

# Artillery Raids in Southwestern Kuwait

by Lieutenant Colonel James L. Sachtleben, USMC

The artillery raid has been an insignificant “footnote” during my two tours as a student at the Field Artillery School, Fort Sill, Oklahoma, and 10 years in Fleet Marine Force (FMF) artillery organizations. It receives little mention in print or professional discussions among artillerymen. In fact, the only mention of it I’ve been able to find in our doctrinal publications is in *TC 6-50 Field Artillery Cannon Battery*, and that deals strictly with the air assault raid. As a battery commander, I don’t recall ever training for the raid mission, and as the commander of 5th Battalion, 11th Marines, I never thought it significant enough to warrant dedicated training time—that is, until we deployed to Southwest Asia (SWA).

This article describes how the artillery raid was transformed from an insignificant footnote to a significant combat multiplier in Operations Desert Shield and Storm.

During early January 1991, the commanding general of I Marine Expeditionary Force (I MEF) decided that ground forces would be involved in pre-G-Day operations to deceive and disrupt Iraqi forces operating in the defensive belts along the southwestern Saudi-Kuwaiti border. As the 1st Marine Division analyzed its portion of this mission, the artillery raid seemed tailor-made for the situation. It allowed for surprise, maximum destruction of enemy equipment and a certain

psychological impact on the Iraqi troops. If conducted from Saudi Arabia, we could accomplish all this without the political ramifications of having ground forces conduct cross-border operations before G-Day.

## Forces

As the 1st Division Commander discussed the mission with the commanding officer of the 11th Marines (the division’s artillery regiment), it became ap-

parent that the logical unit for the raid mission was the 5th Battalion, 11th Marines (5/11), the division’s general support (GS) battalion.

This was true for two reasons. First, as the GS battalion, 5/11 had more positioning flexibility than the direct support (DS) battalions that had to remain in a position to provide fires for their supported maneuver task forces. Secondly, 5/11 had an M109 battery. At this point, because we still respected the Iraqi counterfire capability, it seemed wise to employ the



M109 battery because of its overhead protection, on-board ammunition storage and rapid displacement capability.

The battalion had completed the transition from self propelled (SP) to towed in June 1990. However, the conversion of the battalion's associated prepositioned equipment aboard the maritime prepositioning ships (MPS) squadrons wasn't complete. Therefore, 5/11 had two batteries of M198s (155-mm, towed howitzers) one battery of M109A3s (155-mm, SP) and one battery of M110A1s (203-mm) in SWA.

The division commander asked me to analyze the mission in detail and determine what external assets we'd need. Rather than trust a "paper analysis," we ran through some practice missions to determine what our needs would be.

Security for the raid force became the most obvious. Fortunately, Task Force (TF) Shepherd, composed of elements of the 1st and 3d Light Armored Infantry (LAI) Battalions was already screening in our proposed operating area. TF Shepherd provided a company for security and a very close relationship developed. The commanding officer of Company B of TF Shepherd was integrated into the planning effort early-on and provided invaluable assistance both during planning and execution of the raids. This close association was to prove valuable later on as 5/11 supported TF Shepherd during a pre-G-Day Iraqi spoiling attack and, again, during the attack into Kuwait.

We also needed help moving our SP howitzers over the long distances from the battalion's position area to the final raid assembly area. Reliable navigational aids were a must. We'd be operating well outside the position, location and report-

ing system's (PLRS) range, and accurate information was critical.

We asked for an electronic warfare surveillance capability to pick up any enemy radio traffic that might indicate the Iraqis had detected our movement or were about to fire on us. On-call, fixed-wing air support also seemed to be a good idea in case we ran into trouble. The 1st Marine Division G2 offered remotely piloted vehicle (RPV) support to both locate raid targets and to confirm their final positions as late as possible before firing.

It was apparent that these raids would truly be a combined-arms effort. The final task organization for the raid force is depicted in Figure 1.

## Training

After receiving a warning order from the 11th Marines Commander, Sierra Battery began training for the raid mission. Because we had yet to receive a specific target for the first raid, the battery only had my commander's intent: be prepared to move under an LAI screen during hours of darkness to a point within one or two kilometers of the Kuwaiti border, fire approximately 15 rounds per howitzer at a high-value target and withdraw when rounds are complete. Some restrictions applied: no lights would be used—no vehicle blackout lights, flashlights or collimator lights; VHF radio silence was imposed; no advance party would be used; no soft-skinned vehicles would go forward of the final assembly area; and speed was essential.

