ALMR INSIDER

***** Issue numbering correction**: The October version of the ALMR Insider was labeled Volume 2, Issue 1. It should have been labeled Volume 1, Issue 2. We apologize for any confusion this may have caused.

What is a Trunked Radio System?

Trunked radio systems differ from conventional radio systems in that a conventional radio system uses a dedicated channel (frequency) for each individual group of users, while trunked radio systems use a pool of channels which are available for many different groups of users.

For example, if police communications are configured in such a way that eight conventional channels are required to permit city-wide dispatch based upon geographical patrol areas, during periods of slow dispatch activity much of that channel capacity is idle. In a trunked system, the police units in a given geographical area are not assigned a dedicated channel, but instead are members of a talk-group entitled to draw upon the common resource of a pool of channels.

Trunked radios take advantage of the probability that with any given number of user units, not all will need channel access at the same time. Therefore, fewer discrete radio channels are required and a much greater number of user groups can be accommodated.

In the example of the police department, this additional capacity could then be used to assign individual talk groups to specialized investigative, traffic control, or special-events groups who might otherwise not have the benefit of individual private communications.

To the user, a trunked radio looks just like an "ordinary" radio; there is a "channel switch" for the user to select the "channel" that they want to use. In reality, the

"channel switch" is NOT switching channels at all. When changed, it uses an internal software program which causes a talk group affiliation to be broadcast on the control channel.

This identifies the specific radio to the system controller as a member of a specific talk group, and that radio will then be included in any conversations involving that talk group. This also allows great flexibility in radio usage. The same radio model can be used for many different types of system users (Police, Troopers, Fire, EMS, FBI, DOD, etc.) simply by changing the software programming in the radio itself.

For further details you can contact the ALMR System Management or Operations Management Offices.

North Pole SDA Update

Over the past few months, at the direction of the Joint Project Team, Motorola has been involved in conducting a System Design/System Analysis (SD/SA) in and around North Pole to determine the need for an additional ALMR site for the purposes of enhancing coverage in the area. A site survey was conducted which included interviews with local public safety responders, consideration of potential sites, and projections of coverage that an additional site

would provide.

On December 18, 2007, Motorola personnel held a Critical Design Review (CDR). Preliminary information provided by Motorola revealed a recommendation of a new four (4) channel site at the North Pole Police Department utilizing the existing tower. Connectivity to the ALMR backbone would be achieved either by microwave or a leased T-1 accessing the system at Birch Hill or

Quarry Hill.

Depending on final decisions regarding connectivity and the use of the current North Pole Police Department tower, cost estimates for the site range from $325,000 to $493,000. Motorola will complete the SD/SA and provide their final recommendations in early 2008.

The SD/SA can then serve as a supporting document for funding requests.

EHS Video/audio Speaker Microphone (VidMic) Tested by Alaska State Troopers

Sergeant Bryan Barlow, Girdwood Post, Alaska State Troopers, recently assisted the Operations Management Office (OMO) in the field testing of the new EHS Video/audio Microphone (VidMic). The VidMics were tested with the Motorola XTS-5000 portable radios and were used in a recent search for a missing/downed medivac helicopter in the Whittier area. The EHS VidMic is a fully functional, shoulder microphone which houses a video recorder, audio recorder, and still photo camera with up to three hours of video record time. The VidMic allows a user to view the video, but not alter/delete it. Only an authorized supervisor may download the video/delete it. This function protects the evidence chain of custody.

The following issues were identified:

- One unit would not download video or audio

- The suggested positioning of the VidMic on the shirt/jacket requires the user to lower their head to speak into the microphone, taking their eyes away from the subject
- The camera lens view angle (width and height) is narrow and did not capture enough detail to the sides and the head area
- Cold weather decreased the battery charge life cycle to one hour (normal charge is three hours)

EHS was advised of all findings, and we look forward to testing future versions of this product.

This testing is part of on-going efforts to bring new technologies to our users.

