STATEWIDE EMERGENCY COMMUNICATIONS BOARD

March 24, 2016
12:30 P.M.
Chair: Mark Dunaski
MnDOT Arden Hills Training Center
1900 West County Road I Shoreview, MN 55126
Call in Number: 1-888-742-5095
Call in code: 2786437892#

MEETING AGENDA

Call to Order

Approval of Today's Agenda

Approval of Previous Meeting's Minutes

Announcements

- Recognition of Commissioner Ted Bearth
- The April meeting will be held in St. Cloud at the Minnesota State Interoperability Conference

Reports of Standing Committees:

Operations and Technical Committee (Glaccum)

1. North Memorial Logging Solution Request — ***Action Item***
2. Stearns County Requested Site Addition — ***Action Item***
3. Standard 1.1.0 Operational Management — ***Action Item***
4. Standard 3.16.2 Use of Statewide 800 MHz STAC 1-12 Talkgroups – Air Ambulance Emergency Landing Zone Coordination — ***Action Item***
5. Standard 3.28.0 Use of Statewide Emergency Management Talkgroup SEMTAC — ***Action Item***
6. Dispatchers Best Practices Guide — ***Action Item***

Interoperability Committee (Thomson)

1. Standard 3.46.0 Ontario-Minnesota Interoperability — ***Action Item***

Legislative & Government Affairs Committee (Workman)

Steering Committee (Hartog)

1. SECB Strategic Report — ***Action Item***

IPAWS Committee (Seal)

NG911 (Pankonie)

Interoperable Data Committee (Risvold)

Finance Committee (Gerlicher)

Reports – Other

- ARMER Project Status Report (MnDOT OSRC)
- ECN Update (Mines, DPS ECN)
    - Status of SECB Initiatives
        - GIS Project
        - Text-to-911
        - 7.19 Upgrade
        - FirstNet

Old Business

New Business

Adjourn

STATEWIDE EMERGENCY COMMUNICATIONS BOARD

MEETING MINUTES

February 25, 2016

Attendance
Members:

MEMBER/ALTERNATE	REPRESENTING
Mark Dunaski (Chair)/Jackie Mines	DPS
Mukhtar Thakur/Tim Lee/Jim Mohn	MnDOT
Thomas Baden/Ed Valencia	MNIT
Rodmen Smith/Dan Kuntz	DNR
Rochelle Schrofer/Tim Boyer	MN State Patrol
Vince Pellegrin/Thomas Humphrey	METC
Bill Droste/ Vacant	League of MN Cities, Metro
Eric Anderson/Pat Novacek	League of MN Cities, Greater MN
Liz Workman/vacant	Assoc. of MN Counties, Metro
Jim McMahon/vacant	Assoc. of MN Counties, Greater MN
Chris Caulk/Darlene Pankonie	MSA, Metro
Dan Hartog/Scott Turner /Jeff Marquart	MSA, Greater MN
Mike Gamache/Andrew Johnson	MESB
Mike Risvold/vacant	MN Chiefs of Police Assoc., Metro
Cari Gerlicher/Dave Thomson	MN Chiefs of Police Assoc., Greater MN
Ulie Seal/Vacant	MN Fire Chiefs Assoc., Metro
T. John Cunningham	MN Fire Chiefs Assoc., Greater MN
Joe Glaccum (Vice Chair)/vacant	MN Ambulance Assoc., Metro
Brad Hanson/Paul McIntyre	MN Ambulance Assoc., Greater MN
Jeff Jelinski/vacant	Central MN ESB

Also in attendance:
Cathy Anderson DPS-ECN
Carol-Linnea Salmon, DPS-ECN
James Stromberg, DPS-ECN
Melinda Miller, DPS-ECN
Randy Donahue, DPS-ECN
Rick Juth, DPS-ECN
Brandon Larson, St. Cloud
Troy Tretter, MESB
Rod Olson, City of Minneapolis
Jake Thompson, Anoka County
Scott Wosje, Northland Business Systems

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CALL TO ORDER

Commissioner Dunaski calls the meeting to order at 12:32 p.m.

APPROVAL OF AGENDA

Dar Pankonie request to add the Federal Engineering PSAP Funding Survey as an action item. Dave Thomson requests to remove the first item from the OTC action items list. Officer elections took place last month and should be removed from the agenda.

Chair Dunaski calls for a motion to approve the agenda as amended.

Cari Gerlicher makes a motion to approve the agenda as amended.
Liz Workman seconds the motion.
Motion carries to approve the agenda as amended.

APPROVAL OF PREVIOUS MEETING MINUTES

Chair Dunaski calls for a motion to approve the previous meeting minutes.

Workman makes a motion to approve the January meeting minutes.
Bill Droste seconds the motion.

Pat Novacek notes that he was in attendance last month.

Motion carries to approve the minutes as amended.

ANNOUNCEMENTS

No announcements.

REPORTS OF STANDING COMMITTEES

OPERATIONS AND TECHNICAL COMMITTEE REPORT (GLACCUM)

On behalf of the OTC, Vice Chair Thomson introduces the Hennepin EMS Participation Plan Amendment, as submitted in the meeting materials. With the demise of the Gold Elite consoles, Hennepin EMS will be switching to a logging solution from Revcord and for that they will need a Motorola AIS on the MCC 7500 consoles.

Ulie Seal makes a motion to approve the Hennepin EMS Participation Plan Amendment.
John Cunningham seconds the motion.
Motion carries.

On behalf of the OTC, Vice Chair Thomson introduces edits to Standards 2.10.0, 2.12.0, 2.14.0 and 1.3.0. The edits to these standards were mostly language clean up and are submitted in the meeting

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materials.

On behalf of the OTC, Chair Glaccum makes a motion to approve Standards 2.10.0, 2.12.0, 2.14.0, and 1.3.0 as presented.
McMahon seconds the motion.
Motion carries.

Vice Chair Thomson reports that the committee had a lively discussion on system capacity and busies. The consensus was that it is a different problem in the metro region versus in greater Minnesota and that it would be unwieldy to have one standard that fits the needs of both the metro region and greater Minnesota. The metro region currently has a more restrictive standard to deal with its higher density. The committee called upon regions to review and discuss the issue and bring concerns back to the OTC.

There is a lengthy discussion by the board with a conclusion that there is further need to address this and come up with criteria and a process for determining how to reduce busies where it is a problem and/or prevent it from becoming a problem because the system has finite capacity.

The discussion included how to define what is the appropriate level of busies on the system; the need for a subjective criteria or matrix; if there should be penalties; how to address entities who were added to the system but perhaps should now be restricted; the need to have conversations with subsystem owners.

Chair Dunaski asks that Chairs Thomson, Glaccum and Hartog meet to have a conversation about how to move forward and report back at the next board meeting.

INTEROPERABILITY COMMITTEE

No Report.

LEGISLATIVE & GOVERNMENT AFFAIRS COMMITTEE (WORKMAN)

Chair Workman reports that the committee did not meet but calls attention to two letters in the meeting materials packet. One letter is addressed to Representative Tony Cornish, Chair of Public Safety and Crime Prevention Policy and Finance Committee and the other to Representative Greg Davids. Chair of Taxes Committee. The letters request a meeting to discuss the sales tax exemption for joint powers and special taxing districts and urge support for moving the effective date back to July 1, 2016.

STEERING COMMITTEE (HARTOG)

Chair Hartog reports that the Steering Committee met and discussed the National Weather Service (NWS) and whether its participation on the ARMER system should be as a regional or statewide resource. The NWS for the southwest corner of the state is located in South Dakota. Some regions do not have a NWS office. It was determined that the NWS should be a regional resource. Jim Stromberg will bring this back to the OTC for further discussion.

The committee had a similar discussion regarding Disaster Relief Organizations (DROs) and particularly the Red Cross. The Department of Human Services has asked to sponsor the Red Cross. The committee discussed who can authorize a state agency to sponsor another agency. Mukhtar Thakur will investigate this and report back to the committee.

The committee heard a report about the Red River Dispatch Center in North Dakota which dispatches for Clay County, Minnesota. There was discussion about if a tower were built in North Dakota how funding and other logistics could be worked out between the states. The northwest region is working on these issues.

Pat Roseau adds that Grand Forks Weather covers northwest Minnesota and into the central Minnesota region.

IPAWS COMMITTEE (SEAL)

Chair Seal calls attention to a one page summary of the IPAWS Committee activity. He reports that the committee has been working with Deputy Commissioner Dunaski and Director Mines to develop a work plan on how to expand IPAWS capabilities throughout Minnesota. A particular priority is to add IPAWS capabilities to counties along the Class 1 Rail line. He adds that John Dooley with HSEM has been presenting workshops on the Public Alerting Best Practices to increase education about how to become IPAWS capable. The committee is also looking at exercises and practical applications to ensure that systems work and users know how to use it properly.

NG911 COMMITTEE (PANKONIE)

On behalf of the NG911 Committee, Chair Pankonie introduces the Federal Engineering Minnesota ECN PSAP Survey 2016, as submitted in the meeting materials. She reports that this is a survey to Public Safety Answering Points (PSAPs) to determine where the PSAPs across the state are with technology and software capabilities and if they are prepared to bring in the technology for Text-to-911 and, if not, what would be required. It will ask about the frequency of technology refreshes and how far away the PSAPs are from a technology refresh. It will include questions about IPAWS capabilities.

John Cunningham makes a motion to approve the Minnesota ECN PSAP Survey 2016.
Gerlicher seconds the motion.
Motion carries.

INTEROPERABLE DATA COMMITTEE (RISVOLD)

Chair Risvold reports that the Interoperable Data Committee met by conference call. Brandon Abley of Televate gave a summary report about the FirstNet RFP. A copy of his presentation is included in the meeting materials.

Chair Risvold and others attended a Single Point of Contact (SPOC) kickoff meeting in the Commissioner's office this morning on the FirstNet consultation process going forward.

Chair Dunaski reports that at the meeting, participants emphasized to FirstNet staff the varying needs around the state of Minnesota. In the metropolitan area, preemption and priority is very

important but it is less important in greater Minnesota. The Governor of Minnesota will be very interested in what this system will do for greater Minnesota. FirstNet was informed that that the Governor is a strong advocate of border-to-border broadband. FirstNet might consider how to leverage not only the excess bandwidth on the public safety net but also the infrastructure to provide broadband services across the state to civilians as one way to encourage an opt-in decision.

Chair Risvold adds that FirstNet would like to give a two-hour update presentation to the board in this or another forum. FirstNet plans to put together a task group of end users enthusiasts or data champions to answer a survey and give feedback and also to meet with key decision makers later in the year. In addition, there will be a more in-depth SPOC meeting in April in Virginia.

Jackie Mines calls attention to the presentation on FirstNet's RFP, as presented in the meeting materials. She reports on some of the highlights. The contract is scheduled to be signed in November 2016. Six months after the award, FirstNet expects the vendor to provide service though not yet on Band 14. State plans will be delivered in quarter one or quarter two of 2017. As soon as April 30, 2017, FirstNet sites could be up. There are many benchmarks for the provider within 24 months after the award. The RFP is structured around subscriber adoption. It's a creative approach because what matters is how many people a vendor can get on the system as quickly as possible and there is a penalty for not meeting its subscriber adoption target. There is incentive for the vendor to make the service as interesting and as competitively priced as possible in order to achieve subscriber adoption goals. The RFP is very objectives-oriented but there are not a lot of requirements. FirstNet did put Minnesota's coverage requirements in the RFP. The vendors will be given points by state on how closely they match the target requirements.

Mines says that there will be openings for a couple of committee members to attend the SPOC meeting in Virginia. She adds that the consultation Task Teams that FirstNet plans to create will provide opportunities for those at the user level to give feedback to FirstNet.

Chair Risvold adds that FirstNet says Minnesota is very well positioned as a state based on our governance structure. FirstNet is helping other states put together a similar governance structure.

There is a discussion about cost. More will be known when a vendor is selected. The spectrum is valuable and that is an incentive the vendors. It will be beneficial for a vendor to be competitive to the market in order to obtain and maintain subscribers. FirstNet would like bring-you-own devise to be part of the proposals. This is different from the ARMER system buildout in that it is a very large marketing using existing technology and building upon it.

FINANCE COMMITTEE REPORT (GERLICHER)

Chair Gerlicher reports that the Grant Work group met to discuss how to allocate the 2015 SHSP grant of $800,000. The projects submitted totaled $749,621.85. The remaining $50,378.15 will be utilized by DPS-ECN for M&A and planning costs.

The work group set a priority on education and training and exercises. Specific equipment was identified that also could be purchased with the funds. A 50% match was required on all equipment purchases.

The distribution was as follows:

Central ESB	$191,084.19
MESB	$25,000.00
Northeast ECB	$153,062.09
Northwest ECB	$140,083.07
South Central RECB	$38,742.50
Southeast ECB	$115,040.00
Southwest ECB	$86,610.00

Additional information provided in the meeting materials.

On behalf of the Finance Committee, Chair Gerlicher makes a motion to approve the 2015 SHSP grant allocation.
Humphrey seconds the motion.
Motion carries.

REPORTS – OTHER

ARMER PROJECT STATUS REPORT (MNDOT OEC)

Mukhtar Thakur reports on the ARMER Project status, as presented in the meeting materials. The budget and scope are under control. The backbone remains at 97% complete with 326 sites on the air. No new sites were added since last month. Land acquisition delays will impact completion of some sites.

ECN UPDATE

Jackie Mines reports that there is a new GIS project newsletter in the meeting materials. She says that there are media reports saying that Text-to-911 will be deployed by the end of the year. The plan is to have regional centers ready to deploy it first and to allow counties to take it on as ready.

ECN participated in a meeting with Motorola and MnDot this week about the 7.19 upgrade. It will be rolled out in Greater Minnesota first. Tim Lee is organizing regional meetings about that.

OLD BUSINESS

Chair Dunaski reports that Jackie Mines and her staff and others have been working on completing the SECB Strategic Plan. It will be submitted to the Steering Committee for review and approval and then submitted to this board for next month's meeting.

NEW BUSINESS

Meeting Adjourns at 1:35 p.m.

DRAFT

North Memorial

Ambulance

Vice Chair Thomson:

On behalf of North Memorial, I am requesting that the OTC approve the attached Logging Solution for our operation and forward to the SECB. This is necessary to become compliant with the Motorola upgrade that is coming this spring.

MnDOT has review the plan and has no issues from a technical perspective.

Thank you for your consideration.

Regards,

Joseph Glaccum, Director
Emergency Communication Center
and Technology
North Memorial Ambulance Service
North Memorial Health Care

northmemorial.com

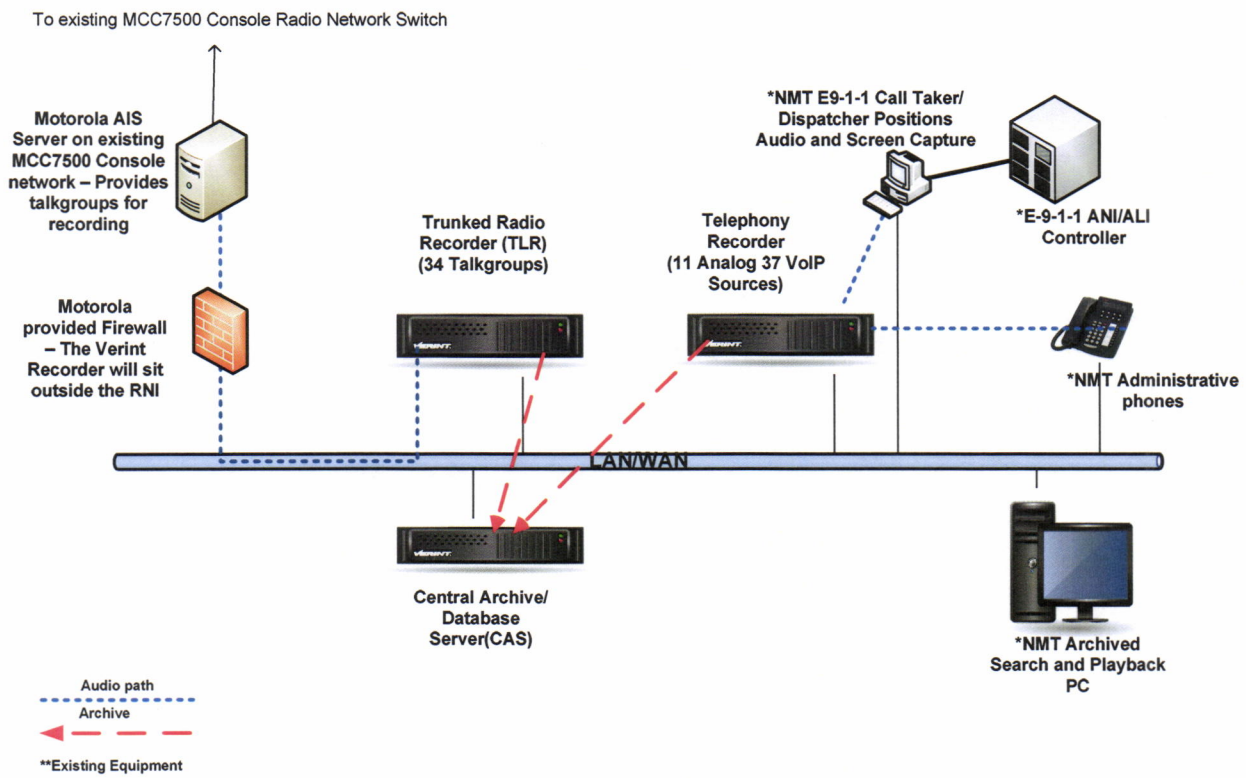
4501 68th Avenue North • Brooklyn Center, MN 55429 • Phone: (763) 581-9900

North Memorial Logging Solution Overview

The logging solution for North Memorial will consist of the following components:

- Motorola Archiving Interface Server (AIS). The AIS will be added to the existing MCC7500 console system and will interface to the Radio Network (RNI) on the existing switch. The AIS will obtain the talk group and metadata (such as radio ID, radio alias, talk group ID, talk group alias etc) information from the Master site via the existing site links. This talkgroup and metadata information will be passed onto the Verint Trunked Logging Recorder (TLR)
- Motorola Firewall. Motorola has included one firewall to interface between the MCC7500 RNI network and North Memorial's customer network equipment (CNE). The firewall will be programmed to only open the required ports to allow communication between the AIS and the Verint Trunked logging recorder.
- Verint Audiolog Trunked Logging Recording (TLR) Server. A dedicated Trunked Logging Recording (TLR) Server will be deployed to record up to 34 talk groups from the ARMER P25 Trunked Radio Communications. No encrypted talk groups will be able to be recorded as no encryption is included in the AIS. However, metadata such as radio ID, radio alias, talk group ID and talk group alias will also be recorded on the TLR server. This will enable users to search and retrieve recorded radio communications based upon talk group and/or radio information. The TLR server will be implemented on North Memorial's local network equipment (CNE).
- Verint Audiolog Telephony Recorder. A separate Audiolog telephony recorder will be deployed to capture 11 analog telephony resources and 37 VoIP resources. The Audiolog telephony recorder will be implemented on North Memorial's local network equipment (CNE).
- Verint Central Archive Server (CAS). Both the TLR and Telephony recorder will store recordings at a Central Archive Server (CAS). The CAS will be implemented on North Memorial's local network equipment (CNE).
- Search and Playback Capabilities. Verint's Insight Center application provides abrowser-based, set of tools to search for and play the recordings stored on your Audiolog servers (TLR, Audiolog, and CAS) from your desktop PC. Playback audio is delivered via the local area network to the speakers of the client PC. North Memorial is responsible for the providing the PC's on their network. The max number of simultaneous users for the Insight in the design for North Memorial is 5.
- No racks are included in the proposal from Motorola and Verint. All racking equipment is the responsibility of North Memorial. In addition, no KVM equipment is providing in the proposal. This is also the responsibility of North Memorial.

