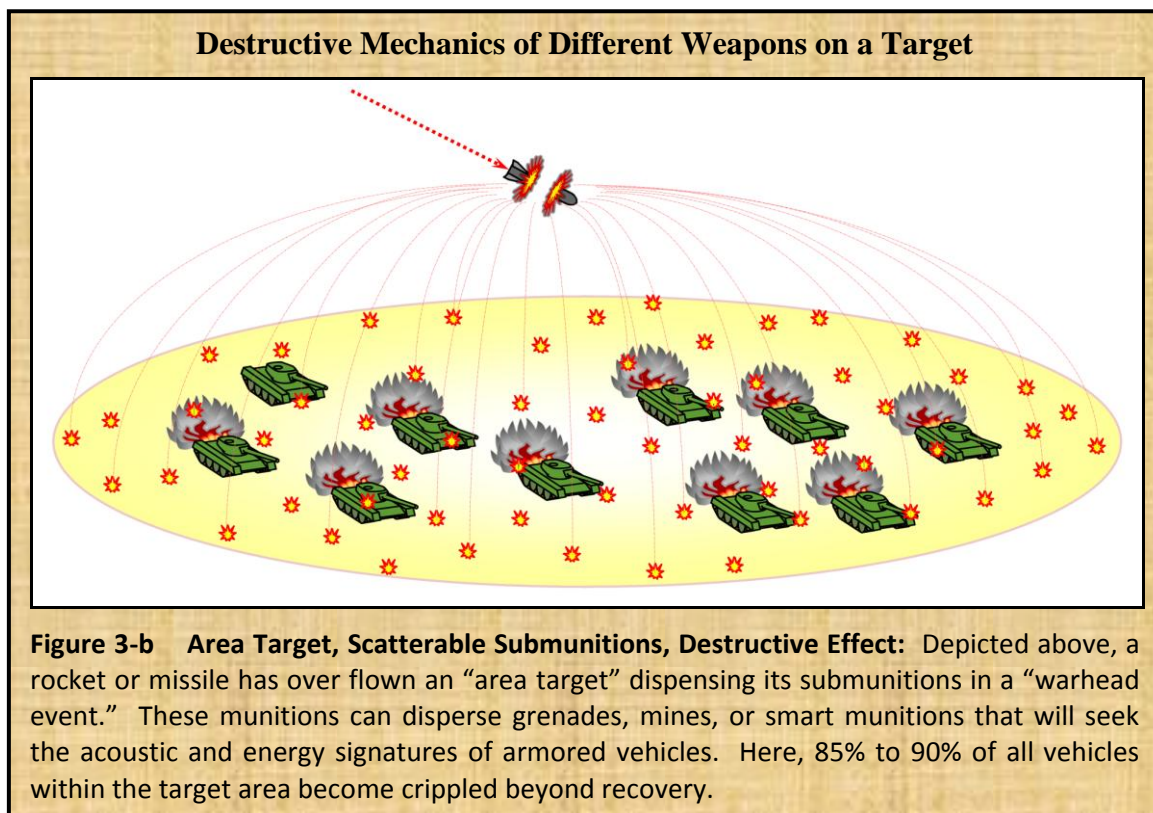


In 1976, the Army formally initiated the competition to design an MLRS system. The Army awarded contracts for development of prototype launchers and rockets for a competitive shoot-off in 1977.

It was recognized early on that this undertaking would be very expensive. The Army understood that to keep costs down, the larger the total number of units produced, the lower the per unit cost. What's true for shoppers doing volume discounts, is true for weapons buyers with their manufactures. To take advantage of discount buying, the Army went to several NATO allies. They asked them to join in a project to develop and deploy a state of the art rocket system. This was an unprecedented move by the U.S. Army. In the past, the Army had used weapon systems that were custom designed to fulfill its own philosophical views about how to fight a war. By joining with the armies of other major nations, it signaled a willingness to accept design concessions that other countries felt were needed. MLRS became a joint effort of the United States, France, Germany, and the United Kingdom, based on a 1979 Memorandum of Understanding that enabled the system to be co-produced in Europe. Italy joined in the MLRS partnership agreement in 1982.

Vought Missiles and Advanced Programs Divisions, LTV Aerospace and Defense Company, and Electronic Group took an early lead in the competition for the final contract. Although, they received their contract on the 27 October 1976, they had been looking into the idea of multiple rocket launchers since the early 1970s. They had also been following the trends in weapons developments. Suspecting that the Army would eventually go out soliciting for a ground-to-ground tactical rocket system, they took an early gamble.

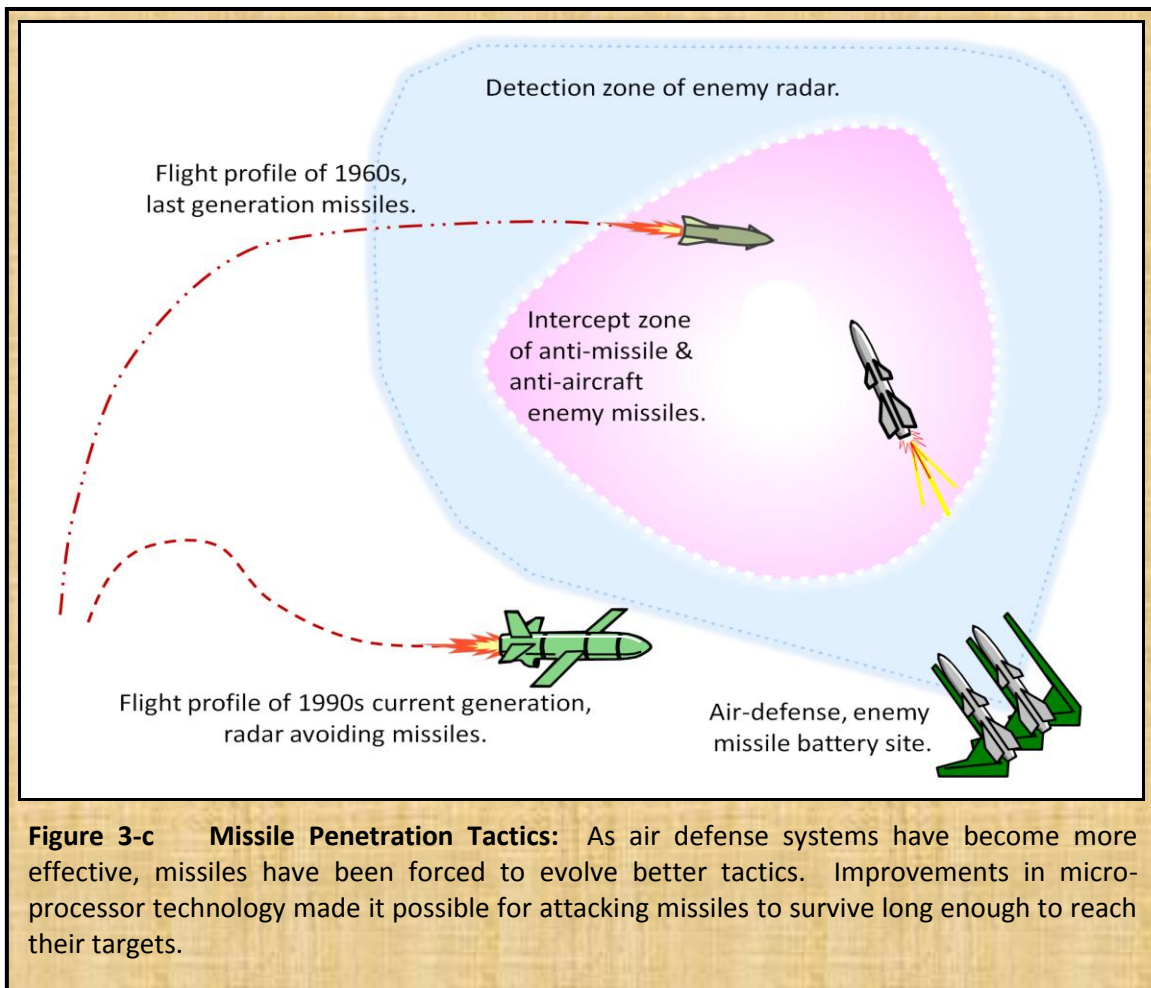
In terms of weapons, they generally fall into three classifications that are employed at three levels; strategic, operational, and tactical. (*Definitions and detailed discussions of these three terms are presented in Chapter 16.*) LTV was looking at forging an opportunity to win a contract for an operational level rocket and missile system. During the 1970s, the Army was using two missiles to give heavy destructive punch to its division, corps, and theater level operational units; the Lance, and Pursing missiles. During the 1960s, these two weapons were state of the art. Their warheads contained several hundred pounds of explosives, and the Pursing was even nuclear capable.



Next, there was the question of the warhead’s destructive mechanics. On impact, these missile warheads generated an enormous release of energy; a big explosion. At the point of impact, they would destroy the target. However, as the energy of the explosion expands from the point of impact, its destructive force drops off rapidly (see Figure 3-a).

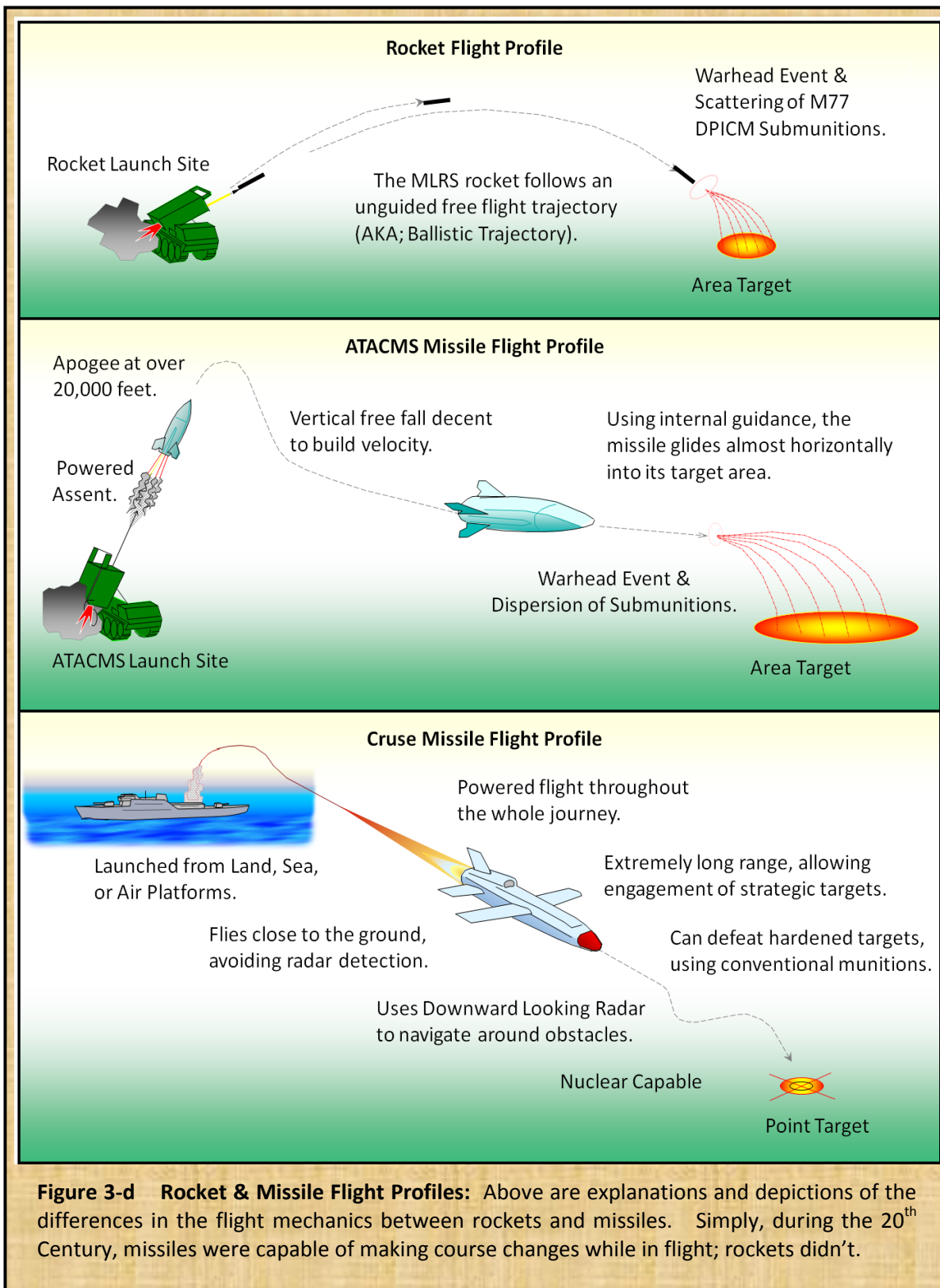
This means that if a corps commander ordered a missile attack on a train yard, he could count on the destruction of the fix facilities, but aside from vehicles at the blast center he could not depend upon the destruction of armored vehicles and tanks that were within the area. It was these tanks that the corps commander needed to interdict, before they could be brought forward into battle against his tactical units. Consequently, if the commander needed a guaranty of destruction over a wide area, he was forced to employ nuclear weapons. Hence, during the 1950s, there were assumptions that if a

major war was to ever occur, it would invariably escalate into a nuclear war. This logic made the Pursing missile a critical tool for an American theater commander.



There were technical considerations which limited the employment of these missiles. These missiles were labor intensive, requiring twelve men to fire a Lance, or thirty men for launching a Pursing missile. Once having fired a missile, it took the crews anywhere between forty-five minutes to two hours to ready the next missile. These missiles were not as responsive to events on the battlefield as some other weapons systems, such as aircraft. As long as the Air Force could maintain air superiority, it was more effective to send in fighter-bombers (like the F-4 Phantom) for the above scenario. These early Cold War generation missiles, even during their prime were still only second-string players on the battlefield. (Subsequently, MLRS inherited this reputation, even though functionally it was able to overcome the shortcomings of its forerunners. It would take a war, before MLRS could redeem rocket artillery's reputation with the military community.)

With the discovery of silicon microchip processors, and the development scatterable submunitions (see Figure 3-b), the Lance and Pursing lost their technological and tactical edge. The high arching flight profile of these missiles as they passed over enemy territory made them vulnerable to the new technology of anti-missile missiles (see Figure 3-c). (This vulnerability was later played out in the contest between the Iraqi Scud missiles and the American Patriot anti-missiles.) The Post-Cold War missiles were given the ability to fly under enemy radar detection systems (see Figure 3-d).



Furthermore, by the end of the Vietnam War, the assumption about the inevitability of nuclear war was being questioned. United States had been in numerous military actions, and had not needed to resort to nuclear warfare. Recognize that for a commander to effectively interdict an armored force, he did not need to obliterate the enemy's tanks. That was overkill at the point of impact, and a waste of destructive power resources. All he needed to do was damage them sufficiently, so they could not be used in battle against his troops. The new technology offered alternatives for missiles and rockets that would be more accurate, more responsive, more survivable, and more efficient at distributing their destructive power over the whole of a target area.

LTV won the competition in 1980. The Army contract called for the purchase of more than 300 MLRS launch vehicles and approximately 400,000 rockets as part of a four billion dollar MLRS program. Since then, because of the MLRS's success the program has been expanded, and was expected to climb to over \$6 billion over the life of the program. That made MLRS the largest defense procurement program in the 70-year history of LTV.

In an unusual move for the military, the Army decided to accelerate the program by allowing "simultaneous advanced development" and low-rate production. This meant that the Army would accept prototype launchers without all the final refinements. Improvements could then be made concurrently with production. Modifications could be based not only on changes in technology, but also on the actual experiences of the soldiers who operated the system. As changes were made to the launchers in production, company teams were sent to the MLRS units to make retrofit modifications to the launchers at their home stations. This had a variety of advantages to both LTV and the Army.

The result was operational fielding of the first MLRS unit in 1983. This was a remarkably short period of time for such a complicated piece of machinery. The first rockets were delivered in May 1982 followed by the production launch vehicle in August 1982. The program distinguished itself by being on time and on budget from the outset. At the same time, it added what the Army leadership called a, "quantum jump" in the service's artillery firepower. There were still a lot of rough edges on this system, but the Army and the manufacture had incorporated flexibility into the equipment.

Another major advantage of simultaneous advanced development had been for the soldiers as well as the manufacturers. As LTV generated feedback on the launcher's performance and made modifications, they had constant interaction with the soldiers who worked with the launchers. Long-term employees of LTV and career soldiers developed a more than passing acquaintance with each other. This personal rapport between the LTV engineers and the common soldiers who worked on the MLRS launchers was really unusual. It was normal for engineers to remember when MLRS chiefs had first been private soldiers just learning to drive the launchers. This resulted in the manufacturer producing a product that was more sensitive to the soldier's needs. LTV referred to the MLRS as the "The Soldier's System," because of how hard they tried to design it with their friends, the combat soldiers in mind.

Simultaneous advanced development also allowed the Army to avoid falling behind state of the art technology. Often, with other equipment the Army had acquired it fell behind the leading edge of technology, becoming obsolete before significant numbers of the equipment could fill the Army's inventory. For example, by the end of the 1980s, the "386" silicone chip microprocessors were commonly available on the civilian market. However, most of the Army's major weapons, and command and control electronics had been developed in the 1960s. By the time the Persian Gulf War came around, much of the Army's electronic computing was being done by transistors on printed circuit boards.

By the 1990s, rapid technological advances were rendering the Army's equipment obsolete before it had reached the end of its expected operational life.

Simultaneous advanced development avoided this problem with modification teams who went from Army base to base. They would go into the battalion motor pools; making on the spot changes in launcher mechanics, upgrading software, and providing new rocket munitions. It allowed the soldiers who had to maintain these launchers a chance to see firsthand what was done to their equipment. This made it infinitely easier to keep the launchers in good repair.

About two years after the war, LTV was bought by a new owner and the company changed its name to Loral Vought Systems. Their production facility was located in East Camden, Arkansas. This facility produced six launchers and 6,000 rockets per month. During the Persian Gulf War, about 1,500 people worked at the plant in East Camden.



Figure 3-e Launcher Cab: An interior view of the launcher cab from the drover's side, showing the seating arraignment of the crew. On the right side (not show, here) sits the, Launcher Section Chief; usually a Staff Sergeant. In the middle sits the Gunner; a Sergeant who operates the Fire Control Panel. The driver is usually a junior enlisted soldier (seen here, behind the gunner).

(Photo courtesy of, Lockheed Martin, Missiles and Fire Control.)

The MLRS launcher system was designed to be a reliable and easy to operate automatic rocket system. It had to be able to fight day and night, in all types of weather. Its mission was to engage and defeat tube artillery and rocket counter batteries, air-defense concentrations, trucks, light armor and personnel carriers as well as support troop and supply concentrations. Each MLRS launcher had the capacity to neutralize one artillery battery. To accomplish this, the launchers were armed with two

weapons pods. Each pod contained six free flight rockets or a single larger computer guided missile. Although a launcher was normally crewed by three soldiers (see Figure 3-e), it would permit a single crewmember to accomplish a complete fire mission, including loading and unloading operations (see Figure 3-f).



Figure 3-f Reload Operation: Launcher crew members perform a reloading operation using the built in boom and hoist assembly of the M269 Launcher Loader Module (LLM). The LLM turret has two bays, with each being capable of handling a two and a half ton Launcher Pod/Container (LP/C). From the time the SPL launcher stops, to the time it moves off, the launcher will have only taken ten to twenty minutes to reload five tones of ordnance.
(Photo courtesy of, Lockheed Martin, Missiles and Fire Control.)

The center of the MLRS system is the launcher, but the whole of the system also involved command and control vehicles (Figure 3-g). Digital radio communications allowed the launcher computers to be directly networked into the Fire Direction Control (FDC) computers at the platoon, battery and battalion levels, at the same time. Launcher crewmember could monitor and control the machine while the launcher's computers provided coherent, rapid data processing, accurate aiming and smooth handling operations. Interception of radio communications is protected by encrypted digital burst messaging. Even without the radios, a launcher still had a substantial amount of internal computing power. A launcher operator could manually input a target's location, and without the aid of the FDC perform all the ballistic calculations needed to perform a fire mission.

As an individual item, the MLRS rocket launcher was referred to as the M270, Armored Vehicle Mounted Rocket Launcher Loader (AVMRL). However, the soldiers called it a, “SPLL” (pronounced, SPiLL; meaning, Self-Propelled Launcher Loader). It consisted of two major sections; the M993 tracked carrier, and M269 Launcher Loader Module (LLM) (Figure 3-h). It weighed approximately twenty-seven tons. The SPLL was armed with two Launcher Pod/Containers (LP/C) that provided twelve rockets, or two missiles. The crew of three could indirect-fire one rocket or a ripple fire off up to twelve rounds. Each rocket was quickly and automatically fired by the fire control system, which repositioned and re-aimed each rocket after each shot. This system could ripple fire its entire rocket load in less than one minute. The SPLL’s rocket aiming accuracy was almost equal to that of guided missiles. Such performance helped overcome the traditional disadvantage of rockets that had kept them out of the Army’s major inventory since World War II.



Figure 3-g MLRS as a Complete System: A view of a Multiple Launch Rocket System (MLRS) Self Propelled Launcher Loader (SPLL), right, a Heavy Expanded Mobility Tactical Truck (HEMTT) with an early trailer, and a tracked M-577 Armored Personnel Carrier (APC). It was these three vehicle components that when combined together created the “system” functionality in the term MLRS.

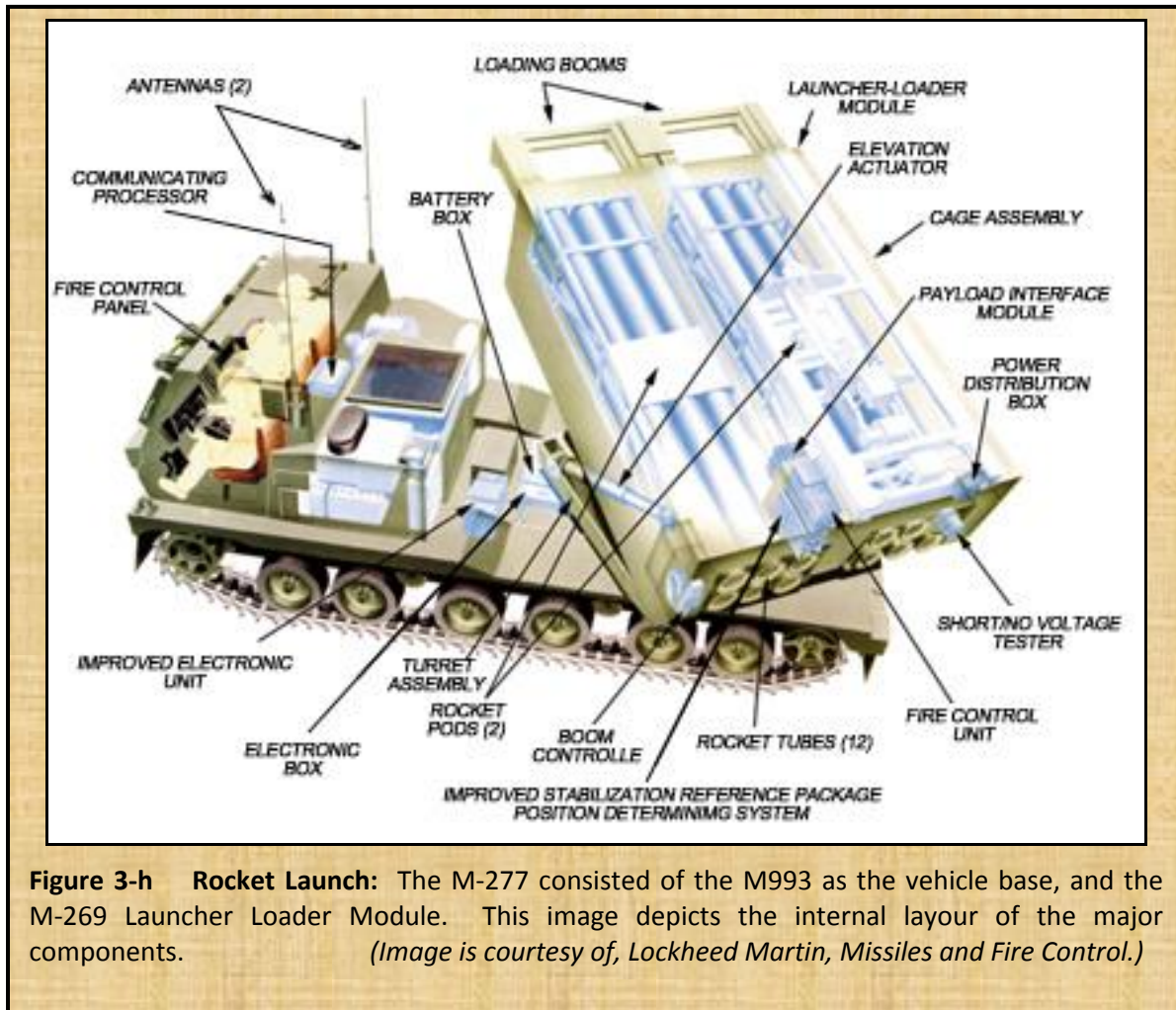
Location: White Sands Missile Range - Date Shot: 2/1/1983

Source: Department of Defense, DefenseImagery.mil website - VIRIN: DA-SC-84-02320

The MLRS tracked mobile launcher used the same chassis and running gear as did the U.S. Army’s Infantry Fighting Vehicle (IFV, M2 Bradley). However, it was lengthened and had an extra set of road wheels. The cab was high mounted and tilted forward to allow easy access to the engine compartment. Its engines could produce six hundred and fifty horsepower and generate well over eight hundred amps of electrical energy. It had a road speed of over 60 kilometers per hour, and the cross-country capability comparable to the M1 tank. This allowed the MLRS launchers to keep pace with extremely mobile combined-arms military operations.

During the course of the Persian Gulf War combat phase, MLRS launchers actually lead division formations, driving ahead of these fast mobile tanks. They crossed over three hundred miles of wilderness in under four days.

A unique feature of MLRS launchers was their internal navigation ability. Each SPLL contained its own built in navigational computer that could pinpoint its own geographic location; called the Stabilization Reference Package and Position Determining System (SRP/PDS). This system was the predecessor to the GPS, since the global positioning satellites were only just becoming available at the outset of the war. The PDS estimated the launcher's position by counting the revolutions of the treads, and the SRP gyrocompass figured direction of travel. This provided the crew with progressive information on the location and direction of the launcher, even while moving. From this information, the computer was able to calculate the ballistic trajectory without the necessity of firing from surveyed positions. By the time MLRS was sent to the Persian Gulf War, no other active artillery system in the world claimed to have internal navigation ability.



Another innovation was that the ballistic flight computations (the angle needed to shoot from weapon to target) were done by the launcher. In a typical MLRS fire mission, the battalion command post transmitted all targeting data directly into the SPLL's computer. Two fire missions could be stored in the on board computer, with multiple aim points plotted within each target for maximum effectiveness. Then with the location from the navigational computer (the SRP/PDS), the Fire Control Unit (FCU) calculated the launch azimuths and elevations. The launcher thereby performed ballistic computations that in the past were done by the Fire Direction Control crews. The FCU computer could then prompt the crew step by step through each operation, constantly checking the

condition of mission-critical functions and displaying the launcher's operational status. It had the flexibility to perform fire missions automatically making the computations or by manually accepting data from the crew. Nevertheless, even in the automatic mode, fire missions were always under the control of the crew. When activated, the computer aimed the launcher turret at the target and prompted the crew to arm and fires the pre-selected number of rockets.

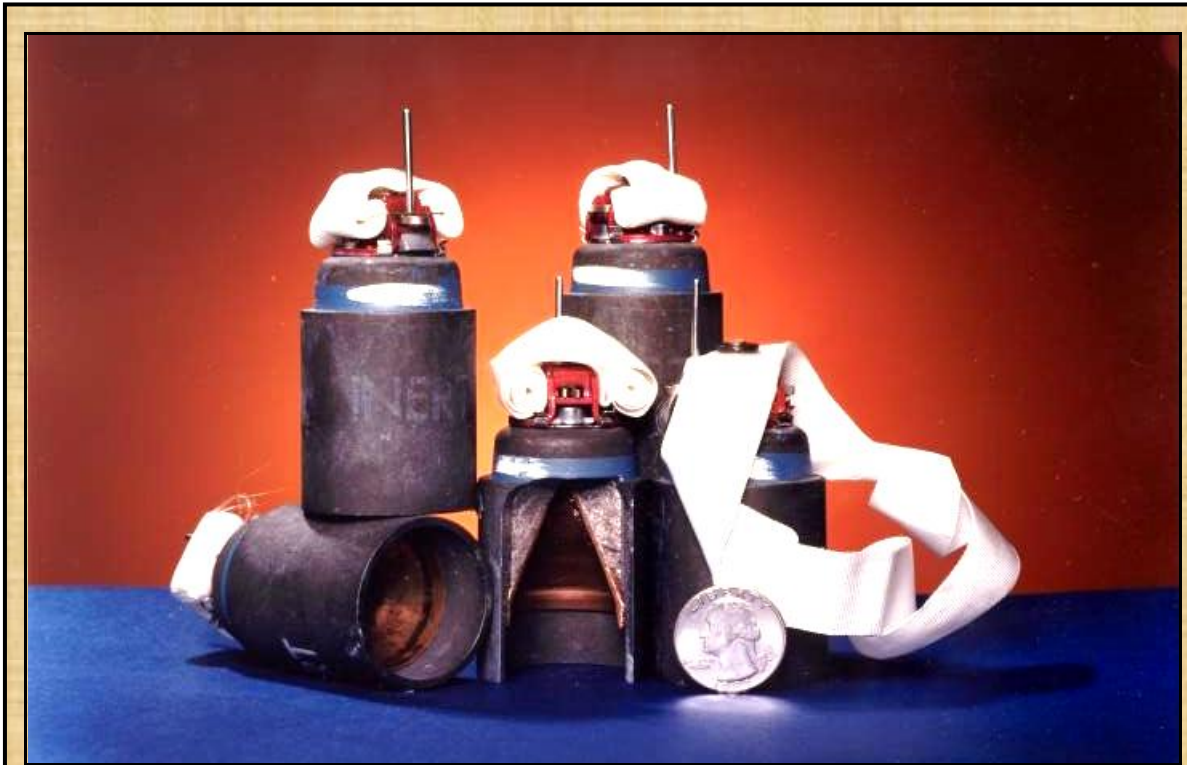


Figure 3-i Rocket Submunitions: The MLRS rockets were initially armed with M77 Dual Purpose Improved Conventional Munitions (DPICM). Each M26 rocket was loaded with 677 grenade like M77 DPICM's that would disperse over a 5,000 square area (roughly equivalent to a football field). The M77's were built with a small shaped charge explosive that could penetrate four inches of armor. A cloth drogue trailed behind it while descending to keep the shaped charge pointing downward during impact.

(Photo courtesy of, Lockheed Martin, Missiles and Fire Control.)

At the same time that the crew was executing a fire mission, the SPLC computers could send encrypted digital telemetry to higher command. Should the crew error, the computer software would instruct them to repeat the steps correctly, or the platoon Fire Direction Control could have them abort the fire mission. The system wasn't fool proof, and mistakes were still possible. Still, these features allowed the MLRS launcher the freedom to perform artillery operations without being physically located with the rest of the platoon or battery. By the beginning of the Persian Gulf War, no other artillery system yet fielded in the world could make the same claim. It afforded the MLRS platoon lieutenants, and the SPLC sergeant's unprecedented independent responsibility.

The launchers worked wonderfully, but they were maintenance intensive to operate. Keeping them lubricated and clean was not good enough. Every time a launcher was taken out for a drive, it

would cost the crew about three man hours worth of work. A day of off road training could cost the crew a day of inspections and repairs. There were a multitude of small parts that threatened to sideline the system if they were not attended to regularly. This was a normal characteristic for high technology weapon systems, and the other services were familiar with this. For the Army, such maintenance intensive equipment was a new experience. With time, the Army adapted. Experience showed that the launchers were reliable provided the crews and mechanics were willing to spend the long hours, and the commanders and taxpayers were willing to spend the money.

The next element of the MLRS system is its ammunition. Extensive evaluations of MLRS, prior to its fielding by the Army in early 1983, included the test firing of more than 500 rockets. Its first surface-to-surface free flight M26, Tactical Rocket (see Figure 3-g) had a range in excess of 30 kilometers (18 miles) and could put more destructive firepower on a target than any other conventional munitions artillery system, at that time. Originally, the MLRS program had planned on developing three types of rocket warheads. The first type of rocket, the M26 used M77 DPICM submunitions (see Figure 3-i); a grenade size bomblet. West Germany developed the second type of rocket; the AT-2 with scatterable anti-tank mines. However, the AT-2 was not adopted by the U.S. Army. The third rocket employed terminal-guided anti-tank submunitions. By the time the Persian Gulf War came along, the anti-tank rocket was still under development, and not available. This meant that the 3/27th FA was only able to fire rockets that disbursed the DPICMs.

DPICM stood for Dual Purpose Improved Conventional Munitions. This grenade-sized bomblet was designed with a shaped charge. Its unique design facilitated its dual purpose designation. First, it had an anti-personnel affect when it exploded. Second, with its shaped charge configuration it could defeat four inches of armor. Four-inch penetration was enough to pierce the topside of most tanks, disabling the engine compartment or maiming the crew.

Each rocket, assembled, was 13 feet long, 9 inches in diameter and weighs 675 pounds. They were driven by a solid fuel propellant; Arcadian 361, hydroxyl-terminated polybutadiene oxidized with ammonium perchlorate. This was poured into the rocket motor casing, and allowed to harden. The grenades were packed in polyurethane foam, conforming to the size and shape of the warhead. An additional explosive, the center core burster, was inserted through the center of the foam packs. Once the rocket was assembled, it was sealed into a Launcher Pod/Container (LP/C) that held six rockets. Once loaded, a pod or LP/C had a 10-year storage life without requiring any special environmental protection or field maintenance. The SPLL carried two such launch pod containers that could be loaded or unloaded singly or simultaneously.

During launch a burster charge would hurdle the rocket out of the launch tube. As the rocket spun free of the launch tube, the fin restraint would release, deploying the stabilizing fins and locking them into position. The solid fuel propellant would then accelerate the rocket 1.2 times the speed of sound. Once the rocket was over the target area, an electronic timer would detonate the center core burster. This "warhead event" would force open the sides of the, dispersing 644 M77 bomblets rocket (see Figure 3-b) over an almost fifty thousand square meter area.

With 12 rockets, a launcher could deliver more than two tons of destructive firepower on a target in less than one minute. These rockets could cover an area the size of up to six football fields with thousands of grenade-like submunitions. The rockets could be fired individually or in quick-succession ripple fire. Furthermore, in a single mission the MLRS launcher could fire on six different targets. However, the aim points of a multiple target mission had to be within 2,000 meters of each other. After a mission, a launcher next needed at least twenty minutes to allow for movement and reload, sometimes twice as much time.

The M39 Army Tactical Missile (ATACMS) was the other munitions available to the American MLRS launchers (see Figure 3-j). These were distinguished from rockets by their ability to maneuver while in flight. Originally, the Army had envisioned a missile that would be ground launched, and guided to its target by Air Force aircraft, using a laser to designate the target. The Army had substantial experience with using laser target designation with the Copperhead and Hellfire missiles. This first program, called the Joint Tactical Missile (J-TACMS), was not supported by the Air Force and was canceled. The program was revived in 1982 in an effort to sell MLRS to Italy. The Italians insisted on a long range munitions for the system.



Figure 3-j Missile Launch: A test launch of the M39 ATACMS at White Sands, New Mexico pictured in the first moments after ignition.

(Photo courtesy of, Lockheed Martin, Missiles and Fire Control.)

ATACMS was built in 1989 using an internal guidance system. It had an unclassified range of over 120 kilometers. It disbursed 950 of the M74 submunitions (see Figure 3-j) over a quarter kilometer area. Mechanically, it is handled the same way as the M26 Launch Pod/Container by launcher crews. During the Desert Storm's air campaign, this missile was fired against Iraqi air-defense artillery, armor, and field artillery positions.



Figure 3-k Missile Submunitions: The M39 ATACMS was initially armed with M74 Anti-Personnel/Anti-Material (APAM) grenade like submunitions. An ATACMS could disperse 950 submunitions over a quarter square kilometer area. The blast of an APAM was omnidirectional, and not likely to defeat the armor of tanks or bunker. Still it would have a devastating affect on equipment, liquid storage, and people caught in the open.

(Photo courtesy of, Lockheed Martin, Missiles and Fire Control)

Since the Persian Gulf War the Army has been developing new munitions for the MLRS system. The first to be considered was a short-range cruise missile for the MLRS. This was to be the next generation of heavy artillery missile for the Army. The need for extended range rockets for MLRS became apparent during Operation Desert Storm when the U.S. Army discovered that Iraqi Army had deployed artillery with a range of at least 25 miles. To counter this threat LTV took the initiative to modify the M26 rockets. The extended range rocket was designated the XRM77. To achieve the additional range, the existing warhead was shortened and the rocket motor stretched. Because it uses fewer submunitions, the XRM77 rocket was slightly lighter than the current MLRS rocket. The extra rocket motor length gave increased range by accommodating more propellant. Since the overall length of the XRM77 rocket was the same as the regular rocket, it was transported, loaded and fired from the launcher exactly like the basic round M26 rocket.

The Missiles Division of LTV Aerospace and Defense Company first successfully tested the new rocket on 21 November 1991. One XRM77 rocket was fired during the first test and two rounds were fired in each of the next two test firings. In the latest test on 14 April 1991, a six round "ripple" fire was conducted at White Sands Missile Range in New Mexico. In each of these four test firings,

twenty four of the XRM77 extended range rockets reached an effective range over twenty eight miles (45 kilometers)

LTV and its subcontractors had invested almost \$1.5 million in the research and development of the XRM77 program. Atlantic Research Corporation contributed by modifying the current MLRS rocket motor. KDI Precision Products provided the fuse and Ensign Bickford Company adjusted the center core burster that disperses the submunitions.

The MLRS, as a total package was designed to destroy air defense artillery, field artillery, and reserve forces that were located just behind the enemy lines. It did what it was designed to do better than any other artillery system in the world. Beyond that it had some limitations. For example, if caught in the open, its only real defense was its ability to run and hide. Something that was kind of hard for us to accomplish in the open desert environment.

Nevertheless, even before the Persian Gulf War the MLRS was widely praised as one of the Pentagon's best examples of a successful procurement program. The Army's deputy chief of staff for research, development and acquisition was quoted by Army Times: in the 28 October 1985 issue as saying, "MLRS is the best piece of equipment we have fielded for close support of the battlefield since World War II."

The most interesting acclaim of this weapon system came from our Cold War nemesis, the Soviet military. According to their doctrine, they were willing to unmask and reveal the positions of all their artillery units within twenty kilometers of an MLRS launcher sighting, releasing a total barrage against the entire one kilometer area of the suspected launcher. They were willing to risk a counter-battery duel and the loss of those assets, just to stop a single MLRS launcher.

By the end of the conflict, the MLRS had silenced all of its critics.

[At the time the author first obtained the photographs and Fact Sheets used as source information in this chapter, the company that built the MLRS was called, "Loral Vought Systems." Before that, until 1992, the corporate body was known as "The LTV Corporation" (Ling-Temco-Vought). In 1996, Lockheed Martin bought Loral Vought Systems. In 1999, the division of Lockheed Martin which handled MLRS was merged with another division and renamed, "Lockheed Martin Missiles and Fire Control." Because this book was written during the period of these many changes, all of these names may appear in this book. The reader should understand that these are all defacto the same company; at different points in history.]

"ARRIVAL OF THE ADVANCED PARTY"

Chapter 4

When 1LT O'Neil landed at the King Abdul Azziz Airport in Dhahran, he found a near chaotic situation. The flood of American forces and support was over taxing the local logistical capabilities. Being confronted with the influx of over a hundred thousand soldiers in a country of only seven million people was no small challenge. The military officials were handling this operation as an off the cuff, impromptu activity. The first elements of the Theater Command, Corps Command, and their associated sub-commands were all looking for answers to getting organized. Higher commands needed intelligence and insight into the intentions of the Iraqis. The smaller units needed food and lodging. The young officer had questions, but the senior officers were occupied in negotiations with the local nationals for support. As logistical solutions became available, operations personnel moved to take care of what they could. Everything else had to wait.

When the plane landed, 1LT O'Neil's second group of the advanced party off loaded the vehicles by the edge of the flight line. No one came to greet the new arrivals or orient them to the situation that they faced. They had arrived in the morning and the temperature was already 80 degrees Fahrenheit. By noon it pushed over 110 degrees Fahrenheit. After getting off the flight line, 1LT O'Neil moved his launcher section over by a hanger. One of his goals was to get his soldiers sheltered.

Wandering around, he stopped the people he met, and asked for information. He was first shown the facilities in which the earlier arrivals were being housed. The logistics personnel were living in drastically overcrowded and substandard housing. Next, he tried to move his soldiers into one of the hangers, but the aviation commanders would not allow it. They did not want strange personnel around their aircraft.

When mid-day came, the MLRS troops were forced to sleep out in the open sun. The soldiers were still experiencing jet lag, and the heat of the day had drained all the energy out of them. 1LT O'Neil laid down on a cot, under the shade of the big HEMTT. He had eaten a field ration, an MRE (Meal Ready to Eat) and drank a liter of water. A short nap was now in order, a siesta as the Mexicans called it. As the young officer fell off to sleep, he thought about his situation and the still unanswered questions.

The young officer had a lot of questions, over four million dollars worth of military hardware, and not a clue about what to do next. What is the situation? Where are the rest of my people? Where are we to set up for combat operations? Where do we house the troops and park the vehicles? Where do we get food and water? Who do I check in with, and report to? Who's in charge here?

While the military situation was not very clear at that time, it was rather simple. Iraq up north, was busy consolidating its capture of Kuwait. Although Iraq was in a good position to attack into the south, their supply system would probably not have been able to support them through a long range advance. The Americans could not be sure of this, so they were taking every tactical precaution. On the Saudi Arabian side, the situation was changing rapidly. The Saudi military was mobilizing to screen its northern border. The Americans had over a hundred fighter aircraft in place, two aircraft carriers, a Marine Expeditionary Brigade, and over half the 82nd Airborne Infantry Division.

The military's goal up to this point was to protect the airports and harbor facilities in the areas just south of Kuwait; defense and deterrence. In the event of an invasion, the ports would have been the fall back positions. Only through the ports could reinforcements have been sent to relieve any besieged forces. Thus, port protection was a priority.

The light infantry had to be dispersed or find itself trapped on the airfield if it got attacked. Once deployed, the infantry would have provided a buffer to the artillery and aviation units still at the airport. It might not have been intentional to leave that launcher section at the airfield, but actually it was tactically the best place for this launcher section to be. From there, the launcher could have supported light units trying to protect the airport.

1LT O'Neil was awakened by Chief Sherman tugging on his shoulder. "Lieutenant, sir. You need to get up! Wake up, sir."

"What's wrong, Chief?" asked the lieutenant. A brief wave of dizziness caught him as he sat up.

"Here, drink this." Chief Sherman said, handing the lieutenant a large bottle of water. "You guys have been perspiring in your sleep."

1LT O'Neil looked down at the cot where he had been laying. There, he saw a large puddle of water. His perspiration had soaked through the fabric of the cot and had formed another small puddle of water on the ground. He was surprised to see just how much water he was losing in this heat.

The lieutenant and the other soldiers had not even been asleep for an hour when the guard had noticed the water forming under the cots. Though everyone was all right, 1LT O'Neil recognized that this little event could have turned into an emergency. Heat injuries from dehydration were never to be taken lightly. Further, he was beginning to realize just how dangerous a situation he was in. It wasn't just the threat of combat or being the target of terrorism that he had to be concerned about. Now, he had to account for the threat that the very environment posed. He had to find the rest of his people as soon as possible.

Bo the flights carrying the MLRS elements landed at the airport in Dhahran. One side of the airfield held the city's international airport. The other side of the airfield was a military air base. Within the military base, the XVIIIth Corps had set up its forward headquarters and called it, "Dragon City." The first MLRS group had been taken to a third place called, "Tent City" when they arrived. Then later, the whole hot platoon was moved with the 82nd Airborne to a military base about an hour's drive nor the airport. When the second part of the hot platoon arrived, the intensity of activity had increased considerably, and so had the demand for transport vehicles. All the low-boys (the heavy transporters used to move tanks, with low flatbed trailers), that would be needed to move the launcher, were all already committed to other units. This left the second half of the hot platoon stuck at the airport.

For transportation, the MLRS people found themselves in the low priority position. They were being bumped by each newly arriving group of paratroopers whose equipment had to be moved out to the outlying regions, nor the ports. It was four days before the two groups of the platoon were able to reunite at tent city and move to Camp Champion. This was where the 82nd Airborne would set up its forward headquarters. (The 82nd Airborne had at first called their base Camp All American, which the local nationals found offensive to their own national sovereignty.)

1LT O'Neil and his launcher section resolved themselves to accepting their situation. They were not happy about it; they felt ignored and discounted by their own people. About the only courtesy their neighbors showed them was allowing them to use the toilets in the hangers. They did find a place to eat, "The Mission Inn." It was a cafeteria originally designed for the small number of Americans who were normally assigned to King Abdul Azziz Airport.

About 1500 hours, on their third day in Saudi Arabia, Brigadier General Richard W. Tragemann stopped by to check on the unit. Although he was not sure what unit it was, he had seen the big MLRS launcher and the HEMTT loaded with rocket pods sitting by the hanger. He found the soldiers

were sitting under the shade of the big truck, trying to avoid the sun. BG Tragemann was the commander of the 18th Corps Artillery, and LTC Alan W. Thrasher's immediate boss. Upon arriving, he asked, "Who's in charge?"

"I am sir, Lieutenant O'Neil."

"Hello, Lieutenant," the general greeted the young officer. "What unit are you with?"

"Sir, we are with Alpha Battery, Third of the Twenty-seventh Field Artillery, out of Fort Bragg."

"Oh, okay," said the general as he recognized that this was one of his subordinate units. "Oh, am I glad that you guys are here. How about gathering all your people together, so that I can talk to them."

Once the lieutenant was ready, he told the general that everyone was present. "How's everyone doing?" BG Tragemann began. The response from the group was reserved, with a few of the soldiers mouthing a weak, fine sir, or alright. "I'm General Tragemann, the guy at CORARTY. I saw you guys out here and thought I would stop by. Hot, isn't it?"

"Yes, it is, sir." said one of the young soldiers.

"Yes, I know. I'm sorry about the conditions you guys have to put up with. I will tell you that you're better off here than with the rest of your group. You don't want to go to where the rest of your unit is at. It's a hole. That area is overcrowded. There are no facilities. There's barely any water. If you can, avoid that area. There's been another area picked out for us that more than likely you'll be going to."

"Now, if you guys have any questions that I can answer, while I'm here, go ahead and ask...."

"Sir," said one of the soldiers. "What's the situation? Are the Iraqis going to attack?"

"I wish I knew." said the general. "We don't have any clear indication that they will attack, right now. Of course, that could change."

"Sir, it seems like ever since we got here, everyone has been ignoring us. When are we going to get some support? We're running out of supplies," asked one of the sergeants.

The general sat and thought for a second, then he spoke, "The reason these other units are ignoring you is that they don't realize who you are, or how important you are to them. Nobody knows what MLRS is because it is such a new system. They don't realize that you are their support. They don't realize the fire power you can provide."

"You are going to have a rough time getting anything you want, such as food, water, or support of any kind. They don't realize what you can do. They think that you're just a tag-along unit. They still can't see why you were attached to them as their support. So, you guys are going to get it kind of rough." *[That's Army culture; no tolerance for extra baggage that has no visible pragmatic value.]*

"But, once things get kind of going, they'll realize how much they need you. Then you'll start getting some support."

The next day, a truck picked up the launcher and delivered it to Tent City, where the rest of the advanced party was. After the two halves were reunited, they were driven about an hour north to a Saudi Arabian military base. There, they were housed in a warehouse on the base the Americans later christened, "Camp Champion." The rest of Alpha Battery joined up with the advanced party on 11 September 1990. As for the rest of the battalion, it was housed in a Saudi Arabian National Guard garrison, just outside of Dhahran called the "SANG Compound." There the 18th CORARTY set up its first forward headquarters.

In the meantime, the launchers were confined to the motor pool area. The crews were expected to train for any attempted attack, but could not move the launchers. The heat of the Arabian summer was so intense that the asphalt became too soft to move the twenty-seven ton tracked launchers. Just sitting on the asphalt during the day left imprints in the tarmac. The MLRS people were not the only ones who were restricted from moving. The M-155 Sheridan tanks that the 82nd Airborne used, were also restricted. It was a new compound and the local nationals didn't want to see the asphalt or their roads all torn up.

While waiting for the rest of the battalion to arrive, 1LT O'Neil was tasked with planning the artillery's MLRS defense of Camp Champion. He had to determine and map-out where the launchers would hide and shoot from if fighting happened. The lieutenant found it a new experience setting up to defend in a desert. He was used to the woods and rolling landscape of Ft Bragg. He was trained to work in a European tactical environment. Here, the flat desert forced him to accept that there were few places to hide a launcher. Nonetheless, he had to produce an operational overlay (a sheet of clear acetate plastic; marked up with symbols representing how the launchers would move about during an attack), a tactical map for the 82nd DIVARTY.

When the lieutenant handed the overlay to the DIVARTY staff they looked at it and thanked him for it. However, in their eyes 1LT O'Neil could see that they did not understand the symbols on the overlay. When the DIVARTY staff looked at the map, they saw all these new symbols for fire points, hide points, reload points and the supporting section's hiding areas. Confused by all the extra markings, they asked him a simple question, "Where would the MLRS battery shoot from?"

This question was a real issue for tube (cannon artillery) units, but with MLRS it was tactically irrelevant. When a battery of cannons set up; they placed eight or so cannons side by side, set up two surveyor sextants, stacked ammunition on the ground, and put up a big antenna mast. Cannon batteries would usually fire several missions from one location for a half an hour then move. By conducting missions parked at a static location it had become increasingly possible for enemy helicopters or another long range enemy artillery unit to interdict friendly artillery, making conventional tube artillery tactics increasingly vulnerable.

The MLRS launchers were designed to hide in a gully or behind a building until FDC called with a fire mission. The launcher would then roll out to open ground, fire its rockets, and then disappear down the road. (Chapter 10 will cover fire mission cycle and operations in more detail.)

The lieutenant saw that the staff's misunderstandings about MLRS operations were becoming a handicap. Thus, 1LT O'Neil sat down with MAJ Michael Abbrev, the operations officer. The lieutenant explained to him how an MLRS Op-Area (Operations Area) and fire mission cycle worked.

Once the major understood the lieutenant, he began to educate the rest of the people he worked with who coordinated artillery operations. They all, eventually learned what to expect from the MLRS unit.

With this new found grasp of MLRS operations, the artillery officers conducted a series of exercises to see how this system worked. They did find one discrepancy; software incompatibility between the cannon artillery computers of the 82nd DIVARTY, and the rocket computers of the MLRS. The protocols, the format of the commands transmitted to the cannons were different than those for the MLRS launchers.

Although, the Fire Control specialists who operated the computers had the protocols in their manuals, they weren't sure of how to use them. However mechanically, there was no reason why the 82nd DIVARTY's FDC TACFIRE computers couldn't communicate with the MLRS equipment. To overcome this difficulty, the artillery staff initiated a training program. The 82nd DIVARTY and the MLRS platoon held numerous COM-X's (COMmand eXercises) to work out communicating with

each other. It took two or three tries to get a real successful partnership working. As time went on and the artillery planners worked more with the MLRS unit, it was factored into their battle scenarios. The 82nd DIVARTY staff began to see the MLRS as a potent tool.

"DEPLOYING THE MAIN BODY"

Chapter 5

While the advanced party worked to get itself oriented in Saudi Arabia, the rest of the battalion, the main body of the 3/27th FA worked to deploy. The combat rockets, the M-26s were not available at Fort Bragg at the time the battalion was alerted. The only thing that was available for the launchers was M-28 training ammunition. It took three days before the first combat rocket pods could be sent in. The management and care of MLRS rockets for long term storage were being given special attention that Fort Bragg's ammunition storage site was only marginally set up to handle. Since the rockets were actually built in Arkansas (which was only a day's drive), the Army kept them stored there. Although such an arrangement was economical, this ammunition set up exhibited very little sense of urgency for MLRS artillery support. It can only be speculated that early planners had viewed the MLRS as a low priority weapon system, unnecessary for the first stages of any rapid deployment.

Recall that prior to the Persian Gulf War, military thinkers had no practical experience with new technology like the MLRS. Their experiences with Vietnam, the 1973 Arab/Israeli War, Grenada, and Panama Invasions heavily influenced their decisions. During these wars, tube cannons used manually operated artillery equipment. The planners did the best they could with the limited information available. When the Persian Gulf crises occurred there was no contingency plan on file to address this scenario. Even as units were being moved to Green Ramp, planners in XVIIIth Corps were building an operation plan from the ground up. Units around Fort Bragg clamored for the honor of being the first to go into the crises. The calling forward of the MLRS was a happy surprise to everyone associated with the system, but the lack of ammunition impeded the 3/27th FA's responsiveness.

Before the middle of August the soldiers readied the battalion, and moved the equipment to the port for shipment. They staged most of the equipment for shipping out of the Port of Wilmington, in North Carolina. Having one platoon in the vicinity of the Saudi Arabian port and airfield was enough to cover the deployment until the Navy could transport the rest of the battalion in by a specialized "fast ship."

The travel time for the transport ship was estimated at three weeks. For the battalion this afforded the soldiers about two weeks to put their personal affairs in order before their departure. The Battalion Commander cut the work days in half, allowing the married men the afternoon to have some quality time with their families. Duty time was used to train the soldiers on the special considerations particular to the Arabian Desert, and to issue desert equipment.

The 3/27th FA was originally scheduled to deploy on Saturday, 25 August 1990. Everybody loaded on to buses and trucks and drove out to Green Ramp to catch the flight. It was about 1300 hours when a Kuwait Airways, Boeing 747 landed and pulled up in front of the terminal. This caused a political dilemma. The United States had a commitment to the defense of The Kingdom of Saudi Arabia. The Americans felt comfortable doing this unilaterally, because the Saudi Arabians still held sovereign control over their own lands at the time the American forces arrived. Up until this point we were willing to assert defensive policies.

The situation for Kuwait was not the same as Saudi Arabia. In spite of national sympathies for the Kuwaitis, the government wanted to take the time to work through the international protocols. Until an international consensus could be reached, the United States did not want to appear as breaking ranks with the rest of the world by acting unilaterally. The State Department made a

decision not to use the Kuwait Airlines plane for moving American military. At 1930 hours the battalion moved back to the barracks, and the married soldiers went back to their homes.

Sunday, the battalion once again moved out to Green Ramp to wait for a flight. Although there were many planes out on the flight line taking off to Saudi Arabia, most of them were cargo crafts, not suited for carrying large numbers of personnel. At 2130 hours the battalion moved back to the barracks, and the married soldiers went back to their homes.

On Monday morning of 27 August 1990, the battalion once again formed up in front of their barracks. The first two false starts were having a real affect on everybody. This third time families sat around with their husbands and tried to put on a cheerful face. At sunrise, the buses and trucks moved the soldiers back out to Green Ramp. After arriving at Green Ramp, a consensus seemed to float through the battalion: The soldiers had enough of jerking their families around. They would wait until a plane became available, regardless of how long it took. At this point, the soldiers had little desire to make another false start. The false starts were making the families emotionally distraught and shaking the resolve of the troops.

At sometime after 1600 hours, a United Airlines aircraft pulled up on the flight line in front of the terminal and took on the soldiers. At sometime around 1730 hours, the 3/27th FA left for the Persian Gulf.

Friends have often asked me about how the people felt about going to war. We had very mixed feelings; many of us experienced conflicting emotions. What we saw and heard about the invasion of Kuwait outraged us. We were proud to be called upon to right this wrong. Many of us had spent our lives training for just such an eventuality, and looked at this as a chance to finally validate the sacrifices we had made to be soldiers.

On the other side was an unknown danger. Many of the soldiers were married people with families. On that last day, the looks on even the little children's faces said that they could feel the anxiety in their parents' behavior. I think the little children sensed that their fathers might not be coming back; they knew, even if they didn't understand. There was also a lack of trust. The soldiers feared that they might be sent to fight and die, but not be allowed to win the war. Many of us feared that our lives would be used as a political football.

I remember one night during my first week in Saudi Arabia, one of the single soldiers in my squad came up to me. His name was PV2 Ed Robinson. "Sergeant, may I talk to you for a second?" he asked.

"Sure, what do you need?" I answered.

"I have a favor to ask of you." he began. "Please don't get me wrong, I know that it's my duty to be over here, and everything. When I enlisted, I knew that I might get sent to war."

"Sergeant, if I end up having to do something that cost me my life, then so be it. I will do my duty; don't worry about that. But sergeant, if it comes down to that, you have to promise me something. Promise me that you won't let my life be wasted. I don't want this to be like another Vietnam..."

After over ten years of being in the military, I thought I was pretty well trained to handle the leadership dilemmas a sergeant could be expected to face. However, Robinson's question caused me to reassess my duties in a whole new light. According to military law, under certain circumstances, I had the authority to order these young men to forfeit their lives. There was no equivalent for this type of experience in civilian life. Sure, police and firefighters often risked their lives, but they don't order each other to sacrifice their lives. At the NCO academies, we had talked about such hypothetical situations, but these classes were too abstract to generate any emotional feelings. Looking into Ed's

young eyes, the emotional impact of this burden hit me hard. I wasn't the only one either. Many of my peers and the officers over us were grappling with the same question. I knew it would be a tough responsibility to carry; I just had not known it was going to feel like this.

This next story is not so much history as it is a perception of the event. Much is made about analytical objectivity, but I just don't agree with it all. No human activity is objectively pure. Every event that any creature experiences, is filtered through its perception of reality. Originally, this story began as the most personal of perceptions, written in the diary of a teenage man. He shared it with me, and I felt that in its humble candidness, it belonged here:

“Reflections in the Window”

by, Chip Benton

<Editor's Note: 28 August 1990>

Looking out the window of a Boeing 747 into the night, I sit and watch my reflection as the world glides by beyond the wings. Here I am on a flight from North Carolina with 377 of my buddies, going on a mission to somewhere in Saudi Arabia. Our flight is supposed to take twenty-six hours.

After a refueling stop in Belgium, I check the time. It's 11:23 p.m., local time. It's fifteen minutes before my birthday, and I'm going to war. How ironic. How scary. All of this is going on, and I have nothing to do but wait and wonder.

I am surrounded by people, and yet... yet I feel so alone at this moment. There is no reason to feel like this. I've been a part of this battalion for almost nine months, now. I look around, and I can see a lot of familiar faces: Mark is next to me, sleeping. Julius is sitting on the aisle seat, playing cards with Scott and some of the other guys seated along the isle. My section sergeant is sitting about two rows back reading a magazine. The First Sergeant is in the front of the cabin talking to one of the platoon sergeants. There's Ed trying too hard to pick up on the stewardess; can't take him anywhere without him chasing a woman.

Sitting here, I find myself reflecting on my life and the events that have lead up to this point. A feeling of disenchantment creeps over me, and I can't help feeling a little dizzy. As I look back over the quality of my relationships with old friends and close relatives, I find these relationships lacking any real substance. I do not feel as if there is anyone that I can really talk to. Even my best friend does not do very well as a friend. We had a chance to talk just before the deployment. The realization of how one sided our relationship is just now becoming clear.

It surprised me how hard it was to listen to her the last time we spoke. She wanted me to listen with a caring ear as she talked about her immediate problems. She had experienced what was possibly the hardest, most maturing, or at least aging event in the life of an adolescent. She had a romance with some other guy, and he left her. The love of her life had gone and taken her heart.

In the past, listening to her and caring came so naturally. It seemed that with her, I could experience life from a different prospective, by taking part in her life as it filtered through her eyes. It was relaxing to escape my own pressures and problems, just being in her shoes for the briefest of moments. We had a gentle platonic relationship, free of the pressures that go with a romance.

This time as she talked, I found that I could not escape myself; I could not get away from my own thoughts of going to war. I caught myself wondering how important to her my absence would be.

Did she care about the danger I would face? Did she even notice my being secretly in love with her, as she talked on and on about herself?

In a normal situation, I would think anyone could understand how hard it is to say good-bye to their best friend. In this situation, when the farewell is linked to one of the party's going to war, I tend to think of this as demanding more serious attention. Oddly, even though I was being confronted with a life threatening challenge, I was expected to console her when she wanted it. If I couldn't look to her for consolation, what could I expect from her? Whom could I turn to for consolation? It just became clear that I could give, but couldn't ask to receive. Not from her, maybe not from anyone. Everyone was willing to take the support I offered, but I couldn't ask for support in return. That was the substance of my relationships.

Now, as my plane taxis out to the runway, from Belgium to Saudi Arabia my thoughts hound me with questions that I cannot answer. I feel so isolated, so alone. How much will I be missed by those who say that they know me? Does anyone really care about me?

Possibly, it is not a matter of how much I am missed. Shouldn't it matter more that I am cherished when I return? I try to comfort myself with arguments, but they fail to console me.

A new worry creeps into my thoughts: When I return, how much change will I have been put through by this party in the sand? Surely, a radical change will be out of the question... won't it? Basically, I will be the same person when I return... won't I?

My thoughts keep me busy with an almost sadistic mixture of entertainment and torment, as I daydream through the sleepless night. It is evident to me that I have no idea how people truly see me, or what they say behind my back.

The plane rolled down the runway and lifted into the night. In the window I saw a young, frightened face. The lights of the city below did little to penetrate the window, as I thought to myself. How many times had I really searched so hard to see myself? And, how many times had I seen so much, so clearly?

Reflected in the window was a stranger whose eyes stared back with a lost, far-away look. "What a nice way to celebrate a birthday," I thought. "And, whose face is that in the window, or does it even matter?"

[Post Script: After the war, Chip came home, and found his friend. Finally he let go of his secret, and told her up front how he really felt about her. She married him....]

"THE ARRIVAL IN SAUDI ARABIA"

Chapter 6

It was about 1000 hours when the 3/27th FA's main body arrived in Dhahran, Saudi Arabia. As we stepped off the plane, the heat was the first thing to greet the newly arrived. It was not yet mid-day and already the temperature was above a hundred degrees Fahrenheit (or about 38 degrees Centigrade).

Around 1400 hours the battalion moved by bus and truck to the Saudi Arabian National Guard (SANG) compound in Dammam. The battalion was temporarily billeted in a new subsection that had just completed construction. Since this area had not yet been filled with Saudi Arabian soldiers, the Saudi Arabian government turned these buildings over to the 18th CORARTY, to use as their rear area headquarters during the conflict. Platoons of men were set up in rooms of about 450 to 500 square feet (fifty square meters). The American soldiers had access to several small fast food stands, little shopping stores and telephones that were scattered around the compound.

The only real drawback with the accommodations was the plumbing. Since such issues as hygiene were not as glamorous as powerful weapons and grand tactics, it was all too easy to overlook its importance. The Arabians have a completely different concept and standard of personal hygiene and toilet activity. Water and wood pulp for toilet paper are scarce resources in this distant dry land. First, Arabians seldom used toilet paper, it was expensive. Instead, they used their left hand. Next, no Arabian man with any dignity would humiliate himself to clean a toilet, and women don't work outside the home, either. Since only foreign contract workers would clean toilets, most public toilets were only fit for flies and the most desperate of users. Further, most Arabian men dressed in a light cotton a one piece long shirt that falls to the ankles, with no underwear. Consequently, the toilet was often a hole in the floor, where a person could relieve themselves. These toilets have a spigot on a hose with low pressure water. It provided just enough water to clean with the left hand and rinse off whatever ran down the inside of the legs. This was a normal Arabian toilet used by both men and women.

For soldiers dressed in trousers with bloused boots this became an impossible dilemma. During the first few weeks in the new land, many of the soldiers experienced some mild diarrhea. So when they ran to the toilet, they didn't have a lot of time to undress. Once relieved, the soldiers couldn't clean without the rinse off running down into their boots. If they used toilet paper, the low pressure system did not have enough pressure to move the paper through the water trap. At first, many soldiers took to digging cat holes out and around the compound. Eventually, the Army had 'aut houses brought in.

Historically, poor hygiene has often been the single greatest cause of non-combat related casualties during the deployment of any army. In some cases, infection and disease have immobilized armies, defeating them before they could take to the battlefield. To protect the 3/27th FA, CSM Boone and his senior NCOs instituted a very strict regimen of cleanliness and janitorial care for the washrooms.

[Editor's Note: I heard that the following units to occupy the SANG facilities weren't as fastidious about hygiene as we had been.]

About a week after the arrival of the 3/27th FA's main body, the equipment arrived at the port in Dammam.

During the second week in September, the 3/27th FA including the advance party element from Camp Champion held field exercises in the desert. Several quick lessons were learned there. Driving on sand was completely different than driving around the woods of Fort Bragg. It was hard to hide a launcher in the open desert, but by bypassing the hide computation the launchers could expedite the fire mission. For the soldiers the most important lessons had to do with dealing with the heat. Much of what was learned can be found in other articles in this book.

After the exercise, the battalion spent one more week in Dammam before making the next move. The move was to the 18th CORARTY's forward field headquarters for Desert Shield. The next story is about what it was like for one sergeant and his soldier.

"Fitz Fryzz"

The truck pulled to a stop and the two crew members got out and went into their arrival routine. The driver jumped up on the side rail just over the massive front wheels of the twenty-nine ton (when fully loaded) off the road truck. Reaching down, PFC Raymond W. Fitzgerald unlatched the rubber hold downs to the engine side covers and exposed one side of the engine compartment.

It had been a long day by the time Fitzgerald reached the new location. This move was to be the first step in his battalion's deployment to its forward base camp. It was during the theater build up phase of the Desert Shield defensive. This location was the new site of the 18th CORARTY field headquarters in Saudi Arabia. The terrain was a shallow plateau situated between three large knolls. The ground was flat and barren. The September heat was on full blast, as the temperature climbed past 115 degrees Fahrenheit.

SSG Charles E. Huger (pronounced, hue-Jee) the vehicle's A/D (assistant driver) moved to the side of the truck and got a shovel from the storage rack. He next moved to the right front of the vehicle about ten paces from the passenger door and began digging a shallow trench. Huger had been in the Army seven years. In addition to being the A/D on this vehicle, he was the section sergeant with five other trucks to supervise.

"Yeow!" cried Fitzgerald.

"Fitz, are you okay?" hollered SSG Huger.

"I'm all right, sergeant." yelled PFC Fitzgerald, "This truck is so hot it'll burn you right through your clothes."

"Be careful up there." cautioned SSG Huger.

PFC Fitzgerald continued his after operations checks of the vehicle and found that the coolant was low. In the bed of the truck he found a five gallon water jug under the personal baggage. Throwing the baggage over the side, he pulled out the jug of water and filled the radiator.

"Hay Sergeant, I'm finished checking the truck out."

"How is she?"

"She's good. How 'bout a break?"

"Let's get the net up first." answered the sergeant. "I got'ta check the other trucks, too. Once we get the net up, you can take a break while I make my checks."

Putting up the net in the hot sun proved to be exhausting work. The net weighed almost three hundred pounds. After draping the net across the top the truck, PFC Fitzgerald ran around the outside

of the net staking it to the ground. In the meantime, SSG Huger busied himself with assembling the support poles that would suspend the net above the truck.

“Fitz, are you ready for the poles?” SSG Huger called.

“Wait a second,” answered PFC Fitzgerald, “I’ll get the other side.”

Together as a team SSG Huger and PFC Fitzgerald lifted the net free of the vehicle. When they had finished, the net arched over the vehicle high enough to drive the truck in and out of it.

With the net erected, PFC Fitzgerald walked over to his baggage, grabbed his cot and set it up. SSG Huger went to his side of the cab and pulled out two bottles of water. He brought the water to where his driver was setting up the cot in the shade of the truck. “Here...” SSG Huger said as he sat down next to PFC Fitzgerald. “You had better drink some water.” It was so hot and arid that the sweat evaporated from their bodies as fast as they could perspire. There was always the danger that someone would underestimate how much water they had lost in such heat. If the body lost over two quarts of water and the core temperature of the internal organs went over 102 degrees, irreversible damage could occur, possibly resulting in a slow painful death.

“Thanks,” said PFC Fitzgerald. The water was hot, maybe 80 degrees Fahrenheit. And, although his body core was struggling to keep its temperature down, water was still water.

Suddenly, a gust of wind pulled three stakes out of the ground, causing the net to side slip and collapsed across the truck.

“Damn it,” cried PFC Fitzgerald.

“Oh man!” moaned SSG Huger. “I’ll get the top, and you re-stake the sides.” SSG Huger put his gloves back on and climbed up the side of the truck. He worked to loosen the entangled net from the rocket pods, while PFC Fitzgerald pulled the net back into the wind and staked it.

“Have you got it Fitz?” hollered SSG Huger.

“Hold on Sarge... Give me a second.” PFC Fitzgerald called back. SSG Huger was now kneeling up on the rocket pods in the center of the truck’s cargo bed. He was trying to hold back the net from falling again, and stop it from tearing lose any more stakes. Using the blunt end of a single edged ax, PFC Fitzgerald had pounded two stakes in at the front of the truck and was staking the next section of net. SSG Huger felt the net go slack as the first two stakes gave way again. PFC Fitzgerald jumped up and ran to the front stakes. Try as he might, the stakes would not hold. The ground was breaking up into soft sand. Two more stakes gave way and the whole windward side of the net collapsed, leaving SSG Huger trapped under the net.

PFC Fitzgerald looked at the disaster before him. All this work had turned into ruin. The sun bore down on him mercilessly. It had been a long day. He had been up since before sunrise. He had driven convoy for almost nine hours. He was hungry, he was hot, he was tired, he was thirsty, and the stakes wouldn’t stay in the damn ground.

PFC Fitzgerald stood up with the stake in his left hand and the ax he had been using in the other. “What’s the matter with you?” he said to the stake as he held it out in front of him. “Can’t you even do your simple job? All you have to do is sit in the fuck’n ground and hold the net up. You worthless peace of cheap ass metal!” Throwing the stake on the ground, he swung the ax over his head and brought it down on the offending stake. “You’re a worthless peace of shit!” and he swung it again. “Can’t you do what you were designed to? Don’t you have any pride?”

When SSG Huger finally was able to work his way out from under the collapsed net, he found PFC Fitzgerald standing over the mangled stake with the ax lying nearby. “All you have to do is do

your job..." yelled PFC Fitzgerald, "That's all I want you to do. And, you can't even do something so simple as that." Saying that, PFC Fitzgerald began repeatedly stomping on the stake.

"Hey, Fitz... cool out man!" SSG Huger said as he came up beside his distressed comrade. SSG Huger reached out and touched PFC Fitzgerald on the shoulder, to steady him.

PFC Fitzgerald jumped back from Huger's approach and glared at him with eyes full of anger. "This equipment is worthless; it isn't worth the metal it's made from. Why can't the Army get us something that works?"

"Forget about it Fitz..." consoled SSG Huger, "Come on, let's take a break."

"I mean it, Sarge. This stuff is worthless. Look at it... that whole damn net is falling apart. It's full of holes. It's rotted out. And, these stakes can't even hold this old net down."

"Forget it, Fitz. How was the Army to know we would end up Saudi? We always thought we would have to fight the Russians in Europe." Gently SSG Huger took PFC Fitzgerald by the arm and led him back to his cot.

"But, Sergeant." railed PFC Fitzgerald, "This doesn't make any sense. Look at it.... A green camouflage net right in the middle of a barren desert. Who couldn't help but see us out here? I tell you, it don't make no sense. So, why are they making us do stupid shit like this?"

"Hey, it's only a job, Fitz." SSG Huger said as he sat him down on his cot. "You just got to take it one thing at a time."

"This is stupid. Why are we sitting around in the open like this? All it takes is one plane, and we're like sitt'n ducks. Why can't we go kick Hussein's ass and go home. This is stupid, really stupid...."

SSG Huger passed PFC Fitzgerald his bottle of water. "We are going to kick his ass. But, the time's not right. As soon as we can get some tank divisions in here, we're going to make him pay for this inconvenience." said the sergeant.

"I hate this place! I really hate this place...." Tears started running down PFC Fitzgerald's cheeks. "I just want to go home. Look at this place. There's nothing out there. I don't belong here. I should be at home. I wish, I was at home."

"I hate this place, too," said SSG Huger, "God only knows how much I wish I was back at home."

Silently the two men sat beside each other, without touching. Anger and frustration flowed through them, mix with their blood. And in their silence they consoled each other.

"BECAUSE, I LOVE YOU"

Chapter 7

An interview with,

Mrs. Penny & SGT Brent A. McKemy

One of the interesting features of this war was the large numbers of married soldiers and how their families coped with the separation during the conflict. For Brent and Penny McKemy, the war caused a unique situation, since Penny was having a problem pregnancy. The war not only challenged their love, but threatened the life of the mother and her unborn child.

The military's management of its Persian Gulf War family member's needs were dealt with very differently than with, for example the Vietnam era family members. Draftees during the Vietnam War usually left their wives at home when they went into the military and off to an overseas assignment. The young wives had little idea of what his benefits were for her and the children. Usually, only the older wives of career soldiers that lived on military installations understood their husband's benefits, and routinely used them.

During the 1980s, the number of married soldiers increased dramatically in the Army. The single young draftees who had made up the bulk of soldiers, no longer existed. Young people found they needed more than a high school education to stay competitive in the civilian job market. To top it all off, the United States experienced a recession during the late 1970s through the early 1980s. In spite of the hardships that military living put families through, young couples found the military offered a reliable income.

In response to this, the Army expanded the infrastructure of its support agencies. The wife's club, a social gathering group had passed away as a larger percentage of the women found themselves involved in professional and vocational careers. To replace the void left by the absence of the wife's club came the family support groups. The men and women who were married to service members found they still needed each other's help in trying to deal with the demands of their jobs, family life, and pursuit of the family's military entitlements.

This increase in the presence of families within the Army put pressure on the formal structure of the Army, the unit Chain of Command to afford greater recognition of the spouse. If left unattended, family problems would distract a soldier from their duties and cost the command valuable manpower. If attended to properly, the family support group could be a valuable asset to the unit's moral.

In this interview, we are shown how the Army worked with one family during a crisis:

PART I: "The Separation"

Mrs. Penny McKemy:

This is what happened, I was pregnant and having serious problems. Becoming pregnant was hard because as my doctor, Dr. Baker told me that I had to be as stress free as possible. This was not a stress free time. I had been in and out of the hospital for the first five months of the pregnancy. It wasn't easy. Then having to find out that Brent was being deployed to Saudi Arabia caused a lot more stress.

By this time, I had already been forced to quit my job. Then, as the unit was about to deploy we were told that Brent would lose part of his pay. I was worried about that, trying to figure out how I was going to make up the difference when I couldn't even work.

It wasn't talk anymore, or rumor anymore, it was definite that he was leaving.

[Editor's Note: It was almost a month from that first alert to when her husband actually departed. Penny does not make a strong differentiation between the alert, orders to deploy, and the actual departure. To Penny, each of these three separate events were seen simply as, Brent was going away.]

Then later I went to see my doctor. When Dr. Baker said that he was going to leave, I felt like I was alone. I mean, all my family's here, don't get me wrong. They were very supportive. I felt like that if nobody else, if Brent wasn't here, at least I had my doctor to depend on for support. I knew I could trust him, and put my life in his hands. Now, with him being gone, I just didn't know where I was going to turn from there.

[Editor's Note: Penny and her family are residents of North Carolina, where her husband Brent is stationed. Her emotional need for Dr. Baker was based on her trust in him as a professional and the longevity of their Doctor-Client relationship together.]

When the departure time came, Brent's unit didn't get a plane right away. It took them three tries to get a plane. Taking him up there, having him call, picking him up, bringing him back two times. I think that was the hardest thing. It's not that I wanted him to leave, but it was harder to leave and then pick him up, instead of him just going. I remember telling him after the second time that, "I don't want you to leave, but if you're going to go I wish they'd just take you now, instead of putting us through all of this coming back and forth." It was really getting hard.

Then finally, after the third try, I didn't get the call to come and pick him up. I knew he had actually left. I remember that when I had dropped him off at the battery, I cried all the way home. I didn't know whether to be scared, or how I felt. Inside, felt so many mixed emotions. It was really hard to let him go, not knowing what he was going to face. It wasn't so much worrying about myself as I was worried for him. I wanted him to be able to come home, to see his baby. I did not know whether it was going to drag out and he wouldn't be able to come home. I was worried about whether he was going to get hurt or killed. The idea that my baby and I would have to go on alone, or the possibility that I might not have the baby, and have to go on by myself, with nothing to hold on to him with, left me very upset.

My family and friends were there in Carolina. They were very supportive. If it had not been for them, I do not think I would have made it through this time.

SGT Brent McKemy:

Let me give you some background information. Prior to Penny's becoming pregnant, she had a history of miscarriages. She had had three pregnancies that all terminated before the end of the first trimester. It was mid-March 1990 when we first discovered this latest pregnancy. She had had a lot of problems with bleeding, cramps, and all the rest of the complications associated with her earlier attempts to have a child. Her doctor, MAJ Baker, had earlier diagnosed her as having a bicorgate, or double uterus, which was the reason for these problems.

[Editor's Note: A bicorgate uterus is a deformity that does not necessarily block pregnancy. With this deformity, the woman has two uteruses, which are half the size of a normal uterus and not as fully developed as a normal uterus. During pregnancy, the infant can only develop in one of the

uteruses. Since the tissue mass of the uterus is very limited, if it does not expand as fast as the developing fetus, it can constrict the infant causing a miscarriage. If the uterus with its limited tissue mass dose keep pace with the development of the growing infant, it causes a very heavy demand on the mother's body for chemicals and nutrients. If the body cannot readjust to the demands of being pregnant, it could kill the mother or the child at any time before or during delivery.]

Dr. Baker had told Penny that he felt that if she could carry the baby through the end of the first trimester, the first thirteen weeks, her chances were greater that she could go to term. Up through July, the pregnancy continued to be a complicated one. After that it seemed to subside into a more normal pregnancy, although we were still very leery.

About two weeks before we deployed, her doctor told us that he would be leaving for Saudi Arabia, too. This was very distressing news for her. With all the complications, she had grown to not only trust Dr. Baker, but be depended on him. He was about the only doctor that she had dealt with since her miscarriage in 1989.

Even before the alert to go to the Persian Gulf, my wife and I had discussed the possibility that I might not be available at the time of delivery. I was in the military, and if ordered it was my duty to go with my unit. Although she understood this, she was unhappy with my being deployed. The week before we flew out of Fort Bragg, she told me of her fears, and broke down crying. I myself couldn't help but cry too. I was really scared for her, as scared for her as she was.

By the time the unit deployed, and I had flown out, Penny was six months pregnant. Although most of the early problems had stopped, I was still very apprehensive about the outcome.

PART II: "In Danger Alone"

Penny McKemy:

About a month after everyone went over there (Saudi Arabia) I started having premature labor pains. During this whole time, I was being shuffled from one doctor to another. I didn't know who I was seeing, or when I was going to be seeing him next. I didn't know who was going to deliver the baby, or if they were qualified to deliver the baby with the complications that Dr. Baker had thought would follow the birth. Most of the doctors that I did see were interning, they weren't real doctors. They were nice. They were helpful. They would ask me how everything was going, if my husband was all right, if I had been getting letters. They tried to keep me calm about the situation.

The following week, they did an ultra sound. They found that she (the baby) was breach. They figured that this would bring in more complications. Then they tested me for diabetes, which they thought that I had. I was anemic. There were a whole lot of problems.

Finally a doctor said, "I think your husband should be here."

I said, "Well, Dr. Baker had written a letter before, which Brent was not to leave Fort Bragg until after the birth of the child.

That's when this new doctor got a copy of the letter and said, "Take this to the Red Cross." This agreed with what Brent had told me earlier on the phone, he had talked to the chaplain.

So, I went to the Red Cross, and I talked to them. And, the letter got all messed up. They made it sound more confusing than it already was.

A couple days later, I got a call from the woman at the Red Cross. She said it looked like Brent was going to be able to come back, but they need to know were Dr. Baker was located. Of course he was out there in Saudi Arabia, I had no idea where. I called the OB/GYN clinic, and they told me

where he was stationed. That it was not too far from Brent, and that if the Red Cross needed to get hold of him, he would be more than happy to clarify the letter. Dr. Baker felt that if anything were to happen, that she (the baby) should have a parent here. As it looked with the complications, I could possibly not have made it through the delivery.

While I was out trying to get this information for the Red Cross, a message came in on my answering machine.

Brent McKemy:

Once in Saudi Arabia, the situation the first few months was unsettled. Phones were scarce, and mail was slow. It was hard for me to keep up with how she was doing. The first letters I got from her arrived about the third week after our arrival in Saudi Arabia, just after leaving the SANG (Saudi Arabian National Guard) Compound.

The first letter I got had been mailed shortly after our leaving the states. It didn't tell me anything new. But with each letter I got, the news became worse and worse. It became a very haunting problem, which I feared would worsen to some intolerable conclusion.

In early September, she had started having contractions. With the depletion of doctors, most of which had been called away to the Persian Gulf, she was seeing several different doctors; whoever was available. They told her that they thought she was further along in the term than earlier calculated. Along with the false labor, she had become anemic. The doctors even thought she might be diabetic. They were predicting a premature delivery. In the second letter I got the doctors were predicting that the baby would be born breach because of ultra-sound tests showing that the baby had dropped.

As things sounded worse and worse with each letter, I went to the chaplain to find out what my options were. My thinking was that I would try for an emergency leave, as long as the unit was not committed to combat. I was told that the commander would authorize a leave if there was an actual problem with my wife or my baby that made my presence necessary. To demonstrate such a need, my wife would have to get the doctors at Fort Bragg to send a letter requesting my presence, with a good justification. It had to be sent through the Red Cross, who would confirm that the letter was authentic.

Toward the end of September, I had tried to use the phones at the XVIIIth Corps Artillery field headquarters to contact my wife. We were up at Camp Courage at that time, which was about fifty miles from the Corps Artillery location. Getting down to Corps Artillery was difficult, requiring special arrangements. But, every time I visited there, the phones were down. Because of orders restricting contact with the civilians, I couldn't use a public telephone, without being picked up by the military police.

Just before October, I was detailed to go on a supply run with the logistics officer back to Dhahran. At the SANG compound, in Dhahran, was the garrison headquarters for the XVIIIth Corps Artillery. The detail was planned to take two days, during which time I was hoping to find a phone. With things being as disorganized as they were during the early days of the theater build up, the detail ended up taking four days.

While at SANG, I ran into my old friend, SPC Nitzsche whom at one time had worked for me. Now, he was the driver for the general over the Corps Artillery. SPC Nitzsche went to an officer friend in Corps Artillery Operations and told him my story. They got permission for me to use the phone. They arranged for me to talk to my wife, for the first time since deployment.

As it turned out, my wife had already found out the same information and had gotten a letter from a doctor. She told me that in the morning she was going to the Red Cross to have the letter sent out.

While I was on the phone the general saw me. When he heard about why I was on the phone there, he asked the Command Sergeant Major to look into my situation. After I got off the phone, CSM Johnson called me aside and asked me how he could help. My impression of his offer was that he and Brigadier General Tragemann recognized the seriousness of my problem, and wanted to make sure that I was not being ignored. There was a system for addressing my needs, and they were checking to see how it was working. As yet there was no need for them to intervene, now that I had used the phone.

Two days later I returned to Camp Courage, and was I surprised to learn that the Red Cross letter had arrived before I did. CPT Wise sent for me as soon as I had returned from the detail.

The bad news was that the letter was written by the doctor was filled with inaccuracies that all but nullified the reason for the letter.

[Editor's Note: Here, we are discussing two letters. One is from the doctor. The other is a Red Cross telegram. The doctor's letter was out of date, and the information was not current. The letter suggested that the husband be left behind, and was written in passive language. The letter would have been more effective if the new doctor would have written a new letter. Subsequently, the Red Cross station manager is going through the motions of being supportive, but in his telegram, can't make a strong argument to help the McKemys.]

The description of my wife's condition was vague, as if he was trying to protect her privacy more than convey the seriousness of her condition. The part of the statement relating my wife's need for me to be there sounded weak as if my being needed might be optional. What it did ask was that I not be deployed from Fort Bragg, which was after the fact since I was already in Saudi Arabia. Here, let me show you the letter that Red Cross gave me to out process Saudi Arabia with:

AMERICAN RED CROSS OFFICE OF THE STATION MANAGER

HQS, XVIII ABN CORPS

APO, NEW YORK 09657

6 OCTOBER 1990

RE: MCKEMY, BRENT A.

SGT, US ARMY

C,3/27FA

TO WHOM IT MAY CONCERN:

THIS IS TO CERTIFY THAT THIS OFFICE IS IN RECEIPT OF A TELECOMMUNICATION DATED 3 OCT 90, PARAPHRASED AS FOLLOWS:

SERVICEMAN'S WIFE, PENELOPE, IS RECEIVING PRENATAL CARE AT WOMACK ACH, DIAG INTRAUTERINE PREGNANCY COMPLICATED BY BICORDATE UTERUS. WIFE IS NOT TO TRAVEL UNTIL DELIVERY. SUGGEST THE SERVICEMEMBER NOT BE DEPLOYED IF THERE ARE NOT QUESTIONS REGARDING SITUATION (VERY UNIQUE). MILITARY SHOULD CONTACT DR BAKER AT 28TH CSH (WHO HAS BEEN ATTENDING WIFE).

SINCERELY,

(Personally signed)

STATION MANAGER

Because of the letter's ambiguous wording, the battery commander didn't think that the battalion commander would accept this letter as fulfilling the requirements for emergency leave. He asked me to try to get another letter that was correct and direct in its wording.

For the next three days, I made regular trips to the Corps Artillery field location, to use the phone, but the phones were never working. On 8 October, after my third failed attempt to call home, I returned to Camp Courage and got ready for duty that night as sergeant of the guard. It was shortly before midnight when I arrived at the battery TOC (Tactical Operations Center). When I got there the sergeant on watch told me to see the First Sergeant. 1SG Foster told me that the battalion commander had approved my leave, and that I was to leave in the morning. Before leaving I had to inventory, and pack all my belongings, added the First Sergeant.

It was 0730 hours on 9 October when I left camp Courage. Within ten hours I was on a plane going home.

I didn't get a chance to call my wife, before leaving Saudi Arabia. Once I had that bonafide emergency leave things moved real fast. The flight stopped over in Frankfurt for about an hour. While the plane was on the ground, I found a phone and tried to call my wife. She wasn't home, she was at the doctors. The operator was kind enough to put a message on the answering machine letting my wife know that I had called.

It was late morning when I called my wife from McGuire AFB, in New Jersey.

Later that day I caught a commercial flight out of Philadelphia. Penny picked me up at Fayetteville Airport and we drove directly to the battalion so that I could sign out on leave. It was 10 October when I got home.

PART III: "Elora"

Penny McKemy:

After receiving the message on the answering machine, I knew that at least I'd have him here. That if anything were to happen with me or the baby, he would be there to handle it.

The following day I got a call from him in New Jersey, telling me that his flight was coming in. That afternoon, I went to the airport to pick him up. He left there on the 9 October, and he arrived here on the 10 October.

He came home and then we went to the battery. He had to check out on his leave. [Editor's Note: The authority to take leave was given to him by the battalion commander. He was then transferred to home station, Fort Bragg. From the unit's State side offices, he could then administratively sign out on leave.]

The next day, I got a call from Mrs. Thrasher (the battalion commander's wife) asking if he could speak at the chapel on Sunday to the families, to the wives, because there were so many rumors going around. There were some horrible rumors going around!

He said he would be glad to do that, and put some rumors to rest. He wanted to let everybody know that it wasn't as bad as everybody thought it was.

We went to the meeting, and he talked to everyone. Then he agreed to speak again at the battery. Of course everyone complained about the mail that was bad on both sides. I was sending letters out every other day, but he wasn't getting them. In a situation like that a person looks so forward to the mail. Every time I would open up the mailbox and there wasn't a letter from him, I'd get so upset. That was the only way I could feel close to him.

While he was home the battalion's wives called all the time wanting to talk to him. They wanted to see if he could send messages, or whatever he could tell them about their individual husbands. They wanted to know anything about what they were doing and where they were at, and a lot of things that he couldn't really answer.

One day I went to the hospital, because I'd been having contractions. They said that I had dilated one centimeter. That it wouldn't be but maybe a day or two that I would have her (the baby). As it happened, that went on for almost three weeks.

Then, on 24 November the water broke. It's really an experience that you can't explain to anyone. It's one thing that you have to be a witness of. It wasn't long, it was a short labor which I thank God for, because of all the problems we had been having earlier. There was only one problem. My blood pressure was going so high that they were concerned about losing us. The baby almost died. It wasn't easy lying on my side all the time through labor trying to keep my blood pressure somewhere at a decent level. It had gotten to the point that they thought that one of us wouldn't make it through.

I can remember Brent telling then, "Whatever happens, *Save My Wife*." Brent felt that as long as I was there, we could always adopt, later. He would rather not have to do without me.

I was responding, "*No, Save the Baby*." I didn't want anything to happen to her. I felt that after all that I had gone through, she deserved to be there. At that moment in a mother's situation, you want your child saved.

I thank God that everything came out all right. She was fine, she was perfect. She had all of her little fingers and toes. Although she didn't cry very loud, she squealed a little bit. (She makes up for it now [*nine months later*]).

We named her after one of my nurses, Elora Nicole. She had also been there during my miscarriage in 1989. To me, this nurse was really the best. Prior to my giving birth, we found out that she had loupes. Having two kids of her own, she was worried about what they were going to have to go through. As you know, loupes has no cure. So I asked her if I could name my baby after her. She said that she'd be so honored to know that after she passed on that there would be someone out there that would carry her name.

When it was time for Brent to leave and go back to Saudi, it wasn't very easy. Since the birth, I've had post-partum depression. When I brought him to Pope (Air Force Base) to catch the plane, I

didn't have any bad feelings about it. I felt that he would be safe, and that he would come back. At the same time I felt alone, and scared. We had just had our daughter, and now I was responsible for this little child. Not having him to fall back on, at that moment it was really scary.

[Editor's Note: Once Penny delivered Elora, a medical emergency no longer existed. There was therefore no longer any justification for SGT McKemy to stay home on emergency leave.]

I was proud of him. I was glad that he did have the time to come back and see his daughter. I knew he felt he was also needed back there. I also wanted him to be back there, because I knew that's where he needed to be.

Brent McKemy:

During the first week I was home, the leadership of the 3/27th FA Family Support Group asked me to speak to the rest of the families. They were hearing a lot of rumors from around post and from their husbands, through the mail. In the stress of the separation, some of the men tended to exaggerate the severity of the environment. The wives often had a hard time interpreting the completely foreign nature of what their husbands were writing about. The rumor problem was aggravated by the younger soldiers writing back to their wives every rumor that they heard as if it were fact. By the time this all got back to the wives and they sat down to compare notes, they were flying in circles. There was even a rumor that showers and latrines were available only for officers.

During the meeting, they asked me about showers, food, laundry, sleeping, heat, mail, and a large variety of basic life style questions. They were concerned about the facilities and hygiene. I explained that we were trained in how to behave in the heat, and the needed water was available. I explained that we did have field showers, out houses and that more of these things were being steadily developed. I explained to the wives that although the heat was a real challenge, it was not unbearable or life threatening. Mail at that point was getting erratic, taking three to five weeks to travel from one to the other. Being fresh from the field, I tried to bring everything back into perspective for the wives.

It was Saturday night, about 2015 hours when I brought Penny to Womack ACH (abr., Army Community Hospital). She had been having heavy contractions, and they were on a regular bases. Labor & Delivery put her on a fetal monitor to measure her contractions. They said that she had only dilated one to two centimeters, and they could not admit her yet. Still, it was real close and they did not want her to leave the hospital. While she was lying on the table, the doctor suggested that she walk around to try and help bring on the labor. When she got up to walk around, the water broke. Then, they had to admit her on the spot.

Penny was admitted at 2100 hours. The labor was short with none of the anticipated problems. In fact, Penny was not in the delivery room five minutes before the baby was out. At 2258 hours on 24 November 1990, Penny gave birth to my daughter. The baby was in an awkward position during the delivery, but she was head first.

It was Amazing! Words don't really describe it. To have waited all that time, after all the complications, never sure that she was going to make it to birth, for this moment to finally come, to see my daughter, was the greatest joy and relief. She was six pounds, fourteen ounces, at 19 inches long.

We named her Elora Nicole. Elora was the name of a nurse who had helped my wife in 1989.

A few days after Elora was born, Penny came to me while I was sitting in the kitchen. She asked me if I loved being a father and having children?

"Well, of course," I told her. I really do love my daughter.

