



**ALASKA LAND MOBILE RADIO EXECUTIVE COUNCIL
(A Federal, State and Municipal Partnership)**



MEMORANDUM FOR ALMR Executive Council

April 19, 2018

FROM: DOD Co-Chair

SUBJECT: January 18 Meeting Minutes

TO: See Distribution

Executive Council Members Present:

Colonel Timothy Maxwell	Department of Defense (DOD) – Alaskan Command (ALCOM)/J6
Deputy Commissioner Bill Comer	State of Alaska – Department of Public Safety (via teleconference)
ASAC Antony Jung	Alaska Federal Executive Association - Federal Bureau of Investigation (via teleconference)
Ms. Linda Murphy	Alaska Municipal League (via teleconference)

ALMR Support Team Members and Guests Present:

Mr. John Rockwell	User Council Chair
Mr. Del Smith	Operations Manager
Mr. Chris White	DOA Office of Information Technology
Mr. Scott Stormo	SATS/ALMR Manager
Mr. Tim Woodall	DOD ALMR Program Manager
Mr. Trygve Erickson	Municipality of Anchorage (via teleconference)
Mr. Jim Nicholl	Motorola Solutions
Mr. Joe Pixsa	Motorola Solutions
Mr. Nate Skinner	User Council Vice Chair
Mr. Bruce Richter	OEC Regional Coordinator
Ms. Sherry Shafer	Operations Management Office (via teleconference)

1. Call to Order. Deputy Commissioner Bill Comer, State of Alaska (SOA) Co-Chair, who was out of town and attending via teleconference, requested Colonel Timothy Maxwell, Department of Defense (DOD) Co-Chair, run the meeting since he was present in Anchorage. Colonel Maxwell agreed and called the meeting to order at 1:33 p.m. Roll call was read.

Mr. Bruce Richter joined the meeting after roll was completed.

2. Opening Statements and Other Announcements.

Deputy Commissioner requested Mr. John Rockwell provide an update on FirstNet at some point during the meeting.

3. Approval of Previous Meeting Minutes. Colonel Maxwell asked the if everyone had reviewed the October meeting minutes and requested a motion for their approval, if there were no changes.

Motion: Approve the October 19, 2017, Executive Council meeting minutes, as written.

The motion was made by Deputy Commissioner Comer and seconded by Colonel Maxwell. There were no objections. **The motion was carried and approved.**

4. Old Business.

a. Revenue Generation. Mr. Rockwell advised there were still no new updates, although Deputy Commissioner Comer had received a lot of good comments.

Deputy Commissioner Comer stated he had made some proposals and suggestions to the Department of Administration and asked Mr. Scott Stormo if he had anything further ideas.

Mr. Stormo said he had nothing other than the Federal Non-DOD cost share rates were not completed.

Mr. Rockwell recommended to the Executive Council this item be tabled until sometime around July when they would be able to bring the suggested ideas to the Governor's office.

Both Colonel Maxwell and Deputy Commissioner Comer concurred. This item is **TABLED** until further notice.

b. Telephone Interconnect for the Transportable Communications System. Mr. Woodall stated he had not done anything with this since the last meeting but would get a draft to Mr. Stormo.

Mr. Rockwell asked if the plan was to use the Cooperative and Mutual Aid Agreement as the basis for this.

Mr. Woodall stated it was but that having an interconnect agreement in place would be helpful when administrations change so we would have something that provides the historical precedence. He noted it would be listed as an addendum to the Cooperative and Mutual Aid Agreement.

Mr. Rockwell added that the service levels should also be included in the interconnect agreement to set expectations in case this was outsourced by the State in a future contract.

c. System Upgrade Assistance (SUA) and Equipment End of Life (EOL). Mr. Woodall briefed the contract had been awarded by the State with the caveat the DOD, State of Alaska (SOA) and Municipality of Anchorage (MOA) all come forward with the funds.

Mr. Jim Nicholl advised the update to the 7.17 platform was now on the Motorola operations calendar and they would be assigning a project manager once all the funds were obtained. He added a System audit would begin and the equipment ordering would take place around the end of August after Mr. Woodall expressed great concern regarding the lack of a DOD FY18 budget and the possibility of further delays in Congress.