Battery S honed skills to perfection, and soon it was occupying in complete darkness in less than half the Marine Corps combat readiness evaluation (MCCRE) time standard for daylight oc-

cupation. In addition, the battery employed several innovative techniques.

## Positioning

Because we wanted no soft-skinned vehicles, we looked for a substitute for the high-mobility multipurpose wheeled vehicle (HMMWV)-mounted position and azimuth determining system (PADS). We chose the hand-held Rockwell global positioning system (GPS), an expensive but totally reliable system. We drew it and an operator from 1st Division's communications company. Normally used to survey PLRS master stations, it provided 10-meter accuracy and tracked up to 16 navigational satellites. It never failed to provide positioning data.

A reliable navigational aid was critical in helping the raid force move into position in the darkness. Just imagine the challenge of navigating across as much as 25 miles of trackless desert on a moonless night with your ultimate destination within one or two kilometers of enemy territory. The reliability of the Rockwell GPS was worth the price. We could have used cheaper, more readily available GPS models, but they occasionally suffered outages due to bad satellite "health" or signals interference. We simply couldn't take the chance.

## Directional Control

With its 10-meter accuracy, the Rockwell GPS was good enough for establishing battery location but not good enough for establishing an accurate known direction for laying the battery. So the battery trained for two methods of lay. The first option, if stars were visible, was celestial. If there were no visible stars, the battery laid magnetically.

Celestial skills were honed to perfection. A computer program was used to determine azimuths to easily identifiable stars. In a few days, the battery was establishing directional control in less than one minute, and accuracy, when compared to PADS, checked within one mil. The battery used the magnetic method of lay as a backup to celestial when stars were obscured by clouds or oil smoke. We established a declination station using PADS at the final assembly area to ensure that aiming circles were as accurate as possible.

Because speed was essential, howitzers were positioned in very close proximity to each other, expediting the laying

### Raid Force

- Two Batteries 5/11\*
- Company B, TF Shepherd (LAI)
- Detachment, 3d Assault Amphibian Battalion
- Detachment, Motor Transport Battalion, 1st FSSG (HETs)
- Detachment, Communications Company, 1st Marine Division (GPS and SATCOM)
- Detachment, 1st Radio Battalion, 1st Surveillance, Reconnaissance and Intelligence Group (Mobile Electronic Warfare Surveillance)

### Supporting Forces

- On-Call Fixed Wing Air Support (Close Air and Electronic Warfare Support)
- On-Call MEDEVAC Helicopters

\*Assignments rotated between the four firing batteries of the battalion.

Figure 1: Raid Force Task Organization of 5/11.

process. This also simplified control and provided a good, tight position, making it easier for the LAI company to provide security.

## Security

Company B of TF Shepherd provided a screen from the final assembly area to the firing point and cover while the battery was in position. The night vision and superb weapons capabilities of the light armored vehicle (LAV) were invaluable. They spotted enemy movement and provided covering fires as the battery withdrew after its first raid. Additional security was provided by the .50 caliber and MK19 machineguns mounted on the M109s.

Providing another layer of security and adding to the combined-arms nature of the raids was fixed-wing aviation from the 3d Marine Aircraft Wing. Under control of Company B's forward air controller (FAC), EA-6B Prowlers jammed Iraqi ground surveillance radars as soon as the raid force entered a radar capabilities fan and continued jamming until the raid was completed. F/A-18, AV-8B and A-6E strike aircraft were on call to provide support if the raid force ran into trouble and to attack certain targets in coordination with the artillery when it was appropriate. The F/A-18s were exceptionally valuable in a later raid as we refined concepts and devised more innovative methods.

## Meteorological Support

We needed accurate meteorological data if our fires were to be effective. It would have been very simple to "fly a Met" balloon in the position area near Al Qaraah before the raid force departed, but the accuracy would have been poor for two reasons. Some of the raids were conducted as far as 70 kilometers from Al Qaraah, and the raid force often departed as early as eight hours before the scheduled firing times. The separation in both time and distance would have rendered the Met useless.

