Lightfighter communications in Operation

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by Lt. Col. Thomas Armeli

The Blue Bayonet alert message was received by the 127th Signal Battalion Staff Duty Officer (SDO) at 1200 hours, 19 December: "Execute deployment to Ft Bragg for emergency deployment readiness exercise (EDRE), Dragon Team 4-90." After verifying the message, the SDO began the prescribed series of calls to alert the commanders and staff of the battalion. Thus began a seemingly routine EDRE for the 127th Signal Battalion and the 7th Infantry Division (Light).

Several days before, an X-hour sequence had been initiated for the deployment. That sequence is designed to provide information to participating units as early as possible so they can begin planning and preparation. The 7th ID(L) was told two things: that this EDRE would probably involve the Division Tactical Command Post (DTAC) and the Division Ready Brigade (DRB) and that the division would get a lower number of C141 sorties than it would normally expect for such an EDRE.

Unknown was the exact destination and the mission once on the ground. Based on that information and METT-T, the deploying force packages were designed. When the N-hour sequence was initiated with the Blue Bayonet message, the scenario and execution plan were briefed to all Commanders: the 7th ID(L) was deploying the DTAC and the DRB (the 2d Bde) to Ft Bragg for an exercise.

Due to the sortie limitations, however, the division had to deploy somewhat austerely; both the DTAC and the DRB would leave their Signal platoons at Ft Ord initially and bring them forward when more sorties became available. As a result, the DTAC deployed with only two single channel TACSAT radios with operators (from the division's Long Range Surveillance Detachment) and its contingency command and control (C2) communications vehicle, nicknamed the "Black Widow", which consisted of four FM radios, one single channel TACSAT radio and one Improved High Frequency Radio (IHFR). The Assistant Division Signal Officer (ADSO), CPT(P) Johnny Phillips, and his NCOIC comprised the Signal command and control element. Similarly, the DRB took with it only one single channel TACSAT radio and operator (from the Signal bn) and its TO&E Signal assets. The Signal battalion continued its preparations as the DTAC and the DRB rolled out the Main Gate of Ft Ord on their way to Travis AFB, the aerial port of embarkation.

When they arrived at Travis AFB, they were told of their true destination: Panama and Operation Just Cause.

The Division TAC CP and the DRB were in the air at H-hour. But the division and the Signal battalion had lightfighters already on the ground in Panama, a result of Operation Nimrod Dancer. Initiated by JCS in May 1989 as a response to the heightening crisis in Panama, Nimrod Dancer directed the 7th ID(L) to deploy a brigade headquarters and one Inf bn to Panama OPCON to US Army South. Previously deployed in Mar 88 was an aviation task force.

Initially, the 7th ID(L) deployed its 9th Regiment, but, in Sep 89, the Third Light Infantry Brigade conducted a relief in place and assumed control of all of 9th Regiment's operations in the Colon, Panama area. Providing communications support to the 3d Bde was the 3d Platoon, B Company, 127th Signal Bn. That support consisted of multichannel line-of-sight (LOS) communications from the brigade hqs at Ft Sherman, on the Atlantic coast of Panama, to its dispersed elements

at Ft Davis and Coco Solo, and a direct multichannel TACSAT link between Ft Sherman and Ft Ord.

In November 1989, however, J6, US Southern Command (USSOUTHCOM), directed a reconfiguration of the multichannel TACSAT system requiring the Ft Sherman to Ft Ord link to go through a TSC-85 at Howard AB, Panama (see Figure 1). 1Lt Dan Magpantay, Platoon Leader of 3d Flt, had all systems up and operational when the word came down at 1900 hours on 19 Dec: In six hours the US was going to begin military operations in Panama.