Mr. Nicholl stated the first of September should be the beginning of the execution phase, but they would be putting together milestones for invoicing other work being completed prior to the installation.

Mr. Trygve Erickson briefed the funding request would go to the voters the first Tuesday in April and he was currently working on the wording of the bond package. He stated that historically the voters had always supported the updates which were public safety communications bonds. He stated the city could do a purchase order once the bond passed and that would move quickly.

d. MotoBridge® System. Mr. Woodall recommended to the Executive Council this be closed.

Mr. Stormo stated he had met with Deputy Commissioner Comer regarding his concerns from the October meeting/

Mr. Woodall briefed the DOD had done a very thorough analysis of the MotoBridge system and usage and provided that information to Motorola, as well.

Colonel Maxwell agreed to close the item and Deputy Commissioner Comer concurred.

This item is now **CLOSED**.

e. FirstNet. Mr. Rockwell reminded the council FirstNet was a nationwide public safety network, approved through Congress, and which AT&T won the award to build it on a dedicated Band 14 environment. He added there was speculation FirstNet would replace LMR, but as of today, FirstNet's opinion and statement is that they are not here to replace LMR networks, but they are here to supplement them, as needed. Mr. Rockwell added FirstNet understands the change of technology moves so quickly there could be in the future a replacement of LMR by FirstNet and they are looking towards the integration and maybe eventually replace LMR. To that end, he stated the State has requested grant money, about \$350K, from the State Local Implementation Program (SLIGP) to hire a consultant/contractor for two years to study and give us the roadmap to integrate FirstNet with ALMR.

Mr. Rockwell advised there are two different methodologies, there is the WAVE technology by Motorola, which the Anchorage Wide Area Radio Network (AWARN) has implemented and is in a test mode right now and hopefully we will be able to include some ALMR devices in the test, and also through the acquisition of the Kodiak, which Motorola also is a partner with FirstNet. He added these are push-to-talk networks for over-the-top devices that work on FirstNet that simulate ALMR. Mr. Rockwell stated they are not what we consider public safety-grade today, but as the networks flourish and AT&T strengthens their network, there could be a time in the future that we would consider the FirstNet network public safety grade and the technology would be there. He noted at that time, we could look at replacing some of the ALMR push-to-talk devices with a push to talk over broadband.

Mr. Rockwell pointed out he didn't know when this would occur, but his guesstimate would be there would be some level of integration in the next two years and in five years there could be some smaller volunteer departments that could be FirstNet only and doesn't need to integrate fully with ALMR, but even in five years, there's no way we can replace what we have today. He added, yes, there is a possibility in the future that FirstNet will replace ALMR, but not today and reiterated the hiring of the contractor to look at the environment and technology

Mr. Woodall added on the technical/legal side, Congress passes law with regard to allocation of electromagnetic spectrum and defines a level of service. He continued, stating LMR is designated to certain specific frequency bands allocated for public safety and FirstNet operates in the cellular/commercial spectrum and so legally impossible to operate in LMR service designated for public safety.

Mr. Woodall pointed out there would have to be a re-designation by Congress of that spectrum to a public safety LMR service to replace an LMR system, otherwise the FCC nor the NTIA could allocate the spectrum, because again it's tied to legislation law and, by law, spectrum is allocated to services. He questioned, so as we talk about the convergence of technologies, who is addressing this with the FCC and Congress with regard to ensuring if we are going to do a convergence of technology and move LMR services out of the current allocated spectrum, or expand that allocated spectrum, into what is a commercial digital data spectrum for cellular services primarily allocated for civil service/civil bands.

Mr. Woodall stated in the spectrum world, the ability to get a piece of equipment certified to operate in an authorized portion of the spectrum requires that piece to be properly established in the spectrum by law, so he is concerned about that because the process takes a while. He noted hopefully FirstNet has lawyers, because that is what it will take, looking at that and talking with the FCC and someone in Congress, so we can go down that road.

