ALMR INSIDER

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Inside this issue:

Welcome to the New ALMR Operations Manager

I am excited to join the ALMR Operations Management Office with Ms. Sherry Shafer, having started my new position back in October as I transitioned from my previous endeavor when I retired from the State Troopers after 24 years. I would like to personally thank Mr. Dan Nelson for his tutelage and guidance during my transition period as he moved over to the ALMR training section. I look forward to working with the User Council and Executive Council to further the significance of ALMR to all its customers.

I come from a public-safety background, arriving in Alaska as an Air Force firefighter back in 1991 and retiring in 2012. During the last five years, I was the State search and rescue coordinator and worked in the emergency operation center. These responsibilities took me across the state working in many communities and meeting Alaskans from all walks of life. During this time, I was able to work with many ALMR users to include State, Federal, municipal, and tribal leaders and to understand the importance of having a robust statewide communications network during a time of crisis and natural disaster.

My goal is to work with local vendors and manufacturers to add more TDMA-capable radios to the ALMR approved equipment list to give our users the most choices possible as they transition in the coming years. I encourage everyone to visit our website at alaskalandmobleradio.org and follow us on Twitter @ALMR_SOA.

I can be reached either by email at paul.fussey@wostmann.com or by phone at (907) 777-1109.

Alaska Public Safety Communication Services (APSCS) 2022

2022 was another busy year for APSCS. As part of the Governor's FY23 budget, we moved to the Department of Public Safety to better support first responders and work for our primary advocate for the resources and priorities our mission needs. We continued equipment upgrades replacing end-of-life microwave equipment ensuring ALMR connectivity was supported through modern, serviceable, public-safety grade technology. Most notably and visible to the community were upgrades to ALMR equipment and software. Dispatch centers received console refreshes and radio frequency sites were modernized with new GTR repeaters replacing Quantars whose support ended in 2020. The State, Department of Defense, and Anchorage Municipality funded infrastructure upgrades with system software release 2021.1 ensuring continued vendor support and cyber security sustainment. Parts of the upgrade are ongoing including flash upgrades to some APX radios to enable support for TDMA. More capabilities are planned in 2023 including APX Next and SmartConnect capability to allow capable radios to communicate on ALMR through Wi-Fi or LTE networks, Location on Push-to-Talk allowing the possibility of seeing subscriber radio locations on a map in near real-time, and Radio Management, allowing capable radios to be programmed, flash upgraded, or have firmware updates applied remotely using the radio network or other connectivity saving technicians and users having to meet in person. We appreciate ALMR agencies' support and understanding for the many scheduled service interruptions that went along with the project upgrades making 2022 a successful year enhancing the lifecycle of ALMR.

(Article by Mr. Scott Stormo, APSCS Manager)

Farewell as Your Operations Manager

It has been my pleasure to serve as the Operations Manager for the ALMR system since the fall of 2021. I planned to remain in the position for many years. However, my personal circumstances have changed, and I am no longer able to commit the amount of time necessary that this important role requires. ALMR is a complex system relied upon by our public-safety first responders and emergency officials throughout the state. As such, it is prudent that the Operations Manager position transfer to another individual who can commit that time to our agencies.

This past fall, I completed my transition and welcomed Mr. Paul Fussey into the Operations Manager position and I wish him continued success in his new endeavor. I will continue to provide much needed support to ALMR, the member agencies, and the Operations Management Office OMO) as Paul's backup when he is out of the office for any extended period. Additionally, I am continuing to work in the training arena as the ALMR Training Coordinator.

In the new year, agencies should be on the lookout for additional video vignettes posted on the ALMR website, as well as live training events which will be conducted over Microsoft Teams, as we have done in the past. Planned training venues include additional courses on interoperable communications and the specific regional interoperable zones used in the ALMR system.

We are always looking for suggestions on the training needs of our members. If you would like to see a specific topic covered or have other ideas for training, please visit the ALMR website and select the Request Training option under the training menu to submit your request (https://alaskalandmobileradio.org/training-request/).

