Minnesota Emergency Management

Communications Best Practice Guide

Statewide Radio Board, Operations & Technical Committee, Interoperability Committee, Minnesota Emergency Management Best Practice Workgroup

Approved by the Statewide Emergency Communications Board
December 22, 2016

This document describes the recommended best practice, standards, and contact information for Minnesota Emergency Management and radio regions to assist in planning for interoperability with Emergency Management and other public safety disciplines.
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<tr>
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Section I: Introduction

Emergency Management Best Practices Workgroup

The Emergency Management Best Practice Workgroup was created in 2012 to develop a Best Practice Guide for those who serve in the Emergency Management field. This guide is designed to serve as both a training plan and a resource document to assist and coordinate radio use for Emergency Management entities across the State of Minnesota. ARMER has grown throughout the state, and Emergency Management entities need assistance, clarification, coordination, and best practice guidance.

This document is meant to specifically address Emergency Management related issues and assist with planning for Emergency Management entities. Common Emergency Management entities (EM) communications paths include the following:

- EM to local, county, or state Emergency Operations Center (EOC)
- EM to dispatch
- EM to fire units
- EM to law enforcement
- EM to air ambulance
- EM to EMS
- EM to hospital
- EM to public works
- EM to Voluntary Organizations Active in Disasters (VOAD)
- EM to federal agencies
- EM to Minnesota Duty Officer
- EM to Regional Multi Agency Coordination Center (MAC) group

The highest and most effective level of interoperability is achieved when users share the same radio system and have shared talkgroups directly accessible to them in their radios, like the ARMER System. A best practice recommendation would be for all users to operate on and share the same radio system. This guide will set forth best practices for the best interoperability solutions to address daily operations and extraordinary occurrences. The Minnesota Emergency Management 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 Coordinator (SWIC).

For current ECN contact information, please see Staff Contacts on the ECN website under “Contact.”

https://dps.mn.gov/divisions/ecn/Pages/default.aspx
Section II: Participation in ARMER

State Standard 1.10.0, Requesting and Configuring Participation

Should jurisdictions choose to participate, State Standard 1.10.0, Requesting and Configuring Participation, details the requirements for participation. State Standards may be found on ECN’s website under ARMER and ARMER Standards.

Agency’s Participation Plan

The decision to participate in ARMER must be made in conjunction with county officials and local public safety disciplines. This must also include an evaluation of interoperability with other radio systems. For questions, please utilize the points of contact in this document.

It is recommended that each agency either link to or attach their Limited or Full ARMER Participation Plan to this document.

Copies of County Participation Plans may be obtained from the Local System Administrator, Director or Supervisor of the City, County, or Tribal Dispatch Center or Public Safety Answering Point (PSAP), or from the Regional Advisory Committee (RAC), Regional Emergency Services Board (ESB), or Regional Emergency Communications Board (ECB).

Section III: ARMER Basics for Emergency Management

Suggested supplemental training beyond the required training listed in State Standard 1.11.4

It is highly recommended that Emergency Managers 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
- Other relevant modules as developed

Attending Field User ARMER Training: Information on local Field User training may be obtained through your local System Administrator or Regional Advisory Committee.
Each agency operating on the ARMER system is responsible for the training of their personnel and compliance of state, regional, and local standards and should customize their training plan to fit their own unique situation. All ARMER users are required to meet minimum state and regional training requirements (see State Standard 1.11.3 – Training Telecommunicators and 1.11.4, Training ARMER End Users.)

**FEMA NIMS Courses**

- ICS-100b – Introduction to the Incident Command System (ICS), ICS-100
- ICS-700A – National Incident Management System (NIMS), An Introduction

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: [https://training.fema.gov/nims/](https://training.fema.gov/nims/)

**Section IV: Emergency Management related Statewide Standards**

The following State Standards and additional information should be part of the initial training received by all ARMER users and reviewed and trained on annually by all Emergency Managers personnel.

