

# METROPOLITAN EMERGENCY SERVICES BOARD

## RADIO TECHNICAL OPERATIONS COMMITTEE AGENDA

Board Room, Metro Counties Government Center

April 18th, 2018

10:00 a.m. – 12:00 p.m.

### MEMBERS:

Scott Haas, Chair  
Scott County

Ron Jansen, Vice Chair  
Dakota County

Jake Thompson  
Anoka County

Tim Walsh  
Carver County

Rod Olson  
City of Minneapolis

Jon Eckel  
Chisago County

John Gundersen  
Hennepin County

Bob Shogren  
Isanti County

Jeff Bjorklund  
Metropolitan Airports  
Commission

Chad LeVasseur  
Metropolitan Council

Wendy Lynch  
Metro Region EMS

Scott Gerber  
MN Fire Chiefs Association

Nancie Pass  
Ramsey County

Chuck Steier  
U of M Police, at large  
member

Nate Timm  
Washington County

Open  
MN Chiefs of Police  
Association

1. Call to Order
2. Approval of February 2018 Minutes
3. Agenda Items
  - a. Dakota County VHF Paging Simulcast Addition – Jansen
  - b. Scott Huppert (HCMS) COML Recertification – Tretter
  - c. Metro Standard 3.17.4 Event & Exercise Communications Planning – Tretter
  - d. Metro Standard 3.22.0 Use of Mobile / Portable Gateways to Connect Fixed Network Interoperability Resources - Tretter
4. Moves, Additions & Changes to the System
  - a. IP Simulcast Conversion – Washington County
5. Committee Reports
  - a. Metro Mobility System Usage Update—Chad LeVasseur/Dana Rude
  - b. System Manager's Group/Metro Owner's Group Update – Jansen
  - c. Reports from SECB Committees
    - i. Steering - Tretter
    - ii. OTC – Gundersen / Timm
    - iii. Interoperable Data Committee – Olson / Thompson
    - iv. IOC –Thompson/Timm
      1. STR Sub-Committee – Tretter/Gundersen
      2. COMU Sub-Committee - Timm
    - v. IPAWS – Haas / Williams
    - vi. Finance / Grants Workgroup- Tretter
6. Other Business
  - a. Regional Talkgroup Permission Requests
  - b. Next Meeting: May 23rd
7. Adjourn

Scott Haas, Chair

**Metropolitan Emergency Services Board  
Radio Technical Operations Committee  
Meeting Notes  
March 28, 2018**

**Members Present:**

Jon Eckel, Tim Walsh, Robert Shogren, Ron Jansen, Chad LeVasseur, Jake Thompson, Rod Olson, Scott Haas, Nate Timm, Nancie Pass, Chuck Steier, John Gundersen, Pete Sauter, Wendy Lynch, Jeff Bjorklund

**Guests Present:**

Dana Rude; *Met Council*, Richard Nordlander, *Department of Corrections*, Jill Rohret, Troy Tretter, Martha Ziese; *MESB*

**Call to Order:**

Scott Haas called the meeting to order at 1:00.

**Approval of Minutes**

Ron Jansen asked the February minutes to be corrected in the Metro Owners Group report, change 'internet issue' to 'stability issue' for the Z420's.

John Gunderson asked the correction to be made from Rod Olson saying the Metro Mobility usage was creeping up to Jake Thompson.

*M/S/C Motion made by Jansen to approve amended minutes from February 28, 2018. Eckel seconded.*

**Agenda Items:**

**Washington County Excess T1 Capacity**

Nate Timm said Washington County is requesting approval to convert the new paging network prior to the simulcast conversion this spring. The paging cut over before the IP simulcast conversion will greatly reduce the complexity of the IP transition. The request is supported by MnDOT and approved by the OTC contingent on TOC approval.

Troy said upon approval by the Radio TOC the MESB will need to give their approval at the May meeting.

