METROPOLITAN EMERGENCY SERVICES BOARD
RADIO TECHNICAL OPERATIONS COMMITTEE AGENDA
May 27, 2020, 1:00 p.m.

This meeting will be conducted online (no in-person location). To join the meeting, please use https://metropolitanemergencyservicesboard.my.webex.com/metropolitanemergencyservicesboard.my/j.php?MTID=md8f799c930f76cdfca7d8d6d4d4fc9ad. To join the audio portion, please call 408-418-9388 and use participant code 627 833 170.

1. **Call to Order** – Committee Chair, Bob Shogren

2. **Approval of Agenda** – Shogren

3. **Approval of Minutes of March 25, 2020 Meeting** – Shogren

4. **Action Items**
    A. City of Edina Talkgroup Request – Andrew LaVenture
    B. State FEDCOM Standard – Curt Meyer
    C. Carver County Participation Plan Amendment – Susan Bowler/Peter Sauter
    D. Standards Update – Fredrick
        1. 6.4.0 Entry Costs for New Full Participants

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

6. **Committee Reports**
    A. Metro Mobility System Usage Update – Chad LeVasseur/Clay Stenbeck
    B. System Managers/Metro Owners Group Update – Ron Jansen
    C. MnDOT ARMER System Update – John Anderson/Tim Lee/Dave Klema
    D. SECB Committees
        i. Steering – Jill Rohret/Fredrick
        ii. LMR (OTC) – Nate Timm/Mike Mihelich
        iii. WBBA (IDC) – Rod Olson/Jake Thompson
        iv. IOC & Workgroups – Thompson/Timm; Jansen/Mark VandenBerghe (STR); Timm/Dan Anderson (COMU)
        v. IPAWS – Scott Haas
        vi. Finance/Grants Workgroup – Rohret/Fredrick

7. **Other Business**
    A. Discussion: Priorities for FirstNet Enhancements – Rod Olson

8. **Adjourn**

Reminder: Next meeting scheduled for June 24, 2020

Metropolitan Emergency Services Board
Radio Technical Operations Committee
Online Meeting
March 25, 2020

1. Call to Order:
Bob Shogren called the meeting to order at 1:04 p.m.
Roll Call:
MESB Radio TOC Roll Call Votes – March 25, 2020

Name	Entity	Present	Absent
Bjorklund, J	Metro Airports Commission	X	
Breffle, K	Sherburne		X
Eckel, J	Chisago		X
Jansen, R	Dakota	X	
LeVasseur, C	Metro Transit	X	
Meyer, C	Hennepin	X	
Mihelich, M	Ramsey	X	
Olson, R	Minneapolis	X	
Sauter, P	Carver	X	
Schatz, N	Scott	X	
Shogren, B	Isanti	X	
Steier, C	Univ. of Minnesota	X	
Thompson, J	Anoka	X	
Timm, N	Washington	X	
Vadnais, V	Metro Region EMS	X	
VandenBerghe, M	MN State Fire Chiefs		X

Guests Present: John Anderson, Shane Chatleain, MnDOT; King Fung, Hennepin County; Frank Jarman, Motorola; Clay Stenbeck, Metro Mobility; Tracey Fredrick, Jill Rohret, Martha Ziese; MESB

2. Approval of Agenda
Tracey Fredrick asked the following changes be made to the agenda:
1. Bob Shogren will replace Ron Jansen as chair of the meeting.
2. 7A. Discussion on SUA agreements be moved to 7C.
3. 7A. will be the addition of Discussion item: ARMER FEDCOM Standard.
4. 7B. will be the addition of Discussion item: Pandemic PSAP Consolidation Plan ARMER workgroup.

M/S/C - Motion made by Ron Jansen to approve the amended agenda. Jeff Bjorklund seconded. Motion carried.

MESB Radio TOC Roll Call Votes – March 25, 2020

Name	Entity	Yes	No	Absent
Bjorklund, J	Metro Airports Commission	X		
Breffle, K	Sherburne			X
Eckel, J	Chisago			X
Jansen, R	Dakota	X		

Name	Entity	Yes	No	Absent
LeVasseur, C	Metro Transit	X		
Meyer, C	Hennepin	X		
Mihelich, M	Ramsey	X		
Olson, R	Minneapolis	X		
Sauter, P	Carver	X		
Schatz, N	Scott	X		
Shogren, B	Isanti	X		
Steier, C	Univ. of Minnesota	X		
Thompson, J	Anoka	X		
Timm, N	Washington	X		
Vadnais, V	Metro Region EMS	X		
VandenBerghe, M	MN State Fire Chiefs			X

<u>Total Votes</u>
Yes 13
No 0
Pass

3. Approval of Minutes
M/S/C - Motion made by Jansen to approve the Radio TOC minutes from February 20, 2020. Jake Thompson seconded. Motion carried.