- State Standard 3.28.0, Use of Statewide Emergency Management Talkgroup SEMTAC
- State Standard 5.2.0, Disaster Relief Organization Access
- Regional Standard 3.28.0, Use of Regional Emergency Management Talkgroups
- State Standard 3.28.2, Use of State Duty Officer Talkgroup
- The Minnesota Duty Officer Talkgroup is available to be programmed into any field user radio where contact with the Minnesota duty Officer may be needed. Consideration should be given to planning for situations where phone service may be lost or when operations are in areas with incomplete/inadequate cell phone coverage or capacity.
- Use of the Minnesota State Patrol Call Talkgroup – Minnesota State Patrol General Order 16-40-015, MSP Hailing talkgroup: MSP –CALL General Order may be found on the ECN’s website under ARMER, then Best Practices Guides.
Section V: Interoperability

Minnesota Public Safety VHF Interoperable Frequency Plan

If your agency has a need for interoperable communications on the VHS spectrum, please refer to the Minnesota VHF Interoperability Frequency Plan, which may be found on ECN’s website.

Excerpt from the MN VHF Interoperable Frequency Plan – Dated 12-2-2010

The Statewide VHF Interoperable Frequency Steering Committee established the final revision of the VHF plan on 12-2-2010. This plan describes the primary channel for interagency law enforcement communications in the state as 155.4750 MHz, commonly referred to as MINSEF. The national naming convention for this channel is VLAW 31. Use of this channel is widespread in Minnesota, and permission from the SRB and previous authorities to utilize VLAW 31 outside of law enforcement disciplines has been limited. The current standard operational mode for this channel is wideband analog, but this channel is subject to the FCC mandated narrowbanding deadline.

Emergency Management personnel should be familiar with VHF channels that are integrated with the ARMER Radio system and are available to be patched to local, regional, or statewide talkgroups as needed. This is necessary when radio interoperability must be established with responders on legacy VHF systems.

State Standard 2.7.0, Use of Shared Talkgroups

This standard provides options to users of the Allied Radio Matrix for Emergency Response System (ARMER), which will allow talkgroup owners to predefine sharing authorizations for other agencies.

State Standard 3.5.0, National/Statewide VHF Interoperability Resources MNSEF (VLAW31), National EMS (VMED28), Statewide Fire (VFIR23), MIMS (MNCOMM)

This standard establishes procedures for use and patching of MINSEF (VLAW31, 155.475), National EMS (VMED28, 155.340), Statewide Fire (VFIR23, 154.295) and Minnesota Incident Management System (MIMS, 155.370) Very High Frequency (VHF) interoperability radio frequencies for interagency communications.

The most common VHF channels that are available are:
- VLAW31 (previously MINSEF)
- VFIR23 (previously Statewide Fire Mutual Aid)
- VMED28 (previously statewide EMS)
- MNCOMM (previously Minnesota Incident Management System -MIMS, or Point-to-Point)

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.

Note: These channels should only be used at the direction of a dispatcher, Incident Commander, COML, or a COMT.
State Standard 3.15.0, Use of 700 MHz and 800 MHz Statewide Scene of Action (SOA) Channels

Scene of Action (SOA) channels allow the ability to communicate radio-to-radio without utilizing system resources. There are six shared, statewide SOA channels that are licensed by the state.

Technical capabilities of SOA’s allow the ability to communicate radio-to-radio without using system resources. There are six statewide 800 MHz interoperability SOA channels and 12 nationwide 700 MHz low-power tactical SOA channels.

Emergency Managers should be familiar with this standard and its contents.

State Standard 3.16.0, 800 MHz Statewide STAC Interoperability Talkgroups

This standard establishes policy and procedures for use of standardized statewide 800 MHz major incident response interoperability talkgroups and standardized incident command zones in user radios.

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

This standard specifies the use of the statewide 800 MHz STAC talkgroups for establishing and maintaining air ambulance emergency landing zones.

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

Important points that should be emphasized are:

- Use in order (1,2,3,4) for emergent events.
- Use in reverse order (4, 3, 2, 1) for preplanned and non-emergent events.
- Clear speech only - no "10" codes on statewide talkgroups.
- Priority of use should be for incidents with responders from multiple regions.

