Alaska Land Mobile Radio Communications System

Talkgroup Development Procedure 400-14

Version 16

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Acronyms and Definitions

Alaska Federal Executive Association (AFEA): federal government entities, agencies, and organizations, other than the Department of Defense, that operate on the shared ALMR system infrastructure.

Alaska Land Mobile Radio (ALMR) Communications System: the ALMR Communications System, as established in the Cooperative and Mutual Aid Agreement.

Alaska Municipal League: a voluntary non-profit organization in Alaska that represents 165 cities, boroughs, and unified municipalities. .

Alaska Public Safety Communication Services (APSCS): a State of Alaska (SOA) office in the Department of Public Safety (DPS) that operates and maintains the SOA Telecommunications System (SATS) supporting ALMR and providing public safety communication services and support to state agencies.

Codeplug: a radio's personality data that contains various programmable parameters, including frequencies, time-out-timers, and so on. Codeplug files can be archived on the computer's hard drive for later use or cloned to other radios with identical model and manufacture feature sets.

Coverage: a location where a mobile or portable radio has access to a base station or repeater under normal conditions.

Department of Defense (DoD) – Alaska: Alaskan Command, US Air Force, and US Army component services operating under United States Pacific Command and United States Northern Command.

Department of Public Safety (DPS): a State of Alaska (SOA) department where the SOA Telecommunications System (SATS) and ALMR programs reside.

Executive Council: governing body made up of three voting members and two associate members representing the original four constituency groups: the State of Alaska, the Department of Defense, Federal Non-DoD agencies (represented by the Alaska Federal Executive Association), and local municipal/government (represented by the Alaska Municipal League and the Municipality of Anchorage).

Fleetmap: determines how the radio communications for each user group of an organization is controlled. Through controlling communications between different user groups and between individuals within a group, the radio communications system resources are used efficiently. Fleetmapping also provides a structured approach to the management of a large number of radio users and provides the opportunity to plan in advance for expansion or changes within an organization.

Help Desk: where repair, maintenance, and programming issues/problems are reported, and assigned under the ALMR System Manager.

Incident Command System (ICS): the ICS is a management system used to organize emergency responses. ICS offers a scalable response to an emergency (incident) of any magnitude and provides a common framework within which people can work together. These people (resources) may be drawn from multiple agencies that do not routinely work together. The system is designed to grow and shrink along with the incident, allowing more resources to be smoothly added into the system when needed and released when no longer needed.

Interoperable Communications: the ability of public safety, including emergency and other first responders, to talk to one another via radio and other communication systems, and to exchange voice and/or data with one another on demand in real time.

Local Governments: those Alaska political subdivisions defined as municipalities in AS 29.71.800(14).

Member: a public safety agency including, but not limited to, a general government agency (local, state, tribal, or federal), its authorized employees and personnel (paid or volunteer), and its service provider, participating in and using the system under a membership agreement.

Membership Agreement: the agreement entered into between the ALMR Operations Management Office, as the designated agent for the Executive Council, and the user agency, which sets forth the terms and conditions under which the system provides services to the user agency and the user agency's responsibilities while operating the System.

Municipality of Anchorage (MOA): the MOA covers 1,951 square miles with a population of over 300,000. The MOA stretches from Portage, at the southern border, to the Knik River, at the northern border, and encompasses the communities of Girdwood, Indian, Anchorage, Eagle River, Chugiak/Birchwood, and the native village of Eklutna.

Operations Management Office (OMO): develops recommendations for policies, procedures, and guidelines; identifies technologies and standards; and coordinates intergovernmental resources to facilitate communications interoperability with emphasis on improving public safety and emergency response communications.

State of Alaska (SOA): the primary maintainer of the State's infrastructure system, and shared owner of the system. The State of Alaska sponsors local/municipal agencies onto the system.

State of Alaska Telecommunications Systems (SATS): the State of Alaska

statewide telecommunications system microwave network.