So, Penny said to me that if having children made me happy, that as soon as the war was over, she would try to have another child.

“Wait a second,” I said. “I don’t want you having any more children.”

She said, “But I thought you said that you loved having children. I just want to make you happy.”

Can you imagine that? She had gone through all this pain and trouble, and had nearly died trying to give birth to Elora. Now, she was willing to go through it all over again, because she thought that was how to make me happy.

I told her, “No, I love you and Elora more than anything in the world. I wouldn’t trade my baby for anything, but I didn’t marry you for the babies that you could produce. I married you because I love you. I am not about to risk losing you just to have more children.”

She started crying, and I couldn’t help but cry, too.

I thank God that I had the opportunity to be with my wife when my daughter was born, but at the same time my duty was there in my mind. Being with my wife, at Fort Bragg was justified in my mind, as well as in the minds of the doctors who had worked with my wife. Yet, I still felt guilty about not being in the field with my unit. I wanted to be with my unit, with the troops were I was supposed to be.

On Friday, 7 December 1990, I boarded a plane at Pope Air Force Base, and returned to my unit in Saudi Arabia.

THE MEDICAL ASPECTS OF THE DEPLOYMENT TO THE PERSIAN GULF"

Chapter 8

by, MAJ (Dr.) Thomas Riney

Medical Officer, 3/27th FA

[The medical issues that confronted the American Army had the potential to cripple the force, if they had not been addressed with earnest forethought. In this article, Dr. Riney talks about a large number of subjects.]

[This article was dictated on a cassette, and transcribed shortly after he had left the unit. Although it might be hard to follow, his observations provide some very important insights.]

The Assignment:

I first learned that I would be sent to Saudi Arabia, was when my boss handed me a Chemical Casualty Course book and told me that I had better read it. I didn't learn which battalion I was going to until later. The decision was made through the Professional Officer Filler System, which aligns the doctors with the units they will serve during deployments. I didn't find out exactly which battalion I was to be assigned to until about a week before being sent to Saudi Arabia.

The Army's doctrine is to utilize Pediatrician to stabilize casualties on the battlefield (keeping them alive until they can be sent back to a surgeon for treatment.) I felt that I could handle stabilizing most of the trauma casualties a doctor could expect to see in combat. It turned out that most of the patients I did see had infectious diseases. Something I am well trained to handle. This assignment was not troublesome; especially with the good medical corpsmen, which I had to working with me.

In reflection, I wish that doctors were assigned a unit before hand, and allowed to spend at least one day a month to getting familiar with the people. It took me a month or two to build up the trust of the people I had to treat. (Then it took another two months to get them mad at me.) It would have been nice to have stayed with the unit after the return, so that I could have followed up on some of the cases.

The first issues that were addressed when the unit was notified of its being deployed were preventative medicine issues. We try to intervene with shots or medications to prevent the soldier from getting ill. The second major issue was having adequate medical supplies to go with the unit, rather than relying on the supply system

Educating the Soldiers:

My first task was to do a medical lecture for the battalion. I got support from the Department of Preventative Medicine at the hospital, through Dr. McGruder & Dr. Mark Hudson (who had some chemical casualty knowledge). Together the three of us provided lectures to the whole battalion at the chapel, on the medical threats they would face. We did our best, and I felt it was a good presentation. It involved preventive medicine issues such as the gamma-globulin, immunizations that they would need, malaria pills, NBC agents that we might possibly have faced, and the zoonotic diseases that

would be caused by animals. I learned a lot preparing the lectures, and I really hope the soldiers learned something.

The soldiers were bombarded with a whole series of lectures on a broad variety of topics. This turned out to be too much information for the soldiers, in too short a time. The topics ranged from personal finances to Arabian culture, and anything else that could influence the soldiers' stay in the Persian Gulf.. I doubt any of the soldiers got as much out of it as they could have if their minds had been a little more refreshed.

Preventive Medicine:

Before deploying, we had all the guys given meningococcus vaccine (to prevent the spread of meningitis, from people sleeping in close quarters), and gamma-globulin inoculations. The Army was out of malaria pills at the time of deployment, and low on gamma-globulin (which prevents hepatitis A). During the first week of the alert, we were unable to give more than three months worth gamma-globulin coverage to the soldiers in the battalion. We were able to secure more gamma-globulin just before the deployment of the battalion's main body and bring the coverage up to the six months that was necessary. It turned out that this much coverage was needed, because of the long deployment. A third set of shots was given out before we came back, because we were there for over seven months.

Malaria pills were not distributed to the troops. We had two conflicting recommendations. One, was from the 82nd Airborne (Division) side of the house, and the other from another preventive medical authority. One group was saying that we should be taking malaria pills, and the other group was saying we should not. I had to look it up in a source book, and I felt that we should not take them. So, we did not take the ones we had.

This turned out to be a good decision. The battalions that did take it ran out long before the war. When the war started, we still had our supply. Furthermore, unnecessarily taking those pills would contaminate those people so that they could not be donors for a battlefield transfusion. Apparently, there is some interaction with the malaria drug that causes an anaphylactic shock in the recipient of a transfusion. I did not think that those recommendations were well thought out. People should have known the answer to that, and should have presented a united recommendation, instead of two conflicting recommendations from two different medical commands.

Medical Issues In Saudi Arabia:

Upon arrival in Saudi Arabia, a program of enforced drinking was used as an intervention to prevent dehydration. After the first couple of weeks the soldiers became well trained, and the number of soldiers who had to be treated for dehydration dropped off significantly. Once the soldiers saw their buddies dropping out, and having to get treated with intravenous fluids, they became more observant of their own water consumption.

[Editor's Note: We were drinking between four to five gallons of water per day, that first few weeks of the summer. Within about six weeks, we became habituated to the heat; and, our need for high volumes of water dropped of.]

Diarrhea was a big problem for the Army in general. I think that for our battalion, while everyone did get it, the cases were quite mild. It never affected our readiness. That could not be said of some other battalions. There were some units in the theater, where fifty percent of their personnel would be too sick to conduct their mission. I don't think we ever had more than five or six serious cases where people that were too sick to do their job.

The greatest threat was not just the diarrhea, which is uncomfortable and unpleasant. With the need for water to confront the high temperatures, diarrhea could accelerate dehydration. The type of diarrhea that was most common, and could compromise a unit's battle readiness is usually the food borne or bacterial. This is usually accompanied by blood in the stools, but that is in itself not a major problem. The main issue, medically is the dehydration, which can lead to a variety of problems.

[Editor's Note: When the unit first arrived in Saudi Arabia, we were billeted in a compound designed for the Saudi Arabia National Guard. The facilities were a bit over crowded and not quite complete. One of the interesting features of the Arabian toilets, was that the plumbing is not designed to use toilet paper. The toilet is built into the shower, and only designed for stand up use. With the incomplete plumbing, and the cultural differences in how it could be used, they often became stopped up. Out-houses were later brought in to relieve this problem, but this caused another problem with flies and other vectors.]

At first we were living in billeting with air conditioning for about two weeks. We had a lot of upper respiratory infections; a lot of people having colds, pneumonia, and the like. I recommended that they sleep head to toe. Further, the command instituted a very strict and active field sanitation program. It was a good program that I found led to our battalion having a lot fewer illnesses than the average battalion. As in previous wars, infectious disease caused a higher amount of casualties.

Snakes and scorpions were billed as a major threat, but they were not. We had about fifty people stung by scorpions during the deployment, none of which were seriously injured. It was mildly painful, but never required medivac. Even the two snake bites we had were minor in nature. The Corps Surgeon directed all snake bites to be helicopter medivaced. Although they were, it was unnecessary.

In terms of alcohol and drug abuse, the fact that alcohol was banned during this deployment saved the Army millions of dollars. I noticed that depression, fights and alcohol abuse were almost non-existent in the battalion. (Although many rear units couldn't say the same thing.) It certainly made my job a lot easier. We only had one or two events that interfered with the running of the battalion. I recommend that alcohol be banned from any deployment - period!

While we were over there, the battalion had the vehicles repainted to a sand color, using CARC (Chemical Agent Resistant Coating) paint. The painters, soldiers from the battalion were using paper masks, in an enclosed area. Later, I had ten or twenty soldiers come in complaining from inhaling this paint. It turns out that this paint had some cyanide. I am concerned about the long term affect that this will have on their lungs.

[Authors note: The battalion bought four painter's hoods with respirators, and applied the paint inside a large tent. Still, even with these precautions, the soldiers who worked in the area where the vehicles were drying still became affected by the fumes.]

Medical Supply:

The next vital concern was getting medical supplies for a battalion of five-hundred men, plus attachments. Fortunately, the NCO that I had was very experienced with previous deployments and thirteen years as a medical corpsman. He was able to get around and scrounge up a lot more than the basic medical supplies what we were authorized. This allowed us to carry ample antibiotics, and medications. Importantly, we were able to secure valium, which later became hard to get. At that time the nerve agent valium injectors had not been delivered. This would have been invaluable if we had suffered a nerve agent attack. Valium is used to relieve convolutions and minimize damage to the central nervous system caused by nerve agents.

If we had to depend on the authorized basic load of medical supplies, we would have been inadequately prepared. The basic load was inadequate for a non-battle field deployment. If we had a protracted war, we would have been in serious trouble. To solve this problem, we used the real supply system and the back door supply system throughout our deployment. We were thereby able to maintain an adequate stock to sustain the battalion for two to four weeks of serious battle field losses.

As a result of the extra supplies, we were able to assist two other battalions that initially arrived in country (Saudi Arabia) without adequate medical supplies. We also had to give some medications to the 28th Combat Support Hospital, whose pharmacy was also inadequate, during the initial deployment. They did have some medical supplies, but not enough of the right materials. Most of the medications we supplied to the 28th Combat Support Hospital were specific anti-hypertensives.

The basic load provided by the medical supply system to handle traumatic injuries would have been enough, if you only had one patient to deal with at a time. If we had been in a battle with hundreds of casualties, the supplies that we were supposed to have been deployed with would not have lasted an hour. We could have handled the first one to ten casualties appropriately, but then we would have been out of supplies. This is based on what we were initially authorized. Fortunately, we were able to obtain enough to handle fifty to a hundred casualties, before we deployed. It took about five months of building our supplies, before I felt that we were prepared to handle all the casualties that we were told to expect. Although you can never be ready for everything, by the time the war started, I felt that we could have handled every type of wound or NBC casualty.

Likewise, as well stocked as we were, we still experienced shortages. To balance our stock against our needs, we had to do a lot of horse trading. That was about the best way to get anything, because the medical supply system never did become fully functional.

Although most of the shortages were not life threatening, there were some that were life threatening. Here is an example of the problem. Neither the 28th Combat Support Hospital, nor the 3/27th FA had anything to monitor the heart rate with on the initial deployment. Having so many soldiers over forty develop chest pains from the stress of the deployment caused a dilemma. There was not an electro-cardio-graph easily available initially. For at least the first month there was no way to monitor the heart and check for arrhythmias or rule out a heart attack. In the 3/27th FA, we had about one person a week that we wanted to monitor. It is quite nerve wracking to be expected to provide quality care in some out of the way part of the world.

Specific supplies that were very basic, that we did not have during the initial deployment were oxygen and a life pack (which is a heart monitor). This is something that the battalion aide stations aren't authorized. Availability of a cardiac monitor would significantly decrease the need for medivac.

It seemed like the older soldiers seemed to have a lot of chronic medical problems that were not officially on their records. Hypertension, and old orthopedic injuries were the most common unrecorded problems. They would continually come into the aide station for care. This would not have been a problem, except for the supply system. It was hard to get all the hypertensive and geriatric medications that these soldiers needed to control their infirmities. The profiles in their records were not always as truthful about their medical history as the soldiers were. Many of guys were deployed with horrendous medical problems. They ended up being shipped back to the States.

Another supply problem was with women's medications. We had maintenance attachments with females, some of whom had a lot of medical problems. Some of the medications they needed were different, and we were not stocked to handle these needs.

It seemed that theater wide, medical supplies did not get the type of priority that they should have had.

Most of the medical service corps personnel I ran into in the supply system and the hospitals where less than helpful. It has been this way throughout my Army career. They have never been concerned about the patient, only about their own little office and the papers on their desk. I don't feel that the Army physicians have a need for the Army Medical Service Corps. They have more of a tendency to interfere with patient care and soldier rehabilitation, then to aid in it. Supposedly, their mission is to enhance military medicine.

General Medical Operations:

One of the key concerns for having an effective medical section is its having a good NCO. We had a good NCO for the initial two months we were there. Then we lost him. I was left with six medics who were fresh out of high school. They were not fully capable during suturing or triage. They were good soldiers and had good training, but they didn't have the experience of a senior NCO. The personnel section was unable to replace him. I found it necessary to have at least one experienced medical NCO in the battalion, if not two. If I have been killed, there would have been problems with medical care, and management of patient flow. This is something that an NCO is very capable of doing.

During the build up and combat phase, our biggest problem was with communications. We rarely had a radio that worked the whole seven months of deployment. Ground line communication only worked half the time.

It was several months before we had a clearing station that we could take patients to. When one became available, we could only communicate with them half the time. Many times we would have to ground evacuate a non-acute patient two to three hours to get a specialist's opinion on something as minor as a knee injury. This presented quite a problem, because we only had one ambulance. While that ambulance was gone we would be forced to rely on other vehicles.

While we were deployed, the ambulance was of more value as a regular HMMWV to transport the medical personnel. Rarely did we ever transport acutely ill patients any great distance. It would have been better if battalion medical sections had a vehicle borne aid station, something like an expandable van on a five ton truck.

Combat Medical Operations:

With the large movements made by the unit during the war, it was often impractical to set up tents to serve as medical stations. Tents are not mobile enough. It seems that tent based aid station operations have been based on a Korea or World War II scenario of aid station operations. It assumes the unit will stay in the same place for a long time. That was not the type of battle field that we were in, or that anyone will likely see again. During the theater build up phase, while we were at Camp Courage we had GP medium tent set up. We were stationary for several months. During the combat phase of the war, where medical service was critical, the standard aid station idea that the Army has was not practical.

A mobile aid station was constructed on the back of a duce and a half (2.5 ton) truck, which served us much better. We were always practicing medicine out of the back of the mobile aid station during our frequent moves. We could practice medicine and perform minor surgery in it. It was very effective during the highly mobile battle that we were in. This was much more useful than stopping, and unpacking the medical supplies.

During the movement into Iraq, there were supposed to be patient evacuation and patient collection points. This proved quickly to be an unworkable idea. If we had a serious patient, he would have had to ride with us until he got better or died. Currently our doctrine is for the battalion medical team to stay with the patient. We would then wait until some higher medical agency could relieve us. If we had done that, the whole medical support of the battalion would have been lost at the first casualty. We would have had to stay in place, treating a casualty, while the battalion rolled forward. Then, the next injury would have been in a dire situation.

The answer was the great job done by the helicopter Medivac force. Their accomplishments point out the need for more helicopters in the Medivac role. By emphasizing helicopters in the ambulance role we can call them in, and have casualties picked up in five to twenty minutes. Then the medical team can drive on to keep pace with the battalion on an offensive mission.

Medivac by air was used many times throughout the deployment. The first time was when we had been at Camp Courage about two weeks. It was called when a soldier was complaining of chest pains, and we needed to rule out heart attack. The first one took over two hours, mainly because of poor communication. This improved though out the time in the desert, until it got down to twenty, twenty-five minutes during the war. I believe that helicopter is the only way to effectively handle evacuations. If somebody was seriously injured and ground evacuated, the ride in the desert would probably have killed them.

In the area of chemical warfare, knowledge of how to treat chemical casualties was limited to a few physicians who had taken the Chemical Casualty Course. The chemical casualty decontamination lines and equipment were not, and is not distributed to all battalions. I believe that if the Army would have gone into a hot situation we would have been painfully unprepared. Knowledge of how to set up the chemical casualty decontamination line is not printed in any doctrine. I think it should be a requirement for all physicians entering the military. Many did take the course after arriving over there. There are many gaps and questions left open in the procedures that were taught at the course. I recommend that doctrine be rewritten with more specific instructions about how to handle each particular type of chemical casualty.

As it was, the manpower needed to set up a casualty decontamination line would have paralyzed our battalion's ability to fight a war. We calculated it would have taken twenty to thirty men working full time to have decontaminated a small number of casualties. For this reason, I seriously doubted that the current procedures would be in any way successful. I suspected that there would have been a command decision made to not decontaminate casualties.

Although decontamination of casualties is practiced occasionally, in-depth training is not gone through enough at the battalion level. Medical sections need extensive training at least twice a year in this type of combat specific task. This training especially needs to have unit support in operating a decontamination line. This support from the battalion is important because getting enough trained lifters and carriers to actually process a patient down the chemical decontamination line is a critical need. The operation of a casualty decontamination line is not a part of the technical training at the military school for the NBC personnel. I found that the NBC personnel had no idea how to process chemical casualties, only equipment. Fortunately, one of the medical corpsmen and the chemical officer were able to take the casualty decontamination course out in Saudi Arabia. Even then it took months to train up enough people to make it work. Medically speaking, most battalions were not ready for chemical warfare until months after the deployment.

[Editor's Note: Having been trained in the Reserves as an NBC NCO, I feel that I should elaborate for the civilian readers.]

Every soldier was trained to take some remedial action to protect themselves against exposure to chemical attack. However, there are other threats on a battlefield; like flying bullets. This is where the problem becomes a serious challenge for the medical staff. If a soldier is shot, before any treatment can begin, his outer chemical protective suite has to be removed. Nothing that has made contact with the contaminated outer portion of the suit can be allowed to contact anything inside the suit. Just a half drop of nerve agent, making contact with the skin can cause permanent damage to the nervous system.

A vapor line involves moving a soldier against the wind so that as he is disrobed, the poisonous vapors are carried away from his exposed body and lungs. The vapor line is divided into seven stations where a selected portion of equipment or clothing is removed. Each station is crewed by a team that does only one task, really carefully, before moving the casualty to the next station. If everything goes right, the seventh station should be able to pass the patient into the medical tent for care without putting the medical staff or the patient himself in jeopardy of NBC contamination.

A vapor line requires about thirty people to safely prep a contaminated soldier, who might not be conscious, for medical treatment. The challenge for the vapor line crew is that they must be outfitted in full protective gear. It's the same gear that soldiers normally wear. Yet, readers should understand that this gear can degrade body movement by five to twenty percent within 15 minutes. Un-injured soldiers take five or ten minutes to pass through a vapor line, supported by one soldier per station. A casualty moving through a medical vapor line can take up to a half hour to clear.]

Although the proceeding comments point out some flaws in Army doctrine, my experience with the soldiers of the 3/27 FA was one of the best in my life. They were able to overcome great personal stress and perform their duty in an exemplary manner. I consider my deployment with the 3/27th FA one of the most significant accomplishments, of my medical and military career.

"MY WORD, THAT'S AMAZING!"

Chapter 9

[Editor's Note: I remember a short wave radio broadcast of the press conference where the Air Force's briefing officer showed a video of its smart bombs in action to the press. As he showed the video, he gave a very clear description of what the video was showing for the radio listeners. In the background could be heard the surprised awe of the news journalists as a missile flew right into a window of the Iraqi Air Ministry. It was obvious to me that the world was not aware of the potential possessed by high technology forces. If journalists, collectors of information could be caught surprised by this news, then it is not hard to understand how even within the military there were many of us who had not developed a full grasp of this potential, either.]

CPT George R. Wise stood on the side of a hill overlooking a road that came out of the north, into the city of Nuayirah. "Now," said the colonel who commanded the artillery brigade, "Our job will be to engage and destroy any enemy units that come this way from the north."

"Let us suppose that a column of mechanized infantry, about one to two kilometers in length was moving down this road. How would you engage this type of target?" The colonel looked around and pointed, "Captain, what's the answer?"

"Sir, that would require a battalion using Massing Fires (24 cannons together), firing an At-My-Command mission." This captain was the operations officer from a cannon battalion within the brigade. "The battalion FDC (Fire Direction Control) would divide up a two kilometer segment of road through which the enemy would pass, into three equal sub-segments. Then TOC would give each battery a segment for its FDC to plot for its guns. Each segment would be plotted as a liner target, about 300 meters long. When the enemy moves into the two click segment we serve him a steel lunch."

"And, how much lead time do you say it would take to set up an ambush like this?" the colonel asked.

"About Five to ten minutes." answered the captain.

"Estimated damages?" the colonel queried again.

"Thirty to thirty-five percent."

"Very good." the colonel praised the captain. "That is exactly right."

"CPT Wise," called the colonel, "You're with that MLRS rocket battalion. How many would it take?"

CPT Wise was an MLRS battery commander with nine launchers in his unit. He looked again at the road, then turned and faced the ten other officers standing with the colonel. "I would also be able to do it, but my considerations are slightly different. I would be able to shoot multiple aim points. I could engage that target in a more responsive manner if I were firing for effect (not firing spotting rounds first, and instead attempting to immediately destroy the target with the first salvo).

"Okay, how would you do it?" asked the colonel.

"I would have multiple aim points going the length of the target. Each of those aim points could be engaged with multiple rockets. It would take one about three to six minutes." he answered.

“My word, that’s amazing!” said the colonel, as he turned to his other officers. “He would be able to engage this target with just his battery, were you have to use a battalion to engage that target.”

“Excuse me, sir,” CPT Wise said, raising his hand to get the commander’s attention, “That’s not exactly right. I meant, I can engage that target with only one - launcher..., sir.”



Figure 9-a Rocket Launch: A launch of an M26 rocket just moments after ignition. Within thirty-five feet of leaving the launch tub, a rocket will break the sound barrier. Note the size of the back blast plume behind the launcher.

(Photo courtesy of, Lockheed Martin, Missiles and Fire Control.)

[Editor's Note: The magnitude of leadership decentralization that was a part of Air-Land Battle doctrine, and the greater latitude given to junior leaders is easily demonstrated with MLRS. A single launcher had the fire power of a battalion of cannon artillery. A platoon of three launchers was equal to a brigade of cannon. Here, a junior sergeant controlled a two plus million dollar piece of equipment with the power to unleash 8,000 grenades across a quarter square kilometer area. The lieutenant who commanded a platoon of these launchers controlled as much fire power as a full colonel did during the Vietnam War. A captain using three launcher platoons could have guard a front line almost 120 to 180 kilometers (about 90 miles) wide.

There were limits to MLRS artillery fire support. In the Direct Support role, cannon systems were more responsive than MLRS. Cannon artillery was much better for engaging targets that are in contact range of friendly forces. However, for striking enemy forces or facilities behind the battle front, MLRS has few equals.]

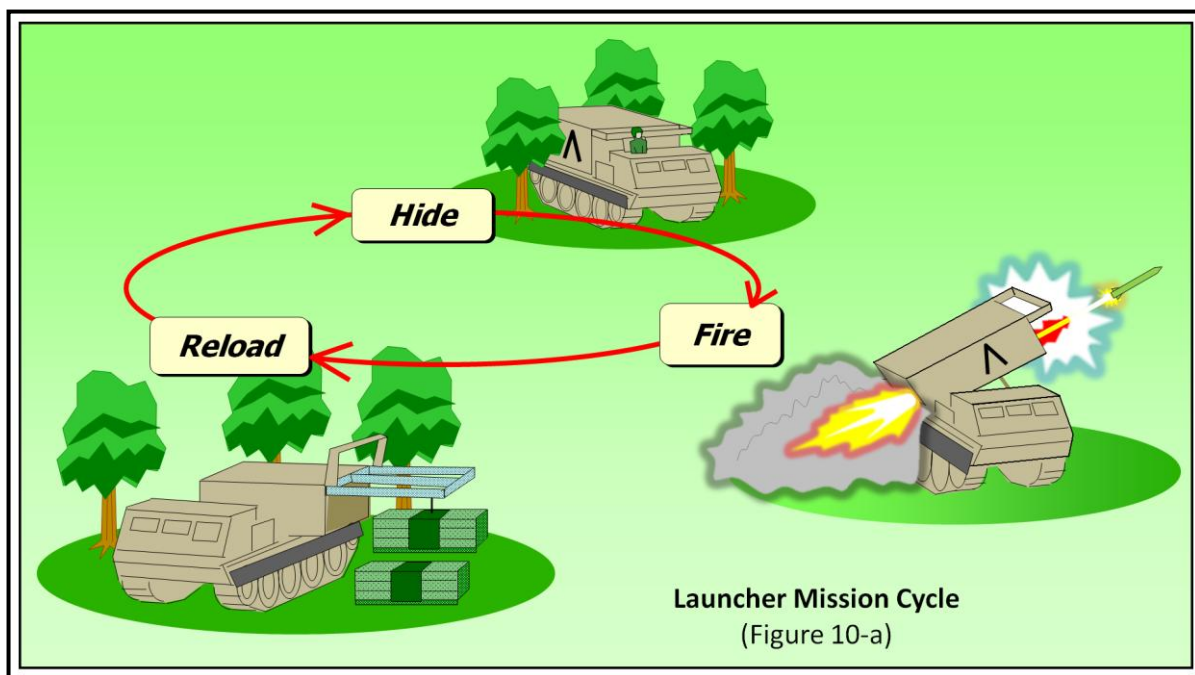
"MLRS OPERATIONS"

How the Launcher System Works

Chapter 10

There is a difference between describing how MLRS works as an engineering accomplishment, and how soldiers use the system to fight battles. To be successful in battle, the movements of the different players have to be well choreographed in concert with the environment of the battlefield. If the director fails to properly dress rehearse his cast, or a player forgets the lines of his script; the whole drama could unravel into chaos.

Let me tell you, these launchers could dance. The next challenge was, did the crew know the dance, or could the crew remember the steps to any particular tango. The first part of this chapter describes how a launcher is worked to shoot rockets. The next part will deal with how planners had been taught to employ MLRS units. The last part of this chapter will look at adaptations to MLRS battle doctrine. Oh, we knew how to waltz through the European woodlands. However, if these launchers were going to belly-dance in the Arabian desert, the soldiers would have to make some adjustments.



Launcher Missions:

LAUNCHER MISSION CYCLE: MLRS launchers operate in a three stage mission cycle (see Figure 10-a). The stages of the mission cycle are; hide, fire, and reload.

IN THE HIDE: While waiting for a fire mission, a launcher chief would first try to position the launcher within a hundred meters of his intended firing point. A good place to hide could inside a grove of trees, a building or some other such protective camouflage. The early launchers had no active self defense capabilities beyond the crew's individual weapons. Therefore, the crew had to be skillful at using passive measures to avoid detection.

Once parked, the crew chief would then go out on the firing point and assess the limitations of the terrain for actually launching rockets. He would check to see if the area is clear of dangerous obstructions or enemy ordinance. The chief had to be sure that during the sprint from the hide position to the firing position the launcher didn't hit an unseen trench or run through a mine field. Next, he would check the height of obstructions that might be in the flight path of rockets. The angle of possible obstructions, called masking data, could be measured and fed into the launcher's computer. That way, if the launcher's computer calculated that the trajectory of a particular fire mission would send the rockets into a stand of trees, the computer could warn the crew to reject the mission.

Back at the launcher, the gunner would busy himself with confirming his communication ability with the battery and platoon FDC. He would send them a computer generated digital message that identified the vehicle, its location and the status of its systems. Once the crew chief returned, the gunner would then add any masking data, if necessary. From this point the crew then waited for a fire mission.

As soon as a fire mission was sent down to the launcher, the gunner performed the first set of computer calculations. The computer on the launcher actually made the ballistic computations, which was different from other artillery systems used up until the Persian Gulf War. The computer ascertained if the launcher was within range of the target. It further told the driver the direction the launcher needed to be pointed once it parked.

FIRING POINT: Once the computer confirmed the viability of the mission, the launcher was driven out to the firing point. Movement sensors and gyro-compasses continuously tracked the launcher's location as it moved. The computer provided the crew with a thirteen digit map-grid location. It identified the launcher's location to the nearest meter on the face of the earth. However, this method of location tracking was limited in its accuracy. As track tread moved over terrain of varying density, back slipping occurred that could not be precisely accounted for by the computer. Remember that this system was the only method available for land navigation before the Geo-Positioning System had been developed. At least, this continuous tracking method provided enough accuracy to determine the location of the launcher to the nearest ten meters on the face of the earth.

When the launcher was parked on the firing point, the gunner next performed the second and final computation. The computer would confirm its first computation, then it displayed the elevation and deflection (direction) to swing the turret toward the target.

After the computer confirmed the mission, the gunner lays the launcher. This is the act of raising and turning the turret and rockets toward the target. As the turret would swing out over the left or right side of the launcher, the computer next performed a diagnostic check of the rockets and loaded the time of flight instructions into the rockets. Now the launcher was ready to fire the mission. From the time the launcher moved from its hide position, to when the rockets were positioned for launch could take less than eight minutes.

RELOAD: Once the rockets were away, it would take the crew about two minutes to stow the turret and move off the firing point. After a mission the launcher would next go to a clearing where the ammunition crews would have fresh pods laid out. Using the turret's built in crane, a launcher's reload operation would take about ten minutes.

Next, the launcher would be driven to an up-date stake, which was usually positioned near the reload area. The stake was positioned by a survey crew using a HMMWV fitted with an extremely accurate gyro-location device called PADS (position and azimuth determining system). This device could determine its location to the nearest ten a meter. This process of reidentifying the location of the launcher was needed because of limitations in the way the launchers navigated. The launcher's computer tracked its location by following its own movements, by counting the revolutions of the

drive sprocket that moved its tread. As mentioned above, as the launcher moved over terrain of differing texture the amount of back slipping would never exactly equal the progress the computer was calibrated to expect. As a result, the launcher's computer would progressively misread its progress, causing the actual location to drift away from its calculated location. Over a traveled distance of six kilometers, the discrepancy of where the computer thought it was at could vary as much as ten meters from its actual location. Once the launcher was parked next to the stake, the gunner could re-enter the true thirteen digit map-grid into the computer.

With fresh pods and reoriented navigational data, the launcher is ready to find a new hide location for its next firing point. The turnaround time could be as little as thirty minutes.

ADVANTAGES: For an artillery piece to accurately and expeditiously hit its target, the fire direction crew had to know the exact location of the artillery piece's firing point in order to make true the calculations. Originally, a team of surveyors were used to position a group of cannons as they set up their positions. The unique advantage of MLRS over conventional cannon artillery of that era was its ability to make continuous location calculations on the move, during engagements. It made the launcher hard to detect and destroy by reducing its exposure time at the firing position. Regular cannons were constrained into conducting most of their activity from the same location. Even self propelled artillery was not conveniently adapted to shooting missions while being moved about like the MLRS launchers. The closest a cannon system can to emulating MLRS launcher techniques was when they performed a hip-shot mission. However, without an accurate position location, the accuracy and subsequent effectiveness of the rounds was left in question.

During the war, studies were being done at Fort Sill, Oklahoma on the workability of using the same computer generated navigation techniques for self propelled tube artillery. The project was code named "Paladin" and would later be adapted to 155mm cannons. However, the advent of Geo-Positioning System (GPS) was only just occurring at the time of the war. There had not been enough time for analogue based artillery systems to convert over to satellite survey techniques.

MLRS Tactical Employment:

STANDARD DOCTRINE: The MLRS had to be deployed as a total package for the system to work. An MLRS package consisted of a Fire Direction Control center, the AVMLR launchers, and the HEMTT ammunition support. A launcher crew could manually conduct a fire mission, but in sustained combat situations this was unworkable. All three parts of the system package were needed, and the M-270 launchers were not to be thought of as being self sufficient.

For line units to communicate with a launcher directly to call for a fire mission was almost impossible. A launcher's radios could not reach a major fraction of the distance that the rockets can shoot. In fact, the minimum range a rocket needs to travel before the warhead activates is at the launcher's extreme radio range, at about five miles. Then, even if a line unit could contact a launcher, there was still the problem of finding an available launcher that was loaded and had its computers updated. For line units to communicate directly with the artillery for such short notice support is called a "Direct Support mission" by the artillery community. It is usually the job of small caliber cannons and mortars. MLRS was designed for General Support deliberate missions, not impromptu direct support missions.

In the TC 6-60 (the original manual that described the employment of the MLRS) operational procedures were designed to accommodate a European war. Doctrine said that when an MLRS platoon fights, they move into an operations area of six square kilometers. There, the lieutenant told his launcher chiefs to, go play hide and seek, and don't wander out of the yard, as shown on the maps they made. The launchers then disappeared into the woods. Although he could talk to them, he didn't

see then until he recalled them. Launchers could shoot from anywhere they feel like, with only a few limitations. The MLRS launchers hid in a gully or behind a building until FDC called with a mission. Then the launcher rolled out to open ground, fired its rockets, and disappeared into the woods to find a secure place to reload. By the time the launcher returned to a hiding place, as little as twenty or so minutes may have passed. Move, shoot and communicate; the launchers never parked and fired successive fire missions from a single location. Such mobility enhanced the survival of the launchers over normal artillery operations common to this period.

Inside each platoon operational area there were a variety of special activity areas. Each launcher had about three firing points pre-plotted, making an initial platoon total of about nine firing points. If chances of the platoon being found or interdicted by the enemy were thought to be low, the platoon may have been given permission to fire more than nine missions from that operational area. Along with the firing points were the hide areas. It was possible that one hide point could be used for several firing points. The supporting ammunition section would set out two resupply points for the launchers and a holding area where the trucks would park. Nearby the holding area stood the platoon's command post; an M-577 armored command post track with the necessary communications equipment.

Adaptations:

There were several adaptations made by the 3/27th FA that were passed to other MLRS units which later arrived in Saudi Arabia. These changes in tactics fell into two categories; Defense, and Offense. To understand the new tactics in their true context, an outline of the mission will be given, followed by a description of the tactical adaptation.

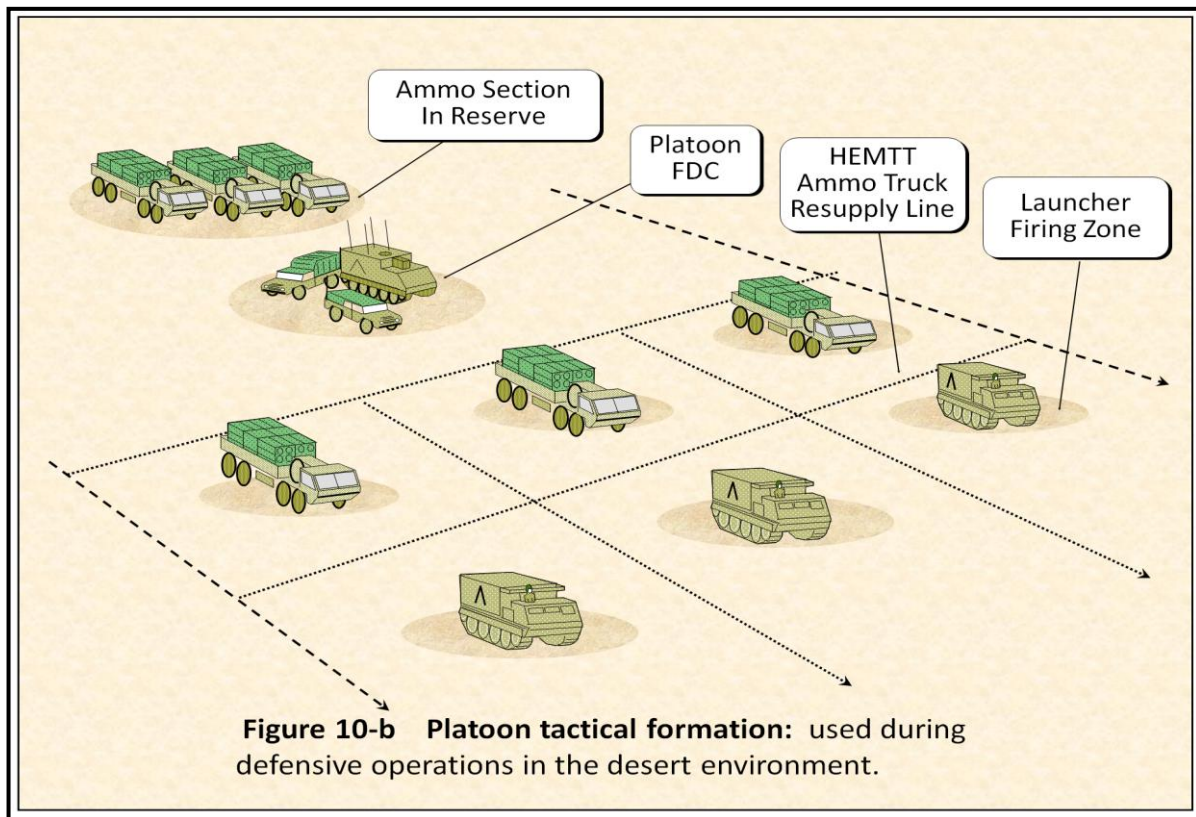
DEFENSE of NUAYRIRAH: The FM 6-20-30 and TC 6-60 outlined defensive operations. The MLRS units were placed just to the rear of the division's combat formations. From there, the MLRS would fire on new enemy units as they attempted to enter the battle, or fire counter-battery artillery duels against enemy artillery as they fired on friendly forces. Although there was no battle in Saudi Arabia to defend Nuayrarah (code named, "Bastogne"), from October through January the XVIIIth Corps had a plan for such a situation.

The actual defense of the town of Nuayrarah called for the local national forces, the Saudi Arabian military to patrol the desert south of the Iraq and Kuwait border. Their mission was to put up token resistance to Iraqi units that might try to cross the border and force them to deploy into combat formations. This would force the Iraqis to reveal their plan of attack, and slow their advance. Such a mission was called a, screening mission.

Behind the Saudi Arabians, the 101st Air Assault Division would set up the actual defense line. Once the intentions of the assaulting Iraqis became evident, the Saudis were to have passed through the American lines while the XVIIIth Corps maneuvered to crush the Iraqis.

The 3/27th FA was tasked with covering the Saudi Arabian units until they could make passage back to the American lines. The MLRS battalion was actually placed at the forward edge of the 101st Air Assault Division's line, so that its rockets could range far enough to support the Saudi screening mission. For the soldiers in the 3/27th FA, this looked more like an assault formation than a defensive posture.

Once the Saudi forces would have cleared the area between the Iraqi forces and the American forces, the 101st Air Assault Division would have surged forward about two kilometers to block the advance. In the mean time, the 3/27th FA planned to move back about three to five kilometers so that the rockets would become active just as soon as they passed over the friendly forces. Once the Iraqis became fully invested with the 101st Air Assault Division, the XVIIIth Corps planed to next send the 24th Infantry Division and the 1st ACR around the flanks of the 101st Air Assault Division. By having the MLRS fire into the rear of the enemy formation, their retreat would then have been blocked, forming an envelopment.



MLRS PLATOON TACTICS: Earlier training exercises had shown that dearly held assumptions about MLRS operations would not work in the desert. New techniques had to be developed (see Figure 10-b), but the procedures had to be consistent with the computer software. The two biggest changes were made to hide area and resupply procedures. There was no place to hide on the open desert, and at the same time the MLRS crews had miles of unobstructed visibility.

The platoon FDC track was set up behind a knoll or in a ravine with the supply trucks about two hundred meters behind. About a kilometer in front of the FDC track were to be three resupply HEMTTs, each spaced a kilometer apart. The launchers then parked in front of the HEMTTs, about five hundred meters to two kilometers in front of the resupply trucks.

Since there was no hide area for the launchers, the part of the launcher cycle dealing with the hide area was abbreviated and consolidated with the firing point procedures. This actually had the advantage of increasing the launcher responsiveness to fire missions. The lack of concealment was compensated for, in part by having the HEMTT crew watching out for the launcher out front.

Here, the launcher's only option was to run if challenged by tanks; but there was no hope of hiding. However, if confronted by attack helicopters, we knew that it would be the crew's last act; since any effort to out run an attack helicopter was pointless.

ASSAULT INTO IRAQ: According to TC 6-60, at the beginning of an offensive an MLRS unit could be moved to the front of the division Forward Line of Troops (FLOT), and fire deep into the enemy rear as the division surged forward. The text book descriptions give the impression a division could be expected to move twenty to thirty kilometers during such an assault. For deeper operations, a second MLRS unit would be leap-forged forward to continue the assault. During such offensive operations planners had dreams (i.e., fantasies) that MLRS platoons would still use the six square kilometer operational areas. Such doctrine was not cognoscente of the need by mechanized and armored units to maneuver across the same real-estate.

For the 3/27th FA, during its operations with the 24th Infantry Division there was no way to plan exactly where and when the enemy would be encountered. So, for artillery planners, the employment of MLRS would have to be done impromptu. There wouldn't be time to do anything fancy, including taking the time to deploy as described in the book.

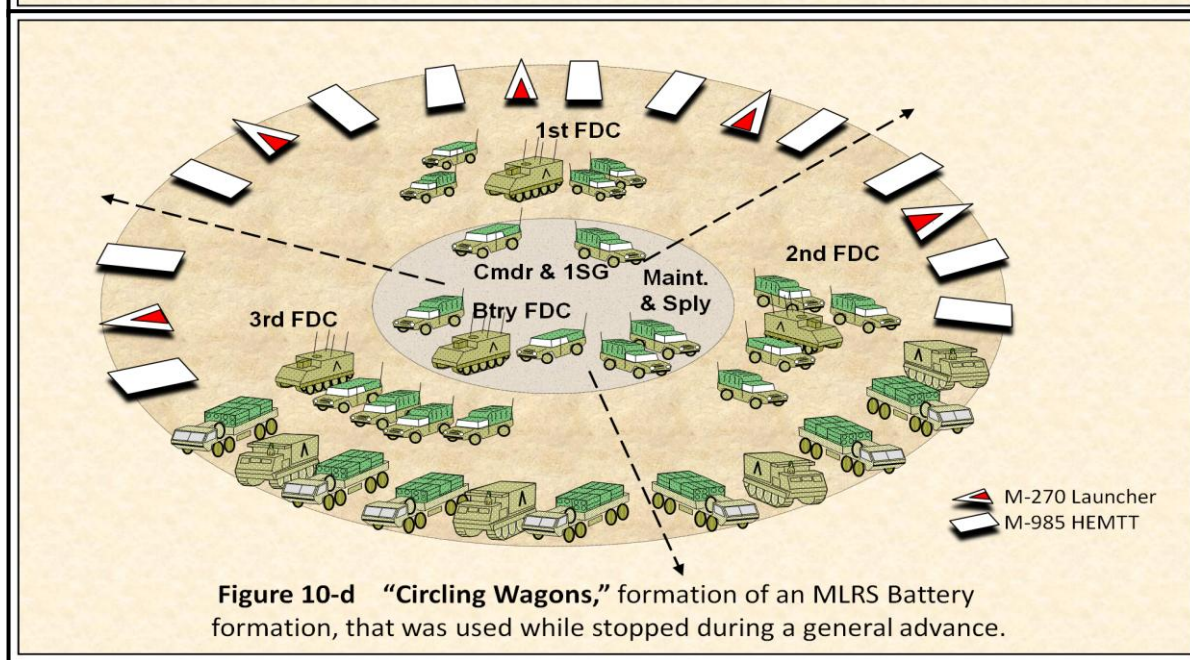
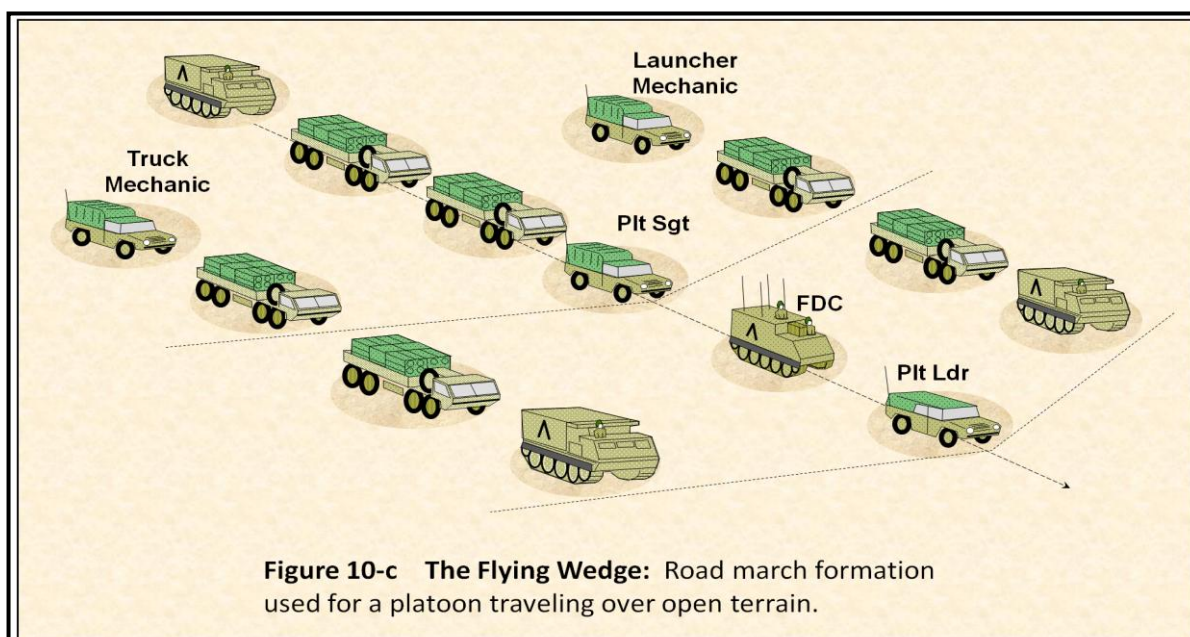
In response to this limitation the battalion's launcher platoon elements conducted numerous vehicle road marches. During the road marches they practiced impromptu emergency missions, based on the scenarios they expected to encounter in combat. They experimented with different ways to best maneuver in the desert. Again, launcher crews found that concealment was very limited on the open plain. The crews felt vulnerable. A platoon element of about 15 vehicles when moving in a single file line would extend for over a half a mile. Would all these ducks in a row be easy pickings for a striking aircraft? Could the leaders at the front assert enough control over the rear of so long a column at night or in combat? Could this be done without radio traffic? Although no real answer was ever found that everyone could agree upon, ducks in a row was not a popular solution.

The question here was not of any vehicle crew's individual driving skills. This had more to do with keeping unit cohesion between the different vehicles. Leaders were concerned about the safety of the individuals within the group as a whole group. The driving tactics focused on a formation that made it relatively easier to avoiding getting separated, and still protect the group from attack while moving.

MLRS PLATOON TACTICS: What the battalion developed became known as the desert wedge (Figure 10-c). It made available defense by dispersion. Wedge formations became popular with all the armored units; tank, infantry and artillery. Such a formation would not have been possible in a dense forested area. For MLRS, the center of the front rank was the platoon leader in the recon vehicle, followed by the FDC. The flanks each had a launcher followed by an ammo truck about 100 meters out. The second rank was lead by the platoon sergeant followed by two ammo trucks. The second flanks were lead by ammo trucks, followed by the contact teams (attached mechanics). The formation was followed by a launcher that handled recovery duty. This whole formation fit into a 300x300 meter box. A simplified version of this formation was accomplished by three parallel columns. If while on the move, a fire mission was sent down from battalion, one of the launchers would swing out to the left or right of the formation, and immediately initiate a fire mission. If the launcher needed to have its location reoriented, the platoon leader would stop by and use the Geo-Positioning System (GPS) satellite navigation device to get a hasty location check. In the mean time, the ammunition truck following the launcher would stop and the crew would unstrap a set of pods. During all of this, the platoon would continue advancing at about 25 miles per hour (40 kph).

BATTERY FORMATIONS: There was no precedence for an MLRS battery formation in the Army's battle doctrine. We did it anyway. During the advance/assault into Iraq, the biggest threat was from the environment. Dispersion might have been good for concealment, but it was also good

for getting people lost. It's one thing when the enemy can't find you, but another problem when your own people can't find you. Therefore, commanders gathered all their elements together at planned stops along the route of advance.



Around the outer perimeter, the launchers and ammunition trucks parked; launcher, two trucks, launcher, two trucks and so forth all the way around the outside (Figure 10-d). The next concentric parameter was made of the platoon FDCs and support vehicles. In the center were the battery FDC and the command vehicles. While at rest, this formation was 500 meters in diameter, with all the vehicles parked facing toward the outside. If threatened, the vehicles would pull forward, breaking up the formation and disperse moving away from the threat.

Once it was time to begin fire missions, one or two of the nine launchers would pull forward 500 meters and radio to FDC their firing point location. Or, all nine launchers could pull forward and establish an offensive perimeter dispersing the battery over a 1,500 meter square area. Ammunition crews would pull security watch, and at the same time see if their assigned launcher was elevating its turret. If a launcher started into a fire mission, the affiliated ammunition handlers would begin down loading fresh rocket pods for the launcher to come back to and reload within the original perimeter.

This battery formation was a convenient adaptation, not only for the MLRS people, but the other units operating in the same area. If as normal doctrine dictated, the battery tried to use the 18 square kilometers of land called for, the MLRS unit's activities would have gotten under foot of the other units trying to maneuver around on the same piece of real-estate. The MLRS units were as far forward as possible, dangerously too far forward for what the battle doctrine advocated. However, Iraq's Army had at two artillery systems that could out range the MLRS M-26 rockets with its M-77 DPICM submunitions. First, the Astro II rocket system had a range of 35 kilometers using its 180mm rockets. Also, there were about three different cannons that American intelligence knew of that could range ten or more kilometers farther than the MLRS. In the light of this threat, MLRS units were incorporated into the advancing maneuver brigades of the 24th Infantry Division. For the MLRS units, the battery formation became the best way to conduct MLRS operations while integrated with forward maneuver brigades.

COHESION: All of these changes to the standard battle doctrine were well thought out in advance of the actual ground war. Weeks of practice, trial and error went into the development of these new formations and techniques. No one ever found the perfect solution to fighting in the desert. There were constant differences of opinion, and variations of the above mentioned formations and procedures. With a new system like the MLRS, all these adaptations were educated guesses. In the end, it all worked. However, what seemed to be really important was that the soldier's training allowed them to respond as a team to the different situations that confronted them during the actual combat.

"ORGANIZING FOR THE STORM"

Chapter 11

[The following is a memorandum with my own notes inserted in italics, after the various topics. MAJ Finley generated this memorandum during a brainstorming session with his staff. It is important, and has been included in this book because it shows the type of operational and logistical concerns that command had about preparing for going to war. An unedited copy of this memorandum is in Appendix A.]

[Notice that the operational preparations began three months before the actual offensive occurred. In garrison the commanders always admonish soldiers to be prepared for combat on the spot. However, each war has constraints that are particular to each situation. No army that deploys internationally can be ready for all situations that it may confront. Therefore, it takes special organizational training and talent to have a force that is flexible enough to adapt to the variety of challenges that can confront an army during a short notice deployment into a foreign environment.]

[In the left hand column are the issues, on the right side are the officers who had to redress the issue. Since the issue items are rather brief, bracketed expository comments have been inserted into the memorandum. The original document was only four pages long, but to make it understandable the comments have lengthened it.]

3/27th FA (MLRS)

OFFENSIVE PLANS

NOV 1990

Note: Responsible officers will provide the XO their plan to accomplish the requirement NLT 7 Dec 90. The action/plan must be completed by 15 Jan 1991. *[The editor's comments are in italics.]*

1. GENERAL:

a. SPLL Bustle Racks XO

[During peace time the military keeps its cost of operations and training down by keeping the equipment to a minimum. In particular, transport vehicles and trailers are forever barely adequate to carry non-expendable items. For launcher crews this problem was an unusually serious problem. The storage space in a launcher is limited to about two duffel bags and an NBC C-POG for each soldier.]

[The reality of Desert Storm forced many changes from the trained for logistics practices. The battalion was telling the soldiers that they would all have to carry enough supplies to last for at least three weeks of continuous combat operations. Each soldier would need three NBC C-POGs, a gallon of chlorine bleach for decontamination, two cases of MREs, and at least ten gallons of water. Each soldier was to take their sleeping cot, and the plywood floor board they used. Added to this are the three duffel bags of issue equipment we were in fact carrying, per person, and the basic load of personnel ammunition.]

[During peace time training units often run scenarios that assume resupply from some hypothetical logistic unit every seventy-two or so hours. MLRS units as well as many other types of units seldom practice operations that involve deep advances in to the enemy's territory. We were being asked to face longer logistic lines from the operational base to the combat maneuver area then what we had ever trained for, before. The platoon sergeant's vehicles became so over loaded with expendable materials that many of them drove with axial springs fully compressed. Launchers were carrying three-quarters of a ton worth of supplies on top of their turrets and cabs, and this was before the requirement to carry the extra food and water. By the time the battalion went into combat, the launchers looked more like Gypsy wagons.]

b. Soldier Packing List CSM

c. Vehicle Combat Load Plan BC s

[The two items above are check lists of what would be carried and how those items would be loaded on to the vehicles.]

d. Move from Assembly Area to Staging Area XO

- Equipment, leave vs. take

- Security of Stay-Behind Party

e. Outload movement plans BC s

2. TACTICS:

a. Battalion

(1) Movement to Contact S-3

[The environmental situation, operational and tactical methods that the battalion was anticipating for the combat phase of the war were to be different then the published methods in TC 6-60 (the MLRS manual) or that we had ever trained to perform. From out of this planning came the finalize movement and deployment techniques such as the wedge formations and battery circle-the-wagons. From this point we stopped training to defend Saudi Arabia, and began training for the assault into Iraq.]

(2) Fire Support Conference S-3

- Sand Table

- Rehearsals

[The battalion now needed to begin training with higher elements so that fire mission processing would be smooth and responsive. The new methods being developed for the assault would affect communications and information flow. Part of this included working for the first time with helicopter scouts to provide support, different from the regular general support missions of an MLRS unit.]

b. Battery

(1) Unreconned Movement BC s

[The battery commanders were being challenged with movement into terrain that had not been traveled over by friendly forces before the battery's actual arrival. This would causes high risk with special dangers. The battalion command wanted to know that the young officers were trained to face this unique challenge.]

(2) Push Survey S-3

- SLGR use, difference from survey
 - Identical
 - Constant difference
 - Mathematically predictable
 - Training

[The use of satellite navigation (Geo Positioning System, or GPS) by ground troops was a new technique whose technology was just becoming widely available. For artillery units to be effective they had to know exactly where their cannon or rocket pieces are located at to the nearest meter, on the face of the globe. This was the job of a survey team, two soldiers in a HMMWV with a very sensitive dual gyro compass, called PADS (Position and Azimuth Determining System).]

[There were two factors that complicated the survey team's job. First, in the open desert there were very few land marks from which to orient against. Second, because of the rapid advance and continual need to be available for fire support, the survey team couldn't be everywhere at once. The launcher's internal navigation system had to be up dated every six to eight kilometers or it drifted out of alignment. Since the launchers would probably not be returning to update stakes after fire missions, keeping their navigation systems current would depend on this new technology. Although satellite navigation was theoretically very promising, there was a healthy skepticism that wanted to test and train in its practical application.]

[Ultimately, satellite navigation gave MLRS a new flexibility. Platoon leaders became able to reorient the launcher's computer to a degree that would at least meet the minimum required accuracy. Once we worked out how to employ the new satellite technology, the launcher crews wished GPSs or SLGRs could be installed directly into the computer of the launcher's navigation system.]

(3) Trains XO, 1SG s

(4) Plt Ldr, M-577 vs. HMMWV

- Second installation kit S-4

[There was an experiment done to see if the Platoon Leader's Digital Message Device (PLDMD) could be installed into a HMMWV. By November we were finding that the old M-577 was not fast enough to keep up with the faster new generation of armored vehicles. The platoon leaders wanted to transfer the control of platoon activities to the faster HMMWV, and leave the M-577's with the battery trains. This idea was abandoned when the problem of transporting the remainder of the supplies carried by the M-577 and its trailer came up. Further, enough cabling to make more HMMWV electrical harnesses could not be found to outfit all the platoon leaders' vehicles in the battalion. It was therefore decided to keep the equipment as designed, with the M-577.]

(5) Doctrinal Employment vs. Security S-3, BC s

3. INTELLIGENCE:

a. Maps S-2

[Supplies of maps were limited. The force that was being assembled was larger than the available stocks of regional maps on hand. Topographical units had been working at maximum capacity to fill the demand for maps, but could hardly keep up with the pace of the buildup. Hence, obtaining maps was an issue, and any shortages required a backup plan to accommodate the need.]

b. OPFOR S-2

[Intelligence and training about the OPposition FORces, the Iraqis. For more information on OPFOR, see the appendix, and Bravo Battery's "Lieutenant's Notes" (Chapter 28).]

c. Barrier plans S-2

[The Army had the intelligence about the earthen barrier and trench networks the Iraqi army was constructing along its southern border. The command staff had to plan how the battalion would respond to it if it were confronted by these obstacles. During the combat phase of the conflict, the battalion was never directly faced with that problem.]

d. Vehicle/Uniform ID S-2

[With the mixture for military forces from around the world, identification was not a straight forward issue of, us versus them. Many of our coalition allies were using the same type of equipment as the Iraqis.]

[There had been an event early in October when an American anti-tank TOW rocket unit locked their sights on to one of the launchers as it drove out of a wadi. The infantry soldiers had never seen one before. The only reason the young soldiers didn't shoot it was because the second launcher to drive out of the wadi had an American flag flying from its antenna. We were lucky because we were not supposed to have flags flying from our antennas. The next day we took a launcher out to the infantry unit so they could get a close look at the type of vehicles they were not supposed to shoot at. After that, visiting neighboring units and familiarizing them with the launchers became a regular special project.]

4. MEDICAL:

a. Casualty Evacuation XO, Doc

-See daily LOGEX

[Once a week, a casualty exercise, NBC decontamination exercise, or some other logistical training involving an entire battery was conducted. With four batteries, it took up most of the work week to rotate the enter battalion through these LOGistics EXercises. These were conducted along side of the tactical exercises that were likewise ongoing.]

b. Medical Assistance Team XO, CSM

-Ambulance drivers

-Casualty DECON Team

-Combat Lifesavers (Doc is responsible for training)

[The medical assistants were made up of soldiers who did not hold medical MOSs. They were detailed to supplement the regular medical staff during special emergency contingencies.]

c. Location of Medical Facilities Doc, (Bde)

-Supporting elements

-Battalion Aid Station

d. Preposition of supplies Doc, w/XO

e. Combat Lifesavers Course Doc, CSM

-All drivers

5. PERSONNEL:

- a. Medics (91A), NBC (54B), Survey (82C) S-1

[A program was underway throughout the theater to fatten combat units with individual soldiers taken from units not deployed to the Persian Gulf. We were given extra launcher crews from the 2/32nd FA (an MLRS battalion stationed in Germany), and extra maintenance personnel from Fort Sill. The command was particularly interested in having more soldiers with the above MOSs and skills to toughen the battalion's capabilities.]

- b. Cross training BC s

[This was the training of soldiers to perform tasks not in conjunction with their formal vocational training. Thereby, if soldiers performing key tasks became casualties, other soldiers could fill in the void caused by the loss. During the post Vietnam era, the Army stopped giving career recognition to soldiers for possessing more than one occupational specialty. Such extra training was an expense that Army leadership couldn't afford during peace time. However, the lack of this training became an inflexibility that combat soldiers couldn't afford in battle. We improvised secondary occupational training programs for the soldiers who were fast learners.]

- c. Reconstitution

-Battalion XO

-Battery BC s

6. EQUIPMENT:

[the following is a list of items that the command wanted to obtain or obtain more of to support its operations.]

- a. MTOE XO, PBO

-M-88A1

-HEMTT Tankers (Mess trucks w/ blivets

-Radios (Few from HEMTTs)

- b. HEMTTs (None) XO, PBO

- c. C 1 1/4T trailer (Bragg) XO, w/RDC

- d. .50 cal tripod and T&E (2 each) PBO

- e. Power supply (Bn FDC) [generators] PBO

- f. NVG {Night Vision Goggles}(goal, one per vehicle) XO, PBO

-Authorized 142 / On Hand 109

- g. SLGRs XO

-One per BC, Plt Ldr, Bn Cdr, XO, LOC, S3, (16 total)

- h. Bravo Btry water trailer

7. SUPPLY:

- a. Organization for combat XO, 1SG s

- b. LOC, combat trains build up S-4

- c. See attached list for stockages

- 30 day Package of POL S-4
- 30 day supply of expendable batteries S-4, Sply Sgt s
- d. POL
 - 50 gallon blivets for mess trucks S-4
 - Pumps for blivets S-4
 - 250 gallon blivets for Btry MOGAS

"NBC CONSIDERATIONS DURING THE PERSIAN GULF WAR"

Chapter 12

by, 1LT Jonathan L. Carroll

Chemical Officer, 3/27th FA Rgt. (MLRS)

My job was to keep people alive when the chemicals started flying. I had to prepare them for that. As the technical expert, it was my duty to be available for any training the battalion might need, and arrange for the necessary supplies and equipment. I further insured that the equipment was in top working order, and people knew how to use that equipment.

This battalion was better prepared than most for chemical and biological warfare, because of the command emphases placed on those areas. Though trained extensively in all of the Nuclear, Biological and Chemical (NBC) subjects, but I had always stressed chemical warfare was the major emphases. Since I've been in this battalion I've told every commander and operations officer that the biggest threat came from chemical and biological weapons, not nuclear weapons. It turned out this estimate was right. That is why the battalion emphasized chemical and biological training, and why it was ready when it deployed to face chemical and biological threats.

Both commanders allowed me assets, money, and time to build contingency stocks, so that when we deployed we had the equipment available in the motor pool. It was divided up into platoon sets, and at deployment distributed to the batteries. We said, "Here's your battery's contingency equipment. It is complete with all the basics your soldiers need for chemical warfare." That helped a lot when the time came to leave, because a lot of other units were scrambling to gather supplies. We were in relatively in good shape. There were some things we did not have, but it was nothing critical. Overall, our battalion was one of the best prepared for NBC operations when we hit the ground in Saudi Arabia.

We did some extensive NBC training in the desert that went beyond basic soldier skills in decontamination. Special training was given to combat life savers in treating chemical casualties. We also trained the dedicated NBC personnel and others in the battery on "chemical downwind hazard prediction." It is basically collecting data consisting of location, amount, munitions, weather, terrain, soil, burst height and other such factors, to sketch a rough estimate of the extent of the contamination. It also serves as a forecast of where the contamination will fall as the wind moves it, and about how long the contamination will last. Based on that information, a commander can do many things. He can determine if he can go through an area, if he needs to decontaminate, and weather he needs to leave an area or can wait. There is a lot information there on which the commander could base a decision.

This technique was taught to several of the lieutenants and sergeants from each of the batteries within the battalion. They were extensively rehearsed in the NBC reporting system; the NBC-1 through NBC-6 reports; to increase their speed and accuracy of information dissemination. It was very important that throughout the battalion there would be people who could confidently, and without hesitation handle any NBC situations. Although such training had been done at home station, during the buildup we worked on streamlining it to flow smoothly. It worked very well.

Other training was provided on NBC medical treatment. NCOs and other selected individuals were given the "Combat Life Savers Course" with reinforced NBC treatment training. Most units think of chemical treatment as only an athophene injection, then send the casualty to the hospital. We got away from that concept, and trained our people to do more than just the basic first aid with a

Mark-1 kit. A lot of training was given on identification of the different signs of the different types of chemical agents. Our combat life savers were taught to take a soldier's vital signs, to recognize how much atrophene a casualty needed, and how much a casualty could take without giving too much. We taught them how to administer such antidotes as valium to control convulsions. Intensive training was also given for handling burn patients, too include chemical burns.

We insured that our NBC teams knew how to use their equipment. The teams were drilled over and over in detection and decontamination. Numerous full scale exercises were conducted where we insured that every individual knew how to use, without hesitation, their personal equipment. Then, the teams conducted decontamination of their entire battery, so that they could get used to just how much work would be involved in doing it correctly. Nothing was compromised to create realistic training representing any type of situation we could have found ourselves in.

I think there are a number of NBC issues that are systemic throughout the Army. First is, informally NBC has been looked upon as something that is never going to happen. Since it is a type of training that no one enjoys, it seldom gets the attention it warrants around training time or during field problems. The only time many commanders put any emphases on NBC is around inspection time; and then it is a mad scramble to get their equipment up to standard, or they go out for a couple of days and do some half hearted training to say that they did it. Otherwise, for the rest of the year NBC is a dead issue. I don't think this battalion has had such a big problem with that issue because NBC has received good command emphasis.

The next issue is the limited number of NBC personnel in this battalion. Here at the battalion level there was an officer, a staff sergeant, and two junior enlisted persons. Furthermore, each battery had one school qualified sergeant. This staff is not sufficient to handle all the tasks that would have to be performed by a battalion in reaction to a chemical attack. Although we have drawn heavily upon the batteries to support us with detail personnel to get the job done, it is a "Hay-you roster." Basically, "Hay you, I need a decontamination team.... Hey you, I need a survey monitor team...." It's difficult to take someone like that, who's not been school trained, and make him an expert in short time, and then tell them to go out and perform the complex NBC defense missions.

We didn't let this problem stop us. As far as possible we did a lot of cross training in Saudi Arabia, because there weren't enough experienced personnel over there. It was a challenge to cross train the personnel we needed to turn into experts, launcher operators, mechanics, cooks or whatever. We had been trying to accomplish that since I got into this battalion, and I think we did a pretty good job of cross training other personnel to perform NBC missions.

Before the deployment our battalion had a program of sending selected individuals down to the NBC school at Fort McClellan for the live agent training. For soldiers that have gone, I think it is one of the most useful tools for NBC training. There is nothing better for building a soldier's confidence in his equipment than to have to put it to use in an actual nerve agent contaminated environment.

Speaking from personal experience, I know its value. My officer basic course was four months. Up until the time I took the live agent training, I had no real confidence in the equipment I was using. I had people telling me it would work, but I had no proof. After that training experience I realized that I have little to fear from chemical agents if I use my equipment right. Since I didn't have to worry about chemical weapons falling on me, I could worry about other things.

This differs from going through a non-lethal CS (riot gas) chamber. CS is not something he could expect to face on the battle field. In a CS chamber, the soldier knows that if he gets a little bit on himself it's not going to hurt him. He's not so worried if this equipment doesn't work. He thinks, "I'm not going to die if this equipment doesn't work, I get a little CS on me and it's no big deal." He does learn that he can't smell the CS through a properly fitting mask. That's a good start, but would

he actually survive in a lethal chemical agent environment? The live agent chemical chamber is a great confidence builder. The soldier is shown by experience that his equipment will work against the very same chemical that he could expect to encounter on the battle field. At the live agent chamber, the equipment did what it was intended to do. That was a big confidence builder for me. Now, it is much easier for me to stand up in front of a group of soldiers and say, "This equipment works. I have had personal experience."

Such confidence is important in a situation like the Persian Gulf Crisis, where chemical weapons are a major threat. It is of concern not only to the soldiers, but to their families as well. This applies to all the services that were over there, not just our unit. I don't believe most people ever really expected to have to face a chemical threat. No one really bothers to become an expert. Communication, shooting a weapon, driving a vehicle, people can see a tangible need for that. But, when it came to NBC, too many people had a lot of unknowns; that's what scares people the most, being ignorant. For a person that has training, understanding and experience, chemicals are not the horrible terror that they are rumored to be. Unfortunately, people with a good background in offensive and defensive chemical warfare are not as common as they should be in the Army.

People that have the training and qualification, are concerned and have a healthy respect for chemical warfare. Still, we have learned that these weapons are not as all powerful terrible weapons that they are made out to be. Sure these weapons can cause mass destruction if used against the unprepared, like civilians living in a mountain village. Against a well trained, well equipped force, that has been trained to recognize when it is under an attack, chemical weapons would cause very few casualties.

It is hard to convince soldiers of that. Many soldiers are still in the mindset that this is a terrible weapon of mass destruction. It was very difficult to break that mind set. Throughout their military career, if not their lives common soldiers have heard horror stories about chemical weapons being extremely dangerous, uncontrollably powerful, all killing weapons of mass destruction. Usually, they are told these stories to get them to take their training seriously. However, that's not as true, as people make it out to be, for a force that was as well prepared as we were. True, there was danger, but no one should let this build into an unwarranted panic.

The media didn't do a bad job of relaying what it was told about our equipment, verses the Iraqi threat. There were a lot of things that the media didn't say about our ability to defend ourselves against a chemical attack. For the most part it was accurate information, though fairly general, lacking detail. The media is like the common soldiers in the way it views chemicals. The journalists, are not trained in chemical warfare, and seldom recognize the superstition and myths that are so prevalent when such an emotionally charged topics are discussed. If they had been, they would have recognized the limitations; that this guy can't kill all these people with chemical weapons. It takes an unproductively large amount of artillery or missile resources to produce a cloud with a chemical concentration capable of causing enough casualties to render a battalion combat ineffective. It is a terror weapon used to hinder and harass. Mostly, its impact is psychological.

The best use of chemical weapons is to cause panic or fatigue the enemy. Sure, there will be some casualties, even against a well protected force. Even the Soviets, with their top notch skill, would suffer some casualties, if chemicals were used against them. Though deadly, for the most part, those chemicals are not going to kill any more people than artillery rounds and bullets. Its value is in the psychological affect causing leaders to freeze at a critical moment, soldiers to panic; the break down in command and control. For protected soldiers it will slow them down, maybe even causing a few heat casualties. That is the real threat to a force's completing its mission.

As it was our being in protective gear caused us a couple of problems. We were kept in MOPP-One (wearing the suite, and carrying the mask, rubber gloves and over-boots) for a month before the

ground war kicked off. A senseless over reaction, since the threat was not there. Although Scuds were shot at us in Saudi Arabia, they were not hitting their targets. It takes a large number of artillery pieces to make an effective cloud. While we were in our assembly areas the Iraqis didn't have the ability to threaten us. Once we went into combat facing Iraqi artillery units, then I could see us putting on the MOPP gear. That was a call made at echelons above reality, not a decision made in our battalion, or even our brigade. It wasted a MOPP suit and played into fatiguing the soldiers. It was a little paranoid on some senior commander's part. Although, it did not have a major affect on the soldiers, if we had been hit with Chemicals, we would have been needlessly short an extra suite.

We did not really require much external support, as far as NBC goes. We had a far amount of equipment, and a good level of training for the general soldiers. There were a couple of exceptions. An outstanding job was done by the civilians who worked at the USASG Depot in Dhahran. They tested out the battalion's entire supply of protective masks, swapping out detectives for fresh equipment without any hassles. They made sure that all of the masks were 100% complete and serviceable. This built the soldier's faith and confidence. It had a lot to do with soldiers being able to say, "This equipment is safe, it's been tested and approved, I believe this equipment will work as advertised." Their support was a big confidence builder.

Those civilians really did a great job. It should also be noted that the USASG personnel were all volunteers who took the risk and endured the inconveniences of being in a war zone to support us. Nobody made them go over there. There were several hundred people from maintenance depots throughout the United States at the USASG Depot. They did all sorts things from refurbishing tanks to fixing fuel pumps. They also did a lot of the work on our launchers. These people deserve a lot of credit, because it took some guts for them to go over there.

As far as supplies were concerned, we had some problems. There were things we needed, things we used up or things that got broken that we had to have replaced. The supply system, not just for NBC, but in general, was chaos; not just general supply, but repair parts, too. If it wasn't a major combat vehicle or a commander's vehicle, it was impossible to get parts. People were more worried about proper procedures than taking care of soldiers.

For example, a supply guy has a thousand batteries that we need for our M-8 Chemical Alarms. And, he won't give up a few of them, because his table of authorized stock levels say he's suppose to have a thousand of them. He's trying to look good in front of his boss by looking like he is fully stocked. Therefore, he won't give up any batteries, unless you have something to offer him under the table. It is really frustrating when you go to one of these warehouses and say, I need such-and-such, and they ask, "What can you do for me?"

Here I am trying to order supplies that the soldiers needed to save their lives. And, people act like I'm ordering a Pizza or something for my personal pleasure. It was crazy that you could get stuff like space heaters and portable lights, but parts for chemical alarms or tires for vehicles were impossible. Too often, people were concerned with what they could get out of it, or their immediate comfort. Some of these people were treating it like it was a nine to five job. There were certain people that after five in the afternoon you couldn't get anything out of them, and their supervising officers let them get away with it. For the soldiers in the combat units it was a round the clock job, and the troops in the rear didn't seem to respect that and want to join in. Is it little wonder that combat troops hold such contempt for rear echelon support troops?

Decontamination was a serious concern for us. Obtaining water was a real problem. For a firing platoon, it takes several thousand gallons of water to clean up contamination. At the time we deployed, we were never sure of where we were going to get the water from.

My first task when we went into the desert was to secure water sources. First, I began looking around the town in the local area, and I went to other units. I found quite a few water sources. The water sources were there, they just had to be found. They were not always conspicuous. If you looked on a map and did a pretty good map reconnaissance, looked around a while, maybe even talked to some shepherders you could find the water sources. After a couple of months finding water was not a big concern to us.

To enhance our decontamination ability, we took the M-12 decontamination system off of the five ton truck, which is the normal platform for this system. It was then placed on a HEMTT truck, with collapsible water blivets, and fuel drums. This combination gave more mobility, water haul capability, and fuel haul capability then could have been hoped for with the old system. In places where other rigs got stuck, this one just drove right on through, even with an extra thousand gallons of water, and a 150 gallons of extra fuel. As far as I know we are the only unit in the Army to do this.

That makes a big difference when trying to perform a hasty decontamination in the middle of a battle. There is hardly time to stop, run back to a resupply base, get another 500 gallons of water, and come forward again. With this much water and fuel on a single truck, all that was needed was drop the sidewalls on the truck and start cleaning.

A lot of the credit goes to the battalion commander. Few commanders would have been willing to give up their assets (the heavy truck) like that. He had enough foresight to see that NBC could play a major role there.

It seems that many people in the Army, and in fact throughout the world have been forced to rethink the potential threat of chemical warfare. People don't realize that 38 countries in the world have those weapons. A couple of years ago Saddam Hussein was an insignificant little dictator and our buddy, because of his opposition to our antagonists. Looking at what has happened, who can be trusted, especially when chemical weapons are concerned. In the past, everyone was concerned about nuclear weapons because of the awesome destructive potential of a single unit. No one looked at chemical weapons and saw them as a serious threat. Now, people have been shocked into seeing the threat of chemical weapons. Any old college grad student with a couple of vials, some time, a basement, and some textbooks can make a nerve agent. It is not difficult to get the supplies, and the information is available in any good public library, or college library. What was perceived as a non-threat is suddenly getting a lot of attention.

There were a lot of units sent to Saudi Arabia that got caught with their pants down. I am afraid that the lessons the military learned over there about needing to be prepared for chemical and biological weapons will only hang on for a few years. In three or four years the same complacency will return. Sorry if I can't paint a more optimistic picture. There is too much emphasis on the glory weapons, the big tanks, attack helicopters, high speed jets, 82nd paratroopers, etc.... While on the other hand such insignificant things like transport ships, cargo planes, welfare of junior enlisted, or NBC training; it's not glorious to talk about those things, it's not flashy, it's not "in vogue". Keeping the light on NBC issues has been something the Chemical Corps has always had to fight for, and in the future will need to continue fighting keep the emphasize high. No matter what type of treaties are signed, the threat is going to continue, because anybody can make these things if they want them enough.

When it comes to the best prepared, it's the artillery; some of the worst are the service and support units. There are a lot of people in the Army who don't want to waste their budgets on NBC resources; a lot of those people are on Fort Bragg. I've heard full colonels say, "I'm not going to waste money on those kinds of things, I'm not going to waste soldiers' time on training that is not the real unit mission." Sometimes they will even take the NBC specialist, and make a clerk typist out of him.

The evidence of good chemical training is when it is integrated with the rest of the unit's collective training. A soldier's individual skill at performing each of the NBC tasks is a necessary beginning, but all too often that's where it stops. With collective unit training, MOPP-Four will always degrade a unit's performance. It becomes a real test of a unit's ability to maintain cohesion and accomplish its mission. Integrated training is the key to real development of protective ability from biological and chemical agents.

The integration of NBC entails actually performing fire missions, or other unit tasks in MOPP-4 (full protection), and have troops conduct protection and decontamination operations at the same time that they are performing unit mission operations. True, it is a little more difficult to organize integrated training, but it is not any more expensive, and the returns exceed the effort. It increases a soldier's mental stamina, increases their ability to perform under stress, several tasks at the same time. This mental toughening is an additional benefit over the soldier's skill in the individual tasks. If a soldier has not had the pressure of being in MOPP-4, operating a radio, driving a truck, trying to avoid becoming a heat casualty, all at the same time during training, what will he do in combat? We fight like we train. If the soldier can't do it in training, he won't be able to do it in combat.

If our Army had been hit with chemical weapons, I believe that we would have been forced to stop. There were many units not trained or prepared to defend against chemical weapons, and at the same time vigorously prosecute their mission against the enemy. That failure could have caused total chaos. A commander that has not considered this during his peace time training, will be haunted by this when his unit deploys into combat.

In the 3/27th FA, the last commander and the current commander were strong supporters of integrated training. This battalion has done their mission in MOPP-4. I have thrown enough CS gas, and artillery simulators, and caused them to go through many surprise hasty decontamination procedures. I know that we could continue to shot rockets in a contaminated environment. I know because I have seen the soldiers of our unit, while training at Fort Bragg do those very things. I can go to the commander and say, "They can do their mission." When they can do it in training, there is a very good probability that they will do it in combat.

Now, when the general comes to our commander and says, I have a mission that might involve chemical play, can you do it? Our commander can say, yes, with confidence.

"CHRISTMAS STOCKING STUFFERS"

Chapter 13

Mail Call, Mid-December:

The Christmas season was upon us. Keeping up the good cheer became a real challenge, and contact with home through the mail gained added importance. Mail for the battalion was the responsibility of the S-1 section (the personnel administrators). Picking up the mail usually took two "Deuce and a Half" (2.5 ton) trucks, or a HEMTT to bring it in from the 212th FA Brigade. CPL Eric S. Harris was the mail clerk who actually went and signed for the mail from brigade.

He would leave the battalion at about 1530 hours and be gone for two hours. When he got back it was usually dinner time. After dinner, CPL Harris spent about two hours sorting the mail with the battery mail clerks. By 2000 hours, the mail was usually ready to go to the batteries. Although it was like this a lot, as often as not, it was never as simple or as organized as this description might mislead the reader to believe.

With the mail anything could happen. Sometimes the mail ended up with the 82nd DIVARTY, because that was the unit with whom the 3/27th FA deployed. Sometimes the mail ended up with the 101st Air Assault, because they were the people nearest our location. Other times the mail ended up with the 18th CORARTY, because they were our parent unit. Although it only took a week to get the mail from the States to Saudi Arabia, it could take four weeks to find its way from the airport to the soldiers in the sand. It was not uncommon for a message to come into S-1 from some obscure unit saying, "We've got a pallet of your mail. Come find us, if you want it."

Once the mail arrived at the batteries, the sergeant and radio operator on duty at the battery TOC, and the battery mail clerk would sort the mail out by platoon. After the evening movie, the platoon sergeants would pick up the mail and deliver it to their people.

In November, the battalion had bought four televisions, video cassette players and extra civilian generators. Weekly, the staff from the S-1 picked up seven movie cassettes and circulated them between the batteries. Movies were then played twice a night, usually starting at 1930 hours. Everyone that was free of duties could usually be found inside one of the GP Medium tents watching the movies at night. Outside the dependable little Yamaha generators that powered the televisions could be heard puttering away.

Now, the Christmas holidays were upon us, but somehow it didn't feel right. Being confronted with an impending war seemed to dampen the feeling that was so indicative of the Christmas spirit. The land was an unfamiliar place filled with Islamic traditions that were so alien to its American guests. The soldiers had to make a concerted effort to keep the Christmas Spirit alive. However, it seemed that everyone had decided that Saddam Hussein was not going to turn Christmas into a total bust. Even the Saudis seemed to have joined in on this conspiracy. We were pleasantly surprised when about two weeks before Christmas, traditional holiday music began playing on the radio. With the local restrictions against non-Islamic religious expression in public, no one expected to hear Christmas music on the Armed Forces Network radio service. Generously, our Islamic Arabian hosts were gracious enough to ignore it.

One night in the middle of December, after the movie PFC Mark G. LaDue who worked as a fire control specialist, returned to his tent. He shared this tent with a driver for one of the launchers, PVT William T. Cunningham. The tent was one of those cotton canvas Bedouin tents that the Saudi Arabians had given to the Americans. Plywood sheets, under-framed with 2x4 inch boards were used

to floor the tent. In the tent were two cots; the aluminum framed campers' cot covered with green nylon material. Under the cots were the duffel bags, out of which the soldiers lived. Around the tent were articles of furniture, fashioned from old MRE boxes.

About half an hour after the movie PVT Cunningham came into the tent and announced, "Hey, LaDue. SSG Price has mail for you. You got a big box." His family had sent him one of those big boxes full of goodies that the soldiers liked to call, "care packages." Inside, PFC LaDue found a small two feet tall artificial Christmas tree, complete with ornaments, garland and lights. Along with the tree, there were at least five pounds of candies, nuts, and dried fruits. The box from home had all the trimmings to set up his tent for Christmas.

With this package from home, the two young soldiers set about making the best of it. Using the twelve volt truck battery that powered the portable radio, they hooked up the Christmas tree lights. One set of lights went on the tree, the other set was strung up behind it. PVT Cunningham cut a nativity scene from the little cardboard boxes that came packed inside the MRE ration packets. The figurines were then drawn in using colored pens from a map marking set. PFC LaDue got two olive-drab boot socks and filled them with goodies from the box. These were then hung next to the tree.

After the Christmas trimmings were all set up, PVT Cunningham and PFC LaDue lounged in their bunks talking. It was the time of the year for reminiscing. Being so far from home, recalling the memories of good times was already a pastime for the soldiers. As it would be expected, their thoughts and conversation turned to memories of Christmases from when they were kids.

"Well, what would you like to have for Christmas, if you could wish for anything?" asked PFC LaDue.

"Humm..." thought PVT Cunningham out loud. "I remember when I was eight, and I got a puppy dog for Christmas. That was about the neatest gift I ever had. It would be nice to have a little puppy dog to play without here."

First Call:

Morning came early to our little camp. It was a few days later, and this day started out like so many other mornings in this barren wilderness. Yet, today was to be a day of answered prayers and simple miracles.

For a Bravo Battery mechanic named SGT Tony Rucks, his day always started a little earlier than everyone else. At 0500 hours, he got up and turned off the alarm clock next to his cot. At this time in the morning there was some, but very little activity going on in the camp. The cooks would have already been awake for the last hour. They had to boil water as a first step toward preparing breakfast. Inside the assorted battalion and battery command posts, the duty NCOs collected the morning intelligence reports, finished off their activity logs, and began closing down the night operations. Once the day time crews arrived the outgoing watch would go to bed and try to catch up on lost sleep. However, except for the night watch, the cooks and SGT Rucks, at 0500 hours the camp was still asleep.

SGT Rucks lived in a Saudi Arabian Army issue tent that had been made available to the Americans. Altogether, there were three mechanics living in this tent. They had dug a two feet deep pit and surrounded with a sand bag wall that lined the pit and extended up to two feet above ground level. This gave the trio four feet of side protection. If the camp had been attacked while they slept, they felt reasonably confident that they would have had time to react.

Next to the tent was parked the maintenance section's five ton tool truck. Over both the truck and the tent was erected a camouflage net. The net was big and dark green, which stood out against the surrounding light colored sand. At first glance, this contrast between the net and its environment would seem to negate the purpose of the camouflage net. But this was not totally true. If nothing else, it served to obscure what was under the net. If the camp was attacked, the nets would have at least hidden the precise location of the defending soldiers from view.

SGT Rucks was one of those people with an infectious positive attitude. Always active, he was an easy to like person that inspired others by his warmth and enthusiasm. During the morning physical training, he loved to run along side of the battery formation leading the battery in cadence singing. His songs helped the battery stay together and keep the pace over the long distance of the morning run. As a mechanic, his work was always done with a little extra flare. Bravo Battery's truck crews, whose vehicles he serviced, were confident that they could rely on his work. SGT Rucks took great pride in his work as a Noncommissioned Officer and as a mechanic.

At about 0525 hours, SGT Rucks stepped out of his tent dressed in a brown undershirt, DCU trousers and running shoes. He walked up the steps leading out of the pit, and around to the front of the tool truck. There he stopped and checked his watch.

At 0530 hours, SGT Rucks climbed up on the bumper of the truck. Facing toward the rising sun in the east, he began his morning wake up ritual. He placed his hands on his hips and scratched his feet on the bumper, flicking his feet back as if to shake the dirt free from his claws. Then, he wiggled his elbows back and forth a few times, raised his hands to his mouth, and yelled, "Cock-a-doodle-doo!"

In the stillness of the early morning, the rooster crowing could be heard throughout the battalion and most of the other units at Camp Courage. SGT Rucks's crowing became our reveille, our call to work every morning. Undaunted by the hardships that they had to face, the soldiers began another day in the desert wilderness. Within the next half hour, Bravo Battery could be heard counting cadence as they began their morning calisthenics.

Developing New Solutions:

Over at Charlie Battery's First Platoon, 1LT Robert C. McDowell, the platoon leader rose from his cot and rubbed the sleep from his face. In his mind, he reviewed the day's upcoming activities. Today was his platoon's day to go outside camp and practice maneuver movement for the anticipated assault into Iraq.

Although technically the Coalition Forces were only involved in defending their territory, the soldiers knew that they had to get ready to conduct offensive operations. In late November the battery commanders had sat down with the battalion commander and brain-stormed new solutions to the question of offensive tactics. One of these solutions had to do with traveling cross country to follow with a division.

Once the commanders had decided on what they wanted to do, they held a meeting with their lieutenants and platoon sergeants. The concept of having the platoons move across the open desert in a wedge formation, made of three columns in a staggered dress was introduced to them. With this new formation, the vehicles on the left and right of the center column were to drop back about twenty-five meters from being evenly abreast. Each of the three columns was to space itself out fifty to a hundred meters; and likewise the following vehicle was to be spaced fifty to a hundred meters away. Trying to attack a moving formation that was spread out in such a fashion would be hard for the enemy. The only weakness was whether the platoon's leadership could maintain control. Since no

one had ever tried this before, the leaders had to experiment to see if it could work, and how to make it work.

A variety of factors influenced how training would be carefully planned into the daily activities. Training was conducted in the morning before the heat of the mid-day set in and toasted the soldiers. After operations maintenance was done just before lunch. By 1430 hours, the heat would force everyone into shelter and usually this was the time for meetings and siestas. Around 1630 hours everyone went back to work again to do any type of heavy maintenance, or heavy work that had been left incomplete. On any given day, each of the batteries would send out one of its platoons to train in the fields surrounding the camp. Along with the 3/27th FA the neighboring cannon battalions would send out one of their batteries. The space around the camp was of limited size for training. The area was covered with a low shrub that had a hard stalky green leaf that was important to the camel herds that lived in the nearby village. In respect for the fragile environment, commanders limited the troops who could train around the outlying areas at any given time.

Training was also affected by concern for the limited availability of repair parts. Exercising the equipment always caused something to wear out. The soldiers had to be especially concerned about the sand and heat. Even if it were not for the sand and heat, there was a limit to the support that could be called on because of the general build up in the theater. Transportation resources were primarily involved in trying to move whole units into country. Space for spare parts was out of necessity limited. The carrier, drive train and suspension system of the launchers had its foundation in the M-2 Bradley IFV; so spare parts were common enough. The turret was a special item of which not more than one-hundred-sixty were in the Persian Gulf region. As a precaution, by mid December launchers were restricted from elevating their turrets, unless a commanding officer gave his consent.

Just the same, training had to be conducted. Commanders understood that there was no substitute for the confidence that troops experienced when they knew what they were doing with their equipment, and could work together as a team to defend themselves. Technical competence was important too, but with the long wait, the growing importance of morale issues was being felt. Good training was therefore high on every commander's list of priorities, even if worn out parts did become a challenge to the unit's material readiness.

1LT McDowell returned from breakfast to find his platoon moving around getting ready to begin the day's training. He walked up to his platoon sergeant, SSG Eugene P. Price and said, "Sergeant, let's get the platoon together, so that I can brief them on today's training."

Once the lieutenant had his platoon gathered, he set about explaining the day's training. "Today we will be working on desert driving," he began. "What we are going to do is try this new desert wedge formation."

"Sir," spoke SGT Michael S. Largent. "This isn't that stuff third platoon was trying yesterday?" During dinner the night before, the guys from the third platoon had told funny stories about trying to learn how to maintain a controllable formation while spread out over a quarter square kilometer of rolling desert. "Their platoon sergeant spent the whole time on the radio, yelling at everyone to get into formation."

"That guy is always hogging the air," quipped PFC Michael B. LeBare. There were a few chuckles from the platoon. Overuse of the radio is dangerous, because it leaves electronic signatures which good enemy electronic intelligence can intercept and target for their artillery. Furthermore, micro-managing subordinates by radio usually was not effective. During field operations, third platoon made up half the traffic over the radio, sometimes more; yet they made up less than a fourth the battery. Funniest of all, everyone was treated to hearing third platoon broadcasting its dirty laundry over the air.

The platoon sergeant had gathered together not only his platoon, he also had the First Ammo section. The Ammunition Platoon consisted of three sections; each aligned so that they could support one of the firing platoons. In most situations the Ammo Platoon operated as an independent entity, especially during non-combat activities. When the question of how the Ammo Platoon would be employed during the combat phase of the conflict, the commander decided to split the platoon and attach the sections to their affiliated launcher platoons. Since the day's training involved combat maneuvers, the ammo section joined in.



Figure 13-a Battalion Command Post with M577s: This is a typical arraignment for a battalion command post during the Desert Shield phase of the war. The identity of this unit is unidentified.

Source: <http://modelshipwrights.kitmaker.net/modules.php>

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In this formation the lieutenant was going to be in the front center. Flanking him as wide receivers were SGT Mike Largent in launcher C-11 and SGT Charlie Bissett in C-21, each launcher being followed by a loaded HEMTT. The FDC track under SGT Grant Boot was put in the quarter back slot, followed by an ammo HEMTT. The platoon sergeant, SSG Eugene Price was to play half back, along with the maintenance team lead by SGT Earnest Hicks. Behind the half backs were three ammo trucks all abreast of each other, with SSG Robert Worthly in the middle. In the back of the formation was SSG Joe Castillo as the flying back.

Once the briefing was finished, the crews went to their vehicles and lined them up in front of the camouflage net where the FDC usually parked. When 1LT McDowell saw that all his vehicles had gathered and the soldiers were ready, he mounted his HMMWV and led them down the sand trail toward the edge of camp. The sun climbed higher in the sky, burning off the morning cool as the First Platoon left the battalion perimeter.

Peaches:

The weather was clear and calm as the platoon returned from training. It had been a nice day, which promised to turn into a scorcher. On the return drive PFC LaDue saw what he thought was a small animal. Abruptly, he braked the FDC's M-577 command track and told his partner, "Hey LeBare, check it out? I think I just saw some animals on the trail to the left. Take a look and tell me what they are?"

PFC LeBare crawled across the top of the FDC and looked over the edge. "What's back there?" called PFC LaDue.

"Three little puppy dogs tied to a fuckin' goat's head," answered PFC LeBare. "We need to get rolling, the other tracks are coming up behind us." As the command track started back to the camp, PFC LeBare told PFC LaDue the details of what he had seen.

Once back in camp, PFC LaDue quickly went through his after operations checks on his vehicle, and then ran up the berm overlooking SGT Largent's launcher. The three launchers were set out about a hundred meters west of the platoon center. Each of the launchers was then spaced a hundred meters from the next, with a one and a half meter high sand berm around them. That way, if one of the rocket pods was ever exploded, the troops in the platoon center had a chance of surviving. At SGT Largent's launcher, PFC LaDue found PVT Cunningham just finishing up closing down his vehicle. "Hey Cunningham," shouted PFC LaDue. "Let's go get some water so we can do laundry."

PFC LaDue found the lieutenant standing by his HMMWV under the camouflage net. "Sir, can we use your truck to get water?"

"Sure," said 1LT McDowell. "And take the jug behind my tent." The two young soldiers loaded up all the empty five gallon jugs that were placed by the corner of the net near the opening, and retrieved the almost jug empty by the lieutenant's tent. Once loaded, the two privates drove out the east gate.

PFC LeBare found the platoon sergeant, SSG Price at the battery TOC heading back to the platoon. "SSG Price! SSG Price!" he called.

"What do you want, LeBare?"

The private ran up to the sergeant, "SSG Price, while we were driving in from training, we passed some puppy dogs out there. They were tied to a dead goat's head. Can you talk the lieutenant into letting us have one of them?"

Back down the trail, PFC LaDue parked where he had last seen the animals, last. "Where are they?" said PVT Cunningham, as he climbed out of his seat and walked around to the driver's side of the HMMWV. There, he saw three dogs tied to the remains of a goat. The decapitated head was covered with flies, and gave off a putrid smell that assaulted the nose. At the extreme length of the rope from the head, the three puppies cowered together.