North Memorial Ambulance



Stearns County Sheriff's Office

John Sanner, Sheriff • Bruce Bechtold, Chief Deputy

LAW ENFORCEMENT CENTER
807 Courthouse Square
P.O. Box 217
St. Cloud, MN 56302-0217

February 22, 2016

To: Chair Joe Glaccum, Operations and Technical Committee

FROM: Kristen Lahr, System Admin Stearns County

RE: Stearns Requested Site Access Profile – Site Addition

Stearns County is requesting Site 41 (St. Cloud Simulcast) be designated as a Requested Site in site access profile RGN-CM-ST-R.

The talkgroups currently utilizing RGN-CM-ST-R are as follows:

ST-LE1
ST-LE2
ST-FIRE
ST-LE-EMERG
ST-PANIC

Stearns County currently has backup consolettes affiliated to Site 41 for county mains (ST-LE1, ST-LE2, ST-FIRE) which carry the bulk of traffic. The impetus of this addition is to request traffic for ST-PANIC and ST-LE-EMERG for emergent response to calls on these talkgroups which are scanned in all county campus security/law/jail portables.

Stearns County has discussed this request with the City of St. Cloud and they have consented to the addition. This request was also reviewed and approved by the Central region at the February 18th meeting of Owners and Operators.

kkl

Non-Emergency: (320) 251-4240 • **Administrative Office:** (320) 259-3700 Fax: (320) 259-3786 • **Civil Department:** (320)259-3720 Fax: (320) 656-6680
Detective: Fax: (320) 259-3963 • **Jail Administrative:** (320)259-3750 Fax: (320) 259-3782 • **E-mail:** john.sanner@co.stearns.mn.us

Allied Radio Matrix for Emergency Response (ARMER)
Standards, Protocols, Procedures

Document Section 1	**Management of System**	**Status:** Complete
State Standard Number	**1.1.0**	
Standard Title	**Operational Management**	
Date Established	**08/07/2001**	**SECB Approval**: 03/03/2005
Replaces Document Dated	**03/03/2005**	
Date Revised	**02/08/2016**	

1. Purpose or Objective

The purpose of this standard is to define agency roles in the operational management of the ARMER System.

2. Technical Background

- **Capabilities**
- **Constraints**

3. Operational Context

Each subsystem owner and interconnected dispatch system owner will formally designate a Subsystem Administrator. This Administrator will have the authority to represent their respective agency/agencies' interests and make decisions on issues related to the day-to-day operation of the system and any urgent or emergency system operational or repair decisions. The Statewide System Administrator will represent the state-owned portion of the system. Each System Administrator shall designate a backup, who will have the authority to represent their respective Subsystem in the absence of the primary System Administrator.

An urgent or emergency situation would be where immediate decision authority is needed to allow the system as a whole, or any of the subsystem components, to continue supporting normal wide-area communications services. It is recognized that each System Administrator may have to obtain authorizations from higher levels of their own organization to make longer-term or non-emergency capital or repair expenditure decisions.

Each System Administrator will be responsible for the day-to-day management, operation, and oversight of the system components within their portion of the system. While specific duties will not be detailed in this document, the general duties will include:

- Monitoring the system and its components for normal operations.

- Participating in the diagnosis of system performance problems and the development of corrective action recommendations.

- Dispatching appropriate repair services in the event of a malfunction in system equipment.

- Managing the database elements, including subscriber ID's, talkgroup ID's, console ID's, and the various parameters that relate to their effective operation.

Due to the complexity and distributed administration and maintenance of the system, problems can appear when changes are made to hardware or software. In order to keep all representatives informed of any updates, notifications will need to be sent to all primary and alternate System Administrator representatives in the event of any of the following:

- Any planned maintenance work being done on the regional or subsystem systems that would affect the system performance for other representatives should be preceded with reasonable notification of the maintenance work being done.

- Any equipment malfunctions or failures that would affect system performance for other representatives of the subsystems or regional system.

- Any configuration changes in equipment or software by any one of the representatives that may affect system performance for the other representatives.

In addition to the responsibilities as a System Administrator, the Statewide System Administrator will also be responsible for:

- System Administrator meetings, at least periodically, to review operations of the system and share ideas or issues with their respective subsystems that may be of interest to the other System Administrators.

- Being available to work with any other System Administrators or technical staff of any of the subsystems to diagnose and resolve system operational problems that involve parameter changes, maintenance, or repair of equipment.

- Being the identified point of contact with Motorola for issues related to the network equipment.

- Providing timely information to other System Administrators about system equipment repair or maintenance issues.

- Monitoring the performance of the entire network for normal operations, particularly the performance of the equipment.

- Monitoring the configuration of the system database for normal operations, particularly the properties of the equipment and database objects, in addition to conducting periodic database backups.

4. Recommended Protocol/ Standard

This is an ongoing process for the management of the system.

5. Recommended Procedure

If specific procedures for performing these functions are not defined in other State Standards, they are at the discretion of the Operations & Technical Committee (OTC.)

The System Management resource manuals are classified as "Security Information" and "General Non-Public Data," pursuant to Minn. Stats. §13.37, Subd. 1a.

6. Management

The Statewide System Administrator or their designee is responsible for the operational management of the system.

Allied Radio Matrix for Emergency Response (ARMER)
Standards, Protocols, Procedures

Document Section 1	**Management of System**	**Status:** Complete
State Standard Number	**1.1.0**	
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Date Established	**08/07/2001**	**SECB~~RB~~ Approval**: 03/03/2005
Replaces Document Dated	~~**09/12/2001**~~ **03/03/2005**	
Date Revised	~~**03/03/2005**~~ **02/08/2016**	

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- **Capabilities**
- **Constraints**

3. Operational Context

Each subsystem owner and interconnected dispatch system owner will formally designate a Subsystem Administrator. This Administrator will have the authority to represent their respective agency/agencies' interests and make decisions on issues related to the day-to-day operation of the system and any urgent or emergency system operational or repair decisions. The Statewide ~~Minnesota Department of Transportation (MnDOT)~~ System Administrator will represent the state-owned ~~regional infrastructure~~ portion of the system. Each System Administrator shall designate a backup, who will have the authority to represent their respective Subsystem in the absence of the primary System Administrator.

An urgent or emergency situation would be where immediate decision authority is needed to allow the system as a whole, or any of the subsystem components, to continue supporting normal wide-area communications services. It is recognized that each System Administrator may have to obtain authorizations from higher levels of their own organization to make longer-term or non-emergency capital or repair expenditure decisions.

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- Monitoring the system and its components for normal operations.

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- Dispatching appropriate repair services in the event of a malfunction in system equipment.

- Managing the database elements, including subscriber ID's, talkgroup ID's, console ID's, and the various parameters that relate to their effective operation.

Due to the complexity and distributed administration and maintenance of the system, problems can appear when changes are made to hardware or software. In order to keep all representatives informed of any updates, notifications will need to be sent to all primary and alternate System Administrator representatives in the event of any of the following:

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- Any configuration changes in equipment or software by any one of the representatives that may affect system performance for the other representatives.

In addition to the responsibilities as a System Administrator, the Statewide ~~MnDOT~~ System Administrator will also be responsible for:

- System Administrator meetings, at least periodically~~monthly~~, to review operations of the system and share ideas or issues with their respective subsystems that may be of interest to the other System Administrators.

- Being available to work with any other System Administrators or technical staff of any of the subsystems to diagnose and resolve system operational problems that involve parameter changes, maintenance, or repair of equipment.

- Being the identified point of contact with Motorola for issues related to the network equipment.

- Providing timely information to other System Administrators about system equipment repair or maintenance issues.

- Monitoring the performance of the entire network for normal operations, particularly the performance of the equipment.

- Monitoring the configuration of the system database for normal operations, particularly the properties of the equipment and database objects, in addition to conducting periodic database backups.

4. Recommended Protocol/ Standard

This is an ongoing process for the management of the system.

5. Recommended Procedure

If specific procedures for performing these functions are not defined in other State Standards, ~~procedures,~~ they are at the discretion of the ~~System Managers Group (SMG).~~Operations & Technical Committee (OTC.)

The System Management resource manuals are classified as "Security Information" and "General Non-Public Data," pursuant to Minn. Stats. §13.37, Subd. 1a.

6. Management

The Statewide System Administrator or their designee ~~SMG~~ is responsible for the operational management of the system.

Allied Radio Matrix for Emergency Response (ARMER)
Standards, Protocols, Procedures

Document Section 3	**Interoperability Standards**	**Status:** Complete
State Standard Number	**3.16.2**	
Standard Title	**Use of Statewide 800MHz STAC 1-12 Talkgroups - Air Ambulance Emergency Landing Zone Coordination**	
Date Established	**07/11/2007**	**SECB Approval:** 3/28/2013
Replaces Document Dated	**03/19/2013**	
Date Revised	**02/08/2016**	

1. Purpose or Objective

The purpose of this standard is to specify the use of the statewide 800 MHz STAC talkgroups for establishing and maintaining air ambulance emergency landing zones.

2. Technical Background

- **Capabilities**

The Statewide Emergency Communications Board (SECB) has established a standard for use of the STAC talkgroups in State Standard 3.16.0. This State Standard encourages interoperable communications among first responders and establishes common statewide talkgroups to facilitate interoperability. The statewide talkgroups authorized for non-encrypted communication between service branches are STAC1 through STAC12.

- **Constraints**

Experience has shown that all agencies have used many different processes in the past. This standard strives for consistency among all agencies.

3. Recommended Procedure

If a scene landing is required, it is imperative to allow for communication between the responding aircraft and a single qualified person (law enforcement, fire personnel, first responder, etc.) on the ground that will be coordinating the landing zone (LZ). The exact location of the LZ, any hazards, wind direction, and any other pertinent information needs to be communicated to the aircraft to allow for a safe scene landing. If it becomes necessary to abort the landing, the individual on the ground will need to be able to quickly communicate this information to the aircraft.

For Aircraft that are equipped with ARMER radios:

If the aircraft and personnel on scene coordinating the landing both have STAC talkgroups, they may use the STAC that has been assigned to them by the appropriate, controlling primary Public Safety Answering Point (PSAP).

In the event of a technical constraint, the incident may be switched over to other talkgroups as appropriate.

For Aircraft that are NOT equipped with ARMER radios:

If the aircraft does not have ARMER radios, but personnel on scene coordinating the landing do, the controlling, primary PSAP will assign an STAC and patch the responding air ambulance operating to VLAW31 or VFIRE23. Note: PSAPs will patch to VHF resources according to their local protocol.

Note: An announcement on the patched resources will be made at the time of the patch origin AND just prior to the patch removal.

Order of Use of STAC Talkgroups (per State Standard 3.16.0):

The use of STAC talkgroups for **PREPLANNED NON-EMERGENCY** interoperability events involving LZ coordination should be STAC12, 11, 10, 9, etc., in that order. **For users who do not have the full complement of STAC talkgroups programmed in their radios, these non-emergency LZ events should be assigned the "highest" number STAC first (i.e., STAC8, 7, 6, 5.)**

The use of STAC talkgroups for **UNPLANNED EMERGENCY** incidents involving LZ coordination should be STAC1, 2, 3, 4, etc., in that order.

4. Management

Nothing in this standard shall be construed as a limitation of use of the STAC talkgroups for incidents other than air ambulance emergency landing zone coordination.

Nothing in this standard shall be construed as a limitation of use of the conventional resource VLAW31 or VFIRE23 or any other appropriately assigned conventional resource for an air ambulance emergency landing zone coordination by non-ARMER users.

For Management, see State Standard 3.16.0 for additional information.

Allied Radio Matrix for Emergency Response (ARMER)
Standards, Protocols, Procedures

Document Section 3	**Interoperability Standards**	**Status:** Complete
State Standard Number	**3.16.2**	
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Date Established	**07/11/2007**	**SEC~~R~~B Approval:** 3/28/2013
Replaces Document Dated	**~~07/02/2008~~ 03/19/2013**	
Date Revised	**~~03/19/2013~~ 02/08/2016**	

1. Purpose or Objective

The purpose of this standard is to specify the use of the statewide 800 MHz STAC talkgroups for establishing and maintaining air ambulance emergency landing zones.

2. Technical Background

- **Capabilities**

The Statewide Emergency Communications Board (SECB) has established a standard for use of the STAC talkgroups in State Standard 3.16.0. This State Standard encourages interoperable communications ~~interoperability~~ among first responders and establishes common statewide talkgroups to facilitate interoperability. The statewide talkgroups authorized for non-encrypted communication between service branches are STAC1 through STAC12.

- **Constraints**

Experience has shown that all agencies have used many different processes in the past. This standard strives for consistency among all agencies.

3. Recommended Procedure

If a scene landing is required, it is imperative to allow for communication between the responding aircraft and a single qualified person (law enforcement, fire personnel, first responder~~s~~, etc.) on the ground that will be coordinating the landing zone (LZ). The exact location of the LZ, any hazards, wind direction, and any other pertinent information needs to be communicated to the aircraft to allow for a safe scene landing. If it becomes necessary to abort the landing, the individual on the ground will need to be able to quickly communicate this information to the aircraft.

For Aircraft that are equipped with ARMER radios:

If the aircraft and personnel on scene coordinating the landing both have STAC talkgroups, they may use the STAC that has been assigned to them by the appropriate, controlling primary Public Safety Answering Point (PSAP).

In the event of a technical constraint, the incident may be switched over to other talkgroups as appropriate.

For Aircraft that are NOT equipped with ARMER radios:

If the aircraft does not have ARMER radios, but personnel on scene coordinating the landing do, the controlling, primary PSAP will assign an STAC and patch the responding air ambulance operating to VLAW31 or VFIRE23. Note: PSAPs will patch to VHF resources according to their local protocol.

Note: An announcement on the patched resources will be made at the time of the patch origin AND just prior to the patch removal.

Order of Use of STAC Talkgroups (per State Standard 3.16.0):

The use of STAC talkgroups for **PREPLANNED NON-EMERGENCY** interoperability events involving LZ coordination should be STAC12, 11, 10, 9, etc., in that order. ~~as of June 26, 2015. **INTERIM: Prior to June 26, 2015, when all**~~ **For users who do not have the full complement of STAC talkgroups** ~~**may not have all 12 STACs**~~ **programmed in their radios, these non-emergency LZ events should be assigned the "highest" number STAC first (i.e., STAC8, 7, 6, 5.)** ~~**STAC4, 3, 2, 1 in that order.**~~

The use of STAC talkgroups for **UNPLANNED EMERGENCY** incidents involving LZ coordination should be STAC1, 2, 3, 4, etc., in that order.

4. Management

Nothing in this standard shall be construed as a limitation of use of the STAC talkgroups for incidents other than air ambulance emergency landing zone coordination.

Nothing in this standard shall be construed as a limitation of use of the conventional resource VLAW31 or VFIRE23 or any other appropriately assigned conventional resource for an air ambulance emergency landing zone coordination by non-ARMER users.

For Management, see State Standard 3.16.0 for additional information.

Allied Radio Matrix for Emergency Response (ARMER)
Standards, Protocols, Procedures

Document Section 3	**Interoperability Standards**	**Status:** Complete
State Standard Number	**3.28.0**	
Standard Title	**Use of Statewide Emergency Management Talkgroup SEMTAC**	
Date Established	**06/28/2006**	**SECB Approval:** 04/26/2007
Replaces Document Dated	**04/10/2007**	
Date Revised	**02/29/2016**	

1. Purpose and Objective

The purpose of this standard is to establish operational policy for use of the Statewide Emergency Management Talkgroup, SEMTAC. This talkgroup is a shared resource that allows interoperability between Emergency Managers, their respective Emergency Operations Centers (EOC), and other key partners for the purpose of Emergency Management Coordination.

The intention of this talkgroup is to allow Emergency Managers to communicate with one another and to connect EOCs, as well as Emergency Management Field Operations, until another talkgroup is assigned, if needed. The talkgroup may be used for direct communication in an ongoing, daily basis, depending on the operation. The talkgroup may also be used for large-scale coordination during a disaster for regional resources, agencies, EOCs, etc., or to facilitate coordination between many different partners.

2. Technical Background

- **Capabilities**
- **Constraints**

3. Operational Context

Emergency Managers and their partners may need to coordinate operations, resources, etc., across a large multi-jurisdictional area of the state. Emergency Managers and their partners may need to utilize the SEMTAC talkgroup for ongoing daily business (event dependent), as well as operations and planning during an incident.

4. Recommended Protocol/Standard

Talkgroup requirements

- Highly recommended for Emergency Management personnel at the state, county, and local levels, as well as those partners that routinely work with Emergency Management, such as National Weather Service (NWS.)

If an Emergency Manager or their partner needs to talk to another Emergency Manager or partner, they should identify themselves, their agency, and who they are calling by agency or name.

It is up to each agency Emergency Manager or partner to monitor the SEMTAC talkgroup.

5. Recommended Procedure

N/A

6. Management

The Minnesota Division of Homeland Security and Emergency Management (HSEM) will be responsible for ensuring compliance and use of these resources.

Allied Radio Matrix for Emergency Response (ARMER)
Standards, Protocols, Procedures

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4. Recommended Protocol/Standard

Talkgroup requirements

- Highly recommended for Emergency Management personnel at the state, county, and local levels, as well as those partners that routinely work with Emergency Management, such as National Weather Service (NWS.).
- ~~Optional for public safety agencies~~

Commented [AC1]: tehey partner with EM statewide - good way to get to them.

Commented [AC2]: does public works count as public safety agency .

standard of system and original lang, pub works was considered part of pub safety but purpose of this standard is more law, fire, ems.

statute 403.02, sub 18
public safety agency - provides ff police, medical or other emergency medical services.

363a.03 sub 35 public service - any public facility, board commision owned, or managed by ---

If an Emergency Manager or their partner needs to talk to another Emergency Manager or partner, they should identify themselves, their agency, and who they are calling by agency or name.

It is up to each agency Emergency Manager or partner to monitor the SEMTAC talkgroup.

5. Recommended Procedure

N/A

6. Management

The Minnesota Division of Homeland Security and Emergency Management (HSEM) will be responsible for ensuring compliance and use of these resources.

Minnesota

Dispatchers

Communications Best Practice Guide

Statewide Radio Board, Operations & Technical Committee, Interoperability Committee, Dispatch Best Practice Workgroup

Approved by the Statewide Emergency Communications Board

March 24, 2016

This document describes the recommended best practice, standards, and contact information for Minnesota dispatchers to assist in planning for interoperability with other public safety disciplines.