Name	Entity	Yes	No	Absent
Bjorklund, J	Metro Airports Commission	X		
Breffle, K	Sherburne			X
Eckel, J	Chisago			X
Jansen, R	Dakota	X		
LeVasseur, C	Metro Transit	X		
Meyer, C	Hennepin	X		
Mihelich, M	Ramsey	X		
Olson, R	Minneapolis	X		
Sauter, P	Carver	X		
Schatz, N	Scott	X		
Shogren, B	Isanti	X		
Steier, C	Univ. of Minnesota	X		
Thompson, J	Anoka	X		
Timm, N	Washington	X		
Vadnais, V	Metro Region EMS	X		
VandenBerghe, M	MN State Fire Chiefs			X

<u>Total Votes</u>
Yes 13
No 0
Pass

4. Action Items
A. COMU Position Approvals – Tracey Fredrick
1. Robert Adney COML Approval
2. Patrick Heffernan INTD Approval
3. Greg Nelson COML Renewal
4. Mark VandenBerghe COMT Renewal
M/S/C - Motion made by Curt Meyer to approve all positions. Victoria Vadnais seconded. Motion carried.

Name	Entity	Yes	No	Absent
Bjorklund, J	Metro Airports Commission	X		
Breffle, K	Sherburne			X
Eckel, J	Chisago			X
Jansen, R	Dakota	X		
LeVasseur, C	Metro Transit	X		
Meyer, C	Hennepin	X		
Mihelich, M	Ramsey	X		
Olson, R	Minneapolis	X		
Sauter, P	Carver	X		
Schatz, N	Scott	X		
Shogren, B	Isanti	X		
Steier, C	Univ. of Minnesota	X		
Thompson, J	Anoka	X		
Timm, N	Washington	X		
Vadnais, V	Metro Region EMS	X		
VandenBerghe, M	MN State Fire Chiefs			X

Total Votes
Yes 13
No 0
Pass

B. Hennepin County Request for EAM Implementation

King Fung requested an addition of an Electronic Asset Management system to their ARMER participation plan. It will be used to track and manage the County's radio assets. It will be connected to the ARMER provisioning manager database.

M/S/C - Motion made by Jansen to approve the Hennepin County request for EAM Implementation. Rod Olson seconded. Motion carried.

Name	Entity	Yes	No	Absent
Bjorklund, J	Metro Airports Commission	X		
Breffle, K	Sherburne			X
Eckel, J	Chisago			X
Jansen, R	Dakota	X		
LeVasseur, C	Metro Transit	X		
Meyer, C	Hennepin	X		
Mihelich, M	Ramsey	X		
Olson, R	Minneapolis	X		
Sauter, P	Carver	X		
Schatz, N	Scott	X		
Shogren, B	Isanti	X		
Steier, C	Univ. of Minnesota	X		
Thompson, J	Anoka	X		
Timm, N	Washington	X		
Vadnais, V	Metro Region EMS	X		
VandenBerghe, M	MN State Fire Chiefs			X

Total Votes
Yes 13
No 0

Pass

C. Possible New Representation to the STR Workgroup

Jansen requested to be replaced on the membership for the STR workgroup, as Dakota County does not currently have this type of asset. Fredrick said Mark VandenBerghe will remain on the STR Workgroup. Curt Meyer volunteered to replace Jansen on the STR Workgroup.

M/S/C – Motion made by Jansen to appoint Curt Meyer as Jansen's replacement on the STR Workgroup. Shogren seconded. Motion carried.

