ALMR INSIDER

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Grant Funding Planning

As technology continues to change and evolve, ALMR must keep pace with system upgrades and enhancements. Our most recent upgrade process started in 2020 and will allow the system to double capacity with the current frequency space that we are licensed for, as well as positioning us to take advantage of new technologies and features that are available now and in the future. The upgrade to TDMA technology requires radios that support that feature, but there are many radios still on the system that have reached end of life and will not be capable of these new technologies.

The ALMR Operations Management Office (OMO) is committed to assisting all members through this transition. We have been working with various agencies and organizations to identify potential funding sources through grant funding. We will update the program lists on our website at https://alaskalandmobileradio.org/membership/grant-information/. In addition, the ALMR grant guide provides sample language to allow you to start on your grant application. Be sure to check grant timelines and required documentation carefully, and allow for the time required for your local governing body to approve the application, if necessary.

Some government funding opportunities include the State Homeland Security Program (SHSP), the Assistance to Firefighters Grant (AFG), and the Edward Byrne Justice Assistance Grant. These and other opportunities that come from federal sources can be located on the central website at www.grants.gov. Some federal grants, like the SHSP, are administered as a pass-through by the State of Alaska. In other words, the State receives the grant money and then passes it on to local agencies.

The COVID-19 pandemic has provided funds in the past two years that were not expected for many communities and agencies. The American Rescue Plan Act (ARPA) funding is intended to support public health, address negative economic impacts due to COVID, replace lost public sector revenue, and invest in water, sewer, and broadband infrastructure among other things. Depending on your government level and structure, funds may be available from ARPA that could offset other expenses, such as payroll or lost revenues, that could be reallocated to communications infrastructure. Many ARPA funds have already been allocated, so it may be worthwhile to follow up on the status of funding in your jurisdiction.

In November, H.R. 3684, also known as the infrastructure bill, was signed into law. This bill provides just over 1 trillion dollars for infrastructure throughout the country, with a significant focus on transportation and broadband-related projects. Guidance for grants and funding from this bill is not yet available; however, the OMO will be monitoring eligibility for grants to member agencies for subscriber equipment and for the system as a whole and will advise of any updates via the ALMR newsletter and website.

We encourage member agencies to monitor grant opportunities, as well as other funding sources within their agencies, to allow for upgrades to technology as necessary. While the system upgrades require a replacement of end-of-life equipment, it is highly encouraged that all member agencies have an equipment replacement schedule with an identified funding plan in place to account for unexpected repair or replacement, as well as scheduled lifecycle upgrades. Your dealer or manufacturer can advise you of projected timeframes for radio equipment to assist in planning

(Article by Mr. Dan Nelson, ALMR Operations Manager)

Farewell

As many of you know, I accepted a position with the State of Alaska Office of Information Technology. My last day with ALMR was officially September 30, 2021, but I wanted to express to the ALMR community my heartfelt respect and admiration for all you do to keep Alaskans safe around our great state.

Serving as the ALMR Operations Manager was an extremely rewarding role and I will forever appreciate the connections I made during my time there. I think the ALMR community is in a healthy condition moving forward to face the uncertain future of our post-pandemic world. I am especially proud of our alliances we were able to strengthen and in some cases grow anew.

The future of ALMR and land mobile radio, in general, has probably never been as exciting as it is now. Partnerships will be the key to our combined futures of enhancing public safety capabilities and resilient response during times of disaster and statewide incidents.

Through continued work with the First Net Authority, the Department of Public Safety, and key vendors like Motorola, ICOM/Iridium, ATT FirstNet, and all our local partners around Alaska, the path forward is very bright! I wish you all well and hope to stay in touch.

Mr. Chris Letterman, former ALMR Operations Manager

2021 Training Recap

The ALMR Operations Management Office provides ongoing training for member agencies on the use of the system. Because of the large geographic area that ALMR serves, most training is provided on our website or done through video conferencing.