*M/S/C Motion made by Bjorklund to approve the request for Washington County to convert the new paging network prior to the IP simulcast conversion. Eckel seconded. Motion carried.*

**Use of Grant Funds for Genesis Training**

Ron Jansen said that June 1 is the deadline for grant funds for Genesis training. Genesis Genwatch 3 is being upgraded and there was a request from the Metro license holder for training beyond the upgrade training. Not all agencies have licenses but MnDOT, among others have a terminal that could be used.

Scott Haas asked if there would be any funds remaining. Tretter said that there would be approximately \$20,000 left after the St. Cloud conference any remaining funds would have to be turned back to ECN.

Eckel said he thought there was value in sending staff to the Genesis training to see if it valuable to invest in a license. Rod Olson said there is a possibility of Motorola training, but that Genesis should come first.

Tretter said the SECB grant cycle does end June, and the \$25,000 SHSP grant expires December 1, 2018.

Jansen has sent the list of requirements for the class and size to Genesis. There is no quote yet, but it would be less than \$10,000.

*M/S/C Motion made by Thompson to approve use of grant funds for Genesis training. Olson seconded. Motion carried.*

### **Scott County Talkgroup Addition**

Jansen said that Scott County is requesting an amendment to their participation plan for an expansion of fifteen authorized talkgroups. Per the MnDOT report, the county has 94 authorized talkgroups; 109 with the fifteen additional.

Jansen asked how the neighboring talkgroups would work with the cutover to encryption. Haas said there is to be a 2022 cutover, there will be a process that will be worked out.

Olson asked if they will be sharing any of their mains with other PSAPs.

Haas said they hardly share their mains with other PSAPs so they don't expect any additional console traffic.

*M/S/C Motion made by Timm approve additional Scott County talkgroups. Gundersen seconded. Motion carried.*

### **April TOC Meeting Change**

Due to the Interoperability Conference in St. Cloud on April 25th, Haas wanted to know the will of the committee, whether to cancel the meeting, or move the date. Tretter advised the committee that the MESB has room one week prior on April 18th. Some membership had conflicts at 1pm on the 18th. It was suggested to have the meeting at 10am on the 18th.

*M/S/C Motion made by Jansen to move the April TOC meeting to April 18th, at 10am. Thompson seconded. Motion carried.*

### **Move, Additions & Changes to the System**

#### **Washington County IP Simulcast Conversion**

Timm said the IP Simulcast Conversion timeline depends on the paging cutover project.

Gundersen reported their VHF paging cut-over should be done by the end of the month.

Jansen reported they are working on a microwave upgrade project with Aviat.

Thompson said they are also planning for a microwave upgrade project as well, possibly with Aviat.

### **Committee Reports**

#### **Metro Mobility System Usage Update**

Dana Rude said the dedicated T1 connections for ARMER install starts tomorrow, once it is completed, they can re-enable the repeat disable function on their consoles. Timm asked about any increase in traffic, Tretter said that usage was down from January.

#### **System Manager's Group/Metro Owner's Group Update**

Jansen said they meet today. They discussed the console repeat disable and priority marker, the Genesis maintenance contract, upgrade status of 7.17, and the direct connected PCs.

## **Reports from SECB Committees**

### **Steering – No meeting**

Haas asked Rohret to give a summary of the strategic planning meeting. Rohret said that the meeting was an informational gathering meeting, nothing was formally decided. The Strategic Plan should be done by December.

### **OTC**

Gundersen reported the OTC met on March 13. The Washington County T1 excess capacity from St. Paul Park and Scandia was approved. Clay County was approved to add two 8TAC repeaters in Fargo for interoperability and redundancy for flood seasons. MnDOT approved three new radios for use on ARMER. Red Lake Nation had a participation plan that was approved. Sanford Ambulance had a participation plan change that was approved. The BCA had a request for additional talkgroups that was approved.