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.
State Standard 3.31.0, ARMER System StatusBoard

The StatusBoard Application is a statewide dispatch tool intended to help facilitate and advise what interoperable talkgroup or channel may be in use for an urgent, emergent, or preplanned event.

3.32.1, Statewide Interoperable Plain Language Policy

The use of plain language (clear text) in emergency management and incident response is a matter of public safety, especially the safety of emergency management/response personnel and those affected by the incident. It is critical that everyone involved with an incident know and utilize commonly established operational structures, terminology, policies, and procedures. This will facilitate the achievement of interoperability across agencies/organizations, jurisdictions, and disciplines, which is exactly what NIMS and the ICS is seeking to achieve.

Any communications between organizational elements during an incident should be in plain language in order to ensure that information dissemination is timely, clear, acknowledged, and understood by all recipients.

It is recommended that Emergency Management personnel be required to use 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.

Use of Minnesota State Patrol Call Talkgroup

Minnesota State Patrol General Order 16-40-015, MSP Hailing talkgroup: MSP–CALL General Order, may be found on the ECN website under ARMER and Best Practices Guides.

State Standard 3.35.0, National Weather Service ARMER Radio Operations

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.

Emergency Incidents

Emergency response communications also require pre-planning. Talkgroup progression should also be used and must be assigned by the controlling dispatcher based on availability. It is important to work closely with the dispatch center to ensure a shared resource is not already in use. Regional and state talkgroups need to be reserved by a dispatcher on the shared talkgroup resource StatusBoard.

The highest and most effective level of interoperability is achieved when users share the same radio system and have shared talkgroups directly accessible to them in their radios. Shared, interoperable talkgroup resources exist in a variety of forms and may be called common, pool, or tactical. It is imperative that Emergency Management agencies plan effectively with (including, but not limited to) mutual aid, law enforcement, EMS, and hospital partners. Emergency Management agencies must be aware of local, regional, and statewide interoperable radio resources and procedures.
Planned Events

Planned events require consideration for the jurisdictions that will require communication. If shared, interoperable resources are required; planners should start by considering local/county talkgroups first and progress to use regional and statewide talkgroups as appropriate, given the agencies and the type of communication needed. This planning must be coordinated with the controlling dispatch center. Regional and statewide talkgroups need to be reserved by a dispatcher on StatusBoard.

Based on the scope of the incident, the controlling dispatcher and the incident command structure must communicate effectively to ensure the most appropriate resource is assigned and matches the radio resource requirements of all responders. Dispatchers and incident commanders may choose to patch local resources or VHF and ARMER resources to manage an incident.

Plain Language

Emergency responders are strongly encouraged to use ‘plain language’ while using two-way communications devices operating on conventional VHF resources and are required to use plain language while operating on Statewide and Regional ARMER talkgroups (State Standard 3.32.0, Statewide Interoperable Plain Language Policy).

Talkgroups for Emergency Management

When developing radio programming templates, Emergency Management agencies should refer to the State and Regional Tactical Interoperable Communications Plans, as well as the Minnesota Field Operations Guide (MNFOG) for guidance. In addition, they should check with their Regional Advisory Committees (RAC’s) for regional talkgroups that should be added to their radio plans.

It is recommended that Emergency Management templates include the following “Statewide Interoperability Zone,” which is a Standardized Statewide Incident Command Zone as specified in Addendum 1 of ARMER Standard 3.16.0. All 16 Statewide Incident Response talkgroups shall be included, and they shall be programmed exactly in the order specified below in order to maintain consistency and to facilitate a potential future renaming of these talkgroups to STAC 1-16.
Statewide Interoperability Zone

ARMER Standard 3.16.6, 800 MHz Statewide Uniform Interoperability Radio Zones, establishes policy and procedures for the implementation of two 800 MHz uniform interoperability zones in all subscriber radios throughout the state. This policy will guarantee standardized Statewide and Nationwide interoperable communications capabilities for all service branches.

This uniformity will provide dispatch centers, Incident Commanders (ICs), and Communications Unit Leaders (COMLs) the ability to develop and adapt incident radio communications plans quickly and effectively without having to rely on reprogramming radios, swapping radios, or establishing patches in the field.

