

**E TROOP 1 / 17 CAVALRY, LONG RANGE SURVEILLANCE TROOP (LRST),  
82ND AIRBORNE DIVISION'S TRAINING AND OPERATIONS DURING  
OPERATIONS DESERT SHIELD / DESERT STORM**

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**MONOGRAPH**

**ICCC CLASS 2 - 00**

**12 JUNE 00**

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Infantry Captains Career Course

Class 2-00

12 June 00

**E Troop 1st 17th Cavalry, Long Range Surveillance Troop (LRST), 82nd  
Airborne Division, Operation Desert Shield / Desert Storm**

At 0200 on August 2, 1990, the Hammurabii Armored and the Tawakalna Mechanized divisions of Iraq rushed across the border of Kuwait and quickly overran the lightly armed and equipped Kuwaiti brigade deployed along the border. The Iraqi assault combined mass and a rapid ground advance that swept south, capturing most Kuwaiti forces off guard in garrison. The Iraqis reached Kuwait city by 0500. Three Republican Guard special forces brigades launched a hellbore assault into the city itself, blocking any Kuwaiti withdrawal. Iraqi naval commandos deployed further south, effectively blocking the coastal road, the only other mass withdrawal route. By early evening, the city was under Iraqi control with the exception of a few small Kuwaiti pockets of resistance. On the western front, the Medina Armored Division screened the main attack in the event that the Gulf Cooperation Council's Peninsula Shield Brigade in northern Saudi Arabia intervened. The Iraqis also committed four Guard infantry divisions behind the lead armored forces to begin mopping up any resistance bypassed by the fast moving armored divisions. All three heavy divisions then moved south to the Saudi Arabian border and established a defensive border. Iraq defeated Kuwait in less than 48 hours.

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The 82nd Airborne Division deployment sequence began in the early evening of 6 August. The first brigade to deploy to Saudi Arabia left on August 8. Among these troops from the 2nd Brigade were two six man Long Range Surveillance Teams (LRST) from E Troop, 1/ 17 Cavalry. By August 24, nearly 12,000 paratroopers from the 82nd Airborne Division were on the ground in Saudi Arabia. Initially, the United States " line in the sand " was a single infantry brigade, a few support troops, and the LRS teams.

Within one week of arriving in Saudi Arabia, the LRST redeployed north to Camp 2 / Falcon Base near Al Jubail. This was our base of operations for the next 30 to 45 days. In mid-September, the troop deployed from Camp 2 / Falcon Base to Al Hufuf. Al Hufuf was an abandoned airfield. This became home for the troop and the rest of the squadron for the next four months. In January of 1991 the troop deployed northwest to Rahfa, just south of the Iraqi border. The troop stayed in this area for the next 30 days preparing for the invasion of Iraq. On Feb 23, the troop deployed north to Talil airbase in Iraq. The troop spent approximately three weeks in Iraq, then returned to Saudi Arabia for eventual redeployment to the United States, the last team returning 08 March 1991.

E Troop, 1 / 17 Cavalry, the 82nd Airborne's long range surveillance unit, is the human intelligence asset available to the division commander to use at his discretion. At the time of Operation Desert Storm / Shield, the unit was authorized six teams of six men each, two communication teams, a commander, detachment sergeant, executive officer, supply NCO, operations sergeant, medic, and armorer. Two of the operational teams were High Altitude Low Opening (HALO) insertion teams, two were water infiltration teams, and two were



ruck teams. Each team was equally capable with the exception of specialized insertion techniques. Most of the teams did not have the authorized strength of six men each. The majority were only able to field five men. Every team member was Airborne and Ranger qualified. The majority were SERE qualified, and all were in excellent physical condition. The unit was unique in that all were volunteers; specially selected; all had to meet a high PT standard; all had to be able to swim; and most teams were comprised entirely of NCOs.

During the initial notification, our unit commander, Captain Patrick E. Fuller, three teams, and a communication element were deployed at the Joint Readiness Training Center. Due to the initial nature of the mission, a show of force, the teams were not given the privilege of normal isolation procedures. Once reporting to the isolation facility, the teams were in total ignorance as to their mission. It was complete confusion: no mission, no target folders, nothing.

The Division G2 had no idea of our mission or our teams' capabilities. We initially deployed two teams, along with our executive officer, 1LT Paul Frye; the operations sergeant, SSG George Hatcher, and communications sergeant. The teams deployed on a show of force concept, totally uninformed due to the lack of even a simple mission statement from Division headquarters. In hindsight, in a situation such as this, it is imperative that subordinate commanders develop their own mission statement, even if it as something as simple as "Deploy to area \_\_\_\_\_ as a show of force, stage at area \_\_\_\_\_, and be prepared for follow on missions or operations." This is critical in focusing the deploying soldiers and giving them direction and purpose. The LRS chain of

command had no more knowledge of the mission statement than the teams themselves.

Several days *after* arriving in country, the task force as a whole received the mission "to defend Saudi Arabia against a possible Iraqi invasion," but nothing more specific. Around that same time frame, our executive officer received the first mission for the teams. It was a NAI mission about 20 kilometers south of the Kuwaiti border an intersection of two possible axis of advance. After a thorough mission analysis, LT Frye and SSG Carter determined the mission was within the capabilities of the team. Division G2 initially planned on having the teams there indefinitely. There still were no target folders for the teams. A target folder is a critical piece of mission essential equipment that an LRS team must have to develop a viable plan. Finally, LT Frye was able to locate some maps for the teams and some additional information to create an adhoc target folder. A critical problem was posed to the G2 concerning water resupply. G2 had no plan for water resupply for an LRS team in 128F heat. Eventually, the team had to carry in all water for the four day mission. The mission was uneventful. The next mission for the teams were map update missions, basically a mounted zone reconnaissance missions. The initial maps were with 1978 datum, and there had been quite a few changes. The teams conducted these missions with pickup trucks loaned from the Saudi government.

On approximately 10 August, the rest of the detachment arrived in Saudi Arabia. Our advance party had us quartered in "All American City" with the rest of the task force. It was an abandoned Saudi Army base that was never used. We were only there for a short time. We used this time was used for



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acclimatization and orientation to the area and terrain. On August 12, the detachment moved north with 4-325 Airborne Infantry, 110 miles to the port of Al-Jubayl. This is where we were allowed to actually begin limited missions and training in the local area.

Upon arrival in Saudi Arabia, our detachment was shocked by the heat and the terrain. We wondered how we, as a light dismounted LRS element, could be effective in this kind of terrain. The heat, along with the sparse, desolate desert terrain, seemed unsupportive to our type of reconnaissance. Our prior training had never focused on a desert environment. We were accustomed to training and deploying to thickly wooded, mountainous, or jungle type terrain. These types of terrain offered us, as LRS teams, what we needed to complete our mission and survive. Cover and concealment was what we were used to, definitely not in abundance in a desert environment, at least not initially to our untrained eyes. Our unit SOP did not specifically address desert missions. But, many of the same principles applied. It was clear that we had to alter some of our operating procedures. How much we had to learn soon became evident as we began to deploy on training missions.