PVT Cunningham walked over to where the puppies were and knelt down in front of them. "There isn't any way we could get all three back into camp, is there?"

“No, I don’t think so,” PFC LaDue answered.

The dogs were small black and white work dogs, except the third one that had brown, also. Obviously, these were the pups from a local herder’s sheep dog. It looked as if the pups had been allowed to nurse from the bitch about as long as the bitch needed. Then, since the herder had as many dogs as he could handle, he set them out along a trail that was regularly traveled by the soldiers. Life is harsh sometimes, and desert life is very harsh. In this austere land of limited resources and extreme weather, a herder had to make harsh choices. Now, the choice had found its way into the hands of a couple of young soldiers. If for just one life, the life of an animal they could make it easier, they would try. “This one, you think?” asked PVT Cunningham.

“Sure,” said PFC LaDue. “He’s cute.”

PVT Cunningham reached into his pocket and pulled out his knife, sliced the rope, picked up the dog and examined it. “It’s a she.”

As the two turned toward the truck with the puppy, PFC LaDue asked, “Well, what do you think we should do, next?”

“I figure, we can try to hide the dog as long as possible,” said PVT Cunningham. “After she’s been around for a while, it’ll be hard to get rid of her.”

“Humm,” sounded PFC LaDue, skeptically. “I don’t think that will work.”

“Sure it will,” countered PVT Cunningham. “Once she’s washed up, and stops stinking she’ll be just fine. And, once the lieutenant sees her and holds her for a little while, he won’t be able to let her go. He’ll fall in love with her, too. Right now, we had better finish picking up water so that no one suspects what we’ve been doing.”

After the two soldiers drove off from goat’s head and the other two dogs, they went to the water point out beside the road, about five miles west of the camp. There, they filled the water jugs from the five thousand gallon rubber bladder and loaded up on a few cases of distilled water. Then, they headed back into camp with the puppy hidden in a cardboard box.

PFC LaDue first dropped PVT Cunningham off with the puppy at their tent, before taking the HMMWV back to park it by the lieutenant’s tent.

PVT Cunningham went into the tent and pulled out a bucket to wash the dog. With the puppy in the bucket, PVT Cunningham went under his bunk and pulled out a bottle of water. Popping the cap, he poured it into the bucket with the puppy. It startled the puppy, who then tried jumping out of the bucket. The bucket overturned and splashed water all over the floor. After that, the bath became a fight.

When PFC LaDue returned, he ended up holding the bucket while the puppy flopped around splashing soap and water over the two hapless humans.

Outside, PFC LaDue and PVT Cunningham heard the other guys in the platoon calling to each other to come over to the lieutenant’s tent. “You know what’s going on, out there?” asked PVT Cunningham.

“Not a clue.” answered PFC LaDue.

“Get the puppy rinsed off, while I go check.”

When PVT Cunningham got to the lieutenant’s tent, he found most of the junior enlisted soldiers sitting in the HMMWV. Next to it stood the lieutenant. “What’s going on?” asked PVT Cunningham.

“Hey, Cunningham,” called PFC LeBare. “I found some puppies out on the road today. The lieutenant said we could get one, and we’ll try to hide it.”

“Oh,” began PVT Cunningham, “You guys don’t need to go...”

“Don’t worry about it,” 1LT McDowell cut off PVT Cunningham. “I said they could only have one.”

“Wait a second,” said PVT Cunningham. “Let me get LaDue. I’ll be right back. Don’t go nowhere ‘til I get back.” Saying that, he spun around and ran back to his tent.

Within a few seconds PVT Cunningham returned with PFC LaDue. In his arms, PFC LaDue carried a bundle of laundry. The two of them ran up to the lieutenant and stopped. “Here sir,” said PVT Cunningham. “Let me show you.” He turned to PFC LaDue and opened the bundle. A black snout followed by two big brown eyes stuck her head and floppy ears out of the towel.



Figure 13-b: 1LT Robert C. McDowell, the platoon leader - with Peaches, the mascot.

Luke:

SSG Price went over to SSG Kelly H. Forbey of Second Platoon, and told him that PVT Cunningham had found a dog. That while returning from field training that day, they had seen three puppies tied to a dead goat’s head. SSG Price said, that they had brought one back, and, “There’s two more down there. Do you want one?”

“Do you think the Battery Commander or the Colonel will let us have them?” asked SSG Forbey.

“Well, if we keep them hidden long enough for them to grow on everyone, it will be hard to get rid of them.” temporized SSG Price. “Maybe once they are a bit bigger, we might be able to convince them to let the dogs stay.

“If nothing else, they could be excellent for NBC early warning.” SSG Forbey offered as an argument for keeping the dogs. Chemical warfare was a threat that everyone took with unlimited seriousness. Back in the States, the threat of Iraq’s chemical arsenal had gained a lot of attention. It was no less a concern to the soldiers. It is possible for soldiers to fight in a contaminated environment and come out unaffected; possible, but it would require quality equipment handled by well-trained personnel, following some very exacting procedures. To this end the medical staff and the NBC specialists had teamed up to train almost every fifth person in the battalion to handle combat trauma and chemical casualties.

One of the exacting procedures was the ascertaining if the area was clear of chemical contamination. Although there are mechanical methods to detect the presence of most contaminants, none of them could guarantee with one-hundred percent certainty that there are no contaminants in a given area. Therefore, the commander or the senior ranking person with the consent of the next ranking commander in the chain of command would select the least valuable person in the area. This "volunteer" would then be ordered to break the seal on his mask for a few seconds, then reseal the mask and be observed for symptoms of poisoning. This would be repeated again and again with increasing exposure to the area until the soldier/guinea pig had breathed the air for five minutes without complications. The presence of dogs innocently playing in the sun would be a preferable proof of an area being clear of contamination. It was better than risking one of the soldiers.

Together the two platoon sergeants drove down the hill to where the goat's head was at. SSG Forbey could see that the dogs had been there for a while, because he could see where the dogs had been chewing on the rancid flesh. Of the two dogs, SSG Forbey picked the male. He pulled out his pocket knife and cut the rope. As he went back to his HMMWV, he dragged the reluctant puppy behind him. At that moment, it stank too much for him to want to handle it. Of all the dogs he had ever owned, he had always had males. He had no desire to have a bitch getting pregnant on him. He was also attracted to this puppy's feisty character.

Once back at the platoon, SSG Forbey set up a bath for the stinky little puppy. Leaving the dog tied to a tent stake with a bowl of water, he went over to his HMMWV and pulled out his wash basin and a jug of water. Outside the tent that he and 2LT Robertson shared was a small wall of sandbags that they used as a table for washing and eating. There, he placed the basin on the table and poured a gallon of water into it.

Having set up the bath, the platoon sergeant picked up the scared little puppy. As the man held the puppy in the air and swung him over the water, the dog realized that he was going into the water, and started to shake. "It's okay, boy," SSG Forbey gently said as he tried to calm the puppy's anxieties. "I'm just going to give you a little bath." As the puppy's feet touched the water, he started kicking. SSG Forbey held him in the water, talking to the little animal in soothing tones until he relaxed and adjusted to being wet. Then using some shampoo his wife had sent him, he set about lathering up the dog.

It was at this point that 2LT Thomas D. Robertson came up under the camouflage net, and found SSG Forbey bathing the dog. "What have you got there," asked the young lieutenant.

"Oh, it's a dog that some of the guys in First (platoon) found," answered the sergeant casually.

The lieutenant walked around the sand bag table to stand in front of SSG Forbey to get a good look at the puppy. The puppy stared at the lieutenant for a few seconds. His big eyes stared out from under the wet fur; soap lather covered the rest of his body right up to behind his floppy little ears. With his black button nose the dog sniffed the air at the approaching officer. As 2LT Robertson bent to get a closer look at the dog, the puppy barked twice and tried to back up into the sergeant's hands.

"My God, he's so cute," purred the lieutenant. "He's a precious little thing." Then the lieutenant began to talk to the dog directly in a gentle voice, "It's okay boy. I won't hurt you." Slowly the lieutenant dipped his hands in the water, and began lathering the dog's neck.

The platoon sergeant let go of the dog and quietly turned the operation over to the lieutenant. 2LT Robertson was like a kid with a new toy. Once the dog was rinsed off, the lieutenant went into his tent and brought back a towel. He talked to the dog the whole time that he bathed and dried him. Then the lieutenant put the dog under his shirt to keep the dog warm until the dampness had dried out of the animal's fur.

Peppy:

SSG Forbey found SSG Price and together they sought out their friend SGT Hicks. SGT Hicks was the sergeant in charge the wheeled vehicle mechanics for the battery. SSG Forbey found SGT Hicks lounging in front of 1SG Lanny A. Foster's tent. It was now the heat of the day when everyone was used to getting off for siesta. For these key NCOs the porch that 1SG Foster had fashioned out of two tent floor boards and an arctic tent liner was a popular get-together spot. Greetings were made and 1SG Foster opened a cooler and passed out sodas to the newcomers.

"So what's been happening?" opened SGT Hicks.

"Nothing much," answered SSG Price. "Thought we'd stop by and see if you were interested in a dog."

"A what?"

"Ya, one of Price's boys found three puppies abandoned out in the field today," answered SSG Forbey. "They picked up one, and I got one. Thought we'd see if you wanted the last one?"

"I wish I could," said SGT Hicks. "I'm up to my neck in alligators trying to keep these broke dick vehicles from going tits up. Thanks, I wish I could..."

"Well," the First Sergeant spoke up. "If you don't want the dog, I'll get it for myself. Who's going 'a show me where it's at?"

In another part of the camp, 1LT Thomas N. Stader slipped into CPT George R. Wise's tent, "Hello, sir. May I talk to you?" began the lieutenant. The lieutenant had found the commander of Charlie Battery sitting on his bunk writing a letter, as he relaxed.

The captain looked up at his executive officer. "Oh, hello lieutenant. Come in, have a seat," offered CPT Wise.

1LT Stader took a seat on the cot opposite the captain's, where the driver slept. "Sir, ah.... I think we might have a problem that you will want to know about." On hearing the lieutenant's opening, the captain straightened up in his seat and put down his letter. "Sir, I just heard that First Fire (the nick name for First Platoon) has found a puppy and have brought it into camp."

The commander asked the lieutenant a few questions about what he had learned and thanked the young officer. After 1LT Stader left the tent, CPT Wise got up and put on his web belt with pistol. This could be a sensitive situation. He could readily see the motives of his troops in wanting a dog, but there were more issues involved than having pets, so the soldiers could play with them. Orders were already out that forbid the troops from playing with the wildlife in the area. Much of the wildlife was poisonous.

It was a well-known fact that the young troops were handling the scorpions, and holding scorpion cock fights at night for entertainment. As a result, several of the not so careful troops had ended up in the dispensary experiencing an eighteen hour paralysis caused by the venom of a scorpion's tail. Of course, everyone denied that the offending arachnid and the assaulted human had any prior acquaintance, or were involved in anything illegal. Thankfully, the cold nights had started driving the critters into hibernation, and the advent of the movies at night gave the soldiers a safer activity to indulge in. "Who knows what type of problems having puppies could bring? I should talk to the First Sergeant about this," thought the captain.

The Captain walked up to 1SG Foster's tent and stopped at the entrance. "Top, are you home?" CPT Wise called.

“Yes, sir. Come on in.” came the response from within the tent.

“Top, we need to talk.” said the Commander as he walked into the tent. “I just heard that the guys in First Fire found a dog in the field and brought it back into camp.”

As the Captain’s eyes adjusted from the bright sun to the darkness of the tent he saw the First Sergeant’s driver. PVT Joey Parnell was sitting on the far side of the tent with a washbasin between his feet, giving a dog a bath.

Whatever the Captain had planned on saying, the sight of the puppy had caught him by surprise. His heart melted as he looked into the eyes of the innocent baby dog. He had a job to do, and standards to enforce, but he was an animal lover, too. A decision had to be made, but he couldn’t bring himself to banish the dogs back into the desert. “Top,” CPT Wise said as he watched the young private lavish love and attention on the little animal, “The Colonel is going to have to be told about this.”

CPT Wise and 1SG Foster got out of their HMMWV and walked over to the colonel’s tent. “Sir, it’s CPT Wise here. May we come in?”

“Come on in,” called LTC Alan W. Thrasher, the battalion commander.

Patiently the lieutenant colonel who commanded the 3/27th FA listened to the description of events over at Charlie Battery. It wasn’t an open and shut situation. The health and welfare of the soldiers was at stake here. Water was limited, and hygiene was always a struggle. As it was physical training had to be relaxed, because often the troops were limited to bathing every other day or less. Dogs carried fleas and lice. That was not bad enough; the flies and lice likewise carried micro parasites that could infect his troops, if they were not careful. In fact, after the war veterans were barred from giving blood to blood banks for three years because of these very parasites. And, then of course there were the whole host of diseases and sicknesses that could strike an un-immunized animal. Beyond a certain point medical support was limited. This was not like back at home where water and veterinary support were abundant.

On the other hand, there was an argument for keeping the dogs. The battalion had been in the desert longer than most of the other units in Saudi Arabia. The austere military pragmatism had worn very thin with everyone. Many units had adopted mascots, and some had even been shown in the newspapers. The puppies had a very soothing affect on everyone. At this point, anything that could help improve the soldier’s spirits was appreciated.

LTC Thrasher ordered that the dogs be checked out by the physician. As long as there were no incidents of misconduct related to the dogs, and the dogs stayed in good health, the troops could keep them.

The dogs were named Peaches, Luke, and Peppy. We carried them with us through the whole war. After the war, we found them new homes with families to look after them.

"MINISTRY IN THE GULF WAR"

Chapter 14

by, Chaplain (CPT) John Cook

My ministry in Saudi Arabia and Iraq was probably the best ministry I will ever experience in the Army. It is at the battalion level that a chaplain has the greatest opportunities for ministry, especially if he goes to war with his unit. I knew before we left Fort Bragg, that if war broke out in the Persian Gulf the soldiers in my battalion would be right up on the front lines.

My purpose here is to describe what happened to us, and how I reacted or acted as a chaplain to minister to the needs of soldiers and their families. The short notification we had in August that we would deploy gave us very little time to prepare before we left.

One of my greatest concerns at that time was making sure before we left that all of our families were going to be taken care of once we had deployed. We had meetings with all the unit family support groups. We gave them all the information we felt that they might need in our absence. It was important for them to know who to contact in the unit while we were away. We shared with them about how they could support us, and about how we could support them. These meetings were very well attended by the members of the family support group.

Another of my priorities before we left was to make sure that every soldier got a copy of the New Testament, if he wanted one. We were very unsure of the religious restrictions concerning religious materials in that country and that part of the world. I wanted to give the soldiers something that they could hold on to in case we couldn't get any other religious supplies into the country after we arrived. The Gideons were very cooperative in providing those Bibles to the soldiers.

Our first few weeks in Saudi Arabia were a period of great uncertainty. Being there so early in the crisis we did not know what Saddam Hussein was going to do. It was also a time of tremendous change for all of us. We were confronted with a new culture, new weather, and new surroundings. Even the simple things were different like the bathrooms we used or the meals we ate. Even more significant, it was really a time of loss for us. We had lost our basic freedoms. We had lost our privileges. We had lost our families. We lost access to the news about what was going on at home and around us. We lost our privacy, which for me was very difficult. It felt like we had lost all control over our own lives. We basically were at the mercy of the Army and our chain of command, and even they were in a state of flux. No one really knew what our unit might have to do.

During these early days I did a lot of counseling. Many soldiers were homesick. Others had problems adjusting to being away from their families. There was a lot of depression. There were even a couple of cases of potential suicide that required my intervention.

I began holding services immediately for the soldiers. The first sermon I preached was from Hebrews 13:8, which says, "Jesus is the same yesterday, today, and forever." I entitled the sermon, "Stability in the Midst of Change." As I have described already, it was a time of tremendous change in our lives. While so much in our lives was changing, the one thing that was constant for us was God's presence in our lives.

A very important part of the ministry of chaplains is what I call the Ministry of Presence... just being there for the soldiers, being available to talk to them, being able to identify with them and to allow them to identify with me. That way they feel that they have someone to talk to who they know understands what they are going through. We were all going through the same things together.

The next phase we all experienced is what I call the Base Camp phase. We were able to get somewhat settled for a few months in the desert. It was a time of boredom and impatience. We continued to ask ourselves, "how long is this going to go on?" More important from the stand point of my ministry, it became a time for the soldiers to think. When you don't have all the distractions that a person has at home with families, cars, or free time, you begin to think about the other things in life, about what is really important. A lot of us began to think about spiritual things.

As a result, we began to see quite a few conversions as people began to realize, and some of them even fear, what might happen over there. Spiritual issues came to the forefront of people's concerns. These conversions spanned the entire rank structure. We saw junior enlisted, career soldiers, senior NCO's, and several officers decide to become Christians. In fact many of those who made conversions were some of the more experienced, more senior, and older soldiers in the unit.

My ministry at that time expanded to conducting baptisms. The two baptism services that I conducted sparked a lot of conversation and a lot of curiosity among the soldiers. The second baptism was in the cold of a desert winter. We got into the routine of regular services. I began a mid-week Bible study. I began a separate Bible study for new Christians. We tried to make the holidays special events, even though they were very difficult for us in the desert. Our Christmas service was especially significant because we were able to celebrate the birth of Christ in the Middle East where he was born.

Of course, during this time there were additional separation problems, both at our end in the desert, and back at home. I continued to minister to the soldiers in the desert. I also wrote letters to some of their loved ones back in the States. Members of the family support group ministered to the family members who were experiencing difficulties back at home.

A real twist came when our leaders announced that there would be no rotations back to the States. It meant for us one of two possibilities; either we were going to war, or we would be separated from our families for one year instead of just six months. I cannot tell you the depth of disappointment, the dashing of hopes, the depression, and the increase in counseling that took place at that time. Many of us thought that all we would have to do was wait there six months, and then come home.

Late December or early January, things began to escalate. It became very apparent to all of us that we were going to war, and that things could get very nasty. I have to say that even I, as well as the soldiers to whom I was ministering, had mixed feelings. In a very real sense, we were ready to go just to get it over with, simply to get it resolved and get on with our lives...those of us who were lucky enough to survive the war.

However, with that desire was a very sharp increase in anxiety and fear. There was much uncertainty about what would happen, what our role would be, and what would happen to us individually. Again we began to see many conversions. Only this time I found it was among many of the younger soldiers, a lot of whom I think were afraid of what lay ahead. I remember a very senior NCO, one I respect very much, who found himself not able to sleep. I was able to minister to him, and to share Christ with him. On the night before we went into Iraq he committed his life to God.

I experienced some personal fears as a chaplain during the escalation phase. I was very much afraid for those in my unit who were spiritually lost. I know that I had made every opportunity for them to come to services and I had talked to and counseled with many of them. Although many of them had chosen not to be involved in my ministry, I still was very concerned that many soldiers would get killed...and be spiritually lost forever.

I was also concerned about my own well-being. Being a husband and a father, I thought about being wounded. I thought about being captured and made a POW in that part of the world. I thought

about being affected by chemical agents. I thought about being killed. I thought about these things not only as it affected my well-being, but more importantly the affect it would have on my family back home. Despite all of my fears, deep down inside I was at peace. I knew that my life was in the hands of the Lord God. And even though I had some fears, I did not dwell on them, nor were they crippling for me as an individual.

A significant event for me personally and as a chaplain was a special anointing service for all the chaplains in the Corps Artillery. We came together from our respective desert homes and our diverse denominational backgrounds and each of us was anointed with oil on our forehead with the sign of the cross. It was a very emotional experience for us as chaplains as we bonded together, realizing the ministry that we would have to perform to soldiers in combat. It was a very special service, one that I will never forget.

Then came the realities of war. We all saw death first-hand. We had fired our rockets all through the night (26 Feb 91). As we moved forward on the morning after, I saw this Iraqi soldier lying along the side of the road with his legs blown off at the knees. He was only one of many we would see. One of our own mechanics died after he picked up an MLRS bomblet that blew up in his face. Even though we had been anxious about going to war and getting it over with, I don't think any of us were prepared for the realities of war. We saw many sick and injured Iraqis. We saw Iraqi women and children without food. I was very touched when I saw Iraqi children the same age as my own children back home going hungry and bare-footed in the desert.

It was a difficult time for me personally, but I think it was a time of growth and maturing for all of us. I know it was for me. Many of our soldiers grew to feel some sympathy toward the soldiers in Hussein's army. They did not want to fight us, but were trapped between a rock and a hard place. I think a lot of our perspectives as soldiers changed as we began to see how harsh and cruel war can be. A lot of us grew up as a result of this war.

My ministry during the few days of actual combat consisted of prayer and presence. I was very active in prayer even as I was riding along in my vehicle. Though we could not have services, people saw the chaplain and knew that the chaplain was with them as God's representative. I felt that this was a significant ministry to those in the unit with whom I came into contact during the war itself.

Once the actual fighting was over there was a great amount of euphoria. We had a very special service in Iraq that I will never forget. I wanted to have a Christian service in that country, and soldiers came out in great numbers to attend the service. We focused on giving thanks to the Lord for all he had done for us. I sincerely believe that the war's extremely short duration and the remarkably small number of U.S. casualties were clear evidence that the Lord had heard and answered our many prayers. We had a special time of giving thanks and praise to Him.

Unfortunately, and I guess I suspected this at the time, some of the spiritual sensitivity and commitments that people made to God during the war has waned in the days since we have been back. Some people make all kinds of commitments during difficult times in their lives and go back on them when their circumstances are better. It reminds me of a poem I heard many years ago from my father:

*"God and the soldier we all adore, in times of war, and not before.
"When the war is over and all things righted, God is forgotten, and the soldier slighted."*

J. Rudyard Kipling

It's so sad, but unfortunately, so true. I wish it were not so.

Many people ask me what the hardest part of the whole deployment was for me?

Without question it was the separation from my family. Yet, I'll say as a chaplain, as one called by God to the ministry, my experience in the Gulf War was worth every second of that separation. It was a wonderful ministry experience that brought me tremendous fulfillment as I had the opportunity to affect the lives of others. In fact, I know of 27 soldiers in our battalion who gave their hearts and their lives to Jesus Christ. I've thought a lot about Romans 8:28 which says, "God works in all things for good, to them that love Him and to them that are called according to His purpose."

I think that as we began the war, and as we were spending our initial days over there waiting for what might happen, we began to ask ourselves the question, what good can come out of all of this? What is the purpose? For me the answer lies in what the Lord accomplished throughout the crisis. We saw first-hand the Lord working in our midst, not only in the way he helped us through the war, but in the way that people in the desert gave their hearts to Him, and in the way that many people back in our country were brought to their knees in prayer. I think that God has worked a great work in this particular war. And I hope that we won't forget what He has done for us. I thank Him for the opportunity to serve Him in all of this.

"BONDING INTO A TEAM"

Chapter 15

[Editor's Note: This is a story about a woman who was assigned to a combat arms unit, which eventually ended up going to the very front of combat. This story shows the challenges that not only she, but along with her what her comrades had to face. It shows the nature of the living conditions the soldiers were in just before the battle. It shows the pre-combat stress behavior of the younger soldiers facing their fears, as they looked into the unknown. Up to this time, there had not been much written or leadership training given on recognizing and dealing with pre-combat stress. This story also shows how the soldiers informally went about bonding together into a cohesive group.]

[To us, each day was like the day before. Often times we would wander around not knowing what day it was, and not caring since it didn't seem to make a difference half the time. However, I am quite sure that the stated dates are right on target. All the details of this story were related to me in depth by the people that were involved; nine sources. Although during the deployment we took all of this very seriously, later as these people recounted their stories, we laughed at ourselves as we looked back on these memories.]

VOLUNTEERS; Sometime In Mid December:

The three young women stood in front of their supervisors, curious as to why the sergeant wanted them. SPC Duggins, SPC Williams and PFC Colone were called into the tent by their platoon sergeant, SFC Schroeder. There they found the OIC, 2LT Carey Radican was waiting.

The platoon sergeant, SFC Gregory Schroeder followed the women into the tent and took a seat next to the lieutenant, in front of where the women were standing. "Ladies," began the sergeant. "The platoon is being attached directly to the 3/27th FA. Since that is a combat unit, we are going to offer you a choice. You can go forward with us, or be attached to the 133rd Ordinance, out of Fort Sill. We're making this choice available to you because it looks like soon we will be going to have to fight the Iraqis. Which do you want to do?"

Eagerly, PFC Raphaela Colone was the first to speak up, "No! I don't want to go to the 3/27th. No, you can send me to the 133rd."

"And, you?" the sergeant said pointing to SPC Michelle Williams.

"I think I would rather be attached to 133rd Ordinance." she said softly.

When SFC Schroeder pointed to SPC Ann Duggins, she said, "I can't give you an answer, yet."

SFC Schroeder told them to think about it and he would ask them again in the morning.

That night before lights out the women talked for a short time about the dilemma. PFC Colone spoke up first, "Hey, I'm going to 133rd. If I've got a choice, I'm not going forward." Then she looked at SPC Williams, and asked, "Have you made up your mind, yet? Are you still going to stay behind?"

"Nah, I don't care to go forward neither," said SPC Williams.

"What about you?" PFC Colone asked SPC Duggins. "You're not thinking of going to the front with the 3/27th?"

SPC Duggins looked at the private for a moment and then spoke, “Hey, I just don’t feel it’s right that I should just take the easy way out. The guys don’t have on choice, whether they can go somewhere else or go forward.”

“Nah, you’ve got to be kidding, lady.” remonstrated PFC Colone. “Look, you’ve got two kids and a man to take care of. You just got out of Korea, and didn’t get to spend any time with your family before getting sucked into this. You haven’t got any business being on some front line getting your ass shot at...”

“No one belongs on a front line being shot.” SPC Duggins responded. “The guys have got families just like I do, but it don’t make no difference, they’ve got to go. Jesus knows, they don’t have no choice. Having a family don’t make me any more different than them. So, why should I be treated any different?”

“But, we are different. We’re women!”

“Maybe we’re women, but we’re still soldiers, too!” SPC Duggins bent over and started unlacing her boots. As she worked to get ready for bed, she continued to speak. “It ain’t like I’m trying to be like the men, but when I first thought about joining the Army don’t you think I didn’t think about what could happen to me? When I enlisted, I swore to defend my country and follow orders. It’s the same oath the men made. I don’t want to die. But, that’s the risk I’ve got to face; it’s my duty! I have the same MOS that they do, and I figure that it’s not fair for me to stay back.”

PFC Colone turned to SPC Williams and asked, “What are you going to do? You’re going to stay back with the 133rd, aren’t you?”

SPC Williams dropped her eyes for a moment, then looked up and said, “I’m still thinking about it. I will have to pray about it and put it in God’s hands.”

The next morning they were called back to SFC Shroeder’s tent, where the lieutenant was also waiting for them. “Well, you’ve had the night to think about whether you want to stay back or go forward,” The women stood there for a few moments, while the sergeant paused. “Duggins, what about you?”

“Sergeant, I’ve decided to go forward. Those are my launchers out there, this is my job. It’s not right that I should stay back when the rest of the guys have to go forward.”

SFC Shroeder looked at SPC Williams, “And, what have you decided?”

“I’ll go forward,” answered the specialist. “If it becomes my turn to go, God will decide. It does not matter if I am in the front or if I am back at home, it is all in God’s hands. And, if God wants me alive, it does not matter if I am caught in a fire fight, His hand will protect me.”

The sergeant turned to PFC Colone. She spoke before being asked, “You guys aren’t leaving me behind. If you’re going, I’m going, too. I don’t want to be left alone.”

Facing The Risks:

The 3/27th FA had been in a defensive position at Camp Courage, south of Nariya since 10 September. Once the air campaign began clearing the sky of Iraq’s intelligence gathering capability, the repositioning of troops for the ground war began in earnest. The 212th FA Brigade, along with the 3/27th FA was detached from the 101st Air Assault, and realigned with the 24th Infantry Division.

From the 14 until 27 January, about two weeks, the 3/27th FA sat in a marshaling area with the 24th Infantry Division. There, the battalion waited on the trucks that would move the heavy launchers up to the boarder attack positions, the Tactical Assembly Area (TAA). This area was only a short ten kilometers from the west corner of the neutral zone. It took the battalion just under three days to move. The actual movement up the road took a whole day to drive. The road west was known by the troops as "Tap Line Road," because of the oil pipe that paralleled the road.

For the next month the 3/27th FA we sat in the TAA waiting for the ground war to begin. Speculation amongst the soldiers was that the ground war would begin around 15 February, and last till the end of March. Projected casualties were at about two thousand dead or injured, for the 24th Infantry Division, alone. Sitting, waiting, the uncertainty of what was going to happen next began to eat at morale.

In the western sector, news was only available by listening to Voice of America and the International BBC broadcasts on the short wave radios. There were a few short wave radios obtained by the battalion and passed out to the batteries. Most of the platoons had at least one radio that was short wave capable. There was constant conflicting information on the political front as to what the United Nations wanted the military forces to do. The proponents of national sovereignty had allied with the pacifists against the proponents of the rule of law. There was also conflicting information from the American Congress and Senate which professed to support the President, but would air statements from legislative leaders that opposed military action. To the soldiers in the field, it sounded like we had the sympathy of the world, but it also sounded like a vote of no confidence.

Although local command was making every reasonable effort to keep the soldiers up to date on all the latest information, CENTCOM was not telling anyone the date of the ground war. The news media was earning a reputation of printing any information upon which it could get its hands. Not only the command, but especially the line troops didn't like this, because they felt it jeopardized their lives. To keep the information about the repositioning of troops a secret, the press was kept out of the western sector where the XVIIIth Corps was relocating. This void of information was setting peoples nerves on edge.

SPC Ann Duggins was attached to Charlie Battery, 1st Platoon. By the time the unit had settled into its position at the edge of Iraq's boarder, she felt that she knew everyone she was working around. Unfortunately, that still didn't seem to be enough for this group of guys.

When she had first moved out of Camp Courage, her partner had been SPC Tracy Spruge. Technically, he was as smart as anyone she had seen working on the launchers. Unfortunately, he didn't work out with the rest of the people in the platoon. The final straw came when he tried leaving the platoon position without telling anyone that he needed to get supplies from the parts truck, at the battery trains. Without looking behind, he backed up the truck, running over SPC Duggins' recently arrived care package from home.

The truck busted open the cosmetics, shampoos, and special food treats that were in the box. SPC Duggins exploded into raging anger over her lose, chasing the truck and screaming obscenities. Although under normal circumstances this loss would have been a minor issue, in the desert it was truly a major personal calamity. It seems that after being subjected to the primitive austere living conditions the soldiers had to endure, the value of simple confections became greatly multiplied.

Her next partner was PFC William Knight. This was a guy that could put together just about anything he could take a part. He had a short coming: If he could take something a part in front of you, and if you couldn't put it back together, he didn't have the patience to explain it to you. Although SPC Duggins had done well at the military electronics repair school, she was not truly electronically or mechanically inclined. He became resentful of her being the senior partner, and not

being as skillful as he was. PFC Knight wouldn't give her the time of day. It hurt SPC Duggins to think that they had to ride into battle together.

On 17 February, PV2 Eddy Price had gotten a disappointing letter from home telling him that a tragedy had happened in his family. SPC Duggins saw PV2 Price with his face hung down and took the time to talk to him about it. She tried to help him to deal with this news. She pulled out her Bible and read a few scriptures to him. He later recalled that her consolation helped pick up his spirits.

The next day, 18 February around 0700 hours, PFC Julius Flowers had just gotten off guard and decided it was not worth the effort to climb back into his sleeping bag. He usually slept on the back in the bed of the truck at night. Morning sun rise had not been far away, so he climbed into the cab of his truck and slept sitting up. It was still winter in Saudi Arabia, and no matter how hot it got during the day, it was still cold at night.



Figure 15-a An M-985 HEMTT (Heavy Expanded Mobility Tactical Truck) used for MLRS resupply operations. This one has a trailer.

PV2 Price had been asleep at the time, seated in the cab of the truck on the passenger side. He always slept in the truck, wrapped in his sleeping bag. It was easier to just sleep in the cab, and not have to worry about the platoon being suddenly forced to move. He did not want to try packing in the dark. The Iraqi border was only a few kilometers away, and he felt more secure being ready at all times.

At first sun light SPC Duggins was awake and not far away at her own truck. The camp was quiet in the early morning hours and she wanted something to do while she waited for the platoon sergeant to bring breakfast over from the battery area. Seeing Flower's truck, she thought it would be nice to talk with her confidante, in the warm his truck. Walking around the front of the truck she saw Flowers sitting behind the steering wheel still asleep. Going to the passenger side she opened the door and found Price asleep in the seat. "Hey Price, let me have that seat so I can talk to Flowers."

PV2 Price had been asleep, leaning against the door when she opened it without warning. By reflex he came awake just in time to catch himself from falling out the suddenly opened door. "What!" said PV2 Price in a half groggy voice.

"Price," she pleaded. "Could you excuse us for a moment and let me have the seat? I need to talk to Flowers."

PV2 Price became angry at her for waking him up and kicking him out of the truck so that she could visit Flowers. Price was irritated that his sleep had been cut short so rudely, but decided it was better to let it go, and forget about it. PV2 Price went to the back of the truck and started working on cleaning his weapon and tool kit before breakfast.

That afternoon, SPC Duggins came back to visit PFC Flowers again. PV2 Price had his sleeping bag hung airing out that morning and was now rolling it up. Working at his side of the truck, PV2 Price watched SPC Duggins just hop into his seat without saying a word to him. This was his area, and he was angered that she would walk in and take over his territory like that. It had been his intention to do some letter writing from that seat, out of the way of any winds. Now he had to decide if he would put up with the wind while writing, finding something else to do, or put her out. Having women in or around a combat unit was still a politically sensitive issue. Since he didn't want any problems with a woman, he decided not to say anything.

At about 1630 hours every day the platoon got together for physical training. Usually they played dodge ball. While they were waiting for the guys from the platoon FDC to bring over the balls, PV2 Price joined a group of the ammo section guys that were standing around. "Hey, Price," opened SPC Peter Knapp. "What's up with Duggins and Flowers?"

"What you mean?" answered PV2 Price.

"Nothing," said SPC Knapp. "It's just that she seems to spend a lot of time over at your truck with you and Flowers."

"Ah, it ain't nothing," answered PV2 Price. "They're just friends talking."

"She sure seems to spend a lot of time in your truck," insinuated SPC Knapp. "So, what's up?"

"Nothing man. They're just friends. All they do is talk, that's it. They just read the Bible to each other. That's it." reasserted PV2 Price. "Now look, it's none of my business. They're just friends, and nothing's going to happen over there. I mean, not with me over here nothing is going to happen!"

Some of the guys standing around chuckled hearing PV2 Price trying to defend his friends against the insinuation. It was cheap entertainment by bored friends, leading in a dangerous direction. PV2 Price didn't feel comfortable being used for these kinds of jokes, so he walked off to the other side of the ball court.

At sun down, PV2 Price decided to get to sleep early. He had the midnight guard shift, and a solid four hours of sleep would be real good. He unrolled his sleeping bag and crawled into the cab.

He was about half way through his sleep when here she came again. Without knocking on the door SPC Duggins opened it up, and woke PV2 Price. "Price," she called. "Price, wake up."

PV2 Price woke up and looked at his watch. It was 2000 hours, and he still had an hour and a half before he had to get up. "Lady, do you know what time it is!" he said with a tone of anger in his voice.

"Yeah, I do," she shot back with, suddenly on the defensive. "So?"

"No, no. I got guard.... I do, got to get up for duty." he said.

“So what,” she said lippedly. “Go to duty. I’ll talk to Flowers.”

“Wait a minute,” PV2 Price shot back. “Technically speaking, you’re supposed to be over there with your truck. And, I’m supposed to be with mine. So, what are you doing over here? If you want to talk to Flowers, you go on his side and talk to him. You don’t come on my side and kick me out every time.”

“Listen private, I don’t have to do nothing you say,” she answered. “You understand, your only a low ranking private and I’m a specialist. I don’t have to do nothing you say.”

PV2 Price sat for a second unimpressed by her rank. “That really doesn’t have nothing to do with it, technically speaking. I say again, you’re in the wrong spot. You’re also a female, and you’re the only one here. It would be to your advantage to be over there, where you’re supposed to be. Not over here. Now, good-bye!” Saying that, PV2 Price slammed the door in her face, and went back to sleep.



Figure 15-b M-60A1 Machine Gun

Two days later, on 20 February, SPC Duggins and PFC Knight were on the 2000 hours to 2200 hours guard shift. SGT Slusher and CPL Ianuzzi were the sergeants walking the platoon parameter. As it worked, the sergeants were responsible for waking each successive shift of guards.

The two guard posts, called an OP (observation post) in a field situation, were about two-hundred meters from the edge of the platoon parameter. Each was made of sand bags filled with the small rocks that covered the terrain in that area, and stood about a meter above ground. The OPs were surrounded by three claymore mines; a directional anti-personnel mine detonated by an electrical wire. Inside each OP there were two AT-4 anti-tank rockets, and one OP had an M-60 machine gun. At night the guards would stay awake watching the glow of jet planes flying in and out of Iraq, with the night vision goggles.

At any given time there were four junior enlisted guards on the two OPs. During the day there was only one sergeant, and at night there were two of them. The sergeants changed shifts on the odd hours, and the junior enlisted changed guard on the even hours. Everyone did two hours duty per shift, with everyone pulling two shifts a day.

This particular night the sergeants were late waking the 2200 hours guard relief, of which one was PV2 Price. When the sergeant arrived to wake up PV2 Price it was 2225 hours. When PV2 Price finally stepped out of his truck to get his gear on for duty, the moon was down. It was pitch black, and dead quiet. It was the type of night where sounds traveled a long way on the desert floor. And at two-hundred meters, SPC Duggins could be heard complaining to PFC Knight about being relieved over a half hour late. SPC Duggins had a deep voice for a woman that carried a long way. People constantly had to tell her to keep her voice down. She couldn’t even whisper without the Iraqi military command recording her voice on their seismic sensors.

At 2235 hours, PV2 Price was the first of the two guards for his relief to arrive to release SPC Duggins and PFC Knight. SPC Duggins was standing at the entrance of the OP with her hands on her hips, scowling when PV2 Price arrived. He was about one meter from her when he spoke, “What’s a matter with you?”

“You know damn well what’s a matter with me.” she snapped. “You wasted enough time getting ready.”

PV2 Price just listened to her a second without saying a word. After fussing at him, she stomped off into the darkness.

On the morning of 21 February, PV2 Price had the 0600 hours to 0800 hours guard shift. At the end of his shift he returned to his truck and found SPC Duggins sitting in his seat talking with PFC Flowers, again.

PV2 Price went to PFC Flowers and said, “If she can’t act right, tell her I don’t want her sitting in my seat, no more. If she can’t apologize to me for what she done, ‘cause I think she was wrong, then she don’t need to be in my seat.”

“What you say.... What you say....” SPC Duggins started shouting.

“Look!” PV2 Price shouted across the cab, “If you claim you’re the adult here, why don’t you act like one? Remember, I’m supposed to be the kid, remember you said that?” When they had first met, PV2 Price had made a very subtle approach to SPC Duggins. She rebuffed him by saying he was not even an adult, only a child. Now, by recalling her own words, he used them against her.

SPC Duggins jumped out of the truck, slammed the door and walked off.

About fifteen minutes later, while PV2 Price was working in the bed of the truck doing the morning cleaning of his weapon, SPC Duggins came back. This time she got in the truck on PFC Flowers’s side. She thinks she’s smart, thought PV2 Price, and he relaxed in the bed of the truck.

Around 1130 hours, PV2 Price decided to get an MRE, and have lunch. He opened the bag and stuffed the main course into the exhaust pipe to heat it up. Since at that moment PFC Flowers was out of the truck, PV2 Price climbed into the cab on his own side. He put his meal on the center console between the driver’s station and the passenger’s side. Once his meal was laid out, he climbed out of the cab to do some other work while his main meal heated up.

SPC Duggins was still sitting in the truck, on PFC Flowers’s side writing letters home. While the MRE in the back was heating up the rest of PV2 Price’s meal slid off the console and landed on the seat next to SPC Duggins. In the mean time, PFC Flowers returned from his errands and climbed into PV2 Price’s side of the truck. After enough time had passed for the meal to heat up, PV2 Price knocked on the door and said, “Excuse me, can I have my meal?”

She reached down and tossed it at him. He was incensed that she didn’t hand it to him in a civilized respectable manner, but held his temper.

To get the main course out of the hot exhaust pipe, the truckers would accelerate the engine until the over pressure popped the meal packets out of the exhaust pipe. “Excuse me, I need to get my meal out of the engine.” he said, as he reached for the fuel treadle (gas pedal).

SPC Duggins knew about popping the meals out of the exhaust and said, “I’ll get it.” Suddenly, she stomped on the fuel treadle, over revving the engine.

PV2 Price was alarmed when he heard the engine RPMs jump to a high pitch, and slapped her foot from the fuel treadle. Over revving the engine like that wasn’t good for the engine. Also, so much over pressure could blow the meal packet out the pipe with such force that it would rupture the packet, and spoil his meal. “No, no. You don’t do it like that!” he said. “You don’t do it like that!”

SPC Duggins sprung into the air and landed behind PV2 Price. “Don’t you ever touch me again!” she yelled. “Mother fucker, I’ll blow your damn head off. What’s wrong with you! Your

mother didn't raise you right?" She then slammed the palms of her open hands against his chest, body-slamming him against the side of the truck.

"Bitch!" screamed PV2 Price. "You don't know nothing about me. You better get the hell away from me!" He threw his fore arm across her face, knocking her off him.

"Oh no," thought PFC Flowers. "Those two are going to have a real fight, now." He jumped out the door, and ran for the driver's side of the truck.

"Bitch?! Bitch!" she hollered as she swept up her weapon that rested against the first tire behind the cab. "I got your Bitch!" In one deft fluid motion, she single handedly opened her ammo pouch, pulled a magazine of 28 rounds out, and slid it into the well of her rifle.

PV2 Price looked, and froze with fear. "Oh shit!" he thought. "She's going to kill me, now."

Suddenly, PFC Flowers appeared out of nowhere. He grabbed the muzzle of the rifle and yanked it upward. "No Duggins! No!" yelled PFC Flowers. With his free hand, he reached down and pushed the magazine eject button. While grappling with her for control of the weapon, PFC Flowers saw one of the NCOs, "SGT Bissett!" he yelled, "Sergeant B-i-s-s-e-t-t, H-E-L-P!!!"

With PFC Flowers containing SPC Duggins, PV2 Price got his heart back, and taunted her, "Bitch! You want to shoot me, shoot me then..."

"I'll kill you!" she screamed, "I'll kill your mother fucking ass..."

PV2 Price got up close behind PFC Flowers, and laughed in her face.

SPC Knapp grabbed PV2 Price from behind and shoved him away from PFC Flowers. SPC Knapp had heard the commotion and come to see what was happening. Right behind SPC Knapp was PVT Jobe, who grabbed PV2 Price's arms and held them pinned to his sides.

At that same moment SGT Bissett arrived. Seeing SPC Duggins with a weapon, he pointed at her, "Specialist! Put that weapon down." the sergeant ordered.

"Try and shoot me." yelled PV2 Price. "I'll kick your ass."

"You! Shut your mouth." SGT Bissett said to PV2 Price.

When the sergeant turned back to SPC Duggins, she said, "I'll kill him. I swear, I'll kill him. No one touches me on the legs, no one."

"Specialist," said the sergeant. "I'm not going to tell you again; put that weapon down. That's an order!"

Slowly SPC Duggins relaxed her grip on the weapon. "But Sergeant, no one touches my legs," she half spoke aloud and half mumbled. "No one touches my legs...." Though she still shook with anger and her eyes still held a hard set look of rage, reason began to regain control within her.

"Please Specialist, put the weapon down." The sergeant tried to speak in a firm yet conciliatory voice, "You don't need this type of trouble. Put the weapon down." She pushed the weapon away from herself and PFC Flowers took it away from her. "Now, what's this all about, specialist?" asked the sergeant.

"No one touches me on the legs," she asserted. "No one touches me and gets away with it."

"She's a crazy woman," said the private. "She revved the engine, and almost ruined my MRE."

They are going to kill each other over an MRE, thought the sergeant? No, this can't be right. They're not making any sense.

“Sergeant,” began SPC Knapp. “Go ahead and let them fight. They’ve been at each other for a long time. Maybe we’ll get lucky and they’ll both kill each other.” These two had been carrying a lot of emotional baggage, and it was beginning to wear the platoon down. Going to war was stressful enough on everyone, and the guys were getting tired of having to emotionally carry these two all the time.

It was obvious to the sergeant that whatever was going on, these two needed some serious counseling. “I want you two to go see your section sergeants,” said SGT Bissett. Pointing to PV2 Price, he said, “Go see SSG Worthy.” Then turning to SPC Duggins, “And, you go see SGT Hicks.

SPC Knapp turned to PV2 Price and said, “Go on, get out of here. Go see SSG Worthy!”

Their supervising sergeants had a talk with the two of them, separately. They simply listened, and let them vent their frustrations. The rest of the day went on without another event.

It was about 0145 hours on 22 February, when SGT Timothy Perna made his rounds to wake up the next set of guards. There were four guards to post at the two guard/observation points; the observation points positioned on either side of the platoon center. He stopped at PV2 Mark C. Ogeltrey’s truck and woke him up, knocking on the passenger door. “Hey, Ogeltrey! Ogeltrey, you’ve got guard. You need to get ready.” called the sergeant.

PV2 Ogeltrey cracked open the door looked at the sergeant with sleepy eyes. He had been sleeping in his cab, rolled up in his sleeping bag. “all right. No problem” answered the young soldier.

As PV2 Ogeltrey tried to get out of the truck, he discovered that it was raining, and that his net had fallen down. It became a struggle for him to get dressed in the darkness, fighting against a net that he didn’t have the time to fix. Before going to sleep, he had left his web gear, flack vest and Kevlar helmet outside the vehicle. He found his gear was now soaked. Only the flack vest, which he had set on the tire was dry. It had been sheltered from the rain by the fender.

When PV2 Ogeltrey arrived at the guard’s OP, he was greeted by the other guards who were to be relieved. “Halt! Who is there?” called PV2 Gregory Menkins.

“It’s me, Ogeltrey.” he called into the darkness. He was just close enough to see the rock filled sand bags that made up the OP, but couldn’t make out any details.

“State your business?” asked PV2 Menkins. He knew the answer, but this was the procedure.

“I’ve come to assume guard.” answered PV2 Ogeltrey.

“Advance to be recognized.” came the response from PV2 Menkins. Being so close to the enemy frontier, the young soldiers didn’t believe in taking any chances. This was the ritual security litany for approaching an OP in the darkness. All the soldiers who were pulling guard duty knew each other. They could all recognize each other’s voices in the dark. Back at Fort Bragg, during training no one paid much attention to such silly details. However, here in a combat zone, this was deadly serious business. The question was whether the observation point was still under the control of the guards, or if a third unknown person was holding a gun to someone’s head. If the wrong words were used in the litany, the other party would back off and send an alarm to the rest of the camp.

PV2 Ogeltrey arrived a bit early for guard. This gave him a few minutes to sit and chat with his friends while waiting for his partner to arrive. “Hi Menkins.” PV2 Ogeltrey greeted his old buddy from basic training. “Fucked up night to have guard. How long’s it been raining like this?” he asked.

“For a while, now.” answered PV2 Menkins. “It started just after we got here.”

“That’s fucked up.” complained PV2 Ogeltrey. “How you doing, Knight? You’re all wet.”

“Kiss my ass!” answered PFC Knight. “What you got to eat?” he asked. “I’m cold.”

It was no secret that PFC Knight and PV2 Ogeltrey didn't like each other. Soldiers who didn't like each other commonly exchange simple unpleasanties, and then carry on as if nothing had happened. "Here." said PV2 Ogeltrey as he handed PFC Knight an MRE nut cake.

"Don't you just hate this shit, having to pull guard out here in the rain?" commented PV2 Menkins.

PFC Knight broke the cake up into three pieces, and gave one to each of his two partners.

"Yeah, it sucks!" agreed PV2 Ogeltrey. "But, if you don't, you die."

As the two young soldiers talked about the weather, SSG Worthy came out with SPC Duggins, so he could supervise the guards changing over at the OP. From almost a hundred meters away, the guys at the OP could hear the specialist complaining. "Why do I have to pull guard in this rain. I shouldn't have to do this...." There was a pause while SSG Worthy made some unheard response. "They shouldn't make us pull guard in the rain. It's not fair...."

Once the change of guards was complete, SSG Worthy left PV2 Ogeltrey with SPC Duggins. For the next two hours, these two soldiers would guard the eastern side of the battalion sector.

There was a flash of lightning to the north. The arc of blue-white light appeared out at the horizon illuminating the country side. PV2 Ogeltrey kneeled to look out over the edge of the ring of sand bags. When he turned to look at his partner, he saw her still sitting huddled in the lower corner of the hole. Her head hidden as she kept it down to keep her face covered. "You're awfully quiet. You don't like the lightning, do you?" asked the private.

"No!" answered the specialist.

"This is a fucked up night to have guard. Isn't it?" commented PV2 Ogeltrey.

"Yeah, it is." she answered, without raising her head.

"Who knows.... It's the type of night where an enemy could try to sneak up on us under the cover of this rain, and get us." he teased.

"That's not funny, Ogeltrey." she snapped, in a voice filled with acid. "You cut that out."

"Hey, don't forget, we got two graves over here." he teased.

"What you talking about?" demanded SPC Duggins.

During the building of the OP earlier, the soldiers had found two slabs of rock that stuck up out of the ground. At that time the guys had joked that two lost Arabs were buried there. It was a spooky night. The thunder and lightning, the rain, and the tension of going to war all added up to a wonderful opportunity for PV2 Ogeltrey to find himself some cheap entertainment. "Do you remember the graves I found when we built the OP?"

"Ah, shut up! That ain't funny." she shot back.

"You never can tell.... Maybe one of them old dead Arabs might come crawlin' out of his grave, and try an' get you." intoned PV2 Ogeltrey.

SPC Duggins looked up out from under the hood of her wet weather jacket, and glared at the private. "That's enough!" she said in an ice cold voice. "I'm not playing, tonight."

For the next several minutes they sat quietly in the OP. PV2 Ogeltrey sat and watched the lightning in the distance and thought about home. He had gotten two letters from home that week. They were not happy letters. His mother had unburdened herself in a letter. She had expressed her fear about her son's welfare. She also complained about the onset of her old age, her arthritis, and a

variety of problems she was having at home. Though his mother's letter had caused PV2 Ogeltrey some distress, the letter from his girl friend had really hurt. She had sent him a "Dear John" letter. The insensitive timing of these people could not have been worse for the young private, being on the eve of ground combat.

"Duggins..." PV2 Ogeltrey said softly. "Can I get your opinion on something?"

"Sure Ogeltrey, what is it?"

"You're married, aren't you?" he began.

"Yes."

"I have a girl back at home. I was hoping that after we get back, that we could get together. Being out here, I've saved a lot of money, and I thought it would be a good time to get married." he paused for a moment.

"Well, congratulations." she offered.

"Thanks." he said. "But it isn't like that. I got a letter from her this week. She says, she wants to break up."

PV2 Ogeltrey paused for a moment while he searched for the right words. "I was wondering what I should do.... I don't want to see her go. You know, I love her." He paused again, then continued, "I was wondering if maybe I should write her a letter and try to get her to change her mind?"

"Ogeltrey, love don't work like that." said SPC Duggins. "There are always going to be hard times in any relationship. The true test of real love is making it to work and sticking it out during the hard times. Even if she didn't want to marry you, if she was a good person, she should never have sent you no letter like that while you are out here. It could have waited."

"You saying I should forget about her?" His heart hurt as he asked the question. Yet, he knew the answer; Mark Ogeltrey knew that Ann Duggins was right.

"You know, I'm a religious person." confessed SPC Duggins. "Maybe, I don't always act as I should, but in hard times I find comfort in the Word of the Lord. In situations such as these, I must recall in His word, were it says: 'And we know that all things work together for good to them that love God; to them who are the called, according to His purpose (KJV: Romans 8:28).' There's another scripture that says: 'Humble yourself, therefore under the mighty hand of God, that He may exalt you in due time. Casting all your cares upon Him; for He careth for you (KJV: I Peter 5:6&7). There comes a time when you must let go of the past and trust God for what will come.'" They talked for a while about some of his concerns. She shared about her marriage and the challenges that her marriage faced because both she and her husband were in the military.

After about a half an hour, it became quiet in the OP. They ran out of things to talk about. The weather was miserable, and both of the two soldiers retreated to their perspective sides of the foxhole.

Toward the beginning of the second hour, a heavy rain squall hit. Lightning began striking the low hills that surrounded the camp. At each lightning strike, PV2 Ogeltrey saw SPC Duggins jump with fright; hugging her rifle, her head and eyes darting about to see where the lightning had landed. Again, PV2 Ogeltrey couldn't resist the opportunity to do some light hearted teasing.

By the end of the guard shift, SGT Timothy Alf found a stressed out specialist. As soon as SPC Duggins got out of the foxhole, she grabbed the sergeant's hand. "Please, sergeant." she began. "Don't think I'm trying to be forward or nothing, but would you hold my hand 'til we get back to camp?"

Once back at her vehicle, she thanked the sergeant for getting her back to the truck. The rain was severe, and she found her cot in her foxhole soaked. Luckily, she had stored her sleeping bag inside her waterproof bag. SPC Duggins crawled into the camper shell of the pickup truck and spread her sleeping bag out amongst the toolboxes and spare parts.

As she lay down, she thought about the things that had happened that day. Amongst the men, she found little support or friendship. Her fellow 27Ms, launcher mechanics ignored her. The 13Ms, the MLRS crewmen fought with her and teased her. She tried to be a good soldier and live up to her oath of enlistment, but received no respect from her peers. On top of it all, the two and a half year separation from her husband was straining her marriage to the breaking point. She had tried so hard, maybe too hard to be a good soldier. Now, she was having reservations about her decision to go forward.

It had rained all night long, causing a flash flood. All the HEMTTs were parked in the low areas. On 22 February, the morning sun found the big trucks standing in about sixteen inches of water. PVT Kelly Jobe woke up to learn that his boots had floated away during the night while he slept. The water level came to rest two inches below the underside of his cot.

SPC Duggins woke to find her foxhole had flooded out. Where her truck was parked there was only about two inches of water. The hole though, was a three foot deep swimming pool ringed by the sandbags that barely crested the water. In the pool floated all her cherished possessions. Her heart sunk with anguish as she looked upon her case of toiletries and cosmetics floating next to her new Bible. The water had come in through the stair steps when the water had risen above ground level. The only thing that had kept it from floating away was the ring of sandbags.

PV2 Price watched as she tried to grab her important things out of the water, without falling into the deep of the hole. He sat in the truck laughing, thinking this was the funniest sight in the world.

PFC Flowers thought PV2 Price was funny to watch as he gloated over SPC Duggins hardship. "You shouldn't be like that, man." PFC Flowers shamed PV2 Price. "I know what happened, happened."

"Look!" said PV2 Price. "eF that young lady. She shouldn't have done what she done. You know.... Forget her. If I wanted to be a real ass hole, her ass would be in Leavenworth. I mean she is the one that pulled a weapon on me. Regardless of what I said. It ain't like I touched on her ass. Or nothing like that, you know...."

PV2 Price sat a few seconds and watched her struggling to get her Bible. After a few seconds his conscience couldn't stand it any longer. He jumped out of the truck and walked over to the hole where SPC Duggins was struggling to fish her belongings out of the water. With a complete disregard for himself, he walked straight into the waist deep water, grabbed her Bible and handed it to her.

Wide eyed and dumfounded, she watched the penitent young man quietly searched through the water. She knelt beside her hole clutching her Bible to her breast while one by one, he stacked her belongings on the sandbags above the water. "Thank you, Price. Thank you." Ann said, once she found her voice.

When he finished, he stalked out of the water, soaked to the chest. Then, without a word Eddy walked back to his truck.

"THE MISSION, THE SOLDIERS"

Chapter 16

History will see Desert Storm as one of the most one-sided victories that ever happened. However at the time it was happening, how did the soldiers see the upcoming battle? This chapter is about the nature of our confidences and apprehensions.

The day before G-Day, when the ground attack was scheduled to begin, my lieutenant gave our platoon his final instructions. He began by reading a letter from the Commander, 24th Infantry Division:

VICTORY DIVISION

15 February 1991

24th Infantry Division (Mechanized)

GENERAL ORDER TO ATTACK

Soldiers of the Victory Division -- we now begin a great battle to destroy an aggressor Army and free two million Kuwait people. We will fight under the American flag and with the authority of the United Nations. By force-of-arms we will make the Iraqi war machine surrender the country they hold prisoner.

The 26,000 soldiers of the reinforced 24th Infantry Division will be the First to Fight. Our mission is to attack 300 kilometers deep into Iraq to block the Euphrates River Valley. Our objective is to close the escape route for 500,000 enemy soldiers in Kuwait.

On G-Day, 24th Infantry Division will be the point of the spear for a general offensive by 700,000 Coalition Allied soldiers. The Victory Division attack has the central purpose to smash into the enemy rear and destroy their will to fight. The shock action and violence of the 24th Infantry Division assault will save thousands of American lives from the bloody work of fighting through the fire trenches of Kuwait.

There will be no turning back when we attack into battle. One hundred thousand American and French soldiers of the XVIIIth Airborne Corps will fight on our flanks. We have the weapons and the military training equal to the task. We pray that our courage and our skill will bring this war to a speedy close.

In World War II, in Korea, in Saudi Arabia... the soldiers of the Victory Division have never failed America. We shall do our duty.

BARRY R. McCAFFREY
Commander - Victory Division
OPERATION DESERT STORM

After my lieutenant finished with his more objective instructions, he made a few personal comments. He told us that the planners at the higher command were expecting the operation to take about ten days to four weeks, and to expect about two thousand casualties from within our division.

“Look around you. Take a look at your buddies. Take a look at yourself.” the Lieutenant said. “You can expect that three of your buddies might not be coming back with the rest of us. I am saying this now, because when something happens to one of us; if one of us becomes a casualty, we need to keep cool heads about us. Regardless of what happens, I want to encourage each of you to stay focused on your job and the mission. This way, everyone’s chances of surviving this will be increased. I’m not saying this to be cold toward any of you who might become a casualty. Believe me, I care about each and every one of you.”

The lieutenant paused a moment, then continued, “I would like to have a moment of silence to reflect on what we are going to be facing. As some of you know, I’m a regular chapel goer, but I’m not the type of person who would try to push my beliefs on someone else. For those of you who do believe in a god or divine being, however you may believe, this is a time to share your thoughts silently with him. We’re not going to pray out loud, but if you would please bow your heads.”

The Mission:

The mission was to liberate Kuwait. Before and during the war, there had been a lot of speculation about how the war would climax. Like any other war, the soldiers had their apprehensions. There were some issues that, in spite of the challenge, we felt confident about. There were other issues which made the soldiers apprehensive.

Let us look at how the plan to invade Iraq was communicated to the soldiers, and how the soldiers of front-line battalions like the 3/27th FA saw the war before the fighting actually took place. For the serious historians, a copy of the operations order is available in the appendix at the back of this book. For general readers, here is an overview of the operations orders that directed and influenced the activities of the 3/27th FA. There are though, some military terms and concepts with which readers should be familiar. This is order to better follow along with the soldiers’ understanding of this planning. Such terms are usually not commonly understood by laymen. Unfortunately, because of the limited focus of this book, the discussion of these concepts in this chapter is likewise limited. It is only enough of a general description to help the reader see the cause and affect between the directives of the military command and the performance of the soldiers. For the non-military readers, this chapter provides information about how orders are organized and passed out to the soldiers.

The terms and descriptions as used in this book, reflect more of the enlisted soldiers’ understanding of military concepts than that of officers and academicians. Enlisted soldiers seldom have the opportunity for formal training in military theory. They seldom have a chance to learn the historical origin of a term, nor do they let themselves become confused by text book pontification that differ from what they have practiced. They watch what their officers do and learn the name of a term that is applied to that action. Nevertheless, after years of performing military tasks, even without the formal training afforded to officers, sergeants begin to see the theory behind the practice. Since this book is about our actual conduct of the war, how terms are used in this book will in some cases be different from their formal definitions.

Essentially, the operational plan developed by the theater command was a variation of an envelopment maneuver; to surround the Iraqi forces and attack from two directions at the same time. By surrounding the Iraqi forces in Kuwait, they would then be cut off from any reinforcements or resupply that they could call upon for support. The VIIth Corps, an American force based in Europe handled the east flank. Along with the VIIth Corps were Saudi Arabian, Egyptian, Syrian, British, and U.S. Marine units. The XVIIIth Corps, out of the continental United States, along with the French 6th Light Armored Division were tasked with conducting the west arm of the assault.

The attack began with an air campaign on 17 January 1991. The lack of resistance came as a happy surprise to the soldiers. The soldiers knew that the Iraqi forces had been forced by circumstances to endure some arduous conditions which were degrading their morale. The air campaign revealed that this was a more severe problem for the Iraqi army than we could have hoped to find. Many soldiers were astounded to hear that entire battalions were defecting. In one incident, fifty aircraft with several general officers deserted, flying out of Iraq, seeking amnesty in Iran. In another, very funny incident, an unmanned drone crashed, and the Iraqis tried surrendering to it. The air campaign was so successful the press speculated that a ground invasion might not be necessary.

The thought of not having to invade Iraq had a lot of appeal to the soldiers. Yet, they knew that they would have to go into Iraq, if Iraq's threat to the Middle East and Persian Gulf region were to be neutralized. The Air Force could degrade the strategic and operational parts of Iraq's military structure. However, as long as Saddam was not willing to admit that he could no longer sustain his tactical forces, the common soldiers understood that we would have to eject them by force.

Before the air campaign, the Soviet Union had tried very hard to broker a political solution between Iraq and the world community. Saddam Hussein refused to yield. It was evident to the soldiers that Saddam Hussein was more interested in expanding his power, then the welfare of his people. Many American soldiers even found it professionally offensive that a commander would treat his soldiers so badly. Saddam Hussein was committing his people to a war that they could not fight. It betrayed his irrationality, and demonstrated the need for the ground campaign. Ultimately, it was the success of the air campaign that took the hard edge of apprehension off the soldier's fear about the upcoming ground campaign.

About two weeks before the invasion, our lieutenant let us know that he had been briefed on the details of the invasion. Although he would not tell us any details, he reassured us that it was a sound plan. We would, he told us, hear the details next week. About five days before the invasion, the senior NCOs and section chiefs were gathered for their briefing. Large maps were drawn in the sand and they rehearsed their movements in detail. At the same time the junior NCOs and enlisted soldiers took their weapons out to firing ranges set up in isolated valleys, and test fired all their small arms weapons. Three days before G-Day, the ground invasion, CPT G. Malloy, the deputy operations officer went to each battery with a large map, and presented the final briefing to everyone.

The ground war was scheduled to begin on 24 January 1991 with the VIIth Corps frontal attack into southern Kuwait. The XVIIIth Corps would wait a day and attack on 25 January 1991. By waiting a day, CENTCOM, the theater command intended to use the VIIth Corps to attract all the Iraqi's attention to the south eastern part of the theater. CENTCOM wanted to see how Iraq's army would react to the invasion. While the VIIth Corps held Iraq's attention with a frontal attack, the XVIIIth Corps would be free to sneak around the back side of Kuwait. XVIIIth Corps' job was to block the reinforcement or retreat of the Iraqi forces in the Kuwait theater of operations.

The mission of the 24th Infantry Division (Mechanized) was to move north along the western flank, secure the Euphrates River Valley, and then move east toward Basra. The 197th Infantry Brigade (Mechanized) out of Fort Benning was assigned to the division to bring the 24th Infantry Division up to a full three combat brigade strength. They were to take and hold the western side of the Euphrates River Valley. (see Figure 16-a; *The XVIIIth Airborne Corps sector of activity*.) The division's advance was broken down into six phases:

Phase I: Repositioning and Deployment at the Tactical Assembly Area. This was the secret move to just west of the neutral zone between Iraq and Saudi Arabia. The air campaign had served to blind Iraq's military so that they could not see how the Coalition Forces were reorganizing for the invasion.

Phase II: Attack to Phase Line Lion. This would secure the 24th Infantry Division's entry into Iraq. We suspected that if Iraq was to mount a serious defense to oppose our incursion, this would be the earliest point where they could engage us. Aside from a few out-posts, they had no units large enough along the border in the division's sector. For Iraq to counter this move, they would have needed to rush in with a division or two. We figured, we could at least make it 130 kilometers into Iraq before such an encounter occurred.

Phase III: Attack into Objectives Gray, Brown and Red. These objectives were what passed for road intersections in the desert. Intelligence suspected that there were Iraqi out-posts at these locations. This area between Phase Line Lion to Phase Line Viking would be needed for logistic sites that would support the assaults against air bases covering the Euphrates River Valley.

Phase IV: Attack into the Euphrates River Valley and seize Battle Positions opposing Iraqi air bases. Once the Americans held the Euphrates River Valley, Iraq would no longer be able to resupply or reinforce Iraqi units in Kuwait from Baghdad. This would establish the final staging area for the battle to come.

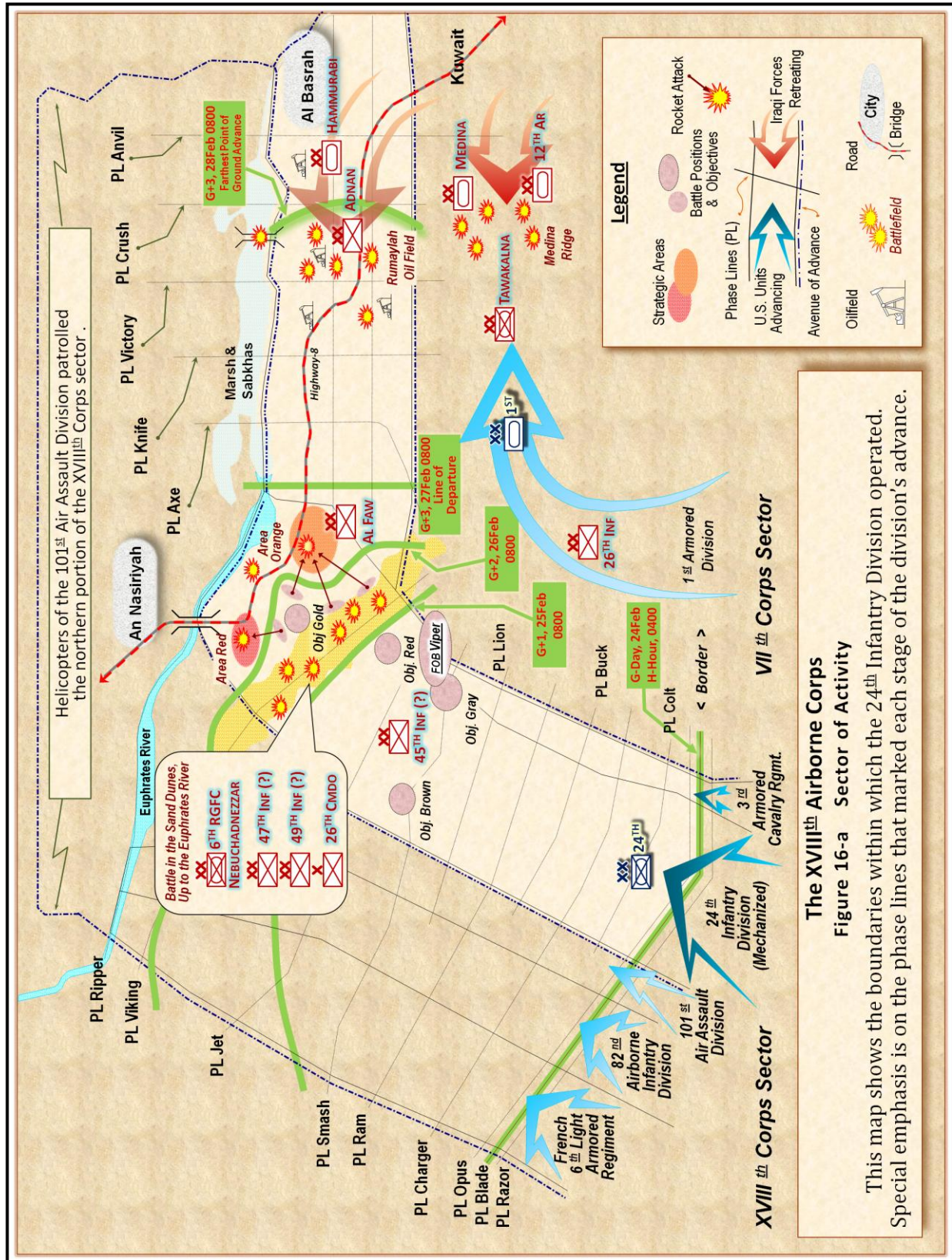
Phase V: Attack Jalibah and Tallil Air Bases; Objectives Orange and Gold. These were two serious military objectives that were defended by substantial ground forces. This was the location of Iraq's guard force for the western back door to the Kuwait Theater of Operations. This would then allow the division to establish "blocking positions." That is to say, the 24th Infantry Division would assault on the offensive all the way to the Euphrates River, and then set up a defensive area that would deny the Iraqi forces passage out of the combat area.

Phase VI: Attack East to Basra; Objective Anvil. This would close the eastern back door to Kuwait, trapping the Iraqi army south of the Euphrates River. However, this phase of the assault was not in the Operations Order. It was performed on orders from the division commander. These orders did not even occur until after Objective Orange had been secured.

What actually happened after Phase V was different than what had been anticipated in the actual Operations Order. Once the Euphrates River Valley was secured, the command decided to exploit Iraq's inability to interdict any of the forces within the XVIIIth Corps. Not waiting, the Americans moved to quickly end the war by having the 24th Infantry Division reconfigured, and press an attack east into the heart of Iraq's Republican Guard Forces Command's strategic reserve location. In the final battle along Highway 8, the 24th Infantry Division would be reinforced with the 197th Infantry Brigade, the 3rd Armored Cavalry Regiment, the 18th Field Artillery Brigade, and the 212th Field Artillery Brigade.

There were discrepancies in the historical references and documents used to write this chapter. Some sources showed different outlines for the phases of the 24th Infantry Division's attack into Iraq. For this book, the phases are listed as found in the Operations Order that was passed out to the 3/27th FA soldiers. This operations order did not have a phase covering the move to Basra, yet I have heard of it referred to as Objective Anvil or Phase Line Anvil.

The other discrepancy is the identity of the units that the 24th Infantry Division actually encountered. The Iraqi units identified in Figure 16-a is based on conflicting sources of information and the editors best professional assessment as a military systems analyst. Furthermore, many of the Iraqi regular army units were operating at half strength with inadequate logistic support. It appears that only the Republican Guard units were adequately equip, aside from the pounding inflicted upon them by the coalition air forces. It is doubtful that anyone will ever know the exact identities of the opposition units that the 24th Infantry division faced.

Figure 16-a The XVIIIth Airborne Corps Sector of Activity

Delivering the Rockets:

The mission of the 3/27th FA was to accompany the 24th Infantry Division on its march north. Operationally, it was subordinate to the 212th FA Brigade. In terms of artillery fire power, the 24th Infantry Division now had two brigades of artillery. Organic to the 24th Infantry Division was its own 24th DIVARTY. It was a brigade with three battalions of 155mm self propelled cannon (155mm SP) and a battery of MLRS. The 212th FA Brigade also included the 3/27th FA (MLRS), 2/17th FA (155mm SP), and the 2/18th FA (155mm SP).

The role of the 3/27th FA was to perform General Support Reinforcing (GSR) artillery missions. This is when an artillery battalion takes its fire missions from operational level command, and only supports maneuver units as a second priority. Here, the battalion had to be ready to provide both deliberate attacks and impromptu artillery support. The 3/27th FA had three ways of receiving requests for rocket artillery support. First, if friendly maneuver units encountered a threat that the forward observers or artillery liaison decides is best engaged by rockets, they would call the 3/27th FA. Next, artillery tracking radar could pick up incoming Iraqi artillery, and call the 3/27th FA to fire against the Iraqi artillery in what is called a "counter battery" mission. Lastly, for each of the objectives, a plan of attack had been drawn up that began with an artillery bombardment. For each of these methods for requesting fire missions, the 212th FA Brigade either called for the rockets, or we had to obtain their approval to engage the fire mission's target.

During the advance into Iraq, the main body 3/27th FA had instructions to follow the 2nd Brigade along the east flank of the division's corridor. Alpha Battery was sent to support the 197th Infantry Brigade. The main body of the 3/27th was to stay with the 2nd Brigade until the seizures of the objectives in Phase IV were completed. For Phase V, Alpha Battery would fire upon Tallil Air Base while Bravo and Charlie Batteries would fire upon Jalibah Air Base. Once the air bases were destroyed, the battalion was to reunite and move toward Basra. During this last phase, the 3/27th FA maneuvered with the 1st Brigade, down Highway 8.

The 3/27th FA's support elements; the mechanics, the administrators, the cooks, and other non-combat essential personnel traveled with their own battery's "combat trains." All the different battery combat trains (except Alpha Battery, 3/27th FA's) moved together, consolidated under the control of the three First Sergeants.

The 24th Infantry Division was bordered on the east by Phase Line Creek, with the 3rd Armored Cavalry Regiment (3rd ACR) on the other side. To the west was Combat Trail Whiskey, which separated the 101st Air Assault Infantry from the 24th Infantry Division. To the west of the 101st Air Assault Infantry, were the 6th French Light Armored Division and a brigade from the 82nd Airborne Infantry. These were all the major operational commands under the XVIIIth Corps. Farther to the east, the VIIth Corps would make its initial lunge into Kuwait.

The original Line of Departure was three kilometers south of the boarder, called Phase Line Razor. The boarder itself was designated Phase Line Blade. The area between these two phase lines was a buffer zone that was patrolled by the 3rd Armored Cavalry Regiment and the 24th Infantry Division's cavalry scouts. The 24th Infantry Division was covering a twenty kilometer front while it was waiting to cross Phase Line Razor. After passing Phase Line Blade the division front widened to as much as thirty kilometers.

With the lack of Iraqi presence in the division sector, the Line of Departure was changed to the Iraqi side of Phase Line Blade. This would simplify the problem of getting past the earthen berm Iraq had built along the border. The organizing into its march formation on the Iraqi side of the boarder was scheduled for G-Day. The division's cavalry and scout units had been doing reconnaissance in the area just ahead of the division's assembly area, during most of the air campaign. For forty-five

kilometers in front of the division, there was no sign of enemy activity. This lack of activity gave the division confidence to breach a berm built by Iraq. Once on the north side of the berm, it would be easier to arrange the units for the march across Iraq.

The Mechanics of War:

Let us take a look at some of the more abstract concepts which underpinned the American war making activities. The strategic doctrine used for the Persian Gulf War was a major departure from any earlier doctrine used by the Army. It was possibly one of the greatest departures in strategic thinking since the Indian wars of national expansion, a century earlier. The adoption of this new thinking had begun almost twenty-five years before. It evolved into Air Land Battle. Let's examine this in more detail:

War is a destructive activity, but wars are not fought solely for the sake of being destructive. Wars are fought to defend national resources or to gain resources. In this context, military activity is an economic activity in which every citizen shares a vested interest.

Military activity exists at three levels; strategic, operational, and tactical. Military activity is driven by the national will, which is expressed as strategic doctrine, or strategy. **Strategy** is the way a government equips and structures the military to address national needs, and the concepts underlying the military's behavior. Within a healthy nation, the military is an institution that facilitates the security and growth of the nation. A nation defines what resources are vital to its existence, and tasks the military with keeping these resources secure. The economic environment dictates what resources a nation needs for its continued existence. In the case of the Persian Gulf War, the United States government felt that its commercial access to vital natural resources was threatened. In this context, governments develop their strategic doctrine. This doctrine defines the military's priorities and methodologies connected with protecting or obtaining needed resources. The nation's strategic doctrine is statement by the military about how it plans to go about securing the nation's vital interests. What exigency a nation has, determines when it fights; what resources a nation has, determines how it fights. Effective strategic activity will prevent war, or decrease an enemy's ability to wage war.

In western military thought, there are two basic strategic philosophies of warfare; the more classical attrition based doctrine, and the relatively uncommon maneuver based doctrine. (Do not confuse maneuver as strategic doctrine here, with the more common tactical maneuver. That will be explained latter.) The concept of projecting destructive power has undergone a sort of renaissance during this century. At the beginning of this century, traditional thinking was based on big guns and line of sight engagement of the enemy. However, the advent of aircraft did not fit into the conventional thinking of generals and admirals who were raised up under attrition tenets. These dogmatists viewed such innovations as deviations from the norm which were best suited for support roles. Innovative military men such as General Billy Mitchell of the US Army Air Corps demonstrated the vulnerability of battleships to aircraft, and hypothesized the use of massed air assaults for strategic warfare. In the mid 1920s, he said, the Japanese would use a massed air assault, launched from ships to attack Hawaii. He was court marshaled for publicly criticizing the military. On the 7 December 1941, Grand Admiral Isoruko Yamamoto proved that General Mitchell's theories were feasible. At Pearl Harbor, a small number of pilots carried the fight well beyond the actual location of the main body of this operation, the Japanese aircraft carriers. In this event, only a fraction (less than three percent) of the Japanese naval task force's manpower was used to project its destructive power.

In attrition warfare, a nation would attempt to meet the enemy's main force head on and overwhelm him. In maneuver warfare, a nation seeks his enemy's weakest points in his chain of command, or logistics systems, isolating the elements of the enemy forces, to defeat them in detail. These two stratagems are not isolated from each other, but exist together with the emphasis leaning toward one side or the other. There is nothing new about these opposing approaches to waging war. These two stratagems date back to about 1900 BC when the Hyksos (or Hittites) used chariots to defeat the Egyptians.

During World War II, the Germans used to say that their panzer tanks could defeat the American tanks at a ten to one ratio. The problem was the Americans always had an eleventh tank. This aphorism illustrates the difference between the two philosophies. In World War II, the Germans used a maneuver based stratagem, that they called, "Blitzkrieg." Up through the Vietnam War, the American war doctrine was dominated by attrition based stratagem. Technological advances such as combat helicopters, satellite communications, computers, and transistorized electronics made it possible for the Americans to field a more powerful military force. The application of leading edge technologies caused a radical increase in the unit cost military hardware (such as, tanks, cannons, helicopters, trucks, etc.). By the end of the Vietnam War, maneuver based stratagem began to find favor with our national planners. During the between wars period after Vietnam, strategists became concerned about the high cost of transporting equipment to protect the far flung reaches of our national interests. Therefore, they reshaped the Army. It was changed from a bulky quantity force to a lean quality force. By focusing on increasing the effectiveness of the hardware, less equipment was needed to accomplish the same task. Such investing in high cost per unit equipment is characteristic of military forces whose strategy favors maneuver style doctrine. Though, the hardware was initially expensive to build, the forces became smaller, more agile, and therefore cheaper to man and deploy around the world.

During the late 1980s the American Army's doctrine for confronting threat from a conventional armored military force was called Air-Land Battle; a maneuver based strategy. More emphasis was being placed on engaging the enemy behind the front lines, called, interdiction. With interdiction, outright killing the enemy wasn't necessarily of prime importance. Cut off his supplies, cut him off from his chain of command, and he was out of business, anyway. This was different from for example, forces-in-echelon; an attrition based strategy, where divisions attack in successive waves.

From the above examples, do not conclude that one stratagem is better than the other. During the battle for Moscow, the German master of blitzkrieg, General Heinz Guderian was repulsed by the Russian leader, Marshal Zhukov. The Soviets used an attrition based stratagem.

The Germans had demonstrated that maneuver based strategy was workable fifty years earlier, and the Americans were about to do it again. The similarities between how German Field Marshal Gerd von Rumstedt defeated the French Maginot Line in May 1940, has a striking resemblance to General Norman Schwarzkopf's Desert Storm battle plan.

An **operation** is a self sustaining military activity, which focuses or masses violent force against a threat. Maneuver based operations will focus on the enemy's weakest points. Attrition based operations will act against the enemy's main force. Generally, operational units or elements are structured and equipped to perform a particular strategic task. However, operational units have certain tasks in common. The operational element must be able to:

1. Discern the objectives and the intended methodology of the enemy.
2. Identify the enemy's main forces, and their tactical weaknesses.
3. Transport tactical elements within the combat zone, to eradicate the threat.

4. Exploit areas of weakness (maneuver operations).
5. Overwhelm and crush the main forces (attrition operations).
6. Inflict chaos on the enemy's command structure.
7. Inflict sufficient damage to curtail further threat.
8. Resupply and reconstitute the consumption and damage done to tactical elements, at least long enough to complete its task. (Hence, the term, "Task Force.") This self recovery, self sustaining capability does not have to be indefinite. It only needs to last as long as it takes to redress the opponent.)

In the U.S. Army, corpses and divisions are tasked and structured to conduct activity at the operational level. These organizations provide the infrastructure that directly supports tactical units, and orchestrates the interdiction of enemy reserve or second echelon forces. Any smaller unit would have to be restructured into a "Task Force" to conduct an independent operation. (Battalions who were part of the division had the denominate Task Force added to their unit designations. Nonetheless, as long as they operated under the support of the division, they were not truly a standalone task force.)

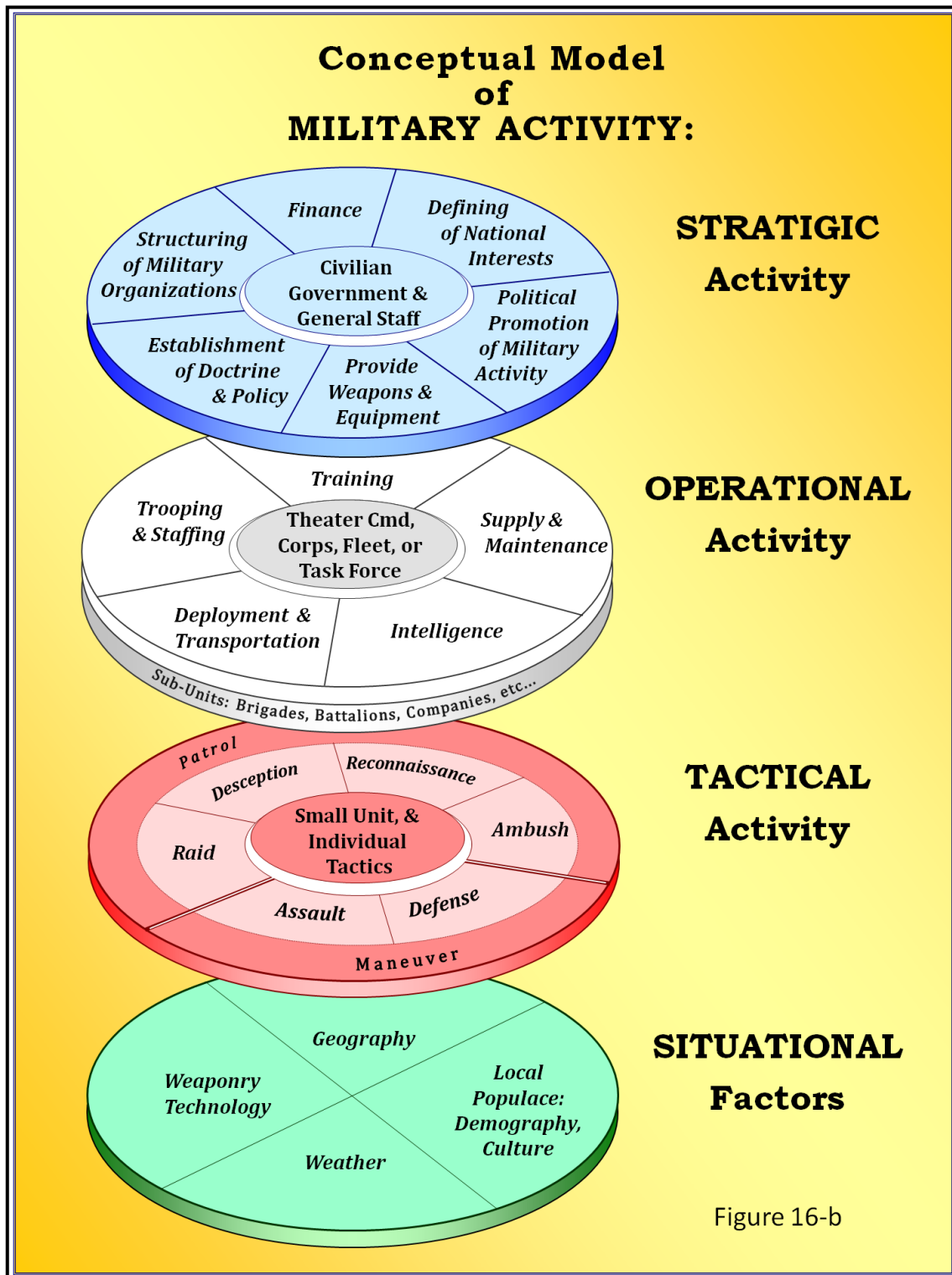
The basic level of military activity is the **tactical** element (or unit). The focus of a tactical element is the outcome of a specific battle or encounter against the enemy. A tactical element is a unit or combination of units, as they are organized to address a specific engagement against an enemy force. It can be as small as an individual soldier, to as large as a division's combat brigades. Tactical activity is where elements are tasked to directly engage the enemy or threat. There are two types of tactical activity subsets: Patrol, and Maneuver. Not all tactical encounters against an enemy involve the use of destructive force. For example, intelligence gathering can cost an enemy the element of surprise; degrading his fighting ability without doing material damage.

A **tactic**, is an individual action that is taken to overcome a threat; or individual acts (by an individual or by a group of soldiers) performed in battle that will have an effect on the outcome of specific battle. Notice that the word response is not used. This is because, sometimes in the face of a threat (or potential opportunity to obtain better advantage) a tactic can be initiated. Responsiveness versus initiative behavior accordingly becomes the distinguishing characteristic of defense as opposed to offense. These terms apply not only to soldiering, but even to police work, and many forms of competitive business activity. This is an understanding so basic to those in the profession-of-arms (military, police, fire-fighters, rescue, and private security) that most of them can't articulate it. To people who deal with violence management, it's just common sense.

Patrol: This is the utilization of an armed force (or in the modern sense, an organization possessing weaponry with destructive firepower) to degrade an opposition's ability to threaten. Defeating or ejecting an opponent is not the immediate objective of patrolling. There are four ways to degrade the enemy's fighting ability:

1. Reconnoiter or Scout For Information.
2. Fabricate False or Deceptive Information.
3. Raid a Defender.
4. Ambush an Attacker.

Figure 16-b The Conceptual Model of Military Activity: It must be pointed out that this model reflects how units were defined back in the 1980s – 1990s time period. By 2010, all brigades were configured as modular task forces, and became the center of operational activity. Divisions lost their status as independent commands, and became regional extensions of the theater command.



Maneuver: This is the movement of an armed force to a position of advantage over the opposition. There are three factors to effective tactical maneuvering:

1. Movement.
2. Weaponry.
3. Position of advantage.

Movement: People (even military people) often confuse the relocating or moving of troops from place to place with maneuver, but that is a misconception. It has to do with the ability to change the location of where assaulting power (or in terms of twentieth century warfare, destructive firepower) can be focused. Movement involves getting the enemy within reach of your own destructive firepower, and keeping him there. (At the beginning of this century, movement was not thought of as reaching out with destructive power, indifferent to the location of an armed forces' main body. By the end of the twentieth century, soldiers routinely employed this concept.) Offensively, it involves bringing firepower to exploit the enemy's weak points, or to use firepower to weaken the enemy. Defensively, it also includes the ability to use firepower (including mine fields) to protect your own weaknesses from being exploited by the enemy. Often during the course of battle, repositioning troops is used to bring force of arms, or firepower to bear against to enemy. Movement within the maneuver context can involve repositioning troops, but it is also relevant to troops defending a fixed position.

Weaponry: Over the centuries of human warfare, weapons have undergone many technological developments. However, in a tactical maneuver, if a soldier cannot bring a weapon's assaulting power within reach of his enemy, it becomes just some extra junk he is carrying. A weapon is something a person uses to increase his raw human force to ensnare, disable, or destroy his opposition. The value of an item as a weapon can likewise be negated by evasion, concealment, or cover (including armor, or fortification). Therefore, what tactically qualifies an item as a weapon is not as straight forward as it might seem. Soldiers are constantly challenged, balancing the factors that make their tools effective weapons, against their opponents' efforts to negate the weapon's usefulness.

Positional Advantage: Maneuver a comparative relationship between two opposing forces in a fluid activity. Soldiers conceive of this as a comparison between how easy it is for you to employ force against the enemy, verses how hard it is for him to engage and defeat you. Topography is often used to enhance the effectiveness of a weapon, or to negate the opposition's weapons. What makes it so fluid is that a position that offers advantage at one moment, can turn into a liability with the slightest change in circumstances. Topography can be a tool against the opposition. In the case of the Russian winter, topography became the weapon that defeated Napoleon, and Hitler. To the untrained it looks like chaos, but its understanding is the heart of crisis management. The tacticians' objective is find an advantage, and then to stay with it.

To summarize tactical maneuver; as long as a tactical element has freedom of discretion in the above three factors of maneuver over the opposition, it has maneuver advantage. Notice that by the above definition of maneuver, there is no requirement to actually do any real damage to the opposition. If a maneuver is unquestionably successful, the opposition will have no choice but to yield to the champion. If one or two of the factors are lost, the element is maneuver limited. If a unit loses control over all three factors of maneuver, it is non-maneuverable; and time to consider surrendering.

For a soldier to be victorious, he must be well trained in the tactics that allow him to attain and maintain maneuver advantage over his opponent. A seasoned soldier is not only a soldier who has survived through prior combat, but more importantly has developed a large repertoire of tactics that

can be correctly mix together to give his unit maneuver advantage. By the time of the Persian Gulf War, there were very few seasoned veterans with prior combat experience. This problem had been anticipated well before the war, and the Army's leadership had taken steps to compensate for this deficiency. **Training** methods had been developed that had almost all the realism of combat (at almost the same financial expense). This training had one major advantage; soldiers lived to learn from their mistakes. However, the question still lingered in the minds of many people; would this training compensate for the lack of seasoned veterans? Did the soldiers of this modern army have the repertoire of tactics, and judgment to be victorious in real combat? Would the extra expense of this training realism be justified?

The Mechanics of an Order:

The main vehicle by which operational commanders give formal information to their soldiers is the "operations order." The operations order for the 3/27th FA can be found in the appendix of this book. Operations orders such as these were key tools of the American Army in the 1990s. The use of an operations order is not a new invention. It dates back as far as the oldest standing national armies. In its original form, the operations orders (or orders of battle) were issued by the sovereign or the commander in chief of a military force. It was a set of instructions that defined the organization of a military force on the battle field, and how it would engage the enemy or threat. It has become a tool that has evolved over time to help cultures manage their military forces while on the field of battle.

Operationally, effective military action is the product of intensive training, quality materials, and getting decisive information to the right places in a timely fashion. For the American Army during the twentieth century, an operations order was a part of the soldier's information flow. It could be drafted as a standalone document, or be organized as a chain document. As a chain document, each operations order became a subsection of the operations order from the next higher level. By doing this, a connection could then be drawn from the nation's strategic activity to the individual soldier's tactical activity. The operations order as received by the tactical unit would then prioritize the tactical methods to be used. In this way the patrolling and maneuvering of soldiers would be caused to harmonize with the activities of other soldiers, sailors, and airmen. At the same time, these soldiers could rest assured that their activities were serving the strategic objectives of the nation, and facilitating their country's continued existence.

For the common American soldier in the field, operations orders are his connection to the national will. These documents are the embodiment of the strategy, operations, and maneuver tactics to be employed by the soldier. A soldier's performance on the battlefield is directly related to his understanding of warfare terminology and the related concepts as used in operations orders. Often this understanding is not a conscious formal understanding, but there is an awareness that does grow with experience.

An American operations order is divided in to five sections, called main paragraphs: The "Situation" will describe the operational environment as it exists, the disposition of the enemy and of the friendly forces. The "Mission" will tell what is to be accomplished. The "Execution" will explain the principles and techniques to be used. The "Service Support" will let the soldier know what resources are available. "Command and Control" will let the soldier know the best way to communicate with his command, during the operation.

In the American military of the late 1980s, an operations order did not command an operation. This differs from some other countries where the operations orders give explicit instructions for every element within the command. American officers try to avoid writing operations orders that stifle creative initiative. The operational commanders write what is called "the commander's intent." This

allows a junior tactical commander the latitude to exercise his own expertise and react flexibly to the situation he finds at the time of battle. This is not to say, that an American operations order was not explicit in the information it provided. They were loaded with controlling factors and technical minutiae that would sway the execution of the mission.

The operations order for the 3/27th FA was given to them by the 212th FA Brigade, just before the beginning of the air campaign in January 1991. It provided the battalion with its vision of how the war was to be conducted. This document was a subsection of the larger operations order for the 24th Infantry Division.

