



Alaska Land Mobile Radio Communications System

Talkgroup Development Procedure 400-14

Version 11

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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, which uses but is separate from the Alaska Public Safety Communications Services, as established in the Cooperative and Mutual Aid Agreement.

Alaska Municipal League: a voluntary non-profit organization in Alaska that represents member local governments.

Alaska Public Safety Communications Service (APSCS): the primary maintainer of the State's microwave system, and shared owner of the System (formerly known as SATS).

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 Administration (DOA): a State of Alaska (SOA) department that maintains the Alaska Public Safety Communications Service (APSCS) and provides information technology (IT) and communications technical support to state agencies.

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

Executive Council: the ALMR Executive Council which is 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; under the ALMR System Manager.

Incident Command System (ICS): the ICS is a management system used to organize emergency response. 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(13).

Member: a public safety agency including, but not limited to, a general government agency (local, state 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 microwave system, and shared owner of the System.



Subscriber: an individual 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 burden cost share 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.

Talk group: 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 radio spectrum, trunking technology allows the most efficient use of radio channels. Trunking technology is similar to the technology that the 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 one's transmission. When the person is finished with one's transmission, the channel is placed back in the pool for another individual to use. The result is more efficient use of 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 with one of the Parties to the Cooperative and Mutual Aid Agreement. The terms user and member are synonymous and interchangeable.

User Council (UC): the User Council is 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 under the direction and guidance of the Executive Council.



1.0 Purpose

This procedure is designed to provide appropriate guidance for all agencies operating on the Alaska Land Mobile Radio (ALMR) Communications System with regard to 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 code plugs 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 form/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 SharePoint 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
- Review talkgroup usage annually and remove inactive/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 are able to 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 to do so

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@inuitservices.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) Office of Information Technology (OIT) radio shop develops code plugs for State agencies for which they are responsible. The agency codeplug is then ‘built’ using the standard Incident Command System (ICS) Zones (both Statewide and Regional – as many as will fit the particular radio model) and the agency’s unique talkgroup(s).

The following figures depict generic talkgroup and interagency talkgroup structures.