### **Interoperable Data Committee**

Thompson said the IDC met on March 20. There were no action items. Discussed was the FirstNet application developer program and an update on the IWCE conference.

### **IOC**

Thompson reported the IOC met on March 20<sup>th</sup>, they approved the COMT packet for Rowan Watkins, COML renewals for Dave Pike from and Doris Buls-Lake. There was a report from the STR Sub-Committee, they will meet again on April 3rd. There was a report from the COMU Sub-Committee, they will meet again on April 17th.

### **IPAWS**

Haas said the April meeting will be at the Communications Conference in St. Cloud on April 25.

### **Finance/Grants Workgroup**

Tretter said there was no meeting, nothing to report.

**The meeting adjourned at 1:54.**



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MEMO

To: Chair Scott Haas, Metro TOC members

From: Ron Jansen \ Dakota County

Date: 05 April 2018

RE: Participation Plan Amendment

Dakota County would like to amend its ARMER participation plan to reflect an upgrade in its VHF Paging system. Dakota County is currently working with Motorola to update its existing simulcast VHF paging system to the current hardware revision. This will include replacing the Quantar repeaters to the GTR version as well as the SCSI controller to the MLC8000 comparator. The new configuration would also require 2 additional T1 circuits from Watersedge to the Empire Tower site. The existing T1 circuit's to\from the Hastings and Welch Tower sites will need to be broken out to their own T1 circuits. These changes will allow Motorola Network Monitoring Organization (NMO) to remotely monitor the Dakota County Paging infrastructure for hardware issues.

Dakota County and the DCC are aware this will require the hardware to be maintained at the current ARMER system revision levels.

We have discussed this proposal with MnDot and there were no issues with the proposed changes.

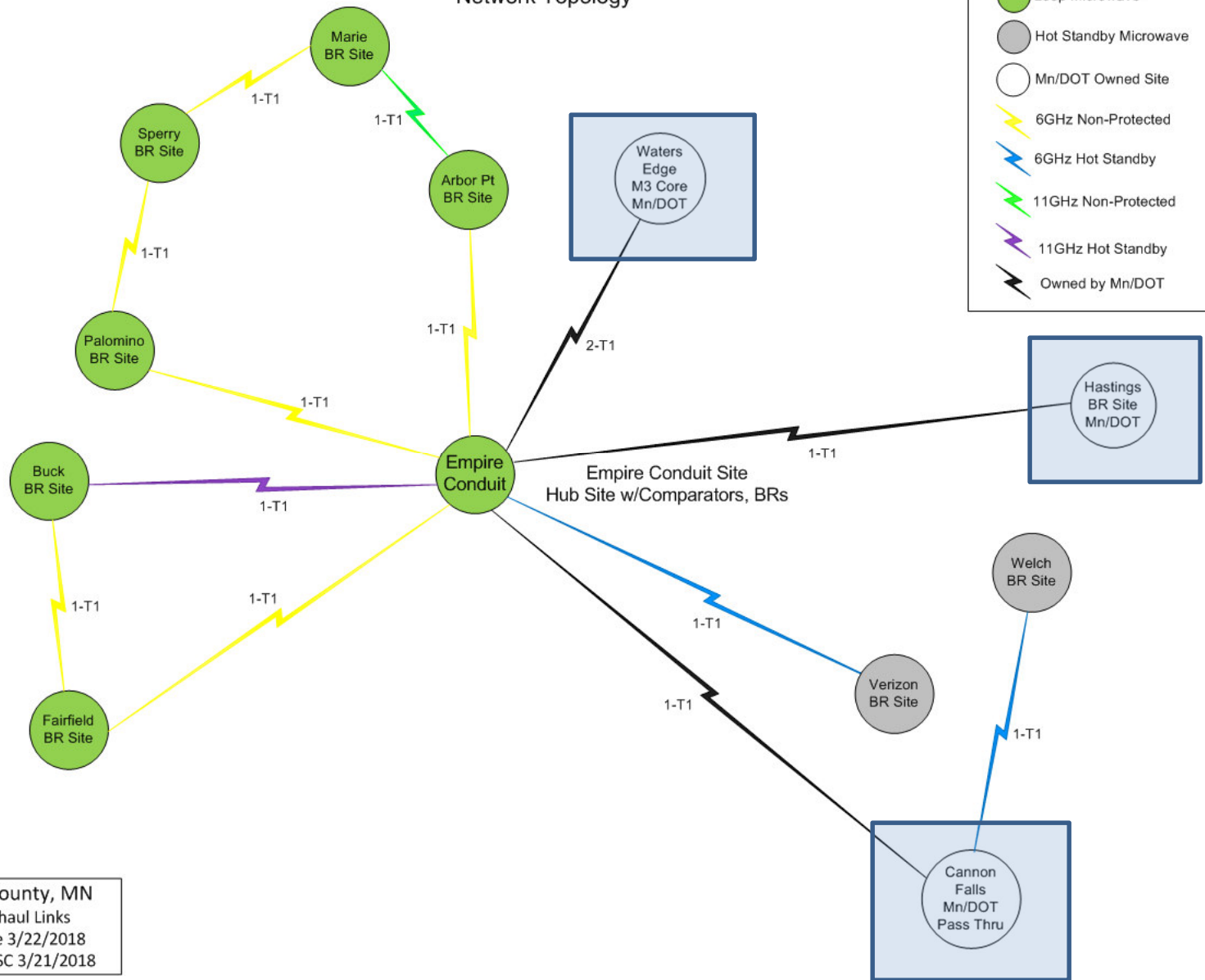
Thank you for your consideration on this request.