The flight to Panama took about nine hours including a stop at Kelly AFB, TX, for refueling. Due to a shortage of hatchmount antennas for the C141 aircraft, the division commander and the lead brigade commander had to make the trip without communications, and therefore, without operational or intelligence updates. As a result, when the DTAC arrived in Panama early on 20 Dec, the CB directed that it move quickly from Howard Air Base, its APOD, to Albrook Air Force Station and set up the 7th ID(L) headquarters in the base officer's club. Communications initially consisted of four FM and two single channel (S/C) TACSAT radio nets and three STU-III secure telephones using Information Systems Command (ISC) military phone circuits. Because the division had no tactical telephone capability during this early stage of the conflict, heavy use was made of the STU-III telephones. Those circuits became saturated so quickly that Phillips immediately requested on 20 Dec additional communications assets, specifically, LOS multichannel, switchboards, RATT, S/C TACSATs and STU-III telephones.

Upon arrival in Panama, the 2d Brigade assisted in securing Tocumen International Airport—its aerial port of debarkation (APOD)—and began preparations to execute its mission to clear western Panama, an area of approximately 13,000 square miles (220 mi x 60 mi), and restore order in its area of operation. Upon hearing of this mission and knowing the distances and terrain involved, Phillips alerted the Signal bn at Ft Ord to prepare additional multichannel (M/C) TACSAT assets for deployment. Because of the 2d Brigade's close proximity to the division headquarters and the availability of military fixed telephone circuits, its communications in the vicinity of Panama City were adequate for C2 without augmentation from the Signal bn. On 22 Dec, the 2d Bde TOC displaced via C-130s to Rio Hato.

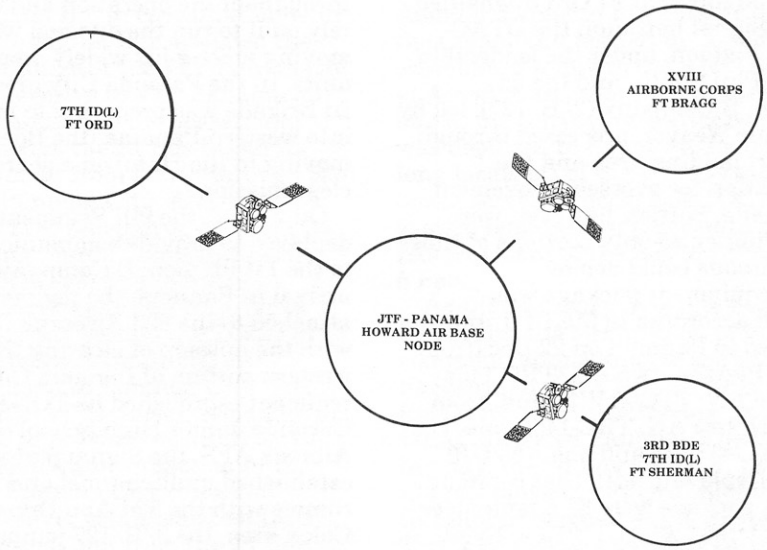

Figure 1. Multichannel TACSAT configuration.

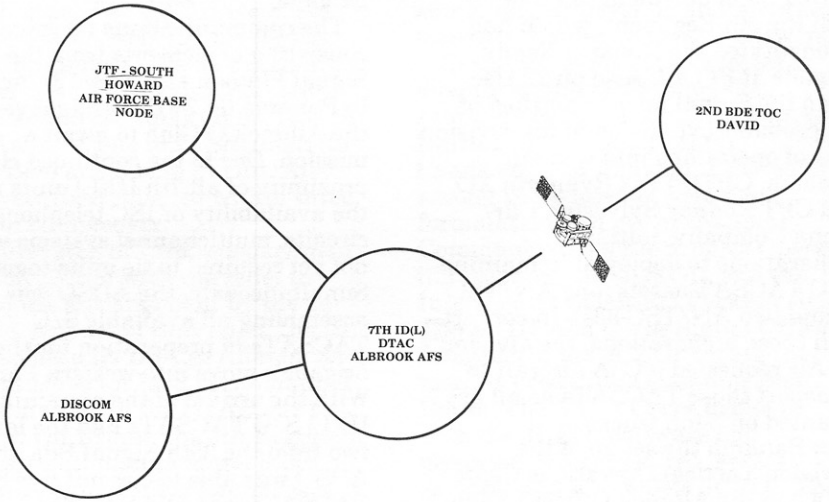

Figure 2. 7th ID(L) multichannel systems.

