METROPOLITAN EMERGENCY SERVICES BOARD
RADIO TECHNICAL OPERATIONS COMMITTEE AGENDA

August 28, 2024, 1:00 p.m.

This meeting will be conducted in-person at the MESB Office, 2099 University Ave W, St Paul ONLY

1. **Call to Order** – Committee Chair, Jake Thompson

2. **Approval of Agenda** – Thompson

3. **Approval of Minutes of June 26, 2024 Meeting** – Thompson

4. **Action Items**
   A. St Paul Emergency Management Talkgroup Waiver Request – Scott Stangeland
   B. Rice County Talkgroup Waiver Request – Ron Jansen
   C. Hennepin County Radio ID Request – Thompson
   D. Hennepin County Participation Plan Amendment – Thompson

5. **Moves, Additions & Changes to the System**

6. **Committee Reports**
   A. System Managers Group – Jansen
   B. MnDOT ARMER System Update – John Anderson/Nick Schatz/Shane Chatleain
   C. SECB Committees
      i. Steering – Fredrick/Jill Rohret
      ii. LMR – Nate Timm/Mike Mihelich
      iii. WBBA – Rod Olson/Cory DeMuth
      iv. IOC & Workgroups
         a. IOC – Thompson/Timm
         b. STR Workgroup – Thompson/Jansen
         c. COMU Workgroup – Timm/Dan Anderson
      v. IPAWS – Haas
      vi. Finance/Grants Workgroup – Fredrick/Rohret

7. **Other Business**
   A. METAC Permission update – Fredrick
   B. Discussion: Regional Radio Technician – Open Discussion
   C. Discussion: Regional Strategic Plan Updates – Fredrick
   D. Discussion: Regional Approach to SUA – Open Discussion
   E. Common Display Name for LSEC Talkgroups – Fredrick

8. **Adjourn**

Reminder: Next meeting scheduled for September 25, 2024

Metropolitan Emergency Services Board

Radio Technical Operations Committee
June 26, 2024
Draft Meeting Minutes

Members

Airport – Ryan DeYoung
Anoka County – Cory DeMuth
Carver County – Peter Sauter
Chisago County – Mike Parker
Dakota County – Ron Jansen
Hennepin County – Jake Thompson
Isanti County – **absent**
Metro Region EMS – Victoria Vadnais
Metro Transit – Chad LeVasseur
Minneapolis – Rod Olson
Minnesota Fire Chiefs – Patrick Maynard
Ramsey County – Mike Mihelich
Scott County – Scott Haas
Sherburne County – Derek Baas
Washington County – **absent**
U of M – Jeff Lessard

Guests: Tim Albrecht, *Hennepin EMS;* Sara Boucher-Jackson, *Airport;* Elias Charif, *M Health;* Frank Jarman, *Motorola;* Dan Klawitter, *Hennepin EMS;* Kris Massie, *Hennepin County;* Scott Stangeland, *St Paul PD;* and Chris Spetcher, *Hennepin County.*

MESB Staff: Tracey Fredrick; Jacob Kallenbach; and Jill Rohret.

1. Call to Order
Jake Thompson, the 2024 Radio TOC Chair, called the meeting to order at 1:00 p.m.

2. Approval of Agenda
Tracey Fredrick stated an additional item titled "7D: Radio Aliases" will be added to the agenda.

Motion made by Scott Haas, seconded by Victoria Vadnais to approve the June 2024 Radio TOC agenda with the mentioned addition. Motion carried.

3. Approval of April 2024 Radio TOC Meeting Minutes
Motion made by Haas, seconded by Cory DeMuth to approve the April 2024 Radio TOC meeting minutes. Motion carried.

4. Action Items
A. COMU Recognitions/Renewals
i. Ryan Kelzenberg AUXCOMM Recognition
Fredrick stated that this item is a follow-up from the March Radio TOC meeting. The concern about task books not being completed within three years was brought to the COMU workgroup and the Interoperability Committee. The decision made by that group was to allow an extra two years for anyone that took their initial course from 2018-2022, as opportunities to complete task book items were limited during the pandemic. This exception will only apply to Minnesota, not a national exemption, and only for the years listed.

Motion made by DeMuth, seconded by Haas to approve the AUXCOMM Recognition of Ryan Kelzenberg. Motion carried.

ii. Giampaolo Malin AUXCOMM Recognition
Fredrick stated this is an initial recognition for AUXCOMM. Giampaolo works for Hennepin County Sheriff's Office. He completed all courses required and provided a completed task book and operator's license. He has the support of his agency to be recognized in the AUXCOMM

position.

Motion made by DeMuth, seconded by Vadnais to approve the AUXCOMM recognition for Giampaolo Malin. Motion carried.

iii. Bob Beem COML/COMT Renewal
Fredrick stated that this is an ongoing renewal for Bob Beem of the Hennepin County Sheriff's Office for the COML and COMT positions. Bob has received points from attending several training sessions over the past three years and has been active on the CRTF team. He has the support of his agency to continue to serve in these roles.

Motion made by DeMuth, seconded by Mike Mihelich to approve the COML/COMT renewal of Bob Beem. Motion carried.

B. Burnsville Fire IOP-11 Waiver
Ron Jansen stated that Burnsville Fire is looking to get a waiver to Standard IOP-11. The request is to add an additional eight radios with LTAC access. Burnsville Fire staff will use these radios if called to service on behalf of the SWAT team. These will not be used in day-to-day activities.

Motion made by Rod Olson, seconded by Vadnais to approve the Burnsville Fire IOP-11 Waiver. Motion carried.

C. Scott County Talkgroup Waiver Request
Haas stated that Mdewakanton Public Safety requests a waiver to allow LTACs in the devices used by fire medics when on-call with the Tri-City Special Response Team. These devices are also used for day-to-day operations, but the affected staff will only use the LTAC talkgroups when directed to do so because of work on the Special Response Team. Access to the talkgroups and radios will allow for greater interoperability.

Motion made by Jansen, seconded by Olson to approve the Scott County talkgroup waiver request. Motion carried.

D. Formation of Workgroup for Reviewing Regional Interoperable Resources
At the April 2024 Radio TOC meeting, there was discussion about forming a workgroup to discuss the available resources to the region and how the resources can be better used and maintained.