Tactical Management:

An operations order has a limitation; it is a static document. Actual combat is a dynamic event; a fluid, constantly changing activity. Operations orders are underpinned by the intelligence that is available at the time the orders are drafted. It is the task of the operational commander to then anticipate what the opposition will be doing at the time the orders are executed by the tactical commanders. Rarely does the envisioned operation turn out to happen like the actual operation. In the case of Desert Storm, there was no formal contingency plan for the sudden collapse of resistance along the VIIth Corps sector.

Up until and after the First World War, the tactics used by most European armies were dictated by the operations orders. If during combat, the actual situation a tactical commander found was different than what the operations order projected, the tactical commander had no latitude to change his tactics. Without such latitude, there was always the risk that the enemy could get within the decision making cycle, and foil the higher commander's operations.

At the onset of the Second World War, the Germans changed this practice of issuing inflexible orders. During the Blitzkrieg, Panzer commanders were given "*Auftragstaktik*," operations orders that did not specify the tactics they were to use. They were given "mission objectives" and the authority to determine the tactics that were most effective for the troops who had to take those objectives. This flexibility allowed the German soldiers to overcome opposition that was many times their own size.

There was one notable exception. A French general set aside his operations orders from his chief, and took the offensive against the German Blitzkrieg. He changed his operational stratagem from the attrition based principles favored by the French high command, to maneuver based principles. For disobeying orders, the French general staff wanted to court marshal him. However, since Charles DeGaul was the only French general to inflict victories against the German invasion, they couldn't punish one of their few real heroes.

This style of flexible initiative worked very well for the Americans during the Second World War. It fit very well into the American cultural tradition of rugged individualism and personal responsibility. It had never been a strong part of Americans' culture for them to defer to authority for solutions to problems that they could take care of for themselves. Therefore, it was common during World War II to find that most awards went to platoon and squad leaders for using creative initiative to take an objective.

Today, the evidence of this latitude for creative initiative can be seen in the language used to write operations orders. The Execution paragraph has three sub-paragraphs that are labeled; Commander's Intent, Concept of Operations, and Organization for Combat. By the words, "intent" and "concept" the operational commander communicates the principles he wants his tactical

commanders to use. The tactical commander then has a clear idea of the end product of his mission, without being restricted to the use of specific methods.

Commanding Through the Chaos:

Actual combat is a dynamic event; a fluid, constantly changing activity. The “Command and Signal” paragraph is used to coordinate how the operational and tactical elements will communicate with each other during a mission. During the 1980s, the Army had an aphorism that prioritized what a soldier had to do for battlefield success: Move, Shoot, and Communicate. This was the foundation of the tactical arts. The ability to communicate was considered a critical skill because it was through this ability that commanders could control their subordinate units. For the soldiers, this ability to communicate has the power to provide them with life saving information.

The onset of the information age afforded the military a host of new communications tools. It revolutionized the way commanders controlled their troops. Soldiers found voice communications to have limitations when compared to new systems that used automated data bases, digital telemetry, and pin-point continuous navigation. This new technology was given a special catch name, “C³-I.” This stood for Command, Control, Communication, and Intelligence (pronounced, “Cie-Three-Iy”).

To us common soldiers, this new C³-I technology was all crystal ball, magic stuff. We never really understood how it worked. We just kept it clean, did the right invocations, and it gave us the right answers. It provided the commanders with an unprecedented view of the battlefield. However, the technology was new and untested in combat. It required constant maintenance, and was unforgiving if the operators didn’t keep to a regular up-keep schedule. If a breakdown occurred in combat, often the equipment was too complicated to be fixed by some field expedient method. The line troops could only hope that the repair troops in the combat trains had enough spare parts.

Don’t misunderstand; we appreciated these new gadgets, in spite of all our apprehensions. In the end, the extra effort to drag around this equipment repaid for itself in bigger victory dividends than anyone had expected. It made believers of us all. Yet, at the start of the war, we couldn’t be sure of this. You couldn’t point a radio at someone, and zap them, dead. Communications issues had such an abstract intangible affect, it was really hard to perceive its value. Especially for common troops who had an objective, hands-on approach towards their work.

One of the lessons we learned was that the troops need for information. After months of being hidden in desert, troops who were kept in the dark about what was going on, became so erratic that they became a danger to themselves and to their buddies. In one incident, a soldier had been assigned to an isolated mountain look-out post for over two months. He became so anxious and distressed from the lack of information, he shot himself in the foot. Lack of information could create a feeling in a person that he had lost control of his own life, and intensify all his fears. This, was not so much a direct act of moral cowardice, as that this soldier had simply reached the limits of his psychological ability. Though his act was punishable under the Uniform Code of Military Justice, his higher commanders had mercy on him.

This new technology took the hard edge off the terror of the unknown. This was not only true before battle, it was even truer during the chaos of battle. Despite the inconveniences, this new C³-I technology made it easier for us to focus on our jobs. This did not mean that we had a complete tactical picture, but we did have a continuous connection with our commanders. Further, our lieutenant made it a point to tell us anything he was allowed to talk about. He understood our need to be kept informed and feel included in what was happening to us. In that respect, this technology couldn’t stand alone. We needed good junior leadership, too.

The advantages of C³-I were not limited to attending the emotional needs of the soldiers. In terms of operations orders and tactical execution, this new technology had concrete advantages. As mentioned earlier, American operations orders were written with a built in flexibility. However, even if an operational commander were to delegate tactical authority to his junior commanders, he was still responsible for what ever happened.

Historically, good operational commanders moved to the location of fighting to support the tactical commanders. Even throughout the Second World War, this was a common practice. However, by the time of the southeast Asian wars, the long ranges of weaponry and rapid movement of mobile forces made it impossible for operational commanders to chase down every flash conflict as it was happening. To a large extent, the advent of the radio was a great help in dealing with this problem. This is why Command and Signal instructions warranted its own paragraph.

By the end of the Vietnam war, the radio was no longer enough of a solution. In many respects, it actually created a new problem. Considering the weal information generated during the course of a crisis, voice communication proved too slow, and became too easily congested. It was not unusual for a radio operator to be overwhelmed from information overload during a training exercise. The military needed a faster way to communicate what was happening, as it was happening. The commander needed as close to real time information as he could find. Next, the commander needed a way to discriminate the most significant information from the incidental; quickly routing the routine information to the appropriate staff element.

C³-I did more than just collect information for the commanders, it synthesized information into intelligence, too. In the Army, a good example of a C³-I system was TACFIRE. This was an automated artillery TACTical FIRE control system. Initially developed by Litton Industries during the late 1960s, it looked like a few truck-vans filled with computers, with very specialized custom software. However, it was more than that. It was an entire methodology for managing artillery activity within a division.

Here is a simple example of how TACFIRE worked: Special artillery radar detects a cannon shell cresting the horizon, headed for friendly troops. In fractions of a second, built-in computers plot the trajectory and calculate the location where the artillery shell was fired from. At better than twice the speed of sound, it usually took artillery twenty seconds to make impact at the target. An alarm tells the radar operator that it has detected artillery rounds; the source location, and the impact location. At the same time, the radar's computer will transmit its information by encrypted digital burst to the TACFIRE at the DIVARTY (or to the controlling artillery brigade).

The TACFIRE computers would then ascertain the probable size of the threat, determine which artillery or aviation units are in the best position to counter attack, and alert friendly command centers of a possible mission. At the same time, the TACFIRE computers would present the operators with a prioritized list of units to employ and methods of fire for a counter attack.

Once the artillery commander selected a unit and method of response, local fire control computers would make all the calculations needed to put return artillery fire on the enemy weapons. How this plays out for the MLRS operators can be read in Chapter 19, "The Men, the Machine." During the Persian Gulf War the turnaround time for a counter battery mission was under three minutes. This was from the time the Iraqi gunner pulled the lanyard, until American artillery rounds landed on the Iraqi battery. As the Iraqis said, "Pull the lanyard, and die."

This entire process is referred to by commanders as the, "decision cycle." It begins from when a threat is first encountered. Information on the threat then has to be collected by either the front line tactical soldiers, or operational surveillance and intelligence personnel. This information then has to be sent to both the tactical commander, and the operational commander. The tactical commander has

to make plans to protect his troops from the threat while at the same time continuing the mission. The operational commander has to plan how to reinforce his tactical elements and/or how to neutralize the threat. The operational staff provides an assessment to the commander. From the assessment the commander plans a response. He will next issue orders to selected tactical commanders. The last phase, is the tactical execution of those orders.

The weakness in the decision cycle is the amount of time it takes to process through this cycle. If a major change in the situation has occurred by the time the tactical commander goes to act, his actions will not have the desired effect. For example during the War of 1812, the Battle of New Orleans was fought after a peace treaty had been negotiated in London. How many lives would have been saved if the British commanders could have had even a near real time knowledge of the events in England?

During the Persian Gulf War era, there had been a lot of rapid changes in military technology and equipment. Yet, many of the generals and colonels had their practical experience with weapons systems during the Vietnam War. After many years of working in higher headquarters, they were often not current in the field dynamics of the new weapons systems they oversaw. (This was brought up earlier in Chapter 9, and will be seen again in Chapter 21.) This was a problem that they tried to avoid, and hated to admit. The troops were able to understand this limitation of their operational commanders. It didn't diminish their respect for their officers, as long as they didn't ignore it and overstep on themselves.

Part of the solution was for operational commanders to minimize their presence in the decision cycle and trust their tactical commanders as much as possible. Tactical commanders usually had the best understanding of a particular weapon system's true potential and foremost application. Command autonomy allowed the tactical commanders to focus their attentions and resources on the actual situation at hand (as seen in Chapter 31). Yet, through the C³-I systems, the operational commander could easily be called upon to support the efforts of his tactical elements. In this responsiveness to the fluid challenges of battle, the best welfare of the troops and the greatest chance of mission success were achieved.

The future was already on the drawing boards before the end of the Persian Gulf War. The next step in battlefield management was to be C⁴-AI. It stands for: Command, Control, Communications, Computers, and Artificial Intelligence. This would likewise enhance the role of the brigade and division commanders as tactical commanders. The practical range of artillery during the Second World War was about eight miles. During Vietnam, artillery's general effectiveness was about fifteen miles in fair weather. The sophistication for weaponry during the Persian Gulf War allowed us to shoot and destroy anything that could be seen, at any range out to the horizon. Moreover, our artillery could reach about twenty miles in any weather. In the future, commanders will have a real time picture of the battlefield with C⁴-AI, using over the horizon look down radar, and satellite surveillance. They will be able to see an icon of every vehicle on the battlefield, and its tactical status. They will be able to use artillery like ATACMS to engage and destroy targets at well over seventy-five miles. Using C⁴-AI, operational commanders will be able to directly follow events on the battlefield, even if the battlefield extends over several horizons.

[Editor's Note: That future had occurred by 2010. The U.S. Army shifted from division centric fixed formations to brigade centric modular organizations. For example; logistics operations shifted from reactive "baggage trains with large stocks of parts being dragged along" system to automated statistical "lifecycle forecasting." and a "just in time" supply chain.]

The Soldier's View:

To understand the behavior of soldiers during a military engagement, it is important to have an idea of what the individual soldiers' perception of the operation was before making contact with the enemy. The soldiers' perception is a wide ranging concept involving his personal experiences (maturity), and the formal information he has been given.

When talking about the soldiers' personal experiences, it isn't meant in terms of any one soldier. Look at this in terms of the greater bulk of soldiers that make up the force. Here, the focus is on three factors of soldiers' experiences; training, unit continuity and personal ethical values.

The American force that mobilized to confront Iraq had to be the largest volunteer military force ever mobilized. There were no conscripts in the United States military. Some might contend that the call-up of reserve units was a form of conscription. Although these people are not full time soldiers, the contract of obligation signed by the reservists, was in principle, the same as the one signed by their regular military counterparts. They had the same training as their regular military counterparts. This was a volunteer force, even if some were for this instance, reluctant.

The voluntary nature of this force gives an idea of the level of training these soldiers had compared to other types of military forces. The longevity or time in service of American soldiers at each rank level substantially exceeded their counterparts in most other armies of the world. It was not uncommon for conscript armies to confer noncommissioned officer rank upon a young person fresh into the army, based only on entrance test scores and a two month "shake-and-bake" leadership school. During the Vietnam War, such shake-and-bake NCOs proved to be intelligent, but were incompetent in a combat environment. Inexperienced leadership is characteristic of attrition based armies, who's focus is to quickly and cheaply fill its ranks with the right quantity of people. Intensive training, and proven ability was not a priority for soldiers who were otherwise expendable. However, quantity before quality does not work for military forces who's doctrinal stratagem is maneuver based. A maneuver based armies must scrupulously adhere to minimum competency standards for all of its leaders; officers or noncommissioned officers.

During the Persian Gulf War, virtually every soldier had a high school education. The average noncommissioned officers had about three to four years of experience before making sergeant, plus some college education. The officers had college degrees, and field grade officers usually had post-graduate degrees. The average general officer had an intelligence quotient (IQ) that ranked him as mentally gifted, if not a certified genius. This was combined with an active willingness to serve in the military. It wasn't just education and intelligence, there was also a lot of commitment, experience, and training.

The United States Army had been undergoing a period of modernization during the 1980s. As a result of these changes, the military was referring to itself as a high technology military during the Persian Gulf War. This was done in conjunction with a change in the military's strategic doctrine. The Army had completed the move from attrition warfare to maneuver warfare. When it came to having military operators with fluid skill not only in the military arts, but with the more sophisticated equipment, then intelligence, training and longevity were indispensable.

For example, the conscripts who crewed Iraq's tanks had main guns that could engage targets at 1500 meters. Yet, they would wait for targets to get within 500 meters before making the shot. Such behavior only demonstrated a lack of faith in themselves, their equipment, or poor training. Good training and longevity could have corrected any of these deficiencies.

The relationship of the soldiers to their units and their command was the next issue that affected their behavior in combat. In general, it would take almost a year for a battalion to train up into an integrated team. Such training occurred at different levels; individual, small unit, company, and then

battalion at large. For an army like what the Americans had fielded, one year was hardly enough time to get a common soldier familiarized with his job. It was really not until a soldier's second year in the service that he could begin to demonstrate some independent proficiency as a military professional. It should be noted that during the Cold War period, the average Army unit spent four to seven months out of the year conducting training maneuvers in a field environment.

Once soldiers have been through each level of training with his or her unit, they get a firm idea of what to expect from the people around them. The most terrifying thing for any soldier going into combat is the unknown. If a soldier does not know what is expected of him, does not know his equipment, does not know his peers, does not know his leaders, he can be expected to fail. A soldier that has trained with a unit before being committed to combat has a rapport with his unit. He knows the strengths and weaknesses of the people around him. Most important of all, he knows himself. This rapport allows two people working together to accomplish more than three people working alone. In science it is called "synergy," in the military a "force multiplier."

Ethics and Trust:

The next factor is "leadership." Here, the emphasis is on how it reflects personal ethical values. A lot has been said about leadership and its influence on the performance of military units. Most often this is in reference to a commander's ability to motivate others. However, for this army, the Americans had gone to great lengths to develop it in individuals at every level. Individual initiative and responsible creativity were encouraged by command and the military at large. To blindly follow orders in a "lock step" march was no longer encouraged. Though much has been said and written about leadership, this is an area that I would like readers to pay attention to during the following stories. Notice the soldier's creative commitment, integrity and ethical values.

If for example, a commander allows or encourages his soldiers to commit atrocities that degrade the value of human life, what does this say about the commander's regard for his own soldier's human life? It is not a problem if the war goes well, but if the war should turn against the commander, what will he do to his soldiers? Can the soldier trust the commander to not recklessly squander the lives of his own people? By the time the ground war was ready to begin, we could see that these very questions were undermining the resolve of Iraq's army. The Iraqi soldiers no longer trusted Saddam Hussein. He threatened to use his own people as cannon fodder in a war of attrition. Fear was the only tool holding their army together, and that was a weak unity. When an opportunity to escape the fear availed itself, or when the fear of the enemy became greater, the Iraqi soldiers deserted.

In war, the value of a human being is not so much the quantity of life as it is the quality of life. Though people die, the issue is whether the death occurs in a way that degrades the value of a person's humanity? Furthermore, if a soldier is encouraged to commit atrocities in battle, it will eventually disorient the soldier psychologically. A person cannot be asked to use evil means to accomplish a good result or it will damage that person's moral fabric for the remainder of his life. How a commander conducts a war has a lot of influence on how dependably his soldiers will serve him.

We common soldiers had a related question: Would we be allowed to do our jobs as the situation on the battle field demanded? Would we be allowed to win this war? Every soldier was concerned that because of political reasons, he would be constrained from using effective tactics in combat. We worried that such political constraints could cost us our lives or the lives of our buddies.

During the Vietnam War, the United States employed a policy of, "Measured Response." The use of excessive force was viewed as inhumane, and politically incorrect. Instead, the nation's political authorities decided that our response to opposing force in Vietnam was to be limited to just

above the level of the threat to which we confronted. The war built up over years, with little to show for it all. The American soldiers weren't bad. They had excellent training, and state of the art equipment. Yet, they were never able to effectively secure the country. During the beginning of the Vietnam War, the Americans were reluctant to make the commitment and confront the Communists in serious conclusive battles. This was especially true when it involved crossing borders during the early years of the war.

This policy of Measured Response was only a defensive form of attrition warfare. It assumed that the enemy would attack in force, resulting in conclusive battles. However, the Communist Vietnamese avoided our assumptions, and fought a different war. Conclusive battles are usually intense and bloody, but not as bloody as the drawn out wars that seem to have no end. Though on any given day the casualties might not number many, over the long run the continuous casualties week after week became appallingly fruitless. Wars of attrition are often times referred to as an immoral way to fight a war, because often there is often an absence of a conclusive victory. The killing goes on for a protracted period of time, costing lives that would not have been lost if a conclusive battle had occurred initially. Conclusive battles usually involve one military force against another, with only limited collateral damage. Whereas, with protracted wars it is usually defenseless civilians that suffer the most.

True, well-trained military commanders usually don't like limiting their response to a threat. It allows the opposition to stage the setting of the combat, and deprives the commander of claiming the initiative. Therefore, to enforce the Measured Response policy, political authorities centralized the command and control decision process. Commanders in the field could not exercise independent action. They had to consult with operational and theater command before making any deviations from their operations orders. This cost lives in an unexpected battle, or ambush.

Furthermore, the Communist victory in the Vietnam War cost the Army a good deal of its self confidence.

After the legacy of the Vietnam War, the American public, and to a fair extent, the military was not sure how the Army would stand up in a real war. Although the military had been successful with the invasions of Grenada and Panama, those invasions were not on nearly the same scale as this war against Iraq was building up toward. The Vietnam legacy still haunted the minds of the soldiers. Could the American Army fight and win a conclusive victory?

In Washington, the politicians professed their support of the soldiers who had been sent off to the Persian Gulf. However, we who were in the desert had to ask ourselves, did our political leaders really trust us to accomplish this mission; or would they hobble the military leaders, just like what happened in Vietnam?

Just A Few Soldiers:

In the plains along Saudi Arabia's northern border, the day before the ground campaign a young lieutenant and his platoon stood with their heads bowed. In that moment of silence, there was much upon which they had to reflect. There were many questions; there were many factors, there would be some hard choices they might have to make. Who could foresee how this would all turn out?

The stories that follow show how, within the 3/27th FA, the factors of good planning, training, experience, unit continuity, and ethical integrity affected the behavior of the American soldiers. At the 3/27th FA, we had our mission, and we had our rockets.

"INTO THE DESERT STORM"

The First Two Days of the Ground War

Chapter 17

Briefing to the Secretary of Defense and the Chairman, Joint Chiefs of Staff

On February 9th, 1991, Major General McCaffrey was asked by Lieutenant General Gary Luck (Commanding General, XVIIIth Airborne Corps) to travel to U.S. Central Command Headquarters in Riyadh to brief Secretary of Defense Richard Cheney and Chairman of the Joint Chiefs of Staff General Colin Powell on the division plan of attack. At the conclusion of the briefing, Mr. Cheney asked Major General McCaffrey what problems he had. Major General McCaffrey replied, "Sir, I hesitate to say this, but we have none. The division has rehearsed its plan. The plan is logistically supportable. We are fully modernized. The requisite amounts of ammunition, fuel, and repair parts are on the ground. Our soldiers are the best in the world. We will destroy the Iraqi Army in ten days to four weeks."

*"The Victory Book:
A Desert Storm Chronicle"
24th Infantry Division, (1991)*

Setting the Stage:

The first day of the ground war began on Sunday, 24 February 1991, with the VIIth Corps assaulting along the eastern flank of the Iraqi defenses. Within the XVIIIth Corps' sector, only the 6th French Light Armored Division, and a few scout units were scheduled to move into Iraq. The 24th Infantry Division's only task that day was to rearrange itself into its departure formation for the assault, scheduled for the next morning.

Before sunrise, the 24th Infantry Division's scout battalion moved out on a mission to scout and screen the terrain ahead of the division's main body. Along with the scouts moved the division's own organic MLRS battery, as artillery support. The mission of scouts in a division was to sneak and peek around. If contact were made with the enemy, they would stay hidden if possible and avoid a fight. Information that they discovered could then be used by the division to prepare for whatever they had detected. If the scouts could stay hidden long enough, the enemy would not suspect what would be coming at them until the Americans could hit them hard, first.

The division had its own organic MLRS battery; Alpha Battery, 13th Field Artillery (MLRS) (called, Alpha-13). Sadly, this unit never fired a rocket during the assault into Iraq. They had been given fire missions, but after excessively long delays, the 212th FA Brigade reassigned the missions to the 3/27th FA. In talks with the soldiers of Alpha-13 after the war, they told me that some of the key leadership became so hesitant and indecisive that they obstructed the soldiers from aggressively doing their jobs. *(In a second irony, that leadership was promoted to field grade shortly after the war.)*

At first light, the 3/27th FA was fully packed up and moving into the division's departure formation for the advance into enemy country. It had been a restless night for everyone, with the anticipation of combat came a mixture of feelings. Of course there was the fear of facing death in combat. Many of the sergeants on guard that night had stayed up and shared with their young troops about the fear that even the older troops had in common with the young soldiers.

Within the Kuwait Theater of Operations the Allied Coalition Forces faced about 500,000 Iraqi soldiers. They were well dug in, with a well-developed defense network. Along the route that the 24th Infantry Division was scheduled to advance through, there were three Iraqi army divisions and four Republican Guard divisions. Together, the 24th Infantry Division was facing approximately 138,000 Iraqi soldiers; at least it looked like that on paper. Being out numbered at a one to five ratio, the American soldiers had a lot of cause to be apprehensive.

There was another very strong feeling, that day too. It was the relief of seeing the end in sight. Finally, after six months of waiting the soldiers were really going to do the job they had been sent to perform. The troops were anxious to do something to get back that feeling of control over their lives, again. In their minds they understood that it was important to stop atrocity, and were quite proud to be called on to right this wrong. Still, after over half a year of sitting in the sand, many of the soldiers felt in their hearts that their lives had been disrupted, and that they were at the mercy of others. Activity gave them, particularly the combat soldiers, the feeling that they were reclaiming control of their lives again. At last, they were going to do something that would bring them home.

However, the job before them was unlike any faced by any operational force in the U.S. Army's history. The division's mission was to strike swiftly deep into the enemy's rear; block the Euphrates River Valley; prevent the escape of the enemy soldiers from Kuwait; then attack east, destroying the Republican Guards Forces Command. This would mean that they would have to travel 300 kilometers (187 miles) to reach the Euphrates River, then travel over 100 kilometers (65 miles) more to reach Basra. This whole journey would have to be made through a hostile wilderness, while fighting a combat experienced enemy. By first light, the soldiers were moving ahead of schedule.

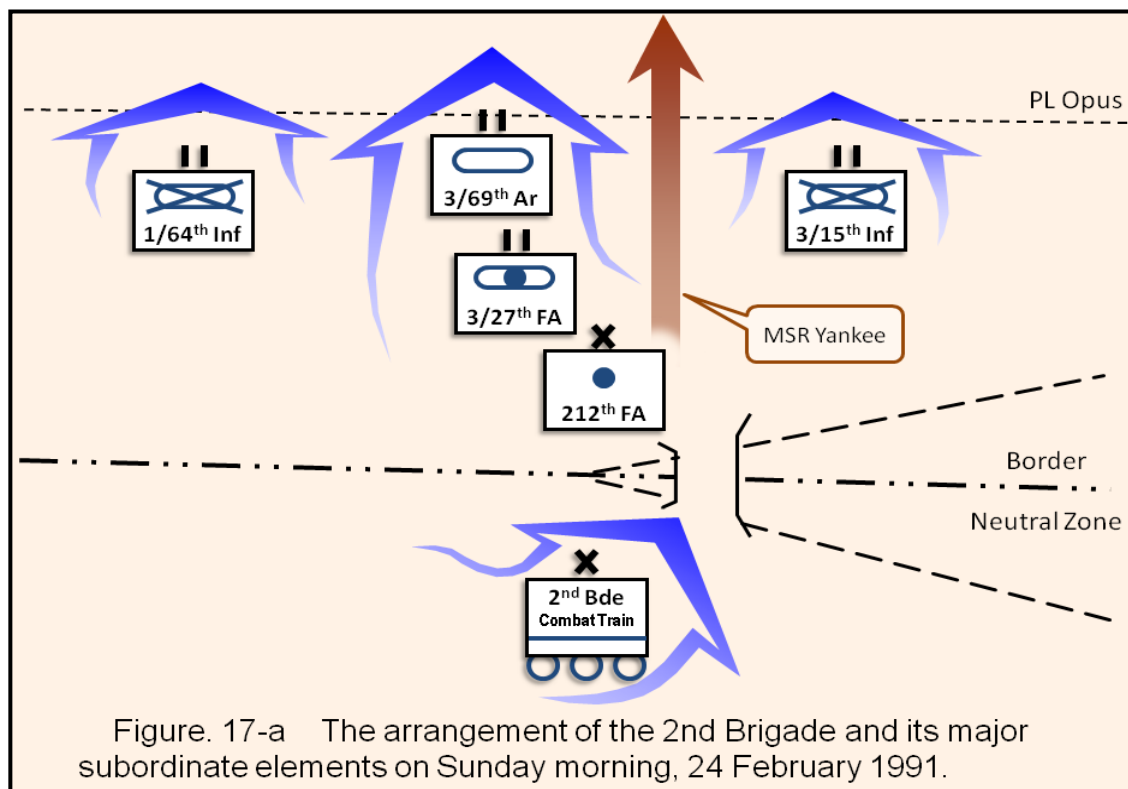
At this point the 24th Infantry Division began Phase II of its operation; the forced entry into Iraq, up to Phase Line Lion. The division's planning staff had scheduled for most of Sunday to be used to organizing into an offensive battle formation. A last minute change was put into effect that morning. Originally, the division had planned to launch its attack from behind the berm Iraq had built along its border. However, the absence of Iraqi activity in the region gave the division command the confidence to try staging the division's assault formation on the north side of the berm. The idea of trying to make passage for a whole division at a few breaks in the berm, then trying to sort out the different units from each other while on the move, was not appealing. Even with this change to simplify organizing the division's battle formation, the planning staff was still allowing a whole day for getting organized. Fortunately, before lunch the division came together better than clock work.

The battle plans assigned the 197th Infantry Brigade with the task of destroying Tallil Airfield. When the alert came down in August, the 24th Infantry Division's third brigade, a National Guard unit was found to be not combat ready and could not be prepared for deployment in a timely manner. The 197th Infantry Brigade was a mechanized task force that also performed training support at Fort Benning's infantry training school. This unit was used to complete (round out) the 24th infantry Division, bringing it up to its full three combat brigade strength.

Once the advance started, Alpha Battery was tasked to advance with the 197th Infantry Brigade. The 24th DIVARTY and a battalion of 155mm self propelled howitzers were sent with the 197th Infantry Brigade, along with Alpha Battery. These units were sent up Major Supply Route (MSR) X-Ray, behind ground elements of the 101st Air Assault infantry division. The rest of the 24th Infantry

Division took MSR Yankee to Jalibah Airfield. Alpha Battery would not be seen again by the rest of the battalion until 28 February.

The rest of the 3/27th FA was to follow the 2nd Brigade of the 24th Infantry Division up the left side of the division's sector, along MSR Yankee. MSR Whisky, MSR X-Ray, and MSR Yankee were the code names given to the trails into Iraq, built by the division engineers. They were two lane unimproved roads that the engineers freshly cut out of the desert as the division advanced. Their purpose was to facilitate the rapid advance of those elements using rubber wheeled vehicles. Tracked vehicles were not allowed within 500 meters of the MSR, because of the damage that the heavy weight would cause the road surface.



The 3/27th FA deployed with the 2nd Brigade just south of the neutral zone, on the zone's west side (see figure 17-a). The 2nd Brigade had two infantry battalions and one armor battalion organic to it, and the 212th FA Brigade attached to it for this phase of the operation. The 1/64th Inf Bn was on the left of the brigade front, and the 3/15th Inf Bn was on the right. Following the brigade front was the 3/69th Armor Bn, acting as the brigade reserve element. At 700 meters followed CPT Wise. He led Charlie Battery and the rest of the artillery brigade.

According to the last instructions the division gave the 3/27th FA, the MLRS battalion had to be in position by 1000 hours and ready to roll, on order (by verbal command, as different then the published battle plans) by 1200 hours.

The 3/27th FA made passage at grid easting between 88 and 90 at northing 30. At the northwest side of the neutral zone, where MSR Yankee passed into Iraq formal, the battalion crossed over to the west of the MSR. Charlie Battery was to be followed by the battalion's Tactical Operations Center (the commander's forward command post), and the Fire Direction Control Center. Bravo Battery brought up the battalion's rear. From this position just within Iraq's border, the 3/27th FA arranged itself into the 2nd Brigade's formation, in preparation for the assault north. It was not

supposed to be until 0600 hours the next day, on Monday that Charlie Battery was to lead the MLRS battalion across the Line of Departure.

By late morning, the XVIIIth Airborne Corps had resolved that its sector of operations was unguarded by Iraq's military. The French assault on the west flank revealed that no enemy units were in the area, aside from the anticipated Iraqi border outposts. Passive reconnaissance (the use of electronic detection that did not transmit energy) had never shown any real presence of Iraqi border patrols in the immediate area. Nevertheless, to the commanders and planners this was never cause to underestimate the Iraqis. It was not until a physical reconnaissance could visually confirm that Iraq had left the back door unguarded, that the generals would believe that their wildest dreams had come true. The unexpected lack of enemy opposition gave the XVIIIth Corps an advantageous opportunity that begged to be exploited at once.

Shortly after noon, LTG Luck, commander of the XVIIIth Corps called MG McCaffrey, telling him to change the plan. The time tables were moved ahead, and the 24th Infantry Division was ordered to advance into Iraq. The division was rescheduled to make its attack at 1500 hours, local time.

Rolling Thunder:

LTC Thrasher ordered CPT Wise to lead Charlie Battery across the Line of Departure, Phase Line Opus at 1625 hours on Sunday, 24 February 1991. CPT Wise led his battery and the battalion north, with instructions to maintain contact with 3/69th Armor. Contact meant he had to stay within sight of the tanks, and be able to communicate with them. If they, or 3/27th FA had to maneuver around each other, he had to keep it orderly. The 3/69th Armor was the reserve element in the center of the 2nd Brigade's main body as it moved forward. Behind the 3/27th FA was the 212th FA Brigade.

The advance of the 24th Infantry Division into Iraq quickly became like a fast paced foot race. Drivers pushed their equipment across country as fast as the vehicles could safely travel. Up MSR Yankee, in a column a half mile wide and almost five miles deep the 24th Infantry Division moved. With it, over 26,000 men and women stampeded north to encircle the infamous Iraqi Republican Guard. Not since World War II, when the III Corps raced to reinforce Allied troops during the Battle of the Bulge had anything this adventurous been tried.

Right from the beginning, the battalion's key FDC vehicles began breaking down. First, Charlie Battery's FDC, an M-577 command track quit running, and had to be towed back with the combat trains. CPT Wise tasked the FDC from 1st Platoon with fire control duty for the battery. It was not until three days later that the mechanics would be able to have the battery command track running under its own power, again.

Just to the left of Charlie Battery was Bravo Battery. SSG Garrison was the NCOIC of Bravo Battery's FDC during Desert Storm. Likewise, right from the start his M-577 command track started having transmission problems. Although he was not forced to stop, it slowed him down considerably. As a result, SSG Garrison and his vehicle became a moving collection point for many vehicles that would later fall out of the convoy from both Bravo and Charlie batteries. Over the next four days, he saw many of the broken vehicles that were left behind with their crews, or were abandoned. SSG William Garrison was able to keep track of his unit because, in Bravo Battery's lead vehicle, SFC Michael Balis was reading the grid location. It taken from the GPS slugger, and radioed back to the FDC. By the time they would return to Saudi Arabia, SSG Garrison and his crew would put over forty gallons of transmission fluid, anti-freeze and assorted other petroleum products into his transmission. It was an effort to keep the vehicle rolling.

In spite of all the planning that went into how the division was to advance into Iraq, to the soldiers it seemed like a mad dash forward. The 24th Infantry Division was making the 1990's equivalent of a full tilt cavalry charge that would storm all the way to the Euphrates River. By the time the division had traveled six hours, units started to lose their cohesion and the distinction between units became blurred. Yet, the division as a whole still managed to retain its identity and focus on the missions it was tasked to perform. The troops were fired up (excited), and after all these months of waiting they were anxious to get up front and get the job done. No one wanted to be left in the rear, especially the combat troops.

A strong wind caused a sand storm the first night of the trek into Iraq. It was not as bad as some that had been seen earlier that winter, but with an ongoing military operation, it reduced visibility and sand filled the air in the vehicle crew compartments. The sand made it very uncomfortable for the soldiers.

Although there had not been any serious enemy contact that night, the division and the battalion still experienced casualties. For example, during the night Charlie Battery had to pass through very rugged terrain. It became an obstacle that affected or damaged many of the vehicles. Three of the big HEMTT trucks became disabled within fifteen minutes of each other. In one of the first major casualty accidents, SGT Green, the ammunition Section Chief was thrown from his truck when it crashed down the wall of a ravine. He survived, but had to be medivaced to a rear area hospital. (SGT Green's story is found in Chapter 30.) Likewise, other units experienced many similar problems.

As Charlie Battery's 1st Platoon traveled north, it moved into a wedge formation. The wedge formation was a precaution against air attack, fanning out so that from the air the platoon would not appear like ducks in a row. In another ammunition truck, PVT Ogeltree and SPC Dickenson were assigned to follow one of the launchers in case a reload was needed. Moving across the broken rocky terrain, PVT Ogeltree tried to follow as closely on the path made by the launcher as possible. When the front driver's side wheels fell into a rut in the ground, the fuel tank that was suspended between the wheels, dropped on to a small up crop of rocks, gashing the tank open.

Many people would think that over such flat desert terrain, driving would be easy. Not true.... The ground was very rugged. It was made of a patchwork of out cropped rocks and shifting sand. The strain of twenty-nine tones struggling against the axial deep sand, even on the multi-wheeled transport vehicles was enough to snap the four inch thick drive shafts. Many vehicles were disabled, stranding the crews within enemy territory, during the trek north.

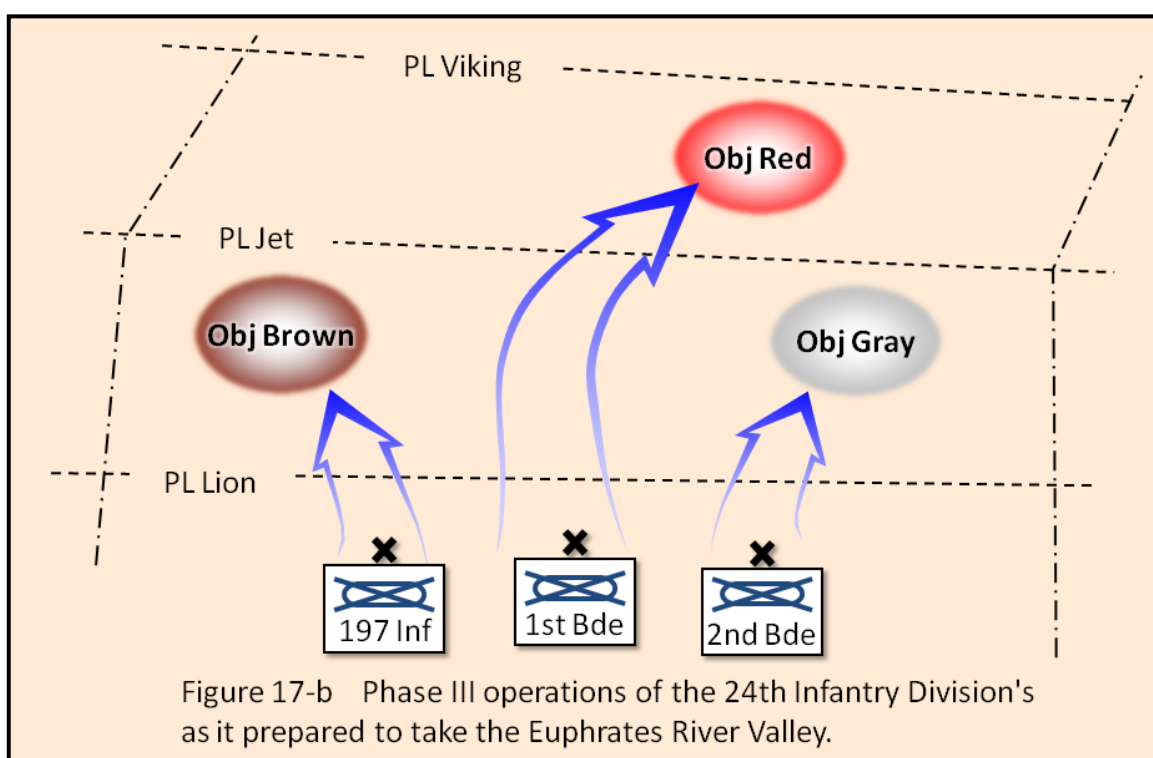
There was maintenance support available, but with the rapid advance of the division it was almost impossible to help everybody. The division's advance caused vehicles that broke down to be spread out across broad stretches of the dessert. In a more static combat situation, units would operate within a limited area. Therefore, maintenance elements were only large enough to handle this envisioned situation. However in this very mobile maneuver, maintenance elements became over taxed. They just couldn't stop long enough to catch up with their work load.

The Gray Area:

By sunrise Monday morning on 25 February, the 24th Infantry Division had completed Phase II of its operation into Iraq. The division had now penetrated 130 Kilometers (81 miles) into Iraq, unchallenged. The 197th Infantry Brigade reported reaching Phase Line Lion at 0200 hours. At 0900 hours, the 2nd Brigade reported reaching Phase Line Lion, with the 1st Brigade positioned just behind on the west side.

At 0300 hours, the 197th Infantry Brigade launched Phase III of the division's operation by assaulting an Iraqi outpost referred to as Objective Brown. Although not simultaneous with the 197th Infantry Brigade, the 2nd Brigade over ran a high plateau referred to as Objective Gray. Once the left and right flanks of Phase Line Lion were secured, the 1st Brigade did a center run between its sister brigades past Phase Line Jet into Objective Red. It was a bounding overwatch on an operational level.

The movement of the 2nd Brigade became slowed by rough terrain. For over 50 Kilometers (30 miles) before reaching Phase Line Lion, the brigade had run into a network of wadis (ravines). These wadis (which were dry at the time) allowed water to drain from the plateau ahead. Next, between Phase Line Lion and Objective Gray the brigade had to climb severe escarpments. These were long cliffs with steep slopes the brigade was trying to climb, that preceded the plateau we needed to reach. The 2nd Brigade launched its assault across Phase Line Lion, against the escarpments at 1300 hour. It was 1600 hours by the time the 2nd Brigade could report Objective Gray secured, and had defenses poised to stop any traffic that might attack along approaches from the north or east.



At 1400 hours, on Monday the 1st Brigade crossed Phase Line Lion. For the next seven and a half hours, the 1st Brigade raced north to take Objective Red. By 2130 hours the 1st Brigade had secured the objective, and held open a gate into the Euphrates River Valley.

Back with the 3/27th FA, on that Monday morning, the battalion was following the 2nd Brigade across Phase Line Lion to Objective Gray. CPT Wise was still in the lead with Charlie Battery as the 3/27th FA moved forward. At about 1630 hours, the 3/69th Armor halted at the edge of Objective Gray. After a short wait, LTC Thrasher told CPT Wise to move to Battle Position Cat within Objective Gray. The battery found a passage point and climbed a large escarpment to Battle Position Cat.

Once on Battle Position Cat, Bravo and Charlie Batteries formed into their defensive circles. At the center of each circle was the battery FDC surrounded by an assortment of the battery's

Headquarters Section vehicles. Encircling the Headquarters Section was the Ammo Platoon, whose long HEMTT trucks stood tall with stacks of rockets heaped upon their beds. The outer circle was made of launchers and their platoon FDCs.

Bravo Battery set up at NT-794478 within Objective Gray and prep-fired at Objective Hack. Plans called for Objective Hack to be used later as a logistics site. This objective was important because of a large body of fresh water was there, under the sand. Intelligence believed that there was an Iraqi artillery unit located at Objective Hack, and the division command wanted it neutralized.

In another fire mission, SGT Largent and SGT Jones of Charlie Battery destroyed an Iraqi artillery battalion. (The story of this first mission is found in Chapter 19.)

As explained in the Chapter 10, “MLRS Operations” this circular formation was a special adaptation used in the desert. Although this type of defensive formation is not found in the operational tactics manual (TC 6-60) for MLRS, this was found to be the best defense for desert operations. MLRS units are trained to disperse over large areas and use the forest for camouflage so not to present a concentrated target. For the desert environment, to disperse would have left individual vehicles exposed and at the mercy of any enemy with the type of long range weapons normally carried by armored units.

MLRS launchers, command tracks and cargo trucks are only armed with hand held pistols and rifles. Otherwise, MLRS units and elements lack self-sufficient defensive ability. By doctrine, close in security is the job of the reserve infantry or armor unit tasked for support. The planners at “echelons above reality” had never answered the questions asked by soldiers out front, of what to do during the course of battle when the security units get separated from the launchers?

A field expedient effort (army jargon for improvising) was dreamed up to compensate for this handicap. Three .50 caliber machine guns were mounted on top of the M-577 command tracks with sandbags and rope to keep the tripod from blowing off. The M-577s didn’t have built in weapons mounts, because the original designers of these vehicles, in the 1950s, did not intend for command post vehicles to engage in combat. Likewise, none of other vehicles in MLRS units were outfitted with heavy weapons to keep the cost of a battalion down (except for a .50 caliber machine gun for the kitchen truck). Such cost cutting measures were used by the Army to persuade Congress to acquire the MLRS system. To compensate for these handicaps, the soldiers parked their vehicles facing away from the center of the formation. This way, the soldiers could maintain 360 degree security watch as they sat in their vehicles. Although, no one was particularly happy with this solution, it was better than nothing. If nothing else this deviation from the text book did show some common sense and concern on the part of the battalion’s own leadership.

Fueling for the Storm:

Feeling that he needed to bring his executive officer forward to the center of activity, CPT Wise went back to the battery train and picked up 1LT Stader. During the rush to Objective Gray, the executive officer had been stranded with the disabled command post vehicle that was supposed to be the battery’s FDC. During the stop at Objective Gray, the brigade trains, including the 3/27th FA’s trains had caught up with the forward elements. The commander found his lieutenant, and left the FDC track with Charlie Battery’s train, to be repaired.

Meanwhile, Bravo Battery and Charlie Battery pulled up alongside of each other to complete refueling that they had started earlier, during the halt at Battle Position Cat. The fueling went slowly, because there was only one fuel tanker to service the two batteries. Bravo troops jibed the Charlie

soldiers about their missing fuel tanker. (The story about the lost fuel tanker can be found in a Chapter 18.)

To augment the fueling effort, fuel was taken from several of the 55 gallon drums that were carried on the HEMTTs. Carrying the extra fuel was an ad hoc idea that LTC Thrasher had ordered a few days before leaving Camp Courage. Originally, the drums had been used to hold two 5 gallon cans of CARC paint, as a second barrier to protect the paint during shipment. At the time he came up with this idea the troops had grumbled that it was unnecessary. It was hard trying to find enough rope to firmly secure the drums to the trucks. Now, with a tanker lost, everyone was quite happy with the boss's idea.

However, the soldiers found trying to transfer the diesel from the drums into the vehicles to be a real problem. The battalion executive officer and his staff had tried to find hoses to use to siphon fuel from the drums. Unfortunately, with all the units that had flooded into Saudi Arabia foraging for supplements to resolve their own needs, hoses couldn't be found. They were not available either through the supply system, or commercially. The forward batteries did not have pump devices or siphon hoses with them at Objective Gray. The soldiers figured that higher had this all planned out, and if hoses were needed they would have been provided. The staff who coordinated the drums assumed there was hose material in the battalion, and assumed it was going to be passed out. The maintenance people who had some materials, had never been asked to forward pumps or hoses, and now was miles to the rear with the battalion's logistical trains. Ironically, the only working mechanical siphon pump between Bravo and Charlie Batteries was on Charlie Battery's petroleum, oil and lubricants (POL) truck. It was lost along with Charlie Battery's fuel tanker.

During the refueling, the overcast sky turned black. A wind started to blow from the south with heavy gusting winds, mixed with light sprinkles of rain. The troops were using the few buckets and even canteen cups to pour the diesel into the tanks. Since there were no funnels either, the soldier tried using MRE packages with holes cut in the lower corners, but in the gusting wind this proved to be barely adequate. Gusts of wind blew the pouring fuel across the hands and sleeves of the soldiers, causing them to lose almost a fifth of the fuel on to the ground.

The Stormy Night:

It was dusk, Monday evening when the battalion finished its work in Objective Gray. The stop at Objective Gray had been all work, and no one was given a chance to rest before the battalion moved out of the area. At around 1700 hours, the battalion reformed into its travel formation, and rolled forward. The 3/27th FA's next task was to join the 1st Brigade for the assault into the Euphrates River Valley.

Shortly after sun down on Monday when the 3/27th FA moved into a network of wadis. As the night began, a full blown storm hit the region. Driving rain pushed by winds out of the southeast beat upon the launcher chiefs who had to stand with their heads and shoulders exposed from the top hatch of their launchers. The visibility was too poor for the drivers to see what was happening along the right sides of their vehicles. That night, it took drivers and crew chiefs working together, with all the skill that they could muster, to maneuver their launchers and trucks through the treacherous terrain.

The 24th Infantry Division did run into Iraqi military resistance during Phase III of the operation; the assault into Iraq. The 197th Infantry Brigade attacked two outposts that were part of an early warning unit. They captured 29 prisoners and found just over 20 vehicles. Most of the vehicles were electronics or maintenance vans. Before leaving Objective Brown, the 197th Infantry Brigade found and destroyed a large cache of munitions stockpiled in the desert. Likewise, the 2nd Brigade

found enemy in its sector. The 2nd Brigade engaged and neutralized several Iraqi artillery sites, located in the desert as a part of their early warning system.

The most important accomplishment of Phase III was that the 24th Infantry Division was able to establish a secure corridor into Iraq. The division had prepared to meet its first real opposition along Phase Line Lion, if the Iraqi army could have found out about the 24th Infantry Division's crossing the border the day before. However, being undetected, the division passed Phase Line Viking, unopposed.

The 724th Main Support Battalion established Forward Support Base #2 was set up just south of Phase Line Jet. A three square mile area in the desert was transformed into a small city that could support the division's effort to secure the Euphrates River Valley. Due to the unexpectedly rapid advance of the division into Iraq, the 724th Main Support Battalion's base only stayed fully operational for 12 hours. However, during those 12 hours, the 724th Main Support Battalion was able to provide support for the division's most critical logistics needs. Had the Iraqi forces been able to mount a significant resistance to the division's forced entry into the Euphrates River Valley, Forward Support Base #2 would have been a key element in sustaining the combat front.

With the region secured all the way to Phase Line Viking, the 24th Infantry Division was able to further establish the Division Tactical Command Post between Phase Line Jet, and Phase Line Viking. From this position, the Assistant Division Commander, Brigadier General James T. Scott, and his staff could coordinate the division's taking of the Euphrates River Valley. By relocating command and control elements forward, along with a major logistics element, the division's center of gravity and force projection ability became concentrated deep within Iraqi territory.

In the next few chapters, are the stories of individual soldiers as they went through the rigors of maneuvering with a division in the face of greatest danger.

"THE BEANS, BULLETS AND BENZENE BOYS"

Chapter 18

[Editor's Note: This is a real story about the courage, initiative, and the commitment of four young men. All too often people, including soldiers, under value the risks support soldiers face on the battlefield.]

SUNDAY, 24 Feb 91:

It was finally happening, the ground war had begun. At around 0830 hours, most of the 3/27th FA had broken down and lined up to move out of their little camps that dotted desert in the 24th Infantry Division's tactical assembly area (TAA). It had been an isolated place in the desert where the division's over twenty thousand soldiers had hidden for the last three weeks, waiting to sneak into Iraq and launch their surprise assault. At about 1000 hours Charlie Battery took a short ten mile drive over the border into Iraq. It was shortly before mid-day when the battery's fuel tanker parked at the start point. The tanker driver, PFC Scott W. Mitchell was excited with both the apprehension and feelings of relief as he parked his tanker truck with trailer. The big advance of the division was scheduled for just after sun down.

Just ahead of him, he could see the cloud of dust, kicked up by the three brigades of tanks, infantry carriers, and self propelled artillery. The combat elements were spread out just over the crest of the horizon, some ten to fifteen kilometers away. Around him were the support elements, maintenance teams, administrative sections, and logistics trains that backed up the 24th Infantry Division.

PFC Mitchell's tanker truck was an M978 Heavy Expanded Mobility Tactical Truck (HEMTT) with a 2500 gallon (9463 liter) fuel tank filled with diesel. Behind the tanker was attached a 1.5 ton trailer with eighty-six, five gallon cans of MOGAS (MOTOR GASoline, known as leaded regular by civilians) needed to run the generators that powered the command track radio systems. In the trailer, along with the MOGAS were all of the personal supplies of water, food, tents and camouflage nets that supported the tanker crew. PFC Mitchell's mission was to follow along with the combat trains, and provide fuel to the vehicles of Charlie Battery during the ground combat phase of the war.

In the passenger seat, SPC Jeffrey Sharp, the battery armorer sat eating a nut cake from his MRE. It was just after 1200 hours in the afternoon... or was it just after 1300 hours? It was time to eat, his stomach told him, but he wasn't paying attention to his watch. They had been six hours on the road, and the question about rest stops had been ignored during the briefing, the day before. "Do what you have to do, but don't fall behind. No one's waiting for anybody.... We got a mission." said the captain, a staff officer from battalion.

"Hey, Jeff. I'm going to check the truck out. While we've got some time, I think I'll pull some maintenance." PFC Mitchell called to his partner over the roar of the engine. "Could you open an MRE for me?"

"Sure," said SPC Sharp, as he reached down to get the box of meals at his feet. MRE's had the unique ability of making a person slightly constipated; you could function for a long period of time without needing to stop. "How 'bout a chicken noodle?" SPC Sharp held it up at PFC Mitchell.

As PFC Mitchell walked around the truck, he found the tire on the trailer was flat. Wondering what to do, he looked around for help. Off in the distance, PFC Mitchell saw one of the senior sergeants driving by in a HMMWV. He waved to get the sergeant's attention, and when the vehicle turned toward him, PFC Mitchell went back to the cab and told SPC Sharp the news.

A HMMWV drove up to the parked tanker. SFC Lindsey, the ammo platoon sergeant jumped out of the little truck and ran up to the trailer. "What's wrong, now?" he said with a touch of consternation in his voice. "Why did you wave me over?"

"We got a flat, Sergeant." said PFC Mitchell.

"Well, how did you do that?" demanded the sergeant.

"What do you mean!" SPC Sharp objected. "We didn't plan to have a flat tire. If it's flat, it's flat."

"All right, get it fixed." the sergeant said.

"We got a problem there, there's no spare tire for this trailer." said PFC Mitchell. "And, I don't have the right tools for the changing' a tire on the trailer."

The sergeant clutched his fist in frustration, "Shit!" Looking around him, he could see the unit starting to move again.

Behind the fuel tanker, SFC Lindsey saw the Petroleum, Oil & Lubricants (POL) truck. It was being driven by SPC George D. Elsey, one of the cooks. In the passenger seat sat PV2 Angelo M. Darby, the automotive records clerk (called, Prescribed Load List or PLL clerk). SFC Lindsey walked over to where the POL truck was and ordered, "Elsey, you WILL give Mitchell a hand, and fix that tire!"

"Mitchell, I want this tire fixed! Then catch up with us." ordered the sergeant.

"But Sergeant Lindsey, wouldn't it be better to drop the trailer? Look'et, the convoy's starting to move." suggested PFC Mitchell.

"No, I want it fixed. Drag the trailer, if you have to. I can't waste any more time here. I've got to go." SFC Lindsey then got back in his HMMWV, and sped off to rejoin the rest of the unit. SPC Elsey watched the sergeant leave and shook his head.

For the next fifteen minutes, the little group tried to loosen the lug nuts. They even tried hammering against the studs with a steel chisel, but to no avail. In the process of trying to get them off, they completely stripped the corners off one of the lug nuts. While all of this was going on a second convoy passed by.

A close examination of the lug nuts revealed the problem; they had right handed lug nuts threaded on to left handed studs. That was when PFC Mitchell remembered a comment his predecessor had made about how stubborn the nuts were on the trailer. The guy must have put the nuts on the wrong side. There was no way to get them off without power tools.

"I don't know what in the hell we're going to do, now." sighed SPC Sharp in lament.



Figure 18-b A M35A2 2.5 Ton Cargo Truck: Affectionately known as a Duce and a Half. This depicts the way these trucks were loaded for the road march into Iraq.

“Maybe, we should just tow the trailer like the sergeant said.” PV2 Darby said, trying to sound up-beat.

“We’ll have to try.” PFC Mitchell said as he looked over the trailer.

By the time the two trucks were moving again, an hour had passed since the battery had left them. For the next fifty miles they tried to run with the flat tire. In the rough terrain, the trailer constantly threatened to flip over. With the trailer slowing down the fuel truck, they fell further and further behind. They didn’t have maps (which would have been worthless in a featureless desert), they didn’t have a radio. All they had was some vague idea that the unit was to travel up MSR Yankee and attack along the Euphrates.

Though the POL truck could have caught up with the supply trains, SPC Elsey followed behind the tanker truck. The four of them were all in the supply section. They all shared a feeling of obligation to watch out for each other. SPC Elsey was not going to risk losing his buddies because of a crippled vehicle.

It was about 1630 hours when SPC Elsey saw smoke coming from the stricken tire. By sun down, the fuel truck had to stop, or risk an explosive fire. To catch up with his battery, Mitchell was forced to abandon the trailer in the desert.

As a third convoy passed the tanker and POL truck, the two crews disconnected the trailer and reposition their cargo. They fit what little of the trailer load on top of the fuel tanker or in the POL truck as they could carry. Almost a third of the trailer cargo was abandoned with the trailer.

By the time they finished it was totally dark. The battalion and the whole division trains had become lost from sight over the horizon. The fuel tanker and POL truck were completely separated from their unit.

The four young soldiers were upset and nervous about being separated from their unit. Being alone in enemy territory wasn’t safe. PFC Mitchell was also feeling embarrassed because he knew that everyone was counting on him to have the fuel available when the time came. Sooner or later, those big trucks and heavy launchers would need fuel, and he was supposed to supply it. The other three shared some of PFC Mitchell’s feelings; their friends were counting on them to bring that fuel forward. A feeling of guilt crept over them. PFC Mitchell looked at the disconnected trailer, “Oh damn. Come on, let’s go.”

PV2 Darby looked at the other guys, “What are we going to do, now?”

“Find the MSR. We got to catch up with the battery.” answered PFC Mitchell, the chief of the fuel tanker. They didn’t have a radio, most support vehicles didn’t have radios. Although they had lost the unit, they were not altogether lost. SFC Barnnet, the motor sergeant had told the wheeled vehicle operators that if they got separated to go to the MSR (Major Supply Route). The engineers of the 24th Infantry Division were cutting a road through the desert designated MSR Yankee, for wheeled traffic moving north. To the west, MSR Whiskey and X-Ray were also being built for the 24th Infantry Division. Just to the east, the 3rd Armored Cavalry Regiment was building MSR Dodge and MSR Texas. If the two trucks could find an MSR and join a convoy, they would be relatively safe. Then their chances would be pretty good that they could be reunited with their unit.

“How about you guys leading.” suggested SPC Elsey.

“Sure.” answered PFC Mitchell. “If you have any trouble, don’t let us lose you.”

“Don’t worry, we’ll stay close.” asserted SPC Elsey. Then, he and PVT Darby turned away from the derelict trailer, and walked back to their own truck.

PFC Mitchell turned to SPC Sharp, who was standing next to him, and said, "I hope the captain doesn't get upset about my losing the trailer. I'm signed for it."

"You did the best you could. Don't let it worry you." said SPC Sharp.

"Oh, well. Let's go." said PFC Mitchell, and the two of them jumped into their tanker.

In the darkness, the tanker crew followed the trail their unit had made. The tanker came to a stop about two miles later, when they came across a small valley where tracks from other units seemed to converge into an indiscernible mess. SPC Elsey drove his truck up to the passenger side of the tanker and yelled at SPC Sharp, "What's up? Why are you guys stopping?"

SPC Sharp looked around, then answered, "Elsey, there's nothing out here. I think we ah'to go back were we left the trailer."

"What do you mean, go back?" SPC Elsey said with surprise. "Do you even know where the trailer is at? We've been driving in circles for the past two hours. I think we're lost."

"Ya, but the motor pool sergeant said that if we break down, stay put for twenty four hours, and someone will be sent back to find you." said SPC Sharp. They knew how to use a map and compass. The soldiers had been well trained in land navigation in a woodland environment. If this had been back in Carolina or even Europe, they could have worked it out. Here in the desert, it was different. It took over fifty map sheets to cover the region that they were operating in. Even if they had the maps, there were no landmarks against which they could ascertain their position. Although they had compasses, by not knowing where they were at or where they needed to go to next, the compass was worthless. Knowing which way was north wasn't enough to help. SPC Elsey was not comfortable about wandering around in the dark.

Surprisingly, the tanker crew found the trailer. PFC Mitchell hit the parking breaks and jumped out of the tanker. Walking around the cab, he came up between the two vehicles. "Well, what do you think we ought to do now?"

Of the four young men, SPC Elsey was the oldest, being twenty one years old. SPC Sharp and PFC Mitchell were next in rank and in age, being about twenty. PV2 Darby was seventeen, and fresh out of military schools. Although he had seniority, SPC Elsey was a cook, and didn't have the field craft training of the two MLRS soldiers who were in the tanker truck. "Your call, guys." deferred SPC Elsey. "What do you think?"

SPC Sharp and PFC Mitchell put their heads together and worked out a plan. They agreed to park the trucks fifty meters apart. This way, if the tanker got hit, the POL truck would be safe from any fuel explosion. Then they set up an OP, dug a hold and made a guard roster for the night.

As the young men stood trying to orient themselves, PFC Mitchell heard and then pointed to a helicopter approaching out of the night sky. The four soldiers spread out and poised their weapons, to see if the strange helicopter would try a hostile act against them.

It landed nearby and a crew chief jumped out and ran up to the group of soldiers. "Hello. Did you guys call for a medivac (i.e. MEDical eVACuation)?" he asked.

"No." answered PFC Mitchell.

"Okay, thanks." said the crew chief, and he turned to go off to his helicopter.

"Hay, wait a second." called PFC Mitchell. When the crew chief turned back to the soldiers, PFC Mitchell continued, "We're lost. Have you seen any convoys around here that we could join up with?"

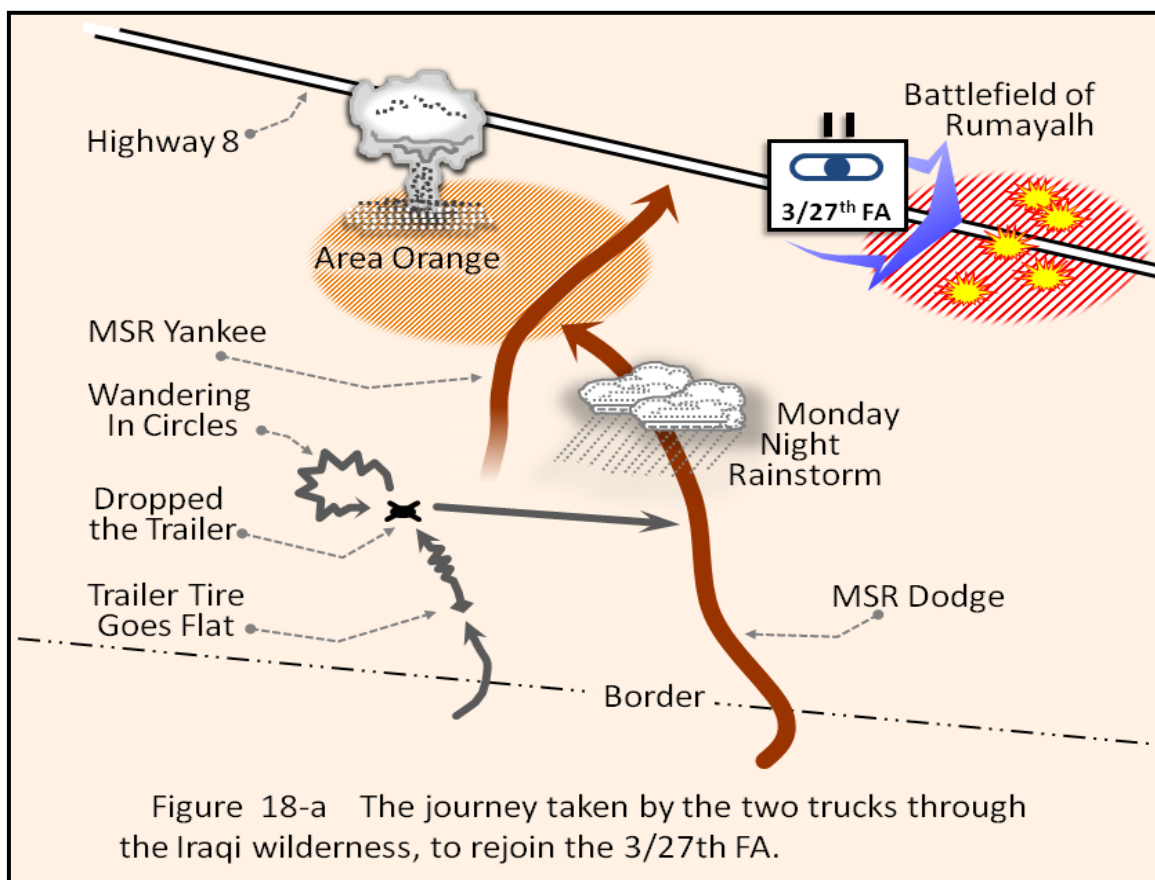
"I'm sorry. I haven't seen anything." Saying that, he returned to his helicopter, and flew away.

MONDAY, 25 Feb 91:

In spite of their apprehension, they kept cool heads. The next day, shortly before mid-day they found an MSR. During the morning, the soldiers saw helicopters flying north and south over the same general area off to the west. They reasoned that, all that activity in the same area must mean that the helicopters were using a road to navigate by. If that was so, they could find help. With that thought in mind, they hopped into their trucks and headed west.

An hour later, the trucks crested a small rise where they spotted a long convoy of trucks about three kilometers away. There must have been almost two hundred trucks in this convoy. The two trucks pulled right into a gap in the convoy and moved north with it. "Oh man," sighed PV2 Darby with relief. "Look 'et there!" It was a transportation unit, the 714th Ordinance Battalion (Ord Bn), the unit that supported the 24th Infantry Division. It was carrying a large variety of munitions. Off in the distance, toward the rear of the convoy PV2 Darby pointed to several trucks carrying MLRS rocket pods. It heartened the young soldiers to see the trucks carrying MLRS rocket pods. "I bet their taking them to our unit...." A contented smile beamed from the young private's face.

After a few hours of travel, the convoy came to a complete halt and PFC Mitchell moved his tanker followed by the POL truck to the front of the formation. There, they found the convoy leader. The captain in charge of the convoy was standing next to her HMMWV walking around, stretching.



"Hello ma'am. We've been separated from our unit, the 3/27th Field Artillery. Could you help us find it?" asked PFC Mitchell.

“Who are they with?” She asked.

“The 3/27th Field Artillery, with the 24th Infantry Division.”

“Do you have the Call-Sign and Freq’s for your unit?”

“No, ma’am. We don’t have any radios, or a CEOI.”

From around her neck, the captain pulled the Communications & Electronic Operations Instructions (CEOI). The little code book that contained all the frequencies and call signals used by units she might need. “Well, I don’t know how to contact your unit. My CEOI does not have your unit in it.” Looking back up at PFC Mitchell, she waved a hand at her convoy, and said, “Go ahead and fall in with the convoy. When we get to a check point, we will see if anybody can get in contact with your unit.” Only the command posts of battalion size units and higher had complete lists of call signs for the division. Everyone else, like the captain, was provided limited lists, which were extracted from the larger book. Her book only carried the list of units within the corps support command and the division’s support brigade that handled transport and logistics units.

As the two soldiers from the tanker talked with the captain, the other two in the POL truck talked between themselves. “Hay Elsey, look at these people.” said PV2 Darby, pointing at the soldiers from the transportation unit that were walking around.

SPC Elsey looked up from the MRE he had just broken open. “What’s up?”

“Look at them. Their out of uniform!” PV2 Darby was amazed at the way the truckers from the transportation unit were dressed. The four MLRS rocketmen were dressed with their DCU’s, under their NBC suit. Over that they wore a bullet proof flack vest, and all their web gear with ammo pouches. He was trained that this was the way soldiers were suppose to be dressed for going into combat.

SPC Elsey looked at the way that the truckers were dressed. About one in five was wearing a portion of an NBC suite. Most of them were dressed like they were in some State side garrison. Not one of them had on a helmet or carried a weapon. They had left their rifles and equipment in the cabs of their trucks while they walked around stretching their legs.

“Oh, man...” sighed SPC Elsey. “Wouldn’t it be nice to get out of all this gear.” The rocketmen were hot and sweaty under all the clothing, and the bulky garb restricted their movement. They might have considered loosening their clothing, except for the stench that escaped from under their opened NBC suits. It had been four days since they had last taken a shower. The smell of their own bodies was too offensive even to themselves within the small confines of their cab. They stunk, and they stunk bad. The activated charcoal that was impregnated into their NBC suits was the only thing holding in the stink.

“Ya, but no way,” sighed PV2 Darby. “That just ain’t smart.” They endured this inconvenience because, with the threat of enemy artillery, chemical weapons, and unseen mine fields; every piece of clothing and equipment was vital to their lives. The importance of being in complete uniform had been thoroughly drilled into them. As much as they longed to take even some of it off, they felt that the risk was too great for them to justify indulging such a personal convenience. So with the threat of the enemy at hand, they wondered why were the truckers out of uniform?

For the next two days the trucks from the 3/27th FA moved up MSR Dodge. The movement was slow as the convoy picked its way across the desert. The other trucks in the convoy had a habit of stopping whenever it struck someone that they needed to relieve themselves. This caused a constant stop and go problem that cut the convoys speed in half.

TUESDAY, 26 Feb 91;

Monday night the rains struck. The sand turned to slush as vehicle after vehicle passed down the MSR. In the darkness the visibility dropped to as little as fifteen meters. The rains washed the sand across the MSR, and the road became lost amongst the dunes. By the early morning hours, shortly after midnight there was nothing to mark the true path the convoy needed to follow. The convoy broke up into little groups of lost trucks wandering around in the darkness. Often, the trucks in the rear blindly followed the truck just to the front, not realizing that the truck up front had lost contact with the convoy.

Driving in the rain was insane. It was a lot like driving in a dust storm, but with the added difficulty of the sand having the consistency of soup; milk shake mud. Windshields would become covered with mud kicked up by the vehicle in front. The transport unit experienced a lot of accidents. At points the driving would slow down to five miles per hour, then suddenly the truck in front would speed up, disappearing into the rain. This would cause the truck behind to speed to catch up. Suddenly out off the darkness the front truck would reappear, going slowly. It's called, over driving your breaking distance. The MLRS soldiers saw several nasty rear end collisions that happened in the darkness; some pretty gruesome.

Shortly after mid-night, a little band of lost trucks, which included the two trucks from the 3/27th FA parked. The driver of the front truck got out and confessed to the others that he hadn't seen another truck for over an hour. He had just been driving trying to head north, hoping that he could reconnect with the convoy again. The path they had taken had dead ended in a cul-de-sac that was blocked by dunes.

By about 0300 hours in the morning, A HMMWV drove up to the lost trucks and led them out of the sand dunes. They were joined with another group of trucks and bedded down for the night.

It was shortly after sunrise when a driving sand storm hit. This was the trail end of the weather front that had brought the rains the preceding night. At first, visibility was up to several kilometers when the sun rose. As the day wore on, the ground dried out allowing the wind to pick up more and more sand. Visibility steadily dropped until by late morning, trying to follow the truck in front was as hard as it had been the night before. This time the truckers were more cautious and drove slower. Sometimes being over cautious, they would drive a couple of truck lengths, then stop and wait for ten or fifteen minutes before moving, again.

The convoy drove all day and through most of the night.

WEDNESDAY, 27 Feb 91:

At about 0300 hours, the whole convoy hit a point where they were just dead tired. The commander stopped the convoy so it could get some sleep. The MLRS soldiers didn't want to stop. They had been rotating drivers regularly and catching sleep when they were not behind the wheel driving. They would have continued driving, but they needed this convoy to carry them to where ever they were going. Everybody stopped and pulled over and got three hours of sleep.

The next morning the sun woke the four MLRS soldiers. Looking around, they found convoy was gone. Since they slept in the cabs fully dressed, as soon as they were awake they started their engines and drove up the MSR.

Driving was easier on this day. The skies were clear, and the MSR trail was easy to follow. The two tanker crewmen had learned that this MSR, MSR Dodge would eventually merge with MSR Yankee; and that would lead to Area Orange, were the 24th Infantry Division was planning to block

Iraqi units who might try to flee Kuwait. About two hours after waking up, the MLRS trucks happen to catch up with the ordnance trucks.

By late morning, the rocketmen came up upon a roadside maintenance unit check point. Unknown to the MLRS soldiers, it was part of a larger logistics base hidden in the desert. This logistics base was the final destination for the 714th Ord truckers. The two trucks from the MLRS unit pulled off to the side of the road. SPC Sharp and PFC Mitchell got out of their tanker and found a lieutenant who was in charge of the check point. PFC Mitchell asked him if he could contact the 3/27th FA for them, but he was unable to help.

A little further up the road they found a refueling unit and filled up. He was reluctant to use the fuel off his own tanker. He had no idea how badly fuel would be needed when he found his battery, ...if he found his battery.

As they had driven through the center, SPC Sharp saw almost half the soldiers were not in complete uniform. There were troops without their flak-vests, or not wearing their load bearing gear with ammo pouches. Are these guys idiots? Don't they realize we're at war, behind enemy lines? Support troops, he thought with contempt. They are as dangerous to themselves, as anyone else.

Once having topped off the tanks, they asked about contacting their battalion. As before, no one there had any way of contacting the 3/27th FA, but they did learn that MSR Yankee passed through the base, and it would lead to where the 24th Infantry Division was at.

Charlie Battery's fuel tanker and POL truck made their way up MSR Yankee to Area Orange. Area Orange was the site of what had been Jalibah Airfield. Several kilometers southeast of the airfield was an impromptu field support center widely dispersed among the dunes. It was intended to provide second echelon logistic services in the event of a major battle along the Euphrates River. As the tanker drove through the area, they stopped at the guard post to ask directions, "Hey, you guys know where we can find the MPs?" Mitchell called to the guard sitting on a HMMWV.

The guard was not a military police officer, himself. He sat on the tailgate of the truck, with his weapon next to him. The specialist was surprised to see the guard manning his post out of uniform. He did not have on a complete NBC suit, just the trousers. SPC Sharp saw this and noted this in his mind; it was about as smart as not wearing a seat-belt while driving drunk.

"Ya. Head up this path 'til ya' hit the Duce-and-a-Half, turn right and it's on the left. Can't miss it; it's surrounded with barbed-wire."

SPC Sharp and PFC Mitchell drove up to a POW camp. It consisted of a small tent (large enough for six or so cots) and an enclosed area, about the size of volleyball court. Next to the tent was a large antenna. They hoped that the military police had a radio, and could contact the 3/27th FA.

They talked to the MPs and got a hint of hope. The MPs didn't have the call signs or frequencies to call the 3/27th FA. Though, they couldn't help the two rocketmen directly, they offered to call their higher command. It was possible for the MPs to contact the support brigade's operations center and try making an inquiry. The MPs felt that the brigade operations center might be able to help. In the mean time, the MP lieutenant asked if he could get some gas from the tanker.

While SPC Sharp and PFC Mitchell were in the MP's tent, PV2 Darby spotted CPT Carter drive up and get out of a HMMWV next to the POW tent. "Hay, Sharp." called PV2 Darby. "That's CPT Carter, our S-4." They knew that the 3/27th FA's logistics officer, CPT Carter could lead them home to Charlie Battery.

As the trio of vehicles headed east, the POL truck got sluggish and finally died. SPC Elsey tried to restart the truck, but the engine wouldn't catch.

“What’s wrong?” PV2 Darby asked SPC Elsey.

“I don’t know.” SPC Elsey answered. The ignition was turning over the engine, but that was all. A blast on the air horn caught the attention of the other two vehicles. The HMMWV pulled to a stop and returned to where the Duce-and-a-Half was stopped.

“What’s wrong?” CPT Carter called from his HMMWV, after pulling alongside the POL truck.

“I don’t know.” SPC Elsey called back. “I need to check it out.”

The cook hopped out of his truck and walked over to the captain. “Ah, listen. I’ve got to get back to the unit.” began CPT Carter. “You fellows will have to wait here, until we can send someone back for you. Don’t worry; the battalion is only a few miles from here.”

“Ah, okay.” the specialist said, half unsure of how to respond to being left behind, again.

PV2 Darby came around to where SPC Elsey was standing, as the HMMWV and tanker drove off. “What’s going on?” the young soldier asked.

“I can’t believe it! He just left us here....” said the surprised specialist.

“What do you mean, he just left us here?” echoed the private with fear in his voice. “He just can’t leave us out here. That ain’t right!”

“I know.” answered SPC Elsey. “It’s fucked....” The two soldiers watched for a second more as the two vehicles disappeared into the desert. Then SPC Elsey turned to PV2 Darby, and said, “Come on. Let’s see if we can get this bucket of bolts running.”

A quick inspection of the engine revealed that the air filter had become clogged. “Oh, this is why it keeps stalling.” SPC Elsey said to PV2 Darby.

“What is it?” asked PV2 Darby as he looked up to where the specialist was kneeling on the fender of the truck.

“I thought it was the batteries, but it’s not. It’s the filter.” answered SPC Elsey as he held up the air filter in his hand. “It’s completely clogged up with sand. We’re going to need to blow this out.”

“Is that why the engine stopped?” asked the private.

“It’s the only thing I could find.” answered the specialist. “I hope this is it, because if the batteries are dead, we’ll never get this junk wagon rolling without being slaved off (to jump start the batteries). Can you get the air hose out?” The Duce-and-a-Half trucks have air brakes. Just inside the cab on the passenger side is a connector to access the air tank. This way, an air hose can be used to inflate tires or blow out the air filter.

It had taken less than twenty minutes to get the truck restarted after it had stalled. Once the truck was running, they followed the tracks in the sand up to the hard-ball (an asphalt road). There the tracks that SPC Elsey had been following ended. They were forced to stop and wait until someone came along that could help.

As the POL truck sat next to the road, the two soldiers looked at the scene around them. In the distance, vehicles could be seen blowing up all around them. Unseen in the distance, engineer teams were running around the desert plane giving the coup de grace to abandon Iraqi vehicles. With the scene before them, the realization that two soldiers were really in a war zone was emotionally driven home in their minds. “Elsey, do you think we will ever find our unit?” PV2 Darby asked.

They had been at the cross roads for only about twenty minutes when the two soldiers spotted black dots in the distance approaching. With his weapon ready, Darby locked a magazine into the

feed well and chambered a round. “Elsey! What do we do?” asked PV2 Darby, “Do we shoot them..?”, PV2 Darby was seriously afraid.

“Darby, no. Wait.” said SPC Elsey. “As the Iraqis approached, SPC Elsey could see that the Iraqis had no weapons. They had their hands in the air, each waving something white.

The Iraqis stopped on the far side of the road, hesitant to approach the Americans. They were afraid of alarming or even annoying the Americans. The Iraqis didn’t know what the two soldiers might do if they got too close. Yet, in their desperation for food and water, the Iraqis were compelled by circumstances to take the risk of putting their lives at the mercy of their enemy. They called to the Americans asking for water and motioning with their hands to their mouths for food.

“What are you going to do?” asked PV2 Darby

SPC Elsey looked at the Iraqis begging helplessly for something to eat. This was his first encounter with the enemy, and he was caught by surprise. He was expecting to meet the Iraqis in a hostile confrontation. Instead, he found this beleaguered group of men begging him for help. It was an uncertain situation, and he was afraid it might be a trick, or that some obscure act could provoke a violent incident. In spite of the danger, what he saw touched his heart and he felt he had to try to help.

“Stay here and cover me.” said SPC Elsey. “I’m going to give them something to eat.” SPC Elsey slung his weapon over his back and went to the back of the truck. He climbed into the back and grabbed a box of MRE’s. When he returned to the front of the truck, he opened up the box and removed four of the meals.

“Elsey, what are you doing?” asked PV2 Darby.

“I’m going to feed them.” answered SPC Elsey.

“You’re giving away our food? Don’t do that.” protested the young private. “We don’t know how long we’ll be stuck out here. We might need those, later.”

“Darby, these people are hungry and thirsty, I can’t say no.” SPC Elsey walked across the road to where the Iraqi soldiers were standing and handed them each a meal.

The Iraqis were unfamiliar with the brown plastic bags and looked at them with bewilderment. SPC Elsey took the MRE’s back one at a time, and used a pocket knife to open them up. Once the Iraqis discovered the food inside the packages, they sat down on the road and ate the meals.

While the Iraqis ate, SPC Elsey walked back to the truck. Through the whole encounter, SPC Elsey was nervous with fear that the situation would turn suddenly violent. He struggled to conceal his nervousness until he got back to the truck.

Once the Iraqis had finished the meals, they stood up and called for water. With their hands cupped, they made a gesture as if to be drinking water.

From the truck SPC Elsey watched with mixed sorrow and fear. He had taken them food, which had alleviated his humane concern for them. Now, he was too filled with conflicting emotions to want to risk going across the road again. There was plenty of water on the truck, but he was too nervous to think clearly of anything that they could use to drink water out of. All the water was in five gallon jugs.

Although the thought of taking these Iraqis as prisoners had occurred to the specialist, he had dismissed the thought early. Their situation was still too unclear. He couldn’t see how he would be able guard prisoners, maintaining security and welfare at the same time. They outnumbered him, and he had no intention of letting them get near his truck. As long as he didn’t try to take them prisoner,

this was nothing more than an informal truce encounter. He had no further moral obligation to them under the laws of land warfare.

With a broad gesture, SPC Elsey waved the Iraqis to go away.

The Iraqis bowed to thank them, waved good-by, and went on their way.

The two guys at the POL truck stayed at the side of the road. Concerned that more Iraqis might come wandering by, PV2 Darby stood guard by the shoulder of the road. SPC Elsey busied himself cleaning the cab out and organizing personal belongings.

"Hey, Elsey," called PV2 Darby. "There's a HMMWV coming." It had only been about an hour since CPT Carter had left them. The two soldiers were hoping that this would be their rescue party.

As SPC Elsey was walking around the truck, the roar of an explosion hit. Turning to look, he saw a huge dark fireball lifting from the ground a mile or two west of them.

In seconds, the two soldiers raced to put on their NBC protective masks. Trained reflexes guided their actions, as the two young men took action to seal themselves off from the external environment. As soon as each of the soldiers had on their mask and gloves, they went to each other and began double checking and adjusting the other's equipment. From the plain behind them a huge cloud of exploded materials rose into the air. Its gray-brown fireball emitted a dull red glow, as it climbed up into the upper atmosphere.

As SPC Elsey and PV2 Darby were finishing up the last checks on each other's suits, the HMMWV drove slowly up to them. Another NBC suited soldier got out of the passenger side and walked over to them. "Hey, is there gas out here?" came the muffled call from the new soldier. Inside the HMMWV, the driver was struggling desperately to get into his NBC mask.

"I have no fucken' idea." answered SPC Elsey. "There's an explosion... I masked."

"You mean that explosion?" asked the newcomer, pointing to the cloud in the distance.

"Yes." answered SPC Elsey.

The newcomer reached up, pulled the Velcro free from his hood and lifted his mask off his head. "All-Clear!" said MAJ Finley. After the destruction of Jalibah Airfield, the Army found bunkers loaded with hundreds of tons of munitions. The destruction of these bunkers resulted in explosions that looked like small nuclear blasts.

It took a few minutes to get the truck restarted, but once restarted MAJ Finley led them back to the battalion TOC. It was late in the day, and the sun was low in the gray sky

As the truck traveled down the road, the two soldiers could see the results of the conflict scattered along the road side. Burning shells of Iraqi trucks and armored cars could be seen all across the road side. Around the wreckage were the remains of Iraqi soldiers dead, their bodies' torn open from the explosions and fires that had consumed their vehicles when the Americans hit them. One guy was laying there. He was holding his hand up waving trying to get someone to stop and help him. With MAJ Finley leading, SPC Elsey just followed. As much as he wanted to stop, SPC Elsey was afraid of being left behind again. He didn't have any choice but to keep going. He was going back to his battalion.

After dropping the truck off at the battalion TOC, MAJ Finley returned to the site of the injured Iraqi soldiers, with the surgeon. The injured soldiers were treated, and medivaced by helicopter to a hospital.

It was between 2000 to 2100 hours when the tanker rolled into Charlie Battery. The 24th Infantry Division was in the midst of a major battle, and the 3/27th was pumping rockets down range. PFC Mitchell was surprised to find that there was no perimeter guard set out. It was too busy to spare anyone for guard. Every mechanic was busy trying to repair or recover a vehicle. The ammunition crews had doubled up to increase their speed down loading rocket pods. Launchers were shooting missions and going for resupply as fast as the ammo handlers could put them on the ground. Not three hundred meters away, Bravo Battery could be seen, likewise pump rockets into the battle. There was intense activity throughout the battery and the battalion.

The fuel on the tanker was desperately needed. PFC Mitchell learned that one platoon had to be left in the desert, in large part because they were out of fuel. First platoon had one launcher dry, and all the HEMTT's were out of fuel. Second platoon was functioning, just barely.

SPC Sharp sat in the passenger seat of the tanker as it drove into the battery assembly area. A wave or relief passed over him. He was glad to get away from the rear echelon troops, who never seemed to be too sure of what was happening. The war had gone too fast, too quickly. Maybe the leadership knew what was going on, but who had the time to stop and explain it to the troops? The soldiers followed their leaders on faith. And, though at times faith seemed to wear very thin, the soldiers did their jobs as best they understood.

Although he didn't know anything more then he knew an hour earlier, being amongst his friends caused the uncertainty to dissolve. He knew these people, he knew how they behaved, he knew what they expected, he knew what made them laugh and cry. He was home again with his buddies.

No sooner than the tanker pulled to a stop, then trucks and launchers began to pull up behind it. SPC Sharp and PFC Mitchell dragged out the hoses, and disgorged fuel into the thirsty tanks of the desperately hungry vehicles.

MISSION ACCOMPLISHED!



"THE MEN, THE MACHINE"

Chapter 19

After many long months of sitting and waiting the moment had arrived. Charlie Battery was set up in its circular formation. At the perimeter the crews of nine launchers sat filled with anticipation. Anytime now, these launcher crews were about to fire their first combat rockets.

When time came for fire missions, each of the nine launchers within the battery pulled forward about 800 meters from where they were parked with the battery. This converted the battery from a defensive perimeter of 150 meters across to an offensive perimeter over 1500 meter across in ten minutes.

On the offensive perimeter, Charlie Battery's launcher crews felt like the whole world was watching. Many of these soldiers had trained for years for just this moment. The long hours of training and maintenance, the sacrifices of time spent away from families, enduring the primitive living condition of the desert for the last six months, were all about to be vindicated. It was time to show their families, their country, in fact the whole world, particularly the Iraqis who they were and what MLRS could do. In their minds nothing could be allowed to go wrong, nothing at all.

Charlie Battery sat on Battle Position Cat, inside Objective Gray awaiting its first fire missions. The Iraqi Army had several border patrol units scattered around the desert. To counter them, the 24th Infantry Division moved swiftly to suppress these Iraqi units before they could report the division's presence. The 3/27th FA positioned itself to support the varied operations of the division.

With the battery FDC down, the 1st Platoon FDC was processing the fire missions for the battery. Such a stand-in is referred to as a Jump TOC (Tactical Operations Center). The battery's Main TOC vehicle had quit running and was being towed. With three radios, SGT Boot was trying to monitor four radio frequencies called nets, at the same time. The term net is short for network. The battalion had a frequency for voice communication, and another for digital computer communication. Likewise, the battery had two nets of its own for its internal use. This was complicated because the platoon FDCs did not have a fourth radio, since under normal circumstances the platoons did not need to monitor the battalion's digital net.

Around 1000 hours SGT Grant Boot received a call for fire from battalion. Because of the occasional problems radios had transmitting over long distances, the message was transmitted over the voice net, instead of the digital net as a computer burst. Helicopter scouts moving forward of the 24th Infantry Division had located a unit of Iraqi artillery.

Switching the radio frequencies from battalion net to battery net, SGT Boot began the call for fire litany. Call-for-Fire is fire mission information that is passed to the canons or launchers in a specific format. Everyone in the battery with a radio could hear the FDC come on the air with the fire mission.

The honor of firing the first twelve rocket mission from Charlie Battery went to SGT Mike Largent on C-11. Once the launcher's gunner SGT Tim Perna typed the grid, the map location of the target into the FCP (Fire Control Panel), the launcher's on board computers and navigation systems automatically calculated the direction and elevation for the launcher's turret to point.

SGT Troy Jones and his crew were half zoned; tired to the point of irritation. Drive and drive and drive some more, thought SGT Jones, when are we going to get a fire mission? He was very irritated that they had not had a mission, yet. In fact, they were irritated by every little thing. Standing on his seat, with his upper body raised out of the top hatch of the launcher cab, SGT Jones

looked at the extra gear strapped to the top of the launcher turret. It irritated him that the gear had fallen over during their travails, even though the straps still held it secure.

Down in the cab, behind the FCP sat SGT Jimmy Patterson, the gunner. He too, was tired and irritated. His rifle, which normally stowed in a holder just under his knees on the face of his seat, had broken loss and was in his way under his feet. Along with the rifle were two Kevlar helmets a satchel with an extra NBC suit, several bags of MREs, and the wrappers of SGT Jones last meal. SGT Patterson's feet were completely bound up, so packed in by all the "junk" the gear that cluttered the floor that his irritation was on the verge of giving way to anger. If I were a claustrophobic, I'd have to kill someone, thought the sergeant.

SGT Patterson looked at the sleeping driver, SPC Cornelius McDaniels and thought, "I bet a nuclear bomb couldn't wake him." We haven't been parked five minutes, and he's dead asleep. Oh well, he's earned whatever he can get.

SGT Jones reached into the pocket of his week old NBC suit, and pulled out two packets of instant coffee powder. Tearing the packets open, he dumped the contents of one into the other, tapping the up turned bottom of the emptied packet to get the last coffee powder into the other packet. About a quarter mile away, SGT Jones watched as SGT Largent's launcher turret started to elevate.

It's time to clean this pig pen up, thought SGT Patterson as he looked at the mess SGT Jones had left in the cab. He picked up the plastic foil that had held SGT Jones crackers, and crumpled it into a ball. Looking at where SGT Jones stood in the hatch, SGT Patterson tossed the wad so that it flew right passed his chief's eyes. This was followed by a packet of grape jelly, and an unopened potatoes au-gratin. He stopped when he noticed that SGT Largent's launcher was in the firing position, and waited to watch the rocket launch.

SGT Jones was too tired to realize that his gunner was trying to irritate him. He reached over to a plastic tube that lead to a five gallon water jug lashed to the top of the cab. With the plastic straw in his left hand, SGT Jones poured the double packet of raw coffee powder on to his tongue. Then he sucked up a mouth full of water and swigged the nuclear caffeine down in a single gulp. In seconds, SGT Jones was fully awake, wired on the caffeine. Over the radio, SGT Largent acknowledged that his launcher was ready to fire.

SGT Patterson watched as the rockets sped away from SGT Largent's launcher. The smoke from the ignition of the rockets had created a cloud on the ground that completely obscured the launcher. When the wind cleared the smoke, the launcher was gone. SGT Largent had taken the launcher back to the battery for reload.

Over the radio SGT Jones heard, "Charlie-Two-Two, Charlie-Two-Two, this is Charlie-eF-Dee-Cee; FIRE FOR EFFECT! ...Over.

SGT Patterson reached over to SPC McDaniels and shook his arm, "Fire Mission!" That was all it took. SPC McDaniels was instantly awake. Sitting up, SPC McDaniels had one hand on the steering yoke, the other on the hand brake, as he looked over at what SGT Patterson was doing at the FCP.

SGT Patterson was calling up the first screen of the manual fire mission program. The gunner's fire control panel is a twenty-four button keyboard, with a 400 character red light screen. Fourteen of the keys are dedicated function keys, which call up the menus, reset gyros, transmit digital information, or such. The other ten keys are the numbered keys.

SGT Jones stooped down into the cab and grabbed his note pad. Keying the talk switch on his helmet, he answered, "This is Charlie-Two-Two; Fire For Effect. Out."

“Target number, WQ-4600. Over.”

“Target Number, WQ-4600. Out.” SGT Jones called back.

“Easting, 642000; Northing, 00434000. Over.”

“Easting, 642000; Northing, 00434000. Out.” Here were the numbers of the grid location on a military map of the target. The computer has the location of the launcher stored in its memory.

“Altitude, positive 225 meters. Over.”

“Altitude, positive 225 meters. Out.” Once the gunner has entered the last of the target data into the computer, the computer will first assess the possibility of the launcher’s being able to engage the target. Next, it will determine what direction the launcher would have to be facing in so that the turret can swing around to fire over the left or right side to fire at the target.

“Aim points, one. Over.”

“Aim points, one. Out.” Here the computer is told to concentrate the rockets in one spot, instead of spreading them out over a large area. Still, that one spot is larger than a soccer or football field.

“Rockets to fire, six. Over.”

“Rockets to fire: Six. Out.” Each launcher can carry two pods, of six rockets in each pod. The 3/27th FA had made it a policy to always keep a maximum of fire power available with any launcher. Therefore, regardless of how small the target, if they fired one rocket from the pod, they would fire all six rockets of the entire pod. This way a launcher would not be stuck carrying a half empty pod when a twelve rocket mission was needed.

“Type mission, at my command. Over.”

“At my command. Out.” SGT Jones was told to not launch his rockets until the battery told him to.

SGT Patterson finished typing in the last two lines of the call for fire, and reached up to where SGT Jones was crouched down standing on his seat. SGT Jones passed his note pad to SGT Patterson, so that the gunner could double check the data for correctness. Once the two sergeants were satisfied that there were no errors in the data, SGT Patterson pressed the EXECUTE function key that would turn the mission over to the computer.

The FCP screen went blank, and then flashed:

FIRING POINT GRID: 0000 0000

COMPUTING FIRING DATA

AT END OF MISSION MOVE TO GRID 0000 0000

METHOD OF FIRE CONTROL: WHEN READY

There was a short pause while the computer processed the data. The FCP screen went blank, and then flashed:

PARKING HEADING: 0000MILS OR 0000MILS

WHEN PARKED PRESS INIT

SGT Jones pointed a finger at SPC McDaniels, and the driver revved the engine swinging the launcher around to the first of the two headings. The actual heading of the launcher is continuously displayed in the upper left corner of the screen. When the launcher heading came within a hundred mils (about five degrees of the parking heading displayed on the screen), SGT Patterson held up a clenched fist. The clenched fist was the drivers signal to stop.

SGT Jones looked over his gunner's shoulder at the FCP screen. They were within twenty-five miles of the directed heading, less than two degrees. SGT Jones gave his gunner an affirmative pat on the shoulder. SGT Patterson pressed the INIT key, directing the computer to continue.