Mr. Rockwell briefed FirstNet has been allocated Band 14 spectrum in the 700MHz realm, so part of him thinks they are talking apples and apples, and it would not be that difficult for them to get the designation back to public safety. He noted we are talking a 20-year contract in the hundreds of billions of dollars, so he's sure they are "dotting their I's and crossing their T's," so to speak legally, but these are also the issues we need to address as we look at either an integration or a transition plan to a FirstNet-type push to talk over LTE replacement for ALMR. Mr. Rockwell stated those kind of issues bolster his point that this is not a push to do today, but he is optimistically saying 5 - 7, but mentally he is thinking 10 - 12 years.

Mr. Woodall stated, purely from a physics perspective, one of the reasons in the State of Alaska we use VHF radio spectrum is because of the terrain and distances we have to operate on. He added, if you move up into the LTE-type environment, the number of radio sites would quadruple and the cost to implement and the maintenance costs would appear to be unachievable/unsustainable, as we have a hard time sustaining the VHF system we have now that is very well designed to use the spectrum and is based on the terrain characteristics that we have.

Mr. Woodall continued he thought, in order to do this, FirstNet would have to look at some sort of diversity where they converge the technology, yet use dual banding to facilitate. He added, the current Motorola system is a VOIP system and through a WAVE approach, the voice traffic could be integrated into the data packet and de-coded on the other side, so today they can do that, but again you still have the issue of supporting that data network to the level that you can currently support the VHF system we have here in Alaska.

Mr. Rockwell stated this was well put and he thinks the propagation of the Band 14 for FirstNet is going to take longer than we might want, and if we look at the five-year plan AT&T gave to the State Alaska, it still comes short of the coverage that ALMR has, basically because of the different types of spectrum and the way it is able to propagate further especially in our type of terrain.

Mr. Rockwell said they had a few meetings to understand the technologies behind the scenes and the Kodiak product is fairly obtainable doing a small integration test tying our ALMR network to the FirstNet core utilizing the ISSI adapter the MOA has. He added they had been given a dollar figure that was less than \$15K for the connection, plus the monthly fee and what that gives us is all the talkgroups already built into ALMR and mirrors it on the FirstNet Alaska core, which is somewhere else so we have to look at the redundancy of that. Mr. Rockwell provided an explanation of the abilities this could

provide for an agency such as Anchorage Fire Department and the cost would be a share of that \$15K integration plus, per device it's \$2.75 a month.

Mr. Stormo clarified this amount doesn't get you talking to a land mobile radio talkgroup on ALMR, that this is the cost of getting FirstNet connected to the ISSI gateway and how they are mapped through the ISSI gateway to the ALMR is not yet known at this point and the cost for that is not yet known. He went on to state what FirstNet AT&T has demonstrated is how to use the Kodiak PTT app to create talkgroups in that web interface that you can use on your cell phones to PTT talk to multiple people, but not how it ties into our LMR to talk to the Trooper talkgroup on the radio to a similar talkgroup named on Kodiak. Mr. Stormo stated it's certainly doable through WAVE, but the cost and management and governance as to how to do that is not yet known, because you obviously don't want just anyone stating they want the Trooper talkgroup and adding it to their phone.

Mr. Woodall added once that's established the dispatch approach to public safety would have to be tackled.

Deputy Commissioner Comer advised the point is they want no secrets from the Executive Council, and everyone to be briefed and get the same information, so as technology progresses, if something pops up that is going to change the way we are doing business, they want everyone to have it at the same time. The State, especially the Department of Public Safety and our municipal partners, are totally committed to ALMR. They don't perceive the cross-pollination for FirstNet at any time soon.

Colonel Maxwell stated this was good to hear.

Mr. Rockwell stated they wanted to be upfront and open and they are here for the long haul.

Colonel Maxwell stated this item would be kept on the agenda.

f. Cost Share. Mr. Stormo advised he had a meeting with the Office of Information Technology (OIT) fiscal organization and they were looking at coming up with cost share rates and should have something next week.