Scott Haas, Rod Olson, Cory DeMuth, Sara Boucher-Jackson, Ron Jansen, Jake Thompson, Vikki Vadnais, and Jeff Lessard volunteered to assist with this workgroup.

Motion made by Jansen, seconded by DeMuth to create the workgroup for reviewing regional interoperable resources. Motion carried.

5. Moves, Additions, & Changes to the System
Scott Haas stated that a Norwood Subsite addition is in the works and will be coming to the Radio TOC soon for approval.

Ron Jansen said that Dakota County has been reviewing the unplanned outage issue that took place this morning (June 26).

Jeff Lessard mentioned that the U of M is planning to add a site, but are having trouble finding frequencies and are working through that process.

Metropolitan Emergency Services Board

6. Committee Reports
A. Metro Mobility System Usage Update
Chad LeVasseur stated that he has looked at the private call numbers and that pushing call traffic to City Center has been successful. Since calls have been pushed to City Center, this would be a conversation to have with the State and does not intrude on the entities present at this meeting. Radios in the vehicles are currently in the process of being replaced.

B. System Managers Group – Canceled

C. MnDOT ARMER System Update
No new update.

D. SECB Committees
i. Steering
The committee met earlier in June. The committee recommended approval of the meeting agenda form for the SECB policy and procedure manual and reviewed several other policies that will be up for approval by the Board at a future meeting. This committee will meet again in July.

ii. LMR – Canceled

iii. WBBA
The cellular coverage survey, the agenda setting format, bylaws, and SCIP goals were all discussed.

iv. IOC & Workgroups
a. IOC
There are no new updates.

b. STR Workgroup
The STR Workgroup is going to be combined with the COMU workgroup as there is much overlap in committee personnel.

c. COMU Workgroup
There are no new updates.

v. IPAWS – Canceled

vi. Finance/Grants Workgroup
The ARMER equipment grant has been a main topic of discussion; applications for that grant are due by end of business this Friday, June 28, 2024. The Finance Committee will be holding a retreat after its July meeting to allow additional time to work on standards and upcoming needs of the Board. Both groups are scheduled to meet again in July.

7. Other Business
A. METAC Permission Update
Fredrick stated there have been no new requests.

B. Discussion: Regional Radio Technician
Fredrick stated this item was requested to stay on the agenda. There was no new discussion regarding this item.

C. Discussion: Regional Strategic Plan Updates
Fredrick stated that the plan currently runs through the end of the year. They need to decide if there are any radio-specific items to include. The only radio-specific item that was in the

previous plan was “Continue to Invest, Upgrade, and Expand the ARMER system”. The full plan was included in the packet. New items need to be added by September 2024 so please reach out to Fredrick if there are additional items.

Haas suggested adding the GTR to D series transition planning and cost recovery as this will be a large financial impact to most agencies.

D. Radio Aliases
Dan Klawitter spoke on radio aliases and how at the most recent incident staging there were some difficulties in identification. He requests that all radio numbers match the vehicle unit number. If radio aliases match the truck number, then dispatch members can manage scenes/incident sites more safely and efficiently.

Haas stated that Fire response jump around from vehicle to vehicle, so it is nearly impossible to match radios to ever-changing units.

Klawitter stated that this is mainly for EMS response only. Other challenges can be discussed down the road, but this is a starting point to avoid confusion and maintain scene safety.

Haas stated that this process should continue to be discussed and grant money could be available in finding a solution.

Thompson stated that EMS agencies should work to support this request. Work will be done in the coming months to identify challenges and solutions.

E. Airport ARMER Discussion
Ryan DeYoung of Metro Airports stated that leadership is pushing for the Airport to be brought onto the ARMER system. He mentioned that this would be a difficult task as it would encroach on other County subsystems. Leadership wants to run through main MSP airport and through all six reliever airports throughout the metro area. Please reach out to DeYoung with advice, comments, and help as to what the next steps in the process would be.

Haas recommended the use of a consultant.

8. Adjourn
The meeting adjourned at 2:00 p.m.

To: Metro TOC, Chair Jake Thompson

CC: Tracey Fredrick

From: Scott Stangeland

Date: June 24th. 2024

Saint Paul Emergency Management is requesting a waiver for the use of the ME LSEC talkgroups.

We would like to add the following talk groups ME LSEC 02E – ME LSEC 15E to their radios.

- 11 APX 6000 portable radios and 2 APX 6500 Mobile radios.

SPPD Emergency Management Would like access to these Talk Groups to monitor future events for situational awareness. Their request is to scan and monitor only.

SPPD Radio shop/ Ramsey County ECC will manage these radio IDs and if there is an issue moving forward will be able to correct or suspend these IDs on the Armer system.

Thank you for your consideration on this request.

Sincerely,

Scott Stangeland

Communication Services Supervisor

St Paul Police Department

Metro Region ARMER Standards

Section Appendices – Appendix C Talkgroup Permission Letter Template

Date Established	**5-12-01**
Date Revised/Reviewed	**1-27-21**

1. Purpose or Objective

The purpose of this template is to provide a guide for requesting the use of another owner's talkgroup resources. Procedure for use of this letter is found in SECB Standard LMR-13 *Use of Shared Talk Groups*. (See next page)

AUTHORIZATION TO USE TALKGROUPS
NOT OWNED BY THE REQUESTING AGENCY

Date: 6/24/2024

Requesting Agency: Saint Paul Emergency Management

Authorizing Agency: MESB

Reason for Request
_x_ Add Talkgroup(s) to Radios
___ Add Talkgroup(s) to Dispatch Console
_x_ Scan/Monitor Talkgroup(s)
___ Other _____

I. Request permission to ADD the following clear talkgroup(s)

Talkgroup	Installation: Console, Portable, Mobile, Command Post	# of Work Units

II. Request permission to SCAN/MONITOR the following clear talkgroup(s)

Talkgroup	Installation: Console, Portable, Mobile, Command Post	# of Work Units

III. Encrypted Talkgroup Requests

A. If you are given permission for a talkgroup that is encrypted, neither the talk group nor the encryption key will be shared without written permission from the grantor entity.