Best Regards,  
Ron

# Dakota Communications Center VHF Analog Paging System Requirements - Waters Edge Master Site

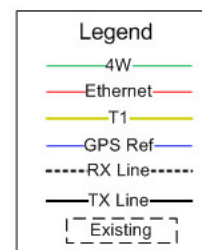
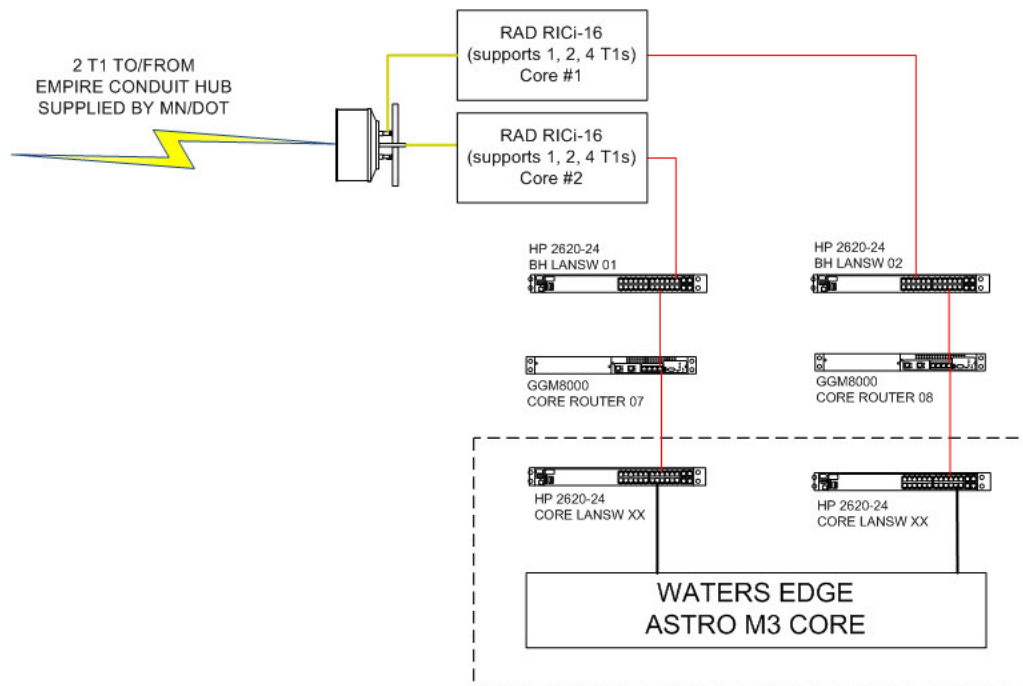
- Add Core Routers #7 and #8 at Waters Edge (MSI-provided, GGM8000)
- Add Core Backhaul Switches (2) at Waters Edge (MSI-provided, HP2620)
- Add T1 to Ethernet conversion at Waters Edge (DCC-provided, RAD RICi)
- Use existing Core LAN switches at Waters Edge
- Need two (2) full T1 circuits from Waters Edge to Empire
- Need one (1) full T1 pass-through from Welch through Cannon Falls for transport to Empire
- Need one (1) full T1 from Hastings to Empire.