While the computer recalculated the mission, the crew busied themselves with closing the cab. Everyone reached up and closed the armored blast louvers over the windows. The driver and crew chief checked their doors to make sure they didn't open during the launch. The gunner turned down the fan and closed the filter over the ventilation system that would keep the cab from being flooded with rocket smoke. It only took the computer a few seconds to confirm that the mission was still viable. Across the bottom of the screen flashed the message:

TO CONTINUE MISSION PRESS LCHR LAY

SGT Jones reached behind the gunner to where the radios were and switched the frequency to the battery's digital network. He then stood up in the hatch and watched to make sure that the turret elevated without difficulty.

SPC McDaniels revved the engine to provide over 800 amps of extra electricity needed to power the hydraulic system that elevated the turret.

SGT Patterson bent over the screen as the computer checked the rockets. The FCP would tell the gunner the condition of the rockets in the turret, and it would tell him the calculated turret angle and elevation as well as the actual turret position. The computer flashed a new message on the screen:

ARM ROCKETS

READY TO FIRE MESSAGE READY - PRESS XMIT

SGT Patterson checked the screen one last time to see that the turret had mechanically reached the elevation and direction that the computer had calculated would be needed to hit the target. It checked and he pressed the X-Mit key to transmit the launcher status message to the battery FDC.

SGT Jones listened to the radios squeal the high pitched staccato of a digital burst. Once the digital message was out, he changed the radios back to the battery's voice network. "Charlie-eF-Dee-Cee, this is Charlie-Two-Two ready to fire on voice command. Over."

"This is Charlie-eF-Dee-Cee, roger. Out." answered SGT Boot. It took less than four minutes from the call for fire to launcher ready to fire. SGT Boot would next confirm the mission with the battalion.

Inside C-22 the crew was becoming literally slap-happy. SGT Jones reached out and slapped his gunner across his helmet, "Hot job there, Jimmy!"

SGT Patterson reached up and grabbed his chief's hand in an embrace, "We're going to really show 'em how to shoot rockets, now."

Then SGT Patterson turned to SPC McDaniels, and the two of them grabbed each other's helmets and butted heads, slapped a high five, and giggled. "Rock the house, and kick ass!" yelled the driver.

"Those mother fuckers are fix'n to learn better then to piss us off." growled SGT Jones with a wicked grin on his face.

"Charlie-Two-Two, this is Charlie-eF-Dee-Cee: Fire target, WQ-4600. Over."

After the fire mission, CPT Wise was told by battalion that his two launchers had destroyed an artillery battery, inflicting sixty percent casualties, disabling two cannons, destroying four more cannons, all ammunition and all vehicles. When the scouts captured the Iraqi commander, they questioned him. The Iraqi captain said that his higher headquarters had called on the radio, and ordered his unit to fire on the Americans. However, after what the Americans had done to his unit, the Iraqi captain ordered the radio operator to shut the radio off and not respond to the call.

"STORMING THE EUPHRATES"

Chapter 20

Before moving out of Area Grey, Bravo Battery and Charlie Battery pulled up alongside of each other to complete refueling that they had started earlier, during the halt at Battle Position Cat. The fueling went slowly, because there was only one fuel tanker to service the two batteries. Bravo troops jibed the Charlie soldiers about their missing fuel tanker.

That Monday, this scene was pretty much the same as it was throughout the whole of the 24th Infantry Division. Having secured the high plain overlooking the Euphrates River Valley, the division stopped to consolidate its position. Logistics units that had been waiting in Saudi Arabia, moved forward to positions just behind the lead brigades and began re-supply and refitting activities. Every driver got out of his or her vehicle and performed whatever preventive maintenance they could. The 197th Infantry Brigade moved from Objective Brown, behind Phase Line Smash, to Attack Position Kelly. The 212th FA Brigade, along with the 3/27th FA didn't get a chance to really stop for long. The division was planning to attack into the valley at mid-day, the next day. The artillery brigade had to be in position along Phase Line Jet to support the attack. It was almost 1700 hours on 25 February, and the rocketmen needed to refuel, quickly.

To augment the fueling effort, fuel was taken from several of the fifty-five gallon drums that were carried on the HEMTTs. Carrying the extra fuel was an ad hoc idea that LTC Thrasher had ordered two days before going into battle. At the time he came up with this idea the troops had grumbled that it was unnecessary. It had been hard trying to scrounge up enough rope to secure the fifty-five gallon drums to the trucks. Now, with a tanker lost, everyone was quite happy with the boss's idea.

The real problem was in trying to transfer the diesel from the drums into the vehicles. The forward batteries did not have pump devices or siphon hoses. The soldiers figured that higher had this all planned out, and if hoses were needed they would have been provided. The officers who coordinated the drums knew of hose material being in the battalion and assumed it would have been passed out. The supply and maintenance people who had the materials had never been asked to forward pumps or hoses, and were miles to the rear with the battalion's logistical trains.

During the refueling, the overcast sky turned black. A wind started to blow from the southwest in heavy gusts, mixed with light sprinkles of rain. The troops were using the few buckets and even canteen cups to pour the diesel into the tanks. Since there were no funnels either, the soldier tried using MRE packages with holes cut in the lower corners, but in the wind this proved to be barely adequate. The gusts of wind blew the pouring fuel across the hands and sleeves of the soldiers, causing them to lose a fifth of the fuel on to the ground.

At dusk CPT Wise went back to the battery train and picked up 1LT Stader, the executive officer, leaving the FDC to be repaired. The battery train is made of the administrative and support sections from the unit. Since they do not directly engage in the actual fighting, they follow the front line at about five miles to the rear. The trains from each of the batteries were grouped together with the battalion train.

Once CPT Wise returned, the two batteries moved out of Objective Grey, and headed northeast to Phase Line Jet. With the coming darkness, the batteries formed into two single file columns and the vehicles drove closely following each other. Each battery took a different path to its new firing position. The trip shouldn't have taken very long, if the weather would have stayed mild.

Shortly after sun down, Charlie Battery entered a network of wadis. A full blown storm was raging around Charlie Battery. Driving rain pushed by winds out of the southeast beat upon the launcher chiefs who had to stand with their heads and shoulders exposed from the top hatch. The visibility was too poor for the drivers to see what was happening along the right sides of their vehicles. It took the driver and the crew chief working together, with all the skill that they could muster, to maneuver these launchers and trucks through the treacherous terrain. By shortly after midnight, Tuesday morning on 26 February 1991, the southern part of the Euphrates River Valley was being hit by the worst rain storm in over ten years.

Through several wadis Charlie Battery fought to make passage, only to be forced back by narrowing walls, gullies or dead ends. 1LT Robert McDowell was at the front of the battery convoy trying to find a path north. The lieutenant kept track of each failed attempt by using the GPS (Global Positioning System) to record the location of each wadi he had tried to pass through. No one would have dared to try making passage through such a wadi network during a storm like this using conventional navigation techniques. The maps showed the general location of the wadis, but lacked any detail about the particular wadi that the unit was in. This was complicated by the inability to see any reference points off which azimuth directions could be established. Yet, the little black box on top of the lieutenant's radio was watching three satellites that were circling the earth above the horizon that night. The GPS was giving him a thirteen digit grid to his location. He knew where he was on the face of the planet to the nearest meter, plus or minus ten meters.

Arduously, the drivers worked through the night and into the morning trying to make their way back and forth through the wadis. Many had not had any sleep in over thirty-six hours. The gunners on the launchers had to swap out, change places with the drivers or chiefs who could no longer stay alert. Passengers of the wheeled vehicles took the places of drivers that were falling asleep. Even the executive officer drove while the commander's driver was reluctantly forced to get some sleep.

About two hours before sun rise Charlie Battery found a wadi that opened to the north, giving them clear passage. They could now close in on their new position.

Just nor the wadis, Charlie Battery formed into its defensive circle and waited in case a fire mission came in. The rain stopped, but the wind continued to howl. It was funny to watch someone open a truck door, not realizing the other door was open. The wind would tear through the cab, picking up all the loose papers and trash, and blow them out across the desert. It was funny, until you opened the cab door and realized that your partner had left his door open.

Text of the Operations Order from 212th FA Brigade, to the 3/27th FA:

EXECUTION; the Brigade Commander's Intent:

I intend to use the overwhelming violence of Brigade mass fire missions to destroy Iraqi Artillery in the division zone, to assist the maneuver forces in seizing their objectives and then to participate in the destruction of the Republican Guard Forces Command. We move rapidly, close behind the 2nd Brigade to Phase Line Viking, then behind the 1st Brigade to Objective Orange. We position our firing elements aggressively, well-forward to engage targets as far forward as possible. Radars too, have forward positions to detect Iraqi Artillery as early as possible. We engage artillery immediately with enough volume of fire to destroy it. What the Brigade cannot range, we will forward to the Division Fire Support Element to attack with Army Aviation or Close Air Support (Air Force or Navy).

THOMAS BANKS
Colonel, Field Artillery
Commanding

At shortly after mid-day on Tuesday, 26 February 1991 the 24th Infantry Division began Phase IV, and Phase V of its operations; to take, and block the Euphrates River Valley. Opposing the Americans, Iraq had positioned the equivalent of a corps command and logistics element with two divisions worth of troops, and two military airfields. Although outnumbered by the enemy in the sector, the Americans would charge out of the high plains into the valley. (See Figure 20-a; *The movement and major encounters of each brigade within the 24th Infantry Division, during Phase IV & V of the operation.*) During the division's sweep across the valley, it would face repeated close combat with its first real opposition.

The division command assigned each of its three forward maneuver brigades a different objective to take. The 1st Brigade was ordered to attack from Phase Line Viking and secure, to take and occupy the main highway through the valley, at a point between two airfields. The 197th Infantry Brigade was ordered to travel up the left flank and secure a battle position outside of Tallil Air Base. The 2nd Brigade was ordered to assault the valley from Phase Line Jet, and secure battle positions south of Jalibah Air Base. The division spent Monday evening lining up its infantry and armor elements of the 1st Brigade and 197th Infantry Brigade along Phase Line Viking. The 2nd Brigade stayed in Objective Grey for the night.

Along with all of the other activity that was going on in the division, another player was coming into the picture. The 3rd Armored Cavalry Regiment (ACR) was running hidden along the 24th Infantry Division's eastern flank providing a security screen against any unexpected surprises.

At 1400 hours on 26 February 1991, the 24th Infantry Division surged forward, and stormed across the Euphrates River Valley. It seemed as if nature had conspired with the Americans, as a nasty sand storm blew in from the west, concealing the attackers' activities. Almost immediately, contact was made and fighting broke out between Iraqi soldiers and the American forces. Two battalions of mechanized Iraqi infantry with a battalion of close support artillery struggled to stop the 197th Infantry Brigade along the western flank. In the center sector, the division's 1st Brigade found itself being attacked by Iraqi artillery, and a commando brigade.

The American's first move was to call in the Air Force. Thunderbolt A-10 attack planes that had been on station over the division, dropped out of the sky and flew across the battle front, delivering their deadly ordinance upon Iraqi positions. The pilots flew six air sorties against the Iraqi infantry that was trying to block the western sector. The divisions own helicopter assets were assigned the center sector with the 1st Brigade.

The 212th FA Brigade called Charlie Battery, 25th Field Artillery, Target Acquisition Battery (C,25 TAB) to spot in-coming artillery. They set up their artillery fire finding radars, and relayed their discoveries to the brigade. These radars were sophisticated enough that they could track a small caliber artillery projectile moving at several times the speed of sound, and plot its flight path. Computers would next ascertain the projectile's ballistic trajectory and back track to its point of origin. The map coordinates would then be radioed to the brigade's artillery planning staff. The whole process only took a few seconds.

By the time the Iraqi projectile had landed, an American artillery piece was already traversing to engage in a counter battery fire mission. Cannons roared and rockets screamed across the battle field, as the Americans demonstrated unprecedented accuracy. For the Iraqi artillerymen it became a situation of, pull the lanyard and become dead. A counter battery, artillery duel broke out between the Americans and Iraqi. However, the Iraqi cannoneers were not even close to meeting the standards set by the American Red Legs (an old historical reference to artillery men).

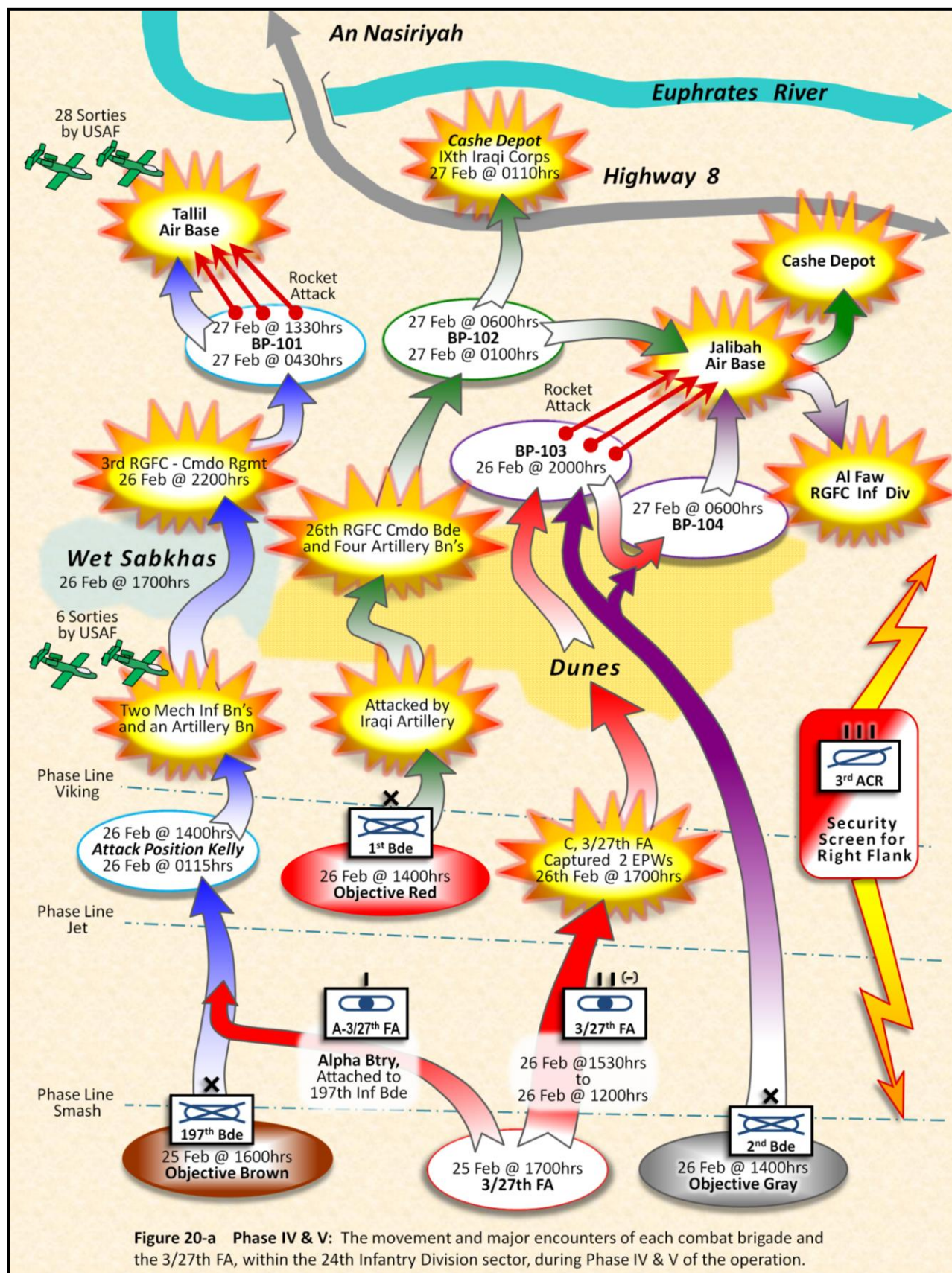


Figure 20-a Phase IV & V: The movement and major encounters of each combat brigade and the 3/27th FA, within the 24th Infantry Division sector, during Phase IV & V of the operation.

It was pretty much the same situation along the front lines. The Iraqi soldiers did not have the heavy armored vehicles that the Americans had. Lacking the mobility, fire power, or the armor protection to compete against the Americans, the Iraqi soldiers became easy prey. Further, the weather was obstructing their ability to regroup in the face of the attacking Americans. Fighting amongst the dunes, without a firm idea of what was happening the Iraqi soldiers became disoriented. This is not to say that they didn't try to fight the Americans; they occasionally put up a good fight. The Americans found Iraqi troops in small groups and were defeating them in detail. What is meant by "in detail," is that these groups of the Iraqi soldiers could not provide each other mutual coverage. For the Americans, this meant taking them out one small group at a time without reference to the larger Iraqi force. This type of off and on fighting went on all through the night.

This was very nerve racking for the Americans. They could never be sure of what to expect of what lay around the next dune. It could be a group of lost Iraqi soldiers who wanted to surrender, or it could be a group of lost Iraqi soldiers who would try to fight. These challenges were further compounded by the terrain. The sand was very soft for the heavy armored vehicles that the Americans were using. The wet sabkhas were almost like a marshy bog, causing the vehicles to become repeatedly mired down. Making forward motion turned into more of a fight against the terrain, then against the Iraqi soldiers.

In one example, an infantry scout platoon found itself encircled by the enemy and had to fight to break out. The day had begun with the 197th Infantry Brigade having to fight almost the moment they entered the valley. They had found themselves almost evenly matched against a mechanized Iraqi brigade. Two Iraqi infantry battalions and an artillery battalion had tried to block the American brigade. Next, the brigade had to travel through a network of soft dunes and marshy sabkhas that seriously slowed the brigade's pace. Throughout the whole day an ugly sand storm had made a nuisance of itself. It was late Tuesday night when the 197th Infantry Brigade found itself in head to head fighting against the 3rd Commando Regiment of Iraq's Republican Guards Forces Command.

1LT Larry Aikman Jr. was the platoon leader for the 1/18th Infantry (Mechanized) battalion's scout platoon; an element of the 197th Infantry Brigade. For him it had been a particularly long day. His platoon had been at the point of the 1/18th Infantry's advance through Iraq. He had to roam far forward of his battalion to pick through and find the routes they could travel over. On this young soldier's shoulders rested the responsibility for making the battalion's first contact with the enemy. It was the information that he had to collect, that drove the decisions his commander had to make.

It was around 2200 hours that 1LT Aikman suddenly found his platoon surrounded by an enemy force of superior size. In spite of the heavy fire that the Iraqi commandos poured upon his platoon, he made a decisive hasty counter attack, breaking out of the encirclement. Once rejoined with his battalion, 1LT Aikman was able to provide his commander with invaluable information on the locations and sizes of Iraqi units within the battalion's sector. For his uncommon bravery and leadership under fire, 1LT Aikman was awarded the Silver Star.

Along the division's central sector, the 1st Brigade found itself confronted by a double helping of trouble. The 26th Commando Brigade of Iraq's Republican Guards Forces Command reinforced by four battalions of artillery tried to block the Americans. During this fighting, LTC John Craddock commanded the 4/64th Armor Battalion. In the course of the battle, his tank took several direct hits on its turret breaking the optical equipment to the targeting system. The damage made his 120mm main gun unworkable. However, this did not stop him from leading his battalion on the attack into enemy positions. He took his battalion up the center of the 24th Infantry Division's assault across the Euphrates River Valley. After eleven hours of relentless driving and fierce fighting, LTC Craddock's tank battalion crossed Highway 8, cutting the land route that connected Baghdad to Kuwait. It was

there that he captured the major cache depot for the IXth Iraqi Corps. For his courage and leadership, LTC Craddock was awarded the Silver Star.

These are only two examples of the courage and determination that drove the American's "Victory Division" through Iraq. By the pre-dawn hours of Wednesday, 27 February the 24th Infantry Division had traveled almost 300 kilometers in under 55 hours, trapping Iraq's army in Kuwait.

"SAND AND SMOKE"

Chapter 21

After two days of constant movement and a night of driving rain, Tuesday morning on 26 February found the 24th Infantry Division perched upon the threshold of the Euphrates River Valley. Iraq's military never suspected, and could not believe that any force could navigate through the inland wilderness to attack them through the back door to Kuwait. In this area, just south and east of An Nasiriyah, the Iraqi Army had dug in two divisions worth of troops and equipment to defend the supply lines between Baghdad and Kuwait. While the Iraqis went about their business, American scouts made a reconnaissance of the Iraqi's disposition.

In preparation for Phase IX of the operations, the 3/27th FA moved to Phase Line Jet. From its next positions, Charlie Battery and Bravo Battery were to support the advance of the 1st Brigade's penetration into Iraq's Euphrates River Valley. The 3/27th FA's primary responsibility would be; to interdict Iraqi artillery in what is commonly called artillery duels, and to join other American artillery units attempting to engage targets that were too big to be engaged without assistance.

Monday night and on until sunrise Tuesday, nature had delivered a very harsh rain storm to this remote region of the world. Through the course of the storm, the 3/27th FA was forced to split up, each battery and command element being forced to find its own way north. By sunrise the 3/27th FA had managed to make its way out of the wadi system on to a flat plain. As the storm front passed out of the area, the battalion used the clearing skies as an opportunity to reorganize.

However, the day did not remain clear. Monday night's rain was followed Tuesday morning by a dust storm. Around 0800 hours, Bravo and Charlie Batteries packed up and rolled northeast to new firing positions just short of Phase Line Jet. The wind that had followed the storm front began drying out the ground under the hot desert sun. As the morning passed, more and more sand lifted into the air. By 1000 hours visibility was well under two hundred feet and dropping, as sand seemed to get into everything.

Shortly after mid-day on Tuesday, 26 February the 24th Infantry Division launched an attack against the Iraqi forces. After the rain storm of the preceding day, the Americans appeared as if out of the thin air and pounced upon the surprised Iraqis. The subsequent sand storm was now limiting everyone's vision, but the Americans already had all the information that they needed to target and attack the Iraqis. Out of the sand storm the Americans assailed the Iraqis causing confusion, rendering the Iraqi commanders impotent to get a picture of the situation they were in, or to mount any type of defense. Although the Americans were contending against a larger force in defensive positions, the Iraqi units were no match for the training and weaponry of the Americans.

It was just as this battle was beginning, Bravo and Charlie Batteries arrived at the locations given for their initial firing positions just short of Phase Line Jet. However, Bravo Battery's firing position turned out to be inside another area covered with sand dunes. As the battles progressed, and the lead elements of the division advanced, the 3/27th FA was forced to advance deeper into the dunes, so that its rockets could have enough range to provide artillery cover. The light weight HMMWVs and the tracked launchers were able to ford their way through the sand. It was different for the HEMTTs. Even with the mammoth eight wheels set in low gear all wheel drive, the 23 tons of vehicle was too much weight for the sand dunes, and they became mired in the sand.

At about 1200 hours, CPT Williams called his platoon leaders and platoon sergeants together for a face to face talk. The forward momentum of the battery had been all but consumed by the sand. It was decided that each platoon would use two of its launchers to try keeping the HEMTTs moving

while a third launcher would be left free for any possible fire missions. (Likewise, an hour later CPT Wise would find himself forced to use the same solution for moving Charlie Battery through the dunes.)

It was during this time, the 212th FA Brigade sent a fire mission to 2nd Platoon. This mission was then passed out to four of the launchers. Once the launchers had received their fire missions, they moved behind a nearby sand dune to execute the mission. The first launcher to fire processed the mission through its computer and started elevating and traversing the turret to launch its rockets.

As the turret was beginning to traverse toward its firing direction, a HMMWV with two people in it drove across the crest of the sand dune just in front of the launcher. CPT Williams immediately went over the radio net and called a check-fire. This froze activity while he investigated who the intruders were. From the top of the dune, one of the two people waved at the captain to come over. They were 75 to 100 meters away.

The captain's driver drove the commander to the bottom of the sand dune and the captain sprinted up to the top. When he arrived on top of the crest of the dune he found the colonel that commanded the artillery brigade which controlled the 3/27th FA and the colonel's sergeant major. They were looking straight down on to the face of the rocket pods in the turret. "Excuse me sir," said CPT Williams. "May I help you?"

"Hello captain." said the colonel. "I was curious, why are those launchers like that, just stopped sitting there? Are they broken?"

"No sir, they're getting ready to fire." The captain stood for a second waiting to see what type of reaction the colonel would have to this information. The colonel just stood looking down at the launcher. "Excuse me sir," said CPT Williams, "It is not safe to stand here while the launchers are firing."

"Don't worry about us, captain. I've had over twenty-five years of experience working with artillery. Go ahead and continue with what you were doing. We will be fine." explained the colonel.

"Excuse me, sir." said the captain with a serious yet polite tone of voice, "I strongly suggest that you not stand here while the launchers are shooting."

The colonel turned on the captain with an annoyed expression on his face, "Captain, I suggest that you just do your job. I'll be just fine."

Having been rebuffed by the colonel, CPT Williams turned around and sprinted down the dune to his waiting HMMWV. As the captain drove off, he felt puzzled by this colonel's insistence upon standing in the rocket's line of flight. The colonel's State side assignment was at Fort Sill's artillery school. Along with that fort being the training center for MLRS there were also two active battalions of MLRS, a National Guard MLRS battalion, and plans to activate a new MLRS battalion. Well, thought the captain, if he hadn't know about these rockets before, he's going to learn now.

The captain returned to the group of battery members that he had been talking to before the missions came through, and directed them to back off at least 300 meters. Once the captain was a safe distance, he reached down and grabbed the radio hand mike, "All units this net. All units this net; this is Bulldog.... Continue fire missions. I say again; this is Bulldog.... Continue fire missions. Out."

With a thunderous roar, the first rocket launched from the turret, and passed by the colonel accelerating toward the speed of sound. The colonel and sergeant major found themselves suddenly bounced around by the powerful back blast of the passing rockets spaced seconds apart. Deafened by the explosive acceleration of the rockets as they roared past, blinded by the sand and smoke kicked up by the rockets, and choking from the toxic fumes of the exhaust, the colonel and sergeant major ran

off the top of the hill. Once in their HMMWV, they drove away without saying a word to anyone in Bravo Battery.

Around 1200 hours Charlie Battery arrived at its new firing positions just short of Phase Line Jet. The battery was lined up in its convoy formation with each of the platoons spread out in a wedge. CPT Wise called his platoon leaders and assigned them sectors from which to fire.

The launchers would deploy to the sectors, while the platoon FDC command tracks stayed with the battery. This deployment was a hybrid of the desert offensive formation and the platoon sector tactic called for in the training manuals. The on board navigation system would allow the launchers to return to the battery for reload. Holding the ammo trucks at the battery would protect the soft skinned ammo trucks from getting lost in the storm.

1LT McDowell went to each of his launchers in 1st Platoon giving instructions to the crew chiefs and calling off the firing point grids to the gunners. Using his GPS, he had calculated the direction and distance each tracked launcher had to travel.

As the launchers move away from the battery, gyro-compasses told the drivers which way they were driving, accurate to a fraction of a degree. Revolution counters built into the drive train fed distance and speed data into the navigation computer, telling the gunner where the launcher was at even as it moved over the rolling sands. It was a point of pride and a game the drivers and gunners played to see how close to the designated grid they could bring the track without slowing down, until the last moment. Usually they could get it to within ten meters.

SGT Slusher and SGT Bissett were the driver and gunner on C-21 as it rolled out to the firing point. SSG Spreag, a crew chief, freshly arrived from Germany on temporary duty with the 3/27th FA, watched with fascination as his newly assigned crew worked together with increasing skill.

"300 meters, guide left." SGT Bissett hollered. He was reading the FCP (Fire Control Panel) and working in his head the difference between the firing point grid and the grid numbers that flashed across the screen. "200 meters.... 100 meters.... 50 meters, guide left.... 25 meters, halt!"

SGT Slusher hit the brakes just as the launcher plowed through a heard of sheep, that had been hidden by the storm.

SSG Spreag reached down over SGT Bissett's shoulder, punched a few buttons on the FCP. "Your off by 14 meters." he said. "That's good enough, send a LAS (Location And Status report)."

SGT Bissett punched buttons that would direct the computer to send a coded digital computer burst, telling the battery that launcher C-21 was in position. Mean while, SGT Slusher said, "Hay, Sarge, look at all those sheep. There must be about 300 hundred of them out there."

For a few seconds the sergeants stared out the cab looking at all the animals milling around. "Hey, SSG Spreag. How about let's move forward one or two hundred meters?" asked SGT Bissett.

"What for?" Said SSG Spreag, "This is the grid were the lieutenant told us to go."

"But, Sergeant, if we fire, we'll have toasted mutton blown all over the place."

"So, who cares? The Geneva Conventions don't say anything about sheep."

"That's not the point." responded SGT Bissett, "If we destroy this heard, some poor Bedouin is not going to be able to feed his kids. Let's move."

"We don't need to move." said SSG Spreag, "We are soldiers on a sanctioned military mission in enemy territory. If a few sheep get killed out of military necessity, no one is going to say anything to us. And if some dump local don't like it, that's his problem."

“That’s bullshit, sergeant! It doesn’t matter if we are a hundred meters this side or that side of the heard, we can still destroy anything within 18 miles of us just as easy. There is no necessity to damage this heard.”

“Wait a second you guys.” interrupted SGT Slusher, “Why don’t you ask the lieutenant what he thinks we should do....”

SSG Spreag got the platoon leader on the radio. “We’ve arrived at the firing point you gave us, and it is in the middle of a heard of sheep. If we fire, we will fry the sheep. Should we move or stay?”

CPT Wise broke into the radio net before 1LT McDowell could answer, “We are not here to wage war against innocent civilians. As long as it does not interfere with the mission, avoid jeopardizing the civilians.”

1LT McDowell immediately followed on the radio, “Charlie-two-one, move three hundred meters, any direction.”

The message was heard by everyone in the battery, and a precedent was set.

Bravo Battery and Charlie Battery fired several missions from Phase Line Jet before moving out. It was about 1500 hours when the 3/27th FA began to advance toward the front lines. The American forces were by this time too intermixed with the Iraqis for the MLRS to be of any continued use. Furthermore, forward observers could not identify distant targets because of the sand storm. The sand storm that had blown in that afternoon had to be one of the worst sand storms we had seen during our seven months there. Then again, every sand storm seemed like a gift from hell. Shortly before sundown, the winds died down and the Americans freely advanced.

The battle for the Euphrates River Valley raged through the remainder of the day and on into the night. By 2000 hours the Second Brigade was the first to report that its area objective, Area Objective Fox was secure. Next, the First Brigade reported Area Objective Wolf secured at about 0100 hours in the morning. At 0430 hours, the 197th Infantry Bde secured Area Objective Cougar. The 24th Infantry Division had shut down Iraq’s IXth Corps. Best of all, the Iraqi commanders in the east didn’t even know about it.

"LOST"

Chapter 22

While the 24th Infantry Division worked to secure a foothold in the Euphrates River Valley, the artillery elements, such as the 3/27th FA moved forward from Phase Line Jet to positions that would allow them to attack the regional airfields. The area was infested with enemy activity, and the soldiers of the 3/27th FA couldn't tell how the Iraqis would react to them. By this point in the operation, the Americans were about three days ahead of schedule. Although there had been several accidents, the opposition which the soldiers dreaded had failed to materialize, until now.

It was late in the afternoon on Tuesday, 26 February when the 3/27th had completed its initial fire missions, and started moving north again. Considering the poor trafficability, the impassable terrain that faced the large vehicles, CPT Wise decided to split up Charlie Battery. He had each platoon to move forward along different routes independent of the others, using radios to stay in touch with the battery headquarters element.

The officers were relying on the GPSs to navigate. The launcher crew chiefs were making sure to keep their computer navigation systems updated every half hour. When the gyros in the launchers slowed down too much, the launchers had to stop and re-boost the gyros. Wheeled vehicles stayed herded between the launchers, the truckers listening closely to the radios. By pre-dusk the storm moved north, and the battalion was greeted with clearing skies. The winds and blowing sand stayed on with diminishing force until sun down.

As Charlie moved north they encountered the extremely large rolling dunes that Bravo Battery was already embroiled in. Charlie Battery's launchers now had to shuttle back and forth trying to free one stuck truck after another. Eventually, most of the launchers became stuck in the sand, and many of the HEMTTs were stuck in the sand or had snapped their drive shaft trying to get through.

At one point while moving to its new location, Charlie Battery's Second Platoon had to drive across a sand covered salt flat, flanked by large sand dunes. Salt flats were always a trial for the drivers of the big trucks. With the rains of the day before, water had built up just below the surface making these salt flats very soft in spots. There was a tendency for the big trucks to sink into the soft sand and get bogged down. The Arabians called these sand bogs, "sabkhas."

It was about 1700 hours when SSG Kelly Forbey, the platoon sergeant was forced to stop and help one of the cargo trucks get unstuck from the sand. While SSG Forbey directed SGT Chuck Graves's launcher to recover the HEMTT, 2LT Tom Robertson lead the main body of thirteen vehicles out of the sand trap.

While the soldiers of the ammo truck and launcher worked to free the truck, SSG Forbey called the lieutenant, and asked for a halt in the convoy until the truck and launcher could catch up.

The main body of the platoon had moved about 600 meters from the stuck truck. At that distance one party could see the other by standing on top of their vehicles. The view was only partly obscured by four or five sand dunes. Being curious about what was happening, 2LT Robertson went back to the recovery party and stranded vehicle. The lieutenant found the platoon sergeant just as the HEMTT was pulled loose from the sand. SGT Graves had used his launcher to free the truck. Once the tools were policed up (recovered and packed up), they headed back to the main body of the platoon.

Just as they were about to crest the last sand dune before reaching the main body, the lieutenant and SGT Paul Kermode spotted two people doing two and three second rushes; short sprints from one

berm to another. They appeared to be moving around the perimeter of the parked Second Platoon vehicles. The lieutenant watched as these two suspicious characters moved, staying low and hiding behind an occasional scrub brush.

Although the lieutenant could not be sure who these two were, their suspicious behavior caused him to think that they might not be friendly. It was uncharacteristic for Arabian civilians to sneak around, and they moved like soldiers. He concluded that these were two soldiers, and was afraid that his platoon was sitting in an ambush. He had no real idea how many other enemy soldiers might actually be out there.

SSG Forbey's first indication that something was wrong was when he saw the lieutenant and his driver stop the HMMWV at the bottom of a hill and jump out onto the ground. The lieutenant then rolled on his side and started waving at everyone. "Hey, Buse. Stop a second," SSG Forbey said to his driver. The platoon sergeant stepped out of his HMMWV and walked over to the platoon leader, in a low crouch.

2LT Robertson waved at SSG Forbey to get down. Seeing the platoon sergeant drop to the ground and crawl up beside the platoon leader, the rest of the group got out of their vehicles and moved up along the neighboring dune ridges overlooking the little valley. The lieutenant, with hand signals directed the platoon sergeant to circle around and see if he could get a better view of the little valley. The lieutenant was still not sure what nationality the two soldiers were. Until someone could get a good look at them, he did not want to start shooting, and possibly hit a lost friendly.

SGT Graves and SGT Mark Davis drove their launcher around the side of the little draw between the dunes. Coming from behind, they managed to get into a spot where they could see, and identify that at least one of the two people was an Iraqi. "I can see 'em, lieutenant," SGT Graves called down to 2LT Robertson. "Sir, they're Iraqi's."

The lieutenant first gave a hand sign for SGT Graves to try to flush them out into the open. Firing three short bursts of bullets at the berm where he had last seen the Iraqis, the sergeant tried to get a reaction from the hidden foe. When that failed to work, 2LT Robertson had the soldiers with him all start shooting.

The platoon mascot, the dog named Luke had been sleeping in the back of the lieutenant's HMMWV when the soldiers started shooting. Startled by the noise, the dog panicked when he heard the gun fire. He bolted from the cab of the lieutenant's HMMWV, and ran off into the desert.

Back with the main body of the platoon, the crews of vehicles that had earlier made it through the sand flats had positioned themselves around their vehicles. A rough defense had already been automatically set up to secure their small assembled formation. Some of the soldiers stood in the hatches of their vehicles. Several of the soldiers sat in small depressions dug into the sand, with their weapons facing out toward the sand covered horizon. About half the drivers had fallen asleep in their seats.

The sudden burst of automatic fire caught the attention of almost everyone who was awake. Crew chiefs scrambled down out of their hatches, grabbing their anti-tank rockets. Several sleepers found themselves abruptly awoken and told to find cover.

SGT Troy Jones, one of the launcher chiefs, was in charge while the lieutenant was away. He heard the shooting from back in the direction of the sand flats they had just come out of. "McDANIELS!" He shouted at his sleeping driver, "WAKE UP!"

SPC McDaniels quickly came awake, looking a little disorientated. "What's up, Sergeant? He ran his hands across his hair, and scratched the spot, where the helmet had been pressing against his scalp.

SGT Jones was standing in his seat, bending down from the hatch. "Grab your shit, there's shootin' goin' on back in the flats." With a swift kick to the door handle, SGT Jones popped it open. In a fluid motion he swung through the door feet first out onto the ground, turned around and grabbed the anti-tank rocket from under his seat. McDaniels didn't see any more of his sergeant, because he was already rolling out his own door.

By the time McDaniels carrying an arm full of ammo and AT-4 anti-tank rockets caught up with his sergeant, SGT Jones was with SGT LaHaine. SGT LaHaine was standing off to the side of his launcher with binoculars in his hands looking off in the direction of the gun fire. To the right, McDaniels saw his sergeant adjusting the other soldiers into a parameter defense. McDaniels ran forward, he saw a small up-crop of ground and got behind it. It was as safe a place as any.

Once down on the ground, SPC McDaniels took off his CVC helmet and put on his Kevlar helmet. In the launcher he wore a tank driver's helmet with built in microphone and head set, called a combat vehicle crewman's helmet, or CVC.. Once on the ground he had to change over to his Kevlar helmet, because the CVC was only strong enough to protect his head from being bumped in an armored vehicle. Next, he pulled out a bandoleer with grenades for the M-203 launcher, and loaded one into his weapon. While he worked, he kept alert to what was going on around him. His buddies were loaded-for-bear. Just about everyone had an anti-tank rocket or grenade launcher ready. It was hard to see what might be coming at them because of the sand dunes. The shooting seemed to have stopped, but the adrenaline was still racing.

Back with the lieutenant, SSG Forbey was working his way around the right side, of the area were the two enemy soldiers had been seen. The little band of Americans had no idea of how many Iraqis might be out there. He needed a good vantage point where he could get a commanding view of the area.

In the mean time, the legacy of the sand storm was having an effect on the rifles. They kept on jamming and the troops had to use the bolt assist to manually seat the bullets into the chamber. "Damn this piece of junk!" SGT Graves mumbled, "I cleaned it once today, and it still fucks up."

Suddenly, one of the Iraqis jumped up and put his hands on his head.

Seeing that this Iraqi was trying to surrender, the lieutenant turned to his troops and gave the cease fire signal.

SGT Kermode stood up and started moving forward to take the Iraqi soldier prisoner. "Sergeant!" called the lieutenant. "I have him covered. Don't get between the prisoner and myself."

SGT LaHaine saw the Iraqi stand up with his hands in the air. As the Iraqi stood up, the soldiers in the main body brought their weapons to their eyes and took careful aim. Watching through his binoculars, SGT LaHaine saw an American soldier step out from behind a dune into the open, just on the other side of the Iraqi. "Cease fire!" SGT LaHaine cried, "Don't shoot! It's our people." He could not make out exactly who was out there, but there was no mistaking the uniform and web gear. American soldiers, especially combat soldiers always wore their uniforms the same way. In a fast paced lethal situation, soldiers have to be able to recognize friend from foe by reflex.

As SGT Kermode walked up to the surrendering soldier, he looked around and found the other Iraqi trying to conceal himself behind a nearby berm of sand. Drawing up his rifle, the sergeant fired a round into the sand beside the hiding soldier.

The second Iraqi jumped up and put his hands on his head. Then he began walking toward SGT Kermode. The sergeant felt really uncomfortable standing out in the open confronting the enemy face to face. Now, this wild eyed Iraqi, with his hands in the air was walking right at him. There was a look of defiance in the eyes of this Iraqi, he was playing a very machismo game of

chicken with the sergeant. This was becoming a test of wills, and SGT Kermode first wondered if he would have to kill him. Then he thought, he wanted to kill the jerk for playing with his head, but held his temper.

Standing in the open, SGT Kermode had no idea how many of these bad guys were out here. At any time, he was expecting a hidden sniper to shoot him in the back. This was supposed to be the infantry's job, thought the sergeant. In training they told us that when the real shit happened, we would have security forces assigned to take care of us. Well, here we are; now where's the God damn infantry?

SGT Kermode tried to signal the advancing Iraqi to stop, but it seemed that the Iraqi did not understand, or did not want to understand. So, SGT Kermode fired another round at the feet of second Iraqi soldier. The Iraqi got the message and stopped. This guy is trying to see how far he can push me, thought the sergeant.

Together, 2LT Robertson and SGT Kermode searched the two prisoners. The Iraqis were unarmed, had no shoes, in fact they had no provisions or equipment what so ever with them. A later search of the area turned up some boots and some canteens. It seemed that these two had deserted their army only a few days earlier. They were hungry, and were given food. They had very little water and no food. The little ordeal in the desert had damaged the feet of one of the Iraqi prisoners. Otherwise, they were in good health.

The two prisoners were taken to the main body of the platoon and held captive on the back of a HEMTT.

POST SCRIPT:

It was Wednesday, 27 February 1991 when the morning sun found Charlie Battery's 3rd Platoon completely immobilized by the sand and lack of fuel. Three launchers, a command track and five trucks from a single platoon sat trapped in the sand dunes along Phase Line Viking. Nowhere in the States had anyone trained for this type of severe terrain.

1SG Lanny Foster was still back in the sand dunes with the 3rd Platoon trying to get them unstuck from the sand dunes. He had just finished explaining to his sergeants just how embarrassed he was with them for getting so stuck. It was one of those fire and brimstone discussions that were filled with several less than holy expletives. The fire power to destroy everything within a five square mile area, was sitting useless in the sand.

Standing by his HMMWV 1SG Foster surveyed the situation. He was surprised to see an unexpected friendly face come loping out from behind a nearby sand dune. Luke, the mascot from Second Platoon came staggering up to the truck. The dog sniffed the tire, and collapsed against it, exhausted. "Luke, is that you boy? What are you doing out here?" asked the First Sergeant.

The dog opened his eyes, and raised his head to look at the First Sergeant. "Aarrooowell..." Luke wailed with the last of his energy before collapsing into sleep.

The First Sergeant later figured that the dog must have traveled over eight miles from where he had gotten separated from Second Platoon.

"OBJECTIVE ORANGE"

Chapter 23

Fighting for control of the Euphrates River Valley had gone on all through Tuesday night by the infantry and armor elements of the 24th Infantry Division. Meanwhile, artillery elements labored to rush forward and take up new positions. In the pre-dawn hours of Wednesday, 27 February, the division moved to encircle the airfields of Jalibah and Tallil. The last act of this show would begin with a devastating artillery bombardment.

Charlie Battery split up on the way to its next major objective, Jalibah Airfield. Just before sun set on Tuesday they hit an area of large soft sand dunes. The eight wheel drives of the nineteen ton (dry weight) HEMTTs were designed to be all terrain vehicles. However, the trucks that carried the extra ten tones of rocket pods were not as all terrain as everyone would have hoped. The terrain between Phase Line Jet and Phase Line Viking was choked with assorted sand traps. The launchers had to shuttle back and forth along the convoys, repeatedly towing the ammunition carriers free of the sand. Those HEMTTs that made it through the sand dunes and sabkhas, advanced toward Jalibah with about four launchers from 1st and 2nd platoons. The 3rd Platoon became completely embroiled in the sand. More than half of the battery's launchers and almost half of the ammunition carriers had to be diverted to recovery operations, working to pull each other out of the sand.

Even the tracked launchers themselves were not immune to the soft sand. SSG Spreag in C-21, along with SGT Largent of C-11 had been working to pull the ammunition trucks through the sand. Shortly after mid-night, C-21 slid sideways into a depression between three dunes, trapping the launcher. Even with the help of SSG Castillo in C-31, together with SGT Largent, they could not pull their sister launcher out of the sand trap.

Around 0200 hours a fifty-eight ton, M-88 tank recovery vehicle crested the dune over looking C-21, the twenty-seven ton launcher that had become stuck. SGT Roberto Pena jumped down of the M-88 and strolled over to where SSG Spreag stood leaning against the launcher. "What we got here?" observed SGT Pena, "I hear you're stuck." It took SGT Pena twenty-five minutes to string a cable to the launcher and back it out. Being totally separated from its platoon, SGT Pena told SSG Spreag to take the launcher to the battalion's TOC, the forward command element.

Meanwhile, the Second Brigade of the 24th Infantry Division converged on Jalibah Airfield, code named "Objective Orange." The airfield was a full function air force base, with two runways, three hangers, an operations center, and over two thousand Iraqi soldiers dug in for defense. The airfield's first line of defense consisted of three battalions of Iraqi commandos, in actually a light infantry reinforced with ten tanks. Airfield defense was further supported by a battalion of air defense artillery, equipped with two radar units. The most far ranging equipment defending Jalibah Airfield was a battalion's worth D-30 howitzers. Their maximum range, even with a RAP (Rocket Assisted Projectile) round was twenty-two kilometers.

Around 0300 hours, 1-64th Armor battalion, 3-69th Armor battalion and the 3-15th Infantry battalion surrounded the airfield under the cover of night with an assault force of tanks and armored infantry. For artillery support, the 212th FA Brigade provided the 2-17th FA battalion (155mm Self-Propelled), the 2-18th FA battalion (203mm Self-Propelled), the 3/27th FA battalion (MLRS), and the 25th FA Target Acquisition Battery. In total, the efforts of almost three thousand American soldiers were focused against Jalibah Airfield.

The 3/41st FA battalion (155mm Self-Propelled) commanded by LTC Stephen M. Lutz was to control the artillery activity during this assault. LTC Lutz supported the 2nd Brigade Commander,

COL Paul J. Kern, as the Fire Support Coordination Officer. The 3/41st FA had Direct Support responsibility for the 2nd Brigade. For this objective, the 212th FA Brigade would provide Reinforcing fire support. The person who actually mapped out the fire plan for the artillery assault was CPT Jeffrey Brown, the Fire Direction Officer.

The fire plan called for eight battalion ones, and approximately 100 rockets. The cannon battalions were to fire all twenty-four guns simultaneously, eight times (eight battalion ones) using the 155mm and 207mm projectiles. The cannon rounds set on delayed fuses would burrow deep into the hardened command bunkers while the MLRS bomblets would blanket the surface with flying shrapnel.

The 3/27th FA was tasked with providing a preparatory artillery barrage (prep-fire), before the infantry and tanks rolled through. Most of the targets allotted to the 3/27th FA were for counter radar, counter battery, destruction of command and control centers. The objective of such prep-fire was to weaken, and to soften the opposition before the ground troops tried to occupy the land.

From within an area called Objective Red the 3/27th FA set up its headquarters element. The battalions FDC had become disabled in the sand dunes. Bravo Battery was located at Battle Position 102, grid 3389. Charlie Battery went to Battle Position 103, at grid 1984. The launchers of the 3/27th FA stayed outside the maximum range of the Iraqi cannons, denying them any chance of striking back at the rocketmen. In total Bravo Battery had seven launchers ready for missions, and Charlie Battery had two launchers available. It was Bravo Battery's FDC that picked up the role of Jump-TOC.

At 0400 hours the 3/27th FA received the artillery fire plan to destroy Jalibah air base. CPT T.J. Stapleton was artillery liaison to the 2nd Brigade of the 24th Infantry Division. He talked Bravo Battery and Charlie Battery FDC through a 54 rocket priority fire mission; Time-on-Target (TOT) all the rockets would hit within seconds of each other.

Back at Charlie Battery, 1LT McDowell held a flashlight while he checked the information he heard over the voice net against the data transmitted digitally into his platoon PLDMD (Platoon Leader's Digital Message Device). Messages were set up and sent out by Bravo Battery digitally. For reasons of safety all the launchers then switched to voice net and confirmed their mission data back over the voice net. The lieutenant confirmed SSG Castillo of Charlie Battery's 1st Platoon, just as other launchers were being double checked by their officers.

Iraqi intelligence found it hard to believe, in fact never expected that anyone could pass through the wadis and dunes without getting totally lost. They had by this point warned their units in and around the airfield that the Americans were coming. This information was told to us by prisoners that were later captured. When the 3/27th FA launched their rockets at them, they were standing by manning their guns. They saw the long rocket trails and the bright glow of the rocket motors as the missiles flew toward them. Suddenly, well short of their positions the rockets blew up in mid air.

The Iraqis were surprised and elated that the American rockets all miss-fired prematurely, failing to even scratch a single Iraqi soldier. They raised their hands into the air and shouted defiant ridicule at the Americans. Their jubilation was violently cut short as the steel rain began falling.

The mid-air explosions were not miss-fires as the Iraqis had wrongly assumed. At just under a thousand meters from their targets, computer calibrated timer's detonated small explosive charges within the warheads of the rockets. These charges cracked open the casings that housed the DPICM bomblets, spilling them into the darkness of the night. On through the cold air of the pre-dawn these splinters of destruction sailed, spreading out into a cloud over fifty meters across. Between the MLRS and the cannon artillery they covered two by four square kilometer area.

During this assault, it was demonstrated that MLRS bomblets could defeat the latest generation of Soviet tanks. This became the evidence that an MLRS battery could defeat tank battalion formations. It had been because of this suspected potential that the Soviet Army made a special policy. It said, if one MLRS launcher is spotted on a battle field, they would divert a minimum of all artillery assets within the most immediate division to destroy the launcher. They would saturate a two by two kilometer area surrounding the launcher's sighting. They would do this, even if it risked divulging the locations of their own artillery.

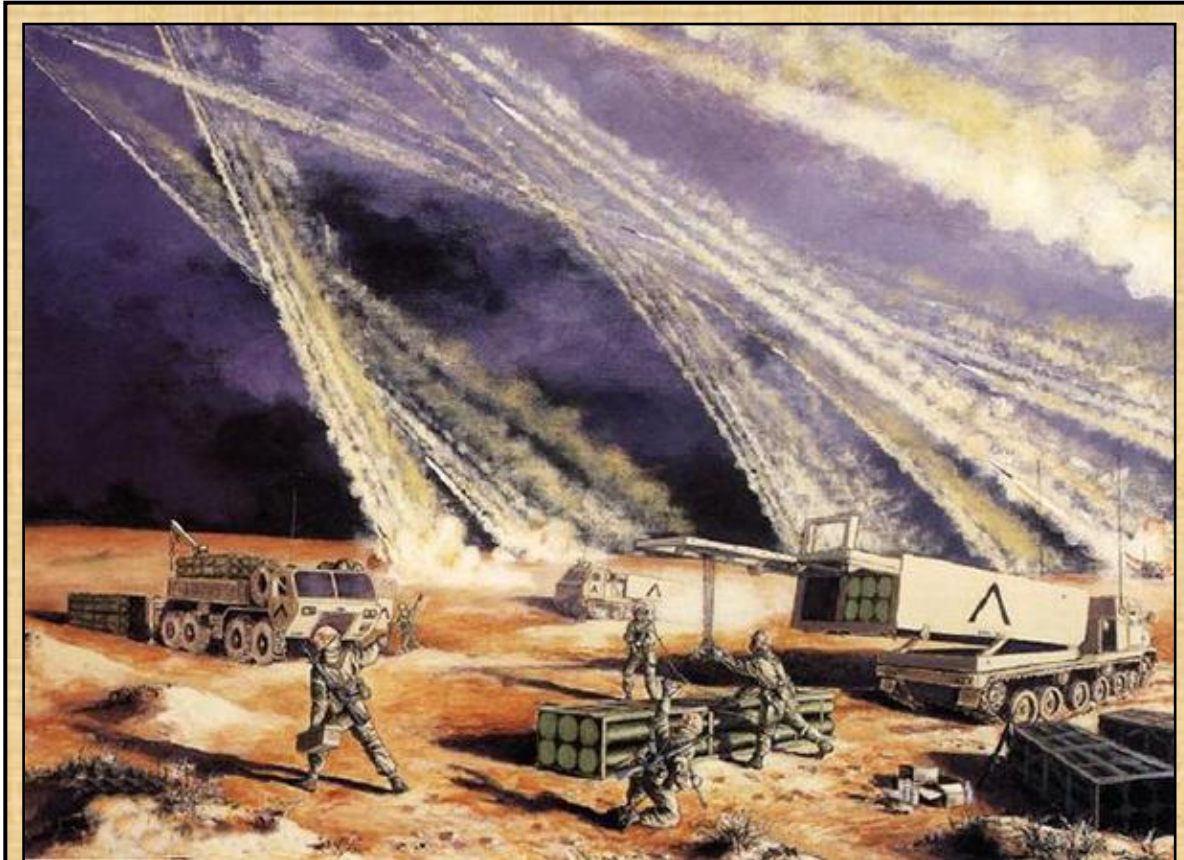


Figure 23-a Fighting from within the Sand Duens: Fighting to take down the Jalibah Air Base as the sand worked to bog down the rocket crews. Still, over fifty rockets were let lose against the airbase.

(By Combat Artist Frank M. Thomas, email wildgoose@crystalpeaks.com. [2008])

Once the artillery finished with the airfield, the Air Force took a turn with AC-130 gunships, and A-10 attack planes. When the planes finished the ground troops moved in. Tanks sitting in the dunes overlooking the airfield fired on the Iraqi defenses that surrounded the Jalibah. At the same time, infantry mounted in Bradley fighting vehicles stormed up the adjacent highway and turned into the airfield, overrunning the last of the Iraqi resistance. The infantry only found six hundred survivors. By sunrise several square miles of developed real estate had been returned to the sand. It was a classic combined arms Air-Land Battle operation.

There is a story that came out of this event. MAJ Finley told me that after the battle, an Iraqi officer and his men showed up at one of the command posts just outside Jalibah. I have heard this story in different forms several times since the war, but have not been able to pin down any details.

The American soldiers searched the Iraqi prisoners, and then fed them. When the American commander arrived, he looked the prisoners over and then addressed the Iraqi officer, "Well sir, I see that my soldiers have been taking care of you. You have food and water. Is there anything else you need?"

The Iraqi officer looked around at his soldiers that were with him, then looked at the American officer and said, "Sir, please stop the Steel Rain."

"What do you mean by Steel Rain?" the American asked.

The Iraqi officer crouched down, "The rockets fly over and explode in the air. Then the Steel Rain falls." Raising his hands over his head as if to protect himself, the officer began hopping around while still staying crouched on his haunches, "Then it goes boom-boom-boom all around."

Pausing, the Iraqi officer dropped to his knees, "Sir, I beg you, please stop the Steel Rain...."

By the time the Jalibah Airfield had been destroyed, the 24th Infantry Division had set an all time historical first; the longest forced march of a division size element in such short time. The division had traveled over 350 km in three days.

From Objective Orange, the 24th Infantry Division was tasked with forming a static defense. It would be a wall, so to speak, of tanks and infantry that would block anything or anyone trying to escape from Kuwait and flee back into Baghdad. Objective Orange and the nature of the 24th Infantry Division's mission there was a very closely guarded secret. The destruction of the Iraqi military facilities was sudden and overwhelming. The XVIIIth Corps could feel relatively confident that the Iraqis never really had a chance to signal to their command just exactly why they disappeared from their communication network. In the confusion of retreating out of Kuwait, hopefully Iraqi units would blunder into the 24th Infantry Division and its over eighteen thousand soldiers as they laid quietly in ambush.

No one, including the troops of the 24th Infantry Division had ever in their most optimistic dreams expected to reach this point in so short a time with so few casualties. (Here casualties are used in the broadest sense to mean any soldier removed from the combat force for even the most casual of reasons.) Many had privately speculated that it would take a week at best, maybe two weeks to get this far. The officers had told the troops to expect as many as two thousand combat casualties within the division. There was a feeling of guarded relief at the success of the operation to this point. However, for most of us there was no news of how the war was going outside the division. We could only hope that it was going as well for everyone else as it was for us. We could only hope that until it was over, God and our good fortune continued to watch over us.

"THE ALPHA AVENGERS"

Chapter 24

As the main body of the 3/27th FA advanced with the 24th Infantry Division, Alpha Battery moved out with the 197th Infantry Brigade. Their mission was to move up MSR X-Ray and destroy Tallil Airfield, just south An Nasiriyah. Then block any effort by the Iraqi army to send reinforcements in from the north-west.

On the first day Alpha Battery was alerted to move north, it moved out in a column formation. Once it picked up to travel speed, it spread out into a wedge formation. They stayed in a wedge formation from just past Phase Line Blade at the border, until they hit MSR X-Ray. There, they closed back into a column formation.

Alpha Battery traveled up the road at a cautious ten miles per hour. CPT Smith was real concerned about losing anyone. "I am not going to lose anyone!" he had told everyone during the mission briefing the day before the unit crossed the border. "If one vehicle breaks down, the whole convoy will stop." He was very serious about this.

At one time, Alpha Battery clogged up an intersection when a HMMWV broke down. It had bottomed out and ripping a hole in the oil pan. While the mechanics were trying to pound out the dent and patch the hole, another unit was trying to pass through the intersection. Alpha Battery just stayed parked in it. The commander refused to move until the HMMWV was ready to move.

Mid-Night Mess: 26-27 Feb 92

As Alpha Battery moved north, the battery FDC became a gathering point where the soldiers loitered while waiting whenever the battery stopped to regroup. The FDC crew had a short wave radio and was listening to the British Broadcasting Corporation and Voice of America broadcasts. The soldiers were apprehensive about their being at war and within enemy borders. They felt like they were deep into hot water. Trying to stay informed helped to ease the stress. It meant more than just a matter of casual entertainment; it took the hard edge off the fear of the unknown. Knowing that they were approaching direct conflict, the soldiers needed the news for whatever hint they could get of what to expect. So, every time the unit was slowed down by an obstacle such as dunes or escarpments, the lead vehicles would stop on the far side and wait for the others who were slow moving. It was during these stops that the troops who had access to personal short wave radios would share what they had heard with the others.

Around mid-night, Alpha Battery became embroiled in extremely rough terrain. Many of the wheeled vehicles, particularly the trucks had become stuck in the soft sand of the wadi that the battery had been traveling through. To keep the battery moving, several of the launchers were detailed to recovery work. While the battery was trying to pull itself out of the sand, the 197th Infantry Brigade called Alpha Battery. The 197th Infantry Brigade was getting ready to assault Tallil Airfield, and was tasking Alpha Battery to join an assault force. Their plan called for an artillery attack beginning at 0300 hours until dawn. Then the infantry would rush in and take the airfield.

"We need your whole battery to join us at our location," demanded the speaker for the 197th Infantry Brigade over the radio.

"I'm sorry, but most of the battery is stuck in the sand about ten to fifteen kilometers south of your position." answered the battery FDC.

“Well, bring what you can.... Out.” said the 197th Infantry Brigade, before breaking contact with Alpha Battery.

SGT Eddy B Ward had been standing by his launcher when he heard the radio request for support. Although the radio message had been directed to the FDC, everyone with a radio had heard it. SGT Ward was excited by the prospect of getting a fire mission, but saw that as long as the launchers were tied to the battery they might not make it in time. After waiting a while, he became impatient, got on the radio and called the FDC, “Listen, battery FDC is up front, free of the jam. We have a bunch of launchers up here. Why don’t you give us the coordinates, and we can go engage the target?” 2nd Platoon’s three launchers and one launcher from 1st Platoon were available for the mission. The rest of the launchers were trying to tow other vehicles out of the rough terrain, stuck behind the traffic jam, or in one case in need of maintenance services.

Reluctantly, CPT Smith made the decision to split the battery and take the four launchers and the battery FDC command track forward. He had a discussion with 1LT Faiello, the operations officer and a few key sergeants. He was concerned about losing his soldiers to unfamiliar terrain, and having small groups of his soldiers attacked or captured by Iraqis. Nonetheless, he had a mission and had to find a solution. By the time SGT Ward’s suggestion was made, the commander had already come to the same conclusion.

Traveling as fast as they could, at about thirty to forty kilometers per hour it took them almost two hours to get to their firing points.

Just before arriving at the firing points, SGT Ward’s track got stuck in a patch of wet sand. Within a few short moments the little convoy of launchers disappeared around a sand dune, and SGT Ward found himself stranded.

Looking around in the darkness, SGT Ward saw an M-88 recovery vehicle and an M-1A1 Abrams tank, about seventy-five meters from his position. (*See, Figure 24-a.*) Like the launcher, the tank was also stuck in the wet sand. The sergeant jumped out of the track and ran over to the mechanics. By the recovery vehicle, SGT Ward found a staff sergeant and two junior NCOs working with the M-88. “Say look man, who’s in charge here?”

Out of the darkness stepped a tall staff sergeant. “I am.” he answered.

SGT Ward took the other NCO by the elbow and turned so that they faced away from the rest of the crew to speak privately. “Say hay man,” said SGT Ward. “I need a favor.... We got a fire mission right on the other side of this wet sand. I’m MLRS, and I need to get over there and shoot some rockets.”

“Say man,” said the staff sergeant in a sympathetic tone. “You got ‘a check with my eL-Tee. I ain’t got no problem with that. But, right after I get through with this track, I’ll come pull you all out.”

“Where’s your eL-Tee?”

The staff sergeant pointed toward the darkness, “He’s just over there, man. You can catch him by the HMMWV.”

“Hay, thanks brother.” said SGT Ward as he turned away from the other NCO. He hadn’t taken twenty steps before the HMMWV became visible in the darkness. Standing next to the truck stood a young lieutenant.

As the sergeant appeared out of the darkness the lieutenant stepped forward from the HMMWV that he had been leaning against. When he was close enough the sergeant spoke, “Excuse me, sir. I’m

SGT Ward, and I need some help. My MLRS launcher is stuck, and we got to get beyond these dunes for a fire mission. Your sergeant said I need to check with you.

The lieutenant's posture suddenly changed from relaxed to purposeful, "Come with me, sergeant. In a quick step, the young officer marched across the sand to where the recovery vehicle was working with the tank.

"Sergeant," the lieutenant called to the small crowd working next to the tank.

"Yes, sir," the staff sergeant said as he walked over to the lieutenant.

"Sergeant, I want you to disconnect that tank and help this sergeant get his launcher rolling. It's important that that launcher gets to were ever its going. Do it now!"

It only took the M-88 crew a few seconds to unhook the tank, and SGT Ward found himself riding this mammoth back to his launcher. In five minutes they had the launcher hooked up, winched out, and on the road. They knew what they were doing When the mechanics unhitched the launcher they turned to the sergeant and said, "Hay, now we're going to be looking for your rockets."

"Bet man. And we'll giv'em one for you," said SGT Ward. "Thanks a lot."

Once situated back in the track commander's hatch, SGT Ward called to his driver SGT Ryks, "Let's kick it..."

When SGT Ward caught up with the rest of the Alpha element, they were taken to a firing point and left to sit. For whatever reason, the fire mission was canceled. The next morning three launchers were relocated and given fire missions.



Figure 24-a An M-88 Hurculies Recovery Vehicle Working on an M1A1 Abrims Tank: This is what such an event might have looked like.

Alpha Strikes: 27 Feb 91

It was about 0245 in the morning when Alpha Battery's fire detachment arrived at the location that the 197th Infantry Brigade had given them. Once the commander had brought the detachment into the area, he turned the activity over to 1LT Faiello. The lieutenant then had the launcher chiefs take their vehicles and fan out around the north side of the FDC track. SSG Foster, SGT Klusman, SSG Crandle and SGT Ward moved their launchers so that they were spaced two to four hundred meters apart, and readied for the missions.

At 0300 hours, right on time the cannon artillery unit that was a part of the 197th Infantry Brigade opened fire. From where the MLRS crews were at, they could see and hear the cannons. As of yet, the 24th DIVARTY had not sent a fire mission to the waiting MLRS launchers.

SSG Johnson and SGT Weiler the operators of the FDC, became concerned that the 24th DIVARTY was leaving them out of the action. The launcher chiefs were likewise concerned about getting a piece of the action, and call in on the voice frequency asking for a fire mission. In response to this, SGT Weiler typed a message, and sent it digital to the 24th DIVARTY, "WHEN WILL MISSIONS BE COMING DOWN?"

"APPROXIMATELY 15 MINUTES." answered the 24th DIVARTY.

After twenty minutes, SGT Weiler queried the 24th DIVARTY again, "WHEN WILL MISSIONS BE COMING DOWN FOR MLRS?"

"NO MISSIONS FOR MLRS AT THIS TIME.... WAIT." answered the 24th DIVARTY.

Not 200 meters from the Alpha Battery's position, the cannons roared into the night, pumping round after round upon distant targets. The MLRS crews could only watch helplessly, like dogs on a short leash, drooling for the opportunity to turn loss their rockets. Repeatedly, the FDC sent messages to the 24th DIVARTY asking to participate in the fire plan. Each time the response was the same, "NO MISSIONS FOR MLRS AT THIS TIME.... WAIT."

The problem was that the TACFIRE computer operators did not know how to generate missions for MLRS. The TACFIRE system (a computer with software specifically designed for artillery management) was quite capable of communicating with the MLRS launchers. However, the affect of rockets on targets was different than that of cannons. The protocols for generating an MLRS fire mission were a bit different than the ones used for cannons. Even if the MLRS rockets were seven times more effective then the cannon rounds, the DIVARTY's operators were not ready to experiment with MLRS.

The whole time, the launchers sat out on the firing points with their engines running and their systems hot, waiting for a fire mission. After almost three hours of waiting, SGT Klusman called FDC. Sitting and waiting had cost him so much fuel that he was not sure if he could drive his launcher back to the battery. His gas gauge was almost pegged against empty, and he was not sure if his launcher could run for another forty-five minutes. SGT Klusman was forced to shut down, or risk his launcher being stranded in the desert.

Around 0700 hours, after sun-up Alpha Battery got its first fire missions. Although four of the launchers were forward enough to engage the target area, now only three of them had enough gas to fire rockets.

FDC gave the first mission to SSG Crandle. The crew was overjoyed to have a mission. The gunner turned the mission over to the computer and waited the few seconds for it to make its computations. Once the computer had a ballistic solution, the gunner sent FDC a "Wil'co" message

confirming the fire mission, and the driver started turning the launcher into heading needed to launch the rockets. However, the launcher didn't move.

SSG Crandle found the tread had sunk into the soft sand while he had been waiting. The belly of the launcher was resting flat on the ground, while the treads free spun in the shallow trenches that they had gouged out of the soft sand. This was a real bad piece of luck. The crew started screaming obscenities at the launcher. The computer told them to pivot the launcher forty-five degrees so that it could fire over the right or left side. They were frustrated at not being able to shoot rockets after having traveled three days to get here. This would probably be their only chance at firing a rocket in combat. SSG Crandle called FDC on the voice net, and told them he was stuck. Was there any way he could be helped out of the sand in time to fire the mission, he asked?

FDC told him that there was not enough time to free him before the mission was due, and asked him if he wanted to cancel the mission?

SSG Crandle was not about to accept passing up a mission. "I'm going to take the mission," he told the FDC.

"But Sarge, we can't fire this mission? The turret would end up facing over the cab," said the gunner. During training the crews were taught to swivel the turret over the right side or at least the left side to fire. Then again the crews had trained to fire from hard packed earth. This is the way the text book said MLRS crews were to do business. This though, was not a text book situation. The gunner looked at his chief, with the hope that he knew of a way to salvage the situation.

"What choice do we have?" answered SSG Crandle with a wolfish expression on his face. "Punch Launcher-Lay, and cross your fingers." The staff sergeant remembered that LTV Aerospace and Defense had fired over the cab when the system was first tested before fielding. He could only hope that the system could still accept missions over the cab. With a finger point, the chief directed the gunner to punch the button.

As the turret elevated, the FCP displayed the rocket status board on the upper half of the screen. A diagnostic program checked each rocket's connections, warhead timer and assorted components. As the diagnostic program stepped through each rocket, the prompt of each rocket on screen changed to a "good" symbol. The lower half of the screen showed both the desired direction of fire it had computed and the actual turret direction as it moved from its stowed position. Hopes grew as the computer did not reject the mission, out of hand.

SSG Crandle stared at the screen with nervous apprehension. What he was doing was clearly not procedural. What the civilians had done during testing was hardly enough to cover him now if anything went wrong. If anything went wrong, if the slightest thing went wrong the blame would fall on him, and him alone hard. Negligence in combat could be construed as a crime in the Army. He at least faced the possibility of being relieved of his command over the launcher. He held his career in his hands and balanced it against the value of completing the mission. This was war and other peoples' lives could be at stake. People could be depending on these rockets, and for him to deliver them. Sure, maybe he was only one anonymous launcher in the rear of a battle. He could still abort the mission and complain that the mission was too risky, but he couldn't. He was risking his career, but others could be risking their lives. Subconsciously he was aware of all these factors, but there was little doubt in his mind about what had to be done. It was more than ego or pride; it was a point of private honor.

The prompt on the bottom of the screen flashed, "ARM ROCKETS." SSG Crandle quickly reached out and grabbed the gunner's right hand. He couldn't let anyone risk sharing the responsibility if something went wrong. He flipped the toggle to arm the rockets, and then flipped the next toggle to fire. Twelve rockets leaped into the sky.

Ten minutes later, 24th DIVARTY sent Alpha Battery its second fire mission. SGT Weiler received the mission digitally on the screen of his computer, and called off the grid location to SSG Johnson. SSG Johnson then recorded the target and plotted it on his map. "Hey Weiler, this target is 36 clicks out."

Thirty-six kilometers was five kilometers farther than the stated range of the rockets, thought SGT Weiler. "What can we do?" The young sergeant shrugged. "Let's see if the computer will take it." He then pushed the X-MIT button, and sent the mission to the next launcher.

SGT Ward received the next mission. It called for six rockets. For the gunner, SGT Jones who had just come from a Lance unit, this was his first live fire (the firing of a real rocket). It had the special significance of being with DPICM loaded M-77 rockets in combat, instead of a training rocket. Neither of these sergeants were aware that the target was out of range for their rockets.

SGT Ward copied down the target mission number and the grid to the target location. Then, SGT Jones pressed the INIT button, which sent the computer calculating a ballistic solution.

A minute later, the launcher sent FDC a "Wil'co" message. The computer had found a ballistic solution and the launcher was preparing to engage the target.

Three minutes later, forward observers watched the remains of an ammunition dump explode into the sky.

SSG Foster was then given a six rocket mission. He went through the entire launch procedure until the toggle switch that actually fires the rockets broke, forcing him to abort the mission.

SSG Foster's aborted mission was then given to SSG Ward who emptied the last of his rockets.

Now that the fire missions were over, there came the task of escaping the sand. SSG Ward drove over to help SSG Crandel out. On the way over, SSG Ward got stuck in the sand, but was able to back out. SSG Foster came over and he got stuck in the sand, but was not able to get out. Seeing SSG Foster stuck, SSG Ward went back into the sand and became stuck. This left three launchers stuck in the sand.

FDC had been monitoring this whole discourse over the radio and called for help over the 197th Infantry Brigade's command net.

An M-88 arrived at the wet sand flat, and on the way over to SSG Foster's launcher, it got stuck. Four tracks stuck in the same spot. The mechanic's contact team that was working with the M-88, in seeing the recovery track stuck, drove their truck out to see if they could help free the tracks. It got stuck. Five vehicles and nobody could get out.

The frustrated launcher chiefs marched around their launchers inspecting the situation with their crews. After seeing the M-88 get stuck, the chiefs got together at SSG Foster's launcher and then strolled over to the M-88. Maintenance sergeant was pacing around his stranded recovery track.

All the crews from the stranded tracks got together, and listened to the recovery sergeant's plan. The guys in the M-88 were experts at ideas. They reeled out the winch cable and disconnected it from the M-88. They then ran it over to SGT Crandel's track and connected one end to the clevis ring. The other end was taken to the tread of SSG Ward's launcher. SSG Ward's launcher was fifty meters in front of SSG Foster's launcher. Once SGT Ryks, the gunner who was driving engaged the drive gear the tread began to freely rotate in the sand. This took the slack out of the line and reeling the cable across the tread, pulled SSG Foster's track forward. It was enough to get a bite of the sand and start pulling the launcher free.

SSG Foster's launcher moved past SSG Ward's launcher and over to some firm sand. Then the cable was hooked to the front of SSG Ward's launcher where it was pulled free.

Next the two free launchers went to SSG Crandle's launcher and pulled it out of the sand.

Then two of the tracks went over to the M-88. Although they were able to move it about seventy-five meters, they were never able to get the treads to come out of the sand. All that they could do was belly drag it while the treads free spun in the sand it was digging up. Finally, CPT Smith came over and told the launchers it was time to go. The lieutenant who was with the now freed HMMWV and the M-88 crew had expressed a desire to stay with Alpha Battery. This though would not be possible with the M-88 still stuck in the sand.

When the little convoy of launchers found their battery convoy again, it was in the same stretch of wet sand that SSG Ward had gotten stuck in the night before. Like SSG Ward, several of the battery vehicles had become stuck.

Having learned how to use cable and treads to winch, the returning launchers took a cable from the crane of a HEMTT and pulled their comrades from the sand bog.

Once the 197th Infantry Brigade had secured Tallil Airfield, Alpha Battery's mission was complete. They now had to rejoin the rest of the 3/27th FA in the east. The infantry sent the MLRS soldiers a fuel tanker, and allowed the battery's vehicles to get a partial refuel. Alpha Battery's own fuel tanker was empty, and most of the other vehicles did not have the fuel to travel another ten kilometers.

Free from the sand, Alpha Battery moved east until it caught up with the tail of the 24th ID. During the assault on Tallil Airfield, two launchers destroyed a tank company, an ammunition dump, an air-defense missile site, and a number of vehicles in a parking lot near the facilities.

"TRAGEDY"

Chapter 25

At an impromptu airfield just south of the Euphrates River, half the division's helicopters sat grounded for lack of fuel. It was the morning of our third day in Iraq, and even we were surprised by the distance we had traveled. Our officers had told us to expect it to take a week before we reached the Euphrates River. Apparently, the logistics planners had likewise figured that they had a week to ten days to move forward the supplies we would need. This was a week's worth of time we did not have to play around with, anymore. The success on the VIIth Corps's eastern front was driving the Iraqi Army toward us well in advance of any time schedule our commanders had anticipated. Ready or not, our next big fight was only a few hours away.

By the time the 24th Infantry Division finished with Jalibah Airfield, it had in a three day period, traveled farther, faster than any division in the American Army's history to destroy an objective. Now, fuel was running low throughout the division. The division's logistics elements were extended to the limits of their abilities, trying to keep up with the front. A lot of the supplies were still in Saudi Arabia, and transport systems were now stretched out across more than 300 kilometers. This logistics problem threatened to undermine the divisions and the 3/27th FA's continued operations. There were still the hundreds of Iraqi units that would eventually be retreating from Kuwait that still had to be stopped. Commanders at every level began a desperate effort to find fuel.

Sun rise found the battalion half in the sand dunes, and half heading east to catch up with the lead elements of the 24th Infantry Division. Before leaving Jalibah Airfield, Bravo Battery had recovered all six lost vehicles. A large number of Charlie Battery's vehicles were stuck in the sand bogs from Phase Line Jet to Phase Line Tin. The 24th DIVARTY, which had just finished coordinated artillery activity for the 197th Inf Bde and Alpha Battery ran into the same sand dunes that the 3/27th FA was half stuck in, and became likewise stuck. The 212th FA Brigade therefore continued controlling artillery activity for the 24th Infantry Division in the absence of the division's artillery brigade. The sand dunes had turned out to be more of an obstacle than any Iraqi resistance.

An Extra Few Drops:

Having rallied together the remainder of the vehicles that made it through the dunes, CPT Wise did a quick estimation of his unit's status. He was surprised that anyone had enough fuel left to move. Just about all the fuel gauges read empty. He had earlier allowed some fuel to be drained from the tanks of the stuck vehicles to keep the launchers moving. This had proved to be only a short term relief; Charlie Battery's fuel supply was going hand to mouth.

By the time we had reached Objective Orange, the division was on the threshold of out running its supply lines. Our fuel shortage was turning from acute to chronic. No one had to be told what was happening; we could all feel it. Still, we were optimistic that somehow, we would get our jobs done and pull off a victory.

CPT Wise stood next to his HMMWV trying to think of a solution to the fuel shortage, when he saw a tanker. Along with Charlie Battery were elements of 3/7th Infantry assaulting the airfield. He drove over to the tanker and asked about getting fuel. The driver pointed to a nearby HMMWV and told the captain he would have to ask the First Sergeant.

The infantry First Sergeant was hesitant for a second. With the airfield destroyed, it was time to move forward. Yet, this was war and we were all in this together. "Five minutes or 500 gallons; whichever comes first," the First Sergeant told the captain.

For the next five minutes CPT Wise played traffic cop, personally supervising the fueling of his vehicles. "Don't get greedy," he told his troops. "No more than a half a tank per vehicle... if that much!"

Bravo Battery was doing better for itself. They were able to rally all their vehicles and still had fuel in their tanker. Everyone was low on fuel, but the mission didn't appear threatened at this point.

At about 0700 hours LTC Thrasher moved out of the sand dunes with the battalion's command element, the Tactical Operations Center (TOC). His little convoy consisted of three HMMWV's, a two and a half tone supply truck, two M-577 tracked command vehicles with one pulling the other, a launcher who's computer had suffered a power supply problem, and two freshly recovered ammo trucks that were to be returned to their battery at first opportunity. Going was slow at first, until it was realized that the launcher could pull the disabled M-577 faster than if it could travel under its own power. It was a sad irony to find that the old M-577 Command Post vehicles could move faster when towed by a launcher, then they could under their own power.

The battalion with all its elements, minus Alpha Battery, moved out for Area Orange. Most of the little convoys of battalion subunits traveled paths through areas around the defunct airfield. They were awe struck by what they saw. For most of the rocketmen it was the first time any of them had a chance to see firsthand the full potential of their own handy work. They had all been told what their system could do, but it was another thing to see it. The Iraqis had spread their vehicles out over large tracts of land and used earth movers to put berms around them. Rocket remains could be seen in the sand, the tailfins and spent motors up thrust from the sand were the front of the casings had buried themselves. Occasionally, DPICM bomblets could be seen on the ground with their drogue straps flapping in the wind. Out of the berms rose an occasional stream of smoke as the vehicles sheltered within continued to burn. It wasn't a pretty sight.

"Awesome...." commented 1LT Kilgallon as he scanned the area, "I can't believe this." Being driven by SGT Whitworth, the lieutenant passed a truck partially hidden by a berm. It was still smoldering. The truck was not as extensively damaged as a tank could have caused, but from the three bomblet penetration points that were immediately visible and the numerous shrapnel hits it was evident that this truck would not be going anywhere again. Over the radio CPT Williams called and announced that this was one of the targets they had just shot up.

The Combat Trains:

During the night the battalion's combat trains had made it through the sand dunes and were not far from the TOC. After a few hours rest the trains began moving again. As the battalion moved forward CPT Philip Churn lead those vehicles from HSB that were not attached out to forward launcher batteries. Driving along, they were passed through the area that Bravo and Charlie Battery's had shot the night before.

CPT Churn, the battery commander of HSB had spent most of the night like everyone else trying to free vehicles from the sand bog that he referred to as, "The Valley of Death." He had given his troops and himself a minimum sleep before sunrise. Feeling a little less then rested from the short sleep, "three hours had not been enough," he thought. He organized his train, his convoy of support vehicles to move east to catch up with the division's lead elements. He was concerned about the vehicles and crews that he would be leaving behind stuck in the sand. It was a shame, but in the light

of so little opposition from the Iraqi army, there was little threat to the crews being left to watch over their vehicles. The biggest threat was other passing units finding an abandoned vehicle and stripping it for spare parts. Tires, batteries, and radio components were in short supply.

On the top of his mind was the fuel shortage, this was a big concern. Since Charlie Battery had misplaced its fuel tanker, CPT Churn had been shuffling the remaining two tankers within the battalion around trying to cross level, or redistribute the fuel. The division was moving too fast, and re-supply was just not catching up with them as they had hoped. He needed to find fuel.

Before moving the train, CPT Churn called battalion TOC on the radio and talked to 1LT Hall. The lieutenant told the captain that had heard of a fuel point where the train might pick up fuel north of their location. Considering the need for fuel, the captain decided to swing around and see if he could find this fuel point.

When the train got to the designated location, there was no fuel to be found. It was a disappointment to the captain, and he turned around and headed east to find MSR Yankee again to catch up with the battalion.

Now, as the train traveled past the south side of Jalibah Airfield on its way towards MSR Yankee, CPT Churn saw a few Iraqi bunkers low in the sand. This was his first view of the Iraqi threat and he was intrigued by this. As he was riding along he caught sight of DPICM MLRS bomblets scattered on the ground. Alarms went off within his head. This was an impact area that had been fired upon by MLRS rockets. This was an area still alive with dangerous unexploded bomblets whose impact in the soft sand had not been enough to trigger the detonators. Now these bomblets were scattered like a mine field waiting for the unsuspecting to disturb them. "Stop the truck!" the captain ordered his driver. The whole convoy pulled to a stop behind CPT Churn's HMMWV.

Cautiously, he got out of his vehicle, debating within himself about what to do next. As he stood there thinking, he watched the other soldiers getting out of their vehicles and stretch their legs. His heart leaped into his throat when he saw several troops picking up DPICM bomblets. After all the lectures, all the training about the danger and unpredictability of unexploded ordinance he was astounded by what he was seeing. One guy was even dangling four bomblets by the drogue straps from each of his fingers on his right hand.

Calling over the radio, he warned the vehicles in the convoy that the unexploded bomblets were still dangerous, "Those are live MLRS bomblets, and can still explode. Do not pick them up! If you've picked up any of those little MLRS bomblets, you had better get rid of them." Then the captain got out of the HMMWV and ran down the line telling the soldiers in radioless vehicles to not play with the bomblets.

SPC L. Padilla was a medic who had been traveling in the front half of the convoy when he heard the captain's message come over the radio. Looking out the window, the medic watched as several doors opened and the occupants pitched tennis ball sized bomblets back out on to the sand.

At the back of convoy was 1LT Carey Radican, a maintenance officer attached from the 503rd Maintenance Battalion. He led a platoon of maintenance people who repaired the launcher turrets. Lacking a radio, the lieutenant had his driver pull out of the convoy and drive up the right side to find the captain and see why the convoy had stopped.

Before they had traveled half way up the convoy line they saw CPT Churn going from vehicle to vehicle. As the lieutenant got out of his HMMWV and reached back in for his rifle when he heard the captain say, "You all don't know what your fuck'en with!"

What's the captain talking about, pondered the lieutenant? It couldn't be me, because all I've got is my weapon. Looking around 1LT Radican saw a soldier sitting in his truck inspecting a curiously shaped piece of medal with a white strip of cloth.

There was an explosion somewhere behind the medic truck, and SPC Padilla heard someone scream, "Medic!"

When SPC Padilla arrived at the maintenance truck he found SPC Timothy Hill, of 624th Maintenance Company, from Ft Stuart, Georgia slumped across the seat, his head up and leaning back. The medic opened the passenger door and first tried to get a good look at SPC Hill's injuries. He saw the casualty's mouth quiver, and thought that he might be in time to help him.

CPL Raymond Disant, the other medic arrived on the scene with a medic bag at the driver's side just a moment behind SPC Padilla. CPL Disant opened the driver's side to check the driver. The driver, SGT Lorall got out shaking his head, and crying, "My buddy! My buddy! Oh man, something happened to my buddy."

SPC Padilla found no pulse from the carotid artery on SPC Hill's right side. Reaching across the body he tried to find the other artery that runs up the far side of the neck. What he felt was a hole where the left side of the face and neck should have been.

CPT Churn came up behind the medic as he rolled the head over to reveal the damage to the soldier. "Oh my God..." said the captain as the realization struck him that the young soldier was dead. He was angry at the senselessness of the poor young man's death. Why did this have to happen... why?

SGT Lorall was a maintenance sergeant. He stood, leaning against the hood on the driver's side of the truck dazed from the explosion. He had been wearing his flak vest and Kevlar helmet, which had absorbed or deflected most of the shrapnel. The corporal got the sergeant to sit still while he tried to examine him. Shrapnel from the bomblet had struck the sergeant in the arm and the right side of the face. A trace of blood oozed out his right ear where the concussion from the blast had ruptured the fragile capillaries of his eardrum, causing a ringing in his ear that would last a few days.

For a few moments SPC Padilla was not all together sure of exactly what happened. He noticed that SPC Hill had his weapon propped up between his legs, and wondered if the death had been caused by the rifle. But, when he picked up the rifle he found the selector switch was still on safe. "What happened here?" SPC Padilla called to the maintenance sergeant.

"He had one of those cylinder things in his hand, looking at it." answered the sergeant. "Then, it blew up for no reason at all."

Looking again at the young specialist, the medic found the whole left hand was gone along with three fingers from the other hand. The force of the explosion was so intense that four of the magazines normally worn around the waist were blown through the flak vest into SPC Hill's stomach. The bomblets were designed as a shaped charge which penetrated light armor by forcing most of the blast into one direction. It appeared that the direction of this blast had driven shattered fragments of jaw bone up through the roof of the mouth directly into the skull casing, killing the young man instantly.

CPT Churn turned away from the truck and quickly started back to his truck. On the way back, he found SGT Kenneth Delainy, the personnel administrator standing beside his Duce-and-a-Half truck, "Sergeant!"

"Yes, sir," the sergeant answered.

The captain pulled up to a hasty stop in front of the NCO, “SGT Delainy, we’re sitting right in the middle of an impact area. This place is littered with rocket bomblets. I need you to mark a safe path out of here,” CPT Churn ordered the sergeant. “And, be careful! We’ve just had one accident. I don’t want to see anyone else hurt.”

As the captain turned to set off toward his truck, the sergeant said, “Yes, sir. I’ll see to it.”

Just as the captain was leaving, he saw another bomblet. As he passed by it, the captain stuck his bayonet into the ground to mark its location so that no one would inadvertently hit it.

When the captain reached his HMMWV, he switched the frequency of his radio to the medivac channel and put out a distress call. After three tries he became upset. This was the fourth time he has cause to call for medical assistance and services were not working as advertised. Medivac support had said that this frequency was supposed to provide a direct line of contact. Switching back to the battalion net, he called the TOC and told them he needed a medivac chopper; he had two medical casualties. Looking at his GPS slugger, he gave TOC his location and told them that he would wait for the helicopter to contact him on the medivac frequency.

SGT Delainy returned to the convoy just as the captain stepped out of his truck. He had marked out a path through the impact area to allow even the big trucks to avoid the bomblets.

As the train moved out of the impact area, the radios stayed quiet. There was none of the usual radio conversations.

Outside of the impact area, the convoy parked. Shortly thereafter a HMMWV arrived, and MAJ Leonard Finley, the battalion’s executive officer stepped out.

Together the captain and the major walked over to the medical truck. The injured sergeant sat on the ambulance tailgate leaning against one of the medics. The major walked up to the sergeant and asked, “Son, can you tell me what happened?”

The sergeant looked at the major, tears streaming down his face, “My buddy’s dead, sir. He found a grenade, and it blew up on him.” A wave of anguish crossed over the sergeant’s face as he started sobbing again. “What do I say to his folks? He was my buddy, my partner.... Now, he’s dead, sir. He’s dead, sir. What do I do?”

CPT Churn knelt next to the sergeant, and put his hand gently on the grieving soldier’s hand, “Don’t worry about those things now.” The captain spoke trying to console the young sergeant, “We’ll take care of those things. There’s a helicopter coming to pick you up, and take you and your buddy back to the hospital. They’ll get you fixed up, and we will take care of your buddy. You try to relax now.”

Together the two officers walked over to where the other medics were putting SPC Hill’s remains into a plastic body bag. “What happened?” asked the major.

The medic close to the head turned the head to reveal the extent of the injuries. The major examined the body with his eyes. Then he turned his head away. His eyes closed, he dropped his head, and shook it back and forth as if to deny what he had seen. “Tell me what happened, CPT Churn,” the major asked. The two officers talked until the captain’s driver walked up and announced that the helicopter was calling for landing instructions.

SPC Padilla squatted with three other medics at the landing site, alongside the litter carrying SPC Hill. The medic watched as the lieutenant pulled a pin on a red smoke grenade and threw it across the ground. From the air, the smoke would mark the landing zone for the helicopter.

Out of the south came the big Sikorsky, Black Hawk with the red and white Red Cross emblazoned on its wide sliding doors. It circled the two trucks, gauging the lay of the land and the wind patterns shown by the red smoke cloud. The main rotor blades flared up and the nose pitched high as the Black Hawk braked its forward momentum. Sand kicked up and circulated in currents of down draft that cycled through the blades again and again. Gently the rear wheel touched the ground as the giant bird hovered right up in front of the waiting casualties. Once the front wheels touched the ground, a crew member jumped out the side door with a fire extinguisher. Crouching beside the helicopter, the crewman waved the medics forward.

In unison the medics picked up the litter and together with the injured sergeant they moved to the waiting door. A nurse in the door helped the injured sergeant into the cabin and buckled him in. Next she pulled the black plastic bag into the doorway and lashed the shoulders to the floor while the crewman on the ground secured the legs. The medics then picked up the litter and headed back to the edge of the landing zone.

In silence, the soldiers stood by their vehicles and watched as the big Black Hawk increased power. The change in pitch could be heard as the blades cut deep into the air. Slowly at first, and then with vigor the helicopter lifted from the ground. Once clear of the ground, the aircraft started its forward motion. As it climbed past the landing zone the big tail swung round so that the bird faced toward the south. Slowly it disappeared into the heavens.

When CPT Churn finished talking with the major, he went back along the vehicle path to find the spot where he had left his bayonet. CPT Churn needed to be alone for a few moments. He thought about how many times he had briefed the guys. These were his soldiers, and he was their officer. The weight of their welfare fell on his shoulders. He had told them that once they went in there was no way to know exactly what to expect. Stay away from the women, he had told them, stay away from the children, don't mess with anything, and don't eat anything but issued food. "Look you guys, we have made it this far; don't do anything stupid and we can all make it home." As he walked back across the impact area, all these thoughts played in his mind. Why such senselessness is a question that would continue to haunt the commander. He felt anger, and frustration. He felt shame and remorse. He felt pain and loss. He cried.

Sometimes, before he falls to sleep at night, SPC Padilla still sees the face of that young soldier.

"COMMANDING MLRS"

Chapter 26

by, LTC Richard Vallario
Commander, 1-27th FA (MLRS) Bn
Babenhausen, Germany

[LTC Vallario was the commander of the 1-27th FA, a sister battalion stationed in Germany. In this article, LTC Vallario describes the issues and the experiences of commanding an MLRS battalion. This provides a comparison to that of his sister battalion from Fort Bragg.]

Multiple rocket launchers have been used for a long time. We used them off ships during World War II. They first came into use just before World War II. Those MLRS were never as sophisticated as what we have right now. In the past it was aim, shoot, and where ever it lands, that's great.

The system we have now with all its warts, is probably the best that's out there right now. If you look at the BM-21 or the BM-22, the Russian multiple rocket weapons, are not even close to the sophistication of the MLRS. I think that is why the MLRS was one of the big winners, suddenly becoming one of the more notable systems within the Army inventory.

What we have ended up doing is we have taken a system that was in the Field Artillery that was like the Lance and the Perishing, yet different. These rockets where theater level systems, that could be, in some circumstances passed down to a corps. These rockets where designed to operate against fixed and semi-fixed targets well behind the enemy front. Now we find that the MLRS, which was primarily designed as a tactical system for corps and division level mobile targets, working well against deep fixed targets. Because of what senior leaders have seen the MLRS do, we are now shutting down eight inch (207mm) cannon units. It is now taking the place of the premier piece in the Field Artillery profession.

Can it ever take the place of a cannon? No, it was not designed to do that. Unfortunately, there are not a whole lot of people that understand what the system is; or how the system is supposed to be employed. We are not a close support system.

In the future, we will have divisional battalions of MLRS (an increase from an occasional battery of MLRS for a division). The first two prototypes are in Europe, now (mid-1992). What that MLRS battalion will look like doctrinally, how it will function in relationship with the overall division, has not been set. Is it going to be 3X9 (three batteries with nine launchers per battery) or is it going to be 2X9 (two batteries with eighteen total launchers)? Or, is going to be some derivative of that?

From obscurity, the days when for the longest time there where only four battalions, to now where it has become a primer armament system is a very interesting story. The Field Artillery has been funded for the HiMRS, which is nothing more than a light MLRS. New longer range rockets are being developed to fill the gap between the M-26 Rocket with M-77 Warhead and the M-39 ATACOMS. New munitions types are being developed that will increase the systems tactical flexibility. Will we get the full array of munitions? Probably not, but it is coming and coming quick.

The biggest thing that the people in the MLRS community shouldn't do, is over sell the system. We are not as responsive as light cannon artillery. We don't shoot reverse slope of the hill like howitzers real well. It is hard for us to get the trajectory to be able to hit the reverse slope. And, we are just not a close battle weapon system; especially for our troops standing out in the open. It was never designed to do this. It was initially designed to be a counter fire weapon. Now, we have developed a lot of other uses for it, and the division commanders and the senior leadership are sure that is what they want to do.