With the departure of the DTAC and the DRB, preparation of probable follow-on forces at Ft Ord intensified. In the Signal battalion the DTAC Signal Platoon, under the leadership of 2LT Phil Smith, and the 2d Platoon, B Company (2/B/127), led by 2LT Dale Weaver, processed through the alert holding area and the preparation for overseas movement (POM) site. Sorties, however, were again limited so only portions of those two platoons could deploy.

The equipment package was tailored according to METT-T and deployed to Panama on 22 Dec (from DTAC Platoon, two AN/TRC-145s and one AN/TTC-41V(2), and, from 2/B/127, two AN/TRC-145s, one AN/TTC-41V(2), and one AN/GRC-142B). Deploying with that communications package were 82 augmentees (the assistant S3, 1LT(P) Joe Rytell, an S3 NCO, SSG Alan Born, and the COMSEC Warrant from CMDSA, CW2 Bob McKeown) and the first contingent from C-E maintenance.

That same day, 1/B/127 was alerted for deployment to Panama with the 9th Regiment, which had reconstituted the Division Ready Brigade at Ft Ord. Also on 22 Dec, when the Signal bn was notified of the probable expansion of the division area of operations into western Panama, CPT(P) Pat Ryan, Bn XO, and CPT Rodney Sylvester, Cdr, Alpha Company, initiated preparations to deploy all remaining M/C TACSAT assets (one AN/TSC-85 and two AN/TSC-93s). In concert with these preparations, the division's G3 Air requested a C5A aircraft to transport those TACSATs as all are mounted on 5-ton trucks.

In Panama the set up of the Division Tactical Operations Center (TOC) in the Albrook Officer's Club was accomplished. Additional phone lines were installed by members of the 1109th Signal Bde, bringing the total to 14. On 22 Dec, a team from the 154th Signal Bn installed an LOS multichannel system to the Albrook Officer's Club tying the DTAC into the Joint Task Force South (JTFSO) tactical communications network. Since there was at that time no AN/TTC-41 at the DTAC, only point-to-point circuits were installed on the LOS system. That same day, the commanding general's C2 Blackhawk arrived (it contained the AN/ASC-15B C2 Console). The CG made extensive use of the console throughout the operation and came to rely on it to run the division while moving among his widely dispersed units. In the Panama City area, the 2d Brigade was preparing to move into western Panama (the Bde TOC moving to Rio Hato) on a search and clear mission.

On 23 Dec, the 9th Regiment deployed to provide communications to the 1st Platoon, B Company. Upon arrival in Panama, the regiment was attached to the 82d Airborne Division with the mission of clearing the western portion of Panama City. The regiment established its TOC in Curundo Junior High School on Albrook AFS; the Signal platoon established multichannel and RATT comms with the 82d Abn Div. In the Colon area, the 3/B/127 jumped an AN/TRC-145 from Coco Solo, where some of the most intense fighting had occurred on D-day, into a fire station on the outskirts of Colon to support the TOC of the 4-17 Infantry Bn, 3d Brigade.

The communications package, consisting of elements from the DTAC Signal Platoon and 2/B/127, arrived in Panama on 24 Dec and moved to the Albrook O'Club to await a mission. Due to the continued close proximity of all 7th ID(L) units and the availability of ISC telephone circuits, multichannel systems were not yet required to tie units together. Simultaneously, the ADSO was assembling all available S/C TACSATs in preparation for the 2d brigade's move into western Panama. With the arrival of the remaining 7th ID(L) S/C TACSATs and the loan of two from the 35th Signal Bde, the ADSO was able to commit five S/C TACSATs to the 2d Bde. The remainder of the TACSATs were allocated to the 3d Brigade and the Division Support Command (DISCOM). On 25 Dec, the division was granted satellite access to establish a logistics net between the 2d Bde Support Area (BSA) and the DISCOM. That net proved invaluable in providing responsive, tailored logistics resupply to the distant brigade TOC.