Table of Contents

Section I: Introduction

- Dispatchers Best Practice Workgroup

Section II: ARMER Basics for Dispatchers

- State Standard 1.11.3, Training Dispatchers
- Alexandria Technical & Community College Training Modules
  - Radio 101
  - History of ARMER
  - Interoperability 101
  - Interoperability: How to Communicate Outside Your Agency
  - Computer Basics for Dispatchers
  - Dispatcher Technology Part I
  - Dispatcher Technology Part II
- FEMA NIMS Courses (in this order)
  - IS-100.b, Introduction to the Incident Command System (ICS-100) (Required)
  - IS-700.a, National Incident Management System (NIMS), An Introduction (Required)
  - IS-200.b, ICS for Single Resources and Initial Action Incidents (ICS 200) (Required)
  - IS-800.B, National Response Framework, An Introduction (ICS 800) (Recommended)
- Attending Field User ARMER Training

Section III: ARMER Console Operation

- Alexandria Technical & Community College Training Modules
  - CentraComm Dispatch Console, Part I (until 5/15/2016)
  - CentraComm Dispatch Console, Part II (until 5/15/2016)
  - MCC7500 Dispatch Console, Part I
  - MCC7500 Dispatch Console, Part II
  - ARMER Control Stations, if applicable
  - Dispatch Scenario Module
  - Other relevant modules as developed
- State Standard 3.24.0, Public Safety Answering Point (PSAP) Interoperability
- State Standard 2.8.0, Talkgroup and Radio User Priority
- State Standard 2.14.0, Private Call
- State Standard 2.16.0, Emergency Button
- Patching and Multi-Select
- Encryption
  - Shared or Private
  - Selectable

- Paging
- Channel Marker

Section IV: Interoperability

- Minnesota Public Safety Mobile VHF Interoperable Frequency Plan
- Regional Tactical Interoperable Communications Plan (TICP)
- Communications Assets Survey and Mapping Tool (CASM)
    - State Standard 3.40.0
- State Standard 3.16.0, 800 MHz Statewide STAC Interoperability Talkgroups
- State Standard 3.16.2, Use of Statewide 800MHz STAC 1-12 Talkgroups - Air Ambulance Emergency Landing Zone Coordination
- State Standard 3.16.3, Cross Spectrum Interoperability System 800 MHz Mutual Aid Resources
- State Standard 3.16.4, Cross Spectrum Interoperability System VLAW31 Resources
- State Standard 3.16.5, Cross Spectrum Interoperability System VHF Variable Frequency Station (VFS) Resources
- State Standard 3.19.0, Use of 800 MHz Statewide LTAC and SIU Interoperability Talkgroups
- State Standard 3.31.0, ARMER System StatusBoard
- State Standard 3.32.0, Statewide Interoperable Plain Language Policy
- State Standard 3.44.0, Statewide Pursuit Communications
- State Standard 3.35.0, National Weather Service Standard
- Motobridge (Ref Standards 3.16.3, 3.16.4 and 3.16.5)

Section V: Other Resources

Strategic Technology Reserve

- State Standard 3.33.0, Establishment of Strategic Technology Reserve
- State Standard 3.33.1, STR Radio Cache
    - Accompanying Regional Standard
- State Standard 3.33.2, STR – Transportable Tower/Repeater
    - Accompanying Regional Standard

COML and COMT

- State Standard 3.17.0, Criteria for State Certification as a Communications Unit Leader All Hazards COML
- State Standard 3.17.3, Criteria for State Certification as a Communications Unit Technician COMT

IMT/CRTF/IDT

- Incident Management Team, Communications Response Task Force, Incident Dispatch Team

Section VI: Compliance & Conflict Resolution

- State Standard 7.1.0, Audit/Monitoring Process
- State Standard 7.2.0, Response to Non-Compliance
- State Standard 7.3.0, The Appeal Process

Section VII: Refresher Training Plan

Section VIII: Other Best Practice Guides

Section IX: Minnesota Emergency Communication Networks Contacts

Section X: Regional Emergency Communications Boards / Emergency Services Boards and Advisory Committee Contacts

Section XI: Radio Affiliated Acronyms

DOCUMENT REVISION HISTORY

Date	Revision	Notes	Name
5-17-2013	Removed Tom Johnson Added NWS standard info	Replaced with Brandon Abley	Cathy Anderson
1-8-2016	Revision to entire guide		Workgroup

Section I: Introduction

The Dispatcher Best Practice Workgroup was created in 2012 to develop a Best Practice Guide for those who serve in the role of dispatcher. Dispatchers provide a vital role in the delivery of public safety services. This guide is designed to serve as both a training plan and a resource document. The Minnesota Dispatchers Communications Best Practice Guide is a living document, and suggested changes may be submitted to the Emergency Communication Networks (ECN) Standards & Training Coordinator.

NOTE: Questions regarding State Standards or clarification of these standards should be directed to your Local System Administrator, your Regional Interoperability Coordinator (RIC), or the Statewide Interoperability Program Manager.

For current email contact information, please see Staff Contacts on the ECN website under "Contact:" https://dps.mn.gov/divisions/ecn/Pages/default.aspx

Section II ARMER Basics for Dispatchers

State Standard 1.11.3, Training Dispatchers

Each agency operating on the ARMER system is responsible for the training of their personnel and compliance with State, Regional, and Local Operating Standards and should customize their training plan to fit their own unique situation.

Dispatch personnel shall successfully complete, at a minimum, training on the console system installed by the user agency, as well as topics listed in State Standard 1.11.3.

Dispatch personnel shall be familiar with all applicable mutual aid and interop requirements of this Standards manual and all established standard operating procedures developed by their agencies.

State Standard 1.11.5, Training Interoperability Participants

Radio operators shall have successfully completed appropriate training and demonstrate knowledge of Section 3, Interoperability Guidelines.

Radio operators with access to interoperability channels shall be familiar with all applicable mutual aid and interoperability requirements in this procedure manual, as well as any established, standard interoperability operating procedures developed by their agency.

See State Standard 1.11.5 for specific requirements, listed under Section 4, Recommended Protocol/Standard.

Suggested supplemental training to the required training listed in State Standards 1.11.3 and 1.11.5:

It is highly recommended that Dispatchers view training modules, created on behalf of the Statewide Emergency Communications Board (SECB) and reviewed and approved by subject matter experts. These

training modules are hosted through the Alexandria Technical & Community College online website. They can be accessed from ECN's website under ARMER Standards.

A user name and password will be needed for these training modules, and instructions for obtaining these are posted on ECN's website under ARMER Standards. While web-based training is supplemental, except for the Minimum Training Requirements, all users must attend formal training for the ARMER system.

Alexandria Technical & Community College Training Modules

- Radio 101
- History of ARMER
- Interoperability 101
- CentraComm Dispatch Console, Part I (until 5/15/2016)
- CentraComm Dispatch Console, Part II (until 5/15/2016)
- MCC7500 Dispatch Console, Part I
- MCC7500 Dispatch Console, Part II
- ARMER Control Stations
- EF Johnson, Parts 1-4, if applicable
- Patching and Multi Select
- Encryption
  - Shared or Private
  - Selectable
- Paging
- Channel Markers
- Motobridge
- StatusBoard 2.0 End User Training
- StatusBoard 2.0 Administrator Training, if applicable
- Other relevant modules as developed

FEMA/NIMS:

The National Incident Management System (NIMS) provides a systematic, proactive approach to guide departments and agencies at all levels of government, nongovernmental organizations, and the private sector to work seamlessly to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment. Each agency should design ongoing NIMS training, which should complement other training initiatives. NIMS should not be considered a stand-alone training curriculum.

NIMS training courses can be found at:
http://www.fema.gov/emergency/nims/NIMSTrainingCourses.shtm

- IS-100.b, Introduction to the Incident Command System (ICS 100) (Required)
- IS-700.a, National Incident Management System (NIMS), An Introduction (Required)
- IS-200.b, ICS for Single Resources and Initial Action Incidents (ICS200) (Required)

Attending Field User ARMER Training: Information about local field user training may be obtained through your local System Administrator or Regional Advisory Committee (RAC).

State Standard 2.8.0, Talkgroup and Radio User Priority

Priority levels in the system will be managed at the talkgroup level. Distributing priorities at the talkgroup level will maximize critical communications capabilities, while minimizing the number of high priority talkgroups. All user priorities will be set to the lowest priority level, which is 10.

As radio users change talkgroups, their effective priority will be set by the talkgroup they are on.

State Standard 2.14.0, Private Call

The private call resource should primarily be used as a supervisory function. If there is a business need for a radio user to have this ability, the owning agency shall request the feature, in writing, to the local System Administrator. Private Call needs to be managed to protect site radio channel resources. This is also a function that dispatch consoles are capable of.

State Standard 2.16.0, Emergency Button

In conjunction with the review of Standard 2.16.0 – Emergency Button, personnel conducting the training, or review, should also review the Agency's "Emergency Button Response Plan." This plan is required of all agencies that have chosen to configure the Emergency Button for use. Having such a plan provides end users and dispatchers with the background and knowledge they need to act appropriately when the emergency button is activated. It is recommended that "Emergency Button Response Plan" be reviewed during initial training, as well as at all refresher training sessions.

Language from the standard:

- All agencies implementing the Emergency Button must have a plan in place to respond to Emergency Button activation.
- All Emergency Button response plans must include, at minimum:
    - A central radio monitoring point that can identify which radio user pushed the key, the location and nature of the emergency, and what the proper agency response should be.
    - A central monitoring point must be available during any/all hours that personnel are using the radio system.
    - A policy for use of the Emergency Button by radio users.
    - A response plan to assist the radio user in need.
    - In the event the central radio monitoring point is not the same agency as the radio user, an agreement on policy, monitoring, use, and response, must be in place among the agencies.

*In the event the central radio monitoring point is not the same agency as the radio user, an agreement on policy, monitoring, use, and response must be in place among the agencies

Section III: ARMER Console Operation

Although Public Safety Answering Points may have different types of dispatch consoles, the ultimate goal remains identical – to obtain details from callers and send appropriate help in a timely manner.

This section contains information about several topics, including which online training will be the most beneficial for dispatchers. Training modules will contain specifics about consoles and control stations used on the ARMER system, along with much more information.

It is important to note that these online training modules are intended to be used for refresher, or pre-hands-on, training. The modules are not expected to take the place of classroom training about how to use equipment.

Online training will include information about CentraComm, MCC7500 dispatch consoles, and Motobridge. The training will cover tasks like Patching/Multi-Select, Encryption, and Paging.

Channel markers are not covered in the online training, but they are designed to provide a short beep over radio channels to notify listeners a "special event" is in progress, and radio transmissions should be kept to a minimum. Special events would involve officer and/or public safety. The beep tone is timed and adjustable. Check with your agency for their policy on the use of channel markers.

Call Alert is another function not covered in the online training, but it allows a dispatcher to page a portable or mobile radio. Paging a radio does not tie up a frequency or lock the radio up when it gets paged. Each PSAP shall ensure that their dispatchers are familiar with this capability.

Section IV: Interoperability

This section will consist of state standards that are most pertinent to your job as a dispatcher. Take the time to become familiar with each of them. While they are written as standards, it is recommended that your agency determine the best way to incorporate these, as well as additional training, into your agency's program as a way to enhance the information set forth in the Minnesota Dispatchers Communications Best Practice Guide.

Minnesota Public Safety VHF Interoperability Frequency Plan

The Minnesota VHF Interoperability Frequency plan may be found on the SECB website.
Dispatch personnel should be familiar with the regional communications resources that are available to their jurisdiction, as well as the process they must follow to request them. This information will be provided in the region's Tactical Interoperable Communications Plan (TICP) and should also be listed in CASM – the Communications Assets Survey and Mapping Tool. PSAP managers should consider providing TICP information and/or CASM information to dispatch personnel in a readily accessible format.

Tactical Interoperable Communications Plan (TICP)

Tactical Interoperable Communications Plans are used by jurisdictions to document interoperable communications governance structures, technology resources, and usage policies/procedures. The TICP describes what interoperable communications assets are available in an area, how those assets are shared and prioritized, and the steps that individual agencies should use to request, activate, and deactivate them.

Communications Assets Survey and Mapping Tool (CASM)

CASM is a web-based software application that enables communication planners to survey and inventory existing Land Mobile Radio (LMR) communication equipment and infrastructure in a state or urban area. It provides a single repository for information about LMR systems, methods of interoperability, and how they are used by emergency responders. CASM is available nationwide and provides inter-agency interoperability analysis. CASM is an important tool for public safety during an incident or exercise anywhere in the state of Minnesota. See State Standard 3.40.0, CASM/TICP Standard for Data Entry and Maintenance. For more information on CASM, go to http://www.in.gov/ipsc/2529.htm

Motobridge Consoles

In an effort to augment interoperability between ARMER talkgroups and VHF resources, the state of Minnesota has implemented a VHF overlay system to ARMER. Motobridge consoles have been built and installed in several PSAPs, including the counties of St. Louis and Otter Tail, as well as the Minnesota State Patrol Regional Dispatch Centers. Motobridge consoles have the unique ability to apply soft patches between VHF resources and ARMER talkgroups at specific ARMER comm sites. The specific VHF interoperability resources are defined in the MN VHF Interoperable Frequency Plan, which can be found in Studies and Reports on the ARMER home page. The specific ARMER comm sites that house variable frequency stations (VFS) are listed in appendix A of Standard 3.16.5.

MNFOG

The Minnesota Communications Field Operations Guide (MNFOG) is a collection of technical reference material to aid communications unit personnel in establishing solutions to support communications during emergency incidents and planned events. The MNFOG also contains local, state, and national interoperability channel information.

Printed copies for field use can be obtained by contacting the State Interoperability Program Manager.

Electronic access can be found by going to the ECN website under ARMER and Guide Books or by downloading the OEC/ICTAP Public Safety Tools Library App to your smart phone or tablet. Within the App, you will be able to see the published documents for the state of Minnesota, which contains the MNFOG.

State Standard 3.16.0, 800 MHz Statewide STAC Interoperability Talkgroups

Dispatch personnel should be familiar with these statewide talkgroup resources and understand the circumstances when they would be used.

Important points that should be emphasized for PSAPs:

- Use in order (i.e., 1,2,3,4, etc.) for emergent events
- Use in reverse order (12, 11, 10, 9, etc.) for preplanned and non-emergent events. For PSAPs that do not have all twelve STACs, use in reverse order starting at largest number available to you (i.e. 4, 3, 2, 1)
- Clear speech only - no "10" codes on statewide or regional talkgroups
- Priority of use should be for incidents with responders from multiple regions
- StatusBoard tracking: clear the statewide talkgroup verbally when the incident is over and update the StatusBoard
- It is recommended that dispatchers have reference material available describing where the statewide talkgroups are in responder radios

State Standard 3.16.2, Use of Statewide 800MHz STAC 1-12 Talkgroups - Air Ambulance Emergency Landing Zone Coordination

Dispatch personnel should understand the communications procedure for landing an air ambulance at their incident and be prepared to assist the incident commander with the process.

Dispatchers should understand the different resources necessary for this function, depending on whether or not the air ambulance has ARMER radio capabilities.

Reference material should be developed for each PSAP describing the radio capabilities for air ambulances that commonly respond in their jurisdiction.

State Standard 3.16.3, Cross Spectrum Interoperability System (CSIS) 800 MHz National Mutual Aid Resources

The purpose of this standard is to establish procedures for use and patching of 800 MHz national mutual aid resources included in the ARMER Cross Spectrum Interoperability System for interagency communications.

State Standard 3.16.4, Cross Spectrum Interoperability System VLAW31 Resources

The purpose of this standard is to establish procedures for use and patching of VLAW31 resources included in the ARMER Cross Spectrum Interoperability System for interagency communications.

State Standard 3.16.5, Cross Spectrum Interoperability System VHF Variable Frequency Station (VFS) Resources

The purpose of this standard is to establish procedures for use and patching of VHF Variable Frequency Station (VFS) resources included in the ARMER Cross Spectrum Interoperability System for interagency communications.

The most common VHF channels that are available to law enforcement are:

- VLAW31
- VFIR23
- VMED28
- MNCOMM

Others may be available as well, such as the National Interoperability Channels VCALL10 and VTAC11-14.

Local procedures should be developed that list the specific scenarios in which VHF channels would be needed.

For PSAPs where patching is infrequent, step-by-step procedures in a quick-reference format should be developed so that dispatch staff can perform this function when necessary.

State Standard 3.19.0, Use of 800 MHz Statewide LTAC and SIU Interoperability Talkgroups

Dispatch centers will not have LE_SIUs.

If a PSAP has LTAC5E through LTAC8E, dispatch staff must not patch them to anything.

The StatusBoard must be used to reserve these resources.

State Standard 3.31.0, ARMER System StatusBoard

This standard will give guidance to all ARMER dispatch centers as to what talkgroups or channels should be on their StatusBoard Application and will serve to minimize usage conflicts when multiple incidents may be occurring simultaneously.

The StatusBoard shall be used for all emergent events or pre-planned exercises. It is available to all PSAPs via internet access. Basic procedures on usage of the StatusBoard should be developed by each agency and made readily accessible to dispatchers and other end-users.

Every dispatcher should be familiar with the contents of this standard and must complete the online training module for StatusBoard prior to getting an individual log on and password.

State Standard 3.32.0, Statewide Interoperable Plain Language Policy

It is recommended that PSAP communications plans be developed, requiring clear speech for day-to-day activities. A limited list of permitted codes should be published for users and be strictly adhered to. This will make it easier to use clear speech only on major events as well.

State Standard 3.44.0, Statewide Pursuit Communications Standard

The purpose of this standard is to establish the guidelines and procedures for pursuit communications. Upon initiating the pursuit on a local talkgroup, the controlling dispatcher will patch the local talkgroup to the first available LTAC and reserve the LTAC via the StatusBoard. Upon placing the patch, the controlling dispatcher will announce the patch and the reason for the patch. If VHF resources are to be involved, VLAW31 will be patched with the local talkgroup and the first available LTAC. If the pursuit is going to extend past the local PSAP's VLAW31 coverage, the nearest State Patrol Regional Dispatch Center should be contacted to apply the patch outside the local coverage area. Once the pursuit has been completed, the original, controlling dispatcher will announce the removal of the patch, remove the patch, and update the StatusBoard.

State Standard 3.35.0, National Weather Service Standard

The purpose of this standard is to define the ARMER talkgroups and procedures to be used by the National Weather Service (NWS) offices that serve the various ARMER regions of the state for NWS to county and local agency communications during severe weather events.

Section V: Other Resources

State Standard 3.33.0, Establishment of Strategic Technology Reserve (STR), 3.33.1 STR Radio Cache and 3.33.2 STR- Transportable Tower/Repeater

The basic purpose of a Minnesota STR is to provide communication resources that can be deployed in situations where there is a catastrophic loss of the existing public safety communication capabilities. Each of the seven communications regions in Minnesota has an STR to:

- Provide communication resources that can be deployed in situations where there is a catastrophic loss of existing public safety communication capabilities.
- Provide communication resources that can be used to supplement existing public safety communication resources where an event or natural disaster requires more resources and capability than are currently available locally or regionally.
- Provide a transportable communications resource that can be used to support operations of local public safety officials responding to a serious event or natural disaster to another state.

It is suggested that each PSAP insert or link the applicable Regional STR Standard to this document.

Communications Unit Leader (COML) and Communications Unit Technician (COMT)

During all-hazards emergency response operations, communications among multiple jurisdictions and disciplines, including emergency medical, fire, and law enforcement, is essential. Unfortunately, the absence of on-scene communications coordination has often compromised critical operations. To close this gap, the Department of Homeland Security's (DHS) Office of Emergency Communications (OEC), in partnership with the Office of Interoperability and Compatibility (OIC), the Federal Emergency Management Agency (FEMA), National Integration Center (NIC), and practitioners from across the country, developed performance and training standards for the All Hazards Type III COML & COMT, formulating the curriculum and comprehensive All Hazards Type III COML & COMT courses. See State Standard 3.17.0, Criteria for State Certification as a Communications Unit Leader, State Standard 3.17.2, Statewide COML Talkgroup, and State Standard 3.17.4, Event and Exercise Communications Planning for additional information.