I think that the guys that were with the XVIIIth Airborne Corps probably had the hardest of the deal. The reason is because, MLRS is not an easy system to pick-up and move long distances, using strategic lift. There is an abundant amount of equipment, and you need all of it to function. The Table of Organizational Equipment is set up where we have got the needed equipment to meet our needs, with fewer people involved. That was one of the big selling points to the politicians. The average general support cannon unit is 550 personnel, and we are 460 personnel. To move a battalion a long distance, get it set up to fight and ready to go, with the logistical tail that it takes, plus just the numbers of equipment that a unit of MLRS has is not easy. Consequently, the concept of HiMRS. I think this will be somewhat better for the light units.

Now, everything that was leaving here from Germany was heavy. By heavy we are talking about mechanized infantry and armored tank divisions, as different from airborne infantry, airmobile helicopter division and small cavalry armored regiments. The people in the heavy units need more time to make strategic deployments; and, planners accept that it will take longer. Therefore, the mind set was different; they expected to go and take everything they had.

When you talk about a quick reaction force, it is very, very hard to try moving an armored force; even such as an MLRS battalion. The 24th Infantry Division for example, which is a mechanized infantry division and a part of the XVIIIth Airborne Corps; when you start trying to make a quick reaction deployment. It is very hard to get enough strategic lift/transport for any type of deployment.

It could have ended up a real travesty over there in the Persian Gulf. Up until September the only thing over there facing the Iraqi armored forces was the XVIIIth Airborne Corps. The amount of heavy forces over there was very slim. If the Iraqis wanted to get foxy, it could have gotten very nasty. Even when we [the 1-27th FA of the VIIth Corps (Heavy)] had gotten there in December, we were the third unit of the 3rd Armored Division there. Along with us was the division's Tactile Headquarters, and the 3-17th Engineer battalion in division's Tactile Assembly Area. The air was filled with anticipation, I didn't find any real fear at that time. In fact, I don't think there was fear the whole time because, there were so many heavy elements.

I must add, and it needs to be understood was the importance of the agreement within the geo-political strategy and how well the war was planned. The campaign was very well planned. There was no doubt in anyone's mind from the time Lieutenant General Schwarzkopf got there, as to what we were going to do and where we were going to do it at. We may have moved a kilometer to accomplish our mission, but this was a minor problem.

Another strong point is that when the US political establishment says, it is going to do something and brings in the military, the politicians have learned to allow the military to do it. I think we have learned from Vietnam. I think that just about every action since then (barring Desert-1), was probably done that way; once the actual decision was made, it was turned over to the military, and they were allowed to execute it without a lot of direct oversight.

One of the stories that I do not think has been fully developed was what it took to keep all the diverse national forces focused on what had to be done. It didn't get a lot of press, but was an interesting, and unusual situations that did arise as a result of the diversities.

The units that went over there, knew exactly what the mission was. We were going to kick Hussein's butt out of Kuwait. It wasn't to go to Baghdad, It wasn't to obliterate all of Iraq; the exact message was out of the United Nations Resolution-232. It said, he has got to leave Kuwait. That was the actual mission. Everybody understood what the mission was. The training with the soldiers; what we had done for years from Field Manual 25-100 ("Training the Force"), and the Air-Land Battle doctrine (from FM 100-5, "Operations") was executed. In some areas better than others, with new lessons learned from the unique situation the desert presented.

The soldiers themselves, in a lot of instances without direction, took the lead and did what they were supposed to do. This is a credit to the Army structure, now. It was a very businesslike atmosphere over there. In spite of all the concerns that they had to think about; mom and dad at home, wife and baby at home, bills, what might happen to their life; I can't remember seeing an instance where the soldiers were not ready to do what they were suppose to do. Although this has been talked about, I really don't think it has been examined. I think it is by virtue of the soldiers we have today, by how they are trained, and how enlightened they are about what is going on around them.

The hardest time we had here was November 8th when I called all the soldiers in and broke the news; it was instant euphoria. Then, suddenly it started to sink in. We held a series of meetings where we brought the battalions ladies in. Normally, when we go to Grafenwhor Training Area and hold a Family Support Group meeting, we might get twenty or thirty ladies. After November 8th, we were packed, 164 women at the meetings; that included all the attached elements. We set up the battalion's classroom as the Family Support Center for our battalion. It became a place where people could go and just talk to someone and solve problems.

From the time we were alerted to the time we actually left, there were some emotionally gripping occurrences for me, which happened to my soldiers and their families. The single soldiers were very interesting; within a couple of days after the announcement they all were calling home. You could see it, everybody wanted to talk to somebody at home. Everyone knew what we had to do. We had to get our equipment shipped out of here. It became a waiting game; when does it happen, when do the trains roll, what time are the busses coming, and when do we leave? Realize that this was all happening just at the onset of the Christmas season.

Everybody kept their head about them. We didn't have anybody complain that they couldn't go. As a matter of fact, we had a couple of guys that were offered to make non-deployable, that said they wanted to go. Really, everybody lived up to their contract; both with the Army morally, and their country spiritually. It was a tough day leaving here; trying to say good-bye. However, once the busses were on the road every body's minds instantly turned to the mission and what we had to do (not to suggest that the soldiers forgot about those they were leaving behind).

Of course, at the end of the war, as soon as everyone heard over the radio it was ended; the first question was, when are we getting out of here? All right; we're done; let's get home, now!

From the time we got alerted to the time we got home, I have never been in a unit that was so close. Even the soldiers that weren't the type to always hang around with the crowd, were always there.

We moved as a unit, as did most of the people that went to Persian Gulf. The movement was tough with a lot of individual replacements. We received two extra officers from Ft Sill, and two extra crews from the 2-27th FA. But, on the scale that we moved soldiers over there, if you are going

to move soldiers over there, it had to be unit movements. There is no way around that. I don't see how we could have piece meal it.

The leadership style of the command during the war could best be described as, centralized planning, decentralized execution. The plan was set, though there was some maneuvering that could be done. We knew each time we went to a new division what their mission was and what they were supposed to do. Having been attached to three different divisions, let me give some examples:

We were linked up with the 1st Cavalry Regiment. It was only a single brigade up near the border. Just to see a brigade of armor coming across the desert in a battle formation is an awesome sight. The 1st Cavalry had the feint and deception plan to make the Iraqis think that we were coming up the wadi. General Tallailly was given the mission, and had to come up with a plan that satisfied the senior commander's intentions. He briefed the plan back to the corps commander, and with a few adjustments that was the plan that the division executed.

At my level (the battalion commanders' level) the first raid we shot on 13 February; COL Goss, the DIVARTY commander, Brigadier General Tommy Franks, the Assistant Division Commander (ADC), and Gen. Tillailly said, "We are going to run this thing.... We are going to have 8 million strap-hangers here. (slang; unnecessary extraneous personnel, spectators who come along just to watch, or say that they were there, including higher command staff officers and the press). So, here's what I want to do.... Use your battalion plus my A-21st FA battery. Go, accomplish it...."

So, we went out and set the plan. Came back, and back briefed them. They said, "Roger...." We went out, rehearse the plan. Then we went and did it.

The basic precepts of the strategy and the mission were always there. The accomplishment of that would have to be back briefed, and then it was blessed. Once that was done, it was executed.

When we went over to the 1st Infantry Division, their task was the attack to make the Iraqis think that their attack was the main attack. They where to make it look like they were going to bust the berm. Which was right next to the 1st Cavalry, who where to bust the berm, go twenty kilometers deep, and stop. The concept was that 1st Infantry Division and 1st Cavalry would go first. Then, about 12 hour later, the 1st Armor and 3rd Armor divisions would attack along with the rest of the ARCENT, making the sweep.

Because of the unexpectedly light resistance, everybody was told, we are all going! This caused confusion.

Instead of two and a half hour Prep time, we had thirty minutes. [The orchestration of blanket area artillery in advance of a division assault is called a Preparatory Artillery Attack, a Prep-Fire, or a Prep. Such an assault takes two hours to organize, and a half an hour to fire. That is, if you follow the book.] Then instantly after the Prep, we had to instantly pack up the battalion and move west to link up with the 3rd Armored Division, who was already on the march. The 3rd Armor Division had been move on (verbal) order, ahead of schedule.

By this point they (the 3rd Armor Division) was behind us, still just working to cross the berm. We were already inside Kuwait, having entered with the 1st Infantry Division. It was a little dicey for us about how we would link up with them without being shot at. We had to be careful that the 3rd Armor Division didn't mistake us for Iraqis, running around out in front of them. Luckily, it worked out well.

Once we joined with the 3rd Armor Division, our mission was simple; movement to contact on a right hand sweep. The division commanders wanted our rockets to reach as deep as possible ahead of the advancing force performing a screening mission. Our rockets have a range of only thirty kilometers. By virtue of that fact, we stayed very close to the front the whole time.

When we were doing the artillery raids for 1st Cavalry, they had to advance and extend their screen line for us to be able to get into a position where we could fire on the targets that they wanted fired. You are going to find out that whatever range you have, the commander wants more. The days of the artillery, especially the general support artillery, being seven or eight kilometers behind the FLOT (Forward Line Of Troops) flailing away, is gone. We are going to have to be up with the tanks.

At first the senior commanders wanted to do MLRS like a cannon unit: Line them up hub to hub, stand by, fire! Everybody shoots at the same time, so that they could get the "Ooowah..." effect. I can understand where they are coming from. Some of these guys just didn't understand MLRS. They say we have to Mass Fires. By definition, you have Massed Fire by shooting one launcher twelve rockets.

During the war, doing movement to contact, ain't nobody stopped. There was no position we occupied, from out of which we fired. You just ran the whole time. Movement in the desert with the Desert Wedge formation, it's sort of hard to train for that anywhere else. But, things like that, we learned while we were over there. I brought some of that with me from my assignment with the 1st Cavalry back in the States. We spent at least two or three rotations a year at NTC (National Training Center, Fort Irwin, CA). The strict TC 6-60 (the Training Circular text book for MLRS) hide position, firing position, reload position, and all that; we did not do that over there. For non-desert warfare, the tactics we use in the TC 6-60 are fine. I will tell you, we have to be flexible enough, in a desert or on an autobahn (freeway/highway), to be able to jump out of a convoy, shoot a mission and jump right back in.

We have been hanging on to the base concept of TC 6-60 for so long, that we haven't done anything with it. We have got to expand our tactics. We don't need to change anything drastically. We have to be cognizant that the days of having sixteen minutes to complete a fire mission are over. That's too long, not responsive. The days of running from a hide position to a firing position that is a couple kilometers away is gone. It will be one of, jump out of the hide into the first clear spot, shoot the mission and get out of the area. Sixteen minutes, when we use MLRS as a semi-close battle weapon, is too long for the maneuver tactics.

With MLRS, especially with movement to contact, I can do it very easy. A launcher gets the fire mission; stops; pulls over to the side; shoots it; drops spent pods; truck comes up behind him; drops new pods; loads new pods; and then he catches up with everybody else. We can turn a launcher around in less than twenty minutes. This is a flexible system, even if we didn't originally train to do it this way.

I think that with the new extended range rockets, some of this will dissipate. I don't think we will be as close to the front as we were there. But, every MLRS unit that I know of was up with the lead elements the whole time, during the war. If something happened; a large force moved into the area; they wanted to be able to reach out and touch somebody deep.

The helicopters, even though the Apache was very good, its reliability as far as being operational was not that great. Their operational readiness was only about 65%. I maintained 94% the whole time in the desert. I can't account for everybody else, so I can't speak for all the MLRS units. Then again, the way we went over, I had four MILVANS with nothing but parts.

The bottom line is, we did not have enough logistics assets to keep as large a force as we had over there going. I will tell you that some of the greatest Log'ies (logistics personnel) we had on the battle field were the National Guardsmen and Reservists. But, if you didn't go and look for it; if you waited to receive parts, they laid the dollar short. Logistics turned into a pull system from a push system. I would have to send convoys of my trucks out, and they would be gone for three days trying to find supplies. I knew where they were going and what they were doing. Thank God for Multiple

Subscriber Equipment (a military version of a cellular telephone). When they got to a position, my guys could talk to us. They would tell us that they had arrived in the rear. In the morning they would fan out to the different logistical activities, and spend the day scrounging. That night they would sleep where they were at and start back in the morning. At times they traveled 120 to 150 miles to get back to the rear.

Where the system broke down was, replacement parts could be tracked through the States, through Germany to Dammom, El Jabail or whatever. But, once it got into the theater, there was no tracking system to tell where the stuff was going. So, everything for VIIth Corps ended up at KKMC. At KKMC the logicians looked at it and said, what's this shit?

The system is broke; the system in the military has been broke for a long time. Logistics is not one of those sexy weapon systems that attracts congressional bucks. We have backed ourselves into, if the computer goes down, Oh My God.... There was food, there were parts, but you had to go get it. That's from a non-divisional stand point (divisions have substantial logistic systems and are easier to address shipments than independent sub-units like an MLRS battalion).

From a divisional stand point, it depended on the division how well they did. I will tell you that the 1st Cavalry, when we got up there with them, Gen. Tillaly got up there in front of his staff and said, "This is the 42nd FA Brigade. Every time you look at them, you see a Cavalry patch on their shoulders (our colors where their colors). What they want, they get!" So, we dropped signature cards (authorization for the individuals listed on the card to receive supplies by his/her signature) at their main support elements and their forward supports. We got very good support. This was not always true with the other units we were attached to.

The problem is the density of MLRS parts. Basically, you have to go get yours. If you had LRUs (Line Replaceable Units; the electronics black boxes disseminated throughout the launcher) that went down, where was the EQUATE (Electronics Quality Assurance Test Equipment; a computer controlled analyzer). The EQUATE was in KKMC. So, how do you get the son-of-a-bitch fixed? You have to drive to KKMC to take it back....

Gen. Abrams to his credit had a helicopter that five or six times came to the unit with a guy from 45th Ordnance on it. He would sign for the defective LRUs and fly a new one out to us. He did this for both the 4-27th FA and us (1-27th FA).

We have got to work on the logistic system for MLRS. You can shoot six rocket missions all day from a launcher, and you will only have minor problems. If you start rock-an-rolling with 12 rockets for every mission you shoot, and launcher will not stand up to it; not for long. It will go down. You will break something. We would get missions down (from higher elements) and on purpose select two launchers shoot 12 rockets. It was better than having one launcher flailing away, and when it comes back from the fire mission find out it has a problem.

I would say that MICOM (U.S. Army MIssile COMmand) and LTV have a realistic awareness of the short comings with the system. They are saying that we can maintain an 85% operational availability. They have a better appreciation of the system than some of our senior leaders. Unfortunately, by virtue of the fighting, the running and everything else the MLRS people did in the desert, the senior leaders have seen our people maintain 90% operational availability. So, they want to make 90% the standard that they will hold MLRS units accountable for performing. But, I will tell you that in most instances the MICOM and LTV people are on the side of the crunchies down on the ground. They are being an honest broker for the system.

On the first day of the war, during the early afternoon, we made contact with the Iraqi flank security. It was a division set up on the wadi. The tanks ran up on them, and pulled back. The artillery fired, then the aviation came in, and then everybody started moving again. This only took

fifteen minutes, and the whole division was moving, again. We later learned that it was the Iraqi 48th Infantry Division.

That evening we hit the Tawakaina Infantry (Mechanized) Division, Iraqi Republican Guard Forces Command. We fired through the night. We were so close, we could see the flashes of the tank muzzles. We were supporting the lead task force for the division. I had the impression that we had surprised the Iraqis. The captured Iraqis later said, it was impossible to move a corps through that terrain to get up into where they were at. They were completely baffled about how we had done that. It was about eight o'clock at night on the first day that I could sense that the Iraqis had lost control of the war. By nine o'clock on the second day the Iraqis were giving up in droves. We knew that from then on they were just going to run. They would fire a couple of rounds, and that was it, that's all they wanted to play.

We got an interesting insight into the Iraqi perspective from the assistant division commander of the Tawakaina Infantry Division. He and his command were captured on the second day. He told us that his mission was to delay, so that the rest of their military forces could get out. With him, he had parts of three divisions under his command. He found that every time that they tried to adjust their units to the American's attack, there were more Americans coming from all over; it was just overwhelming power, and they couldn't adjust.

I would say that the Iraqis knew from the very beginning that they were going to lose. The release of chemical weapons had been given to division commanders by the Iraqi military command. They never used it because they said, in talking to some of high ranking officers, they were afraid of what we (the Americans) would do if they used it. They told us that they had a real problem with high desertions. Between the poundings that they took from the Air Force, plus the overwhelming force when the ground war began, they weren't ready for that.

Finally, we ended up on the outskirts of Al Basra.

"SIR, WHAT TYPE OF MESS DID YOU GET INTO THIS TIME?"

Chapter 27

It was late Wednesday morning, on 27 February, when the 24th Infantry Division finally stopped long enough for the soldiers to recover. In the west, the 197th Infantry Brigade along with Alpha Battery of the 3/27th FA were in the final stages of their operations against Tallil Airfield. By this point the equipment of the soldiers who had fought so hard to defeat Jalibah Airfield was in need of maintenance. Further, ammunition supplies had to be restocked in the forward units. The Division Support Command went about converting the eastern side of Objective Orange into a logistics center that could sustain the American's military activity in the Euphrates River Valley.

After sunrise the elements of Bravo and Charlie batteries that had made it out of the sand bogs settled down to wait for the next engagement. Having stopped, crews went to work doing maintenance on the vehicles that were present. A few of the battery mechanics were sent back into the dunes to try recovering the stranded vehicles left along the trail. Maintenance and recovery had priority. There was no resting.

AT Charlie Battery's 2nd Platoon the turret mechanics, SGT Arthur "Sal" Salsbury and PFC Mike Cummings were worried. About lunch time they found themselves going through (using up) spare parts for the launchers faster than anticipated. The launchers had done a week's worth of fighting in half the time, and the replacement parts had not caught up with them. These two launcher turret mechanics had shown a real talent for creative field fixes, but SGT "Sal" had to tell SSG Forbey that there was a limit to the tricks up their sleeves.

Being short a few parts 2LT Robertson and SGT Kermode of Charlie Battery, 2nd platoon went scrounging around for parts. SPC Duggins at 1st platoon, told the lieutenant that she needed a cable that connected the rockets to the turret computer. Eventually they found most of the parts that they really needed at their battery, except a black box unit called a "Comms-Processor," and two cables. A quick call on the radio, and Bravo Battery answered that they had a Comms-Processor. So, at about 1300 hours 2LT Robertson went to Bravo Battery to scrounge more spare parts for his launchers.

On the way to Bravo Battery, 2LT Robertson and SGT Kermode passed through a group of abandoned bunkers. Out of the side of his eye, SGT Kermode saw someone dive behind a berm. SGT Kermode hit the brakes and both of the soldiers jumped out on to the ground with weapons raised. If this area was not cleared, they could not be too cautious. This can't be happening again, thought the sergeant. I'm too old for this shit.

"You Iraqis, behind that berm, come out with your hands in the air!" yelled 2LT Robertson. I can't let them see how scared I am, he thought. Bluff them into thinking that this was no accident. Make them think we're part of a larger unit, come to get them. I've got to take command of the situation, he told himself. "I'm warning you." the lieutenant shouted. "Come out with your hands in the air, over your heads!" I only just got out of college, thought the lieutenant. I'm too young for this shit.

Two Iraqi soldiers stood up from behind the berm, and stepped out into the open with their hands on their heads.

"SGT Kermode, cover me," the lieutenant called, as he stood up by himself to face the two surrendering enemy.

As the lieutenant walked forward a third, then a fourth, and more and more Iraqis stepped out from behind the little berm. He stopped and watched in surprised shock as what to him was an

endless stream of Iraqis stepped out from behind the berm. The little berm concealed the entrance to an underground bunker. The lieutenant could feel his heart beating in his neck, right next to his stomach.

Over the radio CPT Wise heard SGT Kermode tell SSG Forbey that 2LT Robertson had taken over twenty EPWs. They had been well armed and hidden in a bunker.

"I surrender, Mr. American!" cried the first Iraqi to approach 2LT Robertson. "No shoot, Mr. American! No shoot!"

Hearing this Iraqi speak English made the lieutenant feel encouraged. Dealing with two Iraqis before that could not speak English had been enough of a challenge. Now, faced with twenty of them, having someone to talk through would help make this situation manageable. "Stop!" ordered the lieutenant. When the first Iraqi stopped, the rest froze in place. "Tell your people to put their hands on their heads, and go down on their knees." With the sergeant holding his rifle on the Iraqis, the lieutenant demonstrated the position for the Iraqis. The first Iraqi said a few words, and the group got down into the kneeling position.

The lieutenant first went to the Iraqi that had spoken English, and searched him. The Iraqi kneeled patiently, docilely cooperating with the lieutenant's efforts. Looking down at the Iraqi, 2LT Robertson recognized the shoulder's epaulets were those of a senior lieutenant. "Are you an officer?" asked 2LT Robertson.

"Yes. I am lieutenant," answered the Iraqi.

Out of the Iraqi's pocket, 2LT Robertson pulled several 9mm pistol bullets. "Where is your pistol?"

"My pistol is in the bunker."

"Is that the only weapon in the area?"

"No," answered the Iraqi, "Every soldier has a rifle assigned to him."

A very uncomfortable feeling suddenly settled into the lieutenant's stomach. He looked at his sergeant who had heard what the Iraqi just said. The sergeant frowned from one side of his mouth, and raised his eye brows to express his apprehension. The two Americans at this point, realized that they had happened upon an Iraqi unit that had not been discovered by any of the ground forces that had passed through the area before. This Iraqi unit was a completely intact elite commando unit. It was not a warm and fuzzy feeling. "Is this all the soldiers?" asked the American.

"No, there is about ten or fifteen in each bunker," said the Iraqi. "They all have guns." Hearing this SGT Kermode took a step toward the HMMWV, his eyes darting back and forth.

Stepping around the group of kneeling Iraqis, 2LT Robertson took a quick look into the bunker. The headquarters bunker was about thirty feet long and fifteen feet wide, with a low ceiling. The walls were of unsupported, plain sand; as if a bulldozer had just scooped it out. The roof of the bunker was made of steel "I" beams that spanned across from side to side, and wooden slats to hold up about a two foot thick covering of sand. It was stable enough to drive a truck over it.

In it were two rail frame beds, supported by wooden boxes. On the beds were thin mattresses with old wool blankets. Next to the beds was a locked box, kind of a safe. There were papers all over the floor. In the corner was a broken typewriter, and an old broken file cabinet. The soldiers' clothing and load carrying web belts were in several small piles around the walls. The amount of clothing suggested that about twelve people slept in this bunker. The most common item in the

bunker was AK-47 rifles, and about three magazines of ammunition to go with each. There was no real order to the bunker. "Throw it in the corner until you need it," seemed to be the practice.

Returning to the Iraqi officer, the lieutenant said, "You go to the next bunker. You tell them to come out with their hands up. If I see any weapons come out with then, I will have no problem defending myself. Do you understand that if I see one weapon I will shoot?"

"No, no Mr. American. I understand, no weapons. Iraqis no want to fight."

"You tell them, no weapons!" the lieutenant said in a stern tone, "Do you understand?"

"Yes. Yes, I understand." pleaded the Iraqi, "No weapons. Iraqis no want to fight."

"That's good," growled the lieutenant, "Because, you would probably die if you tried to fight..." Having said that, the lieutenant lifted the Iraqi officer to his feet, and said, "Go!"

Out of the next bunker came ten more Iraqi soldiers, with the Iraqi lieutenant. 2LT Robertson saw that at the front of the group was another officer. As they got closer the lieutenant recognized it was a captain. The new group joined the old group in kneeling with their hands on their heads. 2LT Robertson walked up to the captain and asked, "Do you speak English?"

"Yes, I speak little English." the captain answered.

Off in the near distance SGT Kermode saw the speeding platoon sergeant's truck racing toward them. Within a few seconds it arrived with eight more soldiers from 2nd Platoon. SSG Forbey got out of the truck and walked over to the lieutenant. Behind him the rest of the soldiers piled out of the truck and took up positions around the group of kneeling Iraqis.

"What type of mess did you get into this time, sir?" asked the platoon sergeant. "You seem to be finding all the stray animals."

"Just what you see," answered the lieutenant. "Sergeant, here is your mission; use some of the people to search the prisoners for weapons and information. The other half is to go through the bunkers and find key documents, and get all weapons, all the ammo, any demo out of the bunkers, and destroy it. Leaving about five of the freshly arrived soldiers with SGT Kermode, SSG Forbey took SGT Jones and SPC Buse to clear the bunkers.

SSG Forbey stepped into what appeared to be the supply and maintenance bunker. It was about the same as many of the other bunkers they would find, except it had wooden walls to prevent the walls from falling in. The soldiers called this the supply bunker because it had weapons and ammo still in the crates, stacked against one wall. Across from it were stacked boxes with truck parts. On a box toward the back of the bunker sat a bottle with a candle stuck in the mouth. Next to the box were two tires and an old radiator. In the corner was a box with some tools.

The arms bunker was as expected, filled with more crates full of bayonets, weapons and ammo. In the back of this bunker were several boxes with gas masks; maybe about sixty. Most of the masks were incomplete or broken. It appeared that two people had been sleeping in it. On the ground was spread two blankets, with a cake tin that held shaving equipment, and personal affects.

There were other bunkers at this site, which aside from sheltering the Iraqi soldiers, had no other obvious purpose.

Under the supervision of SGT Kermode, the remaining troops began searching the Iraqis. The Iraqis were nervous, and it showed as they kneeled without making a sound, eyes shifting back and forth. PFC Knapp, a big guy even by American standards, walked over to the group of Iraqis and pointed to one, "Hey, you! Come here." and, he gestured with his hand.

The Iraqi soldier looked at the big American, and hesitated. He turned his head and looked at his fellow prisoners, but they had turned their heads away from him. The prisoner turned back to Knapp and looked up at him with fear in his eyes. Slowly, he got off his knees, being careful to keep his hands behind his head, and took a few hesitant steps toward the big American.

“Come on,” said PFC Knapp, as he grabbed the prisoner by the collar, and lead him off to the side, and began searching him.

PFC Fitzgerald walked up and grabbed the next Iraqi from the group. The officers were easy to recognize in the group, because they wore markings of rank on their shoulder epaulets. After each prisoner was searched, the enlisted were put in one group and the officers moved to another group. At first the tension and fear in the Iraqis was so thick you could cut it with a knife. The Americans were methodical toward the Iraqis, with one searching while another stood watch with a rifle. Working in three teams it did not take the Americans long.

SPC Lewis was on his fifth prisoner at this point. He didn't have to get him from the group like with the first few. The Iraqis had figured out the routine and were getting past their fear enough to get up on their own to be searched as soon as an American was free. As he searched the prisoner, SPC Lewis pulled a moldy slice of bread out of the Iraqi's pocket, and rolled it over in his hand. As SPC Lewis was looking at the bread, the Iraqi turned and looked him in the eye. Then the Iraqi looked at the bread, a very distressed look came over his face, and he spoke a few words in Arabic. Although SPC Lewis did not understand the words, the meaning was clear, “Please, don't take my last bit of food.” The specialist put the bread back in the Iraqi's pocket.

Back clearing the bunkers, SGT Jones approached the next underground entrance with all the caution of a cat trying to sneak past a sleeping dog. SPC Buse provided security back-up for the sergeant. The specialist held an over-under rifle with grenade launcher called an M-203. He stood about ten meters behind the sergeant, and just to the side so that if needed he could fire through the door of the bunker. From within the bunker SGT Jones heard talking. Stepping back, both the Americans got down behind berm that concealed the entrance to the bunker. “You Iraqis. Come out with your hands up....” yelled the sergeant.

The only response from the bunker was that it suddenly became very quiet. This isn't going to work, thought the sergeant, They probably don't understand English. Scooting back away from the bunker, the sergeant waved at the lieutenant to get his attention “Sir, I need an interpreter here. These jerks won't clear the bunker.”

The lieutenant waved a hand to acknowledge that he understood the sergeant, and turned to PVT Ogeltree who stood guarding the group of searched officers. “Take the captain over to SGT Jones.”

When the Iraqi captain arrived at where SGT Jones stood waiting, the sergeant put his face right up close in the face of the officer, “Are there any more of your people in those bunkers?”

“No, no,” said the prisoner. “All my people are here.”

“You know, I don't think you are telling me the truth.” said the sergeant as he inched his face closer. “I don't think it's safe for me to just walk into that bunker.” the sergeant quietly said with a tone of steal in his voice. SGT Jones held up his hand with a grenade in it. “Maybe, it would be smarter if I sent my friend into the bunker first, and let him deal with any surprises.” said the sergeant as he held a grenade up in front of the officer's nose.

“No, no Mr. American.” pleaded the prisoner, his eyes round with fear. “I will go and see. If there is people in the bunker, I will bring them out.”

“Okay,” SGT Jones softly said, “You see what you can find. But, don’t take too long. Because, if I think your *FUCK’N* around, if I think you’re *PLAYING* games, I will send my friend, *Mr. GRENADE* here to find *YOU!* Do you understand me?”

The Iraqi captain brought twelve new prisoners out of a bunker that was only four times the size of a large closet.

The kitchen bunker had what looked like a camp stove in it, and a couple of old metal white pots. The pots were filthy, still caked with a dry crust of food along the inside wall. Next to the stove were two crates of vegetables. The vegetables had rotted and a slime of plant fluids covered them, emitting a pungent odor. Nearby, was a wooden box that had the remains of a loaf of bread. The bread was covered with a gray green mold. On the floor sat an empty water jug.

CPT Wise and his driver, SPC Ed Sturmer rushed over to find that 2LT Robertson and his men had everything under control. The Iraqi soldiers were all on their knees with their hands behind their heads. The platoon members were searching them and separating them into small groups. They had identified the officers and military documents. The Second Platoon had captured nine officers and fifty-nine enlisted Iraqi soldiers. They had at least 200 rifles, anti-tank rockets, grenades, bayonets, and enough ammo to have stopped a unit several times their size.

The implications were unsettling. If this unit had gone undetected, they could have inflicted serious damage upon the Americans. Charlie and Bravo batteries sat only five hundred meters away from each other. With these Iraqi commandos hidden between them, they could have devastated either of these two MLRS batteries before anyone could have made a counter attack.

CPT Wise stood off to the side and watched for a while, as his soldiers efficiently went about their work. He eyed the Iraqi captain and felt a pang of empathy for this commander and his soldiers. They were hungry and poorly clothed, suffering from the neglect of their own army. He hated to imagine what it would be like, having to experience what this captain was going through. Out of curiosity, CPT Wise called the Iraqi captain aside and talked to him. The Iraqi captain asked CPT Wise, “Are you part of a Special Forces or Rangers unit?” Is that’s why they surrendered to two ordinary soldiers on a routine run to pick up spare parts in their little truck? They were terrified of the American Army. Apparently, his young lieutenant and the old sergeant had really impressed the Iraqis. After talking to the Iraqi captain, CPT Wise realized the fight was gone out of them.

SGT Jones came over, and led the captured captain back into the headquarters bunker, with SPC Buse standing security. Like the other bunkers, this bunker had the pungent smell of mildewed blankets, unwashed bodies and urine mixed together. The floor was still damp from the rains that passed through earlier that week. The sergeant pointed to the locked box against the wall. “Where are the keys to the safe?” SGT Jones demanded. The captain pulled a key from his pocket. “Open it!” the sergeant ordered. Weaving his way around the ground mats where his men had slept shoulder to shoulder, the Iraqi captain went to the safe and opened it.

The sergeant scooped the contents of the safe into a shirt that was lying nearby, and turned to the officer, “Let’s go.”

“Mr. American,” said the captain in his most humbled broken English, “I guess you will kill us now.... I ask that you not make it too much to hurt for my soldiers. We have cooperated with you in all.”

The young specialist turned to the sergeant with a shocked look on his face. The Iraqis believed that the Americans would make sadistic sport of their prisoners before killing them. By their morale codes, such violence against a defeated foe was accepted. They had done this to their prisoners. Now as prisoners, they didn’t expect it would be any different for them.

For a moment it was quiet in the bunker, then the sergeant spoke, “Sir, we are Americans! We don’t do that kind of shit.... We are professional soldiers, and you will be treated in accordance with the Geneva Conventions.”

After the searching was complete the Americans used a HEMTT to haul the Iraqis off to the west a couple of miles beyond the fighting. Command radioed instructions to drop them off in the rear, and maybe the MPs might pick them up. *[Author: I never did see any Military Police up at the battle front.]* When they were dropped off, they were given food and water, and told to head west. They were no longer a threat, and the Americans were too busy to spend any more time with them.

"THE LIEUTENANT'S NOTES"

Chapter 28

by: 1LT John Kilgallon and 1LT Mark Carlson

[Editor's Note: Here, two lieutenants write about their experiences with the battalion's operations, during the war. CPT Darrel Williams, the commander of Bravo Battery had two of his lieutenant's write up their comments. They were then combined into this chapter.]

[Lieutenants are generally intelligent young people who have had a great deal of responsibility thrown on their shoulders. Their experience in the military is usually limited, unless they had served in the enlisted ranks before being commissioned. They are therefore likely to notice things that more experienced soldiers might take for granted. This chapter shows the views and thinking that two young officers had of the deployment and conflict.]

[At the time, these two lieutenants wrote their reports, they did not expect that their comments would end up in a book. So, to help readers who are not familiar with military jargon or the details of the Persian Gulf War, I have added my comments. To preserve the candor of the lieutenants' views, my comments have been put in brackets.]

OUTLINE:

- I. The Initial Deployment; comments and critical recommendations.
- II. Prior Planning; factors affecting training and logistic issues.
- III. Fire Mission Processing;
- IV. Road Marches
- V. Training
- VI. Morale Boosting

I. INITIAL DEPLOYMENT:

Bravo Battery was alerted for deployment to Saudi Arabia on 6 Aug 90. Although not on mission cycle, the alert process worked extremely well. Most of the soldiers arrived at the battery within four hours of the alert being called.

At the time of the alert, Bravo Battery was in the midst of its "support cycle." We were responsible not only for ensuring that we were ready to deploy, but also that the "hot platoon" from Alpha Battery was also ready. There were many tasks that needed to be accomplished; issuing desert uniforms, flak vests, drawing small arms, changing rubber pads so the tracked vehicles would be permitted on the aircraft, and so forth. Further, we had to cross-level missing mission essential equipment to the hot platoon so it could leave at 100% strength. Despite all of this work, Bravo Battery had the hot platoon from Alpha Battery ready to deploy within 18 hours.

Once the hot platoon was ready to deploy, Bravo Battery joined the rest of the battalion in preparing to deploy. The Battalion soon learned that the rest of its equipment would deploy to Saudi Arabia by "Fast Ships" while the personnel would fly over. Over the next several days the remaining tracked vehicles were loaded onto trains and railed to the port in Wilmington, North Carolina. The

wheeled vehicles were convoyed to the port. By 10 Aug 90, in just five days of the initial alert, the battalion was ready for deployment.

Highlighting the effort to push both the battery and the battalion out was the leadership from within the battery's maintenance section. The hard work and technical expertise of SGT Rosales, the motor sergeant, and SGT McFadden, chief track mechanic, deserve special recognition. Their efforts resulted in Bravo Battery deploying to Saudi Arabia with very few complications.

Critique:

--Although the hot platoon was ready within the 18 hour standards, leadership needs to pay more attention to having the hot platoon ready to meet the deployment standards. Special attention needs to be concentrated on administrative details; TA-50 and supply records of the individual, POR packets, wills, insurance, allotments, medical and dental records, vaccinations, lists of clothing sizes. Training for a variety of load plans configured to follow air, land, or sea movement regulations needs to be provided. Streamline ammunition requisitions, and other related paper issues. Preparing minimum essential equipment lists in advanced would speed up the hot platoon's ability to deploy more smoothly in the future.

--Assets needed to round out the hot platoon's TO&E equipment needs should come from the platoon's own battery.

--There were no combat rockets on Fort Bragg when the hot platoon was ready to fly. They had to wait another day for the arrival of munitions. The Fort Bragg Ammunition Supply Point needs to store a basic load of rockets for at least one platoon, to avoid delays during deployments.

II. PRIOR PLANNING:

The prior planning that went into deployment to Saudi Arabia was profoundly vital. The officers and NCO s' spent long hours educating themselves and preparing to operate in the desert. The following topics were major research and training issues:

- a. Proper Clothing and Wear
- b. Hydration
- c. Vehicle Maintenance
- d. Customs and Culture
- e. Wildlife
- f. Intelligence

The few soldiers with desert experience developed lists of optional clothing and hygiene items. These lists were then circulated through the battalion. Leaders encouraged soldiers to use their own money to buy the small variety of items that could not be obtained through the normal supply channels.

Desert trained personnel developed impromptu classes. This training was very successful. It enhanced the soldier's ability to cope with adjusting to the desert environment. Department of Defense pamphlets on the Middle East, National Training Center lessons learned booklets, and soldiers with experience in desert operations served as key resources. From these sources, the battalion made its assessment of the impending situation.

[MLRS units had seldom received desert training, since it was felt not to be a critical unit skill. Desert training emphasis usually went to forward maneuver units such as infantry, armor, and light

artillery units. These types of units have a critical need to employ the desert environment to gain tactical advantage during combat. Most of the desert experienced soldiers were crossovers from other military vocations. They had trained in the Western deserts or done assignments in the Middle-East. For MLRS units, knowledge of the desert was more important to people at the individual level. Protection from the environment was limited during the military build-up period of Desert Shield.]

a. Proper Clothing and Wear:

Because of the intense heat in the desert [up to 130 degrees Fahrenheit, 54 degrees Celsius], leadership recognized that proper clothing was essential. Wearing long sleeve shirts, broad-brimmed hats, sunglasses, and scarves were items that could not be treated as optional.

Lotions proved to be inconvenient, and of limited effectiveness. The lotions caused the blowing sand to stick to a person's body and smear. Aside from some individuals that needed a little sun block on the nose, no one used it. Being well dressed turned out to be the best protection from the sun.

There was concern about the conflict between the regulation wear and the demands of the environment. Traditional minded leaders objected to scarves since it is not specified in AR 670-1. Going to and being in a foreign country, they were concerned about making the right impressions on our hosts and the opposition. Luckily, common sense prevailed and soldiers were allowed to wear the scarves to protect them from the searing Saudi Arabia sun.

[Not all units were lucky enough to have flexible leadership. In those units with inflexible by-the-book leaders, the soldiers suffered needlessly so the leaders could look good.]

[With all the concern to look good before our hosts, it was an ironic oversight that the dress regulations did not address the religious customs that are incipient of Islamic countries. The Desert Combat Uniforms (DCU s) were good combat uniforms, but when the soldiers were not fighting these uniforms became too hot. For men, the solution was simple; take off the DCU top and wear the Tee-shirt. In Islamic countries, having a woman in such a state of undress is offensive, if not illegal. A long sleeve poplin shirt would have been very helpful for rear echelon soldiers who had to work in the heat of the sun. There were many instances where female soldiers were forced to stay dressed in heavy tops while the male soldiers were dressed milder. This was so as not to offend the local nationals. In other units, the service members showed a complete disdain for local custom, with command indifference. Once, a female Navy ensign went into town dressed in only a Tee-shirt and boxer shorts. It caused an incident that was reported in the international press.]

Soldiers were concerned about the best type of foot gear. There were a variety of optional boots that the soldiers could wear, beside the standard issue. With the extremes in environment, this was no small consideration. Many soldiers favored the jungle boot. They found it lighter and cooler than the standard issue boot. There were some reservations about the eyelets on the side of the boot. Some speculated that the eyelets might let in the finer sand particles, causing discomfort and blisters. As long as the eyelets remained intact, few soldiers had problems with sand getting into their boots. Many soldiers found the decision to wear jungle boots was prudent. The real problem was getting the jungle boots. The jungle boots were a non-standard item, but eventually the supply system provided jungle boots for about 80% of the soldiers.

[There were allegations that higher command elements had intercepted the 3/27th FA's supplies of suede desert boots. This rumor was substantiated when the 3/27th FA got to Kobar Towers.]

After deploying from Fort Bragg, getting additional sets of DCUs was not possible. As a result of this shortage, new soldiers, and soldiers with damaged uniforms were out of luck, and in some instances were forced to borrow uniforms from their fellow soldiers.

b. Hydration:

It was foreseen that water and water consumption would be a big challenge in the desert. Soldiers were trained to recognize and treat heat related injuries. NCO s' were further trained to check closely the water consumption of their soldiers. They insured that the soldiers drank at least one liter per hour, and kept their canteens full. Commanders emphasized that it was the responsibility of everyone to constantly drink water, and to watch out for their buddy. This policy paid off with relatively few people experiencing heat injuries during the first few months of adjustment, during the summer. People were drinking about four to five gallons a day, for the first three months.

The soldiers were all issued two, 1 quart canteens, and a 2 quart canteen. In addition, the unit supply sections made every effort to find every five gallon water jug available.

Once in Saudi Arabia, getting water turned out to be relatively easy. Water was available in massive blivets, and as one liter bottled water that came by the pallet. Eventually, by late October ice became available in substantial quantities. At times platoons were even able to get enough ice to keep cooler chests filled with cold drinks and ice water. Later, when the battalion crossed into Iraq, every soldier was carrying a ten day water supply on his vehicle.

[Maybe it looked easy, but that was far from the truth. CPT Carter, the S-4 and his staff spent long hours during the first few months finding water, and putting together a system for keeping the battalion regularly supplied with liquids. It is a real credit to them that it didn't appear to be a problem to the soldiers in the line units.]

c. Vehicle Maintenance:

Troops accepted right from the beginning the importance of vehicle maintenance and proper operation. They understood that this would be paramount to success or failure during the conflict. Drivers constantly checked the fluid levels of their vehicles. Fuel filters and air filters that are of little significance in the United States, required constant attention in the desert. The intense heat, rugged terrain, and constant dust were rough on the vehicles. The sun baked and cracked the rocks leaving jagged edges that quickly wore down the rubber of the tires. The PMCS *[Preventive Maintenance Checks and Services]* that in the States had been a weekly task, in the desert became a daily task. Bravo Battery mechanics showed a great deal of creative initiative. They provided constant top quality organizational maintenance in spite of the field environment. That all the battalion launchers carried themselves all the way into and back out of the combat zone under their own power is a testimony and tribute to the outstanding maintenance effort of the mechanics, operators, and motor pool leadership.

Driving in the desert was more of a challenge than many would have suspected at first glance. The terrain was a mixture of hard packed areas, loose sand dunes, dusty dry river beds formed into long flat stretches broken up by intermittent cliffs and wadis. The monotonous tan appearance of the land could be deceptive. Realizing that drivers might have a difficult time, the battery leadership tailored a scheduled for training drivers. The battalion conducted an FTX before moving from Dammon and Dhahran area, to our forward defensive positions. During this FTX drivers experienced their first encounters with navigating and driving in a desert environment. Later at Camp Courage, drivers practiced in tactical formations around the city of Nariya (or An Nuayirah *[code named, "Bastogne"]*). Eventually with a lot of practice (and a lot of recoveries) the drivers learned how to read the terrain, even at night. Still, even when the drivers became familiar with the terrain, the navigation and driving was never easy. It was especially difficult on those evenings with little or no moonlight.

[In retrospect, it is now clear that the training environment at Fort Bragg did not (could not) adequately prepare the 3/27th FA for the terrain that we encountered in South West Asia. The time

we spent doing driver's training around Bastogne, later proved invaluable during the assault into Iraq. It was fortunate that when the crises first occurred, the threat did not push the advantage. The extra time we had to learn how to travel in the sandy terrain made all the difference when we encountered the sand bogs just outside of the Euphrates River Valley.]

d. Customs and Culture:

The leadership's realization of the extreme difference between the cultures of the Americans and the host country showed a lot of insight and sensitivity. It averted situations that could have turned into many ugly incidents. Before deployment, the battalion provided many resources, and gave training on the cultural differences between Arabian and Western ways. In spite of the frustration that the troops had to endure while living in Saudi Arabia, the cross cultural training as well as the personal pride and belief in the mission caused the troops to exercise a lot of patience during their stay as guests in another country.

During the stay in Saudi Arabia, the higher command limited the contact of soldiers with the local population. Soldiers not on official business were restricted from going into the cities and villages, or using roadside conveniences. It was hard to gain any real in depth understanding of the Arabian culture. None the less, within the limited contact that did occur, a lot of cross cultural enlightenment did occur. It will be very important in the years to come.

[In discussions with the local populace, I was told that before the American soldiers arrived, the Saudi Arabians felt that Iraq had the power to take the eastern oil fields. They knew that Iraq had a large armored force and rockets with chemical warheads that could reach the ports. When Iraq invaded Kuwait, the Saudi Arabians were filled with fear. There were stories of the Arabians driving their cars literally into the desert, without thinking of a destination.]

[The arrival of the Americans came as a relief to the Arabians. Trust though, did not come as fast as the American arrival. At first, the Arabians viewed the Americans as another form of European. Racism and the delineating of ethnic differences has always been a part of the Arab experience since the Crusades and the Colonial times. Even between the different groups of Arabians there was a very pronounced cast system. The Arabians had always found their European contract labor arrogant and autocratic. Their presence was tolerated out of economic necessity. Ironically, the Arabians never seem to notice their own arrogance toward their Oriental contract labor. When the Americans arrived, the Arabians expected us to be no different than the Europeans. My impression was that, they did not believe that the Americans were concerned enough about the sufferings of Arabian people to ever lend a hand. It was a shock for them to learn differently.]

[Our own racism was a problem that the American commanders had anticipated. They took active measures to head it off before it became a problem. The soldiers were given extensive cross cultural training before and during their stay in Saudi Arabia. Further, during their stay the Americans tried to deal with everyone as equals, regardless of whether they were local nationals or foreign national contract labor. There were a few incidents of American insensitivity to their host's customs.]

[It took a few months for the Arabians to get used to their new visitors. They viewed Americans as being very professional, yet relaxed people to work beside. In private settings, they sometimes found the Americans to be very informal, almost to the point of being crude (by their standards). Importantly, the Arabians found that Americans were easy to communicate with, willing to listen and meaning well. The cross cultural training had been very important.]

e. Wildlife:

The leadership placed special emphasis on warning the troops about the hazardous creatures native to the desert. Troops were repeatedly warned to be careful and not play with the poisonous creatures. Cots and insect nets were issued to protect the soldiers, so they did not have to sleep on the ground.

[Just before the assault into Iraq, a brigade commander ordered the soldiers in his subordinate battalions (including the 3/27th FA) to leave their cots and tents behind during the offensive. He said that sleeping on cots was too luxurious an article for "hard core" soldiers to carry into combat. It did not present the proper rugged military image. (This order was given by an officer that had a private washer machine powered by his own generator. When we went into combat, this officer didn't think to leave his tent and cot behind.)]

[CSM Boone objected, saying that the ground was too full of poisonous varmints to risk having troops become casualties to prove a point. He stood up to the commander and told him that the 3/27th FA would do what was in the best interests of the soldier's ability to fight, indifferent to appearances. The troops were thankful and impressed that at least the Command Sergeant Major had enough good sense and character to speak up, even to a field grade officer.]

[Usually, the troops left the snakes and camel spiders alone, but scorpions were another story. Young soldiers found that scorpions were slow enough to capture, and provided ruthless entertainment. Yet in most instances of a scorpion attack, the person stung claimed he was not playing with it.]

f. Intelligence:

Let us compliment the leadership for keeping the soldiers extremely well informed. By October, soldiers were constantly being briefed on the political events, tactical situation, and the threat from Iraq. We knew the status of Iraq's troops, capabilities of weapons, and their tactics. When we arrived in Saudi Arabia, the troops were very serious and behaved very cautiously. It appeared that every reasonable effort was made to provide candid, timely, accurate, and relevant information to the troops. Official information that came through the chain of command maintained consistently high credibility in the eyes of the troops.

Although there are always rumors in such situations, leaders worked to counter this problem by providing the truth. There never appeared to be a credibility problem with key information being withheld from the troops by obscuring it in security, nor were there attempts by command to misinform the troops. By keeping the soldiers informed about the threat situation and the intentions of their commanders, leaders found a lot of support from their subordinates. Keeping the troops informed significantly eased the stress incurred by the troops.

The intelligence community should be complimented for the job that they did.

III. FIRE MISSIONS:

a. Battalion's warning orders to battery of impending fire missions were extremely helpful. It gave the battery time to deploy all of its launchers, insuring complete support to the maneuver elements up front.

b. We found it necessary to alert ALL launchers to cover a mission. This provided a good buffer if a SPLM went down. This policy gives FDC more flexibility to choose the best launcher to shoot. It allows for quicker follow-up missions, after the first mission, either as a re-shoot, as an adjustment, or as an additional mission.

c. All the batteries found that for a fire mission, it was necessary to round up the number of rockets to the nearest complete pod (multiples of six rockets) to defeat a target. If a mission called for 4 or 5 rockets we would round up to 6 rockets, so that a SPLL could reload to carry a complete 12 rocket load, instead of running around with 7 or 8 rockets. This allowed for faster computation of missions, and always kept the launchers up loaded with maximum firepower.

[This practice was instituted as SOP by our battalion.]

d. We learned it is necessary to NOT send AMC *[at-my-command]* missions to SPLL's digitally. Instead, we sent WR *[when-ready]* missions to the launchers, and the crew was told before hand by voice or free text message not to shoot until told. Once an AMC is placed digitally into the buffers, the only control the crew chief has over the mission is to cancel it. If for any reason the digital communication goes down, the crew cannot manually fire the mission. With this dilemma in effect, it was found more effective to trust the crew to manually execute an AMC mission then to lose a mission because of a communications malfunction.

e. No element of the battalion became subject to artillery or counter battery fire from Iraqi artillery.

[There were some other artillery and line units that were targeted by Iraqi artillery, but the Iraqi artillery was seldom even approaching effective. The effectiveness of our own artillery spotting radar, responsiveness of digital communications, and accuracy of computer calculations made the Iraqi artillery ineffectual.]

IV. ROAD MARCHES:

[To minimize the threat of Iraqi attack against our MLRS batteries, we developed "road march" formations that would allow us to fight while on the move. See Chapter 10.]

Bravo Battery favored moving in single and double column formations. Command and control was straight forward. All the drivers had to do was follow each other. Leaders could signal by driving up and down the line. If there were mechanical problems, the rest of the convoy could see it as they passed the crippled vehicle. At check points the double column meshed into a single file. During a hip-shoot, the launcher and supporting ammunition truck would break from the formation, move 300 meters to a safe distance, and fire. *[Charlie Battery used a three column double wedge formation.]*

At night, all the batteries used a single column formation. Drivers closed their vehicles to within easy visual range. Few felt threatened by the possibility of Iraqi air attack.

In rough terrain drivers used the single column formation. The lead vehicle picked the route and everyone followed. If a mine field was hit, the rest of the vehicles would still be behind the field. No Iraqi mine field was ever encountered by the 3/27th FA.

With the chaotic environment of combat, we kept it simple, and it worked. Bravo Battery was able to keep up with the maneuver forces and support all the attacks on the objectives. By moving as a complete battery we provided our own security. When the battery stopped, we simply spread out into a large circle. The launcher platoons formed the perimeter, with the HQ platoon in the center. This also made logistics and recovery/maintenance support extremely quick. In addition, we could mass fire on our targets very quickly. If we ran into communications problems, we could send a runner to hand carry the mission data out to the launcher, with no lost time.

V. TRAINING:

Perhaps the biggest challenge the battery leadership faced during the entire operation was keeping soldiers' morale up, keeping them from getting bored, scared, lonely, etc. Our approach to these problems was through training. We provided the soldiers with a daily, weekly and monthly routine to follow which would help keep their bodies and minds occupied. Our training activities concentrated on tasks that were necessary to our mission.

This was a typical schedule throughout Operation Desert Shield and Desert Storm. It was flexible, and could be modified to include; more soldiers on permanent defense; fighting position improvement and dug properly; cleaning of weapons; special maintenance and periodic services; canceling communications checks for radio silence; and reconnaissance, or coordination with units we were supporting.

WEEKDAY SCHEDULE:

0530 hrs. Wake up.

0600-0700 PT (Battery or Platoon.)

0700-0900 Personal hygiene and breakfast (showers when they became available.)

0900 Morning formation

(Current events and intelligence summaries were briefed to soldiers.)

0900-1100 Vehicle PMCS (1 platoon per day rolled out to the field.)

1100-1200 Communications checks; voice and digital.

1200-1300 Lunch (MRE s' or "lunch buckets".)

1300-1600 Pertinent training; (i.e., NBC, first aid, Navigation, FM processing.)

1600-1700 Free activities; (i.e., volleyball, softball, football, weight lifting.)

1700-1800 Dinner (T-ration or A-rations.)

1800-2400 Personal time; (i.e., movies, reading, writing letters.)

SATURDAY SCHEDULE:

0600 hrs. Wake up.

0700 Formation.

0700-0900 Hygiene & Breakfast.

0900-1100 PMCS.

1100-1200 Communication checks.

1200-1300 Lunch.

1300-1700 Sports day; Platoon competitions.

1700-1800 Dinner.

1800-2400 Personal time.

SUNDAY SCHEDULE:

0800-0900 Church services (optional).
0900 Formation.
0900-1000 Breakfast (hot A-rations.)
1000-1200 PMCS & Communications checks.
1200-1300 lunch
1300-2400 Personal time.

VI. MORAL BOOSTING:

Although the training schedule helped to boost morale by creating a “routine,” variety is often necessary to relieve stress. Here are some events and things we did to break the monotony.

1. Battery talent show.
2. Halloween Party, soldiers dressed up “home made” costumes.
3. Thanksgiving party. We held a football game “Turkey Bowl,” a Thanksgiving dinner, and watch old football games on the VCR.
4. Created a library. Soldiers donated books. The battery kept them on hand and let the soldiers check the books out.
5. Christmas Party. Traded gag gifts, held church services, sang carols, watched movies and played sports.
6. Nightly movies on the battery VCR.
7. R & R trips down to Dhahran and Halfmoon Bay.
8. Made phones available.
[AT&T provided satellite direct telephone service field facilities around the battle area.]
9. Provide hot showers as much as possible.
10. Built a “homemade” gym.
11. Bible study on Wednesday afternoons, and battalion church services on Sunday.

Another morale boosting aid was AFN Saudi *[Armed Forces Network]* that provided music, news, entertainment, as well as sports. This helped the soldiers feel more at home and not isolated. Hats off to all those involved with the radio service.

Mail was also a big morale booster. It was quite slow sometimes, but it was amazing how one letter could make a soldiers day or week.

[These guys didn't even think to mention my running the mini Post Exchange for almost four months.]

"THE BATTLE AT RUMAYALH"

Chapter 29

With the destruction of both airfields and the reconstitution of the division's forces completed, the 24th Infantry Division undertook the next task of advancing east to engage Iraq's strategic reserve force. Instead of waiting for the enemy to come to us, we were going to hunt them down. Command knew pretty much where the Iraqi forces were at, but the Iraqis had little clue that the Americans were even around. So holding the initiative, the 24th Infantry Division took the offensive, again.

At this point there is the question of, why would the Coalition Forces still continue fighting against the Iraqi forces, once the Iraqi army had retreated from Kuwait? Unknown to us in the west, public opinion had become shaken by an event on 25 February. During the night, the Iraqi army tried to evacuate the city of Kuwait, and retreat north. This retreat was detected by the U.S. Air Force, whom in the darkness of night pounced on the hapless Iraqis. When the sun rose over Mutla Ridge on 26 February, the international press found the ghastly carnage of what had been the fleeing Iraqis. Many people were now asking the question, was this really necessary?

Unlike civilian life, retreating from a fight in combat does not mean that the fight is over. Two commonly practiced military operations are, the bounding retreat, and the passage of lines. A retreat is not an end event, in and of itself. It is possible to retreat, rally, regroup and counter attack.

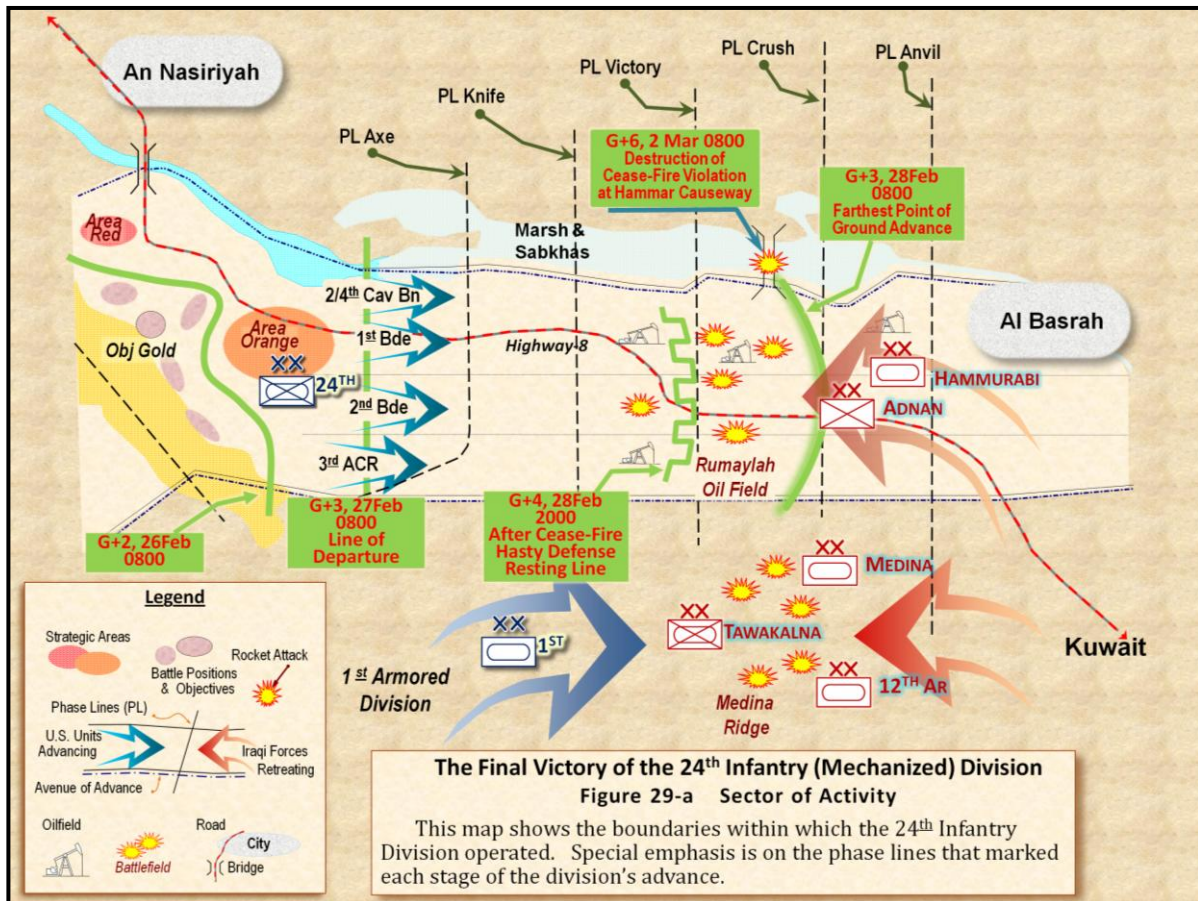
For example, in the winter of 1944 the Allied Forces had driven the German army from southern Europe. The Germans were in retreat, and had been retreating so fast, the Allies' supply lines were becoming over extended. Everyone, even the German High Command had come to accept that Germany had lost the war. However, Adolf Hitler corralled his generals into supporting his plan to stalemate the war. He wanted to send an armed force through the Ardennes forest and re-take the Port of Antwerp, splitting the British in the Netherlands from the Americans coming up through France. In doing this, Hitler hoped to sue for peace, so that he could reposition his forces to defend against the Soviet Russian's advance into Germany. Germany didn't have the resources for such a campaign, but Hitler would hear none of that. He launched what would later be known as the Battle of the Bulge. His plan was not without merit, but he just didn't have the resources to make it work. Many good people died in this vain endeavor, and for all those deaths nothing that would serve Germany's goals was accomplished.

The above example though does not mean to suggest that counter attacks by crippled forces are necessarily doomed efforts. By the winter of 1776, the British army had run the American forces under General George Washington out of New York and chased them across New Jersey. He finally had to flee across the Delaware River, into Pennsylvania. By the end of December of 1776, General Washington had lost over 5,000 men (half the men in his theater's command). Having taken New Jersey from the Colonists, the British decided to settle down for the winter. As far as the British were concerned, Washington was defeated and did not have the resources for any further military activity. On 26 December, General Washington returned to New Jersey with just over 2,000 men and defeated the Hessian mercenaries garrisoned in Trenton. By the middle of January 1777, General Washington had ousted the British (a force that was three times his size) from New Jersey.

History demonstrates that an un-surrendered enemy can still do a lot of damage. It doesn't matter if the victorious commander has badly decimated the enemy forces, there is always the risk that they might rally and try a counter attack. Winning the battles is not enough. A good commander is obliged to persuade the enemy to surrender (forcing him to lay down his weapons) to avoid facing renewed combat. It therefore behooves a commander to prevent the enemy from escaping the

battlefield, by good planning even before the battle is engaged. A smart commander will make plans to pursue his enemy if the enemy should try to flee the battlefield. A smarter commander will make plans that won't let his enemy get away, at all.

In this matter, a commander cannot afford to be lenient with the enemy. Such an act would be seen as evidence of a weakness, and give false hope that may embolden the enemy. As gruesome as all this killing of the retreating Iraqi forces had become, no one wanted to go through this again, just because public opinion had gotten soft hearted.



The American people, like the people of any civilized country, like to think of themselves as being basically good people. This makes it really hard then, to accept using such violent force against someone who has not committed some violence against us, in the first place. It becomes very hard to justify the use of violence based on some abstract principle, the perception of a threat to economic interests, or even when violence has been done against another friendly nation. Some of the soldiers were asking the question, how long will the American public support a war, once the appalling carnage of the war started getting broadcasted into the American living rooms? It is unrealistic to think that a healthy moral person can watch so much death and suffering, even of an enemy, and not be affected.

The problem for the soldier arises, when these people who are not on the battlefield try to reach out by political means to reshape military activity. Many soldiers were concerned that if the public resolve faltered, Saddam would try to exploit this to his advantage. When Saddam invaded Kuwait, he de-facto rejected political arbitration. Furthermore, the invasion demonstrated that he was willing

to put violent means ahead of peaceful coexistence. The only guarantee the soldiers could afford to trust would have to be a military solution that we could impose on Iraq with blood and force of arms.

Older soldiers (*like myself*) who had been through the Vietnam War knew how fickle public opinion could be. We were afraid that once the ugly realities of war reached home, the American public opinion would pull the political rug out from under our military operations. We could all imagine those cease-fire periods while politicians tried to talk some sense into Saddam. That would have only given him time to re-supply and reorganize his forces. All this would have done is cost us setbacks and the blood of more young men. Even, Saddam understood this about the American people. He boasted that Americans were soft and didn't have the stomach for a real war. Many of us older soldiers were afraid he might be right. We figured we had better get the job done as fast as possible, before someone had a chance to change their mind. It would have been a real waste of our hard earned gains, if they were forfeited back to the enemy because of vacillating public opinion. The only option was to vigorously prosecute this war, and guarantee that once it was over, there would be no way for Iraq to rekindle some other mischief, again. For this reason, the soldiers of the 24th Infantry Division set out to find and destroy Iraq's retreating Republican Guard Forces Command units.

"When you are in a war, where you take human life, and where you lose human life, you have an obligation to end the war as soon as possible."

*Lieutenant General Charles Horner
U.S. Air Force Chief of Air Operations
CENCOM*

It was at about 1300 hours on Wednesday, 27 February when the division began to form up for its movement east. The First Brigade was tasked to travel along Highway-1, on the north flank. The center of the division sector was spearheaded by the Second Brigade, traveling along the older Highway-8. The XVIIIth Corps then reassigned the 3rd Armored Cavalry Regiment (ACR; a reinforced brigade) to the 24th Infantry Division. During the advance into the Euphrates River valley, the 3rd ACR had been guarding the eastern flank of the XVIIIth Corps sector. For this operation the 3rd ACR would attack along the division's southern flank. The 197th Infantry Brigade, was still well to the west of the division, and therefore designated as a reserve force to follow after the division.

Movement-on-Orders was given to move, ASAP! Having gotten to this objective days ahead of schedule, the command decided to press the advantage and move east to limit the maneuvering room of any Iraqi units that might try to stand and fight. There had always been the possibility that the 24th Infantry Division could have encountered serious opposition from the Iraqi forces along the Euphrates. Such opposition would have locked the 24th Infantry Division into a standing battle, and it would have waited there, fighting it out until the war was over.

Having so readily overcome the opposition that was found in the valley, and being well ahead of schedule, the command sought to exploit their advantage. Movement-on-orders was an impromptu action made at the commander's discretion, having no detailed battle plan. Then again, a battle plan was not needed, because this was a standard tactic, commonly rehearsed during battle drills in training. Advance to contact, and force the Iraqis to fight on the American's terms, or at least not let them engage the division on their terms.

This movement was still consistent with the intentions of the XVIIIth Corps's operations order for the 24th Infantry Division to block attempted escapes. At our backs, the 101st Air Assault Division would protect the 24th Infantry Division from any Iraqi threat from the west. This was an easy to understand, basic plan.

From within the 3/27th FA, the soldiers could only speculate about what was on the minds of planners at the Corps and division levels. The American military's maneuver philosophy and doctrine at this time had become movement dominated. The 24th Infantry Division had advanced all the way to the Euphrates River without significant opposition. The river marshlands protected its left flank. The VIIth Corps was advancing from the south to cover its right flank. With these factors in consideration, the current doctrine called for a continued advance as long as the division had the advantage.

At Charlie Battery an easy to understand, basic plan was proving to be far from simple. The vehicles were getting desperately low on fuel. The fuel gages were in the red; the dials pegged to empty. CPT Wise had arranged with battalion to send forward a fuel tanker from the trains in the rear. At noon CPT Wise brought five launchers and their supporting vehicles to the battalion TOC, battalion's forward command element. Charlie Battery was disappointed to learn that the tanker that was supposed to be waiting for them, got behind the wrong convoy, and never arrived at the right place.

There was no time to wait. Orders came over the radio, the battalion commander relayed through the battalion TOC that everyone was to get on Highway 8, and head east. All units were told to move, now!

"Slush-puppy, let's rock and roll..." SSG Spreag called over the headphones to SGT Slusher.

SGT Slusher opened the diesel fuel feed, and hit the ignition switch. The 500 horse power turbo charged GM Cummings engine roared to life. Looking at the fuel gage, SGT Slusher got a real nervous feeling in his stomach. "Hey, Sergeant Spreag...."

"Ya, Slusher, what you need?" called SSG Spreag.

"Sergeant, we're really low on fuel." SGT Slusher estimated that he had maybe fifty gallons of fuel in the tank. Furthermore, towing one of the battalion's disabled command vehicles only aggravated the fuel problem. At one and a half miles per gallon this monster was going to be hurting, very soon. "Do you know how far we're going?"

"No'p, I don't have any idea where we're going." SSG Spreag had been briefed in detail about the battle plan. But, according to the plan, no one expected to be this far along for at least another three or four days. SGT Slusher had been to the same briefings, too. Everything was moving along too fast, and had gone too well. The concept of the battle, as envisioned by the generals and as related to the troops, was probably still intact. As for the exact battle plan and time tables, there was a growing awareness among the troops that those had gone by the wayside. They believed that neither they, their officers, or for that matter anyone one else was sure of anything, anymore. But, SGT Slusher definitely knew that they need fuel.

It was about 1430 hours when the 24th Infantry Division's First Brigade along with the 3/27th FA got on Highway 8, and started heading east. Although all of the vehicles were nearly empty, the drivers followed their officers down the highway. As long as the division remained an intact entity, regardless of any doubts the soldiers may have had, staying with the division was the safest place to be. The highway was a four lane improved surface road. The day before, it had two lanes going west and two going east. Today, everything was going east, or it was blown off the road.

Along the side of the road could be seen the wreckage of cars and trucks that the scouts had forced off the road. Beside a bus sat a group of women. On the ground was a person who had been injured by their encounter with the advanced elements of the division. Further down the road was a truck with the top of the cab and doors missing. The remains of the driver still sat in the seat behind the steering wheel. The entire upper part of the body, missing. There wasn't much that combat troops

could do for these local national casualties. For any of the Americans to stop would have disrupted the continuity of the unit to which they belonged. Such a disruption in the face of the enemy could have weakened a unit enough to cost the life of a buddy. There were support units, such as the medical battalion who would be following down the road behind the tanks and infantry vehicles.

The front of the division formation was lead by helicopter reconnaissance units and infantry scout units. Right behind the scouts were the division's combat engineers. Their mission was to range ahead of the division and destroy anything that could tell the Iraqis where the division was at. The longer we could conceal the 24th Infantry Division from the Iraqis, the bigger a surprise we could give them.

For over ten miles the division stretched out across the highway, using all four lanes abreast and the dirt shoulder on both sides. It started off, moving at about twenty-five miles per hour. Within a half hour the division was roaring down the road at almost forty-five mph. Although no one had said anything, a common spirit had infected the minds of every homesick soldier in the division; we were going to Kuwait. As soon as we got there, we would park at the port and go to the airport. And by the way, beer was legal in Kuwait. The troops felt that the end was in sight; everyone dreamed of going home. The division headed down the road like a full out unstoppable express train.

The trip down the road was a gala affair. It was late afternoon, and crews could be seen with their hatches open, hanging out and eating lunch. The occupants waved to each other, flashing the victory sign back and forth. To anybody that knew better, this was a scary sight to behold. There was no order to this division convoy as it moved down the road. Subunits of battalions and companies had become separated from their parent elements. Junior officers and senior sergeants could be seen leading small clusters of vehicles that weaved in and out of traffic trying to find the rest of their units. Off the side of the road the convoy passed numerous burning Iraqi military vehicles, and outposts that had been destroyed by the scouts. Occasionally, an out of fuel American vehicle would be seen off the side of the road, waiting. The fuel shortage was still a threat.

Suddenly, the whole convoy came to an abrupt stop. The scouts had made solid contact with four divisions of the elite Republican Guard; the Hammurabi and Al Medina armored divisions, and the Adnan, and Nebuchadnezzar motorized infantry divisions. Intelligence reports said that at least two of these divisions had sworn suicide pacts. By this point, these Iraqi divisions were still at 90% strength. The Americans found themselves facing over fifty-seven thousand men. The Iraqis outnumbered the Americans, three to one. A ratio that still left the Iraqis at a severe disadvantage, in this rapidly escalating tactical situation. Of course, the only thing that the average soldier knew was that he suddenly had an urgent job to do.

These Iraqi divisions were fleeing west to escape the Coalition Forces that were over running the Iraqis in Kuwait. Although their formations were well organized and orderly, they were aligned to defend themselves from being attacked in the rear. By the way they were deployed, it was obvious that the 24th Infantry Division had surprised them.

It was now after 1530 hours, and a thick low cloud cover made it feel later than it was.

The generals had delivered the division to the battle front. Now, the soldiers broke loose to do their jobs. The division's convoy formation began to break up at once, as subunit leaders and the armored vehicle crews went into their battle drills. Without stopping to wait for orders or instructions, junior officers and NCOs pulled off the road and the First Brigade deployed into a wall that was over six miles across. Stretched across the plain, Abrams tanks and Bradley infantry fighting vehicles spaced out side by side, every forty meters. The command vehicles for the tanks and infantry, along with combat engineers and artillery formed a second line only a few hundred meters

behind the front line. In minutes, the American division was transformed from a convoy formation into a battle formation.

At first, orders from senior commanders were slow in coming down the chain of command; it took the commands almost twenty minutes to reach the line troops. For the most part such orders were redundant. The field troops knew what was expected of them and were going about doing it. To American soldiers' discipline is more than just doing as they're told. It also included taking the initiative to do what they had been trained to do, in the absence of orders. The orders were simple; maintain a line formation, dress left to right, does not advance. It meant that although individual subunits might advance to get on line with the rest of the division, the division's front line was to stay formed as a wall like a football scrimmage line, and not move.

In the rear of the division, almost three kilometers behind the front, signal units pulled off to the side of the highway. Crews erected their portable radio antenna towers. Generators powered by 150 horse power diesels were towed to trailers loaded with radios and computers, and connected. Over head a satellite received a data burst prefixed by an authorization code; the Pentagon had direct communication.

On the ground, signal intelligence units used computer assisted scanners searched the radio frequencies for transmissions not authorized by the command. Information they discovered was fed to high powered jammers that blinded the Iraqi radios. Radio locators got a fix on the location of Iraqi transmitters and fed the information to artillery plotters to target for destruction.

From out of the south came a squadron of Apache attack helicopters. They bobbed up and down like a swarm of angry hornets. Working from south to north across the face of the battle front, launching rockets and firing their machine guns.

Suddenly, the clouds opened up and out dropped two A-10 Thunderbolt attack aircraft. Like two Valkyries coming to collect their harvest of souls, these specters screamed across the battle front. With their General Electric jet engines crying for victory, the Thunderbolts swept low over the friendly troops and pressed deep into the rear of the enemy formation, dispensing their lethal ordinance of bombs.

From across the open plain came a truck load of Iraqi soldiers. They had been dislocated from their burning tanks, and were determined to vindicate their comrades. They attempted to drive across the battle lines and ram a Bradley. Standing in the flat bed of a truck, waving their guns, they charged.

At 500 meters, a nearby Abrams tank swung its turret and fired, while moving at almost twenty mph. The 120mm round hit the truck dead in the middle, throwing it into the air, flinging body parts over the ground. While the truck still hung in the air, the tank fired a second round, within split seconds of the first, and blew the truck out of the sky.

On the front line, the air was filled with the sounds of battle as rifles chattered, and cannons roared. Billowing clouds of smoke rose from the plains as one after another Iraqi tanks died. The Americans advanced upon the beleaguered Iraqis, devastating any piece of equipment that they could get into their sights.

Bravo Battery, found itself right on the front of the battle, when the convoy came to a halt. It was about 1530 hours when Bravo Battery was pulled over by a Bradley crew parked by the side of Highway 8. The crew chief, an infantry staff sergeant got out on the road and waved the convoy to a halt. CPT Williams and SFC Balis got out of their HMMWVs and talked to the Bradley chief. The infantry scout told the MLRS commander that the only thing out front was the scouts. The convoy would have to wait until the scouts reported that the road was cleared, before they could proceed.

For about fifteen minutes the unit sat parked by the road not fully realizing that the magnitude of the battle that was getting underway. The 3/27th FA and the engineers that were parked off to the side of the road, found themselves being the leading units that were not infantry or armor. The company of combat engineers had parked their vehicles in a wagon train circle and was busy arranging a perimeter defense. Behind Bravo Battery were the 3/27th FA's Command TOC and Charlie Battery. The latter two were stretched out for about a kilometer down the road.

The first evidence that the artillery soldiers had that they were under attack, was when the guys saw green tracer bullets flying past. Green tracer bullets were used by Soviet manufactured weapons. All SSG Garrison could remember was, he was in the middle of the pack following the convoy, and the next thing he realized he was on the battle front. Bravo Battery had been ordered to grid line, easting 0090. They only made it to grid line, easting 9990, one kilometer short of their objective when they hit the FLOT (Front Line of [friendly] Troops).

A crew member from the Bradley called out to the soldiers standing on the road that an enemy truck was coming. A sister Bradley had reported this over the radio. The truck came up over the rise in the road about 200 meters away. It had three Iraqis in the cab and about fifteen more in the back of the truck bed, shooting at the Americans.

The soldiers standing around with rifles in hand took immediate action, opening fire on the truck. The Bradley swung its turret and pumped out three rounds into the front of the truck. Suddenly, the truck swerved to the side and flipped over, throwing the people out of the back across the ground.

Several of the survivors from the first truck tried to recover and continue to shoot at the Americans, but without luck. The Americans were on the ground, putting out a rain of bullets. Although all soldiers were trained in the use of their weapons, the artillery soldiers didn't have the same tactical training the infantry had in engaging soldiers on foot. Everyone had their adrenaline going and kept on shooting even after the Iraqis were no longer returning fire. When the infantry realized that the Iraqis were defeated, they ran down the road telling the other Americans to cease fire.

When SPC Hardisty, medic arrived at the Iraqi vehicle he found the driver dead. The assistant driver on the passenger side was still alive gasping for air. He had a bullet hole in his head, several deep wounds, and his leg was pinned in the wreckage. The medic's first impression was that this guy will never survive to make it to a hospital. Yet, he felt that as long as this guy was alive he had to do everything he could to at least stabilize him. "Someone, give me a baronet!" the medic yelled. Someone came up behind him and gave him a big hunter's knife, like the one used by the Rambo movie character. With a swift motion he cut the pinned foot off of the Iraqi, and pulled him from the burning wreckage. Once free of the truck SPC Hardisty put a tourniquet on the ankle stub. Next, he laid the injured Iraqi soldier down so that his tongue would not block his air passage.

When PFC McCullie, the other medic at the site arrived a few minutes later, they found the Iraqi dead.

Out of the south came another truck loaded with Iraqis. The crew chief yelled to the gunner in the turret of the Bradley, "Here comes another one! Here comes another one!" The turret swung around and fired again, at the second truck at a range of fifteen hundred meters. A round in the engine stopped the truck, and the Iraqis surrendered to the infantry.

Once the shooting had stopped, the decision was made to move the battalion back and set up to support the battle. It was becoming obvious to everyone that this was a full pitched battle, not just a light skirmish. Bravo and Charlie Battery's vehicles turned around and moved back to where they could engage targets. The TOC stayed up front and started processing fire missions for the launchers as soon as the first one could get set up to accept a mission.

CPT Williams came over to SPC Hardesty and asked, "What do you guys want to do? We're moving the battery to the rear. Are you going to stay and finish, or come with us?"

The specialist looked at the injured Iraqis, some of whom had not been treated yet. The medic turned to his captain and said, "Sir, I'll catch up with you, if you don't mind. They still need help, and they're not going to call a medivac into this area because it's too hot. Once we're finished, we'll leave them with the infantry and find you."

"Sure, that's fine," said CPT Williams. "You be careful."

Out of all the Iraqis that had been with that truck, only one was uninjured, six only needed minor attention, and about three required splints and tourniquets. When PFC McCullie and SPC Hardesty got into their truck, they were the last ones out.

As they were leaving the medics saw three Apache helicopters come up from the west, and pass over them. "Hey, look at that," said PFC McCullie.

SPC Hardesty turned around to see where they were going, when he spotted three Iraqi tanks less than a thousand meters away, closing in on them.

The helicopters swooped down on the first tank and shot it up with its nose guns. Once the first tank was destroyed, SPC Hardesty watched as the Apaches moved over the second tank and began to shoot it up.

The medics got away, just before they saw the last tank get hit.

As the battle on Highway 8 raged up front, Charlie and Bravo batteries located themselves about two kilometers behind the division front. Between the two batteries they had fourteen launchers available for missions. Alpha Battery was still moving from out of the west sector, where it had finished its missions. Headquarters & Service Battery was split into two groups. The command elements were up on the battle lines calling back fire missions. The support elements were left back at an impromptu logistics center near the remains of Jalibah air field called, Area Orange. At this point the eastern wing of the 3/27th FA as a battalion, including its supporting combat trains, were spread out over an area almost thirty miles deep.

To support the battle, the 3/27th FA was employing two to four launchers at a time. This halt in movement became an opportunity for the battalion to recollect itself. MAJ Finley, the executive officer went back into the sand flats to retrieve separated vehicles. CPT Jay, the communications & electronics officer headed west to find Alpha Battery. With what was left of the day light, crews that were not involved with fire missions made themselves busy pulling maintenance on their vehicles. Even in battle, the crews could not ignore their maintenance needs.

The first fire mission went to SSG Castillo of C-31. One of the armor battalions had called in a fire mission on unidentified tanks coming over the horizon from the south. The message was sent digital and within two minutes the launcher turret was elevating to launch. The HEMTT supporting C-31 pulled up and parked about a hundred meters away. The truckers down loaded to the ground two pods for C-31 to reload with at the same time as the launcher reported it was ready to fire.

The 3/27th FA called the 212th FA Brigade, the unit that regulated artillery activity for the division. The rules of engagement required that before any launcher or artillery unit could fire, it had to have clearance from the division agency that was regulating artillery activity. Since the 24th DIVARTY (DIVision ARTillery) was involved in the destruction of Tallil Airfield, the 212th FA Brigade was substituting.

Cease-fire orders were returned to the 3/27th FA. The 212th FA Brigade identified the targets as friendlies. The 1st Armored Division, out of VIIth Corps stationed in Germany, was joining the battle.

Bravo Battery was the first to reposition itself in the rear of the battle front, while the battalion's command element and Charlie Battery waited at the front. Charlie Battery kept its launchers available for any missions that the MLRS unit might have to shoot, while Bravo Battery moved. Once Bravo Battery was repositioned, they took over tactical leadership, because Charlie Battery was too far forward. The launchers needed to be backed off three to five kilometers so that the rocket warheads would have ample time and range for the safeties to disengage. After flying eight kilometers the timers would allow the warheads activate before engaging the enemy. Charlie Battery was only in a position to engage targets that were out of sight in the rear of the Iraqi formation. Bravo Battery therefore received the first missions to silence the enemy, just as twilight was darkening the skies. Once Bravo Battery started firing, Charlie Battery was ordered to fall back and join Bravo Battery so that it could contribute to the engagement.

Having transmitted the second fire mission, 1LT Hall got up in the hatch of his command track that housed the FDC, to watch what would happen next. He was hoping to be able to see the rockets launch. On the top deck next to the hatch sat SGT Wells. From two miles away a sudden bright flash jumped like lightning from out of the ground. The rocket flashed past the battle front at almost 2.5 times the speed of sound with a sonic boom that caught the attention of everyone for miles around.



Figure 29-b The Moment of Launch: There are very few ground based weapons system that have the tactical and psychological affects of an M-270 MLRS launcher releasing a ripple fire of rockets in the heat of battle. The roar of mass death can be heard for miles.

(Photo courtesv of. Lockheed Martin. Missiles and Fire Control.)

One after another the rockets leaped from their launchers. The explosive ignition of each rocket as it left the launch tube could be heard for miles. From the front they looked like the tentacles of a demon reaching out of the earth. The twilight clouds were a dark blue gray color, which served to high light the white hot flame that spewed from the rockets as they reached across the front. The crews of support troops still parked on the road got up on their vehicles. They began cheering, whooping and hollering wildly.

SGT Wells sat on top of his command track watching the rockets pass over their targets and explode. Over a group of tanks and supporting infantry, the rockets each dispersed their 600 plus grenades across areas the size of football fields. The ground next seemed to rise up slightly and turn

to liquid as all the grenades exploded simultaneously. From off in the distance SGT Wells could hear the popcorn popping sound made by the scattered submunitions. As the sand settled back down, it appeared as if the tanks were reemerging from the ground dust. Only, now the tanks had been reduced to burning hulks.

“Hey Sergeant,” 1LT Hall offered the binoculars, “Take a look.” There in the distance, SGT Wells saw Iraqis jumping out of the other nearby tanks, throwing their weapons down on the ground, and running toward the highway with their hands in the air. For many of the Iraqis the Americans were too much.

As the sun set in the west, the Iraqi forces became over run with Americans. From the south, the 1st Armored Division joined the battle. While the 24th Infantry Division blocked any westward escape of the Iraqi Republican Guards, the 1st Armored swept around their south flank and engulfed them from the south.

With the use of sophisticated passive thermal vision systems, the Americans could see through the darkness of night and the smoke of the burning vehicles. Passive systems had no need of infrared search lights. Infrared search lights would have betrayed the location of friendly tanks to the enemy. Yet, the thermal vision equipment was sensitive to temperature variations of only fractions of a degree. It allowed the tankers to see a whip antenna protruding from behind a hill at two miles, day or night.

Communications between the Iraqi commanders and their troops appeared completely cut off, both physically and electronically. The Americans had isolated the soldiers on the front, and were maneuvering around them faster than their leaders could organize a defense. In the twilight of sun set, it was becoming harder and harder to see the Americans, and yet they seemed to know exactly where the Iraqi Republican Guards were at. The Americans fought as viciously at night as they did during the day. Slowly, systematically, tenaciously the Americans carved the Iraqis into small bite sized groups and consumed them. With the addition of the 1st Armored Division, and the losses the Iraqis had all ready suffered, the two sides were in numbers more evenly matched. However, the Iraqi troops could not contend against the Americans. Unable to organize an effective defense, the Iraqi commanders of the elite Republican Guard Forces Command fled to Basra. It was about forty-five kilometers east of the battle. They left their lesser soldiers at the mercy of the rampaging Americans.

At 2050 hours, the 3/27th FA fired the last mission for the day. It was dark and the Americans were too intermixed with the Iraqis. It became too dangerous to have the artillery rockets flying around while our troops were so close to, or even intermixed with the Iraqis.

During the night, several more artillery units joined the 24th Infantry Division in its battle against the Republican Guards. First came our neighbors from Fort Bragg, the 18th FA Brigade. They brought four battalions of artillery (including the 6/27th FA [minus one battery, that was attached to the 75th FA Brigade to conduct ATACMS missions], our sister MLRS battalion from Fort Sill, Oklahoma). Unfortunately, they had been too late to see any action on Wednesday. The 18th FA Brigade had come from supporting the French and the 82nd Airborne Infantry during the first two days of the ground war. After the assault on Al Salmon, the 18th FA Brigade then moved east to catch up with the 24th Infantry Division.

On Thursday morning, 28 February the 3/27th FA and the 6/27th FA were available to engaging targets at the Battle of the Rumaylah Oilfields. In military terms these two units combined could deliver the destructive equivalent of a nuclear weapon without the radioactive side effects. With all the combined artillery assets; the 24th DIVARTY, 212th FA Brigade, 18th FA Brigade, and artillery from the 3rd Armored Cavalry Regiment and 197th Infantry Brigade; the 24th Infantry Division was now being supported by an ad hoc artillery division.

At 0407 hours, the battalion FDC received a radio message from the 212th FA Brigade that a fire plan was coming down, in no certain order. The warning order said, the window opened at 0405 hours, all missions to be completed by 0500 hours; and not one minute after. This message created a panic in the battalion FDC. According to doctrinal standards, such a task was supposed to be allowed an hour for set up. For fifty-five minutes the battalion was getting permission to rejoin the battle, and two minutes were already gone. The 212th FA Brigade seemed to have a lot of faith in the 3/27th FA to drop something this big in our laps, on such short notice. Such an act of faith didn't make anyone happy at that point. FDC only had a few short minutes to process the first mission.

As soon as the battalion got word of the impending fire plan, they relayed a warning to the two batteries.

The crew in the FDC consisted of 1LT Hall, SGT Kaigawa, and SPC Ouellette. They were given a block to fire into. Frantically, SGT Kaigawa worked to type the information into the computer's data base. He was hampered by the inability of the computer to keep up with his typing skill. The computers he used were based on 1960s technology. The Army didn't have silicone micro-processor chips, such as the 80486s that were commercially available on the civilian market, at that time. The FDC computer was using transistors arrayed on printed circuit boards with only 215 kilobytes of memory space. By the 1990s this technology was commercially obsolete. Still, conceptually the Army's use of computers to integrate the command and control of its artillery systems was one of the most advanced ideas of its time, even with its limitations.

Generally with a fire plan, two schedules were sent down from the higher. The first schedule consisted of the target numbers and locations of the targets to be destroyed. The second schedule again began with the target numbers, but this time had the method of control or the time that the artillery is to shoot. As these schedules were transmitted to the FDC, the operators had to type them into the computer's data base. Once the computer got a match between all three fields it would process a fire mission and encode it for digital transmission to the battery, and then to the launchers.

Once the warning of the fire plan got to Bravo and Charlie Batteries, they turned into a beehive of activity. Lieutenants and platoon sergeants went running around waking up the sleeping soldiers, yelling orders for the launchers to roll. The crews mounted their vehicles, taking the launchers and ammunition trucks out into the fields surrounding Highway 8. "We have until five o'clock to shoot as many rockets as we can before a cease-fire goes into effect." the leaders told the soldiers.

At 0430 hours for a half hour Bravo Battery and Charlie Battery, of the 3/27th Field Artillery let loose with all the available assets in the battalion, firing 108 rockets. Like bolts of lightning, the rockets jumped from their launchers and crossed the sky. The whole area around the battalion became brightly illuminated as the rockets fired in quick succession. For miles around the thunder of the MLRS rockets could be heard.

In the surrounding distance, cannons of the neighboring artillery roared. The 24th Infantry Division was in control of and employing 132 tubes of 155mm cannon, 48 tubes of 203mm cannon, and 54 MLRS launchers. A virtual artillery division savagely focused its energy against the remnant of the elite Iraqi Republican Guards.

At 0500 hours cease fire was called. When the actual political cease fire went into effect at 0800 hours local time, two American divisions still held the field; the 24th Infantry Division, and the 1st Armor Division. During the course of the Battle of Highway 8, also called First Battle of the Rumaylah Oilfields and The Battle of Madina Ridge, five divisions of armored and motorized units had fought it out for over thirteen hours. This battle turned out to be one of the largest armor and artillery battles since the great wars of a half a century earlier.

"SON, I'M PROUD OF YOU"

Chapter 30

MONDAY, 25 Feb 91

Out of the hatch, SGT Jerome Green dropped down into his seat and slid the lid closed. His back was acting up again causing a great deal of pain. Maybe, if this was a normal day back at Fort Bragg, he would have gone on sick-call and had a medic proscribe him some mild pain killers. When the ground war had kicked off on Sunday, he had felt that this was war, and he was too professional to let some medical annoyance stand between him and his duty. Now, in the pre-dawn hours of his second day, SGT Green was finding that his back pain had gotten to the point where it was as much as he could cope with it, and still do his job. He was cold and the clouds had cut the visibility to only a few feet. After hours of wearing night vision goggles, his eyes were getting tired and he needed a few minutes rest. The heat of the cab was a welcome relief.

On the other side of the cab the driver sat in the darkness. It was late, it was dark, and SPC Mike Hale had been driving continuously for the last sixteen plus hours. Normally, the Specialist thought of the big HEMTTs as his big toys. He had always fancied himself a good driver, and enjoyed the feeling of having this huge machine with all this power under his control. Now, after over sixteen hours of driving, his fascination with the big truck was beginning to wear thin.

They had been driving across open country for just over eighty kilometers in less than fourteen hours. There hadn't been any rest stops since the ground war had begun, and his assistant hadn't swapped positions with him during the whole drive. Although training had always been tough at Ft Bragg, it had never involved this type of long haul driving. His hips and back had become numb, and his foot was starting to cramp on the gas pedal.

SPC Hale's assistant driver was the ammo section chief, SGT Green. The sergeant had picked SPC Hale as his driver after the specialist had gotten himself in trouble hot rodding the big trucks. By being with SPC Hale, SGT Green intended on keeping an eye on the youngster. He wasn't a bad kid, just a little enthusiastic at times.

SGT Green stood on his seat. His upper body had been in the hatch of the truck's cab for most of the night. Their truck was the third vehicle in a group of twelve, traveling in a line formation. As the ammo section chief, he was trying to keep an eye on the six ammunition carriers in the platoon; that was his job. They were deep into enemy territory, and he was concerned about enemy ambushes.

The terrain had become increasingly difficult since nightfall. The flat open plane that they had traveled over during the day had turned into a rocky land filled with a series of large escarpments intermixed with wadis. The escarpments were a line of hills that rose sharply from the plane. In the night the steep walls were like the sides of fortresses. The surrounding wadis looked like trenches, big enough to hide a tank.

SPC Hale was trying to maneuver the big truck across the crest line between two wadis. They walled the truck in with ground that dropped off steeply on either side. He was working hard trying to follow SSG LaHain's launcher. He felt confident that as long as his wheels followed the launcher tracks, the truck would make it through.

SPC Hale had seen the launcher in front of him dip low to the driver's side, but didn't think the dip was an exceptionally dangerous roll. In the darkness, he would often gauge the difficulty of the road by the behavior of the vehicle in front of them. When SPC Hale got to the same point in the steam bed, the depression turned out to be deeper than he believed.

As the truck passed over the same spot, the wadi wall on the driver's side of the truck collapsed. The ground gave way under the front wheels. Over the side and into the wadi the truck pitched, crashing into the dry river bed.

The vehicle slammed driver's side first into the ground. The straps holding the rocket pods snapped, tumbling them across the sand. Rocks along the side of the river bed gashed the fuel tank open. SPC Hale slammed into his door window, shattering the glass with his helmet. All of the personal gear on the console radio ended up being thrown on top of him. The twenty pound radio broke out of its mount and slammed into the driver's shoulder.

In the darkness, SSG Steve LaHain was down on the ground guiding his launcher up the narrow ridge line, between two wadis. From behind, he heard the sudden crash. Looking around, he saw the truck that had been following him down in the ravine of the wadi. Stop the track, he signaled his driver.

