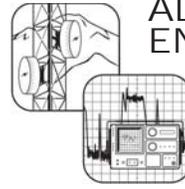


Talk Group



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CSEPP System Operational

—Dean Hane

The Umatilla Chemical Depot in northeastern Oregon is now in the process of disposing the deadly nerve agent that the Army has stored there for several decades. This disposal process was the driving factor in the procurement and implementation of a new radio system for first responders in Umatilla and Morrow counties. ADCOMM Engineering was instrumental in bringing a diverse group of users together to make a decision to implement this system. ADCOMM also provided systems engineering, site engineering, and project management to bring the system to completion. The initial driving force was to support the emergency response communications requirement should an incident occur at the Depot. However, ADCOMM recommended the system also function as the primary communications link for 9-1-1 dispatch operations so that the users were familiar with its operation. The new system infrastructure is distributed across four counties and two states and consists primarily of 12 microwave hops, 7 radio repeater sites, and 4 dispatch centers. It was the first trunked 450 MHz public safety system to be frequency coordinated by APCO under the new rules allowing trunking in the 450 MHz band.

Previously, users had limited coverage and difficulty talking to the different agencies. Even coordination and mutual aid tasks had limitations between agencies of the same county. The new system provides coverage over a two-county area using simulcast technology so all users now have the same coverage. The old radio “system” was a compilation of simple base stations or repeaters scattered throughout the counties and a user had to change channels on their radio when traveling from one area to another, which made operations cumbersome. ADCOMM worked with this diverse group to lead them through the process of sharing a single system. The users now have access to many different channels or “talkgroups” due to the use of trunking technology. Again, the old system had limited channels and even the subscriber radios were limited in channel capacity. Now users are able to coordinate large-scale events and have the ability to respond to incidents without compromising day-to-day communications. New features such as push-to-talk identification and emergency functions also smooth dispatch operations. The use of console priority at the dispatch centers allows dispatchers to control and have priority over the radios in the field, which allow priority traffic to be heard over stuck microphones or radio chatter.

Network management tools were also incorporated into the radio and microwave systems in order to aid in troubleshooting and managing the system. Managing the system? The system



New Pendleton Site



450 MHz Trunking Equipment

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Thinking About ...

CSEPP System Operational CONTINUED FROM PAGE 1

operator now has control of their system. They control who comes on the system, what capabilities they have, and can even determine airtime usage. No more unauthorized use of the radio system. Generated traffic reports, system usage statistics, and failure monitoring and reporting are now part of the managed and controlled process. ADCOMM is currently providing ongoing system technical management services to help keep the system operational and functioning at peak performance.

The project took nearly 6 years to complete. The initial 2 years was spent working with the users to develop a system plan they would all agree to. One-third of that time was devoted to planning, engineering, site acquisition, and a dispatch center consolidation. The remainder of the time was devoted to site construction, equipment installation, system turn-up, and testing. Considerable effort was devoted to planning, implementation, and training so that when users were finally issued radios, the transition and operations on the new system were simplified. ADCOMM performed the end user training so that it was project specific. Although the project took a few turns, project team members were able to keep focused and determined. There was no giving up and everyone knew that when finished the project would be successful.

The \$9 million system was funded by FEMA and managed by Umatilla County. Additionally, local agencies provided input and support in the operational aspects of the system. There

are 12 fire agencies, 9 law agencies, 3 hospitals, 2 EOCs, and various federal and state emergency personnel using the system in the bi-county area. There are over 600 subscriber units on the system with additional users being phased in over the next several months. One reason for the successful deployment of the system was the support garnered from all levels of government and the engagement of the users. This project was an example of what can be accomplished when a system is designed for users and agencies come together for a common goal. ADCOMM is proud to be part of this project that brings a much-needed improvement in communications to this rural area.



Naval Air Station Whidbey Island Dispatch Center Consolidation October 2004

Submitted by Mark Nelson

ADCOMM recently supported the U.S. Navy to consolidate its security, fire, and emergency medical service dispatch centers.

The Beginning

In early 1941, prior to the start of World War II, Naval Air Station Whidbey Island (NAS-WI) was identified as a key military facility that has played a significant role in U.S. military operations around the world, including the current activities in Iraq. Currently, NAS-WI is home to electronic attack squadrons, patrol and reconnaissance squadrons, and many other U.S. Navy operations.

Existing Dispatch Centers

For many years, two dispatch centers provided emergency services dispatching at NAS Whidbey. Coordination among security, fire, and EMS resources was difficult, and modern technology was requiring additional space to locate sophisticated equipment.

The Fire and EMS dispatch center was formerly located in the main fire station, and the Security dispatch center was located in an aging building with no space available for expansion.

Consolidated Dispatch Center

As part of its mission to efficiently protect its assets at NAS-WI, the Navy began to deploy a consolidated dispatch center in early 2003. Navy representatives specifically requested that ADCOMM be included in the project planning and implementation because of its experience with public safety dispatch centers.

In order to minimize costs, speed the transition, and provide adequate space in a single room for all of the technology, the Navy designed and placed a factory-fabricated building next to the existing security building, installed a wooden pole to support radio antennas, and vacated the existing dispatch centers.

ADCOMM identified all of the systems, developed space requirements, power and interconnection plans, and identified suppliers of new technology.