B. The encrypted talkgroup will be granted and programmed via:

___ In-person encryption key transfer
___ Keyloader to Keyloader transfer
___ Loaded by granting agency Keyloader only
_x_ Other: please specify

Will be encrypted by SPPD Keyloader

C. Request permission to ADD the following encrypted talkgroup(s)

Talkgroup	Talkgroup Hex ID	CKR #	Patching Capability (Gateway, Dispatch, LTE)
ZONE -ML ME LSEC 02E - 15E			NA

D. Request permission to SCAN/MONITOR the following encrypted talkgroup(s)

Talkgroup	Talkgroup Hex ID	CKR #	Special Notes
ZONE -ML ME LSEC 02E - 15E			

IV. Other Request/Requirements (Explain)

V. Reason for Request
Note: If given permission for talkgroups on a temporary or event basis, the permission will be rescinded on dd/mm/yyyy.

Would like access to these Talk Groups to monitor future events for situational awareness.

(Attach supporting documentation)

Name of individual completing application Scott Stangeland SPPD Radio Shop Supervisor

Address 1671 Energy Park Drive, Saint Paul MN, 55108.

Phone 651-266-5802 **Email** scott.stangleand@ci.stpaul.mn.us

This Page for Authorizing Agency Only

AUTHORIZATION TO USE TALK GROUPS
NOT OWNED BY THE REQUESTING AGENCY

Request Approved _____ Approved with Conditions _____ Denied ____

Conditions:

Authorized Signature _____

Name of Authorizing Individual _____

Address _____

Phone _____ Email _____

Rice County Sheriff's Office

Jesse J. Thomas, Sheriff
Joe Yetzer, Chief Deputy

118 Third Street NW, Faribault, MN 55021
507-334-4391 • Fax 507-334-0268

July 9th, 2024

Chair Jake Thompson
MESB Radio Technical Operating Committee

Chair Thompson,

This request is to seek approval for Rice County radios to be programmed with and use new Metro Region ME LSEC 02E – 15E talkgroups.

Rice County borders two Metro Region counties (Scott County and Dakota County). Rice County also has a shared SWAT team with Dakota County/South Metro SWAT.

Both Rice County SWAT and non-SWAT personnel have assisted numerous times in the Metro in recent years.

This request would be to program all Rice County Law Enforcement Only radios with the ME LSEC 02E – 15E talkgroups. Rice County has previously been approved to utilize ME TACs 1-12E.

Justin Austin #1158
Radio Communications Specialist
Rice County Sheriff's Office
118 3rd St NW Faribault, MN 55021
507-210-0452

Metro Region ARMER Standards

Section Appendices – Appendix C Talkgroup Permission Letter Template

Date Established	**5-12-01**
Date Revised/Reviewed	**1-27-21**

1. Purpose or Objective

The purpose of this template is to provide a guide for requesting the use of another owner's talkgroup resources. Procedure for use of this letter is found in SECB Standard LMR-13 *Use of Shared Talk Groups*. (See next page)

AUTHORIZATION TO USE TALKGROUPS
NOT OWNED BY THE REQUESTING AGENCY

Date: 7/9/24

Requesting Agency: Rice County Sheriff's Office

Authorizing Agency: MESB

Reason for Request
X Add Talkgroup(s) to Radios
X Add Talkgroup(s) to Dispatch Console
___ Scan/Monitor Talkgroup(s)
___ Other _____

I. Request permission to ADD the following clear talkgroup(s)

Talkgroup	**Installation: Console, Portable, Mobile, Command Post**	**# of Work Units**

II. Request permission to SCAN/MONITOR the following clear talkgroup(s)

Talkgroup	**Installation: Console, Portable, Mobile, Command Post**	**# of Work Units**

III. Encrypted Talkgroup Requests

A. If you are given permission for a talkgroup that is encrypted, neither the talk group nor the encryption key will be shared without written permission from the grantor entity.

B. The encrypted talkgroup will be granted and programmed via:

___ In-person encryption key transfer
X Keyloader to Keyloader transfer
___ Loaded by granting agency Keyloader only
___ Other: please specify

C. Request permission to ADD the following encrypted talkgroup(s)

Talkgroup	Talkgroup Hex ID	CKR #	Patching Capability (Gateway, Dispatch, LTE)
ME LSEC 02E-15E			

D. Request permission to SCAN/MONITOR the following encrypted talkgroup(s)

Talkgroup	Talkgroup Hex ID	CKR #	Special Notes

IV. Other Request/Requirements (Explain)

V. Reason for Request
Note: If given permission for talkgroups on a temporary or event basis, the permission will be rescinded on dd/mm/yyyy.

We are a border county. We also have a shared SWAT team with Dakota County. We have assisted on numerous mutual aid calls in the metro.

(Attach supporting documentation)

Name of individual completing application Justin Austin

Address 118 3rd St NW Faribault, MN 55021

Phone 507-210-0452 **Email** Justin.Austin@RiceCountyMN.gov

This Page for Authorizing Agency Only

AUTHORIZATION TO USE TALK GROUPS
NOT OWNED BY THE REQUESTING AGENCY

Request Approved _____ Approved with Conditions _____ Denied ____

Conditions:

Authorized Signature _____

Name of Authorizing Individual _____

Address _____

Phone _____ Email _____

SHERIFF DAWANNA S. WITT
Hennepin County Sheriff's Office, 350 South Fifth Street, Room 6, Minneapolis, MN 55415
(612) 348-3744 • hennepinsheriff.org

August 16, 2024

Hennepin County Participation Plan Amendment for Additional Talkgroup and Radio IDs

Hennepin County is formally requesting approval of an amendment to its participation plan to increase our approved amount of Radio IDs and Talkgroup IDs for both Hennepin County and agencies within Hennepin County whose contracts are through us.

Hennepin County's current approvals are 524 Talkgroup IDs and 13206 Radio IDs. We are looking to increase our Talkgroup IDs to 550 and no increase to the Radio IDs at this time.

Metropolitan Airport's current approvals are 29 Talkgroup IDs and 730 Radio IDs. We are looking to increase the Talkgroup IDs to 35 and the Radio IDs to 1000.

City of Bloomington's current approvals are 29 Talkgroup IDs and 550 Radio IDs. We are looking to increase the Talkgroup IDs to 35 and no increase to the Radio IDs.