5. User Council Update.

a. Annual Election. Mr. Rockwell advised every year the User Council holds an election for the Chair and Vice Chair position. He stated he was elected to the Chair position and Mr. Nate Skinner was elected to the Vice Chair position.

b. User Council 2017 Annual Assessment on System Operations and Management Performance. Mr. Rockwell briefed the User Council 2017 Annual Assessment on System Operations and Management Performance is a report prepared each year by the Operations Management Office (OMO) on behalf of the User Council that assesses how the OMO and the System Management Office (SMO) have done running and

overseeing the System. He noted the User Council had approved the document on January 17 and it would be emailed to the Executive Council after today's meeting for their acceptance and approval.

c. User Council Changes. Mr. Rockwell stated there were some retirements in the User Council, one that had already occurred and one that was upcoming. He advised Ms. Tammy Goggia, Municipalities Central primary representative, had retired on December 31, and also noted she was the PSAP manager in Soldotna.

Mr. Rockwell stated Ocie Adams, the previous User Council Chair, would be retiring in April. He added the DOT primary position is already filled and there was an individual from MatSu looking into the Central-municipalities position. Mr. Rockwell also briefed both the primary and alternate JBER positions were vacant and had been since November.

Mr. Woodall advised the Communications Squadron was undergoing a reorganization and their personnel were shifting around and some had also changed stations. He advised this would take a few months and he had suggested the council members should come from outside the Communications Squadron and move to the operations side of the house, possibly to the Fire Department and the Security Police.

Colonel Maxwell stated he could also discuss the issue with the Communications Squadron Commander.

6. Operations Management Office.

a. FY18 Membership Agreements. Mr. Smith briefed there was no change in the status of this item and the OMO had sent out the fifth 30-day extension on December 28. He also stated the OMO would be sending out the FY19 agreements starting in May but would like to get this done. Mr. Smith stated there were at least four Federal Non-DOD agencies who had participated in the cost share discussions who would like to pay the SOA and did not understand what's taking so long.

Deputy Commissioner Comer stated Mr. Chris White was from the SOA Office of Information Technology (OIT) covering this from the State and might be able to provide some information on how we get the cost share resolved.

Mr. Stormo advised that Mr. White had to drop off for another meeting but advised the fiscal team who works rate for the agency was engaged to look at the rules for how to develop rates and they are currently working on it. He added once they are done it has to go up for the Chief Information Officer (CIO) approval and the expectation was they would have a rate structure figured out by the end of the week. Mr. Stormo added he believed at that time Mr. White would take it up for the CIO approval.

Deputy Commissioner Comer stated he was looking forward to getting this box checked.

b. First quarter Master Site rollover. Mr. Smith briefed the System is currently up to date and there are no core patches to apply and only some security patching that will take place.

c. Radio usage. Mr. Smith stated this was an issue explained to the User Council in depth, but believed it was constructive to make the Executive Council aware of what was going on. He advised them there was a situation involving an agency who recently called the System Manager one evening stating their radios weren't working and believed it was the System.

Mr. Smith briefed the System Manager sent a technician to the ALMR office to make sure the System was up, and it was. He stated the next day the System Manager traveled to that general area checking the site receive signal indicators to see if they were working correctly and they were.

Mr. Smith advised that the System Manager acquired one of the agency radios and performed an auto-tune and discovered the radio had never been looked at since it was put in the field and the codeplug had several preferred sites in it, which is not good because the radio will always look for that sites. He stated the System Manager worked with the agency to straighten out their codeplug and strongly suggested the agency get all their radios checked. Mr. Smith briefed the OMO put an article in the *Insider* newsletter this month about radio maintenance, because this problem is not restricted to just one agency. He stated the OMO strongly recommends agencies to conduct periodic radio maintenance inspections each year.

Mr. Smith noted the other agencies at that particular situation did not have any radio problems. He added the final problem was the dispatch center was on Region B and they are not in Region B, and the people at the scene were on Region E, and although they eventually figured it out, there are obviously training issues. Mr. Smith stated, several years ago, the State was kind enough to fund training, but apparently no one is doing it now although it's a requirement for agencies to do training.

Mr. Rockwell included that not only do you get codeplugs pointing to the wrong tower or region, but also the radio itself becomes un-tuned and if you don't look at it on an annual basis, you can't verify the radio is optimized, when needed. He noted even the Department of Public Safety, who is dedicated to this, does not touch the radios annually and requested Mr. Smith keep pushing and hopefully everyone will become more educated and, therefore, try to help themselves.

