

ALMR INSIDER

Coming in Future Issues:

- ✓ Trunking
- ✓ Technology Updates
- ✓ Fairbanks Update

Alaska Symposium for Emergency Communications

October 22-24, 2007

Anchorage Hawthorne Suites LTD

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2012 Countdown Clock-Narrowband 150-512MHz

On December 23, 2004, the Federal Communications Commission (FCC) released a Narrowband Order mandating all Public Safety Radio pool licenses operating in the 150—174MHz and 421—512 MHz bands migrate to narrowband. January 1, 2013, is the deadline for migration to 12.5 kHz technology or a technology that achieves the narrowband equivalent of one channel per 12.5 kHz of channel bandwidth (voice) or 4800 bits per second per 6.25 kHz (data) in the bandwidth specified in the modification application is greater than 12.5 kHz.

After January 11, 2011, no applications for new operations or modifications of operations using 25 kHz channels will be accepted. The intent is to achieve more efficient use of the frequency spectrum by 'narrowing' the bandwidth to allow the creation of additional frequencies within the same frequency bands. By decreasing bandwidth from 25 kHz to 12.5 kHz, the FCC could effectively increase the total number of available frequencies within an existing band, making more frequencies available for auction.

Organizations planning to

stay on conventional systems should have already begun their 'narrowband' migration process by replacing older 25 kHz-only subscriber radios with *dual-mode* subscriber radios. The FCC Order can be found at <http://www.apcointl.com/frequency/documents/NarrowbandOrder.html>



The ALMR Asset Manager completed inventory of Air Force and Army assets at 50 locations this summer, including this site at Hope.

Asset Management

The ALMR Asset Manager is the single point of contact for tracking all infrastructure equipment, spares, software, and subscriber units connected to the System.

ALMR infrastructure equipment is managed by its relationship to a site location which usually identifies a building or specific geographical location.

Physical accountability of equipment is the responsibility of the owner organization. It should be the

policy of each ALMR partnering organization to perform an annual inventory for accountability purposes.

This inventory should include both subscriber equipment and equipment connected to the ALMR system. Each agency who owns ALMR subscriber equipment should ensure appropriate accountability in order to maintain the integrity of the system and prevent unauthorized use or monitoring of the ALMR system.

Physical management of individual user agency-owned infrastructure equipment and spare equipment may be provided under separate contract, if an agency so chooses.

Help Desk In Anchorage:
334-2567

Toll Free within Alaska:
888-334-2567

E-mail: almr-helpdesk@inuitservices.com

Naming Conventions

The National Coordination Center (NCC) identified the requirement for a mandatory standardized naming convention earlier in 2000 and 2003. In June 2007, the National Public Safety Telecommunications Council (NPSTC) released the “NCC/NPSTC Standard Channel Nomenclature for the Public Safety Interoperability Channels.” This applies to **conventional** channels

only. The direct impact to ALMR channel plans is two fold. First, the **conventional** VTAC1 – VTAC4 channels will be renamed as VTAC11 – VTAC14, and VCALL will become VCALL10. Second, all the national interoperability channels (VCALL and VTAC) need to be P25 Digital and use 293 for the Network Access Code (NAC). This is a Federal mandate, not an ALMR request.

The User Council recommends individual agencies develop a Standard Operating Procedure with a conversion table showing your agency’s current naming convention with respect to the equivalent one on the national naming convention. Then when your agency radios come in for maintenance, etc., they be can reprogrammed with the new national naming convention at that time. (see: <http://www.npstc.org/documents/IO-0060B-20070612%20Standard%20Channel%20Nomenclature%20Final.pdf>)

CHANNEL (MHz)	Old Label	New Label	** These channels are located in the OP Zone.
151.1375	VTAC 1	VTAC11	V - - - - - =VHF Band - TAC - - =Tactical - CALL - - =Call / Hail Channel =Unique Channel Identifier
154.4525	VTAC 2	VTAC12	
155.7525	VCALL	VCALL10	
158.7375	VTAC 3	VTAC 13	
159.4725	VTAC 4	VTAC 14	

FACTOID

**Average daily voice calls (system wide):
31,641**

The Alaska Land Mobile Radio (ALMR) Executive Council was formed under original charter on 19 September 1995 and centered on goals and objectives for migration to narrowband operations and addressed only federal agencies . The charter was revised in September 1997, to include state and local agencies, and broadened the focus to

address interoperability across all government public safety and first responder disciplines .

The Executive Council operates under the authority of appointment by their respective agencies and is dedicated to assessing, assembling, and consolidating requirements; drafting and submitting consolidated plans, agreements, budget

actions, program management, cooperative purchasing agreements; and procurement actions to provide a common interoperable and cost effective Project 25/TIA 102-A standards-based, statewide, shared LMR infrastructure that is compliant with federal, state, and local regulatory guidance and is responsive to mission needs of all participating agencies in the State of Alaska.

Governance: ALMR Executive Council

System Design Analysis

The ALMR Project Office is currently working on the design of several initiatives to improve the coverage of the system. They include improving coverage in North Pole, Willow Creek, and Black Rapids (Paxson area); improving coverage within buildings at Clear Air Force Station; moving the southern Zone controller from Tudor Road to a more secure location at Kulis Air National Guard Base; and analyzing the mobile data needs at the five major Army posts and Air Force bases in the state. Each of these SD/SA (System Design/System Analysis)

initiatives will provide a separate report with a recommended design and estimated cost.