We arrived in Al Jubail within a week of our landing in Saudi Arabia. It was our base of operations for approximately for 30-45 days. Our missions consisted of conducting reconnaissance and surveillance north in sector to provide early warning of an Iraqi invasion into Saudi Arabia. We also established positions (stay behind positions) on likely avenues of approach to be occupied by the teams in the event of an Iraqi invasion. These positions were propositioned and we planned primary and alternate routes into the

positions were planned in the event the teams would have to occupy them. The detachment commander, Captain Patrick E. Fuller, marked and monitored these positions and advised division headquarters of their location. The teams also conducted missions to determine the security and capabilities of Camp 2 and airfield reconnaissance missions to the south of Abquiq airfield and Al Hufuf airfield.

My team was composed of five personnel; the team leader, SSG Jerry Cornell, assistant team leader, SSG Matt Rodreguiz, senior scout, SGT John Kane, radio telephone operator, SGT Tony Hebert, and me, SGT Mark Leslie, the scout / assistant RTO. The detachment's medic, SSG John Kim, also was attached to our team for missions occasionally. Throughout our deployment in the desert, we went through the normal detachment SOP of 24 hour isolation procedures prior to every mission and planned as if it were an actual mission every time. This was to serve us well later on as planning time was reduced and our isolation facility procedures were second nature. While at Al Jubail, our teams were inserted by civilian pickup trucks due to a shortage of aircraft, the situation within the theatre, and the nature of the missions. Once reaching a designated insertion point, we would walk to our surveillance site. This brought up a number of problems: 1. Navigation in the desert is extremely difficult with a 1/50,000 map. A desert 1/50,000 map is a white sheet of paper with grid lines. A map like that is no use to us whatsoever. The initial terrain analysis of our mission area of operations was flawed due to an uneducated and inexperienced understanding of the terrain. Walking to a surveillance site that is a minimum of ten kilometers away, as was our SOP in other terrain, with a rucksack of 100 pounds or more, in sand, and establish the site prior to daylight is an



[REDACTED]

insurmountable task. Not only did we have to walk to the surveillance site, we had to establish it. In the desert that meant dig. Unfortunately, once again, our terrain analysis was our downfall. We did not have the proper equipment to dig a hide site in the type of terrain we were operating in. A terra base and aerial photos would have assisted us in these early days. Our movement formations in the desert were considerably larger, reducing command and control capabilities for the team leader. Our first hide sites were very crude and unlikely to evade enemy detection. They also did not offer much in the way of survivability.

The reconnaissance missions to Al Hufuf airfield and Abquiq were to determine the length, construction, availability, and usability of these areas for unit locations based on their specific needs. Team one, led by SSG Dennis Caylor, performed the Al Hufuf reconnaissance mission. It provided excellent sketches, soil composition samples, and terrain data. The data provided by the debriefing reports assisted the division planners in making the decision to place the 1 / 17 Cavalry Squadron in this area.

In mid-September, the detachment deployed from Camp 2 to Al Hufuf, an abandoned airfield to the south. The detachment was reunited with its parent unit, 1 / 17th Cavalry Squadron. We remained there for the next four months. Missions conducted during the next two and a half months consisted of surveillance and reconnaissance to the northwest. The detachment also supported three Infantry battalion external evaluations and cross trained with the 24th Infantry Division Long range Surveillance detachment. In October, team one was deployed north to Al Mishab to conduct training with the U.S. Marine Corps' 1st Force Reconnaissance Company, 1st Surveillance, Reconnaissance

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and Intelligence Group (1st SRIG). This team was assigned to the Marines for six weeks and assisted in training the Saudi Arabian Marine Corps in weapons and tactics. In November, team one was replaced with team three. This team focused training with the Marines on hide construction training, long range communication training, and desert survival training. While all teams did not get to participate in this training, the teams that participated were extensively debriefed, and their lessons learned were disseminated throughout the detachment.

It was during this time that the unit really began intense training in desert operations. The training while in the rear base camp at Al Hufuf focused on language training; desert survival training; surveillance and reporting training; desert driver training; desert navigation, to include GPS training and celestial navigation; advanced medical and NBC training, tailored to our units' specific needs; and aircraft training with the actual aircraft crews we flew missions with. The unit became serious about survival training. Team five was tasked with ensuring that all team members throughout the detachment had a suitable individual survival kit. Our Commander and our NCOs also began to train all the members of the detachment on how to conduct a correct terrain analysis based on a map reconnaissance of a 1/250,000 JOG map. This was to be the cornerstone of our success in later training and missions. Daily physical training was also a cornerstone of our success. To operate in the desert on an LRS mission, a team must be in peak physical condition. Our unit conducted physical training every day.

In November, the XVIII Corps LRS hosted a meeting of all LRS units in country at the time. This meeting was to disseminate "tricks of the trade" and



lessons learned for operating as LRS in a desert environment. In December, the 1st Infantry Division LRS was arriving in country and sought out our unit to get some information on LRS desert operations. Our LRS unit had been operating in country the longest, and we were quite active at the LRS conference. We had developed a reputation throughout the LRS community as a LRS unit with "desert know how."

In January 1991, the detachment deployed northwest to Rahfa just south of the IRAQI border. The detachment was again separated from our parent unit. As a survivability measure, our detachment commander had us build a firebase reminiscent of a Vietnam era firebase. It was triangular in shape, and every tent, latrine, walkway, generator, and footpath was dug below the berms of the firebase. At each peak of the triangle were machine gun positions, and on the legs of the firebase were individual fighting positions. The corner MG positions were manned continuously. The construction of this firebase was not only a survivability issue but a leadership issue with our commander. He knew that we were not allowed to run missions or conduct any off base training due to the coming ground war, so we were becoming restless and anxious. Therefore he gave us the task of building the camp, which we appropriately and affectionately named FireBase Fuller. The task was meaningful and tactically sound. Pictures of Firebase Fuller are in the appendix.

On February 23, the detachment deployed north to Talil airbase in Iraq. The primary missions of the detachment during the war were long range HF communications, downed pilot pick up, and downed aircraft recovery. At this time the division was not using the detachment. The detachment was supporting the

1/17 Cavalry's combat operations. One mission was the reconnaissance of Talil airbase in Iraq. Our teams conducted an initial battle damage assessment report of Talil airbase. Due to these reports, the air base was deemed unusable by allied forces due to extensive battle damage and unexploded ordinance. Another mission was a downed aircraft recovery mission. A UH-60 aircraft developed engine problems north of Talil airbase and had to execute an emergency landing. A team inserted and secured the aircraft until a new engine could be flown in four days later. Teams also conducted surveillance missions of fighting between pro and anti-Sadam forces in An Nasariya.

After approximately three weeks in Iraq, the detachment redeployed to Saudi Arabia. My team, team five, was deployed to "All American" city as a stay behind team to help redeploy the division to the United States.