Dec 26th saw two upgrades in the communications service at the Albrook Officer's Club: the installation of an AN/TTC-41V(2) from the DTAC Signal Platoon in the JTF-South multichannel system with four trunks), and the receipt and installation of ten STU-III telephones, greatly increasing the secure commo capability at the division CP. Additionally, the Signal bn received clearance to deploy one AN/TSC-85 and one AN/TSC-93 from Ft Ord to Panama in order to support the 2d Brigade's move west. The 2d Brigade moved (again via C-130s) from Rio Hato to David on 27 Dec, taking with it five S/C TACSATs, a STU-III and a RATT rig (from 2/B/127 Sig). A LOS multichannel system between David and Albrook was not possible for several reasons, the most significant of which was the lack of secure relay sites and the great distance involved (over 200 miles).

On 28 Dec, the Signal battalion commander arrived in Panama with additional motor and generator mechanics and C-E and COMSEC repairmen. The M/C TACSATs arrived later the same day. The next morning, Weaver departed for David with the AN/TSC-93 and an AN/TTC-41V(2). Since the highway was not secure, he had to have an MP escort and made it only as far as Rio Hato (about 60 miles) before the escort was pulled for a higher priority mission. On 30 Dec, with another MP escort, Weaver arrived in David and established the M/C TACSAT link to the AN/TSC-85 at Albrook. That link quickly became the high volume, secure communications means between the brigade and division command posts (CPs). On the same day at Albrook, in response to an increase in traffic for the DISCOM beyond the capacity of its STU-IIIs, Smith installed an LOS multichannel link between the DTAC and DISCOM, both located on Albrook (see Figure 2).

During the ensuing two weeks, the 2d Bde operated throughout the western provinces of Panama. S/C TACSAT became its sole link to command, control and resupply its widely dispersed, rapidly moving units. All TACSAT radios (except for those on the Log net) operated in the division net. At times, depending on the mission, the TACSAT radios were used as low as company level. Had not sufficient single channel TACSAT radios (and satellite access) been available to the division and brigade, command and control would have been impossible.

On 1 Jan, 1990, JTFSO directed the division to clear the northern coast of Panama. The 3d Brigade, already in the Colon area, was given the mission. As that mission would require the brigade to operate over extended distances, the ADSO coordinated an additional S/C TACSAT net for that operation. As with the 2d Brigade, the S/C TACSAT radios allowed the 3d Brigade commander to command and control his units across distances over which his TO&E equipment would be ineffective. Since the division's TACSAT assets were finite, the division's log net (TACSAT) had to be deactivated, and the equipment given to 3d Bde for its mission.

Although the DTAC was firmly established in the Albrook Officer's Club, on 6 Jan the division was directed to relocate to one of three possible sites on Ft Amador: Bldg 1 (occupied by the 82d Abn), Bldg 8 (Noriega's Headquarters Building) and the Ft Amador Officer's Club. On 7 Jan, the chief of staff selected the officer's club as the new DTAC site and directed immediate installation of communications.

The 1109th Signal Bde again responded quickly, increasing the number of telephone lines into the club and installing STU-IIIs. At the same time, Smith displaced an AN/TRC-145 from Albrook and installed an LOS multichannel link in the JTFSD system. When the DTAC displaced on 8 Jan, all systems were quickly reestablished. Additionally, on 8 Jan, the AN/TRC-145 that the 3d Bde sent to Colon to support the 4-17 Inf returned to Coco Solo with the battalion TOC.