SPC Hale opened his eyes to find the barrel of the M-60 machine gun in front of his face. The muzzle had gone through the side window and planted itself in the sand. Once he got his wits about himself he reached over and flipped the engine kill switch. Though he was shaken by the ordeal, he had been cushioned from injury. He was trussed up in the Kevlar helmet and flack vest, and had extra padding from the NBC suit. Now, he found that the very equipment that had just saved him from injury was restricting his movement. He was having a very difficult time getting out of the truck.

SSG LaHain and his gunner, SGT Brent McKemy came down the side of the ravine. They found the big HEMTT lying on its side. "Hey, are you all right in there?" called SSG LaHain.

"Ya, I'm okay." came the muffled answer from the driver's side. "Who's out there?"

"It's SSG LaHain." he answered. "Is that you, Hale?"

"Ya, it's me." called back the driver. "Have you seen SGT Green?"

SGT McKemy found SGT Green in a clump at the foot of the far wall. He had been thrown through of the hatch, and landed face down amidst a pile of large rocks.

"Be careful, Steve." said SGT McKemy. "Don't move him until I've had a chance to look at him." Throughout the unit, a large number of senior specialists and sergeants had been given advanced first aid medical training. SGT McKemy was a qualified Combat Life Saver.

"Tell me where it hurts?" SGT McKemy asked SGT Green.

"Oh, man..." moaned SGT Green, as he tried to roll over on his back.

"Green, don't move until I check you out." said SGT McKemy. Quickly, the sergeant moved his hands along the underside of his injured comrade trying to locate bleeding or broken bones.

"McKemy, my back is killing me." moaned SGT Green. "And, my ribs hurt, too.

From the wreckage, SPC Hale crawled out the passenger side door. Remarkably, he was without a scratch. SPC Buse, the Platoon Sergeant's driver helped him get down to the ground. SPC Hale stood for a second leaning against the bumper of the truck trying to get his bearing, while his adrenaline settled. As he looked up, he saw SGT Green lying on the ground.

SPC Hale went to SGT Green's side. "SGT Green! SGT Green, are you all right?" pleaded SPC Hale. The hatch SGT Green had flown through was nothing more than a section of sheet metal usually secured by screws around the border. The truck crews had removed all but one of the screws so that the metal plate could be slid back, allowing the assistant to stand up, and thus giving better all around security. When the truck had flipped, the spring loaded truck seat had launched the sergeant into and through the roof of the cab.

“Oh shit!” moaned SGT Green. “Get me turned over...”

“Give me a hand, guys.” said SGT McKemy. 2LT Robertson, the platoon leader had just arrived, and together the four men rolled their injured buddy over on to his back.

“SGT Green,” said the lieutenant. “Try to relax. I’m going to call for help.”

SSG LaHain took SPC Hale off to the side, where the Platoon Sergeant, SSG Forbey, and his driver stood looking over the wreckage. “Hale,” said SSG Forbey, “SGT Green is going to have to be medivaced back to the rear. Get all of your gear off the truck. Leave his stuff with the medics, and put your stuff in my truck. You’re coming with me. Buse, give him a hand.”

Within a half an hour medics from the combat trains arrived and took over from SGT McKemy. Dr. (MAJ) Riney did the field diagnoses. He palpated SGT Green, feeling the areas where SGT Green complained of pain. Dr. Riney found swelling around the ribs and back, but couldn’t be sure that the sergeant didn’t have a broken bone or back. Further, the doctor found swelling around the right ankle where SGT Green’s leg had struck the side of the truck as he had exited.

SGT Green was strapped to an improvised back board. His ankle was wrapped in a bandage to keep it immobile. Then the doctor called a medivac to pick up the sergeant.

Shortly after the medics arrived, SGT Green’s platoon moved out. The sergeant was left in the care of the battalion support element. The truck and its ammunition had to be abandoned. A few days later an attack helicopter was sent back to detonate the wreckage by machine gun fire.

When the medivac chopper actually arrived, it was after sunrise on Monday; almost four hours after the accident. The helicopter didn’t fly straight into the area where SGT Green was waiting with the medics. It flew past the waiting party, about three hundred meters off to the side. Someone got on the radio and called the helicopter back.

When the helicopter, a Sikorsky Black Hawk landed SGT Green was transferred from the make-shift back board to a stretcher litter from the helicopter. He was then flown back to an Army field hospital in Saudi Arabia.

It took the helicopter almost an hour to fly back to the rear area. As the medivac flew back to the rear, two medics worked with the sergeant to relieve his discomfort. SGT Green was impressed with their professionalism and the sincerity of their concern.

Upon his arrival at the field hospital, SGT Green was rushed into a waiting emergency room. The receiving wards of the hospital were tents made of air filled ribbed domes that looked like the Quonset huts of old. SGT Green was impressed that the tents were comfortably air conditioned and very clean. The team of medical personnel did a complete examination, including X-rays of his injuries.

The X-rays showed no broken bones. Just a lot of bruised muscles. Learning this, SGT Green was taken out of the back board and neck brace.

Next, the doctor wanted to find out if the back swelling and tenderness was a serious internal injury. He was particularly concerned about kidney damage. A catheter revealed only a small quantity of blood in his urine. It wasn’t a serious problem, but the doctor wanted to keep the situation under observation. The catheter was left in for the next twenty-four hours.

As the fighting increased in the war, the numbers of Iraqi EPWs increased at the hospital. Helicopters were arriving every half hour filled with injured Iraqis. They quickly outnumbered the Americans and allies in the hospital.

It was in the Intensive Care Ward that SGT Green had his first encounter with the enemy. It was shortly after mid-day Monday when a military police officer brought a small group of Iraqis in for treatment. As the group of prisoners passed in front of the beds where the Americans were resting, one of the Iraqis stopped to shake the hands of all the soldiers laying in the beds. After he shook SGT Green's hand, put his hands across his heart and bowed his head. It was a touching gesture, which SGT Green didn't fully understand.

SGT Green found that every effort was made to afford the prisoners the same medical opportunities that the Americans provided for themselves. The Iraqis were treated in the same clinics alongside the Americans. They ate the same food, and wore the same hospital pajamas as the other patients. About the only difference was that they were housed in separate wards surrounded by fences.

TUESDAY, 26 Feb 91:

Once the catheter was removed, SGT Green was moved from the Intensive Care Ward to Ward-1. Ward-1 consisted of several general purpose tents connected together. They were held up by wooden poles, and braced by guide ropes. Each tent held about sixteen cots and a nurse's station. The floors were made of plywood sheets framed with 2x4 boards.

The hospital ran two shifts; noon to midnight, and midnight till noon. Meals were served three times a day. SGT Green was impressed that he got to have his meals served to him in bed. His bed was an air mattress with real clean sheets. The sheets were changed twice a week. After months of living like an animal in the wilderness, this place was like heaven.

The ward was full of patients. Some of the patients were in for illnesses, but most had injuries. SGT Green in particular, noticed a large number of soldiers suffering from burns. A lot of people had been injured working with camp stoves; the Yukon and Pot-Belly type. There were also a few that had dropped boiling hot water on themselves while trying to fill the overhead shower reservoirs.

WEDNESDAY, 27 Feb 91:

It was late morning when the doctor walked over to the bed where SGT Green lay. "Looks like you were one lucky young man," the doctor said. SGT Green prickled at being spoken down to as if he were a child. Especially by someone that was the same age as he was. "It looks like once the bruised muscles heal, you'll be just fine. Nothing's broken. As soon as we can, we are going to send you back to your unit. If I don't see you again, good luck." Having said that, the doctor moved on to the next patient.

SGT Green went to lunch in the mess tent. "Real food," he thought. "I wonder when I will get to have this type of food again." As he ate he heard talk that the coalition forces had driven the Iraqis from Kuwait. The Iraqis were on the retreat. The war was turning out to be remarkably easier than anyone had dared to hope. Everyone wore grins as they talked and ate.

After lunch, SGT Green passed by supply and turned in his linens. This was it for the young sergeant. He still limped from the pulled ligaments in his ankle, and his back was still a little sore. Otherwise, he was anxious to get back to his own unit. The hospital was a nice vacation, but he felt he was missing his duty.

In front of the hospital was a tent with personnel liaison teams who handled transporting soldiers back to their units in the front. At a desk by the entrance, a specialist pointed SGT Green to a desk off to the left side. The sign on the front read, "18th Airborne Corps".

“Hello, Sergeant.” said the clerk behind the desk. “How can I help you?”

“Ah, yes. I need to get back to my unit, the 3/27th Field Artillery.”

“Okay, your name, please.” The clerk, a Private First Class filled SGT Green’s name in on a manifest roster. “Okay Sergeant, a truck will be here at 1300 hours to run you out to the replacement center. It will pick you up out back. Bring your baggage, and don’t be late.”

The ride out to the Replacement Center for the XVIIIth Airborne Corps was a long, bumpy, dusty ride. The Replacement Center was at a logistics base called, Log Base Charlie. It was situated between MSR Yankee and MSR Burgundy. Once inside, SGT Green was issued a sleeping bag and cot. He was then assigned a tent, and told to stand by for a flight out to his unit. Until his flight, he was restricted to the center. There were too many people coming in for the center personnel to try chasing after soldiers who wandered off on their own. SGT Green would spend the next three days here, waiting for a ride out to his unit.

The center was crowded with people when SGT Green stepped into the general purpose medium tent. With the high numbers of casualties that had been anticipated, the center was crowded with replacement troops from the Individual Ready Reserve and other reserve activities. Do to the success of the campaign, there was little for them to do but wait and be available if called. There were also a large number of people who had just gotten off emergency leave, back from the States.

It was about 1900 hours when SGT Green finally finished settling in for the day. He had found himself a bunk in the big tent and eaten the MRE he got when he had in processed. It had been a boring day for SGT Green. Even though he was sore from the ride and all the walking around he did going from station to station trying to arrange a way back to his unit. He pulled off his boots and went to bed early.

THURSDAY, 28 Feb 91:

He got up early the next morning. It was just after 0600 hours when he picked up his breakfast MRE. The news was out that the President had called a cease fire. Everybody was excited.

Feeling restless and wanting to get out to stretch his legs, SGT Green decided to try calling home. He had learned from the medics that there was a telephone center nearby. Using the phone was the only reason that the Replacement Center allowed in-coming personnel to leave the center compound. That sounded like something to do. Hopefully, it would be late enough that he wouldn’t have any problems catching his father at home.

He signed out at the gate, and walked to the telephone center. AT&T had set up large commercial phone centers with satellite links for the troops in the desert. These were set up during the last few months of Desert Shield. Each phone center had a hundred to two hundred phones. Though these places were always busy, hearing the voice of a loved one for just fifteen minutes was like a lifetime to the soldiers and their families.

Standing in the phone booth, SGT Green waited for the operator to complete the connection. Although it was morning in Saudi Arabia, it would be late night of the previous day at home. There was a nine hour difference in time from Saudi to home. “Mama will like hearing from me,” he thought to himself as the phone rang at the other end. “She’s probably really worried.”

“Hello. Who is this?” came mama’s familiar voice.

“Hello.... Mama, it’s me, Jerome.”

“Jerome, it can’t be? Is that you.... Is that really you?”

“Yes Mama, it’s me.” SGT Green could feel a lot of stress in his mother’s voice. It felt good talking to his mother, helping to ease her apprehension. After what he had been through, it made him feel good just to hear her voice.

“Oh, my baby.... It’s my baby....” Then Mrs. Green began crying uncontrollably.

“Mama.... Mama, I’m okay.” SGT Green was taken aback by the intensity of his mother’s emotional distress. “Mama, please stop crying. I’m okay.” But, Mrs. Green still continued crying uncontrollably. “Mama, let me talk to Papa... Mama, give the phone to Papa....”

A new voice came on the line, “Hello, who is this?”

“Hi, papa. It’s me, Jerome.”

“Jerome? No, it can’t be!” came Mr. Green’s shocked response, “You’re supposed to be dead....”

“DEAD!” SGT Green was totally surprised by this news. “What are you talking about, papa?”

“Yes, two men from the Army came by, and said you were dead. They said a truck you were in flipped over after hitting a land mine and that you were killed.” his father told him.

“No papa! They got that all mixed up. My driver hit a pot hole in a wadi and flipped my truck. I got thrown out the hatch and was bruised up. So, they sent me to a hospital.”

“All I got is a bunch of bruises, papa. That’s all. I’m out of the hospital, now. I’m okay.” SGT Green was angry. Someone had exaggerated all the basic facts.

“Thank God. You don’t know how glad I am to hear you’re alive.” said Mr. Green. “I want you to know, son, I’m proud of you.”

"THE FINAL EFFORT"

Chapter 31

It was late when Alpha Battery pulled up to the 24th Infantry Division and made camp for the night. In fact, it was almost sun rise on Thursday, 28 February. The word was getting around that a general cease-fire had been called.

SSG Eddy Ward pulled his track up with the rest of his platoon, were the platoon sergeant pointed out where he wanted the launcher parked. SSG Ward moved over to his designated bivouac area and put his gunner (the operator of the computer fire control) on guard. It was about 1800 hours. Not far from his location was a house and through their night vision goggles they could see children playing.

Later that day, about noon a Bradley Infantry Fighting Vehicle pulled up to the house and unloaded a squad of infantry soldiers. They stormed into the house and brought the residents out; a male, three females, and a couple of children. The troops searched them, and then had them kneel while they went through the house again. The second search turned up several pistols, rifles and an antitank rocket launcher.

The night before, SSG Ward hadn't thought anything of the house. It looked so innocent with the children playing around the house. He had assumed that this area being behind the front, was probably well swept by the units that had passed through already. Now, all he could think was, "If these guys really wanted to fuck me up, they could have got me last night.... Shit, that guy was a young guy.... He could have been part of the Iraqi army.... "

After the cease-fire, 24th Infantry Division's scouts and engineers went forward. As they advanced, they found an Iraqi logistics site that was 3X3 kilometers square, saturated with underground munitions bunkers, and surrounded by mine fields. It was another major logistics base that our intelligence didn't have any warning about before it was discovered. The engineers were tasked with demolishing it. The explosions caused by hundreds of tons of Iraqi munitions shook the desert plains. As each of the bunkers was blown, mushroom clouds carried smoke and earth into the upper atmosphere. The clouds could be seen from as far away as Kuwait. It took the scouts and engineers three days to destroy it all.

Once the fighting had stopped, it was time to start putting things back together, again. It was still 28 February. In the early morning first light the medics set up an aid station, and put out the word that they were open for business. The rest of the battalion trains set up its location a few hundred meters behind where Bravo and Charlie Batteries were located. No sooner than they got settled, then the people for sick-call started arriving. Most of the soldiers were complaining of sore feet. This was caused by wearing boots for over four consecutive days. Forgetting to change their socks had given the soldiers blisters and bruises; a mild form of trench-foot.

The medical section received a radio call from the battalion operations post, the TOC. They wanted a medical corpsman to accompany a foraging party to find souvenir Iraqi artillery. The party found six Iraqi cannons to take back to Ft Bragg as war trophies. SPC Padilla went along in case someone was injured.

About the time that SPC Padilla returned from the excursion, an M-113 armored personnel carrier with a red cross on the side drove up in front of the aid station. The sergeant from the tracked ambulance walked up to the medic tent and asked for the NCOIC. This medical sergeant was from an infantry unit that had not yet stopped long enough to set up an aid station. He had three seriously

injured Iraqi prisoners that he wanted to drop off with the 3/27th FA. The first Iraqi soldier was an officer, a big husky guy. The other two were privates; junior enlisted.

SPC Padilla took one of the enlisted Iraqis and laid him down on a table. From the papers he was carrying, the medic learned that his patient's name was Mohammed. Mohammed was pretty bad. He had shrapnel in his head, and a bullet in his cheek under his left eye. His foot was badly damaged, and looked like he might need to have it amputated.

SSG Huntly and SGT Boience worked on the foot while the specialist worked on the head. Doctor MAJ Riney supervised the medics as they operated on the three Iraqis.

The Iraqi officer was treated by CPL Disant. He had shrapnel in his back that needed to be removed.

The third Iraqi had a broken leg, and shrapnel in his head, too.

While the Iraqis were being treated, one of the American guys on sick-call made a wise crack, "Why are you guys treating these rag-heads before your own people first...."

He was told to, "Shut-up." Maybe next time, the medics warned him, he would remember to change his socks, regularly.

Mohammed knew a few words in English even though he really couldn't speak much of it. He kept saying, "Saddam bad, Saddam bad...." and, "Thank you, Thank you..." As the medics tried to work on him, he complained of the pain by pointing to his foot, saying, "Pain, pain." The medic tried to help Mohammed by giving him morphine. However, as anyone who has sat in the dentist's seat knows, there is a limit to what the pain killers can do. So, Mohammed endured the surgery.

SPC Padilla took out most of the shrapnel, except a few pieces that had become lodged in the bone of the skull casing. The bullet in the cheek came out without a problem and the opening was stitched up. As for his foot, SSG Huntly cleaned it up so that it would not develop secondary infections and stabilized it to prevent further bleeding.

Once the prisoners were stabilized, they were picked up by a helicopter and taken to a field hospital.

Over the next few days the American medics would treat many more Iraqis, most of them civilians. Many of the Bedouins that were in the neighborhood of the fighting wandered in asking for, "doctor." They usually seemed to be complaining of skin problems or rashes. In several instances they had bronchial problems such as asthma or pneumonia. Those with serious problems were treated to a helicopter ride to a medical facility in Saudi Arabia. The medics at the 3/27th FA were seeing ten to fifteen Bedouins a day.

In spite of the cease-fire, hostile military activity was not finished. Over the next two days there were reports that Iraqi units were still moving around in spite of the cease-fire freeze. Rumors of these violations had reached even the common soldiers operating at the tactical combat levels. On the second day of the official cease fire, the reports to the battalion FDC and TOC said that the military and political situation was far from settled. Nor the Euphrates, Apache helicopters on patrol were repeatedly finding the Iraqis trying to sneak military vehicles out the back side of Al Basra, and drive them north along the eastern boarder of Iraq. This was a violation of the cease fire terms. They tried destroying this illicit traffic, but only had limited success. The eastern boarder was at the extreme flying range for the helicopters, and they could only loiter in that area for a limited time. Furthermore, there were reports of fighting in Al Basra, and that masses of refugees were fleeing toward our side. The Americans were left wondering if there was more hard fighting to come?

It was pre-dawn Saturday morning, 2 March. That morning I had gotten up early to perform a two hour guard shift. My shift ended just before sunrise. So, when my relief showed up, I didn't bother going back to sleep. As the pre-dawn light crested the horizon, I took some time to investigate my surroundings.

Charlie Battery was camped inside an oil pump field. Scattered about us were the big oil pumps of the Rumayalh oil fields. The pumps stood motionless like giant black insects silhouetted by the crisp reds and yellows of the morning. I didn't know exactly where I was, or what the name of the place was, at that time. I only knew that I was somewhere outside Al Basra along side of the legendary Euphrates River. I don't think many of us realized that the oil field we were parked on was the original source of the dispute between Iraq and Kuwait.

Over the last two days, the division had brought forward its logistics operations. Fuel, spare parts, and hot food started to become available, again. At about 0545 hours, the platoon sergeant drove into our platoon center with hot breakfast. As chow was being dished out to the soldiers, the lieutenant held a meeting with his section chiefs. A decision was made to move the platoon over to a recently available re-fuel point and top-off our fuel tanks. Breakfast didn't last very long. Within less than an hour the forty soldiers had wolfed down their food and began getting their vehicles readied and lined up for a platoon convoy. By 0745 hours, our platoon was cruising down the road, in search of refined diesel.

It was during these early morning hours that the 3/27th FA's FDC heard that aviation elements had been attacked. The source of the fire was not determined, but during the attack they stumbled on Iraqi tanks trying to retreat north over a bridge near Al Basra. Helicopter reconnaissance found over a hundred tanks and more assorted vehicles lined up on a bridgehead attempting to cross. The bridge in question was a two kilometer bridge that spanned the Euphrates River. The intelligence the 3/27th FA received said that the gathering at the bridgehead was a very unorganized convoy. It was made of mixed units of Iraqis stretched out over a two kilometer stretch of road to the south of the river.

The events of this early Saturday morning had been building up for a while. The 24th Infantry Division had its first hint of unusual activity at about 0445 hours when scouts reported movement of heavy vehicles along the division's northern sector, near the river. At shortly after 0800 hours, Iraqi infantry engaged American scouts with heavy weapons in an attempt to chase the scouts away. Based on what the scouts had seen, the 1st Brigade was able to report the division that the Iraqis were setting up an escape. This was a violation of the cease-fire terms.

It appears that the Iraqi commanders of the Hammurabi Division wanted to make a sudden mass exit from the encirclement around Al Basra, where they were trapped. They had about five divisions worth of expensive equipment that they feared would be lost to the coalition forces. The Iraqis needed a way to get their forces out of the Al Basra encirclement, without antagonizing the coalition into renewed fighting. The Iraqi commanders couldn't understand how, but believed that once in motion, the Americans could destroy the remainder of their army in just a few hours. They had to escape before the Americans could discover what they were doing and react.

Trying to exfiltrate through Al Basra proved to be very difficult. There was just too much heavy equipment to be moved through the small streets, and the local population was in revolt. Escaping through Al Basra would have taken at least a full twenty-four hours, if the coalition didn't discover what Iraqis were doing. Therefore, the Iraqis planned a second route of escape. They fashioned a hasty bridge across the Euphrates, where an earlier causeway had been destroyed.

The Iraqis might have thought they had a few hours to make their escape. They underestimated the Americans. The American's response time was more accurately measured in minutes.

At about 0820 hours, the 212th FA Brigade, who was still the supervising authority over the 3/27th FA, sent down orders for a fire mission. The mission called for MLRS artillery in a focused attack against enemy vehicles that were trying to escape along a causeway just west of Al Basra leading north toward Baghdad. They wanted the mission fired, As-Ready. The artillery planners at the higher commands had an assortment of response methods that the maneuver artillery could employ. As-Ready was a specific procedure, as different then other methods of firing the launchers or cannons. The higher command wanted each launcher to fire at its target as soon as the calculations were ready and the launcher was set up, without delay.

However as the commander of an MLRS battalion, LTC Thrasher had a deeper awareness of the best way to employ the rocket system. In this situation, having each launcher fire when it received its data from the battalion FDC would cause only limited piecemeal damage to the escaping enemy. The MLRS commander could see that when the first rocket landed in the enemy area the Iraqi commanders would become alerted to the Americans' plans. The whole surprise and psychological shock effect would then have been lost. If the Iraqi commanders could maintain control of their troops, in spite of casualties that could be inflicted by the rockets, LTC Thrasher feared that a sizable portion of the Iraqi vehicles would disperse before the rest of the launchers could be brought to bear down against the fleeing armor.

To ensure the battalion's MLRS rocket fire stopped as many enemy vehicles as possible from escaping, LTC Thrasher ordered the FDC to change the mission profile to an At-My-Command fire mission. This is a simultaneous strike by several launchers that would saturate the entire two square kilometer area across the bridge and around the entrance to the causeway bridgehead. By doing this, the battalion would maximize its effects on the whole target area. Tactically, this mission profile would create what is known as, massed battalion's fires. The sudden violence of massed rocket fires promised not only to destroy the fleeing vehicles, it also offered to cause widespread panic throughout the Iraqi ranks.

This change of mission profile caused a conflict in the minds of the FDC crew. They were concerned that, shooting was going on and maybe the lives of Americans could be at stake, somewhere out front. From where the FDC and TOC were located, they had no way of seeing what was really going on at the bridgehead. As the FDC crew understood, it was the prerogative of the people at the front, those who were called to the point of greatest danger; those calling for the artillery to say what type of support they wanted. The personnel in the FDC had been trained that second guessing the type of support that should be offered was not doctrinal.

However, in the few days that LTC Thrasher had been working with MLRS in combat, he could see that this system had unrecognized abilities and limitations. True, he had training at the advanced artillery officer's schools about the MLRS's potential. Only, the actual combat characteristics of this tactical weapon system turned out to be much different then what had been advertised by the engineers who built the system. His brief combat experience had taught him that the system was more versatile then his superiors knew, and there were also limitations that had not been anticipated. The commander weighed these conflicting choices, and made his decision. It was a decision based on actual experience, not on textbook theory.

As preparations were being made in the FDC, likewise the launchers needed to be alerted. The battalion TOC handled organizing this part of the job. The area where the 24th Infantry Division was located was pretty crowded with vehicles and units of the division scattered around. According to the text book, the battalion needed over eighty square kilometers to properly deploy. The battalion cheated.... The 3/27th FA deployed its launchers in a two square kilometer area. The battalion TOC called all the battery operations centers, including Alpha-13 FA (the independent MLRS battery that

was a part of the 24th Infantry Division). The batteries were all told that a fire plan was getting ready to come down for all MLRS launchers that could be available within the next five minutes.

FDC made another change in the procedures. They had the TOC instruct the launchers to switch over to digital communications, and send Location-Status (LOS) reports to their battery FDCs once they arrived at their firing points. This would allow the battalion FDC to use their computer to query for the launcher's availability, and speed up the dissemination of the fire plan. Before that, all missions had been transmitted verbally to compensate for the undependable characteristics of long distance radio transmissions in the desert.

My platoon was about fifteen minutes out of our camp site, going for fuel. Unexpectedly, the lieutenant got the call for him to move the launchers over to our firing positions. He was given three minutes to have his platoon in position, or be passed over for the mission. Immediately, he pulled off to the side of the dirt road, and turned the platoon convoy around. Down the road we raced toward the area where we were to set up for the coming battle.

Everyone became excited in my track when we heard that we might get another chance to shoot our rockets. Our fire control panel was on, and our computer was keeping track of our location. Once my chief finished acknowledging the mission to the lieutenant, he reached down to the big radio behind my head, and changed the frequency to Charlie Battery's digital net. Our little auxiliary radio would allow us to hear what was being said over the voice net.

With the radio on the digital net, my computer could talk to the battery's FDC computer; and indirectly my launcher was in touch with the battalion's FDC computer. As we raced down the road, I pressed keys that called out to the FDC. On the second try, the battery's FDC computer acknowledged my launcher.

The crew chiefs of the launchers knew that this was to be the last shoot of the war. Everyone wanted to be in on the action. Radio traffic picked up on all the battery and battalion voice radio nets. Launcher chiefs and platoon leaders lobbied for their prospective launchers to get a chance to fire this last time. Finally, the battalion FDC NCO, SGT Kilgawa in got on the net and told the users to cut out all the noise.

The launcher's operations area, the land where we were to fire from was a large field, just less than two square kilometers in size. It had several large oil storage tanks scattered about it. This was a risky place to launch rockets from, but it was the most open space available. Launchers poured into the field from all directions, and began jockeying around for a relatively safe place to shoot from. We had been trained to leave 300 meters of clear space around the launchers. However, because of the limited space, we were forced to cut it down to 150 meters between launchers.

As time ran out, Alpha-13th FA couldn't get their launchers into the designated firing positions in the allotted time frame. LTC Thrasher had been hoping to share some of the action with them. He knew they hadn't fired a rocket, and felt badly for them. He knew how much it meant to the soldiers to feel that they were a part of what had been happening. Nevertheless, if Alpha-13th FA didn't arrive at the operations area in time, he would be forced to continue the mission without them.

Back in the battalion FDC, the 212th FA called and asked what the delay was about. The 3/27th FA's FDC was planning to target the whole bridge that was two kilometers long. The idea was to destroy the tanks that were moving across the bridge, and block any further movement. It took more than four minutes to work the calculations. According to the training doctrine, fire missions of this size were supposed to be allowed an hour to be developed. The FDC found themselves fabricating an impromptu procedure to cut the time down to minutes. The computers were of early 1960's design. Trying to hold a data-base with so many target points and launchers in its memory was reaching the computer's threshold limits. The operators got to the point where they were able to type

the data into the computer faster than it could process the information. The computer operators were afraid that if they rushed the computers at this point the computers would lock up, and quit working.

The 212th FA had its own worries to consider. A squadron of Apache attack helicopters had also been alerted, and was on their way to the bridgehead. However, it wouldn't be possible for the helicopters to fly around in the same air space as the in-coming rockets. When the helicopters arrived, the 212th FA would have to stop all artillery activity.

Just as the patience of the 212th FA was about to give way and they threatened to give the mission to another unit, the 3/27th FA's FDC passed its first mission to a launcher. One after another, launcher engines roared to full throttle as these twenty-seven ton behemoths swiveled to line up for their targets. Turrets then elevated and traversed. There was a bright flash and suddenly the air shook as eighty-four rockets erupted from the battalion. The steel thunder reverberated continuously across the open desert as the MLRS rockets broke the sound barrier. At 0835 the 3/27th FA launched its attack.

Inside my launcher, we waited, and hoped for a fire mission. None came to us. Inside our launcher, the screen on the fire control panel stared up at us, blankly telling us the time, location and direction of the vehicle. Sometimes, I kind of felt like a mushroom in a cave. Working in a launcher, there never was any information about the targets we were firing at. Only, occasionally did we ever learn what affect we had on the targets we hit. Our only excitement was making the rockets go. We had no idea what was going on at the battle front. For all we could tell, the war had started up, again. Out of all the launchers hoping for a chance to fire, only seven launchers actually got to shoot rockets.

The Iraqis were shown the power of the American resolve to not let anything get away. All the vehicles on the bridge and several vehicles at the bridge head were destroyed blocking their escape. The ability of the Americans to mass this much fire power right in front of the Iraqi soldiers not only destroyed their armor, it devastated them psychologically. The Iraqis jumped off their vehicles and ran toward Al Basra. As they ran out of the area, they threw down their weapons, their helmets, and any other military items they wore. By limiting the target to the bridge, the FDC spared the lives of the Iraqis that had not set foot outside of the restrictions imposed by the cease fire terms. The decision about what to do with the remaining vehicles would be left in the hands of the Americans who had visual contact with the convoy.

At 0850 hours, a squadron of attack helicopters flew out of the west. They fired over a hundred Hellfire rockets destroying the vehicles along the road that had been abandoned. Around 1030 hours, the 1st Brigade moved into the area and finished off the rest of the Iraqi vehicles. The Iraqi losses were staggering. They lost almost 200 armored vehicles, 34 artillery pieces, seven FROG missile systems, nine multiple rocket launchers, and over 400 wheeled vehicles and trucks. The Americans lost a tank, when it drove past a smoldering Iraqi tank. The Iraqi tank blew up, engulfing the American tank in flames. The crew escaped unharmed.

The destruction of the Iraqi tanks and vehicles at the causeway didn't even last half an hour, but it was one of the more significant events of the war. By noon, the 1st Brigades ground forces had finished its operations at the bridgehead. We had shown the Iraqi commanders that they needed to forget it, if they had any ideas about not surrendering. After that, negotiations were quickly concluded. It wasn't until a week later that I learned what had been happening on that Saturday morning. I had heard that we destroyed some tanks trying to escape, but until I had found a magazine report I didn't know about the magnitude of this event.

Four days after that final action against the Iraqis, on the 6 March, the 3/27th FA was released from the 24th Infantry Division, and headed down MSR Burgundy back into Saudi Arabia. MSR

Burgundy was a route used by the VIIth Corps during its thrust into Iraq. The return trip took us a little more than twenty-four hours. "It looked good... going home." said SSG Garrison.

VICTORY DIVISION

12 March 1991

Basra Plain, Eastern Iraq

SOLDIERS OF THE 24th MECHANIZED INFANTRY DIVISION:

On 24 February 1991, the 26,000 soldiers, 1,800 armored vehicles, and 6,800 wheeled vehicles of the 24th Mechanized Infantry Division Combat Team and the attached 212th Field Artillery Brigade and 36th Engineer Group attacked into Iraq. Our primary purpose was to destroy an aggressor army and to free the two million people of Kuwait. We have accomplished our mission.

In just 100 hours of battle, you attacked 370 kilometers deep into the enemy's flank and rear. We severed the Iraqi lines of communication through the Euphrates River Valley and systematically annihilated the 26th Commando Brigade, 47th and 49th Infantry Divisions, and four Republican Guard Divisions. You destroyed over 363 tanks and armored personnel carriers, 314 artillery guns and mortars, 207 anti-aircraft guns, 1,278 trucks, 19 FROG missiles, 22 MLRs, 25 enemy high-performance fighter aircraft and helicopters, and captured over 5,000 prisoners. The Victory Division also detonated over 1,300 ammunition bunkers with more than one hundred-thousand tones of munitions. The offensive capability of the Iraqi Armed Forces has been wrecked. Saudi Arabia and the Gulf States are now safe.

The 24th Infantry Division attack spearheaded the ground offensive for the Allied Coalition Force. Our advance moved farther and faster than any other mechanized force in military history. The speed, violence, and determination with which you fulfilled your mission completely destroyed the enemy's will to fight. Tactical victories such as Tallil Air Base, Battle Position #102, Jalibah Air Base, Basra Plan, and the Rumayalh Oil Field are now engraved in the in the history of the 24th Mechanized Infantry Division.

Each of you will return to families and to an American public filled with a great sense of pride and respect for your personal courage and sacrifices. Your accomplishments, together with thousands of other soldiers, sailors, airmen, and marines who took part in this battle, have rekindled a new spirit of patriotism throughout our great country. You have revitalized America's confidence in our Armed Forces. America is more safe and prouder because of your strength, discipline, and valor.

We must not forget our fallen comrades. Eight Victory Division soldiers were killed and thirty-six were wounded in this campaign. We will remember them with both dignity and honor. Their legacy is two million free Kuwaiti citizens and an enduring message to both free and oppressed people throughout the world... There is hope: Freedom is never without cost, and; Americans will fight and die for our principles.

FIRST TO FIGHT

BERRY R. McCAFFREY

Major General, United States Army
Commanding General

"ON TO KOBAR TOWERS, AND HOME"

Chapter 32

Although the 3/27th FA had completed its combat mission, there were still details that had to be completed before returning home. Many of us were concerned that once the scramble to get out of the gulf region began, we would get forgotten in the shuffle. We would have liked to have dropped our equipment off at the ports, and have some civilian ship it back to Fort Bragg for us. It was a nice fantasy, but it was our job to take care of our equipment before we could leave. We all wanted to go home, but there were practical considerations. Even as it had taken months to assemble the force, it would take months to disassemble it.

From our point of view, we had been the first part of the task force deployed. We had live through the most austere period of the buildup. For the first few months the only logistical support available was what we had carried in our duffel bags. We were used to support the combat all the way to the most northern area of American activity, while other units who had been a part of the initial deployment stayed back in the south. We viewed it as being only right that we should get an early chance to be sent home.

After the fighting in Iraq, my battalion moved down MSR Burgundy and set up a small camp about a mile from Tapline Road. It was real testimony to the mechanics that every launcher drove out of Iraq under their own power. The wheeled vehicles drove on to Kobar Towers while the tracked vehicles, launchers and command tracks waited for trucks to carry the rest of us south. The wait lasted about five days.

Kobar Towers, Dhahran was the redeployment center for return to the United States or Europe. This center was a just completed private apartment complex that had been impressed by the Saudi Arabian government to quarter American troops. It covered an area of about three square miles. Here, battalions were housed in apartment buildings that were between five to eight stories tall. Parking lots built below the ground were converted over to logistical activities. They were used for such things as feeding centers, reissue points, retail exchanges, post offices, and the like. I estimate that there were as many as thirty thousand people, there.

We were picked up from the desert, by a group of foreign contract laborers. Most of them were South-East Asians; Filipinos, Indians, Afghanistanies, and so forth. These people had worked especially hard to move the mountains of supplies and equipment involved in the war. It was late in the day when we got on the road. It was morning when we arrived in Dhahran. The tracked vehicles were parked in an abandoned part of town, and a bus brought us into the tower complex. It dropped us off about a quarter of a block away from the building that housed the 3/27th FA's enlisted soldiers.

At Kobar Towers, I got my first taste of civilized living since the battalion had moved out of the SANG Compound. It was lunch time by the time I got my gear stowed in my room. My platoon sergeant told us that we had the rest of the day free, as long as we were back for the 1630 hours briefing. Learning from the early arrivals that there was a hamburger stand nearby, I went hunting for some civilized food.

I found the hamburger stand and got in line. In front of me was a young woman; a specialist with a combat patch on her right shoulder. The Persian Gulf war was the first time in military history where women were engaging in combat, and the military did little to shelter the women from the risks. The media generated a lot of press showing women not just supporting the force, but actually being an influential part of the force; even if congress still had laws that barred women from combat arms jobs. "It must be nice to have a combat patch." I commented.

She turned and looked at me a second, then turned away. With her back to me, she said, "I really don't deserve to wear this patch."

Wearing a combat patch symbolized having risked your life for the welfare of the nation. It is a special privilege to wear the colors of the unit you served under in a combat zone. That is why her comment caught me completely by surprise. "You were here for the war, weren't you?" I asked.

Still not bothering to look at me, or any of the other men standing in line, she answered, "Yes, I was here, but I didn't even make it into Kuwait."

"So?" I answered, "People who supported the combat from Saudi Arabia are just as much a part of winning this war as anyone that went across the border. You should feel proud to wear a combat patch. If not, why are you bothering to wear it?"

She turned and looked at me. "Because sergeant, I don't want anyone to think I'm one of those bitches who wimped-out on everyone; like most of them did."

"What bitches are you talking about?"

"You know the ones; they got pregnant so they could get sent home."

I knew that this was possible, but I couldn't believe that very many women would stoop so low as to use an unborn child's life just to avoid the discomforts of a deployment. Those of us who had been at the front had not even heard any rumors to suggest that this had been a problem. "Why? That wasn't a big problem, was it?"

"Yes it was!" she answered. "In my unit alone, of the twenty one single women, eighteen mysteriously got pregnant in the first three months we were here."

I was astonished to hear this. At this time, if a unit lost fifteen percent of its personnel, it was considered unfit for combat. As a result, the commander's efficiency report from higher command would hold him or her responsible. These bitches probably cost a good officer his career.

Over the next two and a half weeks, we worked on cleaning our vehicles. I wish someone would have designed these launchers for easy cleaning. I'm not talking about washing the mud out of the road wheels, ether. Every grain of Saudi soil had to be purged from every nook and cranny of the vehicle. Customs and the Environmental Protection Agency were not allowing the military to bring its equipment or personal gear back into the United States, unless it was spotless. They were not taking any chances that some infestation might sneak back with the military. It took me a week to get my track clean enough to pass inspection.

Kobar Towers was a busy crowded place. Two bedroom apartments were filled with twenty to twenty-five soldiers. During the evenings the crowds would spill out into the streets, with people looking for something to do. Just about anywhere I went I could find a cluster of people playing a game of cards. People would sit out in the courtyards, the walls out in front of the street, or even on the roof of the parking garages noisily shouting their bets at each other. After months of sitting in the desert, just standing at a food stand waiting to buy a slice of pizza and a cola was great entertainment. Strangers would stand around and share stories of the war. Our pleasures were the simple delights we could create for ourselves.

One evening, this search for entertainment got out of hand when a group of soldiers decided to entertain themselves by playing on the rivalry between the different types of military units. This rivalry can be likened to the show of school spirit at a homecoming game. The military is a competitive society where loyalty and esprit de' corps are encouraged personal qualities. The challenge of a shared crisis had bonded the people together in a way that could not be compared to any other experience in life.

What I say about other types of units should be understood in the above context. Though subjective, historically this is accurate, because it honestly reflects the experience and the factors that influenced the behavior of the soldiers. However, I don't want anyone to think that the humor of the following story is intended to infer that other units were not as good as the 3/27th FA.

It was the middle of March when word came that Alpha Battery would be flying home. After dinner the soldiers went to their apartments one last time and picked up their duffel bags. Then they formed up in the patio in front of the building for roll call. Once everyone was accounted for, the soldiers sat down on the ground where the formation had been held and relaxed against their bags. No one knew exactly when the bus would come. The flight was scheduled for late in the evening.

As the artillery soldiers relaxed, their neighbors from the airborne battalion across the courtyard decided to serenade them. A platoon of about twenty paratroopers formed up on the patio in front of their building and started marching in place. A cadence caller led the formation in singing chants extolling the superiority of paratroopers, and defaming the other soldiers. It was a provocative act that on the surface looked innocent. It was simple entertainment, designed to instigate a response.

An announcement was made by several senior NCOs from Alpha Battery. If any Alpha soldier who stood up to return the insult or in any other way provoke the paratroopers, he would be deleted from the flight home. Further, if an incident occurred, the offenders would stay in Saudi Arabia until the issue was resolved and the punishment was served. This threat was enough to keep the Alpha Battery soldiers glued to the ground. They sat quietly and endured the taunting from across the courtyard.

From inside the three buildings surrounding the courtyard, soldiers gathered on the patios to watch the show. The paratroopers laughed and jeered. The artillery soldiers standing on the balconies of their building cursed and swore. In a third building the soldiers of the 503rd Maintenance shook their heads and chuckled to themselves. This was turning into a spectacle that was drawing the attention of people from all the surrounding buildings.

The 82nd Airborne soldiers had made a nuisance of themselves by constantly posturing their prowess before the press, their fellow soldiers, and just about anyone that would watch. In one incident, one of the first paratroopers to arrive off the plane at Fort Bragg still had on his Kevlar helmet. When the press asked him why he still had on his Kevlar and LBE, he answered, "This is the uniform of a combat soldier, and I am proud to be a member of the 82nd...." Now, it was easy to spot the members of the 82nd Airborne around the Kobar Towers. Although everybody wore soft caps and their basic uniform, a general of the 82nd Airborne had ordered all his soldiers to wear Kevlar and LBE. There were dark mutterings on the life and continued good health of this aforementioned proud soldier by his peers.

Anyone who had seen the fight to free Kuwait was not impressed by the war record of the 82nd Airborne. During the defense phase, the 82nd Airborne was used to provide security at the ports and airfields in the southern sector of the build-up area. It irritated the line soldiers to no end, seeing pictures of the paratroopers posturing for the press. All the front line soldiers knew that the paratroopers slept in air conditioned buildings, while other units took up positions in the wilderness guarding the border. Even though the paratroopers had relatively luxurious accommodations, the other soldiers could appreciate their being available in the war zone. Nevertheless, robbing credit for what they hadn't yet accomplished showed poor taste.

During the actual combat phase of the war, the 82nd Airborne only sent a brigade of soldiers in to Iraq as a reserve unit supporting the French Foreign Legion. The French were tasked with screening the western side of the war zone, while armored units made the assault into Kuwait. Aside

from a few assaults against undefended outposts, the paratroopers spent the most of the war following the French around the desert in cargo trucks.

As the heckling progressed, the MLRS soldiers began a counter-offensive. A squad of MLRS soldiers got up on a balcony overlooking the courtyard and began chanting their own cadences. They referred to them as: the 82nd Photogenic Division, distracters of the press from more important events; Road Bumps, something an Iraqi tank hits on the way into town; Death from a bus (a play on the airborne motto, Death From Above); and, Bus Stop Warriors who made to world a secure place by guarding bus stops.

Over at the next building the 503rd Maintenance soldiers decided to join the heckling against the 82nd Airborne. "We got your Airborne, We got your Airborne..." they chanted. Then they through paper planes off the balcony with the tails on fire. Now it was the paratrooper's turn to curse and swear. The paper planes on fire symbolized the one of the most agonizing ways a paratrooper could die, trapped in a burning plane, about to crash.

The soldiers of the 503rd Maintenance had their own reasons for wanting to humble the paratroopers. They were also from Fort Bragg, but not paratroopers. They were not even combat arms soldiers. So they always had to endure the taunting of the paratroopers. To them, this ridicule was an unjustified imbalance. The maintenance soldiers were the guys that worked long hours, busting their knuckles to make other people's equipment work. Then, when that equipment worked, the other guy got the glory for it while the wrench monkey got forgotten.

From the top balcony of the building that housed the 503rd Maintenance flew a dummy, a set of desert BDUs stuffed with rags. Attached to the dummy was a bed sheet parachute with the chute set afire. As it fell the seven stories to the courtyard, the maintenance soldiers screamed like a dying paratrooper in agony. The dummy was a show stopper, as everyone watched the dummy's odious plummet. The 82nd Airborne soldiers ceased their chanting, mesmerized by this anti airborne, seemingly sacrilegious act. Once it hit the ground with a thud, there was a spontaneous eruption of applause and howling from all the surrounding buildings.

The paratroopers retaliated by throwing water bottles from the roof at the cadence callers chanting from the MLRS building.

In response to this assault, about fifteen artillerymen counter-battered the building housing the paratroopers pelting it back with water bottles.

Through all of this Alpha Battery sat quietly in the courtyard, hoping their bus would come before something serious happened, that would prevent them from flying home.

It was at this point that a full colonel, a brigade commander from the 82nd walked in to the building housing the paratroopers. Suddenly, the paratrooper's building became still. All the paratroopers went into the building, and were not seen again.

The next day at breakfast I learned from a paratrooper what had happened: "Who the hell is in charge here?" the colonel demanded. His parade ground shout, like the crack of doom caused the commotion to stop. Grabbing several senior NCO s he instructed them to restore order immediately. "If I have to take command of this unit, you will stay here until I leave this country. That, Gentlemen will be about sixty days. You had better get this unit under control, now!" The sergeants who had been spectators to the frolic, now rushed up the stairs and began giving orders to their men, to stop the frolic and get in doors.

Who this colonel was, is known only to him. It appeared that his aim was to restore order without causing a record to be made of the incident. He probably understood that young men often get carried away and need to be corrected without permanent marks on their records. His timing had

been very close. There hadn't been anything damaged in the entire ruckus the soldiers had made, but another few minutes and it could have been a very different ending.

About a week later, the word came down that the remainder of the unit was to be redeployed home. A new rush of activity occurred within the battalion. The officers and key NCOs were briefed by the movement coordinators, and instructions were passed out to the troops. The soldiers were limited to one duffel bag per person. Everything else had to be mailed home.

All of our gear had to be cleaned and inspected before we could pack our bags. Customs was not only concerned about infestation. They had found soldiers trying to ship souvenir weapons, hand grenades, live mines, and even charred Iraqi body parts. There was an incident at the airport when a duffel bag exploded while being loaded into a plane. It had three DPICMs in it. There were a remarkable number of stupid and sick soldiers trying to ship contraband. They kept the military police customs officers busy.

When we arrived at the airport it was about 2000 hours. One at a time we each came up to the customs officers and unloaded our baggage. Once they were satisfied, we repacked our bags and gave it to the loading detail.

It was about 2200 hour's local time, when the last of the 3/27th Field Artillery boarded our flight. A bus brought the soldiers out of the waiting tent to the edge of the flight line. Several planes could be seen sitting along the taxi way. In the near distance, could be seen other soldiers being brought from other tents to load their planes. The aircraft doors opened, and with little formality the soldiers walked up the ramp into the plane. On 26 March 1991, the last part of the 3rd Battalion, 27th Field Artillery (MLRS) flew back to the United States of America. This unit had served seven months and two weeks in the Persian Gulf.

Our first stop was at Bangor, Maine where the wonderful people from that town gave us a welcome home party.



DEPARTMENT OF THE ARMY
HEADQUARTERS, XVIII AIRBORNE CORPS ARTILLERY
FORT BRAGG, NORTH CAROLINA 28307-5000

AFZA-FA-CG

4 June 1991

MEMORANDUM FOR: Commander, XVIIIth Airborne Corps,
Fort Bragg,
North Carolina 28307

SUBJECT: Recommendation for Award of the Valorous Unit Citation to
3rd Battalion, 27th Field Artillery Regiment (MLRS)

1. I recommend the 3rd Battalion, 27th Field Artillery Regiment (MLRS) for a Valorous Unit Citation based on the unit's performance during Operation Desert Storm.
2. The 3rd Battalion, 27 Field Artillery Regiment (MLRS) performed the most difficult mission of all field artillery units in the 24th Division sector. It accomplished this mission which devastated the Iraqi Army with MLRS rocket fires. Accomplishing this while near, on, or in front of the maneuver forces they supported, the unit's near total disregard for its own safety was a major factor in their success.
3. The battalion had a number of unique missions and significant accomplishments during the operation. It placed itself at risk for much of the operation in order to accomplish these missions.
 - a. Alpha Battery, 3rd Battalion, 27th Field Artillery Regiment (MLRS) had the mission of providing reinforcing fires for the 197th Brigade while the battalion (-) supported the 1st and 2d Brigades, making the battalion the only field artillery unit with the mission of providing fire support to the entire 24th Division.
 - b. The 3rd Battalion, 27th Field Artillery Regiment (-) was the only field artillery unit required to provide fire support to the lead maneuver elements during the entire operation. The battalion (-), as a part of the 212th Field Artillery Brigade, had the mission of providing fire support for the 2nd Brigade during the attack on Objective Gray. The battalion also had the separate mission of providing reinforcing fires for the 1st Brigade during the attacks on Objective Red and Gold, then, as a part of the 212th Field Artillery Brigade of supporting the 2d Brigade during the attack on Objective Orange. It provided fire support to both 1st and 2d Brigade during the final pursuit phase.

c. The battalion demonstrated extreme gallantry in action by the near total disregard for their own safety, taking risks so that they could accomplish these missions, and by their response to the ground actions which resulted. Although extremely lightly armored and even more lightly armed, the battalion operated either right behind, beside or, in several instances, in front of the maneuver elements it supported. Due to the range advantage of Iraqi artillery, this forward deployment was necessary to provide effective counterfire. The 3rd Battalion, 27th Field Artillery Regiment (MLRS) remained in this precarious position throughout the operation with little regard for unit safety in order to accomplish its mission. Alpha Battery was required to conduct a raid behind enemy lines in order to fire, Bravo Battery found itself in a fire fight with Iraqi infantry, and Charlie Battery was required to clear a Republican Guard Forces Commando Company bunker complex. With true audacity, the battalion, although exposed to the enemy in situations not expected by field artillery units, excelled in each situation.

d. The fire support rendered by the 3rd Battalion, 27th Field Artillery Regiment (MLRS) was a significant factor in the 24th Division's ability to rapidly advance while maintaining extremely light casualties. Although neither exact target sizes nor exact damage assessments are available, all calls for fire to the battalion were for battalion-sized targets. More significantly, none of the targets engaged by the battalion were a factor in the battle after the engagement. Based on this, the 3rd Battalion, 27th Field Artillery Regiment destroyed or neutralized twenty-three battalion-sized artillery units, seventeen battalion-sized infantry units, two air defense sites, one light armor battalion, a tank company and a division ammunition dump. This devastating fire support was unequalled by any unit in the 24th Division sector.

5. The 3rd Battalion, 27th Field Artillery Regiment (MLRS) is truly deserving of the Valorous Unit Citation. Its performance during Operation Desert Storm was uniquely outstanding. The battalion performed the most difficult and most dangerous mission of any field artillery battalion in the 24th Division sector, a mission the battalion accomplished with distinction.

FRED N. HALLEY
Brigadier General, USA
Commanding

General Orders 14 of the Army, Section VIII: By direction of the Secretary of the Army, under the provisions of AR 672-5-1, Paragraph 9-19; the Valorous Unit Award is awarded to the following named unit of the United States Army for extraordinary heroism while engaged in military operations during the period indicated:

VALOROUS UNIT AWARD CITATION

3rd Battalion, 27th Field Artillery Regiment (MLRS)

26-28 February 1991

For valorous and uniquely outstanding accomplishments while performing the most difficult and dangerous mission of any field artillery unit in the 24th Division Sector. Operating near, on, or in front of the maneuver forces, the Battalion demonstrated extreme gallantry in action by a near total disregard for its safety and by its response to the ground actions which resulted. In spite of this danger, the 3rd Battalion, 27th Field Artillery Regiment (MLRS) provided fire support unequaled by any other unit in the 24th Division sector, destroying or neutralizing forty-one Iraqi battalions, two air defense sites, a tank company and a division ammunition dump. This devastating fire support was a major factor in the Division's ability to accomplish its mission with light casualties and reflects great credit on the Battalion and the United States Army.



OFFENSIVE PLANS

Appendix "A"

[The following is the memorandum referred to in Chapter 11, "Organizing for the Storm." The clarification needed for this appendix can be found in that chapter.]

3/27th FAR (MLRS)

OFFENSIVE **PLANS**

Note: Responsible officers will provide the XO their plan to accomplish the requirement NLT 7 Dec. The action/plan must be completed by 15 Jan 1991.

1. GENERAL:

- a. SPLL Bustle racksXO
- b. Soldier packing list. CSM
- c. Vehicle combat load planBCs
- d. Move from AA to stage areaXO
 - Equip leave vs take
 - Security of stay behind
- e. Outload, movement plansBCs

2. TACTICS:

- a. Battalion
 - (1) Movement to contact S3
 - (2) Fire support conference S3
 - Sand Table
 - Rehearsal
- b. Battery
 - (1) Unreconned movementBCs

- (2) Push survey S3
 - SLGR use, difference from survey
 - Identical
 - Constant difference
 - Mathematically predictable
 - Training
- (3) Trains XO, 1SGs
- (4) Plt ldr M577 vs HMMWV
 - Second installation kit S4
- (5) Doctrinal employment vs securityS3, BCs
- 3. INTELLIGENCE:
 - a. Maps S2
 - b. OPFAR S2
 - c. Barrier plans S2
 - d. Vehicle/uniform ID S2
- 4. MEDICAL:
 - a. Casualty evacuation XO, Doc
 - See daily logex
 - b. Medical assistance team XO, CSM
 - Ambulance drivers
 - Casualty decon team
 - Combat lifesaver. (Training is responsibility of the Doctor.)
 - c. Location of medical facilities Doc, (Bde)
 - Supporting elements
 - Battalion aid station
 - d. Preposition of supplies Doc, w/XO
 - e. Combat Lifesavers CourseDoc, CSM
 - All drivers
- 5. PERSONNEL:
 - a. Medics (91A), NBC (54B), Survey (82C) S1
 - b. Cross trainingBCs
 - c. Reconstitution
 - BattalionXO
 - BatteryBCs

6. EQUIPMENT:

- a. LTOE XO, PBO
 - M88A1 (None)
 - HEMTT Tankers (Mess trucks w/blivets)
 - Radios (Few from HEMTTS)
- b. HEMATs (None) XO, PBO
- c. C 1 1/4T trailer (Bragg) XO, w/RDC
- d. .50 cal tripod and T&E (2 ea) PBO
- e. Power supply (Bn FDC) PBO
- f. NVG (goal is one per veh) XO, PBO
 - auth 142, OH 109
- g. SLGRs XO
 - 1 per; BC, Plt Ldr, Bn Cdr, XO, LOC S3 (16 total)
- h. B Btry's water trailer BMO

7. SUPPLY:

- a. Organization for combat XO, 1SGs
- b. LOC, combat trains build up S4
- c. See attached list for stockages
 - 30 day PKG POL
 - 30 day supply battery expendables S4, Sply Sgts
- d. POL:
 - 500 gal blivets for mess trucks S4
 - Pumps for blivets S4
 - 250 gal blivets for btry MOGAS S4
- e. Battery Supply
 - Upload plan (rations, exp, KCLFF?) BCs
 - Where carry btry blivets BCs
- f. Distribute on-hand equipment
 - Inventory CONEX S4
 - Develop distribution plan XO, PBO
 - Distribute PBO
- g. Water cans (600) PBO

8. MOTOR MAINTENANCE:

- a. Organization for combatXO, BMO
 - Battalion
 - Battery
- b. 27M MTOE equipmentXO
- c. PLL list exchangeBMO
- d. Repair partsXO, BMO
 - Wish lists, distribution plan
 - Automotive
 - SPL
- e. Vehicle buildup BMO, Motor Sgt
- f. Recovery operations proceduresBMO
- g. Vehicle painting set upBMO
- h. Weld channel laddersBMO

9. AMMUNITION:

- a. Organization for combatXO
- b. Procedures XO, Ammo Off
- c. POL for ammunition trainXO
- d. Training XO, Ammo Off

10. COMMUNICATIONS:

- a. Combat train vs TOC organization XO, S3, CESO
- b. Repair parts list, distribution planXO, CESO
- c. Multiplexer CESO
- d. OE 254, field expedient antennae CESO
- e. Power supply CESO

11. NBC:

- a. Location of 3d MOPP suit, & additional gear NBC
- b. Repair parts list, distribution planXO, CESO

12. MESS:

- a. Stockpile of rations Mess
- b. Movement of PAWPSS XO, Mess
- c. Battery haul of rations 1SGs

13. TOC:

- a. WaterXO, S3
- b. MOGASXO, S3

SUPPLIES TO OBTAIN:

ITEM	QTY
Bleach, HTH, Sodium hypochloride	NBC Off
Protective masks	NBC Off
NBC Boots, gloves	NBC Off
M8 Alarm batteries	NBC Off
Paper, UGC 74	CESO
Paper, UGC 74	CESO
Silicone spray	*
Graphite	*
WD 40 (spray lubricant)	*
Weapons cleaning kits	*
Chemlites	*
Magazines	*
Uniforms, boots	*
Cold weather gear	*
TA 50	*
Paper, UGC 74	CESO
Paper, computer	*
Sandbags	*
Tow ropes, 1-2 inch	600 ft
Batteries, all kinds	*

PKG POL:

Twice the quantities in Enclosure 2 to Tab A to Appendix 6 to Annex Z of TACSOP.

CONTINGENCY STOCKS:

Twice the quantities in Enclosure 4 to Tab A to Appendix 6 to Annex Z of TACSOP.

* BCs AND STAFF SUBMIT THEIR REQUIREMENTS TO S4 NLT 7 DEC.

TRAINING:

1. LOGEX

- a. Daily, Mon-Fri
- b. Rotate between batteries
- c. Battle losses to include equipment and personnel
 - MEDEVAC to battalion
 - Casualty reporting to LOC
 - Battle loss reporting to TOC and LOC
 - Battalion reporting to XO
- d. Chemical casualties on occasion

MOVEMENT TO THE TACTICAL ASSEMBLY AREA

Appendix "B"

[The following document is a fragmentary order instructing the battalion to get ready to move. Although this order does not have the formal format of an operations order, it is still just as valid.]

[Students of military arts will find this memorandum loaded with a lot of detailed information about how logistics in a battalion is managed during the transition to offensive combat.]

MOVEMENT to TACTICAL ASSEMBLY AREA

1. CONCEPT:

- a. Battalion moves to TAA with combat essential items.
- b. Nonessential items will be consolidated in a single area (AA Courage). These items will be inventoried and signed over to the area stay behind guard OIC/NCOIC. (4 copies; owner, Btry Sply, Bn PBO, stay behind SOG).
- c. Battalion closes out all nonessential activities prior to beginning movement.
- d. Base camp closeout will be conducted in an orderly manner so as to maintain the element of surprise for as long as possible. To this end, the base camp will be left intact except as noted below.
- e. Following items are designated nonessential and will not be moved to TAA. BCs will determine other nonessential items. These items will be placed in either the battery maintenance tent or the battery CONNEX.
 - + Maintenance tents (consolidated in battalion)
 - + GP mediums (left in place)
 - + Saudi tents (left in place)
 - + Mess MKTs (placed inside maintenance tents)
 - + Luxury base camp items (TVs, lanterns, tables, chairs)
- f. Supply levels will be as follows:
 - CL I - 14 DOS per section + 3 DOS per btry + 3 DOS bn;
(Battalion will try to take T-Rations for TAA period.)
 - CL I(W) - 10 DOS per section + 2 DOS btry + 2 DOS bn
 - CL II, IV - 30 DOS
 - CL V - UBL (++ .50 cal, AT4, claymore, M203)
 - CL VIII - 15 DOS

CL IX - Brty + SPLL PLL + DS ASL

2. HAUL:

Class	Battery	<u>Battalion</u>
I	14 DOS in section 3 DOS in 2d supply truck KCLFF carried	3 DOS in 2 1/2T
I(W)	Water trailer (400) 2 ea 250 gal blvt (500) 5 ea 5 gal cans/soldier (1000)	A HEMTT (2000) 1 503d 2 1/2 T (1000) other blivets empty NBC HEMTT (1500)
II, IV VII	30 DOS, 1 supply truck	Limited re-supply, B HEMTT
III	Battery tankers (2500) 55 gal drum/HEMTT (3000) MOGAS, 55 gal drum/FDC (750)	1 503d, 2 1/2T (550) 1 503d, 2 1/2T (550) Battalion blivet (500)
III(P)	30 DOS, maint truck	30 DOS B HEMTT
V	55 gal drum/HEMTT (3000)	
VIII	Battery aid bags	CONNEX, ambulance
IX	Btry/27M PLL, maint truck Plt PLL, plt 27M truck	MAJ assy, LRU 5T
NBC	2d supply truck	NBC 2 1/2, HEMTT

3. TIMETABLE:

M-8	Sterilize water containers
M-7 to M-5	Batteries, battalion 100% upload. Nets left in place over all equipment.
M-0 to M-5	Reconcile out Class A, draw \$10000 Close out AAFES movies Close out AAFES account
M-5	Consolidate tentage
M-3	Pack Aid Station into CONNEX. Issue 25 cots.
M-3 to M-2	Inventory and consolidate nonessential equipment. PBO prepares consolidated stay behind equipment list. Detail

	assists with preparation of stay behind area.
M-1	Battalion 100% prepared to roll (except nets). Pre-operations maintenance, and load plan check. Prepare to issue ammo.
M-0	Roll out (M = Movement time).
M-0 to M+3	Move ammunition from AA Courage to TAA (3 trips)

4. BATTERY DESIGNATED LOADS:

<u>Vehicle</u>	<u>Load</u>
Supply	-3 DOS MRE, 30 day expendables, NBC gear
Battery Maintenance	-15 DOS package POL, battery POL
Plt Maintenance	-2 each 250 gal water blivets, 1 each 250 gal MOGAS blivet

NOTES: CSM will publish a packing list for soldier gear. plan on taking ALICE packs and duffel bags.

5. INVENTORIES:

-All inventories will be in four copies (1-owner, 1-battery supply, 1-PBO, 1-Stay behind). Physical location of the item will be noted on the upper right of the inventory.

-Personal gear. Special care is required to ensure that soldier gear is accounted for and secured. Following procedures will be used:

- Inventory will be done and signed by an NCO.
- Gear will be secured in a container.
- Container will be plainly marked.
- Containers will be secured in the CONNEXs.

6. ISSUES:

a. Internal.

- (1) Stay behind personnel.
- (2) Drivers for ambulance (3), 27M 2 1/2T (5)
- (3) Medic for field trains.
- (4) Ammo haul. 1 HEMTT/btry with Bn. All other HEMTT and HEMAT haul ammo.

- (5) Lines of succession.
- b. External.
 - (1) HEMAT trailers or external ammo haul.
 - (2) LTOE equipment(M88, HEMAT tankers, radios)
 - (3) 27M radios, HMMWV from 503d.
 - (4) Mitsubishi (swap out for BMO HMMWV, if opnl)

7. ACTIONS TO COMPLETE:

- a. Plan to close base camp (31 Dec).
- b. Standardize load plans-SPLLs, HEMTTs, FDCs, Contact teams (27M & btry) (31 Dec).
- c. Finish services (6 Jan).
- d. Painting (9 Jan).
- e. Bustle racks (8 Jan).
- f. Ablative kits (7 Jan).
- g. 55 gal drums (7 Jan.).
- h. Tool buy (8 Jan).
- i. Finish building vehicles (6 Jan).
- j. NBC mask inspection (9 Jan).

8. CRITICAL SUPPLIES:

- a. Concertina wire.
- b. Tie down straps (600).

9. STAY BEHIND PERSONNEL:

- a. 30 days food (MRE)
- b. 30 days bottled water (1 case/man x 30 days)

THE OPERATIONS ORDER

Appendix "C"

[The operations order that follows, was distributed to soldiers in the 3/27th FA. It should give readers an insight into how Army leaders conveyed their instructions to the soldiers during this war. This operations order gives a very detailed picture of the potential threat the soldiers would face. This document shows how soldiers saw what was going on at the start of the ground war. The casual reader should not feel intimidated when large segments of this document are found incomprehensible. Many people who worked with this document did not understand it in all of its detail.]

[It is uncommon for historical works to include this type of document in a book written for a general public audience. However, here I am making an exception to the general practice. Since 1973 the American military suspended the utilization of conscription for national service. By the time of the Persian Gulf War, most individuals in the United States had little or no practical experience in the internal workings of this high technology modern military. Therefore, so that readers can see how military leaders conveyed their instructions to the soldiers during this war, here is the Operations Order that was distributed to the soldiers of the 3-27th FA.]

[By reading this document, hopefully readers will get a feeling of what the soldiers saw at the beginning of the ground war. Further, military enthusiast should be able to see the organizational restructuring that went into preparing for the assault into Iraq. The intelligence summaries and tables show the composition of Iraqi forces. A contrast using this Operations Order and Enclosures (in the next appendix) against the performance of the soldiers in this book and the outcome of the war, should be illuminating to students of the military arts and sciences.]

[The inclusion of this and the following appendixes is intended to add instructional value to this book. The average reader may not understand all the technical details, but should skim through and try to capture a glimpse what can be learned. The Glossary should be helpful in explaining the abbreviations and acronyms.]

This document was originally classified;

~~SECRET - COMPARTMENTED~~

< DECLASSIFIED >

COPY __ OF __ COPIES
HQ, 212 FA Brigade
EASTERN SAUDI ARABIA
APO, NY 09657
231800C January 1991

Tab B (212 FA Bde FA support Plan) to appendix 2 to Annex C to 24ID (M) OPLAN Desert Storm 91-3 (Offensive Operations (S))

Reference:

- a. (U) Map series 1501A/C: 1:250,000; NH38-2,3,4; NH38-10, 11, 12.
- b. (U) Map series K743: 4853I, 4953I/II, 5035III, 5052I/II/IV, 5152II-IV, 5252II-IV, 5251I/IV, 5352II-IV, 5351I/IV, 5350I/IV, 5451I-III; K745:5450I; 1:50,000.
- c. XVIII Abn Corps OPLAN Desert Storm (U), offensive operations against Iraqi forces.
- d. XVIII Abn Corps support plan 3-91, 16 Jan 91.
- e. 24ID (M) OPLAN Vanguard Warrior 91-2, 170900 Jan 91.
- f. 2d Bde, 24ID (M) OPLAN Vanguard Warrior 91-2, 170900 Jan 91.

Time Zone Used Throughout the OPLAN: Zulu

1. (U) SITUATION:

- a. (S)Enemy.

(1) (S) General situation. Iraqi ground forces continue to occupy southern Iraq and Kuwait with elements of 35 divisions. 25 divisions are now being counted in the first echelon and 10 divisions in the second echelon. Iraqi ground forces have remained in defensive sectors while multi-national forces continue the air campaign. Local repositioning of maneuver units and artillery are being conducted to enhance their survivability. Iraqi forces also continue to attack with surface to surface missiles, fired into Israel and SA, long range artillery systems fired across the Kuwait/SA border, limited air sorties against coalition air forces, and terrorists with limited roles.

- (2) (U) SEE Enclosure 6 (INTELLIGENCE).

- b. (U) Friendly.

(1) (S) CENTAF will conduct a three-phased Air Campaign to destroy/neutralize air defense systems (70%), achieve air superiority, destroy/defeat surface to surface missiles (75%), destroy RGFC divisions (50%), and disrupt C2 of division and higher HQs.

(2) (S) VII (U.S.) Corps will be the U.S. CENTCOM ARCENT main effort and will attack in zone to penetrate Iraqi defenses and to destroy the RGFC.

(3) (S) XVIII Abn Corps attacks to penetrate Iraqi forward defenses and to interdict Iraqi LOCs along the Euphrates River in order to prevent reinforcement and escape from the Kuwait theater of operations (KTO) by Iraqi forces; on order, continues the attack east to assist in the destruction of the RGFC. During the logistics build-up, XVIII Abn Corps will position field artillery assets well forward in the Corps area of operation to provide counterfire and close fires in support of logistic site security. As forces are positioned in sector, Corps Artillery will assume responsibility for counterfire/SEAD planning, coordination and execution, using organic assets, and as available, Joint Attack on Artillery (JAART), attack helicopters, AC-130 gunships, and deep operations. Corps will integrate into CENTAF Air Campaign through nomination of BAI targets. Corps targeting priority throughout all phases of the operation is to destroy confirmed Iraqi chemical weapons storage and delivery assets. The intent of Corps deep operations is to neutralize fire support systems that can range the Corps penetration points and fire from positions in depth; eliminate hard-wire communications nodes to force enemy C2 to use radio communications; deny reinforcement or withdrawal of enemy forces which can react to the penetration. Corps will weight attacks on objectives by assignment of priority of fires, tactical mission, and positioning of GS and GSR artillery. On completion of attack on OBJ WHITE by 6th Lt Ar Div (FR), 24ID (M) receives Corps priority of fires. Deep attack priorities will shift to attack of RGFC and destruction of logistics infrastructure to prevent escape from or reinforcement/re-supply to the KTO.

(4) (U) Disposition of Friendly Forces.

(a) (S) 82d Abn Div (-) initially follows 6th French Light Div; on order, moves to OBJ Brown; on order, establishes blocking positions VIC OBJ Grey and screen Corps southeastern flank from OBJ Grey to LD.

(b) (S) 101st Abn Div (AASLT) conducts air assault operations to disrupt and destroy Iraqi forces in the Euphrates River Valley LOC (sou As Samawah to nor An Nasiriyah) on order relieves 24ID (M) on OBJ Gold.

(c) (S) 6th French Light Division with Bde/82d Abn Div (OPCON) attacks to seize OBJ White and will have Corps priority of fires initially. On order, they release Bde/82d Abn Div (OPCON) and secure Corps western flank. Reinforced by 18th FA Bde.

(d) (S) 3ACR screens the Corps eastern flank from LD to PL Lion; on order, establishes blocking positions VIC OBJ Red. 3-18 FA Bn is attached.

(e) (S) 12th Avn Bde initially Corps reserve, priority of support to 24ID (M), Corps main effort.

(5) (S) Corps Artillery Commander's Intent. My intent is to neutralize and suppress enemy fire support and air defense artillery systems so that our maneuver forces, division artilleries, and USAF assets can concentrate on and defeat enemy maneuver forces. We must suppress enemy fire support systems throughout the dep the battlefield with a proactive JAART program before the battle and overwhelming counterfire during the battle. I intend to use all target acquisition assets and all attack means to detect and destroy enemy fire support systems before they can fire. Early destruction of enemy fire support systems is critical to our success. Once the battle has started, each artillery battalion must be able to move rapidly over extended distances and keep up with our maneuver units at all costs. Total synchronization between our intelligence assets and fire support assets is essential to success; we lack sufficient artillery to commit even one battery to the wrong place at the wrong time. We must have accurate early warning of enemy intentions and dispositions to maintain flexibility in allocating sufficient fire support at critical decision points. Our flexibility and mobility will be the Corps Commander's key to massing overwhelming combat power at the critical time and place on the battlefield. Given our lack of sufficient artillery, massing of fires will be critical to

success throughout the logistics facilities and nodes. Success is defined as a fifty percent reduction of the enemy's forces and fire support capabilities in his first line of defense, and a twenty percent reduction of the enemy forces and fire support capabilities at the Corps' intermediate and final objectives.

(6) (S) Division Commander's Intent. 24ID (M)'s purpose in this operation is to penetrate enemy front line defenses; seize OBJs Brown, Grey, and Red; and then establish blocking positions astride the Euphrates River Valley LOC (OBJ Gold). On order, continue the attack to destroy Iraqi forces at Jalibah AFB (OBJ Orange) and assist in the destruction of the Republican Guard Command.

(7) (S) Divarty Commander's Intent. The purpose of this operation is to quickly establish blocking positions and prevent Republican Guard Forces from moving northwest toward Baghdad. Destroying Iraqi artillery in zone is critical to success. 212 FA Brigade will fight the counterfire battle throughout and provide reinforcing forces in the zone of the main efforts.

c. (U) Attachments and Detachments. None.

d. (S) Assumptions:

(1) (S) The 24ID (M) as part of XVIII Abn Corps is capable of repositioning combat forces within the allocated forward deployment time.

(2) (S) Trafficability of all MSRs will support this operation.

(3) (S) At commencement of Phase II ground operations, the air campaign will have attracted Iraqi forces in zone by 25%.

(4) (S) Iraq will employ chemical weapons.

(5) (S) Air superiority will be achieved and maintained during all phases of the operation.

(6) (S) Iraqi populace will be hostile.

(7) (S) There will be Level I and II rear area threats.

2. MISSION: When directed, 212 FA Bde provides conventional fires to reinforce 24ID (M) Divarty to destroy Iraqi Artillery, seize OBJs Gray, Red and Orange, and, on order, to destroy the Republican Guard Forces Command (RGFC). 212 FA Bde has primary responsibility for counterfire throughout the operation.

3. EXECUTION: Bde Cdr's Intent: I intend to use the overwhelming violence of Brigade mass missions to destroy Iraqi Artillery in the division zone, to assist the maneuver forces in seizing their objectives and then to participate in the destruction of the RGFC. We move rapidly, close behind the 2d Brigade to PL Viking, then behind the 1st Brigade to OBJ Orange. We position our firing elements aggressively, well-forward to engage targets as far forward as possible. Radars, too, have forward positions to detect Iraqi Artillery as early as possible. We engage artillery immediately with enough volume of fire to destroy it. What Brigade cannot range, we will forward to the Division FSE to attack with Army Aviation or CAS.

a. Concept of Operations: 212FA Bde reinforces 24ID (M) Divarty in supporting the division attack in zone and conducts an exhaustive counterfire program to deny the Iraqi Army the use of its own fire support systems. The Operation has 5 phases:

(1) Phase I - Prepositioning and Deployment.

(a) 212 FA Brigade moves from AA St. Barbara (TL609281) to the 2d Brigade Combat Staging Area (see Division Operations Overlay) as part of the 24ID (M) movement. Movement is per division march table and reflects HET/lowboy/S&P for tracked vehicles; wheels road march to the

CSA. As soon as Brigade arrives in the CSA, we download the tracked vehicles and move to initial position areas in 2d Brigade zone. Brigade immediately assumes counterfire mission in zone and prepares to support the 2d Brigade defense in sectors. See FA Execution matrix (Encl 1) for positions. Brigade position Q37 radar forward in sector to detect Iraqi Artillery as deep in zone as possible; what we detect we engage immediately. Brigade prepositions ammunition in firing position to conduct artillery prep to begin next phase.

(b) Target Priorities: Arty, ADA, C2, Maneuver

(c) Priority of Fires: 2-4 Cav, 2 Bde

(2) Phase II - Attack to PL Lion.

(a) G-day, H-hour, 212 FA Bde is Force FA HQs for 2d Bde. On order, Brigade fires a prep (NTE 90 min) to support 3-15 IN Breaching Operation. Bde then moves behind 2d Bde (through the breach, if required) to PL Lion. We will move in a wedge formation with 3-27 FA Forward remaining in visual contact with the trail 2d Bde maneuver element (TF3-69AR). Following 3-27 FA from left to right (West to East) are 2-17 FA, Bde TOC and 2-18 FA; all 212 Bde elements move in "desert wedge" formation. During movement Brigade engages Iraqi company size or smaller elements with cannon arty, as required, to clear the zone; we halt and mass fires on Battalion-size or larger Iraqi elements in zone. Focus on Iraqi artillery, neutralization of enemy air defense and suppression or destruction of armor targets. Emergency missions are conducted by FM voice over the Brigade CF Net. Be prepared to support 2d Bde operations to the east between LD and PL Lion to assist 3d ACR should the enemy mount a strong operation into XVIII Abn Corps east flank.

(b) Occupy firing positions vicinity of attack position Dallas to support 2d Brigade operations into AO Vanguard. (See FA Execution Matrix for positions).

(c) Target Priorities: FA, ADA, C2, Lift, Maneuver.

(d) Priority of Fires: TF 3-15.

(3) Phase III - Attack to OBJ Gray & Red: This phase has 2 sub-phases, IIIa and IIIb; however, 212 FA Bde is Force FA HQs for 2d Bde until the completion of Phase III.

(a) Phase IIIa- attack to PL Yaz: 212 FA Bde in conjunction with 3-41 FA, supports 2d Bde attack to OBJ Gray as follows: 2-18 FA, 2-17 FA and C/3-27 FA support maneuver element movement from positions in Attack Position Dallas. On order, A/3-27 moves with TF 1-64 and B/3-27 moves with TF 3-15 to PL Yaz, PL Meadow and then into firing positions to support 2d Bde by ranging into EAs Killer, Line and EA V20. These same batteries must be prepared to stop and provide fires in support of TF 1-64 or TF 3-15 during the movement into AO Vanguard. As soon as maneuver TFs reach PL Meadow, 2-18 FA, 2-17 FA and C/3-27 displace to next positions. Bde TOC occupies position VIC grid 470210. Brigade retains counterfire responsibility and positions Q37 radar with primary search sector toward the east.

(b) Phase IIIb. Attack to OBJ Gray and to secure AO Vanguard: As the maneuver TFs come on line facing east, the 2d Bde Cdr gives the order to continue the attack to secure AO Vanguard. At that time A/3-27, B/3-27 and 3-41 FA (DS) are in position to support the maneuver movement. 2-18 FA, 2-17 FA and C/3-27 FA move to next position with 2-18 FA oriented east into EAs Killer, Lime and V20, 2-17 FA oriented SE toward EAs Hack and V23. 3-27 FA positions to support the Brigade front and into all EAs. 1st Bde then moves on order through AO Stewart to secure OBJ Red and AO Liberty. On order, 3-27 FA is GSR to 1-41 FA (DS) and repositions A and B Btry to support 1st Bde.

(c) Target Priorities: Arty, ADA, C3, Maneuver.

(d) Priority of Fires: 2d Bde (IIIa & b).

(4) Phase IV - Attack to block Euphrates River Valley LOC.

(a) 212 FA Bde reverts to reinforcing 24ID (M) Divarty and, on order, moves to position in the vicinity of BP 102 & 103. I anticipate that this will be a direct movement from AO Vanguard to the next firing position. We will stop only for emergency missions. 212 Bde has counterfire responsibility and both Q37 radars (C/25 and G/333) send target info to 212 Bde TACFIRE. 2-18 FA positions in northern position of 1st Bde sector oriented east down HWY 8. 2-17 FA positions near the juncture of BP102 and BP103 oriented east to support 1st Bde and 2d Bde, if required. 3-27 FA positions across 1st Bde sector and provides primary counterfire support.

(b) Target Priorities: Arty, ADA, C3, Lift/Log, Maneuver.

(c) Priority of Fires: 1st Bde; on order 2d Bde

(5) Phase V - Attack to Jalibah AFB (OBJ Orange).

(a) 212 FA Bde reinforces 24ID (M) Divarty, participates in prep on OBJ Orange and retains counterfire responsibility. Brigade firing elements follow 1st maneuver elements, as required, to range deep into the Iraqi sector to prevent reinforcement of OBJ Orange and to block the LOC.

(b) Target Priorities: Arty, ADA, C3, Log/Lift, Maneuver.

(c) Priority of Fires: 1st Bde, on order, 2d Bde

b. Organization for Combat.

(1) 212 FA Bde (-): 21ID Div Arty

(2) 2-17 FA (155, SP) Bn

(3) 2-18 FA (203, SP) Bn

(4) 3-27 FA (MLRS) Bn % GSR 1-41 FA Bn (PH III)

(5) C/25 TAB (-) (Attach Q36 radars to cannon BNs).

c. Positioning, Movement and Immediate Action Status - Units monitor 212 FA Bde command for movement instructions and position coordination (See enclosure 1, 212 FA Bde Execution Matrix). Immediate action status:

Ground attack	Displace	At Commander's Discretion
Air attack	Remain	
Artillery attack	Displace	To Alternate Position

d. Coordinating Instructions

(1) Target Acquisition - See Enclosure 3

(2) Survey - See Enclosure 3

(3) Target Attack Guidance.

(a) (U) Phase I-III

{1} (S) High Payoff Target Matrix:

PRIORITY	CATEGORY	DESCRIPTION
1.	F.A.	MLRS, Tube artillery 122mm or greater
2.	A.D.A.	Radars, SA6, SA8, SA9, SA14, ZSU 23-4, Roland, Amon
3.	C-3	FA/DIV/Bde CPs, Commo Nodes
4a.	Maneuver	Static defensive positions
4b.	Maneuver	Company or larger armor

{2} (S) Attack Guidance Matrix:

CATEGORY	WHEN	HOW	RESTRICTIONS/COMMENTS
C-3	P	D	BAI/FA/disrupt w/jamming
Fire Support	I	N	DAI/FA/EW/Atk Avn (night)
Maneuver	P	N	Atk Avn/FA/CAS
A.D.A.	I	N	Complementary SEAD
Engineer	A	N	
R.S.T.A.	A	N	(Recon, Surveillance, & Target Acquisition systems)
R.E.C.	A	N	(Radio & Electronic Combat systems)
Nuc./Chem.	I	N	Atk requires Div G3 approval
P.O.L.	A	D	Transport
Ammo.	A	D	
Maint.	P	N	
Lift	A	D	POL/Ammo, HETs
L.O.C.	P	D	Div G3 approval

LEGEND: I - Attack Immediately N - Neutralize

A - Attack as acquired D - Destroy

P - Plan S - Suppress

(b) (U) PHASE IV-V.

{1} (S) High Payoff Target Matrix:

PRIORITY	CATEGORY	DESCRIPTION
1.	F.A.	MLRS, Tube artillery 122mm or greater
2.	A.D.A.	Radars, SA6, SA8, SA9, SA14, ZSU 23-4, Roland, Amon
3.	C-3	FA/DIV/Bde CPs, Commo Nodes
4.	Lift	HETs, Ammo, & POL
5.	Maneuver	Company or larger armor

{2} (S) Attack Guidance Matrix:

<i>CATEGORY</i>	<i>WHEN</i>	<i>HOW</i>	<i>RESTRICTIONS/COMMENTS</i>
C-3	P	D	BAI/FA/disrupt w/jamming
F.S.	I	N	DAI/FA/EW/Atk Avn (night)
Maneuver	P	N	Atk Avn/FA/CAS
A.D.A.	I	N	Complementary SEAD
Engr.	A	N	
R.S.T.A.	A	N	
R.E.C.	A	N	
Nuc./Chem.	I	N	Atk requires Div G3 approval
P.O.L.	A	D	Transport
Ammo.	A	D	
Maint.	P	N	
Lift	A	D	POL/Ammo, HETs
L.O.C.	P	D	Div G3 approval

(c) (U) PHASE IV.

{1} (S) High Payoff Target Matrix:

<i>PRIORITY</i>	<i>CATEGORY</i>	<i>DESCRIPTION</i>
1.	F.A.	MLRS, Tube artillery 122mm or greater
2.	A.D.A.	Radars, SA6, SA8, SA9, SA14, ZSU 23-4, Roland, Amon
3.	C-3	FA/DIV/Bde CPs, Commo Nodes
4.	Lift	HETs, Ammo, & POL
5.	Maneuver	RGFC troops

{2} (S) Attack Guidance Matrix:

<i>CATEGORY</i>	<i>WHEN</i>	<i>HOW</i>	<i>RESTRICTIONS/COMMENTS</i>
C-3	P	D	BAI/FA/disrupt w/jamming
F.S.	I	N	DAI/FA/EW/Atk Avn (night)
Maneuver	P	N	
A.D.A.	I	N	Complementary SEAD, & Jamm
Engr.	A	N	
R.S.T.A.	A	N	
R.E.C.	A	N	

{2} (S) Attack Guidance Matrix (continued):

CATEGORY	WHEN	HOW	RESTRICTIONS/COMMENTS
Nuc./Chem.	I	N	Atk requires Div G3 approval
P.O.L.	A	N	Transport
Ammo.	A	D	
Maint.	P	N	
Lift	A	D	POL/Ammo, HETs
L.O.C.	P	D	Div G3 approval

(4.) (S) Do not attack POL and water stockpiles/storage facilities.

(5.) (S) NBC Defense: See Enclosure 5

(6.) MET (*Meteorological data*):

PHASE I: On order 212th Bde MET section begins broadcasting MET data every four (4) hours to include one (1) hour before sunrise and one (1) hour after sunset.

PHASE II, III: At each planned halt longer than 90 minutes, broadcast MET data every four (4) hours to include one (1) hour before sunrise and one (1) hour after sunset.

Broadcast MET data to 3-18th FA Bn via RTT.

PHASE IV, V: At each planned halt longer than 90 minutes, broadcast MET data every four (4) hours to include one (1) hour before sunrise and one (1) hour after sunset.

7. FSCM (*Fire Support Coordination Measures*) :

a. FSCL (*Fire Support Coordination Line*): Initially, LD (*Line of Departure*)

o/o (*On Orders*) PL JET, then RIPPER, then PL STAB.

b. RIPL: Initially, PL SMASH. o/o PL RIPPER.

c. CFL (*Coordination Fire Lines*): Phase lines on order.

d. NFA (*No Fire Areas*):

(1) XVIII Abn Corps NFAs; effective on order.

(2) PIR See Enclosure 6

(3) IR See Enclosure 6

(4) Intell Acquisition Task. See Enclosure 6

(5) Ammo. See Enclosure 8

(6) Nuclear Fire Support. N/A

(7) Chemical Fire Support. N/A

(8) Engineer.

(a) (S) Coordination Instructions: The supporting engineers are 52 EN Bn. The priority of engineer work is to 3-27 FA, HHB/212 FAB, 2-17 FA and 2-18 FA in order. The priority of engineer work by type is C2, ammo haulers and gun sections. Units coordinate with Bde S3 for engineer support.

(9) ADA. See Enclosure 7

4. SERVICE SUPPORT:

a. General concept of logistic support.

The logistical support for the operation will be conducted using prepositioned stocks and area support throughout the division sector. The 24ID (M) support command and the 171 Corps Support Group provide area support for the 212 FA "Dessert Courage" Brigade deep attack in zone through the establishment of a series of forward operating bases (FOB) and Division Support Areas (DSA). The operation will be conducted in five (5) phases. During Phase 1, 212 FA Bde will be supported during convoy operations by elements of 1st COSCOM/SUPCOM. Upon arrival at forward attack positions, units will be supported by 24 FSB, 224 CSB, 724 MSB and elements of 171 CSG (260 CSB, 548 CSB, and 541 CSB) on an area basis. During phases II through V, 212 FA Bde units will be supported primarily by 224 FSB (2d Brigade), 24 FSB (1st Brigade), 260 CSB (FOB1 and DSA2), and 724 MSB/541 CSM (DSA3).

b. Material and Services.

(1) Supply

(a) Class I (Rations)

- {1} Supply point distribution at FSB/CSB.
- {2} Rations mix is M-M-M.
- {3} Units carry 7 DOS MRE upon crossing LD.
- {4} Units bring minimum capability (MKT or KCLFF) systems and personnel sufficient for rations draw and preparation.

(b) Class I (Water)

- {1} Units carry 7 DOS bottled water on organic vehicles upon crossing LD. Basis of issue is 1/2 case per man per day.
- {2} Units deploy and carry FAWPSS systems and maximum quantity of bulk water possible.
- {3} Supply point distribution of bulk water in forward attack position and DSA3.
- {4} Primary water sources are corps throughout, then bottled water until ROWPUs are established.

(c) Class II.

- {1} Units deploy with all combat required class II items.
- {2} Anticipate availability of class II to be command regulated or restricted.
- {3} Supply point distribution when available.
- {4} Individual carry 2d and 3d set of NBC protective over garments and accessory equipment.

(d) Class III.

- {1} Units will ensure that all vehicles are topped off prior to leaving the staging area (for movement) and prior to crossing the LD.

{2} Refuel during movement is to be accomplished at 2 refuel points along route of march (See road movement order).

{3} Bulk refuel will be available through FSBs, DSA1, FOB1, and DSAs.

{4} Supply point distribution in effect.

{5} Units will maintain 3/4 tank of fuel while in forward attack positions.

{6} Units depart staging area and cross LD with 15 DOS class III (P) ASL on hand.

{7} Units will take all actions possible to conserve fuels by turning off engines when not absolutely needed.

{8} Captured enemy fuel supplies must be tested for contamination prior to use.

{9} Submit packaged POL requirements using daily Orange Report/Logstat.

{10} Units must plan refueling operations and re-supply of organic tankers to best facilitate the tactical operation.

(e) Class IV.

{1} Units should carry maximum quantity possible of sandbags and 4x4 lumber to construct survivability positions.

{2} Barrier materials will be available in limited quantities (mines, concertina wire, and pickets) at DSA3.

{3} Units are encouraged to supplement stocks throughout local procurement when possible.

{4} Supply point distribution when available.

(f) Class V.

{1} Units will carry UBL from staging area to forward attack positions.

{2} Reconfiguration of UBL will be accomplished from the forward position.

{3} Ammunition will be pre-stocked in forward firing positions for immediate consumption during Phase I.

{4} Forward attack position ATP established vicinity grid MT781044.

{5} Ammunition re-supply is through supply point distribution at attack position ATP, FOB1, DSA2, and DSA3.

{6} Ammunition re-supply will be conducted using combat configured loads (See Enclosure ____). Allocations will be directed by the Force Field Artillery Commander.

{7} Anticipate legible DA581s required at supply point for accountability.

(g) Class VI.

{1} Soldiers should deploy with personal hygiene items in sufficient quantities to sustain 15 days of operation.

{2} Supply point distribution when available.

(h) Class VII.

{1} Limited amounts of class VII re-supply available, with priority to armor systems.

{2} Report losses using spot reports (logistics incidents) and daily Orange Reports/Logstat.

{3} If artillery systems are available as battle loss replacements, they will be issued through DSA3.

{4} Do not plan weapon system replacement operations (WSRO). Units will accomplish internal reconfiguration as necessary to continue the mission.

{5} Call forward of life support facilities will commence upon conclusion of hostilities.

(i) Class VIII

{1} Units will deploy with a minimum 7 days of medical supplies.

{2} Push packages (1 day) will be forwarded to FOB1 and DSA2.

{3} A Combat Support Hospital will be established at DSA3.

{4} Area support provided through FSB/DSAs.

{5} Take all supplies on hand at commencement of hostilities.

(j) Class IX

{1} Supply point distribution in effect.

{2} Controlled substitution authorized at the Battalion level.

{3} Cannibalization is authorized at the Battalion level, but only as a last resort.

{4} Unserviceable end items must be recovered to collection points along route of march without delay.

{5} Maintenance contact teams provided to accomplish rapid repairs.

c. Transportation.

(1) All routes during deployment are two ways routes. Convoys of 10 or more vehicles require a convoy clearance. Pass requests for convoy clearance through Brigade S-4. MPs will operate traffic control points at key locations along the MSR. The request for motor transportation assets will be routed through Brigade S-4 to Divarty G-4 or division. Request for air drops will be routed through S-3/G-3 channels.

(2) Priorities for pre-planned airlift:

(a) Class V.

(b) Class IX.

(c) Personnel Replacement.

(d) Medical Supplies.

d. Services.

(1) Portable showers and latrines are not available. Bury trash and burn human waste. Units establish procedures.

(2) GRREG. Remains and personal effects will be recovered and evacuated by the losing battery to the unit combat trains. Remains will be air evacuated to the nearest Corps Hospital for processing. Allied dead will be treated with the same reverence and honor as U.S. dead. Enemy dead will be treated in a similar manner. The 171 CSG will establish collection points in the division zone.

Contaminated remains will not be evacuated until after decontamination occurs. Temporary internment is authorized if decontamination cannot be accomplished.

(3) Personnel Service are supported on an area basis with dual reporting requirements to G-1, XVIIIth Airborne Corps Artillery and 24ID (M). Administrative responsibilities are divided between the ALOC FWD in the TOC and the BSA. See enclosure 8 for reporting requirements.

(4) Medical support is provided on an area basis by the 44th MED Bde in conjunction with Corps hospital assets. Preferred method of Medevac is by air, using 44th MED Bde frequency 05469.0. Detailed information on medical support and evacuation procedures during all phases of the operation are contained in enclosure 8.

5. COMMAND and SIGNAL:

a. Command.

(1) 212 Fa Bde TOC located at Tl609281. Future location NT730200. 212 FA Bde commander with Bde TOC.

(2) 2-18 FA Bn TOC is alternate 212 FA Bde TOC.

(3) Succession of command is Cdr 2-18 FA, Cdr 2-17 FA, Cdr 3-27 FA.

b. Signal

(1) SOI. The current edition of the JCEOI is in effect. Edition Kilo is in effect until 102400Z Feb 1991. Edition L (Lima) is the reserve edition. Edition goes into effect 110001Z Feb 91 until TBD.

(2) SUP 1. Supplement 1 KAV 2079 to the JCEOI is in effect. Make the following pen and ink changes to item number 108, Pyrotechnic and Sound Signals:

(a) Change Yellow Star Cluster to mean fire on observed target for defensive operations and commence assault counterattack for offensive operations.

(b) Change Green Star Cluster to mean identification of Passage Points/Friendly Position for defensive and offensive operations.

(3) OPS Code/Authentication Tables. XVIII ABN Corps Artillery units use AKAC 980 and AKAC AI 1436. 24ID (M) uses ADAC 518 and 24ID (M) Divarty uses ADAC 519. Ensure you use the appropriate table when required.