City of Eden Prairie's current approvals are 20 Talkgroup IDs and 500 Radio IDs. We are looking to increase the Talkgroup IDs to 25 and no increase to the Radio IDs.

We thank you for your consideration and are happy to answer any questions you may have.

Respectfully,

Jake Thompson

Jake Thompson
Radio System Manager
Hennepin County Sheriff's Office

SHERIFF DAWANNA S. WITT
Hennepin County Sheriff's Office, 350 South Fifth Street, Room 6, Minneapolis, MN 55415
(612) 348-3744 • hennepinsheriff.org

August 16, 2024

Hennepin County Participation Plan Modification

Hennepin County is formally requesting approval of an amendment to its participation plan with the addition of outdoor warning siren activation over Hennepin owned ARMER talkgroups. Hennepin County Emergency Management has been working with Mission Critical Partners to review and put together an RFP to replace the current outdoor warning siren system. The current outdoor warning siren activation system utilizes VHF Transmitters and ARMER backhaul. Many technologies have been assessed and it has been determined that activation over ARMER as the primary source would be the most seamless and effective solution.

By migrating away from VHF system and utilizing TGs we will free up some backhaul loading that the VHF system used. We do not foresee much loading to the ARMER system as it will just be transmitting and receiving signaling to activate sirens during severe weather. Monitoring of the individual sirens will be taking place over LTE solutions.

There are 293 sirens located across Hennepin County. We will be looking at placing an ARMER radio at each of these locations. We are also looking at future growth and are looking to allocate 300 Radio IDs toward this project. We will also be naming the alias of these to signify that they are OWS radios. When provisioning these IDs, we'll be locking them to Hennepin East and West subsystems.

We thank you for your consideration and are happy to answer any questions you may have.

Respectfully,

Jake Thompson

Jake Thompson
Radio System Manager
Hennepin County Sheriff's Office

Metropolitan Emergency Services Board

2022-2024 Interoperable Emergency Communications Strategic Plan (IECSP)

Approved: July 14, 2021

Contents

Section 1: IECSP Team Members

The Metropolitan Emergency Communications Board (MESB) is one of seven regional Emergency Communications Boards (ECBs) and Emergency Services Boards (ESBs) in the state of Minnesota which have been established to provide local governance on matters related to emergency communications. The MESB's membership includes representatives from the following entities:

- Anoka County
- Carver County
- Chisago County
- Dakota County
- Hennepin County
- Isanti County
- Ramsey County
- Scott County
- Sherburne County
- Washington County
- City of Minneapolis (Hennepin County)

The following representatives from the region and the Minnesota Department of Public safety division of Emergency Communication Networks (DPS-ECN) served as members of the Integrated Preparedness Planning Team (planning team) and contributed to the content of this plan:

Vic Barnett, Ramsey County
BJ Battig, Dakota County
Carrie Bauer, Scott County
Marcia Broman, MESB
Marcus Bruning, DPS-ECN
Pete Eggimann, MESB
Gladys Ferguson, Allina Health EMS
Irene Fernando, Hennepin County
Tracey Fredrick, MESB
Scott Haas, Scott County
Heidi Hieserich, Metro. Airports Commission
Ron Jansen, Dakota County
Geoff Maas, Ramsey County
Tony Martin, Hennepin County
Mike Mihelich, Ramsey County
Todd Moen, Carver County
Darlene Pankonie, Washington County
Nancie Pass, Ramsey County
Cheryl Pritzlaff, Dakota Communications Center
Jill Rohret, MESB
Val Sprynczynatyk, Anoka County
Jake Thompson, Chisago County
Victoria Vadnais, Allina Health EMS
Tom Wolf, Scott County

Section 2: Purpose

The purpose of this Interoperable Emergency Communications Strategic Plan (IECSP) is to assist the Metropolitan Emergency Services Board and regional stakeholders to identify preparedness priorities and the associated Planning, Organizational, Equipment, Training, and Exercise (POETE) activities that are necessary to achieve them.

The IECSP is a key component of the Integrated Preparedness Cycle (Figure 1), which provides an effective mechanism to support decision making, prioritize funding allocation, and measure progress toward building, sustaining, and delivering capabilities based on a jurisdiction's/organization's threats, hazards, and risks. Using this process, stakeholders gain a better understanding of the full breadth of preparedness activities that impact their jurisdiction/organization and allows for a more deliberate approach to multi-year preparedness activity planning.

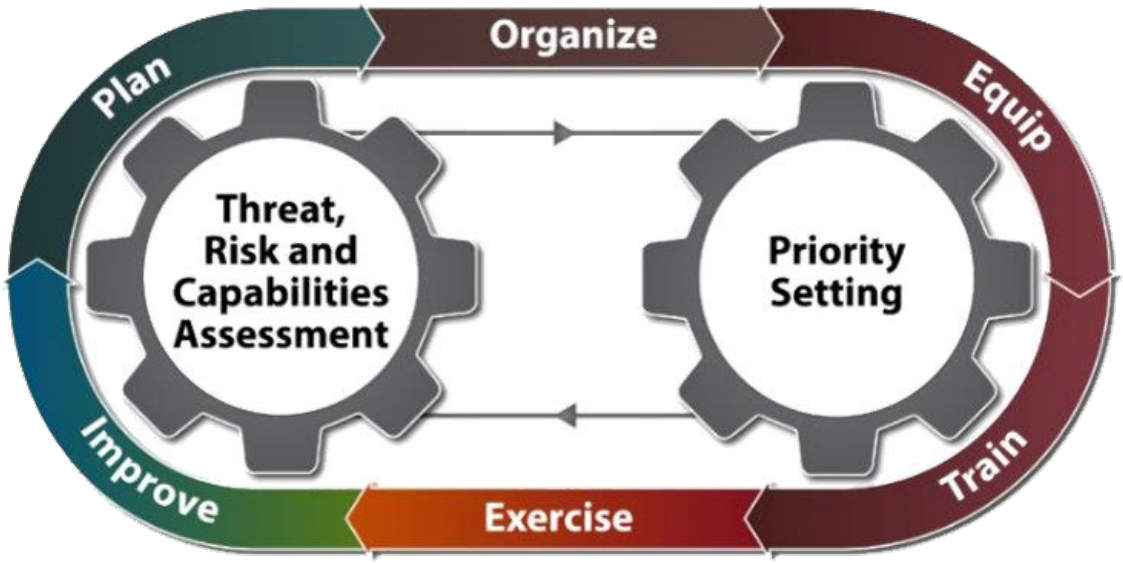

Figure 1: The Integrated Preparedness Cycle

Section 3: Scope

The scope of this plan is limited to the POETE activities necessary to improve interoperable emergency communication capabilities (9-1-1, Land Mobile Radio, Public Alert and Warning, and Wireless Broadband) within the region.