Communications Unit Leader (COML)

COML responsibilities include developing plans for the effective use of incident communications equipment and facilities, managing the distribution of communications equipment to incident personnel, and coordinating the installation and testing of communications equipment. See State Standard 3.17.0 for more information.

Full-scale/functional exercises or pre-planned events using more than one statewide interoperability talkgroup must utilize the services of a Minnesota certified COML.

Communications Unit Technician (COMT)

The All-Hazards Communications Technician, or COMT, is responsible for practices and procedures common to radio communications technicians during all-hazards emergency operations. COMTs work within the Incident Command System (ICS) organizational structure. See State Standard 3.17.3, Criteria for State Certification as a Communications Technician for more information.

Incident Management Team (IMT)

An Incident Management Team, (IMT), is a multi-agency/multi-jurisdiction team for extended incidents, formed and managed at the State, regional, or metropolitan level. An IMT is deployed as a team of 8-24 trained personnel to manage major and/or complex incidents requiring a significant amount of local, regional, and state resources, as well as incidents that extend into multiple operational periods and require a written Incident Action Plan (IAP).

Communications Response Task Force (CRTF)

The Metro Region CRTF is an ICS trained, all-hazard personnel resource to be used by an agency to assist in the field, the command post, the EOC, or the PSAP. The CTRF can be an expertise or personnel resource and may assist with logistics if the communications or other equipment is necessary. The team will assume radio duties for the incident or event and can be a resource to support troubleshooting and managing equipment or documentation and resource deployment.

Incident Dispatch Team (IDT)

The IDT is comprised of dispatch professionals from around the Metro Region. The team represents multi-discipline PSAP personnel (police fire, EMS) ready to deploy and bring the unique skills of the dispatcher to augment incident management at an incident or event. The IDT also serves as Minnesota's Telecommunications Emergency Response Taskforce (MN-TERT) under the National Joint TERT Initiative and is recognized nationally.

The Metropolitan Emergency Services Board (MESB) supports the CRTF and IDT/MN-TERT. The CRTF or MN-TERT can be requested for assistance at an emergency event by contacting the Minnesota State Duty Officer.

Section VI: Compliance and Conflict Resolution

The suggested method for reporting conflicts noticed by dispatchers is to attempt a resolution through direct contact with the PSAP or dispatcher involved. If direct contact with the PSAP or dispatcher is not an option, the issue should be documented and forwarded to your supervisor. The supervisor or PSAP manager should attempt to obtain a resolution with the other PSAP. However, if a conflict is not able to be resolved at this level, the issue should be brought to the regional user/owner and operator committee level. For more information, see State Standards 7.1.0, 7.2.0, and 7.3.0.

Section VII: Refresher Training Plan

While it is the responsibility of each agency to establish their own dispatch refresher training at least every two years, it is imperative to keep personnel up-to-date on the latest technological innovations, as well as applicable local, regional, and state guidelines/mandates.

It is a best practice recommendation that ARMER online equipment and console training modules be reviewed annually, at a minimum. In addition, the Minnesota Dispatchers Communications Best Practice Guide should become part of every agency's new trainee curriculum, and it should also be reviewed periodically in training sessions for current employees.

Online training modules are available to all users. These courses, created on behalf of the Statewide Emergency Communications Board (SECB) and reviewed and approved by subject matter experts, are hosted through the Alexandria Technical & Community College online website. They can be accessed from ECN's website under ARMER Standards.

A user name and password will be needed for these training modules, and instructions for obtaining these are posted on ECN's website under ARMER standards.

Section VIII: Other Best Practice Guides

Fire
Emergency Management/Public Health
Dispatch
Public Works
EMS/Hospitals

These guides have been created as a result of diligent work by the groups involved. These guides provide direction for their respective public safety disciplines and are available online. Access to completed Best Practice Guides is available on ECN's website under ARMER and Guide Books.

Section IX: Minnesota Emergency Communication Networks Contacts

For current email contact information, please see Staff Contacts on the ECN website.

Section X: Regional Emergency Communications Boards/Emergency Services Boards and Advisory Committee Contacts

Contacts for the Regional Emergency Communications Boards/Emergency Services Boards (ECB/ESB) and Regional Advisory Committees (RAC) can be found on the SECB website under Regional Boards and Committees.

Section XI: Radio Affiliated Acronyms

Link to commonly used radio affiliated acronyms – https://dps.mn.gov/entity/SRB , click on ARMER and then click on Acronyms.

Minnesota

Dispatchers

Communications Best Practice Guide

Statewide Radio Board, Operations & Technical Committee, Interoperability Committee, Dispatch Best Practice Workgroup

Approved by the Statewide Emergency Communications~~Radio~~ Board

March 24, 2016~~(DATE)~~

This document describes the recommended best practice, standards, and contact information for Minnesota dispatchers to assist in planning for interoperability with other public safety disciplines.

Table of Contents

Section I: Introduction

- Dispatchers Best Practice Workgroup

~~**Section II: Participation in ARMER**~~

- ~~State Standard 1.10.0, Requesting and Configuring Participation~~
- ~~Agency's Participation Plan~~

Section I~~II~~: ARMER Basics for Dispatchers

- State Standard 1.11.3, Training Dispatchers
- Alexandria Technical & Community College Training Modules
  - Radio 101
  - History of ARMER
  - Interoperability 101
  - Interoperability: How to Communicate Outside Your Agency
  - Computer Basics for Dispatchers
  - Dispatcher Technology Part I
  - Dispatcher Technology Part II
- FEMA NIMS Courses (in this order)
  - IS-100.b, Introduction to the Incident Command System (ICS-100) (Required)
  - IS-700.a, National Incident Management System (NIMS), An Introduction (Required)
  - IS-200.b, ICS for Single Resources and Initial Action Incidents (ICS 200) (Required)
  - IS-800.B, National Response Framework, An Introduction (ICS 800) (Recommended)
- Attending Field User ARMER Training

Section I~~IV~~: ARMER Console Operation

- Alexandria Technical & Community College Training Modules
  - CentraComm Dispatch Console, Part I (until 5/15/2016)
  - CentraComm Dispatch Console, Part II (until 5/15/2016)
  - MCC7500 Dispatch Console, Part I
  - MCC7500 Dispatch Console, Part II
  - ARMER Control Stations, if applicable
  - Dispatch Scenario Module
  - Other relevant modules as developed
- State Standard 3.24.0, Public Safety Answering Point (PSAP) Interoperability
- State Standard 2.8.0, Talkgroup and Radio User Priority
- State Standard 2.14.0, Private Call
- State Standard 2.16.0, Emergency Button
- Patching and Multi-Select

- Encryption
  - Shared or Private
  - Selectable
- Paging
- Channel Marker

Section IV: Interoperability

- Minnesota Public Safety Mobile VHF Interoperable Frequency Plan
- Regional Tactical Interoperable Communications Plan (TICP)
- Communications Assets Survey and Mapping Tool (CASM)
  - State Standard 3.40.0
- State Standard 3.16.0, 800 MHz Statewide STAC Interoperability Talkgroups
- State Standard 3.16.2, Use of Statewide 800MHz STAC 1-12 Talkgroups - Air Ambulance Emergency Landing Zone Coordination
- State Standard 3.16.3, Cross Spectrum Interoperability System 800 MHz Mutual Aid Resources
- State Standard 3.16.4, Cross Spectrum Interoperability System VLAW31 Resources
- State Standard 3.16.5, Cross Spectrum Interoperability System VHF Variable Frequency Station (VFS) Resources
- State Standard 3.19.0, Use of 800 MHz Statewide LTAC and SIU Interoperability Talkgroups
- State Standard 3.31.0, ARMER System StatusBoard
- State Standard 3.32.0, Statewide Interoperable Plain Language Policy
- State Standard 3.44.0, Statewide Pursuit Communications
- State Standard 3.35.0, National Weather Service Standard
- Motobridge (Ref Standards 3.16.3, 3.16.4 and 3.16.5)

Section V~~I~~: Other Resources

Strategic Technology Reserve

- State Standard 3.33.0, Establishment of Strategic Technology Reserve
- State Standard 3.33.1, STR Radio Cache
  - Accompanying Regional Standard
- State Standard 3.33.2, STR – Transportable Tower/Repeater
  - Accompanying Regional Standard

COML and COMT

- State Standard 3.17.0, Criteria for State Certification as a Communications Unit Leader All Hazards COML
- State Standard 3.17.3, Criteria for State Certification as a Communications Unit Technician COMT

IMT/CRTF/IDT

- Incident Management Team, Communications Response Task Force, Incident Dispatch Team

Section VI~~I~~: Compliance & Conflict Resolution

- State Standard 7.1.0, Audit/Monitoring Process
- State Standard 7.2.0, Response to Non-Compliance
- State Standard 7.3.0, The Appeal Process

Section VII~~I~~: Refresher Training Plan

Section VIII~~IX~~: Other Best Practice Guides

Section IX: Minnesota Emergency Communication Networks Contacts

Section X~~I~~: Regional Emergency Communications Boards / Emergency Services Boards and ~~Radio~~ and Advisory Committee Contacts

Section XI~~I~~: Radio Affiliated Acronyms

DOCUMENT REVISION HISTORY

Date	Revision	Notes	Name
5-17-2013	Removed Tom Johnson Added NWS standard info	Replaced with Brandon Abley	Cathy Anderson
1-8-2016	Revision to entire guide		Workgroup

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Section I: Introduction

The Dispatcher Best Practice Workgroup was created in 2012 to develop a Best Practice Guide for those who serve in the role of dispatcher. Dispatchers provide a vital role in the delivery of public safety services. This guide is designed to serve as both a training plan and a resource document. The Minnesota Dispatchers Communications Best Practice Guide is a living document, and suggested changes may be submitted to the Emergency Communication Networks (ECN) Standards & Training Coordinator.

NOTE: Questions regarding State Standards or clarification of these standards should be directed to your Local System Administrator, your Regional Interoperability Coordinator (RIC), or the Statewide Interoperability Program Manager.

For current email contact information, please see Staff Contacts on the ECN website under "Contact:" https://dps.mn.gov/divisions/ecn/Pages/default.aspx

Section- II ARMER Basics for Dispatchers

State Standard 1.11.3, Training Dispatchers

Each agency operating on the ARMER system is responsible for the training of their personnel and compliance with State, Regional, and Local Operating Standards and should customize their training plan to fit their own unique situation.

Dispatch personnel shall successfully complete, at a minimum, training on the console system installed by the user agency, as well as topics listed in State Standard 1.11.3.

Dispatch personnel shall be familiar with all applicable mutual aid and interop requirements of this Standards manual and all established standard operating procedures developed by their agencies.

State Standard 1.11.5, Training Interoperability Participants

Radio operators shall have successfully completed appropriate training and demonstrate knowledge of Section 3, Interoperability Guidelines.

Radio operators with access to interoperability channels shall be familiar with all applicable mutual aid and interoperability requirements in this procedure manual, as well as any established, standard interoperability operating procedures developed by their agency.

See State Standard 1.11.5 for specific requirements, listed under Section 4, Recommended Protocol/Standard.

Suggested supplemental training to the required training listed in State Standards 1.11.3 and 1.11.5:

It is highly recommended that Dispatchers view training modules, created on behalf of the Statewide Emergency Communications Board (SECB) and reviewed and approved by subject matter experts. These training modules are hosted through the Alexandria Technical & Community College online website. They can be accessed from ECN's website under ARMER Standards.

A user name and password will be needed for these training modules, and instructions for obtaining these are posted on ECN's website under ARMER Standards. While web-based training is supplemental, except for the Minimum Training Requirements, all users must attend formal training for the ARMER system.

Alexandria Technical & Community College Training Modules

- Radio 101
- History of ARMER
- Interoperability 101
- CentraComm Dispatch Console, Part I (until 5/15/2016)
- CentraComm Dispatch Console, Part II (until 5/15/2016)
- MCC7500 Dispatch Console, Part I
- MCC7500 Dispatch Console, Part II
- ARMER Control Stations
- EF Johnson, Parts 1-4, if applicable
- Patching and Multi Select
- Encryption
  - Shared or Private
  - Selectable
- Paging
- Channel Markers
- Motobridge
- StatusBoard 2.0 End User Training
- StatusBoard 2.0 Administrator Training, if applicable
- Other relevant modules as developed

FEMA/NIMS:

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~~FEMA/NIMS:~~ The National Incident Management System (NIMS) provides a systematic, proactive approach to guide departments and agencies at all levels of government, nongovernmental organizations, and the private sector to work seamlessly to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment. Each agency should design ongoing NIMS training, which should complement other training initiatives. NIMS should not be considered a stand-alone training curriculum.

NIMS training courses can be found at:
http://www.fema.gov/emergency/nims/NIMSTrainingCourses.shtm

- IS-100.b, Introduction to the Incident Command System (ICS 100) (Required)
- IS-700.a, National Incident Management System (NIMS), An Introduction (Required)
- IS-200.b, ICS for Single Resources and Initial Action Incidents (ICS200) (Required)

Attending Field User ARMER Training: Information about local field user training may be obtained through your local System Administrator or Regional Advisory Committee (RAC).

State Standard 2.8.0, Talkgroup and Radio User Priority

Priority levels in the system will be managed at the talkgroup level. Distributing priorities at the talkgroup level will maximize critical communications capabilities, while minimizing the number of high priority talkgroups. All user priorities will be set to the lowest priority level, which is 10.

As radio users change talkgroups, their effective priority will be set by the talkgroup they are on.

State Standard 2.14.0, Private Call

The private call resource should primarily be used as a supervisory function. If there is a business need for a radio user to have this ability, the owning agency shall request the feature, in writing, to the local System Administrator. Private Call needs to be managed to protect site radio channel resources. This is also a function that dispatch consoles are capable of.

State Standard 2.16.0, Emergency Button

In conjunction with the review of Standard 2.16.0 – Emergency Button, personnel conducting the training, or review, should also review the Agency's "Emergency Button Response Plan." This plan is required of all agencies that have chosen to configure the Emergency Button for use. Having such a plan provides end users and dispatchers with the background and knowledge they need to act appropriately when the emergency button is activated. It is recommended that "Emergency Button Response Plan" be reviewed during initial training, as well as at all refresher training sessions.

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Language from the standard:

- All agencies implementing the Emergency Button must have a plan in place to respond to Emergency Button activation.
- All Emergency Button response plans must include, at minimum:
    - A central radio monitoring point that can identify which radio user pushed the key, the location and nature of the emergency, and what the proper agency response should be.
    - A central monitoring point must be available during any/all hours that personnel are using the radio system.
    - A policy for use of the Emergency Button by radio users.
    - A response plan to assist the radio user in need.

- In the event the central radio monitoring point is not the same agency as the radio user, an agreement on policy, monitoring, use, and response, must be in place among the agencies.

*In the event the central radio monitoring point is not the same agency as the radio user, an agreement on policy, monitoring, use, and response must be in place among the agencies

Section III~~V~~: ARMER Console Operation ~~Training~~

Although Public Safety Answering Points may have different types of dispatch consoles, the ultimate goal remains identical – to obtain details from callers and send appropriate help in a timely manner.

This section contains information about several topics, including which online training will be the most beneficial for dispatchers. Training modules will contain specifics about consoles and control stations used on the ARMER system, along with much more information.

It is important to note that these online training modules are intended to be used for refresher, or pre-hands-on, training. The modules are not expected to take the place of classroom training about how to use equipment.

Online training will include information about CentraComm, MCC7500 dispatch consoles, and Motobridge. The training will cover tasks like Patching/Multi-Select, Encryption, and Paging.

Channel markers are not covered in the online training, but they are designed to provide a short beep over radio channels to notify listeners a "special event" is in progress, and radio transmissions should be kept to a minimum. Special events would involve officer and/or public safety. The beep tone is timed and adjustable. Check with your agency for their policy on the use of channel markers.

Call Alert is another function not covered in the online training, but it allows a dispatcher to page a portable or mobile radio. Paging a radio does not tie up a frequency or lock the radio up when it gets paged. Each PSAP shall ensure that their dispatchers are familiar with this capability.

Section IV: Interoperability

This section will consist of state standards that are most pertinent to your job as a dispatcher. Take the time to become familiar with each of them. While they are written as standards, it is recommended that your agency determine the best way to incorporate these, as well as additional training, into your agency's program as a way to enhance the information set forth in the Minnesota Dispatchers Communications Best Practice Guide.

Minnesota Public Safety VHF Interoperability Frequency Plan

The Minnesota VHF Interoperability Frequency plan may be found on the SECB- website. ~~at https://dps.mn.gov/entity/SRB.~~

Dispatch personnel should be familiar with the regional communications resources that are available to their jurisdiction, as well as the process they must follow to request them. This information will be provided in the region's Tactical Interoperable Communications Plan (TICP) and should also be listed in CASM – the Communications Assets Survey and Mapping Tool. PSAP managers should consider providing -TICP information and/or CASM -information to dispatch personnel in a readily accessible format.

Tactical Interoperable Communications Plan (TICP)

Tactical Interoperable Communications Plans are used by jurisdictions to document interoperable communications governance structures, technology resources, and usage policies/procedures. The TICP describes what interoperable communications assets are available in an area, how those assets are shared and prioritized, and the steps that individual agencies should use to request, activate, and deactivate them.

Communications Assets Survey and Mapping Tool (CASM)

CASM is a web-based software application that enables communication planners to survey and inventory existing Land Mobile Radio (LMR) communication equipment and infrastructure in a state or urban area. It provides a single repository for information about LMR systems, methods of interoperability, and how they are used by emergency responders. CASM is available nationwide and provides inter-agency interoperability analysis. CASM is an important tool for public safety during an incident or exercise anywhere in the state of Minnesota. See State Standard 3.40.0, CASM/TICP Standard for Data Entry and Maintenance. For more information on CASM, go to http://www.in.gov/ipsc/2529.htm

Motobridge Consoles

In an effort to augment interoperability between ARMER talkgroups and VHF resources, the state of Minnesota has implemented a VHF overlay system to ARMER. Motobridge consoles have been built and installed in several PSAPs, including the counties of St. Louis and ~~Co,~~ Otter Ttail, ~~Co,~~ as well as ~~and~~ the Minnesota State Patrol Regional Dispatch Centers. Motobridge consoles have the unique ability to apply soft patches between VHF resources and ARMER talkgroups at specific ARMER comm sites. The specific VHF interoperability resources are defined in the MN VHF Interoperable Frequency Plan, which can be found in Studies and Reports on the ARMER home page. The specific ARMER comm sites that house variable frequency stations (VFS) are listed in appendix A of Standard 3.16.5.

MNFOG

The Minnesota Communications Field Operations Guide (MNFOG) is a collection of technical reference material to aid communications unit personnel in establishing solutions to support communications during emergency incidents and planned events. The MNFOG also contains local, state, and national interoperability channel information.

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Printed copies for field use can be obtained by contacting the State Interoperability Program Manager.

Electronic access can be found by going to the ECN website under ARMER and Guide Books ~~at: https://dps.mn.gov/divisions/ecn/programs/armer/Pages/Guide-Books.aspx~~ or by downloading the OEC/ICTAP Public Safety Tools Library App to your smart phone or tablet. Within the App, you will be able to see the published documents for the state of Minnesota, which contains the MNFOG.