Name	Entity	Yes	No	Absent
Bjorklund, J	Metro Airports Commission	X		
Breffle, K	Sherburne			X
Eckel, J	Chisago			X
Jansen, R	Dakota	X		
LeVasseur, C	Metro Transit	X		
Meyer, C	Hennepin	X		
Mihelich, M	Ramsey	X		
Olson, R	Minneapolis	X		
Sauter, P	Carver	X		
Schatz, N	Scott	X		
Shogren, B	Isanti	X		
Steier, C	Univ. of Minnesota	X		
Thompson, J	Anoka	X		
Timm, N	Washington	X		
Vadnais, V	Metro Region EMS	X		
VandenBerghe, M	MN State Fire Chiefs			X

Total Votes
Yes 13
No 0
Pass

D. Motorola Inter-zone Patching Solution Acceptance

Fredrick said there was a presentation made to the SECB LMR Committee in February 2020 from Motorola. This presentation included a current solution for the Inter-zone patching issue that came up over the course of 2019 and was presented nationally in August 2019. At its March 2020 meeting, the LMRC asked each region's representation to be able to voice support for this solution at its next meeting. Requesting that the group be able to voice support so that our representatives (Timm/Mihelich) can officially vote on that at the next LMRC meeting.

M/S/C – Motion made by Nate Timm to officially accept the Motorola Inter-zone Patching Solution as presented. Meyer seconded. Motion carried.

Name	Entity	Yes	No	Absent
Bjorklund, J	Metro Airports Commission	X		
Breffle, K	Sherburne			X
Eckel, J	Chisago			X
Jansen, R	Dakota	X		
LeVasseur, C	Metro Transit	X		
Meyer, C	Hennepin	X		
Mihelich, M	Ramsey	X		
Olson, R	Minneapolis	X		

Sauter, P	Carver	X		
Schatz, N	Scott	X		
Shogren, B	Isanti	X		
Steier, C	Univ. of Minnesota	X		
Thompson, J	Anoka	X		
Timm, N	Washington	X		
Vadnais, V	Metro Region EMS	X		
VandenBerghe, M	MN State Fire Chiefs			X

Total Votes
Yes 13
No 0
Pass

E. Standards Update
1. 3.48.0 Communications Unit (COMU)

Fredrick said at the February TOC meeting, there was discussion that the three COMU positions that had standards should be eliminated and an overall COMU standard be created, to align with State standards.

M/S/C – Motion made by Jansen to approve Metro 3.48.0 Communications Unit (COMU) and delete Metro Standards 3.17.5, .6, and .7. Bjorklund seconded. Motion carried.

Name	Entity	Yes	No	Absent
Bjorklund, J	Metro Airports Commission	X		
Breffle, K	Sherburne			X
Eckel, J	Chisago			X
Jansen, R	Dakota	X		
LeVasseur, C	Metro Transit	X		
Meyer, C	Hennepin	X		
Mihelich, M	Ramsey	X		
Olson, R	Minneapolis	X		
Sauter, P	Carver	X		
Schatz, N	Scott	X		
Shogren, B	Isanti	X		
Steier, C	Univ. of Minnesota	X		
Thompson, J	Anoka	X		
Timm, N	Washington	X		
Vadnais, V	Metro Region EMS	X		
VandenBerghe, M	MN State Fire Chiefs			X

Total Votes
Yes 13
No 0
Pass

5. Moves, Additions & Changes to the System

Mike Mihelich said Ramsey County's microwave link to South Maplewood will be completed before the White Bear Lake tower is taken down in the next couple of weeks.

Vadnais said Allina will be dispatching for CentraCare EMS Paynesville\Willmar\Long Lake\Little Falls. The Participation Plan has been approved. Shogren asked who dispatched for CentraCare before. Vadnais said they were dispatched by the local county.

6. Committee Reports
A. Metro Mobility System Usage Update
Chad LeVasseur said the numbers for Metro Mobility usage have improved and are above expectations, at or below targeted goals. Jake Thompson agreed.

Jansen asked if TOC work group members could receive bi-weekly numbers. LeVasseur agreed.

B. System Managers/Metro Owners Group Update - Cancelled

C. MnDOT ARMER System Update
John Anderson said MnDOT is working on the ethernet backhaul. MnDOT is working on detail step listings with MNIT enterprise.

D. SECB Committees
i. Steering
Fredrick said at this month's meeting there was discussion on the by-laws, and a new Vice-Chair was appointed.

ii. LMR (OTC)
Timm said the LMR met March 10. The CentraCare Participation plan was approved. Also approved were Wisconsin DNR new IDs and the Hennepin County request EAM implementation.

iii. WBBA
Olson said the WBBA met on March 19. Discussions included the cancellation of the Public Safety Communications conference. There was a discussion on splitting the network work group.