Subscriber: an individual, organization, or company that is uniquely identified within the system as a user of services.

Subscriber Equipment: portable, mobile, and console equipment that is intended to operate on the ALMR infrastructure for day-to-day intra-agency communications and/or inter-agency cross-jurisdictional interoperability purposes. Subscriber equipment can also include network management terminals, key management facility equipment, gateway, and other assets which are determined not to be a cost share burden in applicable Memoranda of Agreement (MoAs).

System: the ALMR Communications System, as established in the Cooperative and Mutual Aid Agreement, and any and all System Design/System Analysis (SD/SA) and System Design/System Implementation (SD/SI) documents.

System Management Office (SMO): the team of specialists responsible for management of maintenance and operations of the system.

Talkgroup: the electronic equivalent of a channel on a trunked system; a unique group of radio users that can communicate with each other.

Trunking: because of the limited nature of the radio spectrum, trunking technology allows the most efficient use of radio channels. Trunking technology is similar to the technology that telephone companies use. In trunked radio communications, all available user channels are placed into one pool. When a person needs to transmit, a channel is automatically selected from the available pool and used for the transmission. When the person is finished with the transmission, the channel is placed back in the pool for another individual to use. The result is more efficient use of the radio spectrum with a minimal probability of not having access to a channel.

User: an agency, person, group, organization, or other entity which has an existing written membership agreement to operate on ALMR with one of the parties to the Cooperative and Mutual Aid Agreement. The terms user and member are synonymous and interchangeable. All terms and conditions of the Cooperative and Mutual Aid agreement defined apply to local/municipal government agencies that are sponsored/represented by the State of Alaska.

User Council (UC): governing body responsible for recommending all operational and maintenance decisions affecting the system. Under the direction and supervision of the Executive Council, the User Council has the responsibility for management, oversight, and operation of the system. The User Council oversees the development of system operations plans, procedures, and policies.

1.0   Purpose

This procedure is designed to provide appropriate guidance for all agencies operating on the Alaska Land Mobile Radio (ALMR) Communications System regarding establishing standard practices concerning the development and use of talkgroups. Adherence to this procedure and the established guidance will enhance day-to-day operations and interoperable communications.

2.0   Roles and Responsibilities

2.1   Executive Council

The Executive Council (EC) shall be responsible for the management and enforcement of sanctions when violations of the Talkgroup Development Procedure warrant such action.

2.2   User Council

The User Council (UC) shall be responsible for:

- Formal approval of the Talkgroup Development Procedure and any substantial revisions hereafter.
- Review of agency subscriber codeplugs by committee members within a two-week period of submission, when requested.

2.3   Operations Management Office

The Operations Management Office (OMO) shall be responsible for:

- Providing the appropriate forms/information to agencies requesting to share talkgroups.
- Maintaining records of all correspondence pertaining to talkgroup sharing requests.
- Maintaining a database of those agencies with shared talkgroups,
- Providing the System Management Office with copies of signed agreements and posting copies of final agreements to the file server.

2.4   System Management Office

The System Management Office (SMO) shall be responsible for:

- Developing talkgroups based on agency needs.
- Assigning identification numbers, programming review, providing the initial ALMR template, and fleet map, as appropriate.

- Ensuring all talkgroups have unique names and maintaining a data base to avoid duplication.
- Approving programming of agency talkgroups into another agency's radios, upon receipt of a signed Talkgroup Sharing Agreement, by providing the appropriate hex codes to the requesting agency/agencies.
- Providing copies of completed Talkgroup Sharing Agreements to both the owning and requesting agencies.
- Disabling talkgroups when an agency leaves the system.
- Notifying affected users to remove shared talkgroups when the owning agency chooses to no longer share their talkgroups.
- Taking action, to include disabling user radios, if users fail to remove shared talkgroups when the owning agency chooses to no longer share their talkgroups.