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State Standard 3.16.0, 800 MHz Statewide STAC Interoperability Talkgroups

Dispatch personnel should be familiar with these statewide talkgroup resources and understand the circumstances when they would be used.

Important points that should be emphasized for PSAPs:

- Use in order (i.e., 1,2,3,4, etc.) for emergent events
- Use in reverse order (12, 11, 10, 9, etc.) for preplanned and non-emergent events. For PSAPs that do not have all twelve STACs, use in reverse order starting at largest number available to you (i.e. 4, 3, 2, 1)
- Clear speech only - no "10" codes on statewide or regional talkgroups
- Priority of use should be for incidents with responders from multiple regions
- StatusBoard tracking: clear the statewide talkgroup verbally when the incident is over and update the StatusBoard
- It is recommended that dispatchers have reference material available describing where the statewide talkgroups are in responder radios

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State Standard 3.16.2, Use of Statewide 800MHz STAC 1-12– Talkgroups - Air Ambulance Emergency Landing Zone Coordination

Dispatch personnel should understand the communications procedure for landing an air ambulance at their incident and be prepared to assist the incident commander with the process.

Dispatchers should understand the different resources necessary for this function, depending on whether or not the air ambulance has ARMER radio capabilities.

Reference material should be developed for each PSAP describing the radio capabilities for air ambulances that commonly respond in their jurisdiction.

State Standard 3.16.3, Cross Spectrum Interoperability System (CSIS) 800 MHz National Mutual Aid Resources

The purpose of this standard is to establish procedures for use and patching of 800 MHz national mutual aid resources included in the ARMER Cross Spectrum Interoperability System for interagency communications.

State Standard 3.16.4, Cross Spectrum Interoperability System VLAW31 Resources

The purpose of this standard is to establish procedures for use and patching of VLAW31 resources included in the ARMER Cross Spectrum Interoperability System for interagency communications.

State Standard 3.16.5, Cross Spectrum Interoperability System VHF Variable Frequency Station (VFS) Resources

The purpose of this standard is to establish procedures for use and patching of VHF Variable Frequency Station (VFS) resources included in the ARMER Cross Spectrum Interoperability System for interagency communications.

The most common VHF channels that are available to law enforcement are:

- VLAW31
- VFIR23
- VMED28
- MNCOMM

Others may be available as well, such as the National Interoperability Channels VCALL10 and VTAC11-14.

Local procedures should be developed that list the specific scenarios in which VHF channels would be needed.

For PSAPs where patching is infrequent, step-by-step procedures in a quick-reference format should be developed so that dispatch staff can perform this function when necessary.

State Standard 3.19.0, Use of 800 MHz Statewide LTAC and SIU Interoperability Talkgroups

Dispatch centers will not have LE_SIUs.

If a PSAP has LTAC5E through LTAC8E,- dispatch staff must not patch them to anything.

The StatusBoard must be used to reserve these resources.

State Standard 3.31.0, ARMER System StatusBoard

This standard will give guidance to all ARMER dispatch centers as to what talkgroups or channels should be on their StatusBoard Application and will serve to minimize usage conflicts when multiple incidents may be occurring simultaneously.

The StatusBoard shall be used for all emergent events or pre-planned exercises. It is available to all PSAPs via internet access. Basic procedures on usage of the StatusBoard should be developed by each agency and made readily accessible to dispatchers and other end-users.

Every dispatcher should be familiar with the contents of this standard and must complete the online training module for StatusBoard prior to getting an individual log on and password.

State Standard 3.32.0, Statewide Interoperable Plain Language Policy

It is recommended that PSAP communications plans be developed, requiring clear speech for day-to-day activities. A limited list of permitted codes should be published for users and be strictly adhered to. This will make it easier to use clear speech only on major events as well.

State Standard 3.44.0, Statewide Pursuit Communications Standard

The purpose of this standard is to establish the guidelines and procedures for pursuit communications. Upon initiating the pursuit on a local talkgroup, the controlling dispatcher will patch the local talkgroup to the first available LTAC and reserve the LTAC via the StatusBoard. Upon placing the patch, the controlling dispatcher will announce the patch and the reason for the patch. If VHF resources are to be involved, VLAW31 will be patched with the local talkgroup and the first available LTAC. If the pursuit is going to extend past the local PSAP's VLAW31 coverage, the nearest State Patrol Regional Dispatch Center should be contacted to apply the patch outside the local coverage area. Once the pursuit has been completed, the original, controlling dispatcher will announce the removal of the patch, remove the patch, and update the StatusBoard.

State Standard 3.35.0, National Weather Service Standard

The purpose of this standard is to define the ARMER talkgroups and procedures to be used by the National Weather Service (NWS) offices that serve the various ARMER regions of the state for NWS to county and local agency communications during severe weather events.

Section V~~I~~: Other Resources

State Standard 3.33.0, Establishment of Strategic Technology Reserve (STR), 3.33.1 STR Radio Cache and 3.33.2 STR- Transportable Tower/Repeater

The basic purpose of ~~a Minnesota~~a Minnesota STR is to provide communication resources that can be deployed in situations where there is a catastrophic loss of the existing public safety communication capabilities. Each of the seven communications regions in Minnesota has an STR to:

- Provide communication resources that can be deployed in situations where there is a catastrophic loss of existing public safety communication capabilities.
- Provide communication resources that can be used to supplement existing public safety communication resources where an event or natural disaster requires more resources and capability than are currently available locally or regionally.
- Provide a transportable communications resource that can be used to support operations of local public safety officials responding to a serious event or natural disaster to another state.

It is suggested that each ~~PSAP insert~~PSAP insert or link the applicable Regional STR Standard to this document.

Communications Unit Leader (COML) and Communications Unit Technician (COMT)

During all-hazards emergency response operations, communications among multiple jurisdictions and disciplines, including emergency medical, fire, and law enforcement, is essential. Unfortunately, the absence of on-scene communications coordination has often compromised critical operations. To close this gap, the Department of Homeland Security's (DHS) Office of Emergency Communications (OEC), in partnership with the Office of Interoperability and Compatibility (OIC), the Federal Emergency Management Agency (FEMA), National Integration Center (NIC), and practitioners from across the country, developed performance and training standards for the All Hazards Type III COML & COMT, formulating the curriculum and comprehensive All Hazards Type III COML & COMT courses. See State Standard 3.17.0, Criteria for State Certification as a Communications Unit Leader, State Standard 3.17.2, Statewide COML Talkgroup, and State Standard 3.17.4, Event and Exercise Communications Planning for additional information.

Communications Unit Leader (COML)

COML responsibilities include developing plans for the effective use of incident communications equipment and facilities, managing the distribution of communications equipment to incident personnel, and coordinating the installation and testing of communications equipment. See State Standard 3.17.0 for more information.

Full-scale/functional exercises or pre-planned events using more than one statewide interoperability talkgroup must utilize the services of a Minnesota certified COML.

Communications Unit Technician (COMT)

The All-Hazards Communications Technician, or COMT, is responsible for practices and procedures common to radio communications technicians during all-hazards emergency operations. COMTs work within the Incident Command System (ICS) organizational structure. See State Standard 3.17.3, Criteria for State Certification as a Communications Technician for more information.

Incident Management Team (IMT)

An Incident Management Team, (IMT), is a multi-agency/multi-jurisdiction team for extended incidents, formed and managed at the State, regional, or metropolitan level. An IMT is deployed as a team of 8-24 trained personnel to manage major and/or complex incidents requiring a significant amount of local, regional, and state resources, as well as incidents that extend into multiple operational periods and require a written Incident Action Plan (IAP).

Communications Response Task Force (CRTF)

The Metro Region CRTF is an ICS trained, all-hazard personnel resource to be used by an agency to assist in the field, the command post, the EOC, or the PSAP. The CTRF can be an expertise or personnel resource and may assist with logistics if the communications or other equipment is necessary. The team will assume radio duties for the incident or event and can be a resource to support troubleshooting and managing equipment or documentation and resource deployment.

Incident Dispatch Team (IDT)

The IDT is comprised of dispatch professionals from around the Metro Region. The team represents multi-discipline PSAP personnel (police fire, EMS) ready to deploy and bring the unique skills of the

dispatcher to augment incident management at an incident or event. The IDT also serves as Minnesota's Telecommunications Emergency Response Taskforce (MN-TERT) under the National Joint TERT Initiative and is recognized nationally.

The Metropolitan Emergency Services Board (MESB) supports the CRTF and IDT/MN-TERT. The CRTF or MN-TERT can be requested for assistance at an emergency event by contacting the Minnesota State Duty Officer.

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The suggested method for reporting conflicts noticed by dispatchers is to attempt a resolution through direct contact with the PSAP or dispatcher involved. If direct contact with the PSAP or dispatcher is not an option, the issue should be documented and forwarded to your supervisor. The supervisor or PSAP manager should attempt to obtain a resolution with the other PSAP. However, if a conflict is not able to be resolved at this level, the issue should be brought to the regional user/owner and operator committee level. For more information, see State Standards 7.1.0, 7.2.0, and 7.3.0.

Section VII~~I~~: Refresher Training Plan

While it is the responsibility of each agency to establish their own dispatch refresher training at least every two years, it is imperative to keep personnel up-to-date on the latest technological innovations, as well as applicable local, regional, and state guidelines/mandates.

It is a best practice recommendation that ARMER online equipment and console training modules be reviewed annually, at a minimum. In addition, the Minnesota Dispatchers Communications Best Practice Guide should become part of every agency's new trainee curriculum, and it should also be reviewed periodically in training sessions for current employees.

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Emergency Management/Public Health
Dispatch
Public Works
EMS/Hospitals

These guides have been created as a result of diligent work by the groups involved. These guides provide direction for their respective public safety disciplines and are available online. Access to completed Best Practice Guides is available on ECN's website under ARMER and Guide Books~~at~~.

~~: https://dps.mn.gov/entity/SRB~~

Section IX: Minnesota Emergency Communication Networks Contacts

For current email contact information, please see Staff Contacts on the ECN website.~~:~~ ~~https://dps.mn.gov/divisions/ecn/Pages/default.aspx~~

Section X~~I~~: Regional Emergency Communications Boards/Emergency Services Boards and Advisory Committee Contacts

Contacts for the Regional Emergency Communications Boards/Emergency Services Boards (ECB/ESB) and Regional Advisory Committees (RAC) can be found on the SECB website under Regional Boards and Committees. ~~ECN website under:~~ ~~https://dps.mn.gov/entity/srb/regions/pages/default.aspx~~

Section XI~~I~~: Radio Affiliated Acronyms

Link to commonly used radio affiliated acronyms – https://dps.mn.gov/entity/SRB , click on ARMER and then click on Acronyms.

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Allied Radio Matrix for Emergency Response (ARMER)
Standards, Protocols, Procedures

Document Section	**Interoperability Standards**	**Status**: Pending Approval
State Standard Number	**3.46.0**	
Standard Title	**Ontario-Minnesota Interoperability**	
Date Established		**SECB Approval**:
Replaces Document Dated	**n/a**	
Date Revised	**n/a**	

1. Purpose or Objective

This Standard establishes procedures for interoperable communications with Ontario, Canada in border areas with Minnesota. Included within this Standard are guidelines on establishing, maintaining, deactivating, and testing radio patches between the Ontario Provincial Public Safety Radio Fleetnet radio system and Minnesota's ARMER network.

2. Technical Background

- **Capabilities**
  The radio patch detailed in this standard, will allow voice interoperability between Ontario and Minnesota public safety radio system users.

- **Constraints**
  Interoperability is established via a gateway/patch between disparate radio systems. Technical constraints include:
  - Ontario radio users are dependent on their radios reaching Ontario radio towers and Minnesota radio users are dependent upon their radio reaching Minnesota radio towers. Just because the systems are patched together does not mean that an Ontario user may use their radio well into Minnesota or that a Minnesota user may use their radio well into Ontario.
  - Features such as radio identification and emergency alarms will not pass to the other radio system but should remain functional on the user's home system as long as the user's radio is still affiliating with its home network.
  - A short delay in making the connection is a common shortcoming of all patches so care must be taken to pause after pushing the Push-to-Talk (PTT) button and before speaking.

3. Operational Context

Interoperability between Ontario and Minnesota is predicated on a Memorandum of Understanding (MOU) titled *Memorandum of Understanding for Access to Common Communications through the Provincial Public Safety Radio Network for Improved Inter-Agency Radio Interoperability* dated June 18, 2015. This MOU establishes many of the responsibilities identified in this Standard. A copy of the agreement will be maintained by the Statewide Interoperability Coordinator.

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The MOU specifically identifies the Parties of the agreement to be "police" and that "radio interoperability shall be for police communications at the operational level." For the purposes of interoperable public safety radio communications with Ontario, "police communications" includes all public safety radio communications made by law enforcement personnel (sworn or civilian), fire personnel, EMS personnel, search and rescue personnel, forestry personnel, or any other person designated by law enforcement during an event and while in the course of their duties.

Interoperability between Ontario and Minnesota is accomplished through a radio connection. A consolette owned by the Province of Ontario and programmed with an Ontario trunked-VHF talkgroup (known as "PP-INT-2") was installed in the MnDOT-owned and maintained radio tower site located at the Boise Cascade Pulp Yard in International Falls, Minnesota. The consolette was connected to the ARMER infrastructure and its antenna was aimed at an Ontario Provincial Public Safety Radio Fleetnet tower in Devlin, Ontario. The connection may be enabled and disabled by the Minnesota State Patrol Dispatch.

The talkgroup resource PP-INT-2 is available to Ontario Provincial Police Provincial Communication Centre (PCC) located in Thunder Bay, Ontario and the Kenora Central Ambulance Communication Centre (CACC) located in Kenora, Ontario. The PCC (Thunder Bay) may add the Ministry of Natural Resources (forest service) to the interoperability patch. The CACC (Kenora) may add fire resources to the interoperability patch.

Summary:

Ontario Communications Center	Location	Services
Ontario Provincial Police Provincial Communication Centre (PCC)	Thunder Bay	Police (primary) Forest Service (patch)
Kenora Central Ambulance Communication Centre (CACC)	Kenora	EMS (primary) Fire (patch)

4. Recommended Protocol/ Standard

This Standard should be followed when considering, activating, utilizing, and deactivating an interoperability patch between Ontario and Minnesota radio systems.

5. Recommended Procedure

Any public safety representative in Minnesota (police, fire, EMS, search & rescue, forestry, etc.) may request that the Minnesota-Ontario patch be enabled by contacting the Minnesota State Patrol Dispatch. The Minnesota State Patrol Dispatch should notify the proper Ontario communications center by telephone. The Minnesota State Patrol Dispatch will maintain current contact information for calls to Ontario. Requests from Ontario to enable the patch should be made by calling the Minnesota State Patrol Dispatch.

Testing of the Ontario-Minnesota patch shall be performed weekly. The specific day and time of the test shall be at a time agreeable to the Kenora Central Ambulance Communications Centre (CACC), the Ontario Provincial Police Provincial Communications Centre (PCC) and Minnesota State Patrol. Ontario and Minnesota must each provide one communication center and one police vehicle for the test. For the purposes of testing, Minnesota defines a "police vehicle" as

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any mobile or portable ARMER radio. Ontario is required by MOU to log the test. The Minnesota State Patrol is encouraged to also maintain a testing log.

Technical problems should be promptly reported to the ARMER Radio Operations Center.

Dispatch-to-Dispatch Communications is discouraged but is allowable in extenuating circumstances.

Communications regarding the protection of human life and property shall take priority over communication related to serious criminal offenses.

Plain English shall be used. Codes shall not be used.

The communications center requesting the Ontario-Minnesota patch be established should maintain control of communications unless that duty is explicitly transferred to another. The Minnesota State Patrol Dispatch Center is responsible for deactivating the Ontario-Minnesota patch at the conclusion of the event. If the event was under the control of an Ontario authority and it is not clear if the event has concluded, the Minnesota State Patrol Dispatch Center is responsible for checking with the Ontario authority to disable the patch at the event's conclusion.

6. Management

The Statewide Interoperability Coordinator (SWIC) is responsible for supervising and managing this Standard.

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2016 – 2018 STRATEGIC PLAN

SECB

Statewide Emergency Communications Board

TABLE OF CONTENTS

1 INTRODUCTION

3 BOARD HISTORY

4 BOARD COMPOSITION

5 BOARD GOVERNANCE STRUCTURE

7 BOARD COMMITTEES

9 REGIONAL BOARDS AND COMMITTEES

10 BUDGET

11 STRATEGIC PLANNING

12 BOARD GOALS AND OUTCOME MEASURES

19 SUMMARY

INTRODUCTION

The Statewide Emergency Communications Board (SECB) is responsible for providing Minnesota residents and public safety responders with multiple and reliable means of communications before, during and after emergencies. This strategic plan will outline the SECB's priorities and funding strategies to:

- Ensure advances in technology will be implemented to enhance the ability for all residents to call for help.
- Provide confidence that responders in every corner of the state have the ability to communicate with each other during every public safety incident.
- Enable all counties to effectively alert and warn residents and visitors of impending danger.

The SECB provides leadership to set the vision, priorities and technical roadmap for interoperable communications across the state.

Public safety stakeholders, including law enforcement, fire, emergency medical, emergency management, technology experts, state agencies, health care systems, elected officials, a subset of the SECB and legislative staff, provided input for this plan.

Minnesota Department of Public Safety Mission

The Department of Public Safety is committed to protecting citizens and communities through activities that promote and support prevention, preparedness, response, recovery, education and enforcement. These objectives are achieved through a focus on saving lives, providing efficient services, maintaining public trust and developing strong partnerships.

SECB Mission

Enable emergency responders and citizens to communicate easily and respond immediately in critical emergency situations by providing reliable and robust systems for interoperable communications across county, state, federal and tribal regions.

SECB Vision

The safety of Minnesota's emergency responders, citizens and visitors is accomplished through state-of-the-art interoperable public safety communications systems.

Core Values

- Fairness
- Integrity
- Consistency

INTRODUCTION

BOARD HISTORY

The SECB began as the Statewide Radio Board with 2004 legislation. Minnesota Statute 403, Chapter 201, Section 1 created the SECB and provided for its composition and responsibilities. The original primary functions were to implement the Statewide Interoperable Public Safety Radio and Communications System Plan and develop a project plan for the Allied Radio Matrix Emergency Response System (ARMER).

The ARMER system is now one of four elements of public safety interoperable communications. The SECB also develops plans, standards and best practices for Next Generation 911 (NG911), the Integrated Public Alert and Warning System (IPAWS) and FirstNet, which is the proposed Nationwide Public Safety Broadband Network (NPSBN).

Changes to the composition of the SECB were made in 2005, 2006 and 2013.

The SECB is a 20-member board codified in Minnesota law. Participants are from state and local governments as well as multiple public safety disciplines and represent all corners of the state. The governor appoints six members. One of the reasons for its success is the balance of power. One third of the SECB is from greater Minnesota, one third is from the Twin Cities metropolitan area and one third is from state government.