Based upon Standard 3.16.6, all subscriber radios shall have these two statewide interoperability zones (unless a waiver or variance has been granted):

<table>
<thead>
<tr>
<th>STATEWIDE INTEROP</th>
<th>CONVENTIONAL INTEROP</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZONE DISPLAY NAME</td>
<td>ZONE DISPLAY NAME</td>
</tr>
<tr>
<td>ROTARY CHANNEL SELECTOR</td>
<td>ROTARY CHANNEL SELECTOR</td>
</tr>
<tr>
<td>CHANNEL DISPLAY NAME</td>
<td>CHANNEL DISPLAY NAME</td>
</tr>
<tr>
<td>MN 1 STAC1</td>
<td>8C 1 8CALL90</td>
</tr>
<tr>
<td>MN 2 STAC2</td>
<td>8C 2 8TAC91</td>
</tr>
<tr>
<td>MN 3 STAC3</td>
<td>8C 3 8TAC92</td>
</tr>
<tr>
<td>MN 4 STAC4</td>
<td>8C 4 8TAC93</td>
</tr>
<tr>
<td>MN 5 STAC5</td>
<td>8C 5 8TAC94</td>
</tr>
<tr>
<td>MN 6 STAC6</td>
<td>8C 6 8CALL90D</td>
</tr>
<tr>
<td>MN 7 STAC7</td>
<td>8C 7 8TAC91D</td>
</tr>
<tr>
<td>MN 8 STAC8</td>
<td>8C 8 8TAC92D</td>
</tr>
<tr>
<td>MN 9 STAC9</td>
<td>8C 9 8TAC93D</td>
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<tr>
<td>MN 10 STAC10</td>
<td>8C 10 8TAC94D</td>
</tr>
<tr>
<td>MN 11 STAC11</td>
<td>8C 11 8SOA1</td>
</tr>
<tr>
<td>MN 12 STAC12</td>
<td>8C 12 8SOA2</td>
</tr>
<tr>
<td>MN 13 STAC13E*</td>
<td>8C 13 8SOA3</td>
</tr>
<tr>
<td>MN 14 STAC14E*</td>
<td>8C 14 8SOA4</td>
</tr>
<tr>
<td>MN 15</td>
<td>8C 15 FSOA1*</td>
</tr>
<tr>
<td>MN 16</td>
<td>8C 16 FSOA2*</td>
</tr>
</tbody>
</table>

* STAC13E and STAC14E: Required in all DES-equipped radios (or waiver). Must use Statewide Common DES Encryption Key.
* FSOA1 and FSOA2: Required in Fire and EMS only (or waiver). Not allowed in non-Fire and EMS radios.

Personnel should familiarize themselves with ARMER Standard 3.16.6. Specifically the areas of technical background, operational context, standardized policy, and standardized procedure. Your Local System Administrator should be contacted if you have any questions related to technical background and encryption.
### Standard Minnesota VHF Interoperability Resources*