NOTE: Prior to development and implementation of the Talkgroup Sharing Request form, email authorization was an approved method. Those agencies previously authorized to share talkgroups via email will continue to be authorized until such time that the agreement is superseded or no longer valid or is cancelled by the owning agency.

2.5   User/Member Agency

Agencies operating on ALMR who are requesting talkgroup IDs or Talkgroup Sharing Agreements shall be responsible for:

- Having a current Membership Agreement on file with the OMO.
- Reviewing talkgroup usage annually and remove unused/underutilized talkgroups.
- Completing a Talkgroup Sharing Agreement form and obtaining appropriate signatures prior to submitting it to the OMO, when requesting to share talkgroups with another agency.
- Developing internal procedures to cross reference old naming conventions against new naming conventions, until they can reprogram their subscriber units.
- Advising their personnel of any programming changes and providing any resulting training.
- Codeplug development and programming fees, to add/update talkgroups in agency radios (as applicable).
- Removing other agency talkgroups from their subscribers when notified by that agency or by the SMO.

3.0   Standards

3.1   Talkgroups

Talkgroups are initially developed when an agency completes a Membership Agreement for participation in ALMR. Once the executed Membership Agreement is received, the SMO contacts the agency to get the appropriate radio information (serial numbers, IDs, etc.).

Requests for talkgroups will be sent through the Help Desk email (ALMR-Helpdesk@beringstraits.com). Once the SMO generates a work order request and verifies the requesting agency has a current membership agreement, they will establish the talkgroup(s). The number of talkgroups requested should be kept to the minimum required to perform the agency's mission.

Each agency is responsible for contracting with an approved vendor or communications support provider to develop their codeplugs containing the appropriate talkgroups or having a trained in-house radio technician complete the programming. The State of Alaska (SOA), Alaska Public Safety Communication Services (ASPCS) radio shop develops codeplugs for State agencies for which they are responsible. The agency codeplug is then 'built' using the ALMR interoperability zones and the agency's unique talkgroup(s).

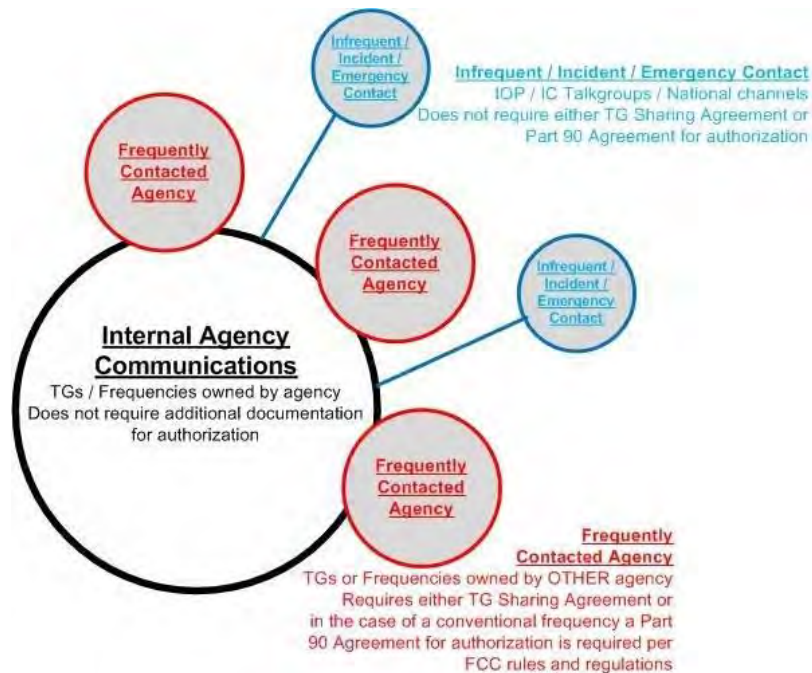The following figures depict generic talkgroup and interagency talkgroup structures.
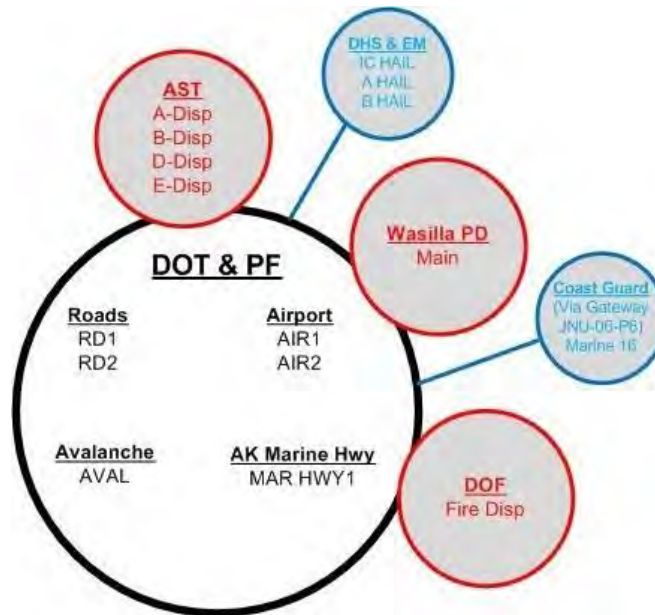