Field work for the Black Rapids and Willow Creek efforts has already begun. Work in the North Pole area will begin the second week in October. Work at the remaining locations will occur during the remainder of the calendar year. The final recommendations and reports will be delivered in the first quarter of 2008. If you have any questions, you can contact Joe Quickel in the Project Office at 269-8618 or joequickel@5starteam.net.

Customer Satisfaction Survey Results

The Operations Management Office received 27 responses to the Annual Customer Satisfaction Survey from 3 separate distributions totaling over 100 agencies/individuals. Overall, the ALMR System was rated “Above Average,” the Operations Management Office was rated “Above Average,” and overall satisfaction with the Help Desk service was “Extremely Satisfied.” For complete statistical data email: sherryshafer@5starteam.net

ALMR Annual User Council Meeting

The first Annual User Council Meeting was held on September 18 – 19 at the Sheraton in Anchorage. The first day was aimed at providing informational briefings to both the User Council and the general Public Safety audience. The following presentations were provided:

- Office of Emergency Communications
- Federal Partnership for Interoperable Communications (FPIC)
- Processes and Procedures
- State of Alaska Telecommunications System (SATS) vs. Alaska Land Mobile Radio (ALMR)
- Governance – Total Cost of Ownership

- State Interoperability Plan & Public Safety Interoperable Communications
- Anchorage Wide Area Radio Network (AWARN)
- 7.X Roadmap
- State of Alaska Alternate Power Solutions
- State of Alaska Southeast Build Out
- Gateways
- DIACAP

The second day focused on issues the User Council needed to address as a group regarding ALMR.

For a CD of the available briefings, please email: sherryshafer@5starteam.net



State of Alaska: Total Cost of Ownership

In August, the DOD executed a contract with Westmann & Associates to assist with the development of an ALMR Total Cost of Ownership (TCO) Study. When completed, the ALMR Project Team will be able to forward to the Executive Council the details of the anticipated costs to support the ALMR Project when it is transitioned to its full Operations and Management Phase, scheduled for the Summer of 2008.

A critical step in developing

this TCO will be the development of a final Service Level Agreement (SLA) for the ALMR System, defining the ALMR System infrastructure in detail, as well as the minimum standards for its operation and maintenance.

During October, the current draft of the SLA will be reviewed by the ALMR User Council and then submitted to the Executive Council for its review and action.

The adoption of a Service Level Agreement is the first of several agreements that must be developed across the next several months if the transition of the ALMR Project to its full O&M phase is to be achieved by next summer. Other critical actions include Cost of Ownership, Cost Sharing, and User Agreements.

I encourage the entire ALMR user community to stay in close contact with



their User Council Representatives to make sure that ALMR user needs and requirements are fully examined and addressed in these critical agreements as they are developed and acted on.

Submitted by:
ETS ALMR Project
Manager Jim Kohler

Municipality of Anchorage: What's AWARN?

In the late 1990s the Municipality of Anchorage Radio Shop had a problem. It was responsible for providing radio communications to all Municipal departments on three separate systems that were old, not interoperable, no longer supported by the manufacturer, and due for replacement. The ALMR system was in planning stages and the Municipality was very interested in being an active player in this emerging system. However, MOA radio technicians, dispatchers, and first responders alike were concerned that the VHF band that most State and Federal agencies needed was not the best choice for an urban area like Anchorage.

When ALMR planners developed a system specification that followed APCO

Project 25 industry standard, the solution was clear and AWARN (Anchorage Wide Area Radio Network) planning could begin. By using the same P25 standards, Anchorage would utilize frequencies in the 700/800 MHz band for optimal building penetration and still provide full interoperability with the ALMR VHF system throughout the area. Approval to proceed with AWARN came from Mayor Begich in 2003.

Fast forward to 2007 and Anchorage voters have approved several bond issues for the system, and various State and Federal programs have awarded grants for AWARN. The first six 15-channel radio sites are being installed. These sites utilize a technology that permits all sites to transmit on the same



frequency at the same time. Known as simulcast, this is considered the gold standard for urban systems. When completed, the system will have 15 tower locations for near seamless radio coverage from Portage to Palmer.

While Anchorage calls the system AWARN, it also refers to it as the Anchorage portion, or zone, of ALMR. Testing of the system will begin this winter. The first users will transition to the system in 2008 and all Municipal agencies by 2009. Once completed AWARN will have over three thousand daily users.

Submitted by: Heather Handyside & Trygve Erickson

To Scan or Not To Scan?

Use of the scan function on the ALMR System is available and operational, but is not recommended. Responders conditioned to rely on scanning multiple radio channels during routine emergencies are most adversely affected when the volume of communications in larger incidents outstrips their ability to assimilate all the information, and their radio's ability to prioritize incoming transmissions.

When using scan, always use your selected (home) channel as your priority channel. You will miss other non-priority scanned traffic when a priority call comes through. Once activity is detected, the radio goes to that assigned voice channel. This is a first in/first out (FIFO) function. While there is scanned activity being monitored, any simultaneous traffic on other scanned talk groups will not be received (with

the exception of the priority channel) until the first receive activity is finished. At that point the radio will once again scan the entire talk group scan list.

NOTE: You can only scan talk groups that are affiliated to the same site as you are on. If you roam outside the coverage of the affiliated site, you will no longer be able to scan the selected talk groups.

The added benefits and functions of the ALMR System outweigh any benefits the scan function offers and in most cases should, and can be, resolved through changes in operational procedures/protocols.

For a more in-depth description of scanning, please contact the ALMR System Management Office through the Help Desk or the Operations Management Office (contact information provided).

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334-2567

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