On 10 January, the 7th ID(L) conducted a battle hand-off with the departing 82d Abn Div and, thereby, regained control of the 9th Regiment and, for the first time, assumed control of the 193d Separate Infantry Brigade (SIB). That same day, the regiment's TOC and support area displaced. The TOC set up in the Hotel El Panama in Panama City and the Regimental Support Area (RSA) at Albrook AFS. 2LT Sainato, Platoon Leader of 1/B/127, established LOS multichannel links from the Regimental TOC to the DTAC at Ft Amador and to the RSA. All of this activity kept the Signal battalion's command and control element at the DTAC quite busy. And, adding to the work load, as the 35th Signal Bde began its redeployment on 11 Jan, the 127th Signal Bn, in coordination with the 1109th Signal Bde assumed the responsibilities of the JTF-Panama J6 (JTFSO reverted to JTF-Panama on 11 Jan). Adding to the operational requirements, the 2d Bde began its redeployment from David through Rio Hato to Panama City. Although the Brigade TOC redeployed by C130, its supporting Signal assets (primarily the AN/TSC-93) had to travel by convoy, arriving in Rio Hato on 12 Jan, a full day behind the TOC. On 13 Jan, the brigade continued its redeployment to Panama City. The M/C TACSAT, however, remained in Rio Hato to provide connectivity to the division's quick reaction force. Once in Panama City (Panama Viejo), Weaver established an LOS multichannel link from the 2d Bde TOC to the DTAC.

On 13 January, the last major change to the division's multichannel system prior to redeployment occured with the realignment of the multichannel TACSAT system. In order to free an AN/TSC-85 for the 154th Signal Bn to use on another mission, the 127th Signal Bn picked up two additional links on its TSC-85 at Ft Amador, one to Ft Sherman (to the 3d Bde) and one to Ft Ord. All links were reestablished within three hours of changeover.

The first step toward redeployment began on 15 Jan with the relief in place of the 9th Regiment by the 2d Brigade. As part of that relief, the 2d Bde displaced its BSA to Albrook AFS and estalished an LOS multichannel shot from there to the DTAC at Ft Amador. On 16 Jan, the 9th Regiment terminated all multichannel links, and, on 20 Jan, the 9th Regiment and 1/B/127 departed Panama.

On 18 Jan, the AN/TSC-93 at Rio Hato displaced back to Ft Amador when the quick reaction force was deactivated. Two days later, on 20 Jan, the 2d Bde displaced its TOC to Albrook and reestablished the LOS multichannel link to Amador. On 30 Jan, the division was directed by JTFSO to clear the eastern provinces of Panama, and, in turn, gave that mission to the 2d Bde. That mission, as did the one to the west, called for extension of the division communications system over long distances (in this case 120 miles). Again, M/C TACSAT was the answer. On 30 Jan, the AN/TSC-95 standing by at Ft Amador displaced to Santa Fe (near the Columbian border) by convoy and established a link to the AN/TSC-85 at Amador. In order to minimize the size of the convoy, no switchboard was deployed to Santa Fe. Instead, long locals off of the DTAC switchboard serviced the 2d Bde TOC. That system remained in place until the redeployment of the bde to Albrook on 6 Feb.

Additional redeployments began on 2 Feb with the termination of all communications links to the 3d Bde at Ft Sherman. On 4 Feb, all links into the DTAC were deactivated, and the DTAC departed Panama. The following day, the 3d Bde and 3/B/127 Signal redeployed to Ft Ord, ending a five-month deployment to Panama. The final redeployments occurred when the 2d Bde and 2/B/127 returned to Ft Ord on 12 February.

That Just Cause was a significant communications success has been thoroughly documented. Why it was successful, however, is an important question. There are several answers.