I learned much about ALMR during my time in the Operations Manager position and hopefully, I also provided agencies with some valuable insight and training during my tenure. I look forward to the continued partnership with the OMO and to working with all our members in the future.

If you have any additional questions, please feel free to contact me at dan.nelson@wostmann.com.

Understanding NFPA 1802 Standard on Two-Way Portable RF Comms Devices

Released by the National Fire Protection Association (NFPA) in January 2021, the NFPA 1802 standard is a new standard that identifies the operating parameters and minimum requirements for portable two-way RF voice communications devices (RF devices) such as radios, as well as remote speaker microphones (RSMs) for use by emergency service personnel in the hazard zone during emergency incident operations. This standard was developed by the NFPA Electronic Safety Equipment committee consisting of users (firefighters), manufacturers, certifying agencies ,and researchers.

The fire service has long recognized the durability and ruggedness of radio products and accessories used in the market today. However, with the changing needs of users operating in the hazard zone, the market has identified an opportunity to define a minimum standard for a portable RF device designed for the rigors and utmost extremes of interior firefighting, hazmat, and wildland operations. Similar standards have been in existence for SCBA (Self Contained Breathing Apparatus) equipment, TICs (Thermal Imaging Cameras), and PASS (Personal Alert Safety System) devices.

Design specifications have been outlined around hardware performance in areas such as extreme heat, immersion, drop/impact, battery life, and remote speaker mic connections. Specifications are also outlined for RF device software to include features such as data logging and safety alerts when in the hazard zone.

There are currently no RF devices or RSMs manufactured today certified for NFPA 1802 and current RF device or RSM cannot be upgraded to be compliant. However, agencies will be able to mix and match NFPA 1802 certified RSMs and RF devices from different vendors as long as the ensure the RSM they choose meets the correct entity parameters, without voiding the radio Hazloc certification.

Manufacturers need to have their NFPA 1802 compliant products recertified by the certification organization on an annual basis. Manufacturers may also be audited twice per year to ensure RF devices and RSMs continue to be manufactured to a quality in accordance with the standard.

At this time NFPA 1802 is being combined with other standards into NFPA 1930 - Standard on Fire and Emergency Service Use of Thermal Imagers, Two-Way Portable RF Voice Communication Devices, Ground Ladders, and Fire Hose, and Fire Hose Appliances. NFPA 1930 is in a custom cycle due to the Emergency Response and Responder Safety Document Consolidation Plan as approved by the NFPA Standards Council. As part of the consolidation plan, NFPA 1930 is combining Standards NFPA 1801, NFPA 1802, NFPA 1932, NFPA 1937, and NFPA 1962.

At the date of this newsletter publication, no updated information on the release date of NFPA 1930 was available.

(Excerpts taken from the NFPA 1802 Executive Summary Guide, Motorola Solutions, and from the National Fire Protection Association web site)

What Are Critical Communications in Public Safety?

During times of crisis or an emergency, reliable public safety communications are crucial not only to help first responders save lives but also to help keep first responders safe and to improve response time and interagency coordination. Public safety teams rely on mission-critical communications solutions in order to carry out their duties.

Mission-critical communications encompass a wide range of solutions that includes a mix of devices, equipment, systems, and infrastructure that enable first responders and others to communicate efficiently and effectively in the field and to provide all levels of emergency response, as well as the ability to coordinate response activities and to help to keep teams connected, communicating, and informed. Without the right mix of public safety communications, lives could be at stake.

A National Institute of Standards and Technology (NIST) survey of first responders from communications center services (9-1-1 call centers), emergency medical services, fire services, and law enforcement found a clear preference for current communications devices and technology to be more reliable, more usable, and interoperable. However, an alarming 20 percent of the respondents stated they did not have adequate access to critical public safety communications devices such as laptop computers, mobile data terminals or mobile data computers, portable radios, tablets, vehicle radios, and work-issued wireless earpieces.

To overcome mission-critical communications challenges, it's important to be prepared with the right technology and communication solutions in order to coordinate effective incident response. These solutions should be reliable, usable, and interoperable. These requirements include not only first responders but also other departments such as medical services, federal agencies, military units, and public aid agencies. The requirements for interoperability are similar across all critical public safety agencies.