Figure 1 - Generic Talkgroup

Figure 2 - Interagency Talkgroup

3.2   Talkgroup Sharing Agreements

A Talkgroup Sharing Agreement (Atch 1) is used under special circumstances for agencies that need to communicate with other agencies on a frequent (daily/weekly) basis. Agencies 'own' their talkgroups and, therefore, must authorize their talkgroups to be programmed into another agency's radios.

A Talkgroup Sharing Agreement form can be requested from the OMO or downloaded off the ALMR web site (https://alaskalandmobileradio.org/membership/forms/) and must be completed by the requesting agency, approved by the owning agency, and then provided to the OMO/SMO, before the talkgroup will be approved for programming into any radio other than the agency it was developed for.

Reciprocal Talkgroup Sharing Agreements must be signed on both sides of the form (as the requesting agency and as the owning agency) to be valid.

3.3   Interoperability Channels

Agencies that need to communicate with other agencies during exercises or contingencies/emergencies should utilize the interoperability zone talkgroups. Agencies are directed to contact dispatch by phone or via the regional CALL talkgroup. Dispatch will direct them to the appropriate interoperability channel.

Agencies conducting planned exercises can either call or email dispatch ahead of time to establish which interoperability talkgroup(s)/channel(s) they would like to utilize. Regional dispatch information can be found in the ALMR CONOP on the web site.

Every effort should be made to minimize the number of interagency talkgroups programmed into radios by utilizing the interoperability zones for incident response. As the number of talkgroups on the system increases, it has an adverse effect on the number of busies during incidents. Therefore, it is advantageous to keep the number of talkgroups to a minimum.

Agencies should **not** monitor both their home talkgroups and assigned interoperability talkgroups during incidents/contingencies. This results in the use of two resources at the same time at the surrounding utilized site(s) and may lead to increased busies or denial of service to other responding agencies, especially at three-channel sites.

3.4   Naming Convention

Talkgroup names should be the same name (alias) in all radios and consoles, whenever possible. This will avoid confusion as to which agency is transmitting and will also alleviate the need for cross-reference sheets. Every effort will be made to limit each name to six characters to properly display on reports and screens.

A standard naming convention will be utilized on ALMR (see Standard Channel Naming Convention Procedure 400-10). Agencies programming their subscribers onto the system must also follow the prescribed format. The following criteria apply.

- The talkgroup ID field will contain the agency's unique identification as a prefix.
- Talkgroup aliases used in the records for console operator positions will be formatted as not more than an eight-character identifier.

3.5   Priority Levels

The SMO shall monitor talkgroups for excessive system traffic during an emergency. The decision to restrict any talkgroup which is adversely impacting overall system performance would be made jointly by the Operations Manager and System Manager, after a reasonable attempt is made to notify the affected agency/agencies.