Olson said there were 400 responses to the broadband survey that will help create a baseline and then a creation of checklist of wireless vendors will be available.

Olson said there are 27 remaining tower sites. A prioritization schedule will go before the WBBA for approval.

iv. IOC – No quorum
Thompson said the IOC met on March 17, but there was not a quorum. Standing reports were made. There was a special report from NG9-1-1 and a report from Jim Stromberg.

v. IPAWS – No Report

vi. Finance/Grants Workgroup
Fredrick said the Finance committee did meet at the beginning of March. Discussion about the CPE grants and the workgroup taking a more formal approach to business.
The grants workgroup met formally last week and are planning monthly meetings to be held the first Thursday of each month, so that a report can be given at the Finance committee the following week.

7. Other Business
A. ARMER FEDCOM Standard
Curt Meyer said the State Radio Standard 3.11.0 change is an update in language.
Fredrick will send the draft to the distribution list. Send emails to Meyer with changes. There could be a vote by the Radio TOC next month if the draft is approved.

B. Pandemic PSAP Consolidation Plan – Participation in ARMER Workgroup
Mihelich said Ramsey County is working on a Metro 24x7 PSAP Consolidation Plan. Mihelich said to contact him to volunteer to sit on this work group.

Rohret said perhaps there should be a 9-1-1 TOC Consolidation Region Wide Plan. The MESB would approve and it will be documented that the MESB supports this effort. Rohret recommended having discussions with City/County Managers and attorneys on the protocol of chairing new committees.

C. Motorola SUA Billing Discussion
Tim Lee said currently MnDOT has been doing special billing for Motorola.

Shane Chatleain said internal MnDOT contracts are required to be approved by the board.

Rohret said that MnDOT and the MESB have an agreement.
Lee said that Hennepin, Minneapolis and Met Council do not have an agreement.

Olson said Hennepin County would be open for any meeting. The JPA covers the billing for Hennepin County, if there was to be an agreement, it would need to be a multi-year agreement.

Lee said there will be a meeting on this in the future.

M/S/C – Motion made by Mihelich to adjourn. Bjorklund seconded. Motion carried.

Name	Entity	Yes	No	Absent
Bjorklund, J	Metro Airports Commission	X		
Breffle, K	Sherburne			X
Eckel, J	Chisago			X
Jansen, R	Dakota	X		
LeVasseur, C	Metro Transit	X		
Meyer, C	Hennepin	X		
Mihelich, M	Ramsey	X		
Olson, R	Minneapolis	X		
Sauter, P	Carver	X		
Schatz, N	Scott	X		
Shogren, B	Isanti	X		
Steier, C	Univ. of Minnesota	X		
Thompson, J	Anoka	X		
Timm, N	Washington			X
Vadnais, V	Metro Region EMS	X		
VandenBerghe, M	MN State Fire Chiefs			X

Total Votes
Yes 12
No 0
Pass

Meeting adjourned at 2:00 p.m.

May 14, 2020

Metropolitan Emergency Services Board
Radio Technical Operations Committee
2099 University Avenue
Saint Paul, MN 55104

Re: EMS_COORD Talkgroup Request for the Edina Fire Department

Radio TOC Chair Bob Shogren:

The Edina Fire Department is seeking a waiver to add the **EMS_COORD** talkgroup (State Standard 3.29.0) to all Edina Fire Department radios. As a fully licensed advanced life support ambulance service, the Edina Fire Department serves a 16 square-mile primary service area (PSA). Additionally, the department serves as an EMS mutual aid partner to neighboring ambulance services.

The purpose of this request is due to the fact that the Edina Fire Department radios affiliate to the ARMER system as 'fire' radios and subsequently would not normally be eligible for the EMS_COORD talkgroup per the state standard. To be in full compliance with ARMER system standards, we are seeking a waiver granting permission for this EMS talkgroup in 'fire' radios.

Having the EMS_COORD talkgroup would benefit the Edina Fire Department by facilitating critical EMS communications between EMS command personnel, the Metro Region EMS Multi Agency Coordination Center (EMSMACC), and the State Ambulance Strike Teams/Taskforces (AST) during large-scale events and incidents.

Thank you in advance for your consideration of this item.