The SECB consists of the following members or their designees:

- Commissioner of Public Safety
- Commissioner of Transportation
- State Chief Information Officer
- Commissioner of Natural Resources
- Chief of the Minnesota State Patrol
- Chair of the Metropolitan Council
- Two elected city officials (one from the nine-county metropolitan area and one from greater Minnesota, appointed by the governing body of the League of Minnesota Cities)

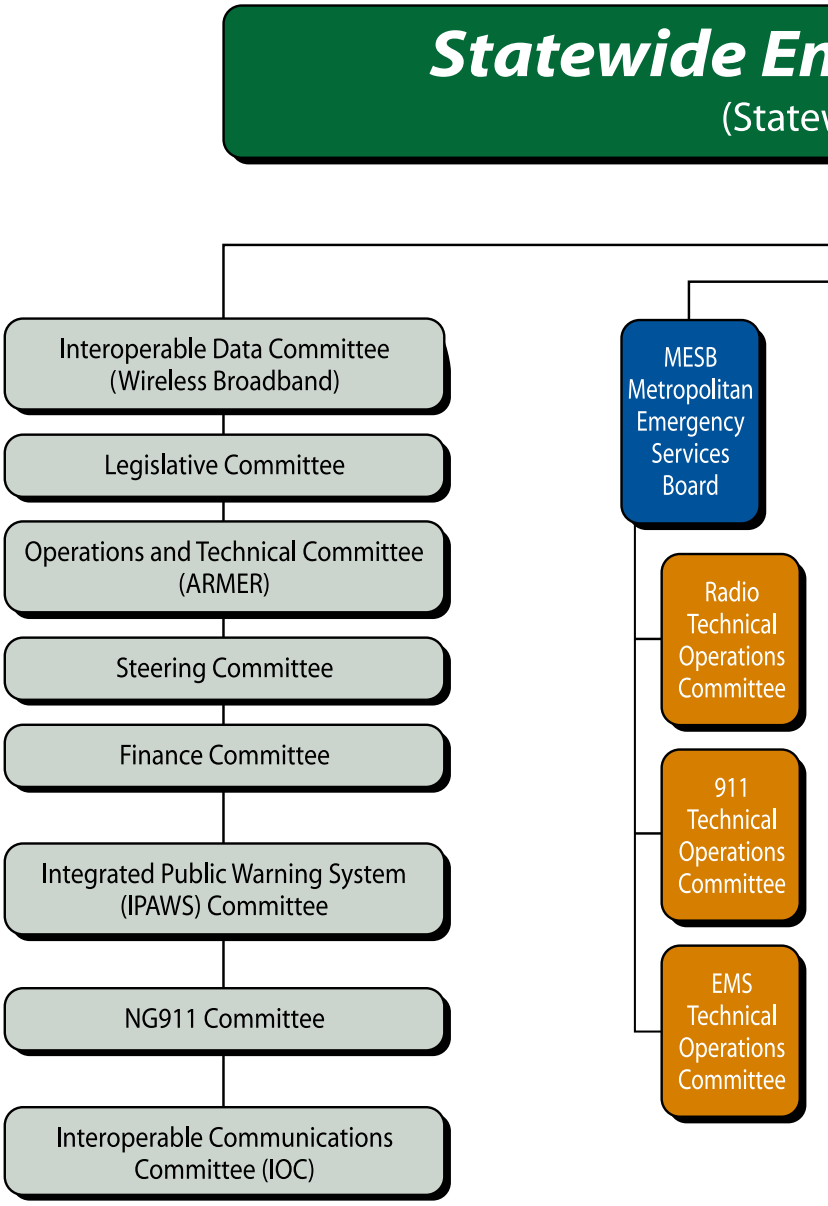
BOARD COMPOSITION

- Two elected county officials (one from the nine-county metropolitan area and one from greater Minnesota, appointed by the governing body of the Association of Minnesota Counties)
- Two sheriffs (one from the nine-county metropolitan area and one from greater Minnesota, appointed by the governing body of the Minnesota Sheriffs' Association)
- Two chiefs of police (one from the nine-county metropolitan area and one from greater Minnesota, appointed by the governor after considering recommendations made by the Minnesota Chiefs of Police Association)
- Two fire chiefs (one from the nine-county metropolitan area and one from greater Minnesota, appointed by the governor after considering recommendations made by the Minnesota Fire Chiefs' Association)
- Two representatives of emergency medical service providers (one from the nine-county metropolitan area and one from greater Minnesota, appointed by the governor after considering recommendations made by the Minnesota Ambulance Association)
- The chair of the Metropolitan Emergency Services Board
- A representative of one of the six regional emergency services/communications boards of greater Minnesota on a rotational basis

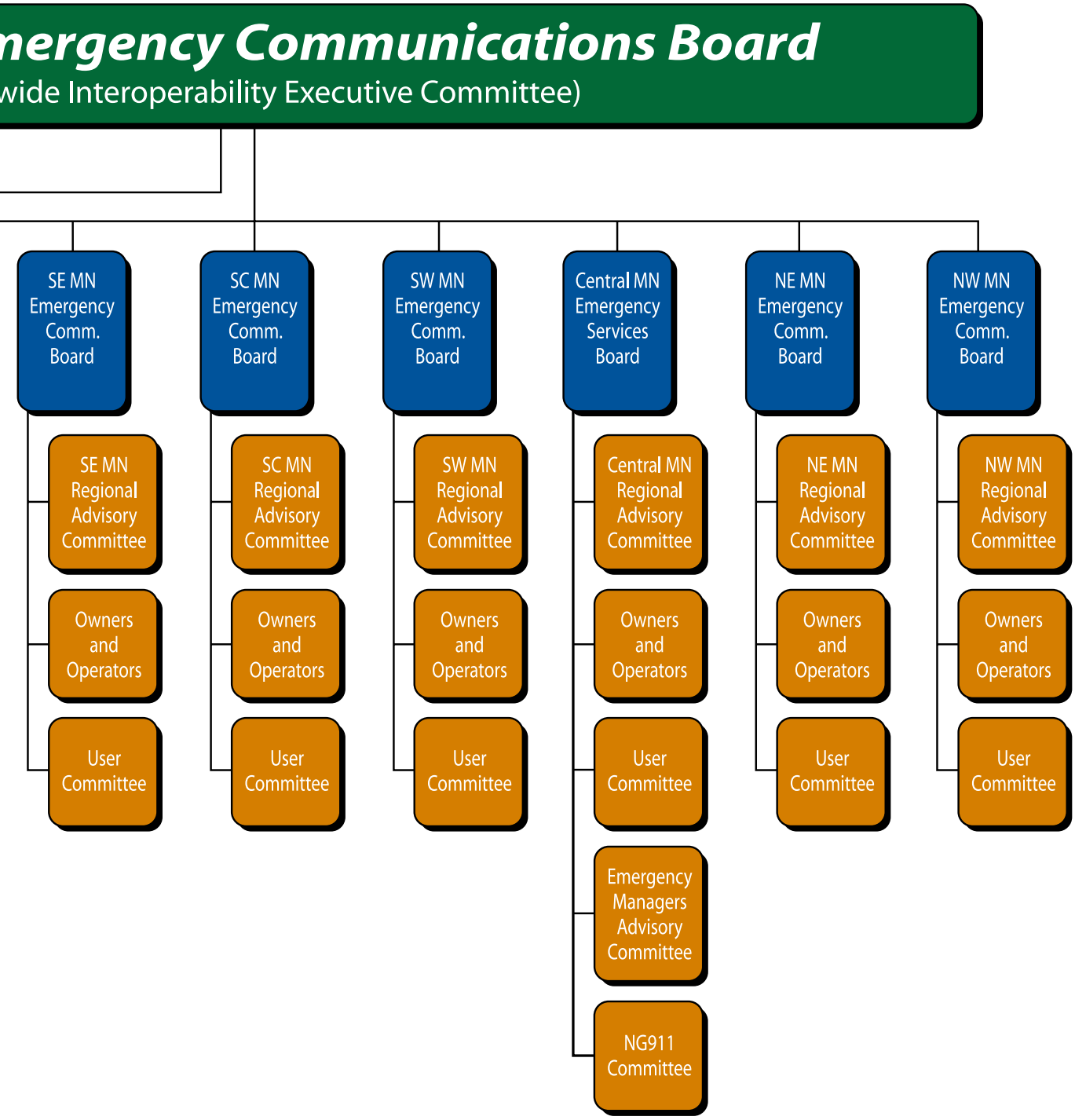
BOARD GOVERNANCE STRUCTURE

The SECB and the seven regional emergency services/communications boards (ESBs/ECBs) are at the center of Minnesota's interoperable public safety communications governance structure. Reporting to each board are subcommittees and workgroups. SECB committees and workgroups are composed of subject-matter experts who advise SECB in rulings pertaining to each committee or workgroup's particular area of expertise. Two regional ESBs and five ECBs perform a similar function for each of seven multi-county regions of the state.

This governance structure ensures that the SECB acts on issues with the full input of public safety and government officials across Minnesota, representative of the diverse geographies, disciplines, authorities and areas of expertise through the state.



BOARD GOVERNANCE STRUCTURE



COMMITTEES

Finance

Advises the SECB on all matters that have a financial impact on the SECB, its members and users of public safety communications systems across Minnesota.

Integrated Public Alert and Warning System (IPAWS)

Advises the SECB on matters related to the IPAWS. Coordinates and establishes policies, procedures, and protocols for the expansion of IPAWS through public and private partnership.

Interoperable Communications (IOC)

Advises the SECB on all matters related to public safety communications interoperability. The committee engages a wide and diverse group of stakeholders to consider and provide guidance on matters such as:

- Interaction of ARMER radio users from different geographical regions
- Interaction of ARMER users from different disciplines: fire, emergency medical services, law enforcement, public works and state and federal entities such as the National Guard and the FBI
- Connectivity and procedural matters related to how ARMER users interact and connect with non-ARMER users
- Connectivity and procedural matters in communicating with neighboring states and Canada
- Implementation of national mutual aid channels
- Evaluation of existing and new technologies as they relate to interoperability resources

Interoperable Data (Wireless Broadband)

Advises the SECB on all matters relating to wireless broadband for public safety, including consultation with FirstNet on the NPSBN.

Legislative

Advises the SECB on all matters related to legislation and government affairs that have the potential to impact SECB, its members and users of public safety communications systems across Minnesota.

Next Generation 911 (NG911)

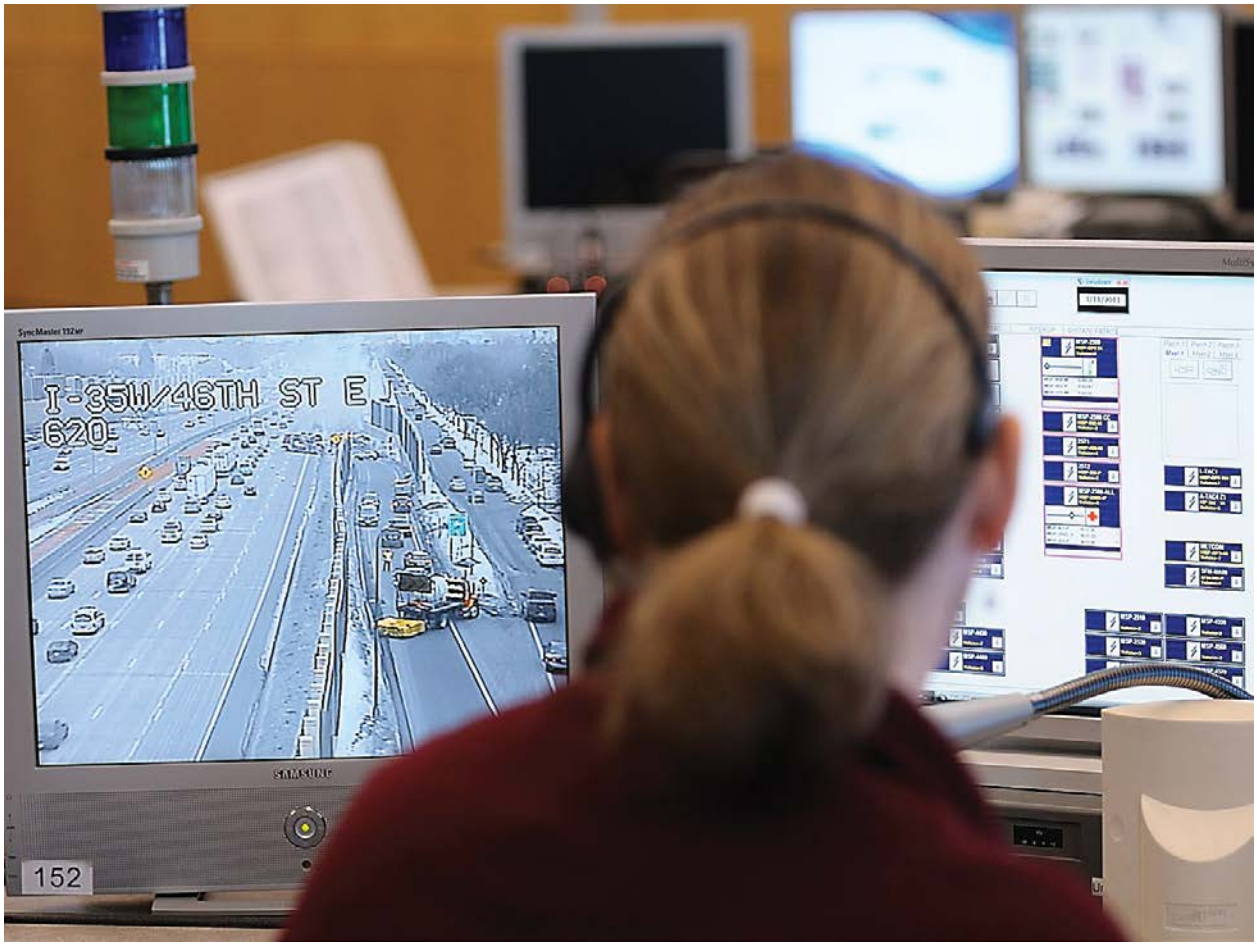
Advises the SECB on all matters relating to uniform 911 network design characteristics and policies and procedures to ensure Public Safety Answering Point (PSAP) interoperability across the state using open architecture and implementation of a coordinated statewide NG911 plan. The NG911 Committee will plan the migration to, use of, and maintenance for the statewide NG911 system.

Operations and Technical (OTC)

Advises the SECB on matters that pertain to the operational and technical aspects of the ARMER system. The committee reviews all participation plans and infrastructure modifications and additions. Any proposed changes are reviewed and forwarded to the SECB. The committee has representation from all regions of the state, thus assuring that all issues that are brought forward are discussed and vetted through a process that assures that all interests are represented. The committee also reviews any proposed changes to the operational standards and forwards them to the other committees as appropriate.

Steering

Advises the SECB on all policy decisions and provides oversight of the SECB's outreach and education efforts.

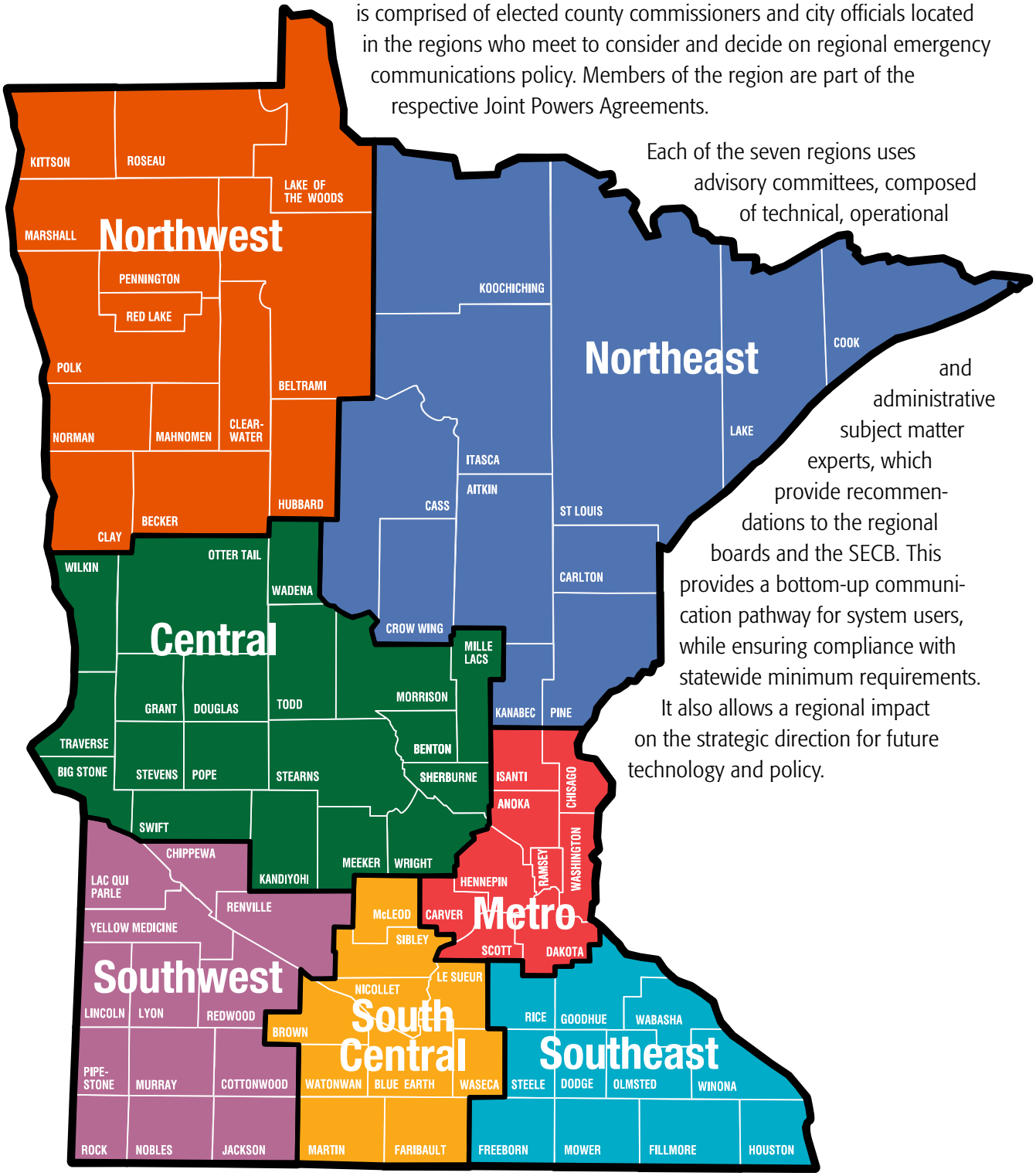


COMMITTEES

REGIONAL BOARDS AND COMMITTEES

The Minnesota Legislature and the SECB have identified seven emergency services/communications regions of the state and empowered the regions to establish governance structures. The geographical regions are: northwest, northeast, central, metropolitan Twin Cities, southwest, south central and southeast. The SECB is comprised of elected county commissioners and city officials located in the regions who meet to consider and decide on regional emergency communications policy. Members of the region are part of the respective Joint Powers Agreements.

Each of the seven regions uses advisory committees, composed of technical, operational and administrative subject matter experts, which provide recommendations to the regional boards and the SECB. This provides a bottom-up communication pathway for system users, while ensuring compliance with statewide minimum requirements. It also allows a regional impact on the strategic direction for future technology and policy.