The solution was for the raid force to take the meteorological data system (MDS) as far as the final assembly area, usually 10 to 15 kilometers from the planned firing point. In the assembly area, MDS set up and ran a Met, and delivered the data to the battery fire direction centers (FDCs) before they departed for the firing points.

The only problem we encountered

with Met was one instance when the MDS tracking frequency was jammed as a Met balloon was being flown, causing us to lose the top three lines of Met data. We confirmed the jamming was coming from the Iraqis and devised procedures to work through the jamming should it happen again. We weren't jammed again on a raid, but interference with Met frequencies was a common occurrence in several Marine Corps artillery units.

## Communications

The raid force used only limited communications. Checkpoints were reported and emergency messages, such as mission abort codes, were the only traffic passed. Because of the very long distance involved, the raid force commander's only link to higher headquarters was via satellite communications (SATCOM) to the division forward command post (CP), initially some 75 miles away. SATCOM was used to report the occurrence of key events on the execution checklist (see Figure 2) and to confirm target location just before the force departed the final assembly area.

## Command and Control

When we added a second firing battery to the raid force, we also added a command element to control the activities of the two-battery force. The command element had to be very small and light. It consisted of the battalion commander or executive officer as the raid force commander, a driver, the battalion sergeant major (doubling as radio operator and navigator) and the SATCOM radio operator. The command element led the raid force to the final assembly area and reported, as necessary, to the division forward CP via SATCOM.

All raids were well-rehearsed and timelines were established, based on detailed time and distance studies. Radio

transmissions from the command element to the raid force were seldom needed. All required actions were executed on the established timeline, and radios were used only by exception. This detailed planning proved to be the key to success.

## Logistics

The raid force carried only essential items, including only enough artillery ammunition for one mission. Medical evacuation (MEDEVAC) helicopters were on strip alert. Two assault amphibian vehicles (AAVs) were part of the raid force; one carried the FDC, and one was a MEDEVAC vehicle.

To reduce the chance of breakdown, the raid force used heavy equipment transporters (HETs) to move the tracked vehicles from the initial battalion position in the vicinity of Al Qaraah to the final assembly area. The 1st Force Service Support Group (1st FSSG) provided the HETs, and although their operators weren't specifically trained for such a tactical mission, they performed very well.

Special care had to be taken, however, because some of the tractors were commercial vehicles provided by the Saudis. They had no blackout systems, so the raid force had to disconnect electrical wires to prevent the inadvertent illumination of a brake light or the honking of a horn at a time when the enemy could detect it.

On 18 January, 5/11 moved from its position 30 kilometers south of Safaniya, Saudi Arabia, to the vicinity of Al Qaraah (see Figure 3). Al Qaraah was to later become quite a busy place, occupied by most of 1st Division and a sizeable combat service support detachment. However, when 5/11 first arrived, there were only empty revetments built by Seabees in anticipation of the coming "population explosion." We were very glad to see the revetments because of the security they provided. At the time, there were no other units in the vicinity except

Codeword	Event
Apple	Raid Force arrives in Assembly Area
Orange	Raid Force at Firing Position
Peach	Target Confirmed
Cherry	Commencing Attack
Grape	Withdrawing Raid Force
Banana	Mission Complete; Returning to Battalion Position Area
Chicken Hawk	Mission Abort

Figure 2: Sample Artillery Raid Execution Checklist of 5/11.

TF Shepherd, which was screening to the north. The remainder of the division was still at least 75 miles to the southeast.

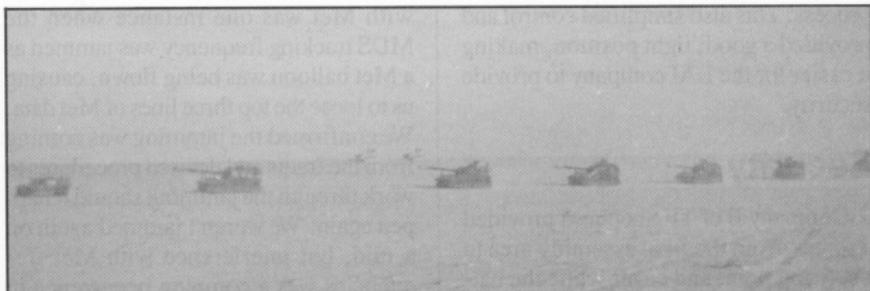
We settled into the revetments, made liaison with TF Shepherd and waited for our first mission. It came on 23 January.