If you hear of new technologies, and would like OMO to research/test them, please contact any one of our staff.

ALMR Security Update

The ALMR System has undergone significant changes over the past few months. As part of the DOD Information Assurance Certification and Accreditation Process (DIACAP) all ALMR computer systems have been configured to meet Defense Information Systems Agency (DISA) security guidelines. What does this mean to ALMR users? It means that all console system users, or anyone who logs onto the ALMR System, will be getting their own individual user credentials. Currently, all users log onto the ALMR System using a group account, shared by multiple personnel. If you are a ALMR System user you will soon be assigned a personal account, if you have not already!

The transition from group accounts to individual accounts will be taking place during Dec 2007 and Jan 2008. The Systems Management Office appreciates your cooperation while making this transition and invites you to contact the ALMR Help Desk with any questions regarding the new user account policy.

Governance: Cooperative Agreement Signed

On December 14, 2007, the final partnering agency in the Alaska Land Mobile Radio (ALMR) Communications System Cooperative Agreement signed the document culminating four and a half years of effort. This capstone document sets the stage for the Department of Defense (DOD)-Alaska, the State of Alaska (SOA), and the Federal Non-DOD (represented by the Federal Executive Association of Alaska) "to establish the System, and to set out the terms according to which the System will be governed, managed, operated and modified by the Parties signing the Agreement."

This agreement now allows the cost of operations and maintenance of the System to be shared. For example, before the Cooperative Agreement was signed, the State had no mechanisms to contribute funds toward the cost share.

The next big step in the process of implementing the ALMR System is the coordination and approval of the Service Level Agreement (SLA). The SLA outlines the operations and maintenance (O&M) services required for the System infrastructure located at all remote sites, and other System equipment as defined in the SLA.

The SLA outlines the acceptable maintenance levels at which all components, including equipment and connectivity, must be maintained for consistent operation, ensuring System availability for day-to-day and emergency use. These levels will be set, and agreed upon, by the ALMR User Council, which represents DOD, SOA, Federal Non-DOD, local governments, and volunteer first responder agencies.

FACTOID

Average daily voice calls (system wide):

22,380

Kenwood Radio Acceptance Test Procedures (ATP) and Validation

In July 2007, the ALMR System Management Office conducted the initial testing of the Kenwood TK-5210-K2 portable radio. It was field tested by engineers in the Anchorage area and select users in the Fairbanks area. All testers were impressed with the portable radios receiver sensitivity. The radio was also noted as having very nice construction and usability. In particular, users liked that the belt clip is directly attached to the radio and not the battery. Some users have had problems with battery connections being stressed by the belt clip.

Kenwood engineers, along with an ALMR Technologist, took the radio through the requirements of the Subscriber Unit ATP. The radio passed all tests except for the 'subscriber to landline' test. The Kenwood engineers took the results back to the factory and later provided a fix. In November, the final testing was completed. The radio does have a limited display screen and is not capable of Over-The-Air-Rekeying. For many users this will not be an issue, making the Kenwood radio an excellent and affordable subscriber unit for operation on the ALMR System. See this and other tested radios at http://www.ak-prepared.com/almr/almr_radios.htm. We still recommend agencies conduct their own evaluations of new radios to ensure they will meet their needs.

FACTOID

Agencies/ Departments on the ALMR System:

56

State of Alaska: Transition Challenges

With the final approval of the Cooperative Agreement, the State of Alaska ALMR project team is now focused on executing all tasks needed to provide for transition of the ALMR project to its Operations and Maintenance (O&M) Phase by June 30, 08. Most visible to ALMR Users will be coordination of final drafts, and review and approval of key agreements required to assure success of the on-going operations, management, and funding of the System by the ALMR partners.

Three critical agreements will require the full attention of all agencies, through their User Council (UC) representatives.

