



WISCOM Policies, Procedures and Guidelines

Index #	301.01
Type	Guideline
Subject	Technical Guidance for Talkgroups
Approved	Draft
Revised	N/A

Purpose

This document provides guidance and policy regarding the use of the Wisconsin Interoperable System for Communications (WISCOM), a statewide digital trunked public safety radio system. Users include county, municipal, tribal, and state public safety and public safety partner agencies as well as certain federal, military, and adjoining state agencies.

Policies included in this document were prepared to assist with direction and control issues and over-all management of WISCOM from the 'end-user' perspective and application. For this reason, operational standardization is necessary and outlined in this policy.

Scope

The policy addresses all users of the WISCOM, the approval of application and level of participation, appeal of SSMG decision and user conflict resolution processes, user responsibilities as a member, and establishment of a fee structure.

Reporting Requirements

Through the records management system of the WISCOM, the System Administrator (OJA and WI-DOT) will monitor usage of the members, outages and maintenance costs, and provide a quarterly report to the SSMG. The SSMG at a regular business meeting will take up appropriate action.

Policy

A. INTEROPERABILITY TALKGROUPS

One of the most significant benefits of WISCOM is the ability for multiple agencies to coordinate their efforts via a shared communications system. Agencies that need to communicate may do so on each other's talkgroups or may use the interoperability talkgroups that are created by SSMG. In order to enable agencies to quickly and easily communicate, SSMG has developed policies for use of interoperability talkgroups.

There will be 8 statewide interoperability talkgroups available for use (STAC1 through STAC8). Radios should be programmed with statewide mutual aid talkgroups STAC1 through STAC8 and the regional mutual aid talkgroups for their region RTACx1 through RTACx4. This will provide statewide and regional interoperability between all users of WISCOM.

Four interoperability talkgroups will be assigned in each of the six interoperability regions. (Interoperability regions are based on Wisconsin Emergency Management regions.) These are wide area mutual aid/special event talkgroups that will be shared by all public safety agencies. If possible, in order to avoid conflicts, interoperability talkgroups should be reserved from the assigning agency (TBD) prior to use.

In order to facilitate interoperability and eliminate duplication of special use talkgroups, four talkgroups will be dedicated to interoperability and general use in each of the following regions:

Southwest	RTAC11 through RTAC14
Southeast	RTAC21 through RTAC24
East Central	RTAC31 through RTAC34
Northeast	RTAC41 through RTAC44
West Central	RTAC51 through RTAC54
Northwest	RTAC61 through RTAC64

All agencies participating in WISCOM shall program, at a minimum, the regional interoperable talkgroups for the respective geographic area. For example: Public safety agencies in the Southeast Region shall program RTAC21, RTAC22, RTAC23, and RTAC24 into their subscriber equipment, dispatch consoles (wireline) and RF control stations.

While not mandatory, agencies are highly encouraged to program all regional interoperable talkgroups into their mobile and portable radios. This will facilitate interoperable communications if these units should be called to respond outside of their home area.

This policy establishes the regional interoperable talkgroup RTACx1 for call or dispatch of high priority radio traffic. All dispatch centers shall actively monitor their respective regional RTACx1 talkgroup. It is recommended that at least the RTACx1 talkgroup be included in the radio scan list.

In addition to regional interoperable talkgroups, all agencies participating in WISCOM should make every effort (equipment capabilities considered) to program the statewide mutual aid talkgroups into their radios as well. The statewide mutual aid talkgroups are: STAC1 through STAC8. STAC1 is designated as the statewide mutual aid calling channel. Dispatch consoles and RF control stations, where possible, should be programmed to support these talkgroups. Those dispatch centers shall actively monitor STAC1 for mutual aid assistance.

One of the prime objectives of WISCOM is to establish interoperable communication capability statewide. In doing so, SSMG recognized a need to provide a series of common talkgroups that every agency participating in the system could maintain in their subscriber equipment (mobiles, portables, wireline and RF control station consoles).

The WISCOM regional interoperable talkgroups were established to provide common talkgroups within a region for agencies that require mutual aid incident response, or other tactical/operational response to communicate without the need to program and re-program dispatch talkgroups in the response region.

This policy will establish procedures for routinely using the regional interoperable talkgroups, and provide operational guidelines for monitoring and management of the regional interoperable talkgroups during an incident.

The IC created, under separate policy, 6 geographic regions. Four (4) region interoperable talkgroups are assigned to each of those regions. For example: Southwest Region has RTAC11, RTAC12, RTAC13, and RTAC14 regional interoperable talkgroups. Under the policy, it was anticipated that all agencies in the Southwest Region would program, at a minimum RTAC11, RTAC12, RTAC13, and RTAC14 into their subscriber equipment, dispatch consoles, and/or RF control stations. By programming these regional interoperable talkgroups, all first responders within the multi-county area would have a single point of interoperable communications.