As we transitioned to new interoperability zones, the System Management Office provided two overview videos on re-programming XTS and APX handheld radios, using the Motorola Customer Programming Software. If you still need to make those changes to your radios, please review those videos or contact the Help Desk with specific questions.

ALMR has also been posting vignette videos on specific topics of interest to our members. These are very short, topical videos that can be used as a quick reference. We reviewed functions of the APX handheld radios, as well as reviewed the administrative responsibilities of ALMR members and the role of User Council representatives in videos this year.

Live training is typically an hour long and provides more in-depth discussion than vignette videos, as well as allowing for participation. Agency points of contact receive information on live training, and these sessions are recorded and posted to our website for future reference. The most recent live trainings included an overview of the interoperability zones and ALMR training for dispatchers. Live trainings generally take place each quarter.

If you have an idea for a training topic or would like to discuss needs specific for your agency that we may be able to assist with, please use the training request form on the ALMR website at https://alaskalandmobileradio.org/training-request/ or contact the Operations Management Office at (907) 777-1109 or by email at dan.nelson@wostmann.com.

Dispatch Console Reboots

Current system scanning tasks show that software patches are not being applied effectively across the ALMR network. Member agencies that operate consoles on the ALMR system, including dispatch consoles, recording systems, and other specialized hardware are reminded that system patching occurs on a monthly basis. These patches apply mandatory security and software updates to all systems that connect to ALMR and are vital to maintain a secure and reliable network for all users.

It is a requirement for agencies that operate consoles on the system to perform security patching restarts, when requested. The ALMR Help Desk sends out reminders when patches are deployed to the system for users. Please complete the restarts as indicated in the report as soon as possible after you receive it from the Help Desk. As an alternative, it is good practice to restart consoles on a regular basis (e.g. weekly) to allow updates and to ensure the computer is performing efficiently. At this time, some systems have not been rebooted in months and will require multiple reboots to return them to compliance.

With the continued focus on cybersecurity, the prompt application of patches is a simple way to maintain "computer hygiene" and a secure environment. ALMR staff work continuously with Motorola to maintain a system that meets all applicable regulations and operating practices for public safety and DOD information assurance. Your assistance is appreciated

Please contact the Help Desk if you have any questions.

(Article by Mr. Dan Nelson, ALMR Operations Manager)

Radio Programming Best Practices

As the transition to TDMA technology on the ALMR system continues, many agencies are replacing their older radios. During this process, there is an opportunity to ensure that subscriber units are programmed appropriately to work best on the system. The following are a few of the best practices to keep in mind as you modify codeplugs or bring new radios on the system:

- **Ensure new interoperability zones are programmed.** As a reminder, the new interoperability zones went into effect in January 2020. The old lettered zones (A, B, C, etc.) are no longer functional and were replaced by regional interoperability zones: Central, North, and Southeast. ALMR Interoperability Procedure 300-3 requires member agencies to have at least the interoperability zone they are located in programmed in their radios.

- **Codeplugs should generally not have preferred sites.** ALMR staff has noticed some codeplugs, especially older ones that have been copied into many radios, have preferred sites listed. The ALMR system automatically places subscriber units on the best tower site available, and preferred sites may cause operational issues for the user if not programmed correctly.

- **Verify your Radio ID and Alias.** When programming radios, if cloning is used it can cause the same radio ID to be assigned to multiple radios at the same time. When this occurs, the results can be very unpredictable because the system can only recognize the radio ID once during transmissions. If the cloned radios are working on the system at the same time, generally it will cause the radios to not receive all incoming traffic and dispatch centers may not to hear transmissions from the radios. When cloning, check all ID fields before releasing the radio into the field. There are three general areas where the radio ID resides in the codeplug for Motorola radios: the trunking system ID list, the ASTRO OTAR radio ID list (if used), and the radio alias. Check all three to ensure that the radio ID is correct and not a duplicate of another radio.

- **Do not enable scan capabilities.** Scanning in a P25 radio system works differently than a conventional system and may not always work as intended. Due to limitations of the system, ALMR recommends that scan not be enabled in codeplugs.