Sincerely,

Andrew LaVenture
Firefighter/EMT
Communications Unit Leader (COML)
alaventure@EdinaMN.gov

CITY OF EDINA FIRE-RESCUE & BUILDING INSPECTIONS
Edina Fire Department o Station No. 1 o 6250 Tracy Avenue o Edina, MN 55436 o 952-826-0330
Building Inspections o 4801 West 50th Street o Edina, MN 55424 o 952-826-0372
EdinaMN.gov o Fax 952-826-0390

METRO REGION
800 MHz Trunked Regional Public Safety Radio System
Standards, Protocols, Procedures

Document Section:	**3 - Interoperability Guidelines**	Radio TOC Recommendation
Sub-Section:	**METRO 3.11.0**	Date: XX/XX/XXXX
Procedure Title:	**FEDCOM VHF Interoperability with U.S. Government Agencies**	
Date Established:	**11/28/07**	MESB Approval - Signature:
Replaces Document Dated:		
Date Revised:	**3/3/2020**	Date: XX/XX/XXXX

1. <u>Purpose or Objective:</u>

To provide guidance on use of the Department of Justice (DOJ) interoperability VHF channel for the Minneapolis/St. Paul metropolitan area communications for interagency command level coordination and tactical operations coordination between local, state, and federal agencies during emergency or interagency incidents.

2. <u>Technical Background:</u>

- **Capabilities**

The federal interoperability channel, FEDCOM, will operate as P25 narrowband, conventional, digital VHF multicast-voted repeaters, which include 2 transmitters and 9 receivers. The 2 transmitters and 9 receivers are automated and require no user input or selection. A Hennepin County VHF radio has been installed and interfaced to a CCGW resource for participating agencies on the ARMER system to access this interoperability channel. Participating agencies that have direct access to the federal interoperability channel may program the interoperability frequencies into authorized radios and specifically authorized mobile communications platforms. The frequencies are authorized for use in the Minneapolis/St. Paul metropolitan area. The FEDCOM channel operates in the clear communications mode. In the future, this channel can operate in the encrypted mode if all parties agree to an encryption key.

- **Constraints**

This channel may only be used for federal to local and federal to federal agency communications. It cannot be used for local to local agency communications. Due to technical constraints, the FBI cannot setup or take down a patch.

3. <u>Operational Context:</u>

This channel can be used to coordinate resources and responses during an incident, or to patch other agencies to this channel.

- First priority will be given to agencies requiring interoperable communications during an "emergency incident".

- Second priority will be given to agencies requiring interoperable communications during "regular" investigations or interagency operations.

- Third priority will be given to agencies requiring internal communications during "regular" investigations or interagency operation, but require another wide area channel to conduct their investigation or operation.

- Encrypted talk groups may be patched to this resource if the FEDCOM users are encrypted.

4. Recommended Protocol:

- **For a preplanned event:**
A user of the ARMER system should coordinate a patch by contacting their dispatch center, who will then contact the FBI dispatcher at 763-569-8544. The FBI will then notify Hennepin County Dispatch to reserve the resource on the Status Board for that event. Federal partners should also notify the FBI of a preplanned event to reserve the resource.

The contact between agencies will be accomplished via the agency's dispatch console that provides access to the Federal Interoperability Channel. When requesting interoperable communications, the agency should be prepared to provide the following information:

   a. User's agency name.
   b. User's name or radio call sign/designator.
   c. Person or agency with whom the user wishes interoperable communications.
   d. Reason for requesting interoperability.
   e. Estimated time of use, if possible.

- **For Emergent Events:**
The dispatch center in which the event is initiated is permitted to initiate the patch as needed. After the patch is established, the dispatch center will then notify the FBI dispatch that a patch has been made. The dispatch center initiating use of FEDCOM will update the status board application accordingly.

FEDCOM VHF Requirements	For Whom?
Mandatory	All Regional 800 MHz Dispatch Centers
Highly Recommended	None
Optional	Approved Suitcase and Portable repeaters
Not Allowed	Unauthorized mobile or portable radios

Cross Patch Standard	YES / NO	To Talk Group(s)
Soft Patch	Yes	Determined
Hard Patch	No	NA

5. Recommended Procedure:

Activation:

Once authorization has been granted by the user's agency, each agency should follow its internal procedures for activating the interconnectivity.
   1. The agency requesting the patch must verify the availability of the resource by checking the Status Board.