The Integrated Preparedness Cycle for this plan includes the three-year period beginning January 1, 2022 and ending December 31, 2024.

Section 4: Strategic Priorities

Using the information gathered through the activities described in Section 5, the planning team identified the following priorities to help improve the region's interoperable emergency communication capabilities during this Integrated Preparedness Cycle:

Preparedness Priorities
1. **Expanded Interoperability Between PSAPS**
2. **Emergency Communications Continuity of Operations**
3. **Continue to Invest, Upgrade, and Expand the ARMER system**
4. **Secure Funding – Stable, Planned, Predictable, and Sufficient**
5. **Emergency Communications Staff - Recruitment, Development, and Retention**
6. **Successfully Transition to NG Core Services**
7. **Engaging in Industry Research and Standard Development**
8. **Educating Policy Makers**

Priority #1: Expanded Interoperability Between PSAPS

As recommended in the Civil Unrest (May-June 2020) After Action Review, workload sharing, and regional situational awareness have been established as the highest priority in the metro region strategic planning. The metro area public safety answering points (PSAPs) need to establish CAD-to-CAD interoperability and regional situational awareness to work more efficiently and effectively both day-to-day and during high profile events.

Planning Activities

The MESB 9-1-1 Technical Operations Committee (9-1-1 TOC) formed a workgroup and tasked it with developing an implementation plan for CAD-to-CAD interoperability and regional situational awareness. The plan is expected to include recommendations on governance, funding, agency participation, and system capabilities. The draft plan will then be presented to the Board for approval.

Organizational Activities

Once the Board approves the plan, the governance agreements can be drafted and distributed to the PSAP governing authorities for signature, establishing a new governing authority and funding mechanism. The new governance authority can then prepare and issue an RFP that includes the system capabilities identified in the implementation plan.

Equipment Activities

Implementation of a CAD-to-CAD interoperability and regional situational awareness system will require a regional wide area network (WAN) connecting all the regional PSAPs. The MESB's intent is to work with the Statewide Emergency Communication Board (SECB) and DPS-ECN to implement a regional NG9-1-1 ESInet WAN that conforms to the NENA INF-016.2 Emergency Services IP Network Design, which can support multiple mission-critical public safety applications including, but not limited to, NG9-1-1, CAD-to-CAD, logging, etc. The regional WAN will be configured specifically to support PSAP utilization of cloud-based public safety applications as well as provide connectivity for geodiverse application servers at regional PSAP datacenters.

Training Activities

Once the systems are in place, operational policies and procedures must be developed both within PSAPs as well as with the other partnering PSAPs which utilize the CAD-to-CAD interoperability and regional situational awareness system capabilities. These policies and procedures will be incorporated into each PSAP's training curriculum.

Exercise Activities
Once the PSAP personnel are familiar with how to use the CAD-to-CAD interoperability and regional situational awareness system for day-to-day operations, regular quarterly or semi-annual training exercises should be established for how to utilize the system during high-profile, multi-agency events. The training exercises need to be scheduled on a regular basis to help telecommunicators retain proficiency between live events.

Priority #2: Increase Continuity of Operations Options and Capabilities

Each of the ten-county metro area PSAPs have prepared individual continuity of operations plans (COOP). During those planning efforts challenges were identified, especially for the larger PSAPs, when developing strategies for working from an alternate location. The use of the public safety WAN identified in Priority #1 above to enable remote access to mission-critical public safety applications will offer additional COOP options and capabilities.

Planning Activities
COOP planning at a regional level which builds on the cooperative PSAP relationships that were identified in the individual PSAP COOPs should focus on access to mission-critical public safety applications from the other cooperative PSAP locations. For example, if Washington, Ramsey, and Dakota County PSAPs have agreed to work cooperatively as part of their COOPs, the regional planning should focus on implementing the technology needed to permit Dakota telecommunicators access to the Dakota ARMER, 9-1-1, and CAD applications from workstations at the Ramsey or Washington County PSAPs, with reciprocal access for Ramsey or Washington County telecommunicators to their mission-critical applications at Dakota Communications Center workstations.

An alternative regional plan could utilize the two back-up PSAP locations currently deployed by Ramsey County and now being implemented by the Minneapolis Emergency Communications Center (MECC) as designated regional COOP facilities. Remote access to mission-critical applications could then be established for a group of PSAPs at each location (e.g., east metro PSAPs utilize the Ramsey County facility and west metro PSAPs utilize the MECC facility). If Hennepin County builds a new back-up facility to replace the aging Golden Valley location, the new facility could also be designed to function as a regional back-up facility.

Organizational Activities
Enabling remote access for other PSAPs' applications and utilizing facilities owned by another entity will require funding and governance plans which address the equitable costs associated with the shared technology and facility.

Equipment Activities
Remote access to mission-critical applications from alternate PSAP locations will require the public safety WAN described in Priority #1 to provide the IP-connectivity between the sites.

Training Activities
All PSAP personnel need to be trained on the processes and procedures needed to utilize remote access capabilities for each of the mission-critical applications.

Exercise Activities
To remain viable when needed, regular COOP exercises are required to train new personnel and ensure existing personnel retain the skills needed to operate effectively from the alternate site utilizing remote access to all their mission-critical applications.