The creation of programming templates is very complex and requires considerable thought and planning. While having surrounding community dispatch talkgroups in radios achieves the highest level of interoperability, it may not be the most economical. As more public safety agencies join WISCOM, new talkgroups will be added and frequent reprogramming of templates could result in significant expense. Often agencies add or modify existing dispatch talkgroups, which would require surrounding agencies to make similar changes to maintain the same level of interoperability. Therefore, the use of regional interoperable talkgroups can significantly reduce the need for reprogramming of templates as more public safety agencies join WISCOM.

Agencies are encouraged to use the regional interoperable talkgroup (RTACx1) for broadcast of incidents that are considered hot calls, or other calls that may require assistance from multiple agencies operating within the same geographical area.

Based upon the type of console system, the ability to simulcast or transmit on both the primary dispatch talkgroup and RTACx1 can be easily accomplished. Dispatch centers should have procedures in place for setting the console to perform this function.

Examples of hot call that would qualify for regional broadcast are: pursuits, injury accidents, officer requesting aid or assistance, bank alarms, robbery in progress and other typical emergency radio traffic.

The ability for every public safety officer to receive these types of calls is critical. Agencies should not be hesitant in the use of RTACx1 for dispatch of these calls.

To accommodate the region-wide broadcast of these dispatches, SSMG will cause every site in the region to transmit all traffic being broadcast on the RTACx1 talkgroup. Doing so will allow those mobiles, portables and RF Control stations scanning the RTACx1 talkgroup to receive the broadcast, regardless of their primary dispatch site affiliation.

For example, in the Southeast Region (Jefferson, Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha Counties), Southeast Region RTAC21 will be broadcast at these towers: Delafield, Kenosha, Milwaukee, Spring Prairie, and Union Grove.

In keeping with SSMG policy to extend regional interoperable talkgroup affiliation to tower sites in counties adjacent to the region, the following sites will also have a channel activated for broadcast of RTAC21 traffic: Mauthe Lake and Rubicon

B. COMMAND AND CONTROL.

As a mutual aid or interoperable incident is established (often long-term situations), and it is determined that extended interoperable communications is required, the agency with incident command shall request participating agency personnel to move to a Regional Tactical talkgroup, RTACx2, RTACx3, or RTACx4, depending upon availability. This migration is critical in order to free

up RTACx1 for other interoperable traffic (particularly hot calls), and minimize channel usage at sites not required for communications.

For example, text of a dispatch message requesting units to move from RTACx1:

“Attention all units responding to XXXX, switch to RTACx2 for all traffic related to this incident. Authority XXXX County Sheriff.” At the completion of the interoperable incident, users should be notified to switch their radios back to their primary dispatch talkgroup.

NOTE: The use of this technology and the interoperable talkgroups does not alleviate the protocol for a dispatcher to contact other dispatch centers for requesting aid or assistance.

C. PRESERVING VALUABLE SYSTEM RESOURCES.

One of the most valuable resources in the WISCOM system is the availability of sufficient voice channels at each communication site. The system features support roaming from tower site to tower site without users having to manually switch subscriber units as they migrate from site to site. The trunking technology allows communication throughout the state. Roaming technology enables users to monitor their home talkgroups while traveling throughout the system. Utilization of the system in this manner, while convenient to the subscriber, presents the potential of overloading the communications channels available at a given site.

While it is important to provide a mechanism for statewide interoperable communications for subscribers who roam throughout the system, it must be realized that the overall system design (channel capacity at each site) has been based upon the anticipated number of public safety personnel in the area to be served by the site. The ability for subscribers to routinely monitor any localized talkgroup not normally affiliated to that tower site, system-wide, may cause available channels to be busy for all users of the site.

An example would be a large concentration of members of local, county or state users meeting in the Wisconsin Dells area, each wishing to monitor home agency talkgroup(s). Most of these users would be affiliated with the Baraboo tower. As more subscribers travel in to the area and affiliate with the site(s), channels would become saturated resulting in system busies for local users who are handling local public safety incidents.

To address this situation, most local talkgroups do not work on towers outside the home area. To the extent that the WISCOM system supports communications outside users' home area, users should limit communication outside home area to extremely necessary transmissions.

Alternative methods of communicating with home dispatchers have been provided via the Itinerant talkgroups. The ability to communicate with a dispatch center from outside the normal dispatch area can generally be accommodated through the use of regional talkgroups or one of the statewide mutual aid talkgroups.

D. PRIVATE CALLS

A "Private Call" permits two radios to directly communicate with one another without using a talkgroup. Although potentially a useful feature, unchecked private calls can quickly overwhelm the system and render normal or emergency communications impossible.

A radio site can support only as many simultaneous private calls as there are voice channels at that site. In order for a user to initiate a private call, the following must both be true:

- 1) the radio must be programmed to allow private calls, and
- 2) the user's profile in the system must enable private calls.

A private call between two users will consume a radio channel at each site with which the users are affiliated for the duration of the conversation. If the private call users are at two different sites, two separate radio channels (one at each site) will be unavailable to other users for the duration of the private call. Users involved in a private call will not receive calls from their dispatcher or their talkgroup. Private calls are simplex; only one user can talk at a time. Private calls are not recorded.