<table>
<thead>
<tr>
<th>CH#</th>
<th>Channel Name</th>
<th>Short Name¹</th>
<th>Mobile TX</th>
<th>Mobile RX</th>
<th>TX/RX Mobile CTSS²</th>
<th>TX/RX Base CTSS³</th>
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<tr>
<td>1</td>
<td>VCALL10</td>
<td>VCAL10</td>
<td>155.7525</td>
<td>155.7525</td>
<td>156.7/CSQ</td>
<td>156.7/156.7</td>
</tr>
<tr>
<td>2</td>
<td>VTAC11</td>
<td>VTAC11</td>
<td>151.1375</td>
<td>151.1375</td>
<td>156.7/CSQ</td>
<td>156.7/156.7</td>
</tr>
<tr>
<td>3</td>
<td>VTAC12</td>
<td>VTAC12</td>
<td>154.4525</td>
<td>154.4525</td>
<td>156.7/CSQ</td>
<td>156.7/156.7</td>
</tr>
<tr>
<td>4</td>
<td>VTAC13</td>
<td>VTAC13</td>
<td>158.7375</td>
<td>158.7375</td>
<td>156.7/CSQ</td>
<td>156.7/156.7</td>
</tr>
<tr>
<td>5</td>
<td>VTAC14</td>
<td>VTAC14</td>
<td>159.4725</td>
<td>159.4725</td>
<td>156.7/CSQ</td>
<td>156.7/156.7</td>
</tr>
<tr>
<td>6</td>
<td>MNCOMM</td>
<td>MNCOMM</td>
<td>155.3700</td>
<td>155.3700</td>
<td>156.7/156.7</td>
<td>156.7/156.7</td>
</tr>
<tr>
<td>7</td>
<td>VFIREF23</td>
<td>VFIREF23</td>
<td>154.2950</td>
<td>154.2950</td>
<td>156.7/156.7</td>
<td>156.7/156.7</td>
</tr>
<tr>
<td>8</td>
<td>MNFIRG2</td>
<td>MNFIRG2</td>
<td>154.0100</td>
<td>154.0100</td>
<td>156.7/156.7</td>
<td>156.7/156.7</td>
</tr>
<tr>
<td>9</td>
<td>MNFIRG3</td>
<td>MNFIRG3</td>
<td>153.8300</td>
<td>153.8300</td>
<td>156.7/156.7</td>
<td>156.7/156.7</td>
</tr>
<tr>
<td>10</td>
<td>DNRTAC1</td>
<td>DNRT1</td>
<td>151.4750</td>
<td>151.4750</td>
<td>156.7/156.7</td>
<td>N/A⁴</td>
</tr>
<tr>
<td>11</td>
<td>VLAW31</td>
<td>VLAW31</td>
<td>155.4750</td>
<td>155.4750</td>
<td>156.7/156.7</td>
<td>156.7/156.7</td>
</tr>
<tr>
<td>12</td>
<td>VMED28</td>
<td>VMED28</td>
<td>155.3400</td>
<td>155.3400</td>
<td>156.7/156.7</td>
<td>156.7/156.7</td>
</tr>
<tr>
<td>13</td>
<td>IR 2</td>
<td>IR 2</td>
<td>162.2625</td>
<td>162.2625</td>
<td>167.2500</td>
<td>167.2500</td>
</tr>
<tr>
<td>14</td>
<td>VTAC14R</td>
<td>TAC14R</td>
<td>154.4725</td>
<td>159.4725</td>
<td>156.7/156.7</td>
<td>156.7/156.7</td>
</tr>
<tr>
<td>15</td>
<td>NGRPTR²</td>
<td>NGRPTR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>LE 2*⁵</td>
<td>LE 2</td>
<td>162.2625</td>
<td>167.2500</td>
<td>$68F/$68F</td>
<td>$68F/$68F</td>
</tr>
</tbody>
</table>

For use with limited character display radios
² CTCSS or NAC for subscriber radios. For VCALL10, VTAC11, VTAC12, VTAC13, and VTAC14, use receive CTCSS of 156.7 if needed to mitigate interference.
³ CTCSS or NAC for fixed stations.
⁴ There are no permanent, fixed stations on DNRTAC1.
* Local option channel if not implemented with LOA or MOU for use of federal channels.
Emergency Managers

Emergency Managers are encouraged to include in their templates the following talkgroups, along with any local and regional interoperable talkgroups from their local or regional plans. In preparation for deployment, to assist in other regions inclusion of neighboring regions or all regions, interoperability zones should be considered for programming in Emergency Manager radios. In the event that an Emergency Manager is assigned a dual-band radio, the VHF interoperability zone should be programmed as well.

The following ARMER talkgroups should be programmed in each Emergency Manager’s assigned radio:

<table>
<thead>
<tr>
<th>Talkgroup</th>
<th>Intended Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>MNDO</td>
<td>To call MN Duty Officer</td>
</tr>
<tr>
<td>MSP-CALL</td>
<td>Hailing any State Patrol dispatch center</td>
</tr>
<tr>
<td>SEMTAC</td>
<td>Statewide EM talkgroup primarily for EM’s and EOC/SEOC use (MN 3.28.0)</td>
</tr>
<tr>
<td>Region-EMTAC</td>
<td>Regional Emergency Management (EM) Tactical (Reg 3.28.0) primarily for regional EM use</td>
</tr>
<tr>
<td>DRO 1</td>
<td>Disaster Relief Organization (primarily American Red Cross)</td>
</tr>
<tr>
<td>DRO 2</td>
<td>Disaster Relief Organization (primarily Salvation Army)</td>
</tr>
<tr>
<td>DRO 3</td>
<td>Disaster Relief Organization (available for assignment)</td>
</tr>
<tr>
<td>DRO 4</td>
<td>Disaster Relief Organization (available for assignment)</td>
</tr>
</tbody>
</table>

Limited Cross Service Branch Sharing Permitted

In the event that multiple, simultaneous incidents throughout the state exhaust all available branch specific talkgroups and STACs and additional talkgroup resources are needed, talkgroups from other service branches may be used on a secondary basis. Any such assignment shall only be made by the dispatch center controlling the incident, the Incident Commander, or the Incident Communications Unit Leader (COML).

Tribal Government Interoperability

The 11 federally recognized Tribal Nations in Minnesota are recognized by the State of Minnesota by either Public Law 280 Reservations, which the state has criminal jurisdiction over, or a “closed” Reservation, which is entirely under federal criminal jurisdiction. The federal governments, through treaties signed with the 11 Tribal governments, maintain
a federal responsibility to this day to provide federal resources for emergency and non-emergency situations that occur on tribal lands.

As the ARMER System was developed by the State of Minnesota for emergency response counties, cities of the first class and Tribal Governments could choose to migrate to this new radio system. In doing so, they would no longer use the previous VHF frequencies used for public safety.

Most counties and cities of the first class would no longer need access to VHF frequencies being on the ARMER System, but all federal agencies of the U.S Government would be staying on VHF Narrowband for day-to-day radio communications and during emergencies.

For the 11 Tribal governments in Minnesota who would choose to access the new ARMER radio system, the fact that if they requested assistance, those federal agencies would be coming on their tribal lands with VHF Narrowband radios, which would not allow them to communicate to Tribal responders who may be using ARMER radios. The best practice in this situation is for Tribal response agencies to ensure they have purchased radio equipment that can communicate on both 800 MHz ARMER and VHF narrowband frequencies. This would allow those Tribal responders to have full interoperability for communicating with their local, county, and state response agencies on the ARMER system, as well as the federal agencies who may be called to assist per federal responsibility on VHF narrowband.

The Minnesota State Radio Board created a Tribal “talkgroup” known as TC-OP1 for Tribal Fire, EMS, Emergency Management, and Law Enforcement to allow all 11 Tribal government responders to communicate to each other statewide for day-to-day communications, as well as during emergencies. Minnesota is the first state in the nation to allow this type of interoperability on its radio system.

Wildfire and Interface Fires

Initial response to wildfire reports may be done by local fire departments, MN DNR, US Forest Service, US Fish and Wildlife Service, BIA/Tribal, or National Park Service crews, and will vary based on jurisdiction, land ownership, fire type, and crew and equipment availability. Reports may come to the local Public Safety Answering Point (PSAP), Department of Natural Resources (DNR), and United States Forest Service (USFS) dispatchers directly. Responding agencies will be operating on ARMER and/or VHF systems from DNR or federal agencies. Due to the highly variable responses possible, it is difficult to describe a typical or model scenario.

The best practice is for agencies in wildfire affected areas to do an annual pre-fire planning session involving the local fire department(s), PSAP representative, and affected DNR and Federal wildfire agencies in the area. Review of communications equipment types, fleetmaps and channel lists, system coverage, and patching capability for each of the agencies should occur. Pre-incident development of written incident communication resource lists and incident communications plans is highly recommended and will serve not only in the initial period of wildfire response but also as a resource for incoming Incident Management Teams (IMTs) if the incident expands to higher Type levels. Pre-incident exercise of those plans is also highly recommended to identify technical or training issues that should be resolved.
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 Statewide Interoperability Coordinator.

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.