Certainly, some of the success is directly attributable to previous contingency operations. The lessons learned in Grenada paid off handsomely in Panama. Paramount among those lessons were the formulation and use of the Joint Communications Electronics Operating Instructions (JCEOI), and the Intertheater COMSEC Package (ICP). The XVIII Abn Corps Signal Office constructed the JCEOI during the months preceding Operation Just Cause. The XVIII Corps deployed with the JCEOI software and produced, when required, several extracts and a complete JCEOI. That ability to rapidly produce a JCEOI or an extract greatly facilitated communications interoperability. The ICP proved no less important as it performed as designed. All units in the Joint Operations Area (JOA) were able to communicate secure at all times over a variety of means.

Other significant factors contributing to the Operation's success include:

- The availability of a fixed communications infrastructure in

Panama, both military and civilian, which were provided primarily by the 1109th Signal Bde. That infrastructure significantly augmented the tactical communications network, principally in communicating between the division and JTFSO. Panama's capability to provide such communications during a low intensity conflict (LIC) was an anomaly. Most other probable LIC locations have little in the way of a reliable infrastructure; those that do cannot be counted on to have operating systems capable of being used by military forces. In most future LIC environments, deployed units would have to rely primarily on their tactical communications.

- The reliability and flexibility of secure single channel TACSAT. Long range, secure, manpackable (lightweight) communications is what made the tactical operations of the 7th ID(L) work. Currently, the only means that can fill that secure communications requirement is single channel TACSAT. Had secure, manpackable HF been available to Lightfighters, we would have used it.
- Extensive training in emergency deployments and contingency operations. The 7th ID(L) conducts numerous training deployments throughout the year that emphasize speed and flexibility. Operation Just Cause was in many respects an extension and continuation of that training. The ability of the division and Signal leadership to assess possible missions and courses of action, determine probable communications requirements, and tailor Signal support packages played a key role in the execution of Just Cause. Although the 7th ID(L) deployed about 90% of its combat units and most of its command and control structure, the 127th Signal Bn, with only 25% of its equipment, operators and support structure deployed, provided sufficient communications to allow the division commander and his staff to command, control and sustain all deployed forces.

How could the communications support have been better? There are several conspicuous improvements: enhance the strategic and tactical mobility of multichannel TACSAT (reduce the size/weight of the TSC-93s to make them transportable in one C-130 sortie); develop and field secure, lightweight (manpackable) HF radios; increase the rapid deployment light division's authorization of single channel TACSAT radios; reduce the size/weight of single channel TACSAT radios available to light forces; and continue the repackaging and reduction of the size/weight of MSE for light forces.

The role of Signal in low intensity conflict needs to be closely examined. The 7th ID(L) operations during all of Just Cause were characterized by numerous widely dispersed brigade and battalion sized units performing a variety of missions over an area many times larger than doctrine prescribes for a division. Because of the extended nature of the operations, secure radio relay and retransmission sites for FM and VHF multichannel radio systems were not available. Securing such dispersed, fixed sites was not feasible because of the prohibitively large number of combat soldiers that would be tied down providing that security. That rendered the normal doctrinal division communications system (FM radio and the multichannel/switching network) essentially useless to the 7th ID(L) during the bulk of Just Cause. A division that does not have TACSAT assets (both S/C and M/C) similar to those in the 7th ID(L) will be unable to command and control its forces during similar LIC operations.

Future low intensity conflicts in less developed areas will certainly share the dispersed operational aspects of Just Cause. Relay sites to extend division communications systems will be untenable without committing combat forces to secure them. If we are going to accept contingency missions and develop contingency forces to fight low intensity conflicts, we must redesign or significantly augment the communications structure of those forces. MSE is only a small part of the answer. Although MSE would have permitted greater penetration into the multichannel/switching system by tactical users, its planning ranges are similar, if not somewhat less than the LOS multichannel radios now in the system. Although it has many enhanced capabilities, MSE would have suffered from the same distance and security limitations that plagued the LOS multichannel systems used during Just Cause.

Operation Just Cause was a challenge for the Light Signal soldiers of the 7th Infantry Division (Light) and the 127th Signal Battalion. At Ft Ord, at Travis AFB, and throughout Panama they met that challenge.