Mr. Stormo asked Mr. Smith if he wanted to touch on the recent discussions at the User Council regarding DiagnosticX.

Mr. Smith stated DiagnosticX is a device that can be placed at radio sites, which will tell us if radios are problematic. He noted it you would need more than one for the System, but they would let you figure out which units you actually need to bring in as supposed to bringing in 20,000 every year to check. Mr. Smith noted this was discussed with the User Council and there was some interest, but of course it costs money.

Mr. Stormo added that the short of it is that not only do they need a budget, but they need some higher-level interest to generate whether or not the State, local or Federal and DOD agencies want to try to figure out a way to pull some money together to buy a system like this.

Mr. Jim Nicholl advised the Municipality of Anchorage (MOA) already has one of these systems and they use it. He stated for large systems they (Motorola) always recommends them, because a lot of time those radios go out in the field and are never touched again until, like in this instance, there's a failure of the user's radio. Mr. Nicholl briefed they still recommend preventive maintenance be done on a subscriber once a year, if at all possible, but this particular device listens in the background and spits out a report that says "John Doe's radio is starting to get out of line; bring it in," so it tracks the status of the radio and tells you when it is getting out of sync.

Mr. Smith advised the SMO goes to each site and makes sure the site radios are functioning as they are supposed to be, but it needs to be on both sides.

Mr. Stormo added the technicians also need access to service monitors to be able to auto-tune and correct these functions on the subscribers and they have one at Tudor Road in theory, supporting over 7,000 State radios and there is no way that one piece of equipment could process through, in any kind of an assembly line, 7,000 subscribers in a year. He noted they have asked to buy more, but at the moment it seems like they are going to be denied the opportunity. Mr. Stormo stated he thought it was some kind of misunderstanding, and they needed to find a better way to get the user community to say this is something needed to sustain ALMR.

d. Zone 1 ALMR UPS/Batteries. Mr. Smith briefed every Wednesday morning the generator kicks on here (Tudor Road) to make sure everything is functioning correctly and a couple weeks ago there was a bit of a hiccup regarding the Zone 1 controller. He stressed they did not lose service because of the redundancy built into the System.

Mr. Travis Conant, System Manager, explained how the redundancy was built into the two sides of the uninterrupted power source (UPS). He noted it was determined it was not a battery issue, and the fuse in question had been ordered from a local vendor to be installed.

Mr. Stormo stated it should be happening today between 1 and 2p.m. today.

Mr. Smith briefed the System did what it was supposed to do, but was advised by the System Manager that "cold starts" are not a good thing, so they wanted to ensure it was repaired and the State had moved quickly on that. He added the decision to include the System redundancy was a smart decision way back.

e. December System Metrics. Mr. Smith noted there 1,094,609 group calls and 2,011,077 push-to-talks within those group calls, for a total of 271 busies, which was up slightly from the previous month. He added it is about where it would be expected.

f. 2017 Business Case. Mr. Smith advised the 2017 Business Case would be going out to the Executive Council after the meeting by email for their reading enjoyment. He noted the OMO had put a section in the "Risks" touching on FirstNet and its unlikelihood of replacing LMR very soon, but recognizing FirstNet is important and out there, but recognizing it is not replacing the System any time soon. Mr. Smith briefed the Business Case comes to the conclusion that System is still a viable situation for public safety agencies of Alaska and should continue to exist, be funded and maintained. He added the council would be asked for their vote of approval by email.

g. Operations Management Office 2017 Annual Information Assurance Audit Report of Findings. Mr. Smith stated this is another document going to the council after the meeting and it is a report of actions taken to ensure the System is safe and the quality control checks were performed during the past year. He noted the report has been prepared annually since he'd been doing this and it would be emailed after the meeting, but if the council had any questions or concerns, please call the OMO.

7. New Business.

a. SOA Quantar Replacement. Mr. Stormo directed the council's attention to the white board on the wall and noted after the 7.17 update, the State would be the sole partner who has Quantars on the System. He added 7.17 software would be, roughly, supported through December 2021 and after that the State needs to have all their Quantars replaced by then. Mr. Stormo pointed out the State has about 73 sites with Quantars and no money in the FY19 budget, down to FY20, FY21 and a very short part of FY22 as the only budget opportunities to get the State's Quantars replaced or they would hit 7.17 end of life in December of 2021. He added they would, as a partnership, not be able to go beyond 7.17.