3.5.1   Normal operations

All radio and user IDs shall be authorized access to any available site during normal day-to-day operations.

NOTE: During site trunking, individual subscriber units will only operate on the closest affiliated site and may not be able to communicate with others in their agency talkgroup

that are not affiliated to the same site. This is a limitation of site trunking and not a restriction placed on an agency by the SMO.

3.5.2 Emergency operations

During emergency operations, the SMO may assign a priority level to system users. This will ensure the most critical talkgroups on the system are granted access ahead of others in conditions where the system may be experiencing prolonged busy conditions. The goal is to distribute the priorities across user talkgroups in a way that maximizes available resources and minimizes the number of talkgroups.

Emergency Traffic, when identified as such, will be given the highest priority until the emergency is declared over and normal traffic resumes.

Radio users outside of their normal region should switch to the HAIL/ALL CALL talkgroup in the region they are in to request emergency assistance, if needed.

3.6 Inactive Talkgroups

It is the responsibility of each member agency to use the minimum number of talkgroups needed to accomplish their mission. Additionally, the interoperable zones are available for special or multi-agency events. Therefore, inactive talkgroups may be purged from the system. For the purposes of this policy, an "inactive talkgroup" shall be defined as a talkgroup that has not had an affiliation or activity in the last calendar year.

It is recognized that there are certain talkgroups that may be lightly used but are essential to the operation of the system. These are exempt from deletion as defined in this section and include:

- Interoperable zones including regional and state zones.
- A reasonable amount of law enforcement tactical or special operations talkgroups.
- Incident talkgroups such as those that may be assigned to natural disaster response, emergency operations centers, or those agencies that, by definition, have occasional or intermittent response needs.

Periodically, the SMO will review talkgroup affiliations and contact agencies with a listing of talkgroups that are inactive and identified for deletion. If an agency disagrees with the assessment, they may provide information to the SMO to retain the talkgroup based on the provisions of this procedure. Such information must be provided within 30 days of the notification. The SMO and OMO will jointly review the agency justification and provide a final disposition.

4.0 Compliance

Compliance with the Talkgroup Development Procedure is outlined in ALMR Talkgroup Development Policy Memorandum 400-14.

Attachment 1
Talkgroup Sharing Agreement

Alaska Land Mobile Radio Communications System
Interagency Talkgroup Sharing Agreement - Reciprocal

TALKGROUP ALIAS/NAME	TALKGROUP ID (TO BE COMPLETED BY ALMR)	CKR Do You want to share your encryption codes (Y/N) NOTE: If "Y" - you must also provide the CKR number

CONVENTIONAL ALIAS/NAME	CALL SIGN	EXPIRATION DATE	TRANSMIT FREQUENCY	TRANSMIT PL/DPL	RECEIVE FREQUENCY	RECEIVE PL/DPL	POWER/ERP

*PL – Private Line Code
*DPL – Digital Private Line Code

Provide special instructions to be followed in the area below. Examples of special instructions are (i.e. special interest groups, drug enforcement, SERT, console/subscriber only, etc.) or any other required restrictions. You may add a separate page of instructions, if desired.

Please separate the two agencies' associated talkgroups by one line space in the area above.

This agreement is not valid until submitted to the ALMR Help Desk and they have completed their required actions. Talkgroups may not be programmed into any subscriber until a completed copy of this agreement is returned to the requesting agencies from the Help Desk. Doing so is in violation of ALMR policies and procedures.

NOTE: If either agency cancels any part of this agreement, the entire agreement becomes null and void and a new Talkgroup Sharing Agreement must be executed.

20240813_Conventional_Talkshare Agrmnt   2   ALMR Form 7

NOTE: This form can be utilized as a one-way agreement or a reciprocal agreement. This form should not be used for conventional resource sharing. Agencies should utilize

a Part 90 agreement for sharing of conventional resources.