Watson was selected as the dispatch center furniture supplier, and Zetron supplied the new radio consoles.

Many technology suppliers supported the design and transition to the new dispatch center. ADCOMM coordinated with most of the suppliers, developed detailed transition documentation to ensure a coordinated implementation, verified operation of each system, and in some cases corrected faults.

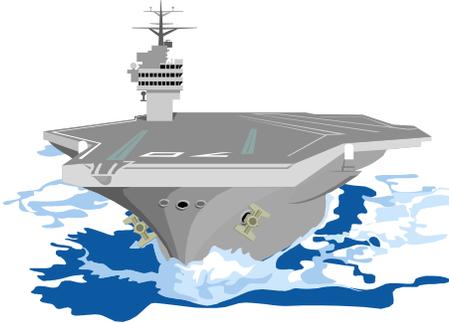
New Center is Operational

In late July 2004, the new dispatch center became operational and the existing centers at the security building and fire station were no longer staffed.

Unique functionality included the requirement to operate firehouse lighting, audible alarm, and certain airport emergency response functions from the new dispatch center. ADCOMM developed a design and equipment configuration and worked closely with the civilian and uniformed NAS-WI communications teams, electrical and communications system contractors, and the Navy's project manager. The alerting system was implemented without incident after many hours of coordination, planning, testing, and fault correction.

A key benefit to the Navy of the consolidated dispatch center is more efficient staffing. The prior configuration, where the Security and Fire/EMS dispatchers were in separate buildings, did not allow the dispatchers to back each other up. With the dispatchers now located next to each other at adjoining dispatch positions and with the telephones and radio consoles configured identically, the dispatchers can work as a team and provide enhanced service to both people calling 9-1-1 for help and the security, fire, and medical services people communicating by radio.

ADCOMM is pleased to have supported the Navy and provide a solution that bridged the gap between operations and technology.



Is Your Business or Residential Wi-Fi System Secure?

Submitted by Joel Harrington

Wi-Fi commonly refers to wireless Intranet and/or Internet communications. These 802.11b hot spots or access points are wireless devices that can easily connect to a private local area network (LAN) or directly to the Internet. Wi-Fi systems seem to be everywhere. On a recent road trip I used my laptop computer, a Wi-Fi card, and some special software to identify all Wi-Fi activity as I drove to a customer meeting. The Wi-Fi-capable laptop was sitting on the passenger seat below the window with no external antenna on the vehicle. Within a few miles of freeway and city street driving, I quickly logged hundreds of secure and unsecured Wi-Fi systems. I am always amazed by the number of unsecured business and residential Wi-Fi systems that allow anyone with a Wi-Fi capable laptop or PDA to gain free access to the Internet. Some of these systems intentionally allow free Internet access; however, many Wi-Fi business and residential systems are probably unaware that their private LANs, servers, and computers are wide open to the world. Is your agency, business, or residential system one of these unsecured systems that can allow anyone to gain access? It is common for many road warriors to frequent hotel

and coffee shop parking lots to gain free access to the Internet to send and receive emails and surf the Internet. Some computer and radio enthusiasts have made a sport of identifying business and residential Wi-Fi hot spots. Check out www.netsumbler.com, www.wardriving.com, or <http://airsnort.shmoo.com> to gain a sense of the free software tools that can allow anyone to identify your secure or unsecured Wi-Fi system and recover your encryption key. In some cases after gathering enough Wi-Fi packets from your system, the encryption can be broken in a matter of a few seconds. If you operate a Wi-Fi system, make sure you understand the security risks and limit the radio coverage beyond your desired coverage area.

WITTY WORDS OF WISDOM—

“Most of us would be upset if we were accused of being ‘silly.’ But the word ‘silly’ comes from the old English word ‘selig,’ and its literal definition is ‘to be blessed, happy, healthy and prosperous.’”

“We all need a daily check up from the neck up to avoid stinkin’ thinkin’ which ultimately leads to hardening of the attitudes.”

“It is easy to get to the top after you get through the crowd at the bottom.”

—Zig Ziglar

THE LAST BYTE

The Fog of Interoperability

The "Fog of War" is used to describe the confusion and uncertainty that accompanies battlefield conditions. This fog settles in on command as well as the foot soldier. Unfortunately, often when the fog starts to lift, the foot soldier starts to see clearly but command may still be "fogged in" for a variety of reasons. Dwight Eisenhower said, "In preparing for battle, I have always found that plans are useless, but planning is essential." All too often I have seen interoperability viewed as a technical problem and not as a planning problem. Vendors are quick to sell you the latest interoperability technology from a completely new system to something that al-

lows all systems to interoperate. In my 30 years in this business, I have found very few interoperability problems, at least tactical interoperability, that needed a new piece of technology. Virtually all of them could be resolved by better planning, training, and use in the field. In some cases, there might be minor technical changes required such as radio reprogramming or changes to channel names. I am afraid that all this interoperability money for technology has created a fog of its own—obscuring the real interoperability problems of lack of cooperation, unwillingness to compromise, and years of tradition. When some of this new technology is deployed in the field, the first responders may find fog-generating machines have been purchased. It is funny, hot air usually clears out fog but apparently not in this case.

—Joe Blaschka, Jr., P.E.

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