Once a team was notified of a mission it immediately went into isolation. Isolation was usually 24 to 48 hours of dedicated planning time for the team to develop the mission plan. The team would receive an operations order and develop how it wanted to accomplish the mission within the commander's intent. At the end of the planning time, the team would present the commander a mission plan in the form of a briefback. The commander would then either approve, disapprove, or recommend changes to the method of operation. Initially, we planned missions just as we would in any other area of the world. We underestimated the value of a terrain analysis in a desert environment for our mission and gained valuable tactical knowledge from these training missions. Once on the ground, we learned that our plans were flawed from the beginning. Both mounted and dismounted navigation was very difficult. The



[REDACTED]

1/50,000 maps were useless. The 1/250,000 maps were needed at a minimum. Satellite photos and a terra base from the G2 were a must if we were to be successful. The type and composition of the ground became very important to us as it determined our carrying load. In isolation, we would study these assets and base the type of hide site we were going to construct on them. Insertion points were determined by studying the distance of a team's movement with a maximum load in the desert at night. This distance was considerably less than back in the states. Communication was our life-line and our reason for being out on missions. Without communications back to the rear, we were a wasted asset. The team RTO and communication section planned communication procedures. Resupply was always an issue and discussed extensively. Escape and evasion plans were drawn out and presented for each mission. The team packing list was extensive and was altered per mission according to mission requirements. The team packing list went through several modifications as our confidence and knowledge of operations in a desert environment increased.

Team boxes and their deficiencies quickly became apparent to us. A team box is a footlocker filled with the minimum essential equipment a team will need during isolation to prepare and plan a mission. The team boxes we brought from Fort Bragg were good for Fort Bragg but not suited for a deployment to an area where nothing was available. We were accustomed to an established isolation facility with many of the small necessities readily available. This was not the case in Saudi Arabia. We found ourselves critically short of mission essential planning tools early on. As the supply tail increased in country, our shortages decreased. Team boxes must be self sufficient, and teams should be able to

[REDACTED]

plan on operating on just what is in them. After Desert Shield / Desert Storm, we increased our team boxes to two footlockers per team.

Initially, insertion was by military vehicle or civilian truck. A considerable distance (as our SOP instructed) from the hide / surveillance site. After discovering that this was not a viable technique, we moved to inserting closer to the objective than we normally would according to our SOP based on our terrain analysis. Insertion points were verified each time by global positioning system (GPS), regardless if it was done by helicopter or truck. Civilian truck proved the most covert technique method of insertion, since it did not attract attention from the indigenous populace. Eventually, as the number of aircraft became more available for training, we began inserting by UH-60 blackhawk helicopter. Since we were assigned to the Cavalry, we were assigned a crew that would fly specific teams for insertion and extraction each mission. Eventually, these crews were to share quarters with us to increase our rapport. When inserted, even at night, the helicopter and the desert sand gave off a large signature. This increased our chance of detection and the time the enemy had to react before we even made it to our objective. Therefore we planned that during actual missions, we would insert as close to our objective as the enemy situation allowed. It would be a touch and go insertion, with the team exiting the helicopter rapidly in ten seconds or less and the helicopter departing within five seconds of our insertion. Based upon the enemy composition and disposition the helicopter would do false insertions prior to and after our insertion to mask our insertion sites, based upon the enemy disposition and composition. We would then move to and establish our hide sites.



Extraction was usually conducted by a UH-60 blackhawk aircraft, military vehicle, or civilian vehicle. There was always a primary extraction and alternate means of extraction. The teams knew what vehicle was extracting them prior to inserting. This was critical to avoid exposing themselves and a possible compromise of the mission due to this exposure to the wrong element. On the extraction vehicle, whatever it was, there was always an LRS officer or senior NCO equipped with the team's frequencies and a communication link to the team and back to the rear. This L & O was also fully armed and equipped with mission equipment in the event he was engaged by the enemy and had to execute and escape an evasion plan of his own. Extractions were normally conducted during hours of limited visibility. There were some problems concerning communications limitations during extraction. That is discussed in the communications section.

During our training at Al Hufuf, our teams trained with the actual aircraft crews that would be inserting us on missions. We trained in downed pilot procedures, insertion and extraction procedures, and hot LZ extraction procedures. This training was crucial, as it gave both the air crews and the teams the opportunity to work out SOPs and discover what worked in the desert and what did not. It also helped build cohesion and rapport between the teams and aircraft crews. A very important, often neglected, factor is the relationship between LRS teams and the aircraft crews. The teams relied on the aircraft crews for insertion and extraction, and the aircraft crews relied on the LRS teams for downed aircraft recovery.

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Our traditional hide sites depended on concealment offered by vegetation. In the deserts of Saudi Arabia and Iraq there was very little concealment or so we thought. While at Al Hufuf, we conducted a number of training missions. For each mission, a hide site was required due to the limited cover and concealment in the area of operations. Initially, we were attempting to dig our hide sites with our e-tools and sand bags. This was not a very efficient method. What we learned through a number of missions was that, based on our terrain analysis, we may or may not be able to dig. In those areas where we determined we would be able to dig, we changed our traditional separate hide and surveillance sites. In the desert, there was no need to separate the two positions. Also, the construction of the hide sites were different. We would dig two or three separate vase-shaped holes ( depending on the size of the team) large enough to accommodate two personnel and their equipment, and connect them with holes in between for visual and verbal communication. Each hole would have a ramp constructed for observation in the desired direction, providing 360 degree observation and security. We placed our spotter scope in a position that was oriented along our target.

A unique feature to the desert hide sites was that we had to place the dirt from the digging on a poncho or tarp, drag it to a wadi or depression, and then distribute it out thinly away from our hide site. If not, the different colors of soil due to temperature, would make the hide site visible for quite a distance, even though it was a sub-surface hide. We covered the entrance and exit holes of the hides were covered with camouflage nets or burlap that matched the existing terrain. All hide sites were constructed at night and had to be completed prior to daylight to avoid detection. During the day, it was forbidden to leave the hide



[REDACTED]

sites. At night, individuals could leave the hides for a few minutes at a time to relieve themselves and stretch but constantly had to take care to cover footprints and soil dispersion. D handle shovels sent from relatives in the states or purchased locally would be cut down to about a foot to two feet in length and then fitted with butterfly nuts for easy assembly. They could then fit in our alicé packs and significantly reduced the digging time and energy spent on these hide sites.

In some areas of the deserts of Saudi Arabia and Iraq, it was unfeasible to dig subsurface hides due to the rocky soil conditions determined by a terrain analysis of the area of operations. In these areas, we would use locally purchased PVC piping and camouflage nets or burlap. The camouflage nets or burlap would be dragged behind a vehicle to get it to match the terrain. Once at our mission site, the PVC pipe would be erected and tied in with the existing terrain as much as possible, then the burlap or camouflage netting stretched across and tied to it. This would provide a suitable concealed position but very little cover. Usually a minimum of two of these had to be constructed to hide a five to six man team.