(4) SOI FREEZE. Frequencies, call signs, and manual COMSEC systems will be frozen at the onset of ground hostilities. The period of the freeze will not exceed seventy two (72) hours. In the absence of guidance, frequencies, call signs and manual COMSEC systems will be automatically changed at 0001Z on the third day of the freeze, using the effective period and edition. NCS will broadcast a message to all stations to ensure that they freeze frequencies, call signs and manual COMSEC systems on the same period.

(5) CRYPTO.

(a) FM Secure. ICP USKAT 1019 variable is in effect for all DESERT STORM units, down to battery level. The variable is good for seven (7) days. Change over time is 0001Z (0300 Local) on the eight day.

(b) TACFIRE COMSEC. Edition A will continue to be used until further guidance is distributed by XVIII Abn C/A. Do not destroy.

ACKNOWLEDGE:

BANKS
COL, FA
COMMANDING

OFFICIAL:

GUILLORY

LTC, FA

BDE S3

ENCLOSURES:

1. FA Execution Matrix
2. Communication with Matrix
3. TGT Acquisition/RDO
4. TACFIRE
5. NBC
6. INTELL
7. ADA
8. Service Support

THE ENCLOSURES TO THE OPERATIONS ORDER

Appendix "D"

[The following appendix contains the Enclosures to the preceding Operations Order. They served to give greater detail to the more general picture created by the Operations Order. Not all the Enclosures were available to the soldiers at the maneuver level. What is in this appendix were those saved by Bravo Battery's FDC. It was all they had to work with.]

[Though many people will find large segments of this document incomprehensible, I believe that the inclusion of these Enclosures will add instructional value to this book.]

Enclosure 3 (Target Acquisition) to Tab B to Appendix 2 to Annex C to 24ID (M) OPLAN Desert Storm 91-3

1. **SITUATION:** See Intell summary

2. **MISSION:** When directed 212 FA Bde Target Acquisition assets provide radar coverage to reinforce 24ID (M) DivArty attack to cut Iraqi located at the Euphrates River.

3. **EXECUTION:** Battery C/25 FA (TAB) provides target acquisition for the counterfire battle throughout the entire operation. Rapidly locating and targeting Iraqi RGFC artillery for destruction is key to this mission.

a. Concept of the Operation: 2-17 FA and 2-18 FA provide a concept of the operation to their respective DS radars. Radars centralized at 212 FA Bde: (R)9 both CBR06 report to 212th FA Bde. CBR91 moves with A/13 FA. CBR06 moves with 3-27 FA.

(1) Phase I - Prepositioning/deployment: Staging area St Barbara vicinity of TL580230. Movement per march table. CBR06 moves with 3-27 FA and reports to 212 FA Bde. 212 FA Bde TOC follows 2d Bde. CBR06 occupies in TAA with 3-27 FA vicinity of MT800240 and orients on an Azimu 6400 mills. 212 FA Bde occupies vicinity of MT730200. CBR91 (attached to A/13 FA) reports to 2112 FA Bde. CBR91 occupies in TAA vicinity of MT540380 and orients on an Azimu 6400 mills. CBR 91 and CBR06 cuing from TAA positions.

(2) Phase II - Attack to PL Lion: CBR06 moves with 3-27 FA and reports to 212 FA Bde. 212 FA Bde TOC follows 2d Bde and moves to vicinity of NU820470.

(3) Phase III - Attack to OBJ Grey and Red: CBR06 occupies vicinity of NU810460 and orients on an Azimu 2400 mills to cover OBJ Grey. On order 3-27 FA becomes GSR to 1-41 FA. CBR06 will remain with 212 FA Bde TOC. 212 FA Bde TOC follows 2d Bde and occupies vicinity of NU820470. On order, A/13 FA with CBR91 orients to the east. CBR91 and CBR06 cueing.

(4) Phase IV - Attack to block Euphrates River Valley: 212 FA Bde TA assets support attacks to block the Euphrates River Valley. 212 FA Bde follows 2d Bde and positions behind BP102 vicinity of PU170870 oriented on OBJ Orange (Jalibah AFB). 212 FA Bde retains counterfire responsibility. A/13 FA positions CBR91 to cover Talil AFB (vicinity of grid PV050234) and AN Nasiriyah (vicinity of grid PV200350) On order, 3-27 FA reverts to 212 FA Bde control. CBR91 and CBR06 cueing.

(5) Phase V - Attack to Jalibah AFB (OGJ Orange): 212 FA Bde retains counterfire mission, and will assist in an artillery battle to destroy Iraq Forces on OBJ Orange. CBR06 will provide radar coverage of OBJ Orange.

b. Radar organization for combat.

(1) AN/TPQ-36. Sec 2, Btry C/25 FA (TAB) mission: Attached to 2-17 FA and receives RDO from Battalion S2.

(2) AN/TPQ-36. Sec 4, Btry C/25 FA (TAB) mission: Attached to 2-18 FA and receives RDO from Battalion S2.

(3) AN/TPQ-37. Sec 6, Btry C/25 FA (TAB) mission: GS 212 FA Bde see attachment 1 (RDO).

c. Processing: General support radars send their mission to their respective Battalion TOCs. On order, one Q-37 radar from G/333 sends missions to 212 FA Bde. All targeting information developed is forwarded to 212 FA TOC.

d. Coordinating Instructions.

(1) Survey: Survey control will be established along MRS Dodge to Rahfa by XVIII Abn Corps Artillery (TRIG list published separately). Battalions will be responsible for meeting their own survey requirements. Cdr, C/25 FA (TAB) will be responsible for providing survey support to radar sec 6 (Q37).

(a) Priority of Survey: Priority of survey will be in order as they arrive in position to rockets, cannons, and radar.

(b) SCPs: Three survey control points will be established in vicinity of 1) MT777186; 2) MT858208; 3) MT850165.

(2) MET: Radar sections 2 and 4 receive MST support from their supporting Battalion. Radar section 6 receives MET data from 212 FA Bde TACFIRE.

(3) Common Sensor Boundaries: TBD

(4) Reports: Location/sector of search for radars attached to Battalions are reported through their Battalions to 212 FA Bde. Q-37 Radars should send OBCOs to 212 FA Bde digitally as soon as commo is established.

(5) Cueing: Radars under 212 FA Bde control will receive the command "start cueing" and "stop cueing" from 212 FA Bde CFO. Frequency and duration from start to stop is based on the radar following the survivability flowchart. The code word for cueing on an unsecure NET is "PAINT".

(6) Zones:

(a) Establish critical Friendly Zones around 24th DIVARTY TOC, 212th FA Bde TOC, 3-27th FA TOC, and A/13th FA TOC.

(b) Call for fire zones: TBD

(c) Censor zones: TBD

4. SERVICE SUPPORT:

a. Radar sections 2 and 4 receive logistical support from Battalion to which attached. Radar Section 6 receives logistical support from 3-27 FA on order to HHB, 212 FA Bde.

b. Supply.

(1) Class I: All sections deploy with 7 days supply of MRSs and water.

(2) Class III: All sections deploy with a 24 hr supply of packaged products.

(3) Class V: All sections deploy with basic load of small arms and crew served ammunition.

(4) Class VI: C/25 FA (TAB) distributes sundry packs to all sections.

(5) Class IX: Firefinder repair is provided by a contact maintenance representative 39CX5 from 6-32 maintenance. This individual is located with radar section 6. Initial responsibility for automotive repair and replacement is with the supporting Battalions for sections 2 and 4, and with 3-27 FA for section 6.

c. Logistic status reporting.

(1) Q-36 radars report logistic status to supporting unit and operational status to the 212 FA Bde CFO.

5. COMMAND and SIGNAL:

- a. Matrix/Cav schedule: See enclosure (TACFIRE)
- b. Target blocks: See enclosure (TACFIRE)
- c. 212th FA Bde CFO monitors 212th CMD (V) during movements.
- d. "PAINT" is the code word for cueing on unsecure voice.
- e. GS radars use 212th FA Bde TFC (Digital) and 212th FA Bde O&I (secure voice).

Enclosures 4 (TACFIRE) to TAB B to Appendix 2 to Annex C to 24ID (M) OPLAN Desert Storm**1. Commander's Criteria:****a. Cdr's MODS:****(1) FM; MOD**

PZone:2BDE MLRSIZ:99

PType:ARTY/UNK..... PShell:CPH

(2) NNFP: MOD

ECOF:02

(3) FSE: CRITER

IGRange:X; Chem Eff:10/20/30

IGSafety:X; Max Yld:Max of Conf Rnd

Eff:30 Wpn:155mm; Max Vol:3

EffP:90 Wpn:81n; Max Vol:2

(4) ATI; FM MOD

RV:150 WDOP:50

WType:50..... WSize:50

(5) ATI: TBMOD

TC: 5

(6) ATI: SVMOD

Timex: 00/01/00 DANRV: 0

Timey: 1

b. Exclusions:

FM: Xclude-none

NNFP: Wcluse-none

FSE: Exclude-MLRS from CTA and NTA, all aircraft from CTA

c. Attack Methods:

(1) All criteria listed are Battalion volleys. Units will establish individual criteria to achieve these effects.

(2) Volleys 2 Targets:

Mort/Unk	Cen/Unk	Pers/Unk; Dug In
Mort/Lt	Cen/Bn	
Mort/Mbm	Cen/Regt	
Mort/Pos	Cen/Div	

(3) Volleys 3 Targets:

Arty/Unk	Armor/Unk	RktMsl/Unk
Arty/Lt	Armor/Lt	RktMsl/A-Pers
Arty/Mdm	Armor/Mdm	RktMsl/LtMsl
Arty/Pos		RktMsl/A-Tank
		RktMsl/HvMsl

d. Fire Unit Selection:

FM; Fusel	NNFP; Fusel
Wpn:155mm; Max Vol:5	Wpn:155mm; Max Vol:3
Wpn:8in; Max Vol:3	Wpn:8in; Max Vol:2
Wpn:MLRS; Max Vol:1	Wpn: MLRS; Max Vol:1

e. Map MOD:

SPRT; MAP: Units will establish individual MAP MODs each time upon occupation based upon unit location and current/projected mission.

* The following will not change:

GZ:38; Sphere:8; Majx:6378135.0; Minx:6356750.5

f. Matrix/Cav Schedule:

<i>PERIOD</i>	<i>MATRIX</i>	<i>TABLE/CAV</i>	<i>EDITION</i>
21-31 Jan 91	A	3	C
01-10 Feb 91	A	1	A
11-20 Feb 91	A	2	B
21-28 Feb 91	A	3	C
01-10 Mar 91	B	1	A
11-20 Mar 91	B	2	B
21-31 Mar 91	B	3	C
01-10 Apr 91	B	1	A
11-20 Apr 91	B	2	B
21-30 Apr 91	B	3	C

* All Table/CAV 4 and Edition D are spares.

g. KG Tape Schedule:

Jan 91 - CM

Feb 91 - CI

Mar 91 - CI

h. Artillery SITREP - Xmit TO: Spare/OI/24/MDA at:

0100, 0500, 0900, 1300, 1700, and 2100 Zulu.

i. Available Supply Rate: TBP.

j. Critical Ammunition Level:

AFU:AMOL: Establish as 75% of basic load.

k. Geometry: See attached ELP print out.

l. Target Block Assignment:

(1) Two letter groups:

<i>XVIIIth Abn Corps</i>		<i>24th Inf Div (Mech)</i>		<i>82nd Abn Div</i>		<i>101st Abn Div (AAslt)</i>	
Main	KA	FSE	KH	FSE	KY	FSE	WA
Tac	KY	D/A	KJ	D/A	KR	D/A	WB
C/A	KZ	1st Bde	KL				
Rear	WM	2nd Bde	KM				
		197th Bde	WJ				

<i>212 FA BDE</i>	<i>3ACR</i>	<i>197 FA BDE</i>	<i>18 FA BDE</i>
WQ	WN	WP	WL

(2) Target Number Assignments for 212 FA Bde:

0001-1999	Bde TOC	6000-6499	CMR 01
2000-2999	2-18 FA	6500-6999	CMR 04
3000-3999	2-17 FA	7000-7999	BDE FDC
4000-4999	3-27 FA	8000-8999	CDR 06
5000-5499	LNO1 (2BDE)	9000-9999	(AS REQ)
5500-5999	LNO2 (24 MDA)		

m. Laser Codes - 24ID has assigned PRF codes as follows:

Avn Bde	111-158
OH58D	451-452
1-41 FA	231-248 - 261-288
3-41 FA	311-358
4-41 FA	361-428
Reserve	431-448

Enclosure 5 (NBC) Tab B (212 FA Bde FA Support Plan) to Appendix 2 to Annex C to 24ID (M)
OPLAN Desert Storm 91-3

REFERENCES:

- a. 24ID (M) OPLAN 91-3
- b. 212 FA Bde OPLAN 91-3

1. SITUATION:

- a. (U) Enemy Capabilities Annex B, Intelligence.

(1) (S) Iraq has the largest chemical weapons arsenal in the Middle East.

(2) (S) Iraq chemical delivery systems are summarized as follows:

(a) Artillery:

<i>Weapon:</i>	<i>Range:</i>	<i>Agents:</i>	<i>Attack Area Parameters:</i>	
122mm	27,150m	G, H	(20 rds)	200m x 300m
122mm	17,990m	G, H	(15 rds)	200m x 250m
152mm	17,990m	G, H	(15 rds)	200m x 250m
155mm	17,900m	G, H	(15 rds)	200m x 250m
122mm MRL	15,000m	G, H	(720 rds)	750m x 800m
SCUD B	300km	H	(1 rkt)	1km x 2km

(b) Bombs:

<i>Weapon:</i>	<i>Attack Area Parameters:</i>	<i>HOB:</i>
250kg	(1) 100m x 100m	20m
500kg	(1) 100m x 300m	20m

(3) (S) V series nerve is unconfirmed for all delivery systems.

(4) (S) Iraq is believed to have three new agents which could be incorporated into the previously mentioned delivery systems.

(a) (S) Dusty Mustard - A mustard agent disseminated as a solid dust particle. Wind blown particles, if small enough may penetrate parts of the BDO, (area around the hood). Effects will be delayed and if the BDO is worn properly only slight rash like symptoms may occur. Wearing of the poncho over the BDO will provide additional protection lowering casualties to almost zero.

(b) (S) Dusty Nerve - A nerve agent disseminated by same method of Dusty Mustard. The poncho provides additional protection. If the BDO is penetrated, casualties are expected to be higher, with some fatalities occurring. First aid procedures are the same as for any nerve agent.

(c) (S) GF - A G series nerve agent with the same characteristics as a semipersistent nerve agent.

(5) (S) Biological: Iraq has an established biological warfare program and is producing both infectious and toxic agents. These agents are believed to include: Anthrax, Cholera, and Botulinum. Iraq is believed to have weaponized anthrax and botulinum toxin. Iraqi BW use is not expected unless Iraq's territory is threatened with destruction.

(6) (S) Nuclear: Iraq is currently pursuing a nuclear capability, but presently has no known nuclear capability.

b. (U) Enemy Courses of action.

(1) (S) Use chemical and/or biological agents to delay/disrupt friendly operations and gain tactical operations.

(2) (S) Conduct conventional warfare operations without escalation to chemical or biological operations.

c. (U) Friendly Forces.

(1) (S) Decon support for Bde units will be provided by 1/101 Cml Co (Decon). Request for decon/recon/smoke support should be made through the 212th FA Bde Cmd channels.

(2) (S) Offensive Capabilities: Chemical munitions are not currently in the AO.

(3) (S) Defensive Capabilities: US forces are trained and have sufficient equipment to operate for limited times in an NBC environment. Other coalition forces have various levels of NBC protection.

(4) (U) Assumptions:

(a) (S) Iraq will initiate chemical warfare during Phase I.

(b) (S) If chemical agents are used against U.S. forces any retaliatory response will be by theater strategic assets.

(c) (S) Large areas of persistent chemical contamination will exist at destroyed Iraqi chemical storage sites. Persistency of these hazards will be significantly longer than agents delivered by munition due to agents saturating the soil.

2. (S) **MISSION:** See Basic OPORD.

3. (S) **EXECUTION:**

a. (U) Concept of the operation.

(1) (S) General. Warnings of imminent aerial and ground chemical attacks will be made on the Brigade Command Net. All means of chemical detection are employed when the chemical threat status is Red or Scarlet. M8A1 operations will be from one hour before sunset until one hour after sunrise when chemical threat status is Red.

(2) (S) Priority of decontamination support within the Brigade is to indirect/direct firing elements, C2, maintenance/support assets.

b. (U) Tasks.

(1) (S) 1/101 Cml Co conduct internal training of platoon soldiers. Conduct recons of decon sites and water sources in Brigade assembly areas/forward attack positions. Provide technical assistance to Brigade units.

(2) (S) All Brigade units conduct NBC training as necessary to perform wartime missions in a NBC environment.

(3) (S) FA Battalions conduct recons of decon sites and water sources in their assembly areas/forward attack positions.

4. (U) **COORDINATING INSTRUCTIONS:**

a. (S) NBC Threat Status.

Nuclear	Green
Biological	Amber
Chemical	Amber

b. (S) CDMs are in effect, times for receipt are 0600, 1200, 1800, 2400 daily.

c. (S) NBCWRS is in effect.

d. (S) MOPP level one in effect. All units be prepared to assume MOPP 4 upon notification of surface to surface missile or air attacks. All soldiers will automatically mask if they smell strange and unexplained odors on the battlefield once chemical warfare has started.

e. (S) On order, initiate nerve agent pretreatment program. (PB Tablets)

f. (S) On order, initiate Anthrax pretreatment program.

g. (S) All units will not place direct or indirect fire on the M93 FOX NBC reconnaissance vehicles. All M93's will be marked with infrared marking and an OD Green circle 2 feet in diameter.

h. (S) Division/DIVARTY smoke plans TBP.

i. (S) Troop safety criteria. Maximum safety criteria for friendly chemical strikes.

j. (S) OEG. N/A

k. (S) Brigade units can request technical or training support from 1/101 Cml Co through the Brigade Chemical Officer.

5. (U) **ADMINISTRATION & LOGISTICS:**

a. (S) All Brigade units will deploy with the required basic load of NBC defense material. Excess NBC defense material will accompany units upon deployment or be turned in through logistic channels.

b. (S) All soldiers will deploy with 3 sets of CPOG/BDOs.

c. (S) NBC defense material is requested through normal logistic channels. Brigade Chemical will provide technical assistance to the S4 on NBC matters.

6. (S) **COMMAND & CONTROL:** Phase I-V, 1/101 Cml Co located in the Brigade trains.

Enclosure 6 (INTELLIGENCE) Tab B (212th Fa Bde Support Plan) To Appendix 2 To Annex C To 24th Id (Mech) Oplan Desert Storm 91-3

1. (U) **REFERENCES:**

- a. (U) Annex B (Intelligence) to XVIII Abn Corps OPLAN 3-91
(DESERT STORM).
- b. (U) Annex B (Intelligence) to 24th Inf Div OPLAN 90-3
(DESERT STORM).
- c. (U) Daily Intelligence Summaries, XVIII Abn Corps Artillery.
- d. (U) Daily Intelligence Summaries, 24th Inf Div.

2. (S) **ENEMY SITUATION:**

a. (S) General summary. Iraq continues to maintain a defensive posture in the Kuwait theater of operations (KTO) with 35 divisions: 25 committed and 10 reinforcing. Iraqi forces remain deployed in a defensive posture along the Iraqi pipeline road in southern Iraq. Iraqi response to current coalition activity continues to be uncoordinated and limited in scope. No units especially divisions, have been under heavy air attacks, yet there is no evidence that any division level or higher unit has been rendered combat ineffective.

b. (S) Disposition (see current INTSUM). Iraqi ground forces in Kuwait continue to be deployed in two defensive belts. These forces constitute the first operational echelon of an Iraqi attack into Saudi Arabia.

(1) (S) The first defensive belt is comprised of 18 infantry divisions positioned on the Iraqi-Saudi border eastward (beginning at the 45deg 52min east GEO grid line), the Kuwaiti Saudi border and the Kuwaiti coastline. From west to east, the first defensive belt consists of the 26th Infantry Division, 25th Infantry Division, 16th Infantry Division, the 36th Infantry Division, the 20th Infantry Division, an unidentified infantry division, the 30th Infantry Division, possibly the 21st Infantry Division forward of the 30th, the 29th Infantry Division, the 8th Infantry Division, the 7th Infantry Division (currently unlocated), the 18th Infantry Division (currently unlocated). Moving north up the coast above the 14th Infantry Division is the 19th Infantry Division, the 11th Infantry Division, an unidentified infantry division, the 2nd Infantry Division, and the 37th Infantry Division.

(2) (S) The second defensive belt of the first operational echelon consists of heavy division counter attack forces. From north to south, they are the 10th Armor Division, the 6th Armor Division, the 12 Armor Division, 1st Mechanized Division, the 3rd Armor Division, and the 5th Mechanized Division, located in Southern Iraq near the Kuwait border.

(3) (S) The remaining Iraqi forces in theater would constitute the 2nd operation echelon of an Iraqi attack and are currently positioned as a counterattack force in Kuwait. They are the Medinah Armor Division, the Hamarabi Armor Division, the Tawakalna Mechanized Division, and the 17th Armor Division. Also in the 2nd operational echelon are two Republican Guard Force Infantry Divisions, the Adnan Infantry Division, and Al Faw Infantry Division, as well as one other unidentified infantry division.

c. (S) Composition. Iraqi forces in the 1st operation; Echelon consist primarily of Soviet built medium tanks (T-55s/T-62s) and Chinese built type 69s. At least one battalion of the 30th Armor Brigade/6th Armor Division is equipped with T-72s. The 10th Armored Division is primarily equipped with T-72s. Armored personnel carriers are a mix of BMP-1s, BTR-60s, Czech OT-64s, and

BRDMs. Field Artillery is a mix of D-30s Towed 122mm, M-46s 130mm, 155mm guns/howes, 152mm guns/howes, 122mm SP 2S1s, and 152mm SP 2S3s.

d. (S) Strength. Most infantry divisions except the 20th and the 21st Divisions in southwestern Kuwait have an attached armor brigade. Each of these armor brigades is assessed to have a DS artillery battalion of 23 each 152mm SP Howitzer. Refer to recent battle damage assessments for update on losses.

INFANTRY DIVISION TOTALS

	Troops	Tanks	APCs	Artillery (Organic)
3 X Inf Bdes	7,575			54
1 X Armor Bn	400	35		
Div Spt Troops	6,400			18
Attached Armor Bde	3,010	107	35	18
TOTAL	16,385	142	35	90

1ST & 5TH MECHANIZED DIVISIONS

	Troops	Tanks	APCs	Artillery (Organic)
2 X Mech Bdes	5,220	70	214	36
1 X Armor Bde	2,410	107	35	18
Div Spt Troops	7,025		1	18
TOTAL	14,000	177	250	72

3rd, 6th, 10th, 12th, 17th, & U/I ARMOR DIVISIONS

	Troops	Tanks	APCs	Artillery (Organic)
2 X Armor Bdes	4,820	214	70	36
1 X Mech Bde	2,640	36	107	18
Div Spt Troops	6,725			18
TOTAL	14,155	250	177	72

RGFC, AL FAW & ADNAN INFANTRY DIVISIONS

	Troops	Tanks	APCs	Artillery (Organic)
3 X Inf Bdes	7,575			54
1 X Armor Bn	440	44		
Div Spt Troops	6,400			18
TOTAL	14,375	44		72

RGFC, MEDINAH & HAMURABI ARMOR DIVISIONS

	Troops	Tanks	APCs	Artillery (Organic)
2 X Armor Bdes	5,000	270	70	36
1 X Mech Bde	2,650	45	110	18
Div Spt Troops	6,400			18
TOTAL	14,375	315	180	72

RGFC, TAWAKALNA MECH DIVISION

	Troops	Tanks	APCs	Artillery (Organic)
2 X Mech Bdes	5,300	88	214	36
1 X Armor Bn	2,500	134	36	18
Div Spt Troops	7,025			18
TOTAL	14,825	222	250	72

e. (S) Air. US and allied air forces now have gained air superiority. The Iraqi air force has currently lost a total of 33 aircraft (17 were lost in coalition shoot downs and 13 were destroyed on the ground). This leaves the Iraqi Air force with a total of 331 fighters.

f. (S) ADA. Each Division is assessed at having an air defense regiment assigned. However, the ADA capability along the Iraqi front line is virtually nonexistent. This capability has been significantly downgraded as a result of the air campaign. Normally, the division is comprised of 27 SA-9s or SA-13s, as well as 27 x ZSU 23-4s. Additionally, each division has 54 x S-60s or M-1939 guns. Tank and mech divisions are sometimes equipped with a battalion of ZU-23s or ZPU-2s. Medium/high altitude coverage will also be provided by SA-2s and SA-3s.

g. (S) NBC. It is highly probable that Iraq will employ chemical weapons, using SCUD missiles, on strategic sites/ports and FROG-7 and MLRS on critical nodes. Field artillery systems will probably fire persistent agents on friendly 2nd echelon defensive forces to fix them or hold them and block any perceived attack. Non-persistent agents would command and control elements, forward logistical sites, and artillery locations.

h. (S) Air Assault. Iraq may attempt air assault operations against key road junctions either at An Nu Ariyah or at Abu Hadriyah. However this is very unlikely without air superiority. A Special Forces battalion would be a likely force for this mission. A helicopter lift capacity of 10 Hooks or 27 Hips would be required to transport the 630 personnel in a Special Forces battalion.

i. (S) Reconnaissance. Iraqi Divisions have an organic reconnaissance battalion which is comprised of 36 BRDMs and 5 BTR-60 command vehicles. One recon company advances in front of and as a part of the advance guard and other recon companies perform flank security for the main body.

3. (S) **WEATHER AND TERRAIN:**

a. (U) Weather.

(1) (U) Temperature. Summer (June-September) and winter (November-April) constitute the two seasons with a one-month transition period between each. Temperatures often exceed 42 degrees Celsius (105 degrees Fahrenheit) in the summer and seldom drop below freezing in the winter. Relative humidity in summer is (10-20%) and highest during winter mornings (50-90%).

(2) (U) Precipitation. Mean annual precipitation over most of the area is low, normally less than 13 centimeters (5 inches). Most precipitation occurs in the winter with a monthly average of 2.3 centimeters. Erratic precipitation, when it does occur, can be extremely heavy, highly localized, and short in duration.

(3) (U) Winds. Northwesterly surface winds are predominant both summer and winter. However, winds are lighter in winter than in summer. Throughout the area, winds are strongest in the afternoon. The term "shamal" is applied to a northwesterly wind. It may set in suddenly, and will generally last from 1-5 days. A shamal is often sand or dust laden. The "kaus" is applied to a moderate gale force southeasterly wind that originates in the Persian Gulf. It is accompanied by humid, cloudy weather, and rain squalls. The Laus is most frequent from December to April.

(4) (U) Visibility. Winds generating dust and sand storms are the most common factor contributing to reduced visibility. The optimum time for dust storms is the afternoon when surface winds in the interior are the strongest. Visibility may be reduced to less than 1/2 kilometer.

(5) (U) Effects on Enemy Courses of Action.

(a) (U) In the winter months, low temperatures normally range between 34 and 68 degrees without wind chill factor. Low temperatures coupled with the wind chill increases the hazard of becoming frost bitten. January is the coldest month with temperature range of 34 and 55 degrees in western Iraq to 46 and 66 degrees in Kuwait. Temperatures gradually rise for the next few months beginning in February. The winter is also characterized by early morning fog, precipitation amounts of .1 to 1.5 inches, and humidity of 40 to 90 percent.

(b) (U) In the summer months, the temperatures range from 75 to 110 degrees with the higher temperatures occurring in June, July, and August. Highest temperatures and lack of cloud cover increase hazards to personnel, ie. sunburn, heatstroke, and dehydration. High temperatures and humidity also limit physical activity. Most favorable weather is during early morning and late evenings.

(c) (U) Dust storms will reduce visual aerial reconnaissance and surveillance ability, limit airborne operations, reduce effectiveness of weapons and target identification, and greatly reduce efficiency of equipment and personnel. Vehicle accidents or personnel becoming lost will rise.

(d) (U) Restricted visibility caused by blowing dust and sand will restrict operations. Air to ground operations could be hindered from frequent clear air turbulence in the lower 3000m, especially

in summer, from intense heating of the desert surface. Aerial observation of ground activity is excellent, except in cities, industrial and military installations, and irrigated palm groves.

b. (S) Terrain.

(1) (S) Orientation. Iraqi is bounded on the east by Iran, on the west by Jordan and Syria, on the north by Syria and Turkey, and on the south by Kuwait and Saudi Arabia.

(2) (S) Relief. The area of operations is generally flat with some mesas and escarpments just north of the LD. Rocky and stony sections are interspersed throughout the area. The highest point of elevation is 1197 located at MT800500.

(3) (S/NF) Drainage. Sebkhahs are scattered throughout the area, most are located in the 2nd Brigade's zone. Each sabkha is different in consistency and composition and must be checked for trafficability. Some wadis exist throughout the area. Wadi beds commonly consist of gravel and sand and for good trafficability during the dry season. Rain in the area will severely degrade the trafficability of the wadis.

(4) (U) Cover and Concealment. The mesas provide concealment from ground detection. Cover from aerial detection is poor due to the flat terrain.

(5) (U) Observation and Fields of Fire. Observation is excellent from the numerous mesas. Fields of fire to the north are good when positioned on the mesas.

(6) (U) Obstacles. The primary obstacles to movement throughout our area of operation and along the LD are the escarpment. Units will channelize units in order to bypass. Numerous sebkhahs could also restrict movement when wet.

(7) (S) Man-made Features. A two-lane bituminous graded road exists and is oriented in an east-west direction just north of the LD. Numerous trails are located throughout the area and parallel the division's direction of movement. Only one small city, As Salmanis (3030N4434E), is located in the area of operation. It is significant due to the chemical warfare producing facility located there. This facility has been attacked and damaged. Final BDA will be published as received.

ACKNOWLEDGE:

KENNETH D. GUILLORY
LTC, FA
Brigade Operations Officer Official:

OFFICIAL:

CARTER, PHILLIP E.

MAJ, MI

S-2

APPENDICES:

A - Priority Intelligence Requirements

B - Intelligence Requirements

C - Intelligence Reports and Communications

D - Iraqi Artillery Capabilities (Published separately)

E - Probable Courses of Action (Published separately)

F - Rear Security Plan (Published separately)

G - Obstacles Overlay (Published separately)

DISTRIBUTION:

CDR, 2-17TH FA

CDR, 2-18TH FA

CDR, 3-18TH FA

CDR, 3-27TH FA (MLRS)

CDR, HHB 212TH FA BDE

CF:

G-2 XVIII ABN CORPS ARTILLERY

G-2, 24TH DIVARTY

S-2, 5-62nd ADA BN

Appendix A (Priority Intelligence Requirements [PIRs]) To Enclosure 6 To Tab B (212th Fa Support Plan) To Appendix 2 To Annex C To 24th Id (Mech) Oplan Desert Storm 91-3 (U)

COMMANDER; 212th Field Artillery PIRs:

1. (S) What is the location, tube strength, and capabilities of the Iraqi artillery assets supporting the defense in our area and adjacent to our area?
2. (S) What is the current command and control structure of Iraqi forces in the 24th ID area of influence and where are the forward critical logistical nodes?
3. (S) What is the terrorist threat for the 24th ID rear area and throughout the zone? Will terrorist action be directed against the forward TAA and in zone? If so, when, where, and by what means?
4. (S) Will Iraq use chemical or biological artillery munitions with the FROG-4 and MRLS systems? If so, when, where, and with what agents?
5. (S) What is the current strength and status of the RGFC forces and forces west of the tri-border and what are their artillery tube strengths?
6. (S) What battle damage has been suffered by the RSFC and units west of the tri-border (with concentration on the artillery assets)?

Appendix B (Intelligence Requirements) To Enclosure 6 To Tab B (212th Fa Support Plan) To Appendix 2 To Annex C To 24th Id (Mech) Oplan Desert Storm 91-3 (U)

BRIGADE S-2; Intelligence Requirements:

1. (S) What are the locations of SCUD, FROG, and ASTRO II missile/rocket units?
2. (S) What are locations of any 122mm MRL/self propelled, 175mm, 155mm, 152mm, and 130mm artillery units?
3. (S) What are the Iraqi counter battery target acquisition assets/fire control centers made of and where are they located?
4. (S) What are the locations of forward ammunition supply points and critical logistical nodes such as water and petroleum? Locate large movements of logistics, stockpiles, and logistical routes.

Appendix C (Intelligence Reports And Communications) To Enclosure 6 To Tab B (212th Fa Support Plan) To Appendix 2 To Annex C To 24th Id (Mech) Oplan Desert Storm 911-3 (U)

1. (S) REPORTS & COMMUNICATIONS:

a. (U) Reporting will be accomplished through the most expeditious means available without compromising security. Subordinate battalions and attached units will submit reports to the Brigade TOC and required reports to supported maneuver units or DIVARTY.

b. (S) The Brigade will publish INTSUMS twice a day as received from Corps Artillery G-2 and Division G-2. Intel report and spot reports will be distributed as received.

c. (S) Requests for intelligence information will be submitted to the Brigade TOC with the following information:

(1) (U) Unit, IIR number, and date-time-group.

(2) (U) Required information.

(3) (U) Latest time information will be of value.

(4) (U) Source documents.

(5) (U) Classification.

(6) (U) Remarks.

(7) (U) Point of contact and number, if applicable.

d. (U) The primary means of communications for the Brigade intelligence flow will be FM (VF-MED), with RATT as a backup. Couriers will be used last when feasible. Unsecure communication should be done through land line and DNVT.

2. (U) COORDINATING INSTRUCTIONS:

a. (U) Priority of emphasis is the fulfillment of PIRs and IRs.

b. (U) The primary means for FLASH communications will be FM secure. RATT will be primary for extended communications.

Enclosure 7, (Air Defense), To Tab B, (212th Field Artillery Brigade Support Plan), To Appendix 2, To Annex C, 24 Id (Mech), Operation Plan Desert Storm 91-3.

REFERENCES: 5/62 ADA (V/S), 11th ADA Bde, Operation Plan Desert Storm 1, In Support Of XVIII Abn Corps Artillery.

TIME ZONE USED THROUGHOUT ORDER: Zulu

TASK ORGANIZATION: C/5-62 ADA (-) (V/S) (DS)

I. SITUATION:

A. ENEMY FORCES: See Enclosure 6, To Tab B, (212th Field Artillery Brigade Support Plan), To Appendix 2, To Annex C, 24 Id (Mech) Operation Plan Desert Storm 91-3.

B. FRIENDLY FORCES.

1. 11TH ADA Bde is the Theatre Air Defense Artillery Brigade.
2. 5-62 ADA (-) Supports XVIII Abn Corps Artillery.
3. 1-5 ADA Supports 24 ID (Mech).
4. Stringer/HHC/197 SIB supports 24th Divarty.

C. ATTACHMENTS & DETACHMENTS: 4/4/C/5-62 ADA in direct support to XVIII Abn Corps Artillery Headquarters.

II. **MISSION:** C/2-62 ADA (-) (V/S) IS IN DIRECT SUPPORT OF 212 FAB, providing short range forward area air defense and early warning to the brigade.

III. EXECUTION:

A. CONCEPT OF THE OPERATION:

1. MANEUVER: C/5-62 ADA (-) (V/S) provides short range area air defense for 212 FAB TOC, 3-27 FA, 2-18 FA, 2-17 FA, and 212 FAB Trains.

2. FIRE SUPPORT:

a. Hostile Criteria:

- (1) Any aircraft engaging friendly elements in sight.
- (2) Any aircraft conducting unannounced spraying or mine laying operations.
- (3) Any aircraft dropping unannounced airborne troops into friendly lines.
- (4) Any aircraft recognized as hostile by designated criteria.

b. Weapons Control Status:

- (1) Weapons HOLD: Do not fire. The right of self-defense is never denied.
- (2) Weapons TIGHT: Fire only at aircraft positively identified as hostile according to prevailing hostile criteria.
- (3) Weapons FREE: Fire at any aircraft not positively identified as friendly.

c. Air Defense Warning:

- (1) **RED:** Air attack imminent or in progress.
- (2) **YELLOW:** Air attack probable.

(3) *WHITE*: Air attack is not expected.

d. Passive Air Defense: Good cover, concealment, light discipline, and dispersions practices are critical in protecting brigade assents.

e. All Arms For Air Defense: Small arms are aimed and fired two football fields in front of fast movers and 1/2 a football field in front of slow moving aircraft and helicopters; aircraft coming directly at you aim slightly above the nose. Remember, a volume of fire is key to effective small arms fire at attacking aircraft. You fire every weapon you can bring to bear on the target with the idea of placing as many bullets as possible in its path.

f. Brigade Air Defense Priorities:

(1) Gun Battalions.

(2) Brigade TOC.

(3) Brigade Trains.

g. Manual SHORAD Control System (MSCS):

(1) Frequency: 5,847.0 LSB.

(2) This is a monitor only frequency.

B. 1/C/5-62 ADA (V/S) (DS), 1/4/C/5-62 ADA (S): Priority of support to 3-27 FA (MLRS) (SP).

C. 2/C/5-62 ADA (-) (V/S) (DS), 2/4/C/5-62 ADA (S): Priority of support to 2-18 FA (203MM) (SP).

D. 3/C/5-62 ADA (-) (V/S) (DS), 3/4/C/5-62 ADA (S): Priority of support to 2-17 FA (155MM) (SP).

E. 4/C/5-62 ADA (-) (V/S) (DS), 2/2/C/5-62 ADA (V/S), 3/3/C/5-62 ADA (V/S): Priority of support to 212 FAB TOC, and 212 FAB trains.

F. COORDINATING INSTRUCTIONS.

1. Current Air Defense Warning: *Yellow*.

2. Current Weapons Control Status : *Hold*.

3. Enemy Aircraft:

a. Fixed/Variable Wing: mig 23, Mirage F-1, Mig 21, Mig 25, Mig 29, SU-24, SU-22, SU-25, Badger, and Blinder.

b. Rotary Wing: MI-24 Hind, Gazelle, MI-8 Hip, BO-105, Alquette.

4. Friendly Aircraft.

a. Fixed/Variable Wing: F-4, F117A, F-14, F-15, F-16, FA-18, F-111, Tornado, Hawk, Harrier.

b. Rotary Wing: UH-1, OH-58, AH-64, AH-1, UH-10.

IV. SERVICE SUPPORT:

A. See Enclosure 8, To Tab B, (212th Field Artillery Brigade Support Plan), To Appendix 2, To Annex C, 24 Id (Mech) Operation Plan Desert Storm 91-3

B. Required Supply Rate:

1. A792 20mm HEI-SD 156Rnds/wpn.
2. A655 20mm HEI 203 Rnds/wpn.
3. Stinger No Allocation.

C. Medical Evacuation:

1. Medevac Frequency: AM 05469.0: FM: 39.15

V. **COMMAND AND SIGNAL:**

A. COMMAND: Battery Command Post collocated with 212 FAB TOC.

B. SIGNAL:

1. SOI INDEX AKAV 2085 K/L in effect.
2. IFF MODE 4 IAW code book #AKAK 3662 HQ, AKAK 3662 HR.

ACKNOWLEDGE:

BANKS
COL, FA
COMMANDING

OFFICIAL

PINDER
CPT, ADA
OFFICER

LESSONS LEARNED FROM THE OPERATIONS OFFICER

Appendix "E"

[The following memorandum was written for future deployments. The Operations Officer, MAJ Robert McElroy wrote this letter after consulting with the battery leadership. It addresses many managerial issues for future issues (after the Persian Gulf War).]

[The military disciplines are often referred to as both an art, and a science. Most of the science issues today are handled by civilian engineers within the military industrial complex. What soldiers usually see of the sciences are done during maintenance or as a part of a routine, such as in the story, "The Men, The Machine."]

[This document shows a side of the military arts that is often overlooked, the process of moving a battalion through a war. Prior to this time, no one had any practical combat experience with MLRS battalion operations. Therefore, these were the lessons our officers could not have learned in a classroom.]

DEPARTMENT OF THE ARMY

HQ, 3d Battalion, 27th Field Artillery Regiment (MLRS)

Fort Bragg, North Carolina 28307-5000

AFZA-FA-MSD

30 April 1991

MEMORANDUM FOR: COMMANDERS AND STAFF

SUBJECT: Lessons Learned From Operation Desert Shield/Storm.

1. Based on experiences during Operation Desert Storm/Shield the following comments were submitted. Enclosed are problems and suggested solution. Also, numerous suggestions are enclosed to provide helpful hints in the preparation for combat.

2. Maintenance. There is absolutely no substitution for proper PMCS.

A. Issue: Rimmed spare tires for HMMWVs.

Discussion: HMMWV tires do not work properly during limp home operations in terrain which is rough and rocky. Maintenance repair time is severely long due to reacquisition time and delivery time of parts to vehicle in need.

Recommendation: Provide additional tire and rim to be mounted on each HMMWV. As a minimum have at least one rimmed tire per platoon maintained at a centralized location (i.e. mount on top of M-577).

B. Issue: Inability to recover vehicles in a timely manner.

Discussion: Small amount of recovery equipment created recovery dilemmas.

Recommendation: A minimum of 1 tow bar per platoon should be provided for self recovery.

C. Maintenance Comments:

1. Develop intensive pre-combat service plan.

2. Train every 13M to perform S-8 duties.

[Sierra-8s did 2nd level repairs, beyond preventive maintenance checks. The Army considered launchers to be too complex for uncertified crew members to make any repairs. However in practice, it took a crew member about a year and a half to learn to do launcher repair maintenance. After that the crews did their own work on the launchers. This secret was common knowledge. It took pressure off the over worked certified crew members.]

3. Associate 27Ms to particular unit in garrison and combat. This will create a team concept and increase operator/mechanic familiarity with specific equipment.

4. Use an expando van for a maintenance shop.

5. Proper maintenance of LLM (Loader Launcher Module, the turret) can not be emphasized enough.

3. Logistics.

A. Issue: Availability of repair parts.

Discussion: No repair parts were in the brigade field trains during combat.

Recommendation: Rewrite SOP to keep our field trains with us or coordinate the necessary support slice from follow on elements.

B. Issue: Lack of repair parts for LLMs.

Discussion: The small amount of LLM parts decreased the amount of total mission capable time of launchers.

Recommendations: 27Ms and their Technical Supply should stock more Direct Support parts for LLM.

C. Issue: Lack of fuel forward in sector nearly stalled offensive operations.

Discussion: Due to the speed and distance traveled by maneuver and fire support elements fuel supplies could not keep pace.

Recommendation: Logistics and Maneuver planners must consider deep, rapid advances when deploying plans and estimates of supportability. Fuel assets should be positioned well forward in maneuver columns to set up in advance of units. An alternative consideration may be air lifting fuel blivets, with adequate security in accompaniment, in front of advancing ground units. In effect establishing a FARP (Forward Area Re-supply Point) for ground units.

D. Logistic Comments:

1. Increase POL pushed down to battery and platoon level.
 2. Mount 55 gallon drum on HEMTTs with hose to provide additional refueling capability.
 3. Mount bustle rack on front of launcher for increased water/equipment haul capacity.
 4. Reevaluate each battery PLL.
 5. Two fuel tankers per battery.
 6. Provide a minimum of twelve cargo straps per HEMTT.
 7. Replace 2 1/2 ton with 5 ton vehicle.
 8. Keep ammo trucks at battery level and increase support element's operational ability at HSB.
4. Communication. The decision edge in providing responsive fire support.

A. Issue: Inability to communicate with 27Ms.

Discussion: Unable to communicate with 27Ms to organize rapid response and repairs to launchers.

Recommendation: 27Ms must have radios installed in their vehicles.

B. Issue: Battery Commanders, Bn XO, and Bn S-3, vehicles limited in commo equipment.

Discussion: Bn XO, Bn S-3, and battery commanders vehicles have one VCR-46 and one VCR-47. This equipment limits talking on one radio net and monitoring another. Each vehicle/operator needs the ability to talk on two nets. Bn XO and Bn S-3 need to talk on Bn CMD (CoMmanD) net and Bde/higher nets, the battery commanders on the Bn CMD net and their respective battery command nets. As currently configured this can not be accomplished. Consequently, the battalion command net became over used. During several occasions it became impossible to pass critical radio traffic. Operators consistently had to switch radio frequencies on the VRC-46 to talk on different nets. This severely degraded the units ability to pass critical information in a timely manner. The

VRC-46/47 configuration, which allows the operator to talk on one frequency and monitor another, is inadequate.

Recommendation: Bn XO, Bn S-3, and battery commander vehicles must have two VRC-46 radios or a VRC-49 configuration.

C. Communication Comments:

1. Utilize wire communication when applicable.
2. Provide more Prim 34s and multimeters to the repairmen.
3. Purchase more multiplexors for battery and platoon FDCs.
4. Train soldiers to utilize directional antennas.
5. Purchase Telescoping antennas to replace OE-254.
6. Practice Retrans operations. This proved to be a valuable and much needed capability for the Battalion.

5. Intelligence.

A. Issue: Intelligence information on enemy locations was not consistently provided.

Discussion: The speed with which maneuver and fire support elements moved was most likely the reason up to date data was not provided. While this did not effect movement in sector or occupation of positions, could have caused elements to move through areas of enemy concentration. In some instances 3/27th FA (MLRS), platoons and launchers moved through or fired from areas which had not been cleared by friendly maneuver units.

B. Intelligence Comments.

1. Imperative to pass information to all levels of command.
 2. Liaison Officer should pass intelligence data if available.
6. Survivability. Leadership is the greatest combat multiplier available.

A. Issue: M-577 Command Vehicle is too slow.

Discussion: Time after time the M-577 proved to be the slowest animal on the desert. It's inability to maintain any type of speed significantly degraded this battalion's ability move as rapidly as advancing maneuver forces. The MLRSs are a mobile and very versatile system. However, the command and control vehicles are not designed to operate with such a highly mobile unit.

B. Survivability Comments:

1. Provide hardshell HMMWVs for the Platoon Leader/Recon SGT's vehicle.
2. Mount as a minimum the SAW (5.56 MG) on all Launchers. This 1.6 million dollar piece of equipment has no active self defense capability.
3. Provide more maps to sections.
4. Increase the number of crew served weapons in the battalion.
5. Provide the GPS to all launchers.
6. Provide Marking panels and infrared lights for every vehicle.
7. Ensure each soldier has a lensetic compass.

7. Medical. Combat Lifesavers are a necessity not a luxury.

A. Issue: Medevac frequencies, and communications with medical support.

Discussion: Medevac frequency received was not correct. Organic medical assets could not be called directly. Firing platoons operating at a distance from the battery trains were hard pressed to obtain medical support.

Recommendation: Ambulances must have secure radio capability, at all times.

B. Issue: Secure communications.

Discussion: Medical Section lacked secure communications capability.

Recommendation: Secure radio capability must remain in ambulance at all times.

C. Issue: Conflicting evacuation routes.

Discussion: Received conflicting evacuation points from 212th FA and 24th INF DIV.

Recommendation: Medical NCOIC and OIC must ensure all deconflicting information is resolved in a timely manner.

D. Issue: Inability to properly evacuate human remains.

Discussion: S-4 section was unable to fulfill its mission regarding evacuation of patient remains and K.I.A.s

Recommendation: Conduct training in bagging, transporting, and administrative processing of human remains.

E. Issue: Improper use of Medical vehicles.

Discussion: Vehicles designated as battery level ambulances marked with the international Red Cross symbols were used to transport combat troops and weapons.

Recommendation: Educate soldiers of all levels on the Laws of Land Warfare under the articles of the Geneva Convention.

F. Issue: Improper use of Medical personnel.

Discussion: Medics were repeatedly required to perform guard duty.

Recommendation: (Same as 7E Recommendation)

8. General. "Avoid having your ego so close to your position that when your position falls, your ego goes with it." GEN. Colin Powell.

A. Use all available time to train soldiers to standard.

B. Battery movement/alert procedure training was literally a lifesaver.

C. Train soldiers on Battlefield Damage Repairs and quick fixes.

D. Human dimension of fire support and decision making process can never be replaced by computers.

E. PADS may be obsolete for this system after the success experienced with the GPS ?.

9. Safety.

A. Issue: Unexploded submunition from CBU's [*Cluster Bombs*] and ICM [*Incendiary Munitions*] rounds/rockets created a safety hazard for friendly units crossing the impact areas.

Discussion: In many cases units drove through areas where cluster munitions were fired on Iraqi targets. This resulted in two fatalities and damage to several vehicles when unexploded submunitions detonated. (Only one fatality in the 3/27 FA)

Recommendation: Treat any area which submunitions are fired into as a mine field. Disseminate information to units who may pass through the dud infested area. Also, train soldiers to recognize and identify different types of cluster bombs and submunitions.

B. Safety Comments. Safety is always the last subject discussed during an operation brief. Some soldiers tend to believe the last topics briefed are the least important. Commanders must emphasize safety during every aspect of training and combat operations.

10. Conclusion: These comments are by no means all inclusive of this battalion's experiences in Desert Shield/Storm.

ROBERT H. McELROY
MAJ, FA
S-3, 3/27th FA (MLRS)

LESSONS LEARNED FROM THE EXECUTIVE OFFICER

Appendix "F"

[MAJ Leonard M. Finley has been a major figure in this book. He was an outstanding leader, one of many good leaders that our battalion was fortunate to have. Since so much of this character is seen in this book, I felt that it would be right to finish this book with his final thoughts.]

DEPARTMENT OF THE ARMY

3d BATTALION, 27th FIELD ARTILLERY REGIMENT (MLRS)

FORT BRAGG NC. 28307-5000

AFZA-FA-MXO

25 June 1991

SUBJECT; DESERT SHIELD/STORM
MAINTENANCE LESSONS LEARNED

PHASE I: NOTIFICATION OF DEPLOYMENT...VEHICLE PREPARATION

During the initial stages of the alert process, numerous issues surfaced as problem areas, which caused wasted time resolving these issues.

ISSUE 1: Alert notification to the 503rd Maint Co. about the deployment of the 27M direct support mechanics as part of the quick deployment of the "HOT PLATOON."

DISCUSSION: The thought process of the leadership of the 503rd Maint Co. and some members of the 530th S&S Bn was that they would also deploy quickly and would support the MLRS battalion once they arrive in country. This did happen for the 3-27 FA Bn (-), but the "Hot Platoon" needed their complete complement of 27M's in order to provide immediate support had the theater turned hostile quickly. They received that support but the procedure could have gone better.

RECOMMENDATION: Incorporate the each battery's 27M team into the deployment scenarios of each battery. Each time a battery enters "Hot" status and an exercise conducted, the 27M team and all of their equipment should participate in the event. Immediate attachment orders need to be written to provide the deploying battery commander administrative control over all deploying soldiers. This issue needs to be resolved between the 3-27th FAR and the 530th S&S Bn chain of commands, so the soldiers can worry about accomplishing their mission and not the politics surrounding the issue.

ISSUE 2: Immediately following the alert notification, the battalion had tremendous success preparing for the deployment by ordering replacement track for the M577's and M270 rocket launchers along with additional service parts.

DISCUSSION: Repair and service parts were not arriving in the South West Asia theater as needed. The requisitioned parts were taking approximately 2-3 months to arrive and even then the battalion was not guaranteed that it would receive everything ordered. Also included in this category is the requisitioning shortage tools for mechanics to include the 27M's (Also silicon spray, seal kits, electrical wiring kits, lacing wire, and electrical tape.). All of these items need to be requested immediately upon notification of alert.

RECOMMENDATION: Battalion Maintenance should prepare and maintain contingency 2765-1's for high priority items to include track, LRU's for shortages and service parts. These parts may arrive at Fort Bragg before the vehicles depart for the port. Deploying a healthy, well stocked battalion will alleviate numerous problems during the initial stages of deployment. All these requisitions should be ordered under the HQ's Battery DODAC to maintain better control. Shortage Annexes should always be accurate.

ISSUE 3: The direct support maintenance company's ASL for the battalion, primarily for the rocket launcher, should be maintained separately and pushed to the battalion upon notification of alert. This package should include someone to manage the parts and requisition additional parts as needed. This

is tremendously important when understanding this battalion's mission to support the Corps with rocket fires, even in a theater of limited repair parts. It is critical for this rapid deployment MLRS battalion to have the repair parts on hand in case of entering a hostile theater and MLRS fires requested.

PHASE II: EARLY DEPLOYMENT/IMMATURE THEATER

ISSUE 1: Exercising Equipment as opposed to the Hands Off approach.

DISCUSSION: This battalion took a different approach to training and maintenance in an immature theater. The battalion exercised its equipment frequently and for extended periods of time (primarily tracked vehicles) to keep the equipment functioning normally. Other units chose the hands off approach trying to save the equipment for when they needed it. This battalion's exercising approach kept the equipment in a higher state of readiness than other battalions. The proper amount of exercise paid tremendous dividends as the theater became hostile and our equipment performed magnificently.

RECOMMENDATION: In this type of theater, find the optimum level to exercise the equipment in which the operators, the equipment and the battalion are benefiting from the training. It is important not to over exert the equipment but at the same time, not enough exercise can be harmful too.

ISSUE 2: Initially, the battalion had very limited direct support available in both the maintenance and supply operations.

DISCUSSION: The battalion's direct support assets were well south and turn-around times on equipment repair were lengthy. At times a direct support level part was available to the battalion and the mechanics worked hard to learn the direct support mechanic's job to repair the vehicle. Had the battalion not had some experienced personnel who could perform limited 3rd Shop tasks, the unit's ability to perform its mission would have been severely degraded.

RECOMMENDATION: Establish a training program with the 503rd Maint Co. in which the battalion's mechanics can rotate to the 3rd Shop to obtain some hands-on experience.

ISSUE 3: A unit that has an automated maintenance operation (ULLS II) needs to also be able to perform manual maintenance procedures.

DISCUSSION: Within two months of this battalion's arrival in the South West Asia theater, it had worked its way through four direct support units. The first direct support unit was the 503rd which could handle the automated process. The next three units were manual operations to interface with their systems,

RECOMMENDATION: Ensure that maintenance personnel train in both automated and manual operations. Also ensure all the manual forms are maintained in contingency stocks.

PHASE III: PRE-WAR/WAR OPERATIONS

ISSUE 1: Decentralization of support personnel and equipment reduces NMC time and thus increases the units ability to properly support the maneuver.

DISCUSSION: With the area of operations so big and unpredictable, it became critical to place support personnel at the platoon level. Prior to this, the support came from the battery HQ's position. When a launcher or support vehicle became Not Mission Capable (NMC) during the night, the platoon leaders only course of action was to notify battery HQ and wait for help. On a moon less night, finding a lone launcher became tremendously difficult, if not impossible. Provide each platoon with two 27M's one 63T and one 63S or 63B if possible. These mechanics should have the know how, the manuals, tools and parts to repair vehicles. The MLRS system depends heavily on being able to move as fast as the maneuver so repairs must be made quickly.

RECOMMENDATION: Decentralize the support personnel and their equipment and place under the platoon leaders control.

ISSUE 2: Operator were not trained properly on self recovery techniques and wasted much needed time waiting on battery or battalion HQ's recovery assets.

DISCUSSION: Too many times, did the need for a battery or a battalion recovery asset arise during pre and post war operations. When a HEMTT became stuck other HEMTT's would sometimes travel past the one in need as he waited on a wrecker, VTR, or M88. This was unnecessary and a waste of time. Most of the battalion's HEMTT's possess winches for self recovery. Ropes could have been used in a field expedient effort to recover vehicles. Not to confuse this issue with safety guidelines, but vehicle operators should use their imagination to exhaust every effort to safely recover their equipment. This would ensure that the recovery equipment would be available for more appropriate recovery missions and the recovery personnel rested enough to safely perform that mission.

RECOMMENDATION: Self-recover your own vehicle when it can safely be accomplished. Requisition one tow bar per platoon.

SPECIFIC ISSUES BY VEHICLE

M270 ROCKET LAUNCHER

ISSUE 3: Flex cable binding causing bracket shearing.

DISCUSSION: Due to the harsh sandy conditions, it became critical to keep the in side of the LLM clean with all moving parts free of dust and grime. The flex Cable Roller had a significant impact on the readiness of several launchers during the preparation phase. As the roller would collect sand and dust, it would not roll as freely causing the cable to bind and get caught up in the bracket. The bracket would then shear off as the boom was retracted during re-load operations.

RECOMMENDATIONS: Lubricate roller with silicon spray and continue to monitor its performance. When it does not roll freely, lubricate or replace. Check frequently; failure to do so will result in a lot more damage to the launcher.

ISSUE 4: Turret Lock up.

DISCUSSION: Due to the harsh sandy conditions, two launchers experienced problems with their LLM not rotating. Much sand had descended into the turret causing it to stick.

RECOMMENDATIONS: When experiencing this problem, apply grease through the designed grease fittings in the inside base of the LLM. Do not apply grease if not experiencing this problem. Applying unnecessary grease will attract more sand to that location making the problem worse. Continue to clean the LLM and keep out as much sand as possible.

GENERATORS

ISSUE 5: Frequent generator failure, particularly the 4.2.

DISCUSSION: Under 24 hour operations, 7 days a week, the generators were given more exercise than they could handle. It was hard to avoid abusing these older pieces of equipment because they are so critical to our mission. As a result the generators were failing more frequently and for reasons that they had not normally failed before. Thus the PLL's were diminished quickly or the repair part was not on hand.

RECOMMENDATION: Upgrade the generators to a more modern version which will run on diesel fuel. If this is not a feasible solution, increase PLL stocks for these generator parts.

HEMTT

ISSUE 6: Frequent HEMTT drive shaft failure causing the vehicle to lose 8 wheel drive capability.

DISCUSSION: The number of HEMTT drive shafts broken during the deployment was tremendous. This could be a very critical problem had ammunition re-supply been a major player. The loss of 8 wheel drive seriously reduced the operators ability to maneuver in the harsh terrain. When stuck in the sand, many operators would continue to try to get free by bouncing the vehicle back and forth. Should the vehicle begin to bounce, the operator needs to stop and seek an alternate path or means of recovering himself.

RECOMMENDATION: Increase knowledge of self recovery options and hands on practice during initial driver's training.

M577

ISSUE 7: Idling the vehicle for extended periods of time leads to engine failure.

DISCUSSION: One of the major complaints of the M577 is that it is usually idled too long and at the wrong RPM's. Part of this is because of the lack of power generation for the radios (discussed under generators), the other reason is operator neglect. A proper rotation of power generation between the 4.2 gen, a 3kw gen provided by the maintenance section and finally the vehicle power will alleviate the problem of idling the vehicle for too long. Also rotate the battery FDC's 4.2 gen with those of the firing platoons who use them less frequently.

RECOMMENDATION: Rotate and service available generators and when idling vehicle, do so at the proper RPM's directed by the vehicle Technical Manual.

M998

ISSUE 8: The HMMWV's were used the most frequently, and the rough terrain took its toll on power steering pumps, steering gear boxes, fan clutches and tires.

DISCUSSION: The sharp rocks and deep ravines caused tires to slice and tremendously effected command and control as a key leader was taken out of the picture. Also the many bumps on and off roads caused the steering pump and the steering gear boxes to fail frequently. Long hours of operation caused the fan clutches to fail rapidly.

RECOMMENDATION: Each vehicle should maintain a spare tire with rim if possible (at least one rim per plt). Also, the support and the supported unit should try to stock a replenishment stock for the steering pumps, steering gear boxes and fan clutches.

M35A2

ISSUE 9: The five 2 1/2 tons assigned to each battery do not provide enough space to properly carry all MTOE equipment.

DISCUSSION: All the battery's equipment can be carried with the five authorized 2 1/2 ton's authorized but it can not be done safely or efficiently. When the battery arrives at an assembly area or a tactical position, they must down load everything from a vehicle in order to re-supply their repair parts or rations. As a result, important equipment may be left behind in the event of a hasty displacement or an ammunition HEMTT (M985) may have to be used, which decreases the units ammunition re-supply capability.

RECOMMENDATIONS: Upgrade M35A2's to 900 series 5 ton ASAP.

The above lessons learned by the soldiers of the 3rd Bn, 27th FAR (MLRS) during actual war conditions in harsh terrain should be helpful to the commanders and the staff as you prepare for future deployments. If used wisely, these lessons learned may alleviate future problems.

LEONARD M. FINLEY
MAJ, FA
Executive Officer

GLOSSARY

Phrases, Terms, Acronyms and Abbreviations

After the war I heard of an inter-service witticism making rounds at the Pentagon: What does the expression, "secure the building" mean? In the Navy it would mean, to turn off the lights and lock the doors. The Army would occupy the building and place guards at the entrances so that no one could enter. The Marines would assault the building, and defend it with overwhelming firepower. The Air Force would obtain a three year lease on the building, with an option to buy it. I share this joke because it brings out a point about how words can not always be taken at face value.

This glossary is not just a list of words and definitions. Here, an effort is made to relate a little of the subjective meaning soldiers often associate with the word, as a non-military person would express it. Military professionals often talk in their own jargon. In particular, the American military is more prone to building acronyms than any other military force or technical vocabulary in the world (second only to physicians). Military jargon not only has its own special technical vocabulary, but involves perspectives and values about human activity that are quite foreign to non-military people. Like any other language, military jargon over time experiences changes in the meaning, connotation, or usage of words. This glossary is intended to fix those meanings for this book.

AA: Anti-Aircraft.

AA: Assembly Area. The place where a unit gathers together before moving out of an area.

AASLT: Air Assault. A ground force with sufficient organic air lift assets to maneuver an operational size element in combat by air movement. A division that can maneuvered by helicopters. (See; Air Assault, or Airmobile.)

Abn: Airborne. A designation for paratroop units.

Abrams: M-1A1 Main Battle Tank. The name of the tank used by the U.S. Army.

ACH: Army Community Hospital.

ACR: Armored Cavalry Regiment. A brigade with a high ratio of tanks to infantry assets, plus an aviation battalion. Like a task force, it is augmented with limited operational self support ability. The mixture of weapon systems in so small a unit allow ACRs a great flexibility with a small unit's mobility. Its role is to independently move fast, deep behind enemy lines in support of a corps's activities.

activity cycle: Each month while in garrison, tactical companies and batteries were rotated through three phases of operational status; Mission cycle, Training cycle, and Support cycle. During mission cycle, the battery had to stay on stand-by in the event of a rapid deployment. The battery on training cycle went out to the field and trained. The battery on support cycle did house keeping details around the battalion, and around garrison.

ADAG: Air Deployment/Arrival Group. The team of Army personnel who work with Air Force personnel to coordinate the movement of Army equipment and units.

ADC: Assistant Division Commander.

AE: Army Europe. Part of the postal code for Army units based in the European theater of activity.

AFB: Air Force Base.

AHA: Ammunition Holding Area. The place within a maneuver unit where ammunition is stored (usually on the ground or on the support trucks). Often called an "ammo point."

Air Assault: To air lift (usually by helicopter) a maneuver ground force against an enemy, gaining victory by moving faster than the enemy can successfully make a counter movement. A designation for ground force units that are trained and equip for air assault maneuver tactics and operations. An Army operational unit heavily invested with helicopter elements. (See; AASLT, or Airmobile.)

Airmobile: Soldiers specially trained to conduct military activities supported by helicopters. (See; AASLT, or Air Assault)

AMC: Army Material Command. The Army agency that handles all repair depots, maintenance procedures developments, refurbishment, equipment upgrades, technological retrofits, and about anything else related to acquisition or extending the useful life of Army material. This agency also runs the Army's logistics infrastructure at the strategic level.

ammo: Short for ammunition.

AMO: Air Movement Officer/NCO. The personnel representing an Army unit at the ADAG. These are soldiers, specially trained by the Air Force to supervise the up-loading of aircraft.

APC: Armored Personnel Carrier

APO: Army Post Office. Part of the postal code for Army units outside the continental United States.

AR: Army Regulation. Army publications that prescribe conduct and procedures having the force of law, enforceable under the UCMJ.

ARCENT: ARmy CENTral command. The sub-section of CENTCOM that controlled the Army's operational activity at the highest theater level.

Artillery tactical support: There are four ways that field artillery battalions support a combat effort (See; Indirect Fire.):

Direct Support (DS): Here, a battery or battalion can be called upon directly by a battalion or brigade it is assigned to. Provides impromptu artillery action.

Reinforcing (R): A battalion that can be called to supplement several other direct support artillery units. Provides impromptu artillery support.

General Support Reinforcing (GSR): An artillery battalion that takes its fire missions from operational level command, and only supports maneuver units as a second priority. Provides deliberate or impromptu artillery support.

General Support (GS): An artillery battalion that takes its fire missions from operational level command; usually based on a prearranged fire plan, or battle plan. Provides deliberate artillery action.

assets: The commander's personnel and equipment, used to accomplish a task or a mission.

assignment of national value: A colloquial military expression, referring to an assignment or mission that has some practical value to the nation beyond the units performing routine training.

ATACMS: Army TACTical Missile System. A surface to surface solid fuel tactical guided missile. It has a range of over 60 miles. It is small enough to fit into a launch container the size of an MLRS pod and be fired from a SPLL. Like the smaller M-26 rockets, the ATACMS has a warhead filled with sub-munitions, grenades that are disbursed in air and scattered out over the target area. None were used by the 3/27th FA.

atropine: The antidote to most nerve agents used in insecticides and nerve gases poisoning in chemical warfare by such agents as Tabun (GA), Sarin (GB), Soman (GD) and VX.. The other two medicines used in treating nerve agents are dipamchloride and valium.

authority to turn around: A military colloquial expression meaning, the ability or inability to change instructions/orders.

AVMLR: M-270, Armored Vehicle Mounted Rocket Launcher. The actual acronym and nomenclature for the launcher used in the Persian Gulf War. Its most unique feature was the internal navigation ability of the launchers, the long range of the rockets and an unusual degree of accuracy. There was also an un-armored launcher under development at that time. During the war 232 launchers served in Desert Storm, firing over 20,000 rockets. (See; MLRS, and SPLL)

Baghdad: The capital of Iraq.

Bahzera, Basra, or Basrah: The city in Iraq, where the Tigris and Euphrates River enters the Persian Gulf. The largest city nor Kuwait and sou the Euphrates River having strategic importance. The multiple spellings were the result of no standardized translation the Aribic spelling into English, at that time.

BC: Battery Commander, or Battalion Commander. In an artillery unit BC is used exclusively for the battery commander. In any other type of unit it refers to the battalion commander.

BDE, or Bde: Brigade: A maneuver element made of three to five battalions. A sub-unit of a division.

Blivets: A large rubber bladder used to transport several hundred gallons of liquids. The smaller blivets are designed to be slung under helicopters or moved on flatbed trucks. The larger thousand plus gallon blivets can be folded when empty and move to forward areas to serve as ground storage tanks.

BII: Basic Issue Items: The "repair tools" issued along with a vehicle, a weapon, or a major piece of mechanical equipment.

BMO: Battalion Motor Officer.

Bn, or Battalion: A battalion is formed of three or four batteries or companies.

Bomblet: A small grenade or land mine that is disbursed from the warhead of a larger bomb, artillery shell, rocket, or piece of ordnance.

BP: Battle Position.

Bradley: M-2 Bradley, Infantry Fighting Vehicle (IFV); A new class of armored vehicle that allows infantry soldiers to fight without having to dismount and be exposed. This vehicle has a turret with 25mm chain gun, two TOW anti-tank rockets, with day and night capability.

BTMS: Battalion Training Management System. It was a concept of training that moved the Army away from amphitheater type teaching to a "hands on" more individualized training. Each skill that a soldier needs to perform was broken down into and cataloged as a specific process called a "Task". Each Task had a set of related "Conditions" and performance "Standards."

Btry, or Battery: A company sized element of artillery, made of approximately one hundred to one hundred and fifty soldiers.

Burster: An explosive charge which either pre-ignites an explosive ordnance, or opens and disburses bomblets from the carrier.

Camo: Camouflage, or camouflage net; A colloquial military expression.

Camp Champion: The location where the 82nd Airborne Infantry Division was headquartered. It was near the city of Jubayl.

Camp Courage: The location of the 212th Field Artillery Brigade, and the 3/27th Field Artillery Battalion (MLRS). It was just south of the city of Nariya.

CARC paint: Chemical Agent Resistant Coating. A special paint that is flat (without a glossy surface finish), that is used to camouflage military vehicles. It resists absorbing petroleum products, solvents, and chemical agents. CARC paint, in its liquid form is highly toxic. The fumes could dissolve the soft tissue in the lungs and sinuses, attack the nervous system, and is carcinogenic. Requires special handling.

CAV, or Cav: Cavalry. The modern armored shock troops; an intermediary between armored units and air assault units. Cavalry battalions (or regiments), are more diversified, and more flexible than an armored battalion (or armored brigade). Though not as mobile as an air assault unit, in a hotly contested battle, a cavalry unit has more tenacious holding power.

CDR, or Cdr: Commander.

CENTCOM: The name of the South West Asian (SWA) regional theater command for the American forces, based in Florida.

CEOI: Communications Electronics Operating Instructions. The code book that is used for radio communications. It contains the daily frequencies, call signs, challenge and counter signs and related information. Later, this book became known as an SOI; Signal Operating Instructions.

CESO: Communications Electronics Signal Officer. The Officer that supervises the electronic activity, maintenance, and support of all radio activity and land line communication in a battalion.

Class (of supply goods): Logistical categories of materials as designated by Roman Numeral:

- I.** Subsistence
- II.** Individual Equipment
- III.** Petroleum, Oil, and Lubricants
- IV.** Construction Materials
- V.** Ammunition
- VI.** Personal Demand Items
- VII.** Major End Items
- VIII.** Medical
- IX.** Repair Parts
- X.** Non-Military Programs

colq: Used in this book to mean a colloquial military expression.

combat life saver: A soldier who received advanced first aid training. This training emphasized treatment of ballistic trauma, chemical agent antidotes, and intravenous fluid therapy.

convoy, to convoy, or driven convoy: The act of driving in a military convoy. This activity requiring special skills and training to be able to follow rules and conventions of operations particular to military driving in a group with other vehicles.

CORARTY: CORps ARTillery. The element of a corps that plans long-term/pre-arranged artillery activity (as different them impromptu artillery engagements). This element also over sees artillery logistics throughout the corps.

COSCOM: CORps Support COMmand. A logistics brigade that directly supports a corps.

CPL: Corporal.

C-POG: Chemical Protective Over Garment. The suit worn by American soldiers that is impregnated with activated charcoal. Part of the MOPP chemical protection system. (See; MOPP.)

CP: Command Post. The most forward element of a unit that controls or manages both tactical and logistical activity.

CPT: Captain.

CQ, or Charge of Quarters: The NCO who supervises a company, troop or battery after normal duty hours.

CS: Chlorobenzalmalononitrile. A riot control chemical agent that is commonly known as, riot gas, or tear gas.

CSH: Combat Support Hospital. A corps level combat hospital unit. Like an emergency room, with limited surgical ability. Seriously injured casualties would be held in this facility until they could be transported to rear area hospitals. (During Desert Storm, there were plans to establish CSHs within Iraq and Kuwait. However, the combat moved so fast and ended so quickly, the CSHs didn't have the 36 hours needed to set up a site.)

CSM: Command Sergeant Major.

CVC helmet: Combat Vehicle Crewman's helmet.

CWO, or Chief Warrant: Chief Warrant Officer. A technical officer in an advisory or administrative role. A Warrant Officer was lower in rank than a Lieutenant. There were four pay grades for a Warrant Officer. Chief Warrant Officers were the senior three grades.

Dhahran, or Dharan: The major airport city where U.S. Forces were brought in for deployment in the Persian Gulf region.

Damman, or Dammon: The seaport city where U.S. Forces were brought to shore for deployment in the Persian Gulf region.

dayroom: The company lounge or recreation room in a billets. The single soldiers use this area for entertainment. Also used for large group meetings within the company or battery.

DCU: Desert Camouflage Uniforms. There are actually two different patterns used by the military. The first was known as the "chocolate chip" uniform because of the dark brown spots it had. The second DCU went from six colors to three colors, dropping the darker browns.

decision cycle: Time process and time needed to gather information about tactical activity during a battle, assimilate the information and make command decisions, and then get these decisions or orders into the hands of the soldiers that must execute them.

DECON, or Decon: Decontamination. The process of removing harmful NBC contaminants from equipment or people.

defeat in detail: To divide an enemy force, and then destroy it piece by piece. It is a situation where the attacker finds that the defender is not in a position to provide the defending elements of its force with mutual support. The attacker then falls upon each element, one at a time, while the remainder of the defenders are helpless to respond with timely assistance.

deploy: To send a unit forward into a battle zone. For a unit to spread across terrain in anticipation of contact with enemy force. To send a unit out of its normal garrison area to a foreign country, or a strategic location.

dipamchloride: It is used for exposure to an organophosphate nerve agent poisoning, in combination with atropine.

Div: Division. An operational military unit that is capable of self-sustained activity over a long period of time, while isolated.

DISCOM: DIvision Support COMmand. The brigade within a division that handles operational level logistics; supply, medical, maintenance, transportation, and administration.

DIVARTY: DIvision ARTillery. The element of a division that plans long-term/pre-arranged artillery fire missions, and coordinates artillery logistics throughout the division.

DPICM: Dual-Purpose Improved Conventional Munitions. A family of munitions that are efficient against personnel, and has a secondary ability to penetrate armor.

draw weapons: Meaning soldiers are to withdraw their assigned weapon(s) out of the arms room. A colloquial military expression.

DS, or Direct Support: This term has two meanings: artillery, or for maintenance. Artillery activity that reacts to and receives its fire missions directly from line combat units immediately engaged in tactical maneuver against opposition forces. (See; Artillery tactical support.) That level of maintenance support from a maintenance unit, above the battalion's own organic maintenance sections.

DSA: Division Support Area. A region within a division's area of activity, supported by a FSB, Forward Support Base. (See; FSB.)

Easting: Longitude reference used in UTM (Universal Transverse Mercator) map reference system.

echelons above reality: Decision makers who are high enough in the command structure that they are not adversely affected by the poor decisions that they make. A colloquial military expression.

EOC: Emergency Operations Center. The office at the corps, division or garrison level responsible for mobilizing the units within the command.

EPW: Enemy Prisoner of War.

FA: Field Artillery. It is used as a generic reference to Army artillery units (at one time the Army had coastal artillery, and there is currently also air defense artillery). When used in conjunction with a unit's numerical designation, it refers to a battalion size element, unless stated otherwise. (See; Artillery tactical support.)

FARP: Forward Area Re-supply Point. Re-supply points located along side line combat units on the front. These re-supply points are usually established and operated by support units.

FAWPSS: A system that provides water to units in the forward combat area. *(I have not been able to find out exactly what this acronym stands for.)*

Fayetteville, North Carolina: The city adjacent to Fort Bragg and Pope Air Force Base.

FCP: Fire Control Panel. It is located in front of where the gunner of an MLRS launcher sits.

FDC: Fire Direction Control. The element or place (usually in an M-577 command track vehicle) where artillery planning is conducted and relayed to the cannons or launchers. (See; TOC.)

first formation: A mandatory assembly of the soldiers within a company level unit, used to account for all personnel. A Formation is divided into separate sections or platoons. Each platoon sergeant is responsible for the accountability of each soldier and must report the status of the platoon to the First Sergeant.

First Sergeant, 1SG, or 1st SGT: The highest NCO rank in a company or battery, the rank before Command Sergeant Major.

FLOT: Forward Line of Troops. On a battle field where units of opposing forces have become intermixed with each other, the FLOT is the farthest extent of friendly troops holding tactical advantage. It is not exactly the same as a front-line.

FM: Field Manual. Army publications that prescribe tactical, operational, or strategic doctrine.

FM: Fire Mission. A request for artillery fire.

FM: Frequency modulation. A type of radio emission.

FSCL: Fire Support Coordination Line.

Fort Irwin: The location of the National Training Center, near Barstow, California. This center specializes in desert warfare, uses Soviet style tactics against units being trained there. It is large enough to accommodate several mechanized battalions, with supporting aviation and artillery assets. (See; NTC.)

Freq: Frequency, radio.

FSB: Forward Support Base. A DISCOM logistics center within a combat zone, usually a battalion in size. An FSB is usually a mixture of elements providing a variety of logistic services, supporting local maneuver units. An FSB is usually commanded by a field grade officer.

FTX: Field Training eXercise.

Geo: Something pertaining to the planet Earth.

GPS: Geo-Positioning System. A network of satellites that transmitted navigational information. The item name of one device used to determine location by satellite triangulation.

Grafenwhor: A major artillery and tank gunnery training area in Germany; one of the largest in the world.

GRREG: Graves Registration. A unit or personnel who handle casualty remains.

GSR, or General Support Reinforcing: Artillery activity that takes fire missions from operational level command, and only supports maneuver units as a second priority. (See; Artillery tactical support.)

HEMTT: Heavy Expanded Mobility Tactical Truck. A family of 8x8 off the road trucks having a payload ability of about twelve tons.

HET: Heavy Equipment Transporter. The Tractor of a tractor-trailer vehicle system. It is able to moving tanks, armored vehicles and other over sized equipment over roads without damaging soft asphalt.

HETS: Heavy Equipment Transporter System. The tractor and a variety of heavy trailer combinations that have been designed to work together. These vehicle systems are usually used to carry 10 to 80 ton cargoes.

Highway 8: The main highway from Baghdad to Kuwait, that passes through the Rumayalh Oilfields.

HIMARS: The wheeled version of the MLRS. It supports a single pod turret, and can be deployed from a C-130 cargo plane. Its development was being considered just before the war.

hot, or going hot: The transition of a unit or a force to combat configuration for a mission. To be equip with live ammunition and authority to use it.

HQ: Headquarters.

HSB: Headquarters & Service Battery. The battery level headquarters unit of a tactical artillery battalion.

HMMWV: High Mobility Multi-purpose Wheeled Vehicle. The 1 1/4 ton utility truck used by the military for tactical activity. It comes in a variety of configurations to meet different roles. It is called the Humm-vee or Hummer. It replaced the jeep.

ID: Identification.

ID, or Inf Div: Infantry Division. Used in conjunction with the numbers that identify the specific division; 24th ID, 1st ID, 7th ID, etc.

IFV: Infantry Fighting Vehicle; A new class of armored infantry vehicles that allows the soldiers to use their weapons without having to expose themselves. Soldiers do not need to dismount before reaching the objective.

IN, or Inf: Infantry or an infantry unit.

Indirect Fire: Cannon or rocket fire that is directed by an observer against a target that cannot be observed by the weapon operators. This is the work of the artillery. (See; Artillery tactical support.)

In-Processing Center: The garrison unit where the soldiers are administratively processed prior to being assigned to their unit or duty assignment. At these centers soldiers' records are checked for accuracy, medical and dental records are forwarded to the facilities that where the soldiers will receive care, field equipment is issued, briefings are given explaining everything that is available at their new assignment, and to attend to any business not accomplished while at last duty station.

INTSUM: INTelligence SUMmary.

Jalibah Airbase: A large Iraqi airbase just west of the Rumayalh oilfields.

Jump TOC: A temporary command post that performs tactical operations coordination while the Tactical Operations Center moves to a new location. (See; TOC.)

KCLFFS: Kitchen Company Level Field Feeding System.

Kevlar: A polymer fabric used in making bullet proof helmets and vests. Usually refers to the helmet.

King Abdul Aseziz International & Military Airport, Dhahran: The airfield were the XVIIIth Corps set up its headquarters, Dragon City.

km, or kilometers: Most common unit of measurement used for military operation. Military maps are broken down into square kilometers. Virtually all measurements used by artillery are done with the metric system.

KJV: King James Version of the Bible.

KKMC: King Khalid Military City. It was a military city, like a fort in the United States. It served as the forward strategic base of activity for preparation for war. units of the XVIIIth Corps had little direct connection to this facility.

KTO: Kuwait Theater of Operations.

Langley AFB: It was the first source of Air Force units deployed to Saudi Arabia.

launcher crew chief: This position is usually held by an Staff Sergeant. It is not uncommon for a Sergeant to perform this job.

launcher section: This consist of a launcher crew chief, gunner and driver. It can also include the launcher and all related equipment.

LBE: Load Bearing Equipment. The harness worn by soldiers to carry their ammo pouches, canteen, bayonet, and other such equipment.

Lchr: Launcher.

Ldr, or Leader: A person in a tactical leadership role, as different then a supervisor in a staff position or technical support role.

lift: A medium of logistic transport. It can refer to aircraft, helicopter, or even trucks.

LLM: Loader Launcher Module. The M-269 the armored turret that fits on top of the M-270 MLRS Launcher transport vehicle.

LOC: Logistics Operations Center. One of two functional areas within a command post coordinating personnel, supply, maintenance and related activities. Within a command post there are two main elements; tactical operations, and logistical operations.

LOC: Lines of Communication.

log'es: A colloquialism for military logistics personnel.

low-boys: A nick name for a flat bed trailer capable of handling almost 90 tons of armored vehicle. A colloquial military expression.

LRU: Line Replacement Unit. In this book, LRUs' refers to the lights on the fire control panel that indicate the failure of some segment of the electronic system within the MLRS launcher.

LTC: Lieutenant Colonel.

LTOE: Living TO&E. See MTOE.

LTV: The company that builds the MLRS launcher and ordnance. Later, know as Loral Vought Systems. By the end of the 21st Century, the division that produced the MLRS was owned by Lockheed-Martin.

LZ: Landing Zone; For military aviation.

M-577 Command Track: An armored vehicle based on the M-113 armor personnel carrier family of vehicles, equipped with an auxiliary generator and an assortment of radios.

(M), or (Mech): Mechanized. A unit designation suffix. It indicates that a unit is heavily invested with lightly armored tracked infantry vehicles.

maneuver: The ability of a military force to; move, under force of arms, to a position of advantage over an opposing force. This is not about just moving or transporting soldiers from one place to another. It is about repositioning the destructive potential which they represent. (It is possible to reposition the destructive capability without relocating the soldiers.)

manifest: A list of cargo or passengers, on a vehicle, ship or plane.

MACOM: Major Army COMmand. A generic reference to any Army combat command above corps or agency command under the Department of the Army.

medivac: MEDIcal eVACuation. The use of helicopters to transport casualties.

MET: Meteorology data.

milvan: Military van. The military version of containerized cargo system shipping boxes. Also called a CONNEX. Closely related to ISO containers.

MLRS: Multiple Launch Rocket System; Originally, this was a reference to the combination of launcher, fire direction control center computers and radios, and munitions that had been fashioned into an integrated rocket artillery system. However by the end of the war, the acronym MLRS rouse to being the common reference to the M-270 AVMLR; and, AVMLR fell into disuse.

mogas: MOtor GAS. Regular lead gasoline, or benzene.

MOPP: Mission-Oriented Protective Posture. A graduated system of protective measures that soldiers take in anticipation of, or during an NBC attack. (See; C-POG.)

MOS: Military Occupation Specialty. The system used by the Army to codify the vocations of enlisted soldiers.

MRE: Meals Ready to Eat. The individual field rations issued to U.S. soldiers.

MSR: Major Supply Route. A road built or used to carry supplies in support of a division advance.

MTOE: Modified Table of Organization and Equipment. The result of an upgrade to a TOE that customizes or extends a unit's mission capability.

Nariya, or Nuayrerah: The most eastern city along the tapline road. The first location of the 101st Infantry Division (AASLT), Camp Bastogne. It was the largest city near Camp Courage. The joint Service Tactical Maps showed Nariya as the name of the airfield for the city of Nuayrerah. Most other maps make no distinctions between the two spellings.

NCO: Non-Commissioned Officer. The legal title of a sergeant.

NCOIC: Non-Commissioned Officer In Charge. This is the senior NCO controlling an activity, usually supervising a staff activity or a temporary detail.

NCS: Net Control Station. The radio operator at the highest level authorized the use of a radio frequency, which regulates other people using the same frequency.

newly arrives: A military colloquial expression meaning, a soldier that had just arrived to a unit or destination for the first time.

NFA: No Fire Area. This is an area that is not to be targeted by artillery.

NLT: No Later Then. An annotation found on military forms or communications indicating a suspense date or time for an action.

Northing: Latitude reference used in UTM (Universal Transverse Macerator) map reference system.

NTC: National Training Center. The desert warfare training center at Fort Irwin, located near Barstow, California. It is large enough to accommodate several mechanized battalions, with supporting aviation and artillery assets. (See; Fort Irwin.)

NVG: Night Vision Goggles. Optical devices using light amplification technology which allows solders to see by star light. These devices have very limited infra-red ability.

Obj: Objective. The place or item to be captured or destroyed by a military maneuver.

off-post: Areas outside the garrison. A colloquial military word often used to describe personnel not living on the post, or within the garrison.

OIC: Officer In Charge. This is usually a staff officer or an officer of a special project. Not to be confuse with a unit commander.

OP: Observation Point. A guard's look-out position at the edge of a camp site, where soldiers routinely rotate through for a shift of duty. It can also be the place where a forward observer watches the enemy and provides intelligence or calls for and coordinates indirect artillery fire.

OPCON: Operationally CONnected. The attachment of an operational sized element to a larger operational unit.

OPFOR: OPposing FORces. A politically correct euphemism for an enemy. Used by the military because it is not an emotionally charged reference. It is the policy of the U.S. military for its soldiers to maintain a professional detachment while executing their mission. Such detachment helps ward off atrocities by our soldiers and facilitates humane treatment of foreign people.

Ord: Ordnance, or an ordnance unit.

organic artillery: An artillery unit that is normally a part of the higher element. This is in contrast to an attached unit.

PAC: Personnel Administration Center. The battalion department that performs personnel and finance administration.

PB Tablets: Pyridostigmine Bromide. This was a gray pill given to the soldiers to help minimize or delay the affects of toxic nerve agents. *(It was an experimental drug which had at that time not been approved by the Food and Drug Administration. The Bn Commander and the Bn Physician elected not to use this drug after two weeks. They were not convinced of its benefits.)*

PBO: Property Book Officer. The warrant officer that controls accounting for the equipment which the battalion commander is responsible.

PFC: Private First Class; the third enlisted pay grade.

PLDMD: Platoon Leader Digital Message Device; It's a small box with a key board used at the platoon level to send digital text messages to the launchers and battery FDC.

PLL: Proscribed Load List. The list of replacement parts a unit is authorized to requisition, and has on hand. It often refers to the clerk who does the parts ordering.

Plt: Platoon.

PMCS: Preventive Maintenance Checks and Services. Most often this refers to a check list of; before, during, and after use inspections made by equipment operators. There are other aspects to the PMCS Military Maintenance system, involved.

POL: Petroleum, Oil, and Lubrication. The list of automotive fluids a unit is authorized to requisition. It often refers to the clerk who does the ordering.

POM: Process for Overseas Movement. The final group of administrative and medical actions to prepare a soldier for deployment.

POR: Process for Overseas Readiness. An ongoing group of administrative actions that prepare a soldier for deployment overseas.

post: This word has two colloquial uses: 1st) The place where a soldier has been assigned duty. In the broad sense, it is the garrison or fort where the soldier is stationed or assigned; his posting. 2nd) It is also in the detailed sense, the area where a guard stands watch.

PT: Physical Training.

PV2: PriVate; the second enlisted pay grade.

PVT: PriVaTe; the lowest enlisted pay grade.

Recon: Reconnaissance.

RGFC: Republican Guard Forces Command, Elite regular forces of the Iraqi Army.

Rgt: Regiment. This word has two colloquial uses: 1st) An organization larger than a brigade, and smaller than a division having organic operational ability. 2nd) A combination of several battalions having a common historical identity.

rolled: A military colloquial word meaning, moved rapidly.

riggers: Soldiers who prepare cargo for air transport.

Rumayalh Oilfields: The oilfields that are under both Kuwait and Iraq. The objective of Iraq's invasion of Kuwait. The site of the largest tank battle involving U.S. forces since World War II. The site of the post-cease fire engagement.

S1: Personnel Staff Officer (Human Resources) and/or staff.

S2: Intelligence Staff Officer and/or staff.

S3: Operations & Training Staff Officer and/or staff.

S4: Logistics & Supply Staff Officer and/ or staff.

SANG Compound: Saudi Arabian National Guard. This where the headquarters of the 18th Corps, CORARTY was garrisoned.

SFC: Sergeant First Class; Usually a platoon sergeant, the rank just below a 1st Sergeant. The seventh enlisted pay grade in the Army.

SGT: Sergeant; The fifth enlisted pay grade in the Army.

Sgt: Sergeant; A generic reference for non-commissioned officers.

shoot missions: A colloquial military term meaning the firing of artillery pieces as directed by a FDC.

SLGR: Satellite Location Ground Reference. The item name of one device used to determine location by satellite triangulation. The slang military personnel use for this device is, "slugger" or "slug."

Slice: Prearranged attachments of support personnel or teams, from a direct support unit, to a combat unit during deployment.

SOP: Standard Operating Procedures; The battalion or small unit commander's policies that defines routine activities or operations.

SP: Start Point. A place and time that a unit begins its movement in coordination with other units that are trying to move almost simultaneously. The importance of properly executing an SP is evidenced by, during training a unit failing to follow the timetable can result in the delinquent parties receiving punitive legal action under UCMJ.

SPC: Specialist. A rank in the Army equal in pay to a corporal, but lacking by law the leadership status of a non-commissioned officer. The forth enlisted pay grade in the Army.

SPLL: Self Propelled Launcher/Loader. The term (*pronounced, spill*) is a reference to all vehicle mounted turrets capable of self loading modular rocket pods, to include un-armored versions. It is a common reference to the marriage of the M-993 Carrier Vehicle with the M-269 Launcher/Loader Module (the turret) into the M-270 MLRS Launcher. Still, this term actually describes a mechanical attribute. Since the M-270 was the first vehicle to incorporate a self loading capability, the term is occasionally misused to reference the M-270 vehicle system, alone. Yet, this term is also applicable to the HIMARS since it is a 5 ton truck with a self loading turret.

SSG: Staff Sergeant. The sixth enlisted pay grade in the Army.

Submunitions: A small grenade, flare, or land mine that is disbursed from the warhead of a larger bomb, artillery shell, rocket, or piece of ordnance.

TAA: Tactical Assembly Area. The last stop a unit makes before committing itself to combat. Here a unit will make its last check and stock up on the last of its supplies. The area where a maneuver unit makes the transition from operational activity to tactical activity.

TAB: Target Acquisition Battery.

TACSOP: TACTical, Standard Operating Procedures. The battalion or small unit commander's policies about field or combat operations.

tactic: Specific movements or actions taken to degrade an enemy's threat. This can be done at the tactical, operational, and even strategic levels.

tactical unit: That level of military activity or crisis control organization directly involved with confronting the threat. Tactical units in the Army are tasked to perform maneuver or patrol missions.

Tallil, or Tillil: An Iraqi Air Base near An-Nasiriyah, south Baghdad along the Euphrates River.

Task: This word has two related uses. Formally, a specific military skill stated as a training performance objective. Colloquially, a job handed down by a superior. In military life there are never any two days that are alike. Soldiers often refer to things that they have to do, as a task or tasking. (See; BTMS.)

TC: Tracked vehicle Commander.

TC: Training Circular. Army publications that prescribe training methods, usually supplementing field manuals.

TBD: To Be Determined. A catch-all phrase that tells the reader that the planners haven't got all the answers. It lets the executioners of the activity know that plans could be changed later, or that they will have to decide on a course of action when the situation arises.

tent city: A colloquial military expression. An impromptu camp used for organizing units arriving into a theater during a build-up period. If a tent city is given permanence, it is designated a Camp.

TF, or Task Force: A tactical unit that has been augmented with resources to make the unit self-sufficient in an operational sense. Usually done by increasing the maintenance, administrative, and logistics assets. It can also include combining combat elements not normally associated with the type of unit being up-graded; such as an infantry battalion with an attached tank company.

theater build up: An activity in a specific geographic part of the world designed to organize and support operational level military activity.

TOC: Tactical Operations Center. The forward field command post, having at least two main elements; tactical operations, and logistical operations.

TOE, or TO&E: Table of Organization and Equipment. The document that defines the personnel and equipment which are assigned to a unit.

UCMJ: Uniformed Code of Military Justice; The code of laws made by Congress and the legal precedents that are applied to military personnel.

up-load: To put equipment and personnel on a transport vehicle, usually in accordance with some proscribed procedure or standard. A colloquial military expression.

USASG (u'SAS-go): U.S. Army Support Group. A depot level maintenance organization, made of civilian volunteers who went to the Persian Gulf to support the military.

VIC: In the vicinity of....

war gamed: The use of mathematical or computer simulations to train military leaders about combat operations. Colloquially; a seminar where leaders act out stratagem to determine how best to accomplish a mission. Also know as a rock-drill.

WO: Warrant Officer. (See, CWO.)

Womack ACH: The Army community hospital at Fort Bragg, in North Carolina.

Xmit: Transmit abbreviation used on military digital electronic equipment.

XO: eXecutive Officer.