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MOS 25U

Task Force Med Falcon

Operation Joint Guardian, Kosovo, 11 Mar 2001- 27 Oct 2001

5 May 2009

Class 35

Unclassified

S-6 NCOIC

## Abstract

As the senior communication NCO in a Combat Support Hospital, it was my responsibility to maintain communications over many platforms. FM communications, NIPER and SIPER nets, Omni Track System, Private Branch Exchange phone system, commercial off the shelf radios, and Very Small Aperture Terminal are the systems that were required to operate a Combat Support Hospital. Along with the equipment, that I was responsible for, there was also a requirement to maintain Air Force communication equipment. Towards the middle of the deployment, two major events happen. First was the integration of the British military hospital with the Combat Support Hospital. Second was moving the hospital from a Deployable Medical System to a fixed facility.

## SIGNAL OPERATIONS IN A COMBAT SUPPORT HOSPITAL

March 11, 2001 my unit, a Combat Support Hospital (CSH), was mobilized in support of operation Joint Guardian. The majority of the unit was organic; with the command staff being crossed leveled and attached to us. My communication section consisted of a Captain, who had been branch transferred into signal, CW2 network management technician, an E-5 25B information technology specialist, an E-6 25U signal support specialist, and myself an E-7 25U signal support specialist. Of my section, only the other 25U was from the CSH; the other members were from three different units. My first interaction with the other members of the section was at our MOB site. During that time, my OIC and I had a few heart to heart meetings to gauge the strengths and weakness of our members. At that time, he informed me that he was a chemical officer and had just been branch transferred into signal. "I don't know much about signal equipment and procedures, so this is your section, you run it" was his comment to me. It took a lot of courage for him to admit that, I admired that in him. At that very instance my job as a NCO became easy. I reassured him that I would be able to handle any communication challenges that might come forward; that I would let him know of any significant changes in our status.

Once we arrived in theater, we met our counterparts that we were relieving. The hospital was set up using a Deployable Medical System (DEPMEDS) which consists of interlocking tents, hallways and expandable shelters. The hospital has a multitude of communication systems that have to be operational at all times. NIPER net, SIPER net, Private Branch Exchange (PBX) phone system, Very Small Aperture Terminal (VSAT), FM communication, commercial off the shelf hand held radios, were all necessary to maintain the flow of information and to save lives.

The NIPER net ran to all the functional sections of the hospital, along with the Tactical Operations Center, service support sections, Air Force Liaison section, and the two off site

sections, the Preventive Medicine and the Veterinarian sections. The network lines that connected all of the NIPER computers ran from each computer back to the S-6 shelter, where they terminated at a switch. These lines were a copper category 5 (CAT 5) line. The problem was that these lines were designed to be placed indoors; the layout of the hospital forced the use of these lines to be placed outside, exposing the outer jackets' to the elements. By the time we took control of the hospital, those lines had been in place for almost two years; constant maintenance to the lines was necessary. I initiated a preventive maintenance program that allowed me to visit every section that had a NIPER computer and talk to the end user. By doing this, it served two purposes. First, it allowed me the opportunity to see if a problem existed with the network, or if it was just an end user problem. Second, it would let me assess the needs of the section and end user. This would pay dividends when we moved to a fixed facility. Once a problem was identified, it was handed off to one of my team depending on the issue.

The Private Branch Exchange (PBX) phone system also ran to every functional area of the hospital. While it didn't have as many issues as the NIPER net, it did have a few shortcomings. The hospital runs a 24 hour operation and is staffed accordingly. During a training exercise, the hospital received a mass casualty (MASCAL), which is multiple injured soldiers which exceeded the capacity of the staff on duty. I noticed a problem with the way doctors, nurses, and support staff were notified; in the past rotations the TOC would send a runner up to the living quarters and round up all available members of the hospital. I recommended to my OIC that we should get phones up in the living quarters. He agreed. With a few Memos and talks with some key members of the base camp installation team, we were able to get phones into the living quarter. This greatly reduced the response time of the off duty personnel.

The hospital had three commercial based platforms that we employed. The Omni Track, Very Small Aperture Terminal (VSAT) and a hand held commercial radio. The terrain limited

standard FM communication between the TOC and the ground ambulances. Omni Track filled the gap left by standard FM communication. Omni Track is a non-secure, satellite based, texted system, with map guidance that was installed in the ambulance. The TOC would be able to communicate with the ambulance; getting critical patient information, track the progress of the ambulance, and relay road conditions. The VSAT was a dedicated satellite uplink that the hospital used to do tele medicine. Doctors were able to stream live video of cases to Germany for consultations. Digital X-Rays were also sent with case information. The VSAT also had the capability of a commercial phone line that was not tied into the base camp phone system. This capability proved useful as we were able to install a phone line in the wards, so that injured soldiers could call home easily. The amount of doctors, nurses, technicians, and staff that are associated with a hospital, and the fact that they are on call the use of commercial hand held radios were necessary. Brevity codes were in place as these radios are non-secure.

During the middle of our rotation, we found out that the British Army hospital would be closing; that we were going to assimilate their hospital personnel with our people. Not only was there a cultural and language difference that had to be overcome, but there was an operational barrier that had to be met. We became the first Multi-National Hospital in theater. Basic SINGARS classes along with radio procedures were taught by my team members to key members of the British Army staff. The most difficult task that I was involved with was getting NIPER net accounts for the British Army members that were assigned to the hospital. At that time, the G-6 had no SOP in place for granting NIPER net, E-Mail accounts to allied armies. With the help of my OIC and working the NCO channels, we were able to get a SOP put in place.

During the middle of our rotation, we found out that we were going to move from the DEPMEDS to a fixed facility. The facility had been designed the year before and was going to

be constructed during the next two months. The new hospital consisted of two phases. The first was a modular piece; it was built in Germany and shipped into theater. It consisted of the working end of the hospital, emergency room, operating rooms, intensive care ward, minimal care ward, and X-Ray were all part of the modular system. The second was the part of the hospital that was built on site. It consisted of pharmacy, dental, Air Force liaison area, patient administrative area, combat stress team, TOC, and support areas. My new mission was to ensure that all our communications were seamlessly transitioned into our new facility.

The design of the hospital, while adequate for the time it was designed, was no longer adequate due to the integration of the British Army. Some of the issues that I encountered were, the placement of the SIPER net, adding a secure NATO net that the British used for communicating with their higher command, placement of the VSAT dish, and the construction of a new mast system for our FM antennas. I was able to use my civilian background as an electrical contractor to rework the administrative areas to support a Multi-National operation. Understanding the construction process allowed me to pre position communication requirements, so that the overall construction went smoothly with little downtime. Lessons learned from my preventive maintenance program allowed me to make minor adjustments to the network system, which greatly improved the overall operational environment.

### Conclusion

Having the support and trust of my OIC along with definable lanes of operation made my job as the NCOIC easy. I was able to handle the day to day operations of the comms section, initiate an effective PMCS program, and be his subject matter expert. Having a good team with a wide area of expertise allowed me to pick the best soldier for the job; it wasn't always the soldier that was formally trained. As a reservist my civilian expertise allowed me to understand the operational environment that we were in and quickly adjust to meet future requirements.