Priority #3: Continue to Invest In, Upgrade, and Expand the ARMER System

The ARMER system is the primary emergency responder communication tool throughout the ten-county metro area. A consistent, predictable maintenance and enhancement plan must be established that includes adequate sustainable funding. ARMER expansion capabilities should include a focus on cybersecurity, encryption capabilities, and making plans for Integrated Voice and Data (IV&D) and Key Management Facility (KMF). IV&D adds Project 25 (P25) data to the ARMER system allowing data features such as GPS location, Over the Air Rekeying (OTAR), and Over the Air Programming (OTAP). KMF is a server that manages and deploys encryption keys for subscriber units. The system may need to transition to support P25 Phase 2 Time-Division Multiple Access (TDMA)-based voice and data traffic to increase system capacity as well as Long-Term Evolution (LTE) push-to-talk capabilities if ARMER system loading increases, and additional frequencies are not available for further channel expansion. The metro area should also agree to make considerations to standardize on Advanced Encryption Standard (AES), which would allow system owners and users to plan accordingly to have the equipment necessary in place.

Planning Activities
The metro region should discuss the use of AES-based encryption and develop plans for its implementation. Interoperability between LTE push-to-talk equipment on ARMER must be defined and any limitations LTE users may experience must be clearly understood. The transition to ARMER P25 Phase 2 TDMA voice and data traffic will require coordination with the system owners and users to ensure backward compatibility while allowing new equipment onto the system. During the time frame of the strategic plan, researching options for IV&D, KMF, and TDMA would need to take precedence, so that the following strategic planning frame could build on that research.

Organizational Activities
The FCC inquiry and possible rule-making that would prohibit 9-1-1 fee diversion for narrowly defined non-9-1-1 uses may negatively impact the ARMER system funding. Currently, Minnesota Statutes allocate 9-1-1 surcharge fees to support the ARMER system. If the use of 9-1-1 fees for the ARMER system is prohibited by federal action, a new ARMER system funding stream will be needed.

Equipment Activities
Procure and implement the system software and hardware upgrades necessary to support AES encryption, IV&D, KMF, and/or P25 Phase 2 TDMA capabilities based on the plan described under the Planning Activities section above.

Training Activities
ARMER system user training will be required as new capabilities and features are introduced. Regular in-service training for all system users should be done on an annual basis but may need to be done more frequently depending on the operational changes associated with any specific upgrade or enhancement.

Exercise Activities

At least one large scale, multi-agency training exercise should be conducted annually that includes the use of Communications Unit Leader (COML) and Metro Region Communications Response Task Force (CRTF) resources.

Priority #4: Secure Funding – Stable, Predictable, and Sufficient

The emergency response continuum, which starts with a 9-1-1 call for assistance through until the last responding field unit clears the call, requires system upgrades, maintenance, and hardware replacement on an ongoing basis. Lifecycles of system components and software continue to shorten as new technology is introduced. Keeping these mission-critical systems operating 24x7, 365 days per year requires an ongoing stable, predictable, and sufficient source of funding.

Planning Activities

The emergency communications systems in place today are no longer stand-alone systems but are part of regional and statewide systems that require coordination and interoperability. This complicates how systems are purchased and financed. More agencies are making joint, cooperative purchase of public safety applications that can be shared to control costs and enable greater functionality and capabilities than each agency would be able to afford on their own. State, regional, and local entities are also looking at software-as-a-service (SaaS) procurement models for hosted and cloud-based mission-critical applications to stabilize expenses on a regular monthly basis that includes system procurement, upgrades, security, and maintenance.

The 9-1-1 surcharge has been a reliable source of funding for many years but has never been adequate to fully fund all the 9-1-1 and ARMER system costs. Recent FCC activity has now raised questions about whether the use of 9-1-1 surcharge funding to support the ongoing costs associated with the ARMER system will be allowed if the state or local agencies want to remain eligible to participate in federal grant programs. If the federal authorities determine that the ARMER funding is a diversion of 9-1-1 funding, a new source of ARMER funding must be identified.

Next Generation 9-1-1 (NG9-1-1) systems rely on point-in-polygon 9-1-1 call routing. This requires highly accurate geographic information system (GIS) data that define PSAP and emergency response agency service area boundaries. This GIS data must be updated and maintained on an ongoing basis with error corrections completed within 24-48 hours of detection. The metro area county GIS departments will need to create and prioritize new workflow processes to support accurate 9-1-1 call routing and may need to increase staffing in some cases. The costs associated with the ongoing maintenance of these mission-critical datasets needs to be included as part of the 9-1-1 system costs and the associated funding streams, just as master street address guide (MSAG) creation, maintenance, and location validation have been part of the ongoing 9-1-1 expenses associated with E9-1-1 systems that are paid to the 9-1-1 service providers. This responsibility for accurate 9-1-1 call routing is shifting from the 9-1-1 service providers to GIS data creators as part of the transition from E9-1-1 to NG9-1-1 and the costs associated must be included in the overall NG9-1-1 system costs and funding.

Organizational Activities

Cooperative planning is needed to identify the total costs involved in procuring and operating the emergency communications continuum applications. Once these costs are known, a shared funding formula should be established that identifies what system costs will be the responsibility of each state, regional, and local entity involved, as well as the funding stream and source sufficient to meet those ongoing responsibilities. It should be recognized that grant funding cannot be relied on as a source of on-going funding and should only be utilized to enhance or enable the procurement of system components while the regular funding stream is established and implemented to take over the system funding responsibilities when grant funds are exhausted or are no longer available. Establishing these

funding streams and sources may require legislative action to ensure that the funding stream is adequate, stable, and predictable regardless of which political party is in the majority at any given time. Maintaining the emergency communications systems should be done with dedicated funding and remain a non-partisan issue to the greatest extent possible.

Equipment Activities
All equipment components of the emergency communications systems must be on a lifecycle replacement plan with total cost of ownership and replacement for these components calculated and included in the emergency communications system funding plan.

Training Activities
(None identified)

Exercise Activities
(None identified)

Priority #5: Staff Recruitment, Development, and Retention

Finding, training, and retaining highly skilled telecommunicators is an ongoing challenge for many metro area PSAPs. This is a complicated issue with many factors, but it is recognized that retaining highly skilled telecommunicators is key to ensuring PSAPs effectively answer, analyze, prioritize, assign, and manage emergency responses utilizing the resources available through the law enforcement, fire, and emergency medical services (EMS) agencies within their service areas.