Communication to the forward operating base (FOB) or division operating base (DOB) is critical for a LRS team to accomplish its mission for the task force commander it was supporting. Without communication, an LRS team is a wasted asset. In Desert Shield / Desert Storm, our long range HF communication capabilities were tested extensively. We tested and tried many different field expedient and issue antennas. The most successful of these was the I ring antenna. This antenna could be buried up to a foot in the desert soil and still reach its receiving station. This was a major advantage to us during the daytime

[REDACTED]

when we were restricted to our hide sites. The antenna would be buried and camouflaged when construction of the hide was complete and connected to the radio inside the hide site. This assisted us in passive defense and avoiding detection. The desert was very conducive to HF communication. We easily made communication from over 200 kilometers away, and no team ever lost contact with the rear for over six hours. The PRC 77 radio's range was a weakness in our communication capabilities during extraction. During daylight hours, we could see the aircraft long before we could make communication. Usually at night, with night observation devices, we could make visual identification could be made before a long range FM communications link up was possible. This was an issue mainly due to possible classification of LRS teams as enemy personnel because of their location. This lack of long range FM communication rendered vectoring in of the aircraft or long range identification impossible by FM communications nearly impossible. We also used the PRC 90 survival radio. The range of this radio using voice communication was negligible, but the emergency beacon made it worth its weight. It was also used as a back-up internal communication device within the team in the event of a break in contact.

Escape and evasion training was one of our most trained skills while in Desert Shield / Desert Storm. The commander placed a lot of emphasis on this training to enhance our chances of survivability in the event that we were compromised by the enemy or extraction was unavailable due to operational tempo or the battlefield situation. For each mission, we planned an escape and evasion corridor with a series of DARs, pick up zones, predesignated frequencies, signals, and emergency plans along its route. Each individual team



[REDACTED]

member memorized these items, and the packet itself would be passed on to the commander. In the event the escape and evasion plan was executed, the aircraft crews, along with an LRS liaison, would fly this designated corridor looking for the LRS teams. Each team member knew the corridor so that, in the event he became separated from the team, he could follow the escape and evasion plan. Each team had different techniques on dispersion prior to Desert Shield / Desert Storm. Some would stay together to avoid becoming separated, and some would break up into two three-man team, some in three two-man teams. In the desert, we all used the technique of staying together due to the lack of cover and concealment, our relative lack of firepower, our small size, and the enemy situation.

Training escape and evasion missions were conducted in excess of 30 kilometers. All movement was at night to avoid the heat, local populace, and the enemy. Occasionally, a team would be inserted along our corridor to emplace caches of water and batteries. Sometimes these teams were "chase teams" sent out to attempt to track us and determine if we were conducting proper counter tracking techniques and using the factors of METT-T during our evasion planning.

Survival training within the teams was extensive, conducted by SERE school-trained personnel within the unit. Individual survival kits tailored specifically to our mission and environment were developed and carried by each team member.

Resupply was critical in our early months in the desert. Our SOP was to deploy on a mission for three to five days. Teams initially could only stay on a

[REDACTED]

mission for a maximum of three days. Missions longer in length seriously detracted from that team's effectiveness. Once teams were extracted, it would take a minimum of three days to recover fully. Initially, for a three day mission, individual team members would need between five to six gallons of water a day in a static position. This amount would double if any movement were involved. This would change as teams became acclimated and the weather became seasonally cooler.

Water resupply by aircraft or vehicle was not an option in our training except as an emergency. None of the teams used this option. This was due to our unique situation in being so far out ahead of friendly forces. An aircraft or vehicle dropping out water resupply, even at night, would compromise our position, the mission, and our lives. To combat the problem of water resupply, teams would initially carry in a five gallon water jug along with six to eight quarts of water per man and a five quart water blivet. This technique proved to be ineffective due to the weight the water added to our already 100 plus pound alicie packs. We eventually cached a five gallon water jug at our insertion point as an emergency water resupply method if needed -- it usually was. Then, as we became acclimated and our insertion techniques changed, our water consumption and needs decreased. Teams eventually became acclimated enough to conduct missions with six to eight quarts of water per man for the entire three to five day period. Water was for consumption only. Personal hygiene and shaving with water on missions was a waste of a valuable essential asset and not tolerated.

Formal debriefing by the company commander of a team immediately upon its extraction is an integral part of LRS operations. In the desert it was not only



important to disseminate the PIR but also to record details of the terrain, local populace, soil composition, weather conditions, and unique and significant characteristics of the area. This information was recorded and disseminated throughout the division operational units so that others could benefit from our operations. These debriefings also provided teams with a valuable source of information that they could access when notified of a mission and placed into isolation if they were inserting and operating in an area previously occupied by another team. Cross talk among team members concerning an area of operations was always a large part of the informal debrief that occurred between teams.

The equipment carried by the teams according to SOP is listed in the appendix. Several modifications were made to this packing list during Desert Shield / Desert Storm to reduce weight and tailor our load to the environment. The minimum team equipment listed in the appendix packing list was carried - often more to ensure mission equipment accomplishment. The rain parka, BDU trousers, towel, and shoe shine kit were eliminated while extra water was added. The personal hygiene kit was severely tailored also. Survival and signaling items were increased due to the terrain. Battery life was not significantly less in the desert environment but was less than in the states. Therefore, extra batteries were always carried. Cut down D handle shovels, PVC piping, and burlap were also specialty items carried METT-T dependent.

Concealment in the desert for an LRS team is paramount. With the exception of our uniforms, our equipment at the time was all green and black. We made considerable modifications to our individual uniforms and equipment . The

[REDACTED]

desert camouflage uniforms of that time had a back sweat plate, reinforced knee pads, and elbow pads. We found these to be useless and hot, so we removed them. We used the extra desert camouflage material to sew over our LCEs , our weapon hand guards, buttstocks, and handgrips. Our alics packs were covered with burlap until we received desert camouflage rucksack covers. This not only aided us in concealment, but also reduced the temperature of the metal and plastic items and protected them from the elements.

Each team used night vision devices. We used the PVS 4, 5, and 7. The PVS 7s were a far superior night vision device compared to the PVS 4 for movement and scanning. The PVS 4 was an excellent device for static surveillance when mounted to a tripod, or a weapon on a bipod. It was a stable platform, had a range indicator, and had no light signature from the eyepiece like the PVS 5 or 7 do.


Teams also used the global positioning system. It confirmed our location from our own map and compass calculations. Although its use in the desert was very important due to the lack of distinguishable terrain features, the low reliability of satellites and low battery life made it undesirable to use as the primary navigation tool.

Although the number of actual wartime missions executed was minimal during the ground war, the long range surveillance detachment of the 82nd Airborne Division performed extremely well in the Persian Gulf War. More importantly, the lessons learned through our training proved extremely valuable. We learned that not only were LRS missions a realistic possibility in a desert



[REDACTED]

environment, but, if trained properly and extensively, they could be accomplished extremely well. In the year following Desert Storm, many of these lessons learned were passed on in the annual LRS conference at Fort Benning, Georgia. In June of 1991, many members of the 82nd LRS detachment, including me and the company commander, were hand selected to form the XVIII Airborne Corp's new long range surveillance company. The commander, executive officer, and team leaders of this detachment were extremely dedicated to training their teams, mission accomplishment, and soldier survival. The teams became "masters of the desert" in a few months due to an intense training cycle set up by the company commander. Without this emphasis on training, we may not have been as successful as we were.