## The Raids

### Raid 1: The Police Post at Qalamat.

The target was an Iraqi infantry brigade CP near Al Manaqish. To range the targets, the battery had to be near the border, in this case, very close to the Kuwaiti border police post at Qalamat, which was occupied by Iraqi troops. Because of the possible threat from the police post, Battery Q (M198) was added to the raid force to fire on enemy positions closest to Battery S.

After midnight, both batteries moved out under LAI screen for their firing points. Battery Q stopped, laid the howitzers and waited for Battery S to occupy its position near the berm that marked the border. Battery S started firing as soon as possible after arriving in position. The first rounds went down



USMC M109A3 howitzers move out for a staging area.

range at 0053, just seconds off the time estimated in the plan. Battery Q fired as soon as it saw Battery S's muzzle flashes. A 5/11 forward observer posted on top of the berm spotted enemy activity at another location and quickly shifted Battery Q's fires.

A very unlucky group of Iraqis had just driven into the target area when Battery Q's rounds impacted on the second target. The dual-purpose improved conventional munitions (DPICM) destroyed three vehicles and caused two others to disperse very rapidly. One hapless Iraqi drove across the border into Saudi Arabia and into Company B's machinegun fire. We couldn't believe the success we were having but decided to cut it short when mortar rounds started falling on the friendly side of the berm near Battery S. We shifted Battery Q's fires to a third target, a suspected D-30 battery, and as S Battery withdrew, the FAC with B Company called in a pair of F/A-18s with Rockeye bombs on the brigade CP and the police post just for added security.

We had agreed early-on that enemy incoming would be cause to abort the mission, at the battery commander's discretion. The assets were too valuable and the

ground war hadn't even started yet; we could raid again another day.

### Raid 2: Police Post at Umm Hujul.

This was really not an artillery raid but an LAI raid with artillery in direct support, or as it came to be known, the "drive-by-shooting." The same division fragmentary order that established the 5/11 as the raid force also tasked 5/11 to be prepared to support TF Shepherd in any raids it might execute. The raid on the police post at Umm Hujul was such a raid.

Considerable Iraqi activity had been noted near the police post, and the raid was intended to disrupt enemy activity, spoil his intelligence-gathering efforts and discourage any further buildup in the area. The concept was very simple. TF Shepherd slipped up to the border and fired on the police post with mortar and 25-mm cannons while 5/11 isolated the objective area by firing on an enemy position behind a low ridgeline just to the east of the post. The police post and adjacent positions were heavily damaged, and the raid force received no return fire from the Iraqis.

### Raid 3: SIGINT Near Umm Gudair.

Iraqi signals intelligence (SIGINT) and ground surveillance radars in the vicinity of the Umm Gudair oil field were the

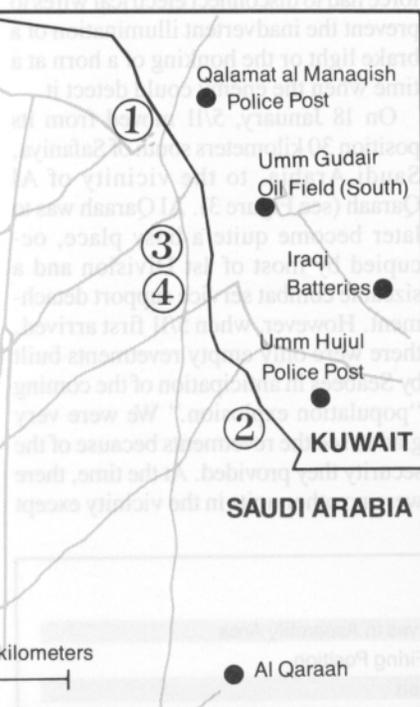


Figure 3: Batteries of 5/11 participated in four artillery raids to help deceive Iraqis as to the location of IMEF's intended attack into Kuwait. The very successful raids also demoralized the Iraqi forces in the defensive belts along the Kuwaiti border.



An 11th Marines M198 howitzer in Desert Storm, the same type of howitzer Q Battery, 5/11, used in Raid 1.



ing attack and destroy the morale of the Iraqi forces in the defensive belts along the border. In the context of the very successful attack into Kuwait, the raids accomplished their goals. Although the raids were a small part of the overall deception plan, they can't be gauged by