BUDGET

Funding Sources

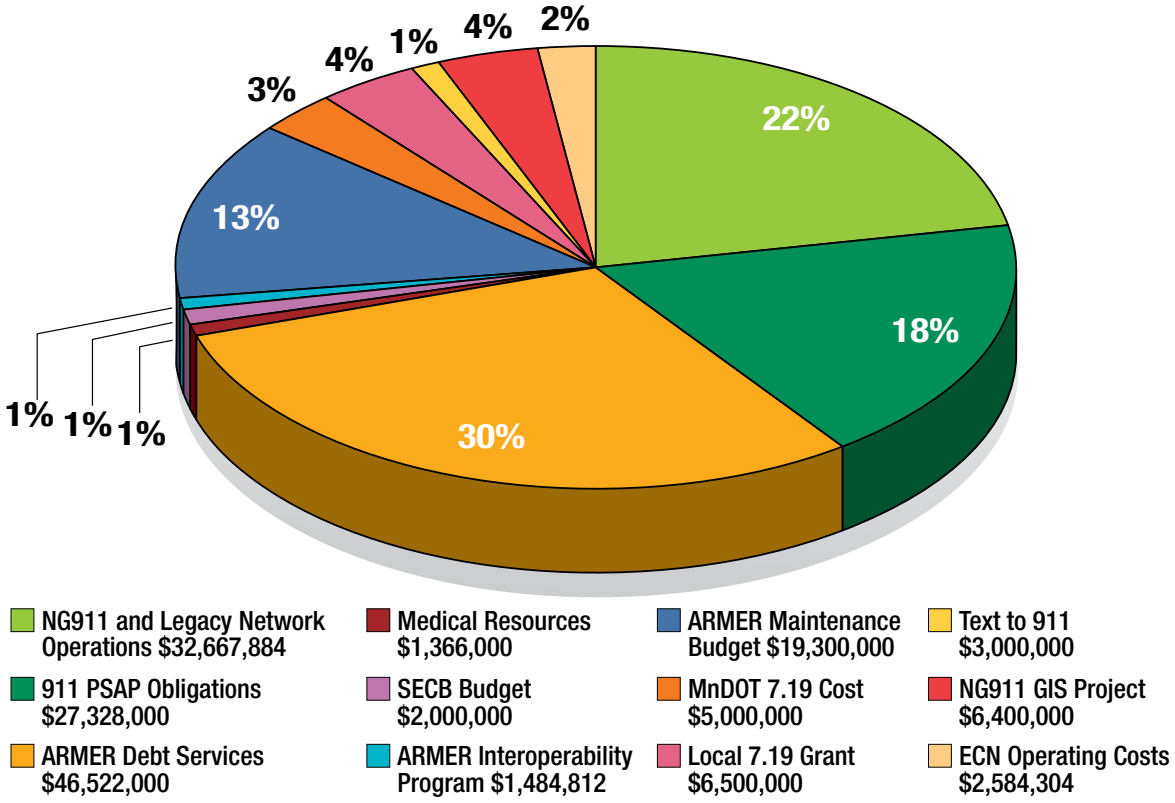
911 Fees

The public safety emergency communications programs are funded only with revenues collected from the 911 fee paid by every Minnesota telephone communications customer and deposited in the 911 Special Revenue Account. The radio system backbone infrastructure is provided through revenue bonds sold by the state and paid for through the 911 fee.

The 911 Special Revenue Account provides funds for the following:

- Operating budget of Emergency Communication Networks Division (ECN)
- Statewide 911 program
- NG911 network backbone
- Wireline telephone company costs to connect to the 911 network
- Equipment and dispatch proficiency expenses for 104 PSAPs, also known as 911 call answering centers
- Debt service on the revenue bonds sold to construct the ARMER backbone
- ARMER backbone maintenance and operation costs
- Minnesota's public safety communications interoperability program
- SECB
- Grants to local units of government for the purpose of furthering the SECB's strategic direction

Emergency Communication Networks Budget for FY 16 and FY 17 Combined



STRATEGIC PLANNING

In September 2014, the SECB hosted a two-day stakeholder meeting to gather input to identify and address the emergency communications challenges facing the state. Discussions at the meeting included the following:

Changes in public safety communications during the last 25 years:

- Computers
- Cell phones
- Internet
- Smart devices
- Squad car technology
- Public safety apps

Public safety communications gaps and challenges:

- Advances in technology are accompanied by related security risks
- The appetite for technology outpaces the ability to both implement and fund new systems
- Minnesota's increasingly culturally diverse population creates demand for the dissemination of public information in languages other than English
- Text to 911 is in demand from both young and older Minnesotans
- Existing staff are retiring from service. Training skilled replacements will be challenging and critical
- The skill-set requirements for staff will change with advancements in technology

Trends:

- Increased demands and expectations on all first responders
- Need for both consistency and reliability
- Requirement for sustainable funding
- Ability to connect with disenfranchised communities
- Need for well-prepared staff

- Technical changes and associated challenges
- Interfacing applications and systems

Criteria for strategic plan:

- Establishing a balance of control
- Prioritizing needs
- Providing equitable funding
- Adopting optimum technology

ECN AND SECB GOALS AND OUTCOME MEASURES

Goal 1: Evaluate technology to provide optimal systems to secure paramount public safety solutions for Minnesota citizens, visitors and emergency responders. These are the overarching goals.

ARMER:

Strategy:

ECN and the Minnesota Department of Transportation (MnDOT) will evaluate and implement software upgrades to ensure efficient system performance and avoid huge upgrade costs in the future.

Tactics:

- ECN and MnDOT to develop and secure funding for a five-year software and hardware upgrade plan with Motorola 2Q 2015 – Achieved
- ECN to secure legislative approval to fund 50% of the hardware upgrade costs for end-of-lifecycle equipment and prepare for version 7.19 hardware upgrade 2Q 2015 – Achieved
- ECN and MnDOT enter into five-year contract with Motorola for the 7.15 and 7.19 Software and Upgrade Agreement Plus to include software and hardware for both the state and local agencies 4Q 2015 – Achieved
- MnDOT to include 7.19 hardware upgrade costs of local agencies in bill-back contracts to local agencies 2Q 2016
- ECN and MnDOT to create tool to track upgrade status and report monthly to OTC and SECB. 1Q 2016

Strategy:

Provide seamless interoperable communications to all 87 counties and 11 tribal nations.

Tactics:

- ECN with workgroup members to perform Standards review and refinement on an annual basis with input from various workgroups made up of users 50% of standards by 4Q 2016 and 50% by 4Q 2017
- ECN to perform Best Practices review and refinement on an annual basis 4Q 2016
- ECN to research technology advancements to improve radio communications and make recommendations to IOC on border state interoperability 4Q 2016
- ECN, in conjunction with MnDOT and State Patrol, to complete Ontario, Canada interoperability project plan 2Q 2016
- ECN, in conjunction with MnDOT and State Patrol, to create a project plan for Manitoba, Canada interoperability 1Q 2017
- ECN, in conjunction with IOC stakeholder workgroup, develop Communications Unit program direction and plan 3Q 2016
- ECN, in conjunction with IOC stakeholder workgroup, develop COM-U training and exercise program 4Q 2016
- ECN and MnDOT to review, revise Change Management Standard and Procedures 2Q 2016
- ECN to assess testing, use and status of Strategic Technology Reserve (STR) resources 4Q 2016
- ECN to identify and publish all permanently installed and functional non-ARMER interoperability resources 2Q 2017
- ECN to work with stakeholder workgroup to update Minnesota Field Operations Guide (MnFOG) 4Q 2016

ECN AND SECB GOALS AND OUTCOME MEASURES

Next Generation 911

Strategy:

ECN and NG911 provider to implement a statewide interoperable text-to-911 solution in response to the Federal Communications Commission (FCC) mandate and as an alternate method of accessing 911 for those who are deaf and hard of hearing or in a situation where speaking might create danger, such as a burglary in progress or domestic assault.

Tactics:

- ECN and Department of Administration to award contract to vendor 1Q 2016
- ECN to identify one PSAP deployment in each of the seven regions to handle texts for that region 3Q 2016
- ECN to notify FCC of intent to deploy with all carriers statewide 3Q 2016
- ECN and The Department of Public Safety Communications Division to prepare media announcement and public education campaign plan 3Q 2016
- ECN and Alexandria Technical College to prepare training for PSAP personnel 3Q 2016
- ECN to deliver training to PSAP personnel 3Q 2016
- ECN to coordinate vendor install and testing with seven regional PSAPs 2Q 2017
- ECN to alert FCC that text to 911 is available statewide 2Q 2017
- ECN to work with all 104 PSAPs to implement as ready Begin 2017 and continue through 2018

Strategy:

ECN and MNGEO to implement statewide geographical information system (GIS) geospatial database to support location-based routing for all current technology devices to 911 that will enable first responders to locate a wireless caller with more speed and accuracy.

Tactics:

- ECN and Minnesota Geospatial Information Office (MNGEO) to conduct county GIS and 911 data assessment report card for metro and NE regions 2Q 2016
- ECN and MNGEO to conduct county GIS and 911 data assessment report card for all regions 4Q 2016
- ECN and MNGEO in collaboration with the MESB and NEECB to start synchronization of 911 data and GIS for metro and NE Begin 2Q 2016
- ECN and MNGEO with county to start synchronization of 911 data and GIS for rest of counties Begin 3Q 2016
- ECN and MNGEO to architect data maintenance workflow from county submission to final product for NG911 call routing use 2Q 2016
- ECN and MNGEO to implement GIS portal for local use 2Q 2016
- ECN and MNGEO and individual county to set up to access and upload GIS data on routine basis 4Q 2016
- ECN and MNGEO and GIS subcommittee develop GIS data requirements standard for NG911 3Q 2016

Strategy:

ECN and Department of Administration to enter into three year contract with NG911 solution provider for a statewide NG911 solution.

Tactics:

- ECN and Department of Administration to request best and final offer pricing 1Q 2016
- ECN and Department of Administration to award NG911 Request for Proposal (RFP) 1Q 2016
- ECN and Department of Administration to negotiate NG911 contract 2Q 2016

Strategy:

ECN and Minnesota Information Technology (MN.IT) with input from wireless carrier third party vendors to implement online Wireless E911 Routing Management (WERM).

Tactics:

- ECN and MN.IT to obtain wireless carrier's current carrier site information and upload into database 1Q 2016
- ECN and MN.IT to load data and test with carriers 1Q 2016
- ECN and MN.IT to develop end-user training materials 2Q 2016
- ECN to roll out training to PSAPs 2Q 2016
- ECN and MN.IT WERM deployment date 2Q 2016

Strategy:

ECN and MN.IT TeleSoft to implement online statewide 911 network asset and invoice management tool.

Tactics:

- ECN to complete end-to-end 911 circuit inventory 2Q 2016
- ECN and carrier to resolve discrepancy between inventory and invoice 3Q 2016
- ECN and MN.IT load invoice inventory data for testing 2Q 2016
- ECN and 20/20 to initiate carrier network resizing for legacy wireline network 4Q 2017
- Contract renewal with carriers in conjunction with inventory resolution and carrier report card completion Begin 4Q 2016 and continue through 2017

Integrated Public Alert and Warning System (IPAWS)

Strategy:

Promote statewide deployment and adoption of IPAWS to facilitate communication to the public when the need arises. This alerting system uses locally issued wireless emergency alerts and Emergency Alert System (EAS) messaging in situations requiring those in harm's way to take protective action, such as an active shooter scenario, train derailment or nuclear power plant incident.

Tactics:

Implementation:

- Homeland Security and Emergency Management (HSEM), IPAWS Committee and ECN to develop work plan for implementation 1Q 2016
- HSEM and IPAWS Committee to develop three-phase county implementations of IPAWS based on existing mass-notification systems in place and location of county to Class 1 rail lines 1Q 2016
- HSEM and ECN to explore avenues for shared county IPAWS implementations 2Q 2016
- HSEM and ECN to identify possible applications for multi-lingual technology and secure funding to implement 3Q 2016

ECN AND SECB GOALS AND OUTCOME MEASURES

Outreach:

- HSEM, IPAWS Committee and ECN to promote IPAWS adoption at public safety conferences, training events and meetings Ongoing
- HSEM, IPAWS Committee and ECN to continue public outreach and education through radio/television/newspaper and public service announcements Ongoing
- HSEM, IPAWS Committee and ECN to prepare one page brief on IPAWS for legislators and county board members 1Q 2016
- HSEM, IPAWS Committee and ECN to prepare one-page brief on IPAWS for sheriffs who have not enlisted in IPAWS 1Q 2016
- HSEM, IPAWS Committee and ECN to prepare one-page brief for broadcasters that defines role in IPAWS as a partner in public information and warning 1Q 2016

Training:

- HSEM and ECN to develop training and exercises templates for county personnel to obtain proficiency on IPAWS
- HSEM and ECN to develop online training modules for IPAWS for county refresher training
- HSEM and ECN to train EAS participants (radio/television/cable) on technical aspects of IPAWS system, identifying how they interface with IPAWS

Technical Assistance:

- HSEM and ECN to assist jurisdictions with testing, training and evaluating IPAWS implementation Ongoing
- HSEM and ECN to assist jurisdictions that have received their public alerting authority from the IPAWS program office, giving support needed for proper implementation Ongoing

Funding:

- HSEM and ECN to secure grant funding sources to assist jurisdictions in obtaining and maintaining systems Ongoing

Wireless Broadband for Public Safety

Strategy:

Evaluate the requirements and features of a reliable dedicated public safety broadband system that would guarantee access to data in high-demand situations when commercial carriers are not available or systems are overloaded.

Tactics:

- ECN to continued consultation with FirstNet regarding the NPSBN and meet requests for data as required Ongoing
- ECN to provide Phase 2 data collection to FirstNet 3Q 2015
- ECN to engage tribal leaders through regional meetings Ongoing
- ECN and Steering Committee to create committee membership for tribal participants 4Q 2016
- ECN, in coordination with FirstNet staff, to assist with developing NPSBN state plan with participation from FirstNet based on NPSBN network design and state public safety requirements 4Q 2016
- ECN with support of Televate to advise the SECB and gubernatorial staff about the risks and benefits of participating in the FirstNet NPSBN 1Q 2017

Goal 2: Ensure adequate resources at the state and local levels of government to support current and emerging public safety communications technology.

Strategy:

Secure funding for state and local units of government to support the most efficient, reliable and cost-effective public safety communications systems.

Tactics:

- ECN to raise the 911 fee from 78 cents to 95 cents, as allowed by statute, to support SECB initiatives Achieved 1Q 2016
- ECN, with support of Finance Committee and Grants Workgroup, to encourage regional funding prioritization providing grant opportunities to regions Ongoing
- ECN to work with Finance Committee and SECB funding to create ongoing grant program to support regional priorities such as training, exercises and hardware equipment that support SECB initiatives Ongoing
- ECN and Department of Management and Budget to research early ARMER bond payoff to prepare for future funding expenditures 2Q 2016
- ECN to complete a PSAP Life Cycle Funding Assessment to understand the future dollars needed to maintain and upgrade public safety communications technology 3Q 2016
- ECN to explore other possible funding mechanisms, such as adding the 911 fee to other technologies that can initiate a 911 request for assistance but are not currently assessed the 911 fee 4Q 2016

ECN AND SECB GOALS AND OUTCOME MEASURES

Goal 3: Ensure all stakeholders understand public safety communications and its critical role in all aspects of public safety.

Strategy:

ECN and SECB members to educate decision-makers about the criticality of public safety communications systems and changes necessitated by consumers' changing technology behaviors.

Tactics:

- ECN and SECB members to conduct annual training for elected officials at pertinent conferences and quarterly meetings Ongoing
- ECN and Legislative Committee to foster a core group of legislators to champion public safety communications initiatives 2Q 2016
- ECN and Legislative Committee members to educate the stakeholder association members on public safety technology's role in efficient emergency response; communicate legislative initiatives and SECB strategic initiatives Ongoing
- ECN staff to conduct regional summits in every region to educate regional decision makers and users about the goals, accomplishments and current concerns Completed two regions in 2015, ongoing in 2016
- ECN to ensure the SECB website is up to date with current information on goals, accomplishments and meeting minutes Ongoing
- ECN to ensure that ECN website is current with information on goals, accomplishments and What's New Ongoing
- ECN to provide quarterly updates via newsletters and email distribution lists Ongoing
- ECN to use social media, such as Facebook and Twitter, to update local users and public on goals, current accomplishments and events Ongoing
- ECN and Steering Education and Outreach Work Group to create SECB letterhead and PowerPoint materials for concise messaging of SECB and committee work 1Q 2016

Strategy:

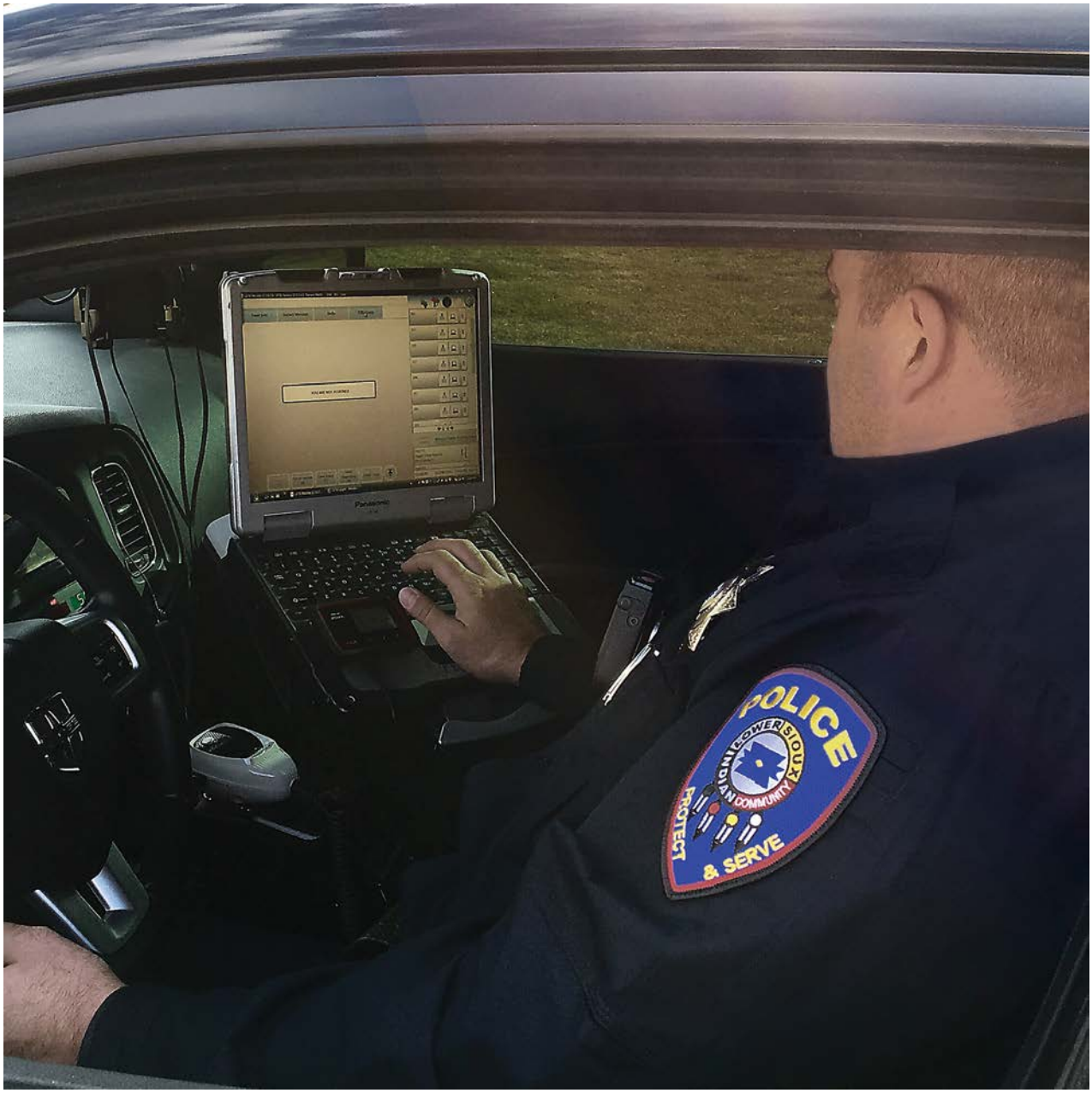
ECN to provide training opportunities to system users to ensure first-rate performance on new or infrequently used technologies.