  
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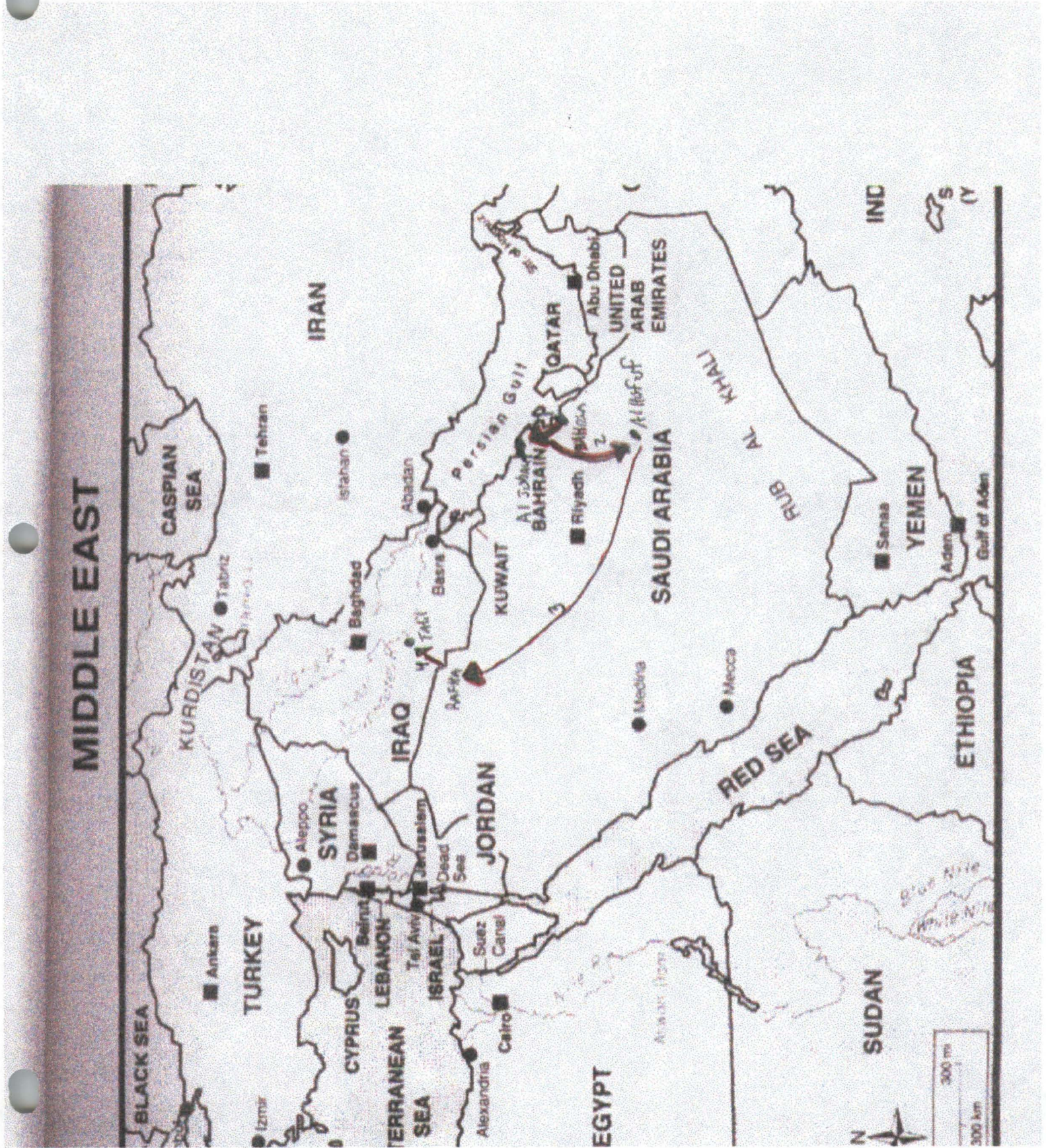
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**Interviews:**

- Major Patrick E. Fuller, USA (R), Commander, E Troop, 1/17 Cavalry, Long Range Surveillance Troop (LRST), 82nd Airborne Division, Persian Gulf War
- 1SG Scott Carter, LRS Team Leader, E Troop, 1/17 Cavalry, Long Range Surveillance Troop (LRST), 82nd Airborne Division, Persian Gulf War
- SFC Dennis Caylor, LRS Team Leader, E Troop, 1/17 Cavalry, Long Range Surveillance Troop (LRST), 82nd Airborne Division, Persian Gulf War