2. All involved dispatchers shall select a resource/channel on their dispatch console to be patched to FEDCOM.

3. The dispatcher shall connect the agency's identified resource/channel to FEDCOM, using their agency's internal procedures for establishing a patch between agencies.

4. The dispatcher shall broadcast to users that a patch is activated and if necessary, instruct users to switch to a designated channel.

5. Each radio user that is patched to FEDCOM needs to identify themselves using their agency name and unit identifier.

6. Involved dispatchers shall monitor the interoperability resource/channel to address requests.

De-Activation:

When the patch is no longer required, agencies should follow these deactivation procedures:

1. The requesting agency/user or incident commander shall contact the FBI dispatcher and their dispatcher so that the patch can be deactivated. This contact will be via FEDCOM, landline, mobile telephone, in-person, etc.

2. Prior to the patch being disabled, the dispatch center that initiated the patch shall make an announcement on the interoperable resource/channel indicating that the patch will be deactivated.

3. The dispatch console that activated is responsible to deactivate the patch.

Testing:

The FBI Minneapolis office will be the lead agency dispatch center for conducting roll call testing procedures for the federal interoperability network. To ensure that equipment components of the interoperability solution are operating properly, each agency shall participate in the following testing procedure:

1. FBI Minneapolis dispatch will conduct a radio roll call that will occur monthly on the first Wednesday of each month at 1000 hours.

2. Each agency will monitor FEDCOM prior to the roll call.

3. FBI Minneapolis dispatch will initiate roll call by contacting each agency by name.

4. Each agency must respond when called, stating their agency name and that the transmission was successfully received.

5. FBI Minneapolis dispatch personnel will document and maintain a checklist of agency responses for roll calls on each channel.

6. After the roll call list is complete, FBI Minneapolis dispatch will request any agency that did not respond initially, to respond.

7. FBI Minneapolis dispatch will make an official announcement, via radio, that the test is complete.

8. MnDOT and Hennepin County are authorized to do maintenance testing as needed.

6. Management:

The FBI is responsible for operation and maintenance of this Federal VHF interoperability resource

and infrastructure and shall maintain a list of federal agencies and a point of contact for each. The

list of federal agency contacts is Law Enforcement sensitive and NOT for dissemination to the public.

Any state or local agency that has P25 capable radios have permission from the Department of Justice to include the FEDCOM channel in their radios, including any day to day, cache, EOC, ICP & ICC radios.

The dispatch center managers for agencies on the regional 800 MHz radio system shall ensure that the procedures for use in this standard are followed.

Dispatch center personnel shall receive initial and continuing training on the use of this procedure.

The system managers and administrators will be responsible to see that this policy and procedure is implemented as defined in the system standards manual. Identified issues and concerns will be brought to the Interoperability Subcommittee meetings for resolution.

Office of County Sheriff
Carver County Government Center
Justice Center
CARVER 606 East Fourth Street
COUNTY Chaska, Minnesota 55318-2102

Sheriff Jason Kamerud
Emergency: 911
Sheriff Admin: (952) 361-1212
Admin. Fax: (952) 361-1229
Dispatch: (952) 361-1231
(Non-Emergency)

April 10, 2020

Metropolitan Emergency Services Board
Radio Technical Operating Committee
Tracey Fredrick
Radio Services Coordinator
2099 University Avenue West
St. Paul, MN 55104

Dear Coordinator Fredrick,

Carver County would like to modify its current ARMER Participation Plan to connect its ARMER radio system resources to the ARMER Public Safety radio system using Carver County's redundant diverse fiber optic network instead of using microwave radio links.

Background
Carver County was one of the original participants in the design/build plan of the MN ARMER Radio System and the first Public Safety agency on the system. In the original build, Carver County inserted its Hollywood radio site between MNDOT's planned Norwood Young America and Minnetrista radio sites. Hollywood was connected to the Norwood Young America and Minnetrista radio sites using 11GHz microwave for connectivity.

Carver then connected its County Sheriff's PSAP at the Government Center in Chaska to the Jackson ARMER radio site using 10 GHz microwave for connectivity.

Carver County also installed its ARMER radio site in Chanhassen using 10 GHz microwave for connectivity to the Jackson ARMER radio site in Shakopee.

Current Situation
Carver County installed a dark fiber optic network ring for connecting ARMER resources in the County with a diverse redundant path in 2013.