In order to conserve our scarce frequency resources, agencies should avoid making private calls part of their standard operating procedure. The system is unable to restrict private calls to specific channels; unchecked use of private calls can severely impact all users on a site. If needed, the ability to initiate private calls should be restricted to supervisory personnel.

The private call feature will be limited to Supervisory personnel. Private calls will have the lowest priority on the system. The duration of private calls will be limited. System managers will monitor private calls for appropriateness. SSMG reserves the right to disable the private call feature if its use is inappropriate or adversely impacts other users. In times of extreme system usage, private calls may also be prohibited.

E. RADIO UNIT IDENTIFIERS

Radio IDs are 7 digit numbers that range from 0000001 to 9999999. Radio IDs must be unique. Typically, radios equipped with a display will show the ID of the radio being received.

The State of Wisconsin has established this plan for Project 25 digital radio unit IDs. This is the identification number that is programmed into the radio and can be decoded by receiving units. The purpose of this plan is to provide a logical plan for the assignment of unique radio identifiers to all potential Project 25 digital capable radios used by public safety agencies within the State of Wisconsin. The goal of the plan is to eliminate use of duplicate identifiers and maximize the benefit of the imbedded unit ID capability through the use of a number that is logically defined. This number can be tied to an alphanumeric display.

The unit identifier consists of 7 numbers (in decimal format).

A	B	C	D	E	F	G
County Code		Prefix	Unit			

A B The first 2 digits will denote the county that the radio is based in or, for state and federal radios, the agency that owns it.

- 01-72 Counties, using the standard numbering (see Attachment 2)
- 73 Milwaukee County Transit System
- 74-79 Reserved
- 80 Non Governmental Organizations (contact plan coordinator for assignment)
- 81-89 State Agencies
- 91-99 Federal Agencies

C The third digit is an optional prefix to differentiate between radios within a county that have the same unit number or radio call number, such as a mobile and portable assigned to an individual officer, or type of agencies.

- 0 Default or mobile radio

- 1 Portable radio
- 2 Control station or third radio assigned to an individual or unit
- 3 Fixed stations/bases/consoles/other

- 4-9 Optionally used to differentiate between duplicate unit IDs used by different agencies within a county
- 4 Police
- 5 Fire
- 6 EMS
- 7 Emergency Management
- 8 DPW
- 9 Local Govt/Other/Non-Governmental

DEFG The unit ID of the vehicle, officer or person that the radio is assigned to, or the radio

FOR EXAMPLES, UNIT IDENTIFIERS FOR RADIOS ON THE SYSTEM WOULD BE:

1402951	Mayville Ambulance 2951 (14 Dodge County)
2000110	Fond du Lac County (20) Sheriff squad fleet number 110 mobile radio
2010061	Fond du Lac County (20) Sheriff deputy 61 portable radio
4802702	Pierce County (48) Sheriff Lt. 2702 mobile radio
4812702	Pierce County (48) Sheriff Lt. 2702 portable radio
4921482	Osceola Fire Dept Pumper 1482 2 nd portable radio (49 Polk County)
6700612	Hartford Police Dept Detective 612 (67 Washington County)
8100041	State Patrol Car 41 mobile radio (81 State Patrol)
8110041	State Patrol Car 41 portable radio
8120041	State Patrol Car 41 control station
8210123	DNR Warden C123 portable radio (82 DNR)
8200750	DNR Natural Resources Officer R750 mobile radio

These examples use the decimal format. Some programming software may require use of hex format.

F. TALKGROUP NAMES/ALIAS

A "Talkgroup" is a resource on the system that permits a group of users to communicate with one another. Each talkgroup on the system is assigned a 5 digit talkgroup number when it is created. Talkgroup IDs are 5 digit numbers that range from 00001 to 65535. Talkgroup IDs are unique; the talkgroup aliases for a talkgroup ID should be consistent in all radios! Programming of aliases is an agency responsibility. SSMG has developed these policies for managing talkgroup aliases.

In order to facilitate interoperability and eliminate duplication of talkgroup aliases, SSMG requires that each of the talkgroup aliases begin with the corresponding two letter county identifier as used in the TIME System and listed in the Interoperability ID Plan.

The use of the format CCTTTT is arranged as follows:

CC Is a two digit COUNTY identifier as shown in the Interoperability ID Plan. State agencies do not require this identifier.

TTTT Is a variable length alphanumeric TALKGROUP identifier. This can be any length that an agency desires, but for readability in a variety of radios, SSMG suggests that the identifier be the minimum length necessary, e.g., 2 to 6 letters.

The agency identifier, when combined with the county identifier, must be unique throughout the system. Selected identifiers will be compared to existing identifiers to ensure against duplication.

For examples, talkgroup aliases for city and county agencies would be:

DOBDFD *Beaver Dam Fire Department talkgroup*

PCSO1 *Pierce County Sheriff's Office talkgroup*

FDRIPD *Ripon Police Department talkgroup*

For examples, talkgroup aliases for state and federal agencies would be:

DNRBRF *Department of Natural Resources Black River Falls talkgroup*

WSP2DISP *State Patrol Post 2 Dispatch talkgroup*

FBIOPS *Federal Bureau of Investigation operations talkgroup*