First, the Service Level Agreement (SLA) will define the minimum operational requirements for all System components/networks. The SLA also drives the costs for operating and maintaining the System. Secondly, the Cost Share Agreement will, no doubt, prove the most challenging in establishing the total cost to operate and maintain the system. Lastly, the Membership Agreement will define the terms, conditions, and charges for use of the System required for any User to gain access to the System after transition to O&M.

The ALMR partners will begin in March, using cost calculations and projections from the DoD-funded Total Cost of Ownership study to grapple with the task of reaching a consensus and formal agreement on how these on-going costs will be shared.

I urge you to work closely with your UC representatives. How well we execute these tasks during these final months of transition will determine how well we are able to carry out our shared responsibilities for the on-going operations and management of the ALMR System.

Submitted by:
Mr. Jim Kohler, ETS
ALMR Project Manager

Municipality of Anchorage: AWARN To Go Live in 2008

The 700 MHz, Anchorage node of ALMR, known as Anchorage Wide Area Radio Network (AWARN), expects to put the first six radio sites on the air by early spring: Rabbit Creek, Kincaid Park, Atwood Building, Elmore Road & 48th, Anchorage Water Treatment Plant and Fire Station 12. These sites, each with 15 repeaters, will cover the most populous area of the Municipality and use simulcast, a technology where all six sites transmit on the same frequency at the same time.

Later in 2008, sites at New Knik, Chugiak Volunteer Fire Department, Eagle River Road, Hope, Anchorage Regional Landfill and perhaps Girdwood will be completed. New Knik is being developed with assistance from Matanuska-Susitna Borough Fire Station 62.

Upon the completion of the second group of sites, Municipal Departments will begin transitioning to the new system and anticipates completion in 2009. When AWARN is fully operational, ALMR users will interoperate on a talkgroup-to-talkgroup basis with Anchorage personnel the same way they interoperate with other ALMR users.

Submitted by:
Trygve Erickson, MOA Project Manager

anchorage
big wild life

Heather Handyside
MOA Director Homeland Security &
Emergency Management

ALMR Outreach: Bear Creek Fire Service Area

Del Smith, Rich Leber and Chester Ince from the ALMR Operations Management Office (OMO) traveled to Seward on October 23, 2007.

The purpose of the trip was to provide training on the ALMR system, fleet mapping, code plug development, and subscriber unit (radio) familiarization.

The training, conducted at the Bear Creek Fire facility in Seward, was arranged and coordinated by Chief Mark Beals, Bear Creek Fire Service Area. Departments and agencies attending the training session included personnel from Seward Providence Medical Center, Moose Pass Fire, U.S. Forest Service, Cooper Landing EMS, Seward Fire, Seward Volunteer Ambulance Corp and the Kenai Peninsula EMS Coordinator's office.

The OMO will continue to provide information and assistance,

as requested, from the attending agencies as they transition to the ALMR system.

To inquire about the possibility of this type of training being provided to agencies in your area, please contact the ALMR Help Desk at 1-888-334-2567 or by e-mail at almr-helpdesk@inuitservices.com and request contact with the OMO.

Photo of Ernestine Mountain taken on August 11, 2007. Ernestine Mountain is a Department of Defense site under US Army Alaska and is located on the Richardson Highway between Valdez and Glennallen.

Help Desk In Anchorage Bowl: 334-2567

Toll Free within Alaska: 888-334-2567

Fax: 907-269-6797

Email: almr-helpdesk@ inuitservices.com

 Website: http://www.ak-prepared.com/almr/

System Management Office

System Manager   269-5062
Casey Borg, cborg@inuitservices.com

System Technologist   269-5750
James Jones, jjones@inuitservices.com

Asset Manager   269-5748
Julie Pannone,
jpannone@inuitservices.com

Document Specialist   269-6703
Anneliese Roberts,
aroberts@inuitservices.com

Alaska Land Mobile Radio
Operations Management Office
5900 E. Tudor Road, Suite 121
Anchorage, AK 99507-1245