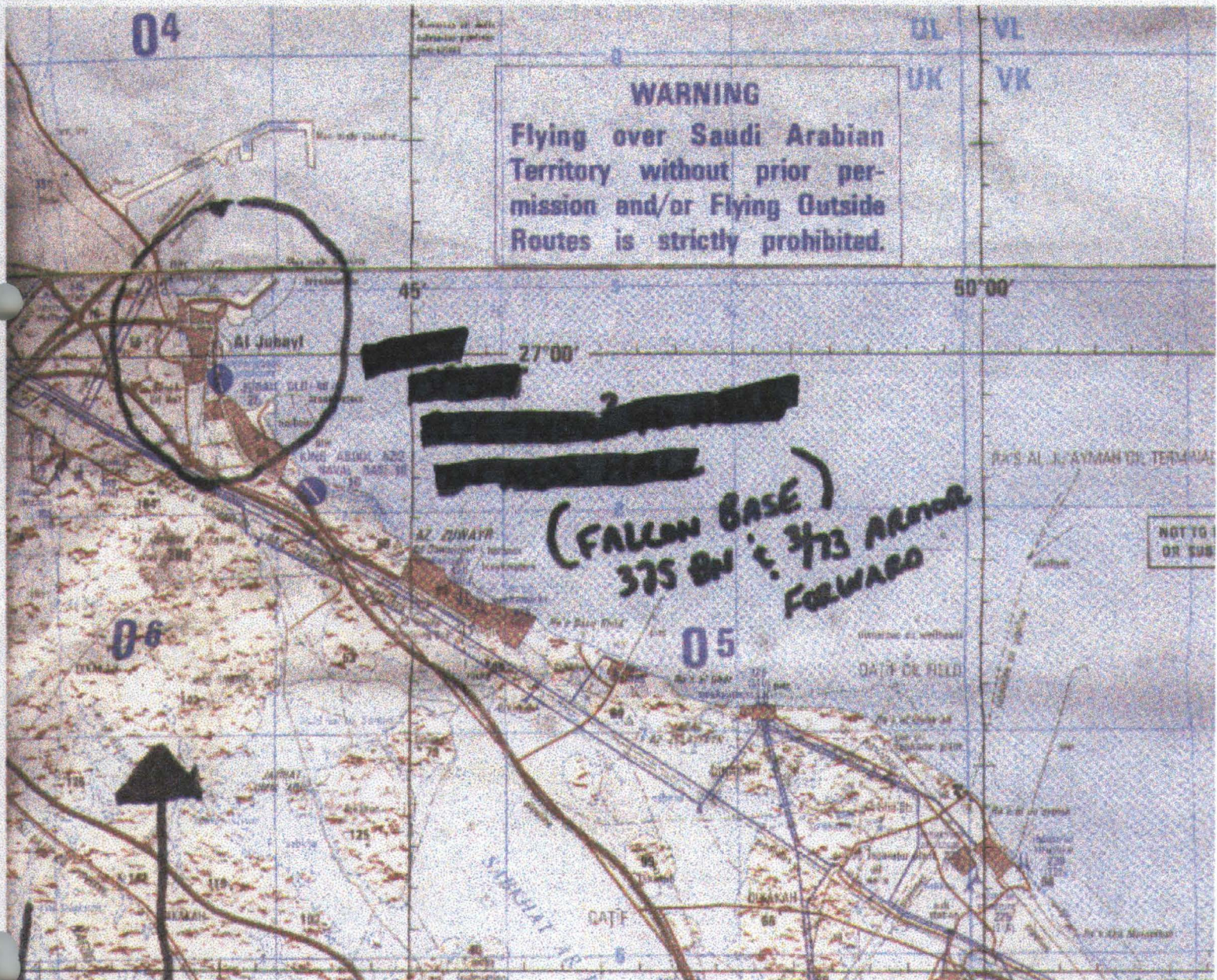


UNIT MOVEMENT THROUGHOUT DESERT SHIELD / DESERT STORM





Al Jubail / Falcon base





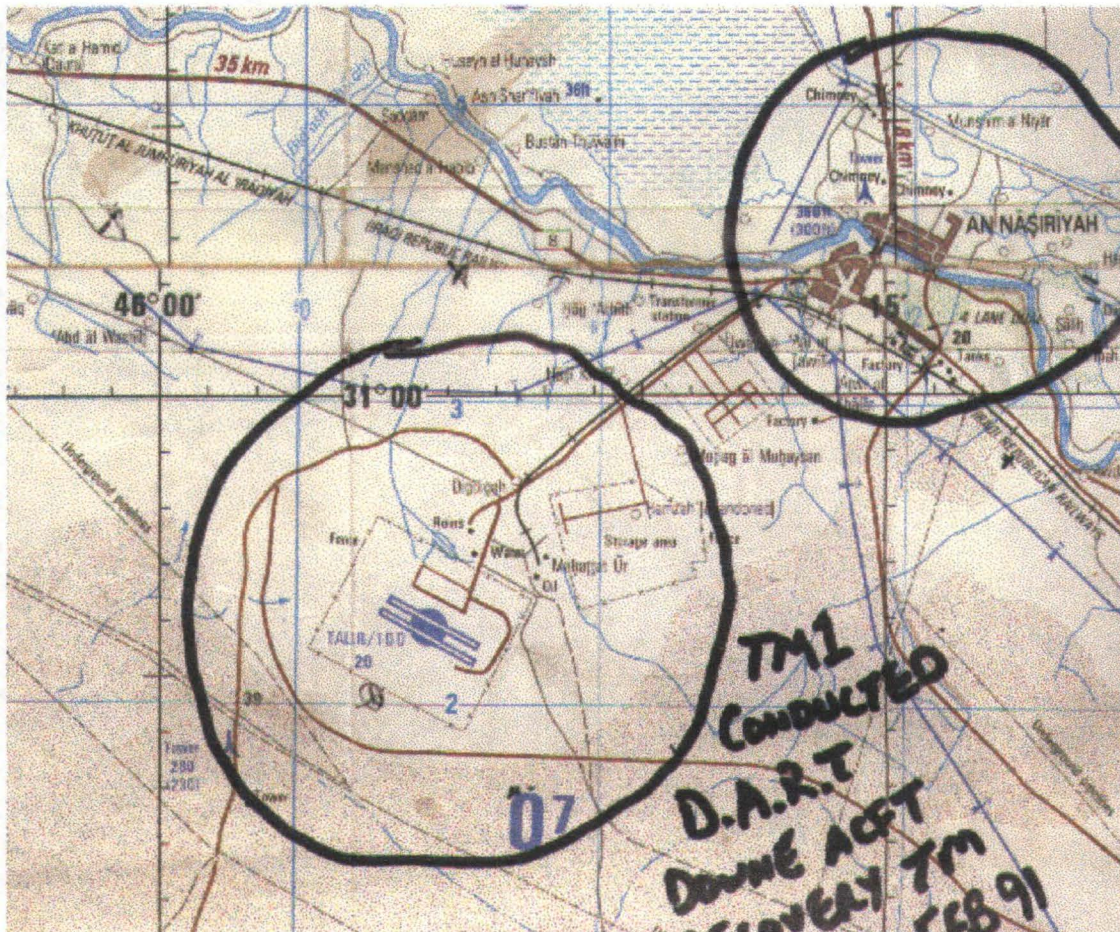


THE UNIT BECAME PROFICIENT AT LRS OPS HERE





UNIT MISSIONS IN IRAQ FOCUSED IN THESE AREAS





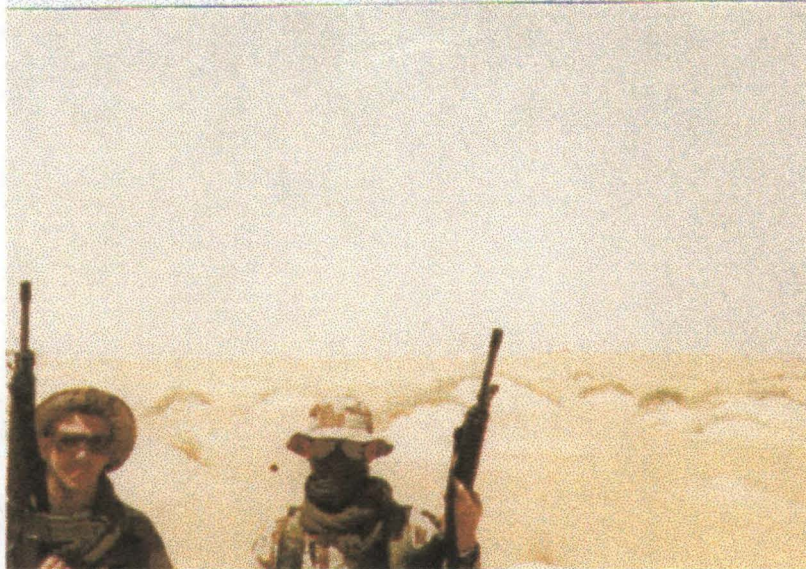
AL HUFUF







BREAK FROM THEHIDE SITE AND SGT JOHN KANE AND SGT MARK LESLIE ON







FIREBASE FULLER NEAR IRAQI BORDER







THE UH-60 WAS OUR PRIMARY METHOD OF INSERTION AND EXTRACTION







APPENDIX A - UNIT SOP EXTRACTS

- EQUIPMENT
- WHEELED VEHICLE INSERTIONS / EXFILTRATION
- HELICOPTER INFILTRATION / EXFILTRATION



B) Individual LRS Member Packing List

1) A Specific packing list should be determined by METT-T-T. However, you must plan for a mission of at least 3 days (72 hrs) in duration.