CASM (Communication Assets Survey and Mapping Tool)

Minnesota’s Statewide Emergency Communications Board (SECB) has embraced CASM as its tool of choice for tracking Minnesota’s communication assets. CASM Administrators in each Emergency Communications/Services Board (ECB/ESB) region, as well as Administrators at a state level, are charged with maintaining CASM data. Tactical Interoperable Communications Plans (TICPs) are no longer required but may be maintained by an entity or ECB/ESB region if it so wishes. A TICP may be produced from CASM.

Emergency Management personnel are encouraged to be familiar with the regional communications resources that are available to their jurisdiction, as well as the process they must follow to request them. CASM access may be obtained online at https://casmnextgen.com/.

Section VI: Other Resources: Communications Unit (COMU)

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.

Auxiliary Emergency Communications (AUXCOMM)

Auxiliary Communicators are identified as a Technical Specialist in the Communications Unit of the NIMS ICS structure. Amateur radio operators play key roles in responding to major disasters and are used reliably when other forms of communications have failed or been disrupted. The Incident Commander has the final authority as to where the AUXCOMM personnel will reside within their command.

In Minnesota, those who are AUXCOMM-recognized will serve in the positions of Amateur Emergency Communications Specialist (AECS) or Amateur Emergency Communications Manager (AECM). These individuals are mainly organized at the local level, but can be organized at the regional level as well, into AUXCOMM teams, with some minimal coordination and training at the state level to ensure compliance with state standards and best practices. Individuals or teams would be deployed to support a COMU at the request of an Incident Commander and to the satisfaction of a COML. Minnesota’s AUXCOMM program is currently being developed.
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. If you have a planned event, please contact the MESB to make arrangements for the IDT.

Section VII: Compliance and Conflict Resolution

The suggested method for reporting conflicts noticed by Emergency Managers personnel 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 should attempt to obtain a resolution with the 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.

During the course of operations or audits of ARMER system usage, it may be determined that a subscriber is using the system in a manner that is not in compliance with the standards, policies, and procedures as set forth by the Statewide Radio Board. The following ARMER system standards provide guidance to both governing bodies and the subscribers to assist in resolving compliance issues.

- 7.1.0, Audit, Monitoring Process
- 7.2.0, Response to Non-Compliance
- 7.3.0, Appeals Process
Section VIII: 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 IX: Other Best Practice Guides

EMS
Hospital
Emergency Management Dispatcher
Fire

Law Enforcement

These guides have been created as a result of diligent work by the groups involved. Members of the workgroup who contributed to the most recent update of this Guide: Mike Wisniewski (Todd Co EM Director), Dan Anderson (HCEM Sr Coordinator Data Collaboration & Communications), Tim Boyer (State Patrol Statewide Director of Communications), Rick Juth (Central MN Regional Interoperability Coordinator), Rod Olson (Manager of Radio Communications Electronics, City of Minneapolis), Victoria Peckman (Technology / Emergency Planning Specialist, Allina Health EMS), Monte Fronk (Mille Lacs Tribal PD/Tribal Emergency Management), Randy Donahue (Southern MN RIC), Pat Wallace (Blue Earth County Communications Center Administrator), Darrin Haeder (South Central Regional System Administrator), and Cathy Anderson (Standards & Training Coordinator, ECN). These guides provide guidance 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 X: Minnesota Emergency Communication Networks Contacts
For current email contact information, please see Staff Contacts on the ECN website.

Section XI: Assistance from the Minnesota National Guard
Assistance from the Minnesota National Guard, including Communications requests, may be obtained via the State Duty Officer. The assistance must be requested by the County Sheriff and/or the Mayor in Cities of the First class. For planned events or exercises, communications assistance may be obtained by contacting:

SFC Thomas J. Simota
J6 JCP Systems NCOIC / Trainer
8076 Babcock Trail
Inver Grove Heights, MN 55076
Communications: 651-268-8055
DSN: 825-8055
Mobile: 651-336-7515

Additional information about Criteria for Usage of the National Guard in Emergency Operations and Procedures for Requests may be found on ECN’s website under ARMER and Guide Books and Best Practices.

Section XII: Regional Radio 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 XIII: Radio Affiliated Acronyms
You can find a link to commonly used radio-affiliated acronyms on the ECN website.