Carver County has previously connected the County Sheriff's PSAP at the Government Center in Chaska to the ARMER radio site in Norwood Young America using the County's fiber optic network for one path.

The County's Chanhassen radio site has also been connected to the ARMER radio site in Norwood Young America via Carver County's dark fiber optic network.

Carver County has also connected its Hollywood ARMER radio site to the Norwood Young America ARMER radio site via a closed loop on the County's fiber optic network.

Future Plans

With the County's Chanhassen ARMER radio site connected to the ARMER prime site controller in Norwood Young America via diverse redundant dark fiber, Carver County plans to decommission the 10 GHz microwave connection from its Chanhassen ARMER radio site to the ARMER radio site at Shakopee's Jackson tower.

Carver County also plans to utilize the County's redundant diverse dark fiber optic network for connectivity between the County Sheriff's PSAP and the ARMER radio system and decommission the 10 GHz microwave connection between the Sheriff's County PSAP in Chaska and the Jackson ARMER radio site in Shakopee.

Carver County also plans to utilize the County's redundant diverse dark fiber optic network for connecting the County's Hollywood ARMER radio site to the ARMER radio system through a connection to the Norwood Young America ARMER radio site and decommission the 11 GHz microwave radio connection between the Hollywood ARMER radio site and the Norwood Young America and the Minnetrista ARMER radio sites. This work will be coordinated with MNDOT who will then plan to connect their Norwood Young America radio site to its Minnetrista ARMER radio site with 11 GHz microwave radio.

Respectfully,

Jason Kamerud
Carver County Sheriff

METRO REGION
800 MHz Trunked Regional Public Safety Radio System
Standards, Protocols, Procedures

Document Section:	**6 – Financial Policies & Procedures**	Radio TOC Approval – Signature:
Sub-Section:	**METRO 6.4.0**	
Procedure Title:	**Entry Costs for New Full Participants**	
Date Established:	**08/27/01**	
Replaces Document Dated:		MESB Approval - Signature:
Date Revised:		09/07/01

1. Purpose or Objective
The purpose of this standard is to set a procedure for determining the costs to be charged to eligible entities that apply for full participation in the metropolitan region of the ARMER system.

2. Technical Background:
- **Capabilities**

The eligible entity (local unit of government, eligible emergency medical service provider, special purpose government agency) must have existing VHF, UHF or conventional 800 MHz equipment capable of communicating on assigned and licensed public safety land mobile channels.

- **Constraints**

The eligible entity must comply with the interoperability training requirements established by the Statewide Radio Board (See ARMER Standard 1.11.5e).

3. Operational Context:
Minnesota Statutes 473.894 Subdivision 8 provides as follows: **Cost apportionment**. The board shall determine how capital, operating, and administrative costs of the first phase system will be spread across users of the region-wide public safety radio communication system, **including costs for additional participants.**

On June 1, 2001 the former Metropolitan Radio Board adopted by resolution the following policy: **Whereas**, it is the policy of the Metropolitan Radio Boad to strongly encourage all eligible user entities...to participate fully in the region-wide 800 MHz trunked system, **therefore,** it shall be the policy of the Board to charge no fixed fee for admittance to the region-wide network. Fees charged to new users shall be negotiated on a case by case basis and shall be based on the projected costs to the MESB for technical consultation, design, construction of infrastructure and equipment required to accommodate the needs of the new user and on projected costs to upgrade system capacity or alter system design due to impacts placed on the system by the new user.

4. Recommended Protocol/ Standard:
The Metropolitan Emergency Services Board (MESB) shall determine the amount of an entry fee, if any, to be charged to those entities applying for full participation at the time of the negotiation of the cooperative agreement. Any amount required by the Board shall be based on the design document and shall be stated in the cooperative agreement.

5. Recommended Procedure:
During the application process for full participation in the system (see Standard 1.9a2) an eligible entity must submit a technical design plan to the Board and enter into a cooperative agreement with the Board. During the review of the technical design plan by the Radio Technical Operations Committee, the committee shall prepare a report to the Board concerning any design impacts to be placed on the system by the new user that will require new capital spending by the Board. That report shall provide the basis for determining one time costs to be charged to the new entity for becoming a full participant. Such costs must be approved by the full MESB.

6. Management
This procedure will be managed by MESB staff.