2) Mission essential equipment for one LRS team consists of:

1 each	PRC 104	Carried by RTO
1 each	PRC 77	Carried by Team Leader
2 each	PRC 90	(1 ea TM Ldr Butt Pack 1 ea ATL Butt Pack Water Proofed)
1 each	DMDG	With Extra Cable and Battery
2 each	PRC 126	
3 each	PVS 7	
1 each	KY57	
2 each	Binoculars	
1 each	I-ring Antenna	
1 each	GRA-50	
1 each	M-3 Medical Bag	

Meals for 3 days (at least 2 meals per day)

1 each *Spidee Sack* 1 each *Prs 4*

\*NOTE: Each piece of equipment will have 3 days supply of extra batteries. *ATL*

3) Survival equipment required to be carried on each man or his LCE. (Not in rucksack)

1 each	Orange Survival Scarf
1 each	Signal Mirror
1 each	Pengun and Flares
1 each	Strobe Light w/Directional and IR Cover
1 each	Fishing Kit
1 each	Small Knife (Swiss Army type preferred)
20 ft	550 Cord
1 each	Survival (space) Blanket
1 each	Bottle Bouillon cubes
1 each	Matches (Waterproofed)

4) LCE will Consist of:

1 each	Suspenders
4 each	Ammo Pouches
2 each	First Aid Pouch (1 w/compass and 1 w/first aid packet)
2 each	Canteen 1 Quart
2 each	Canteen Cover
1 each	Canteen Cup
1 each	Pistol Belt
1 each	Butt Pack
1 each	Bayonet
6 each	Magazines (Minimum)



5) Tips For LCE:

- a) Carry 550 cord in the bottom of your canteen cover it won't get in the way and you have it with you.
- b) Carry signal mirror between first aid packets to protect it.
- c) Tape all metal clips with non-reflective tape.
- d) Tie all items down to LCE.
- e) Supply one bottle of water purification tabs per canteen.
- f) Magazines will be carried upside down with ammunition facing out away from you.

6) Rucksack:

a) Mandatory items that will be packed in or attached to the rucksack include:

1 each	Canteen 2 QT w/cover
1 each	Water Proof Bag
1 each	Poncho
1 each	Poncho liner
4 pair	Socks
1 each	Towel
1 each	Rain Parka
1 each	Individual Camou Net
1 each	Undershirt
1 each	Weapon Cleaning Kit
1 each	BDU Bottom
1 each	Personal Hygiene Kit-which includes: Toothbrush, toothpaste, wash cloth, foot powder, razor and soap.

b) Team Equipment To Include:

1 per buddy team	E Tool
1 each	Sewing Kit

c) Other Team Equipment taken in Rucksack will be determined by METT-T.

7) Items to be packed In A-Bag:

a.			
1 each	Sleeping Bag	2 each	BDU Top
4 pair	Socks	1 each	BDU Bottom
1 each	Towel	2 each	Undershirt
1 pair	Boots	1 each	Airmattress/ sleep pad
1 each	Beret		
1 each	Shaving Kit	2 each	Undershorts (optional)
	To Include:		
	Soap, shampoo, deodorant, Shave cream, razors, washcloths		



[REDACTED]

CLASS V BASIC LOAD CARRIED BY A 6 MAN LRS TEAM

POSITION	WEAPONS	TYPE	TOTAL RDS
Team Leader	M16A2	5.56 Ball	300 rds
		5.56 TR	60
		M67 Frag	2
		AN/M8 HC Smoke	1
		AN/M18 Smoke	2
		Red Star Cluster	1
		Green Star Cluster	1
		MK3A2 HG Off	1
		5.56 Ball	300
		5.56 TR	30
ATL	M16A2	M67 Frag	3
		AN/M8 HC Smoke	1
		AN/M18 Smoke	2
		Red Star Cluster	1
		Green Star Cluster	1
		M18A1 Claymore	1
		MK3A2 HG Off	1
		5.56 Ball	300
		5.56 TR	30
		M67 Frag	3
Sr Scout	M16A2	AN/M8 HC Smoke	1
		AN/M18 Smoke	2
		AN/M14 TH3	1
		M183A2 HG Off	1
		5.56 Ball	300
		5.56 TR	30
		M67 Frag	3
		AN/M8 HC Smoke	1
		AN/M18 Smoke	2
		AN/M14 TH3	1
Scout/Observer x 2	M16A2	M183A2 HG Off	1
		5.56 Ball	300
		5.56 TR	30
		M67 Frag	3
		AN/M8 HC Smoke	1
		AN/M18 Smoke	2
		AN/M14 TH 3 Inc	1
		M34 WP	1
		M18A1 Claymore	1
		MK3A2 HG Off	1
RTD	M16A2	5.56 Ball	300
		5.56 TR	30
		M67 Frag	2
		AN/M14 Inc	2
		AN/M8 HC Smoke	1
		M34 WP	2
		White Star Cluster	2
		White Parachute Flare	2



[REDACTED]

(4) Strobe lights: Strobe lights and other "pulse" type devices are the least desirable signalling devices. Even when used in conjunction with an IR filter or a directional cone a strobe light's signal cannot be varied and morse code cannot be used. A strobe with an IR filter could, however, serve as a good danger signal.

D) Wheeled Vehicle Infiltration/Exfiltration Procedures:

1. Coordination: The ATL will make necessary coordinations with the motor pool. For the type, number and any other special equipment used for the vehicle insertion and/or extraction. He will also coordinate with the unit operations NCO and designate an experienced driver. The driver must then go to the motor pool and turn in a request for dispatch for the vehicle. He will then conduct a thorough PMCS and correct any deficiencies. He will keep in contact with the ATL of his progress. The driver will attend the briefback and be fully familiar with the teams infiltration plan.
2. Planning:
  - a. Routes: The ATL will map out primary and alternate routes. He will identify any possible danger areas and establishes check points along both routes. The ATL will make sure that everyone fully understands the check points as they will be passed back by the team leader. A point of no return will also be selected along the route. After passing the point of no return, it is assumed that the team could continue the mission on foot if the vehicle breaks down or is disabled.
  - b. Load Plan: When loading all team members will maintain positive controls over individual equipment. Once on the vehicle alicie packs will be stored under the seats. (Figure A)
  - c. Unloading: When unloading the vehicle the senior scout will be the first man off followed by the TL, RTO, the two scouts and finally the ATL. If possible the truck will not come to a complete stop. Team members will immediately move off the road and into the wood line. They will assemble and move out of the immediate vicinity of the drop point. Once the team is a safe distance away they will conduct a 5 minute listening/security halt.