From its initial concept in the late 1990s, the Alaska Land Mobile Radio (ALMR) Communications System was envisioned to provide an interoperable and cost effective Project 25/TIA 102-A standards-based, statewide, shared land mobile radio infrastructure compliant with federal, state, and local regulatory guidance and responsive to mission needs of all participating agencies in the State of Alaska.

As ALMR moves into its third decade of service to Alaskan public-safety first responders, it is important to ensure that users can continue to share critical information seamlessly with the push of a button.

The most recent system software platform upgrade has set the stage for the system to provide a greater ability to its users through time division multiple access, otherwise known as TDMA, which essentially doubles the voice channel capacity at all radio sites. As we move forward, ALMR will continue to review emerging technologies that will assist its members meet their mission requirements now and in the future.

(Article excerpts taken from "What Are Critical Communications in Public Safety?," Mission Critical Communications Weekly News, October 07, 2022)

Increased Cybersecurity Awareness

In 2022, the world saw a 28 percent increase in cyberattacks, including a 20 percent increase in attacks targeting government and military networks. Additionally, the threats behind the attacks have shifted based on the current global political climate.

As we move into 2023, all of us must renew our focus on the security of the Alaska Land Mobile Radio (ALMR) Communications System network. Many changes are in store for the system including newly added features and an increased threat profile. These changes will require member agencies to be vigilant in ensuring system reboots are accomplished when requested to do so by the Help Desk.

The patching and reboot process is necessary to ensure the continued function and security of the ALMR network. This patching process is managed through a contract with Motorola Solutions. The deployment of new security patches and software updates is accomplished on a monthly basis and these patches require the associated systems to be rebooted before they are completely applied.

The physical reboot of the hardware devices, in order for them to receive the patches, falls on the member agency to accomplish.

With the recent replacement of all Quantar site radios and the update from software operating platform 7.17.3 to 2021.1 over the last two years, the ALMR system is now fully up to date on all required security patches and device reboots.

In order to ensure that devices continue to be kept up to date, the Operations Management and System Management Offices will be monitoring the Motopatch reports provided by Motorola Solutions each month. If agencies fail to perform their reboots in a timely manner, other actions may to taken to ensure compliance.

I ask all system users and member agencies to ensure the proper actions are taken, when directed, to ensure the ALMR network is fully protected and continues to operate for all agencies in the event of an attack.

(Article written by Mr. David Reed, ALMR Information Systems Security Manager)

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What's Coming Next?

Today, the FirstNet network (built with AT&T) provides near nationwide coverage.

Still, there are a number of different groups that view the future of FirstNet differently. A number of us, including myself, are very skeptical that simplex communications over broadband will be as good as today's simplex over land mobile radio (LMR).

Then there are others who believe that in the future (near or far), FirstNet will replace all of the LMR systems and will be the only public safety network in the United States. Here again, I and others continue to believe that both types of networks are needed, and over time we will be able to communicate across networks. One example today is that there are already LMR public safety systems that have been interconnected to FirstNet so voice traffic or push-to-talk can be shared across both networks.

Still others believe the ultimate device for public safety will be one that carries both LMR and FirstNet in the same device and is capable of working on both types of networks.

So far, FirstNet has been a great success and much of that can be attributed to AT&T and others who convinced major broadband device manufacturers to add Band 14 to every phone capable of running on AT&T spectrum. This proved to be a winning combination that created a strong demand which, in turn, enabled vendors to build in quantities that kept prices low. Since 2017, devices that support FirstNet have been refreshed as often as commercial goods and new devices certified by FirstNet increase monthly. It has taken a great deal of work and planning, and we look forward to its continued success well into the future.

(Article excerpts taken from Public Safety Advocate: Good News; From One-To-One to One-To-Many Posted By: Andrew Seybold October 27, 2022)

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2022 End-of-Year System Statistics

Member Agencies: 134

Subscribers: 25,056

Group and Individual Calls*: 18,206,404

Push to Talks*: 29,881,390

Busies*/Percentage rate of calls: 5,692/.0004

(*Totals are cumulative)