Tactics:

- HSEM, ECN and Alexandria Technical college to create online IPAWS refresher training 3Q 2016
- ECN, with IDC Committee and Regional Interoperability Coordinator (RIC) support, to continue education and outreach program for FirstNet focusing on updating the ECN FirstNet webpage; creation of online training modules and other training opportunities to public safety stakeholders Ongoing
- ECN to review and update training materials on the Alexandria Technical online training website 2Q 2016
- ECN to identify new training required to support new technology Ongoing
- ECN, with HSEM and SECB, to provide grant funding opportunities to local units of government and public safety entities to promote ongoing training and exercises Ongoing

Tactics: (continued)

- ECN to review COM-U training and exercise goals in coordination with the COM-U program direction and plan 4Q 2016
- ECN to create and deliver WERM training to local units of government 2Q 2016
- ECN and Alexandria Technical College to create and deliver WERM on line refresher training 2Q 2016



SUMMARY

Because of the work of the SECB and its committees, the public is better able to call for help; 911 call takers and dispatchers are better equipped to handle those calls; public safety responders are safer; and elected officials and community leaders are more knowledgeable about the resources in their hometowns. The work of the SECB is largely unknown to the general public. Its dedicated members spend countless hours before and after their regular work hours digesting information upon which they base decisions that affect jurisdictions across the state. SECB and its committees provide the standards that create uniformity in current statewide interoperable communications. In the months and years to come, the SECB will lead the way to an improved 911 system, providing guidance to counties and cities of the first class using new integrated alert and warning software that will provide life-safety information on newer model cell phones. Finally, it will provide direction for Minnesota's participation in the future Nationwide Public Safety Wireless Broadband Network.

BBTAC 1
MAP
FEED
Minnesota User 6 Tue, 10:47
4s
Minnesota User 9 Tue, 10:47
2s
Tue, 10:49
0s
NO NETWORK 10:52:02 - 10:52:31
Minnesota User 6 Tue, 10:52
10s

Minnesota Department of Public Safety
Emergency Communication Networks

ecn.dps.mn.gov

Allied Radio Matrix for Emergency Response

ARMER

Project Status Report

Reporting Period February 1, 2016 through March 1, 2016

Executive Summary

Overall Status:

	Green (Controlled)	Yellow (Caution)	Red (Critical)	Reason for Deviation
Budget	☒ ☐ ☐	☐ ☐	☐	
Schedule	☐ ☐ ☐	☐ ☒	☐	Land acquisition delays will impact completion of some sites
Scope	☒ ☐ ☐	☐ ☐	☐	

ARMER Backbone

97%

On-the-air

Controls

Issue Status:

Change Status:

- No pending plan changes

Accomplishments

Accomplishments during this Reporting Period:

- The following sites went on the air:
- The land acquisition has been completed for the following sites:

Budget

Construction Budget Status as of March 1, 2016

Project Funding	Original Budget	Spent to Date	Unspent Balance Remaining	Encumbered	Available Balance
Phase 3	$45,000,000	$44,952,397.19	$47,602.82	$0.00	***COMPLETE**
SRB Funds (FY 09)	$1,902,831.00	$1,902831.00	$0	$0	**COMPLETE**
Phase 456 (FY 09)	61,996,957.89	$61,981,069.99	$15,887.90	$15,887.90	$ 0.00
Phase 456 (FY 10)	$62,015,407.77	$61,908,947.77	$106,460.00	$106,460.00	$ 0.00
Phase 456 (FY 11, 12, 13)	$61,987,634.34	$53,263,098.99	$8,724,535.35	$3,194,072.18	$ 5,530,463.17
Total Phase 456	$186,000,000.00	$177,153,116.75	$8,846,883.25	$3,316,420.08	**$ 5,530,463.17**
Projected Contingency as of March 1, 2016					$305,463.17

Comments:

Scheduled Milestones / Deliverables

Status updated March 1, 2016

Milestone	Total Sites	Sites Not Started	Sites in Progress	Sites Complete
ARMER Backbone Construction	335 Sites			
Tower Site Acquisition	335	0	8	
Tower Construction & Site Development Work	335	8	5	
Microwave Connectivity & RF Deployment	335	11	0	326 On the Air

Some Sites are on the air, but on the old towers or temporary towers. They are counted as on the air, but still require construction and/or installation at the new tower sites before they are complete:

- Finland
- Duluth South
- Eden Valley
- Lake Crystal

Of the 326, 4 are on temporary sites; sites construct and move still in the works.

SE – all sites completed
SR – 2 land acquisitions remaining, 1 new site plus leased site replacement for Lake Crystal.
SW – all sites completed
CM – 1 land acquisitions remaining, leased site replacement for Eden Valley.
Metro – all sites completed
NW – 2 land acquisitions remaining.
NE – 3 land acquisitions remaining, 5 site under construction.

<u>Completion Targets</u>

ARMER all Phases:

4 original plan sites will be delayed due to delays in land acquisition.

Ongoing ARMER System Work

Motorola System Upgrade

- 7.15 upgrade scheduled to begin May 2016. Lock down for any system changes prior to the 7.15 upgrade will be around the beginning of April 2016.
- Motorola 2016-2020 Support services contract is completed.
- Working on contracts for billing with local agencies involved in 7.19 equipment replacements under the Motorola contract.
- Notice for 2016 Motorola SUAII local agency billing amounts will be sent out will do actual billing invoices in March.

Site improvements

- Still working on the addition of card key reader to the equipment shelters. Parts are in. Working on installs, 95% of the sites completed.

- We are continuing our review of our leased sites/land. Plans had always been to build towers in these areas, but to get the project moving we leased sites to get on the air. In review of some of the land and lease cost it would make sense to find land in these areas and build towers. Also looking at long term land lease from private parties, would prefer to have towers we own on state, County or City owned land.

- Replace Lake Crystal leased site with 2 new sites. This adds a new site to the area.

Microwave improvements

- At this point we have identified one bad path where an intermediate microwave site is needed. So we are looking to add a microwave site somewhere in the Cromwell area to split the Lawler – Moose Lake link. Working with the County, a site has been identified. Need to work through the acquisition and easements.

- We are also working to get the DC power systems updated at all sites to improve system reliability. Battery system install is nearing completion.

- Still reviewing microwave performance, ongoing.

VHF interop layer

- VPN access for access to MotoBridge network has been worked out. Remote access is now working.
- Working on plans in the metro area to simplify the VHF interop layer as we move from Gold Elites to 7500s.

Old towers that need replacement

- We have a number of towers that are on the air for ARMER that are old towers constructed in the 50's. These towers did not pass structural when we added the new ARMER equipment. But the level of structural deficiency was not a risk that required immediate replacement. So we have held off on replacement of these towers to see where we were in the ARMER budget to build what we had planned. We are still holding off on these until we are a little further along with ARMER. Towers not replaced under the ARMER project will be scheduled for replacement as the ARMER maintenance budget allows, estimate 1 to 2 per year until completed.

ARMER Construction Budget (Remaining Work)

				Unencumbered Fund Balance (As of March 1, 2016)	$5,530,463.17
Site Name (Green - site on air)	**County**	**Description**	**Land/ Construction**	**Estimate to Complete**	**Balance**
Finland	Lake	Replace Tower	Envir	$440,000.00	$5,090,463.17
NE Lake County	Lake	New tower	DNR/Envir	$930,000.00	$4,160,463.17
Lima Mt	Cook	New tower	DNR/Envir	$880,000.00	$3,280,463.17
Red Lake	Beltrami	New tower	Indent Land	$505,000.00	$2,775,463.17
Eden Valley	Meeker	New tower	Envir/Lease	$500,000.00	$2,275,463.17
Lake Crystal	Blue Earth	New tower	Envir/Lease	$575,000.00	$1,700,463.17
Madelia	Watonwan	New tower	Envir	$350,000.00	$1,350,463.17
Molde	St Louis	Replace fire tower	DNR/Envir	$320,000.00	$1,030,463.17
Berner	Clearwater	New tower	Indent Land	$505,000.00	$525,463.17
PENDING WORK					
Card Key				$20,000.00	$505,463.17
Site clean up, shelter and tower removals				$200,000.00	$305,463.17
MSO - Backup equipment				$0.00	$305,463.17
Microwave DC power - Upgrades to meet run time required				$0.00	$305,463.17
TOWER REPLACEMENTS (This work being held until above projects compeleted)					
Hawley	Replace tower			$600,000.00	
Freedhem	Replace tower			$600,000.00	
Middle River	Replace tower			$600,000.00	
Theif River Falls	Replace tower			$600,000.00	
Windom	Replace tower			$600,000.00	
Virginia	Replace tower			$600,000.00	
Cass Lake	Replace tower			$600,000.00	
Viola	Replace tower			$600,000.00	
Kimball	Replace tower			$600,000.00	
Hoffman	Replace tower			$600,000.00	
New London	Replace tower			$600,000.00	
Woodland	Replace tower			$600,000.00	
Littlefork	Replace tower			$600,000.00	
Roosevelt	Replace tower			$600,000.00	
Hewit: Land Purchase, replace tower.				$500,000.00	
Scandia: Need to look at land purchase.				$100,000.00	
Geneva: Need to look at land purchase, new tower ?				$500,000.00	
Mapleton: Find land and build new tower				$500,000.00	
Red Wing: Land purchase				$100,000.00	

Next Generation 9-1-1 GIS Project

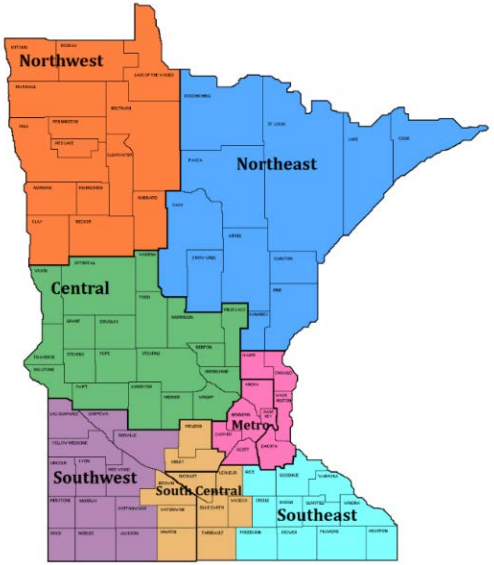
NG9-1-1 Committee Meeting
March 23, 2016

Presenter:
Adam Iten, Project Manager

NG9-1-1 GIS Project Update

2016 Goals

- **GIS Data Collection, Assessment, and Preparation**
  - Data Readiness Profiles
    - Metro/NE – Q2 CY16
    - All regions – Q4 CY16
  - MSAG/GIS Sync Projects – begin Q2 CY16
- **GIS Data Workflow and Repository**
  - Data uploads and portal – Q2 CY16
  - Normalization – Q2 CY16
  - Validation – Q2 CY16
  - Aggregation – Q3 CY16
  - Provision ECRF/LVF/Commons – begin Q3/Q4 CY16
- **MN NG9-1-1 GIS Data Standards**
  - Draft review – begin Q1 CY16
  - Approval – Q3 CY16



MN NG9-1-1 GIS Standards

- Developing GIS data requirements for NG9-1-1 in Minnesota
- Aligning with NENA standards and validate against similar standards
  - Other states (IA, KS, ND, TN, TX) and MRCC
  - Standards Comparison spreadsheet
- Standards Workgroup working toward Version 1.0

MN NG9-1-1 GIS Standards

- Stakeholder review – **started February 2016**
  - Metropolitan Emergency Services Board (MESB) – ongoing
  - Metro Regional Centerline Collaborative (MRCC) – started 2/29
  - MN PSAP and GIS Managers – starting mid-March 2016
  - Other states – starting May 2016
  - ECRF, LVF, and other NG9-1-1 vendors – starting May 2016

MN NG9-1-1 GIS Standards

- Stakeholder approval of v1.0 – **Complete Q3 CY16**
  - Metropolitan Emergency Services Board (MESB)
  - GIS Subcommittee
  - NG9-1-1 Committee
  - Statewide Emergency Communications Board (SECB)
  - MN Geospatial Advisory Council (MGAC)
  - MN Information Technology Agency (MNIT)

Overview of Draft Standards

Let's dive in!

- Table of Contents
- Introduction and Purpose
- Terms and Definitions

Roles and Responsibilities

Who's involved?

- Government: Tribal, City, County, Regional, State, National
  - DPS, MnGeo, DOT, DNR
  - SECB, NG911 Committee, GIS Subcommittee
  - MESB, MetroGIS, LOGIS, MRCC, GIS TOC WG
  - City and County GIS Departments
  - PSAP Managers
  - Call takers, Dispatchers, and Responders
  - MSAG Coordinators
  - Addressing, Planning and Zoning, Assessor's Office
  - Schools, Colleges, and Universities
- Vendors and Contractors

Overview of Draft Standards

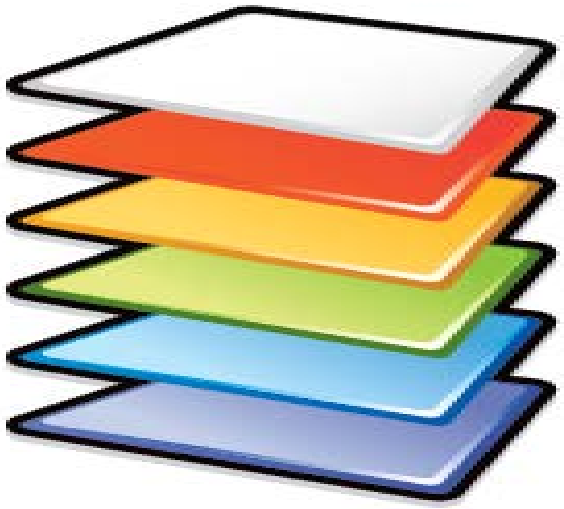
- **Roles and Responsibilities**
  - State
    - Manage, host, normalize, validate, aggregate, and provision statewide NG9-1-1 GIS datasets
    - Data workflows and requirements
    - NG9-1-1 Data Readiness Plans
    - County 9-1-1 Plans

Overview of Draft Standards

- **Roles and Responsibilities**
  - County/Tribal/PSAP
    - Prepare, maintain, and submit NG9-1-1 GIS datasets
    - 9-1-1 GIS Authority
    - County 9-1-1 Plans
    - Data Readiness Plans
    - Address Authorities
  - Regional 9-1-1 agencies
    - Coordination, oversight, planning, expertise, approval

Overview of Draft Standards

- **Required GIS Data**
  - Street centerlines with address ranges
  - Address points
  - Public Safety Answering Point (PSAP) boundaries
  - Emergency Service boundaries
    - Fire
    - Law Enforcement
    - Emergency Medical Service
  - Data maintenance boundaries



- **Synchronize with 9-1-1 Data**
  - Master Street Address Guide (MSAG)
  - Automatic Location Information (ALI)
  - English Language Translation (ELT)

Overview of Draft Standards

- **Data Model Overview**
  - **M**andatory, **C**onditional, **O**ptional
  - Data Types: **D**ate/time, **L**ong integer, D**O**uble-precision, **T**ext
  - Proper Case vs ALL CAPS

- **Road Centerlines**
  - Role in ECRF and LVF
  - Schema
    - NG911
    - Additional multiuse elements
    - Schema Comparison spreadsheet
  - Requirements
    - General, Synchronization, Spatial, Attribute

Overview of Draft Standards

- Projection
- GIS Data Creation and Collection
- Appendix
  - Detailed Field Definitions
  - Best Practices and Advanced Examples

Considerations

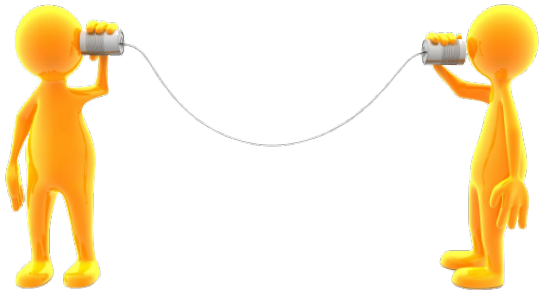
- DRAFT NENA Standards
  - NG9-1-1 GIS Data Model
  - Provisioning GIS to ECRF/LVF
  - i3 Solution
- Specific ECRF/LVF Vendor(s) is unknown
- Review and approval of additional standards
  - Address points
  - PSAP boundaries
  - Emergency Service boundaries
  - NG9-1-1 GIS Data Maintenance boundaries

Action Items

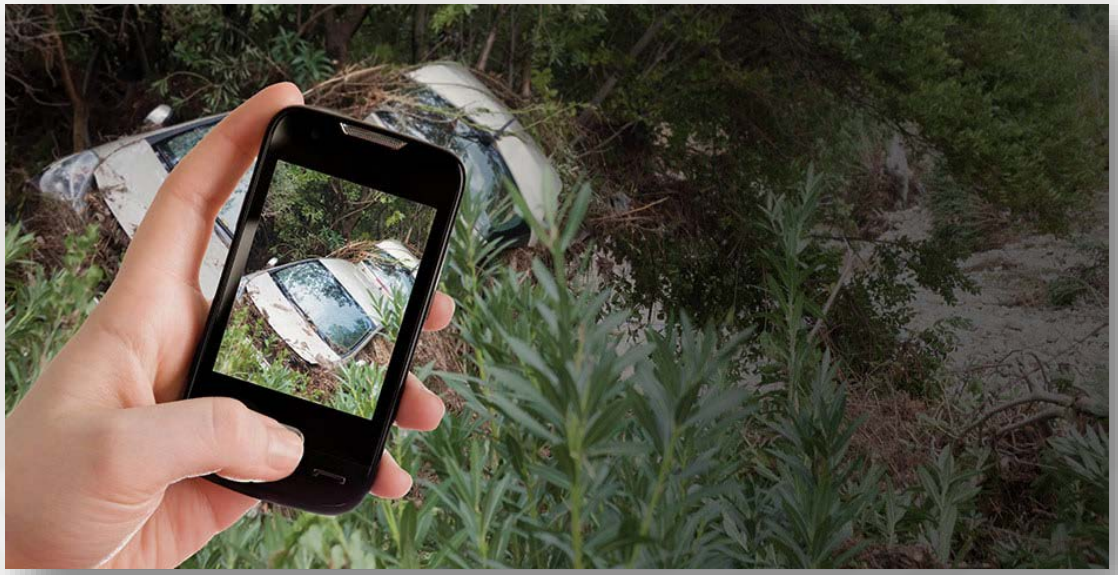
- PSAP and GIS Manager review and comment
  - First review period: March 14 thru April 15
  - Feedback method and instructions
- Plan for further review and comment
  - Address points
  - PSAP and Emergency Service boundaries
  - NG9-1-1 GIS Data Maintenance boundaries
- Continued participation on Standards WG

Communication Plan

- ECN website
  - Project newsletter - Issue #3 due end of March/early April
- Monthly
  - GIS Subcommittee meeting
    - Next meeting: Thursday, April 14 at 2pm
  - NG9-1-1 Committee meeting
  - SECB meeting
- Quarterly
  - Regional PSAP/GIS meetings
  - MN Geospatial Advisory Council



Thank You!



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