[REDACTED]

d. Actions on Enemy Contact: (Figure B and C)  
If enemy contact occurs the driver will continue to drive through the ambush and team members will deliver supporting fire. In the event that the vehicle has been disabled the driver will steer off the road and the ATL will exit first and lay down suppressive fire. The rest of the team will follow him out and take up firing positions. The team will then either take evasive measures or assault through the ambush. A rally point giving a direction and distance should be designated by the team leader if evasive measures are taken. Following a reconsolidation the base station will be contacted as soon as possible and a status report forwarded.

e. Exfiltration: The ATL is responsible in isolation to plan in detail an exfiltration of the team by truck to include routes. The same planning factors will apply for exfiltration as for infil.

1) Procedures: As the vehicle reaches the vicinity of the pick up point it will stop at its last designated check point. A time and map check will be performed and the vehicle commander will confirm his location. This check point should be selected approximately 3 km away from the pick up. At the last check point the vehicle commander will attempt to establish FM communications with the element being picked up. (Code words will be established in isolation prior to deployment.) Once communications are established the vehicle will move slowly towards the pick up point displaying its recognition signal. At the pick up point the team will reply with their recognition signal and a link up will take place. The team will then quickly load the vehicle. The ATL will account for personnel and the vehicle will depart the area along its preplanned route. In summing up the areas that must be planned for while conducting vehicle exfiltrations include:

- primary and alternate routes
- primary and alternate pick up points
- day and night signalling methods
- code words
- enemy and friendly activity in the area
- points of no return



2) Signals:

a) Day: Vehicle displays horizontal VS-17 panel orange side out on the front bumper. The element to be picked up displays vertical VS-17 panel red side facing the direction of the vehicle.

b) Night: The vehicle flashes red flashlight 3 times the element to be picked up replies with 2 flashes of a red filter lens flashlight.

\*NOTE: When approaching the vehicle the TL will challenge the driver or his assistant with the challenge word. They will immediately acknowledge challenge and reply with the password. The rest of the team will remain hidden and will not load the vehicle until this is accomplished.

[REDACTED]

After one hour, the team will continue the mission. The rally point will be at least one kilometer from the DZ/LZ, BLS or detrucking point. Prior to leaving a DZ the team will sterilize it. All parachutes, ropes, etc. will be cached.

3. Assembly Aids: If possible, each team member should be equipped with night vision devices and infrared signaling devices. The preferred signaling device is a infrared strobe turned on every two minutes for ten seconds. Remember to offset from the signaling device using an overwatch position. If night vision devices are unavailable use a chemlite attached to a stationary object and overwatch the light.

4. Enemy contact: Refer to Chapter VI movement and break contact procedures.

A) Helicopter Infiltration/Exfiltration:

General: Upon receiving it's mission the troop will notify the Squadron S-3, who in turn will notify the Assault Helicopter Platoon. (AHP) Blackhawk Crew(s) will be identified and crew rest planned to support the mission. The pilot of each aircraft must make an Air-Mission Briefing (AMB) prior to crew rest. It is critical that pilots flying the mission attend the Air Mission Briefing (AMB).

1. Coordination Checklist for an AMB:

- a. Time Aircraft available
- b. Team pick up area (i.e. yellow ramp) (alternate)
- c. Flight route to insertion site:
  - 1) Check points (include point of no return)
  - 2) Approximate flight time
  - 3) Prelanding warning
  - 4) 6-digit grid given to Team Leader at landing
- d. Aircraft Formations: (If applicable)
  - 1) At pick up site
  - 2) Enroute
  - 3) At landing site
- e. Landing Location:
  - 1) 6-digit grid
  - 2) Terrain Feature (References)
  - 3) Alternate Landing Zones



f. Extraction:

- 1) 6-digit Grid (Terrain Feature)
- 2) Alternate Pick up Zones
- 3) Signals & Call Signs (Long/short range)
- 4) Time of Extraction
- 5) Check points and Route of Return

\*NOTE: Insure maximum use of aerial photos and maps to confirm all routes and disseminate information on enemy disposition and weapons with the aircrew.

2. Insertion: The Surveillance Team will be picked up at yellow ramp or hot spots at Pope Airforce Base. The pick up point must be coordinated for during AMB. In-Flight the Team Leader must keep communications with the pilot's to double check Flight Route Check Points. Head sets should be requested, NOD's should be utilized during limited visibility. Once check points are passed they should be disseminated to all team members. The team leader should stay orientated In-Flight and follow the check points on the map. False insertions will be initiated only if enemy concentrations are heavy.

3. Extraction: Teams will be given a Date Time Group for extraction. An extraction may be changed for the following reasons:

- a. Mission Compromise
- b. Both primary and alternate DZ's hot
- c. Commanders Recall
- d. Aircraft break down prior to the point of no return.
- e. Weather conditions

The team once arriving at the extraction site will survey the PZ for several hours if possible. Approximately 15 minutes prior to PZ time, the team will attempt to communicate with the aircraft. Once communications are established a Short Range Signal will go out when the Aircraft is sighted. Aircraft will identify the Teams Short Range Signal and identify themselves to the team by either flashing landing lights or the IR Search Light.

If communications are not established the team will place out a Short Range Signal upon visually identifying the aircraft. Once the signal is recognized the aircraft will reply with the same day/night flashing lights. Once the aircraft lands the team will immediately load the aircraft and secure seat belts.

The Team Leader will ensure all members are on board, he will also inform the pilots of known enemy positions in the area.

4. Signaling Methods:

- a. Long Range: Communications established by FM radio in the red.
- b. Short Range: Visual signals day
  - 1) Airforce Survival Panel or VS-17 Panel held overhead in direction of aircraft.
  - 2) Survival Mirror
  - 3) An X trenched into the ground 10 meters by 10 meters. The X on the ground will be deep enough to break the outline of topsoil or vegetation only. The X should be place in the center of the LZ.
- c. Short Range Ground Signals (Night)
  - 1) A Chemlite attached to a 14" piece of type III nylon cord, will be twirled overhead. Any color chemlite can be utilized except blue. If an IR chemlite is utilized it must be coordinated for during AMB.
  - 2) IR-Strobe (Must be coordinated for during AMB)
  - 3) Red Lens flashlight pointed and flashed in the direction of the aircraft.

5. Short Range Signals Air to Ground:

Day: Three flashes of the aircraft landing lights.

Night: Three flashes of the aircraft IR searchlight

\*NOTE: Visual Ground Signals will be continuously displayed until they are identified by the aircrew and a response is given.

Landing Zones for insertion should be large enough to facilitate easy identification at night. It also should allow the aircraft an Air Corridor in and out.

Pick up Zones can be much smaller than landing zones but must provide good approach and departure space for the type aircraft being used.

B) Helicopter Rappel Insertions:

General: Inserting a LRS Team at times may require the use of rappelling techniques. Because of terrain and or vegetation, an Airborne or Airmobile insertion may be too risky. A helicopter rappel affords a surveillance team the flexibility to insert wherever it wishes and doesn't require a pinpoint location. It's main disadvantage is that without extensive training and practice it can expose team members and the aircraft for a considerable length of time.