Planning Activities
Staff retention and recruitment needs to be integrated into each PSAP's strategic planning. There is general acceptance that it is more economical to retain existing staff than to recruit and train new telecommunicators, even though existing staff are in a higher salary band than new hires. Many PSAPs are chronically short-staffed. This leads to higher stress on the existing staff, increased hours, and high overtime pay rates, which is not sustainable long term.

Organizational Activities
PSAP management and policy makers need to recognize telecommunicators as equal partners in the emergency response continuum. Traditionally, pay scales, career advancement opportunities, and emergency services funding have not recognized the value of the responsibility and decision-making telecommunicators are expected to provide in determining what type of emergency is being reported, what the appropriate response should be, and the coordination of that emergency response. There are four equal partners involved in the emergency response continuum that are all vital to a successful emergency response: PSAPs, law enforcement, fire, and EMS.

Equipment Activities
Equipping alternate work locations may enable telecommunicators to work safely during times when PSAPs are overwhelmed with calls from a high visibility, multi-jurisdiction event or natural disaster. The ability to access all mission-critical applications needed by a telecommunicator to effectively answer and manage emergency calls for their jurisdiction from an alternate location can add capacity to the staffing available to better manage call volume, as well as provide better COOP options.

Training Activities
Minimum training standards and curriculum for new telecommunicators provide a foundation for career development. On-going training for veteran telecommunicators ensures consistent, effective emergency response initiation and coordination. Training curriculum at each PSAP must include

resiliency training, peer support, and professional counseling resources to enable telecommunicators to withstand the stress and emotional damage that can occur from repetitive exposer to traumatic events.

Exercise Activities
(None identified)

Priority #6: Successful Transition to NG9-1-1 Core Services

The current E9-1-1 system utilizes tools and processes designed to support receiving 9-1-1 calls from fixed-location telecommunications systems with caller location determined by where the end of the service provider's wire was terminated. Wireless and VoIP mobile and nomadic telecommunications service has been jury-rigged to provide approximate caller location in the E9-1-1 environment.

NG9-1-1 Core Services are designed specifically to support mobile and nomadic telecommunications service by utilizing the location of the calling device at the time of the emergency call as the basis for routing to the PSAP responsible for serving the caller's location. In addition, NG9-1-1 Core Services support multimedia communications that will enable 9-1-1 callers to make voice, text, or streaming video calls, as well as being able to send images or video to the 9-1-1 system.

Planning Activities
NG9-1-1 systems offer many options for 9-1-1 callers which require more complexity within the system itself and in the management of the system. The transition from the current E9-1-1 system to NG9-1-1 Core Services will be made in multiple steps over an extended timeframe, all done while continuing to take emergency calls 24x7, 365 days per year. Each step requires advance planning, testing, and implementation.

NG9-1-1 Core Services will involve coordination with multiple 9-1-1 service providers including ESInet, system security, ingress aggregation and conversion, call routing, as well as ongoing system monitoring and management services.

Organizational Activities
The transition from E9-1-1 will require a cooperative effort from individual PSAPs, the regional emergency services boards, DPS-ECN, and the SECB. The transition plans and processes will not be a one-size-fits-all solution. Some components of the NG9-1-1 Core Services may be implemented in stages at the regional level as the underlying GIS data and answering applications become able to support NG9-1-1 call delivery and routing. NG9-1-1 GIS data creation, maintenance, and error correction processes need to be developed and tested, which will reduce the risk of depending on end-of-life legacy infrastructure.

Equipment Activities
The transition to NG9-1-1 Core Services will require originating service providers to migrate their call delivery from SS7 Time Division Multiplexing (TDM) network technology to end-to-end session-initiated protocol (SIP) call delivery or contract for the translation of their TDM 9-1-1 call traffic to SIP before the call is delivered to the NG9-1-1 Core Services.

PSAP answering applications must support 9-1-1 call delivery from NG9-1-1 Core Services utilizing SIP with caller location information delivered at the time of the call using the Presence Information Data Format-Location Object (PIDF-LO) protocol. PSAP logging equipment must be able to support call metric and content capture in an NG9-1-1 standard compliant environment.

Training Activities

Telecommunicators must be trained as each stage in the transition is implemented. This will include training on the answering application used to answer the calls. It will also include training in the interpretation and use of the additional information data that will become available to telecommunicators in the NG9-1-1 environment.

Exercise Activities
(None identified)

Priority #7: Support and Participation in Cutting-Edge Emergency Communications Research and Standard Development

Minnesota, and the metro region specifically, has been at the forefront of embracing new 9-1-1 service technology, capabilities, and 9-1-1 industry standard development. Continued involvement by PSAP management, telecommunicators, and MESB staff at the state and national level in the development of operational and technical standards for 9-1-1 service is instrumental in maintaining the high level of emergency services metro area residents and visitors enjoy.

Planning Activities
(None identified)

Organizational Activities
Policy maker and organizational management support for participation in industry standard development processes should continue to be a priority. Staff should be encouraged and given time to share their knowledge, skills, and abilities with the standard development and training organizations that serve the 9-1-1 and emergency communications industry.

Equipment Activities
(None identified)

Training Activities
(None identified)

Exercise Activities
(None identified)

Priority #8: Increase Policy Maker Understanding and Support for Emergency Communications

Telecommunicators and their role in the emergency response continuum go largely unnoticed unless something goes wrong with an emergency response. Flashing lights, fire trucks, ambulances, squad cars, and uniformed personnel are all very visible to the people involved in an emergency. The voice that answered the 9-1-1 call, identified the emergency, decided what the appropriate emergency response should be, assessed the available emergency responder resources available at that moment, initiated the emergency response, and coordinated that emergency response is invisible and often taken for granted. 9-1-1 and emergency communications personnel are equal partners in the effective delivery of emergency services along with law enforcement, fire, and EMS personnel.

Planning Activities
Emergency communications management and policy makers need to intentionally develop a communications strategy designed to educate other emergency response partners and policy makers

about what life and death decisions and responsibilities telecommunicators are trained for and expected to make on multiple calls per day. Telecommunicators cannot control their workload or take time to mentally prepare for what they encounter in answering the calls they answer. Management must advocate with policy makers to help them understand the stress level that telecommunicators routinely work under so that policy makers can provide adequate resources to support the emergency communications mission and the people who provide that service.