Mr. Woodall quantified Mr. Stormo's discussion stating only four versions of the software is supported by Motorola and as of December 2021, Motorola would no longer do any patching of the 7.17 system and we would fall out of IT compliance and would not be able to retain the authority to operate (ATO) on the System. He noted these costs would be aside from the System upgrade that they are looking at here in FY18, and the dollars to do the System update does not replace the Quantars, which are separate from that.

Mr. Stormo added there were really only two fiscal years and it would be physically impossible in the last half year in FY22 to upgrade all the Quantars sites. He also added an update to 7.21 would cost about the same as the 7.17 update, so it would be another \$3 – \$4 million for the State.

b. Separation Study Update. Mr. Woodall stated the State Legislature and maybe even the CIO gets weary of the costs associated with the maintenance of the System. He briefed that in a the discussion in a meeting with Motorola, before the Executive Council meeting, that the cost to essentially break the System apart is more expensive than it is to do the Quantar replacements. He added, in other words if they stopped operating on the System, at that point the State could sustain for a period of time,

although when Quantars or the subscribers at end-of-life broke, they would not be supportable or be able to be fixed.

Mr. Woodall briefed, for Federal infrastructure owners like DOD, the cost to separate from the System would mean they would have to move to a 380 – 400 UHF system infrastructure and completely replace all the infrastructure they currently have and the subscribers. He stated in 2008, they did a Separation Study and the cost of that for the DOD was around \$30M; today that cost would be substantially more.

Mr. Woodall recommended they commission an update of the Separation Study and a Cost Reasonable Study that looks at, is it reasonable for us to sustain this system in its current life cycle costs and compare that to the cost of separating from a cost basis and from an operational basis, with the loss of interoperability. He stated part of the discussion should be should we look at revamping those documents from 2008 to reflect up-to-date numbers and would the State CIO allow us to independently update those or would they require an independent contractor to come in and take a look at it, in which case there would be a cost. Mr. Woodall added in 2008, DOD paid for those studies through funds from Senator Stevens from a Congressional insert to benefit both the State and DOD, but insert funding is no longer tolerated.

There was additional discussion among the group on Congressional inserts, the objection to the System at the time, what the studies covered, the cost associated with maintaining the ALMR enterprise and if the State was bearing more of a burden than the DOD, previously provided life cycle costs, the reason for an independent contractor doing the study, the value of updating these studies, if the State CIO would support updating the studies and whether there were any available grants for obtaining the money to do the studies.

Mr. Woodall stated he believed they needed to update those studies and requested this item be left open as we search for a solution and also discuss with the SOA CIO.

Mr. Smith asked if the documents were available and Ms. Sherry Shafer stated all the studies/reports were available on the web site.

Mr. Woodall also stated he thought that the Office of Emergency Communications (OEC) had done an analysis of the System and compared it to the national strategy more than from a funding picture. He thought there was a need to keep the documents up to date to supply to new CIOs, legislators, etc. Mr. Woodall added the documents helped secure \$146M in Congressional insert dollars for the program and the State paid about \$40M, with the total cost of the System around \$200M.

Colonel Maxwell asked this discussion be kept on the forefront.

8. Next Meeting. Colonel Maxwell advised the next meeting is scheduled for April 19, 1:30 p.m. at the OIT Conference Room, 5900 E Tudor Road.

Colonel Maxwell offered a motion to adjourn the meeting and it was seconded by Deputy Commission Comer. There were no objections. **The motion was carried and approved.**

The meeting adjourned at 3:07 p.m.

Timothy P. Maxwell, Colonel, USAF
USNORTHCOM ALCOM J6
ALMR Executive Council

Distribution:

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FBI, ASAC Tony Jung
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SOA DOA, Mr. Scott Stormo
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MOA, Mr. Trygve Erickson
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SOA DPS, Mr. John Rockwell
OMO, Mr. Del Smith