- **Keep inventory updated.** Agencies should have received their annual inventory lists during the last quarter of 2021, and will be asked to sign that they have confirmed the accuracy of their inventory. If you have radios that are no longer being used, please contact the Help Desk to have them deleted. They will then no longer be shown on your inventory and will allow the System Management Office to ensure that only active radios are listed in the system. Additionally, each agency is assigned a unique prefix that must begin each subscriber alias. Agencies should ensure their radio aliases have the correct prefix assigned in the system during the inventory confirmation process and make corrections, as needed.

(Article by Mr. Dan Nelson, ALMR Operations Manager)

Spotlight on State of Alaska Division of Forestry

The State of Alaska (SOA) Division of Forestry (DOF) is responsible for wildland fire protection services and related fire and aviation management activities on 150 million acres of land throughout Alaska. Forestry has a fleet of fixed wing aircraft, helicopters, fire engines, and firefighters to accomplish this mission.

The Alaska Land Mobile Radio (ALMR) Communications System is essential to our Fire Operations. We have four dispatch centers, three of which are the center of our operations along the Alaska road system. During the fire season, Northern Forestry Dispatch in Fairbanks, the Mat-Su Forestry Dispatch in Palmer, and Kenai Interagency Dispatch in Soldotna use ALMR every day to accomplish our firefighting mission.

We regularly work and coordinate with area fire departments, the Alaska State Troopers, the Alaska Department of Transportation, local tribes, and our federal fire partners such as the US Forest Service, the Bureau of Land Management Alaska Fire Service, the US Fish and Wildlife Service, and the National Park Service with many conventional radio repeaters that are tied back into our Motorola consoles that are part of the ALMR system infrastructure. This functionality of ALMR is essential to our operations. We also have Iridium-based radios that are tied into our consoles and are used in those areas where we don't have ALMR trunking coverage or repeaters.

When an incident or fire goes beyond the initial response, it is standard practice in wildland fire operations to set up our own internal system using National Interagency Fire Repeaters and take our operations off of the local system for that particular incident. This can be very important in reducing the impact on day-to-day traffic and allowing other agencies and even our own firefighters to focus on other responses in Alaska by utilizing the ALMR trunking system.

ALMR has been a great success for the State Of Alaska and its partners. The Division of Forestry has been able to use and rely on the system for these many years and we anticipate many years to come.

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Upcoming System Upgrade

Over the last summer, the ALMR team conducted site upgrades throughout the state, replacing the original Quantar site repeaters with new GTR-series repeaters. This is a pre-requisite to an entire system upgrade scheduled for completion this fall, which will switch the technology used for the system to Time Division Multiple Access (TDMA).

New features include P25 Phase II TDMA and Dynamic Dual Mode (DDM) feature which allows a single channel to operate in FDMA or TDMA mode depending on the affiliated talkgroup and user radio capabilities. For DDM-capable RF sites and subsystems, the system determines which mode is used to assign calls over-the-air in a dynamic manner. The P25 site control channel and IV&D data continues to operate in FDMA mode. From an end-user perspective, FDMA and TDMA calls will operate the same.

Dynamic Transcoding enables communication between FDMA and TDMA. Because the call type is determined on a site-by-site basis, more sites can operate in TDMA – even in a mixed fleet of FDMA and TDMA radios. This means more efficient use of channels and frequencies, and all sites and radios can participate in a call regardless of the originating call type. Dynamic transcoders reside in each zone core, translating between FDMA and TDMA audio formats. Each site operates in the best mode based on the channel resources available and capabilities of the radios at that site. If all TDMA resources at a site are busy, the call can still go through because ASTRO 25 with transcoding will switch the call at that site to available FDMA resources, rather than wait for TDMA resources at that site to free up. Please contact the ALMR offices if you have any questions.

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ALMR 2021 End-of-Year Statistics

Member Agencies: 133

Subscribers: 24,590

Group and Individual Calls*: 13,664,614

Push to Talks*: 25,269,089

Busies*/Percentage rate of calls: 6,141/.0004

(*Totals are cumulative)