Organizational Activities

Policy makers who are responsible to ensure effective emergency responses within their jurisdiction must be given sufficient information to understand the resources needed to adequately support the people who provide the emergency responses.

Equipment Activities

(None identified)

Training Activities

PSAP managers and training personnel must develop public education material that accurately portrays the role and responsibilities telecommunicators provide as part of the emergency response continuum so that they can build support with their policy makers and the general public.

Exercise Activities

(None identified)

Metro Region ARMER Standards

Section 3 – Metro 3.15.0 Use of Metro ARMER ME LSEC Talkgroups
Date Established **12-04-23**
Date Revised/Reviewed **12-04-23**

1. Purpose or Objective

The purpose of this standard is to establish policy and procedures for use of the metro region ARMER ME LSEC 2E – 15E talkgroups. These talkgroups are designated for law enforcement only and are configured as region-wide resources to facilitate interoperability communications. This policy will serve to minimize usage conflicts when an interoperability talkgroup is needed for an event or operational task that requires secured communications.

2. Technical Background

- Capabilities –
  It is possible to have access to ME LSEC talkgroups in radios used by metro law enforcement agencies that share use of the ARMER system. These common talkgroups can be used for a wide range of interoperable communication when coordination of activities between personnel of different agencies is needed on an event or operational task. Patching of these talkgroups is prohibited to non-encrypted (clear mode) talkgroups.

- Constraints –
  Some of these talkgroups may be used as part of a soft patch to local encrypted talkgroups that are restricted for use by personnel of specific services. The dispatch center creating the patch is responsible for checking for proper talkgroup authorizations when creating soft patches.

  Because many different agencies may be communicating with one another, for purposes of safety, plain English/common terminology must be used when communicating on these regional resources. The use of ten codes is not permitted. This pertains to direct or indirect (when in a soft patch) use of these regional resources.

  Radio User personnel using these talkgroups should understand the restrictions and availability of the use of these resources as primarily communications as it relates to their communication needs.

  ME LSEC are not to be used for an internal operations or events where only local agencies are communicating. ME LSEC should be used when secured interoperable communications is needed, or likely, with multiple regional agencies.

  ME LSEC 2E – 9E are DES-OFB encrypted

  ME LSEC 10E – 15E are AES encrypted

  Metro region-wide ARMER talkgroups may only be in one patch at a time.

3. Operational Context

These talkgroups are metro region resources meant to facilitate communication between law enforcement agencies that typically do not communicate with each other on a regular basis.

If regional non-law enforcement agencies desire use of the ME LSEC talkgroups, a waiver proposal should be sent to the MESB Radio Services Coordinator for consideration by the Radio Technical and Operations Committee (TOC).

Law enforcement agencies not included under the MESB joint powers agreement require written permission from the MESB for use of the ME LSEC talkgroups. A proposal request should be sent to the MESB Radio Services Coordinator for consideration by the Radio TOC.

4. Recommended Protocol/Standard

TG Requirements	For Whom?
Highly Recommended	Metro Law Enforcement mobiles and portables
Highly Recommended	All console positions where law enforcement agencies are dispatched, mobiles and portables

To meet the communication needs for an event or operational task, ME LSEC talkgroups may be patched to local encrypted talkgroups only. These talkgroups can be used and reserved in a “first available” fashion (ie – do not have to start at 2 and go up, or 15 and go down).

ME LSEC 10E – 15E talkgroups use AES encryption algorithm and may not be supported in all subscriber radios or console positions.

Some Public Safety Answering Points (PSAPs) may not have the current console capacity to accommodate ME LSEC 5E-8E. It is important to note the ME LSEC 2E-9E are all home zone mapped to Zone 1, while ME LSEC 10E-15E are all home zone mapped to Zone 2. This should be taken into consideration when reserving these resources in the event they need to be included in a soft patch.

Cross Patch Standard	Yes/No	Talkgroup(s)
Soft Patch	Yes	Encrypted only
Hard Patch	No	None
LTE Gateway	No	None

Note: These talkgroups are mapped to different home zones. The recommended method of utilization in a patch is as follows:

Recommended for Zone 1 PSAPs (Anoka, Carver, Chisago, Dakota, Isanti, Scott, Washington, City of Minneapolis): ME LSEC 2E-5E

Recommended for Zone 2 PSAPs (Hennepin, Ramsey): ME LSEC 6E-9E

Sherburne County is home zone mapped in Zone 4, so the recommended guidelines above will not apply.

To minimize the use of RF resources in a patch, it is encouraged for PSAPs to utilize the talkgroups in the PSAPs home zone referenced in the preceding sections.

ME LSEC talkgroups may only be patched to another talkgroup encrypted by ADP, DES, or AES encryption.

None of the ME LSEC talkgroups shall be part of any system-configured multi-group configuration.

The ME LSEC talkgroups shall only be used when there is a significant need for interagency communications and other suitable means for interagency communications are unavailable, to avoid a reduction in availability of these resources when needed for important events.

The Status Board application will be used to manage reservations and usage of these talkgroup resources.

5. Recommended Procedure

The ME LSEC talkgroups may either be used directly or be patched to other encrypted resources to meet the communication needs of an event or operational task.

When formulating communications plans, Communication Unit Leaders (COMLs) should check with the agencies involved in interoperability events to see what shared resources are available.

When a resource is needed, the requesting agency will contact the appropriate metro region ARMER dispatch center to have the next preferred available talkgroup granted. The dispatch center will utilize the Status Board application to identify the status of the resource.

At the conclusion of the event, the ARMER dispatch center will remove any patches that were used for the event and update Status Board.

NOTE: PSAPs initiating any soft patches must announce the patch after it is set up AND prior to it being taken down.

6. Management

Metro Region PSAP managers and supervisors for agencies on the ARMER system shall ensure that this procedure for usage and assignment of the ME LSEC talkgroups be adhered to, as well as the setting up of soft patches for which they are responsible.

The Minnesota Status Board System Administrator shall be responsible for the Status Board application.

Public Safety telecommunicators shall receive initial and continuing training on the use of this procedure.

The Metropolitan Emergency Services Board will be responsible for the ME LSEC encryption keys.