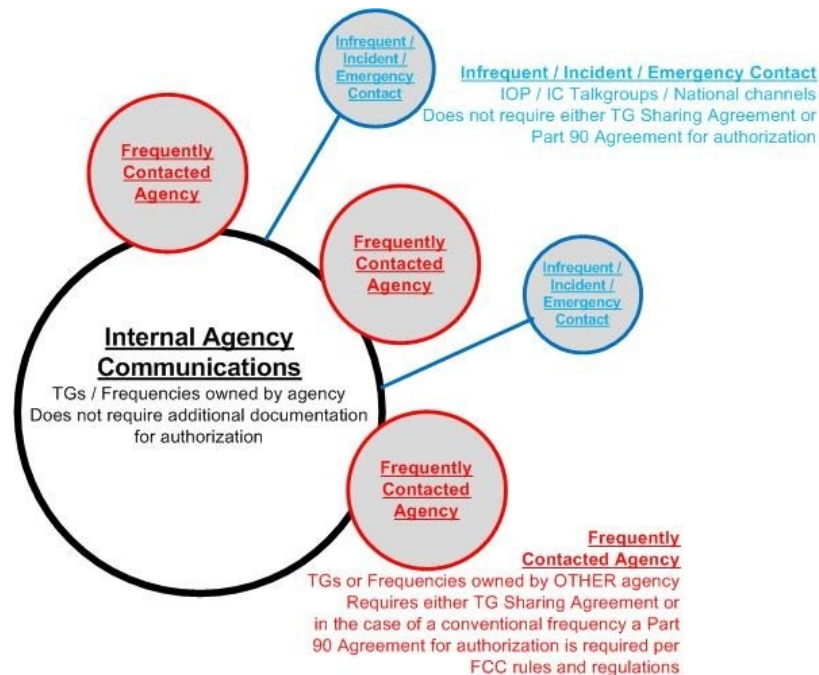


Figure 1 - Generic Talkgroup

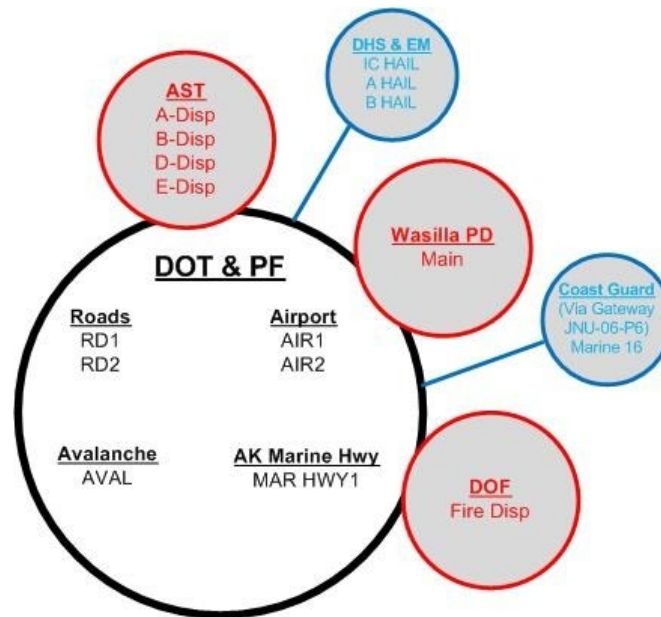


Figure 2 - Interagency Talkgroup

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 (www.alaskalandmobileradio.org/documents.htm) and must be completed by the requesting agency, approved by the owning agency, and then provided to the OMO, before the talkgroup will be approved for programming into any radio other than the agency it was developed for.

3.3 Incident Command Channels

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

Agencies conducting planned exercises can either call or email the appropriate dispatch ahead of time to establish which ICS channel(s) they would like to utilize. Regional zone 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 ICS 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 IC talkgroups during incidents/contingencies. This results in the use of two channels 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 number 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 establish a list of talkgroups that can be restricted in the event of an emergency or excessive System traffic, which is adversely impacting overall System performance.

Talkgroups will only be restricted after a reasonable attempt is made to provide proper operational notification to 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 channel in the region they are in to request emergency assistance, if needed.

4.0 Compliance

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



Alaska Land Mobile Radio Communications System Talkgroup Development Procedure 400-14

Attachment 1 Talkgroup Sharing Agreement



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

In order to provide the highest level of Interoperability and mutual aid services to the residents of the State of Alaska, responding agencies must have access to interoperable communications. It is the intent of the undersigned to share Public Safety frequencies and talkgroups (as listed on page 2) between agencies within the following guidelines:

1. Agencies requesting to share their talkgroups with another organization must have a signed Membership Agreement on file with the Operations Management Office. Only an authorized agent for the below organizations (on file with the ALMR offices) may sign this agreement.
2. The sharing of frequencies and talkgroups that provide regional and statewide interoperability is **for official use only**.
3. Agencies who have a signed Talkgroup Sharing Agreement may use another agency's frequency or talkgroup when operationally necessary. This occurs most frequently at the host agency's request, or when acting in a mutual aid capacity.
4. Some agencies routinely operate their radios in an encrypted state, necessitating the sharing of security keys in order to enable radio interoperability. As such, each agency agrees that the programming of another agency's security keys/encryption will not be shared with other agencies or organizations outside the scope of this agreement. Doing so violates the terms and conditions of the Membership Agreement and ALMR policies and procedures.
5. Nothing in this agreement limits an agency from sharing their own frequencies, talkgroups and/or security keys with other agencies or organizations. This agreement only applies to the undersigned agencies. No other agency may be added without initiating a new agreement. **(fill in gray fields - page 1)**

Requesting Agency:

Agency Name:

Contact Phone Number: _____

Contact Email Address:

Typed/Printed Name:

Signature/Date (required)

Signature/Date (required)

Owning Agency:

Agency Name:

Contact Phone Number: _____

Contact Email Address:

Typed/Printed Name:

Signature/Date (required)

Signature/Date (required)

NOTE: If this is a reciprocal agreement; both sides must be completed by both agencies.

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ALMR Form 7

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