Dakota County, MN  
DCC Analog Conventional IP Simulcast Paging Overlay  
Network Topology



Dakota County, MN  
T1 Backhaul Links  
S. Wiegele 3/22/2018  
J. Nelson PSC 3/21/2018

4/1/2018



<b>DAKOTA COUNTY, MN</b> <b>WATERS EDGE ASTRO M3 CORE</b> <b>IP VHF CONVENTIONAL SIMULCAST</b>	
ENGINEER: Susie Wiegele/Dave Theis	
	DATE: 3/22/2018

4/1/2018



## COMU Position Recognition Application

Application Type:

☐ Initial Application

☒ Renewal

☐ Change of Status

Position (check only one):

☒ COML

☐ COMT

☐ COMC

☐ AUXCOMM (THSP)

☐ INCM

☐ INTD

☐ RADO

☐ THSP

Name

(Last, First Middle)

Huppert, Scott Thomas

Certifying

Agency

Hennepin EMS

County

Hennepin

ECB/ESB

Region

Metro

Agency Address

701 Park Avenue South MC825

24/7

Telephone

651-755-4597

Business

Telephone

612-347-2141

Email Address

Scott.Huppert@hcmed.org

Signature



Date 3/15/2018

### Agency Certification (this section must be completed even if PTB Agency Certification form was completed)

The above named individual seeking state recognition for the above identified COMU position is recognized by the above named agency in that COMU position. The person serves the agency as a paid employee or as a volunteer but, in either case, is recognized as an employee for the purposes of Workers Compensation, liability, and all other liability-related protections afforded employees of the agency.

When the above named person serves in the COMU position, whether within the agency's jurisdiction, or outside, the person serves as an employee/representative of the agency.

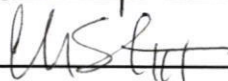
Name & Title

Charles Sloan III / Deputy Chief Comms.

Agency

Hennepin EMS

Signature



Date 3-15-18

### Regional Recognition

The ECB/ESB region has reviewed the request for state recognition and supports state recognition of this person.

Name & Title

Region

Signature

Date

### COMU Workgroup & SWIC Recognition

The COMU Subcommittee and the SWIC have reviewed the request for state recognition and supports state recognition of this person.

SWIC

Signature

Date

## COMU Experience Record

Name

(Last, First Middle)

Huppert, Scott Thomas

Agency

Hennepin EMS

County

Hennepin

Region

Metro

***Detail activities below and attach supporting documents.***

POINTS	DATE(s)	SUMMARY
		(Location, Activity, Participants, Who Can Verify, General Summary)
1	2/27/2018	Metro CRTF Meeting – Troy Tretter Instructor – Superbowl Wrap Up, CRTF BiLaw review and COMU Renewal Info
1	10/2/2017	Metro CRTF Exercise – Hastings, MN – Troy Tretter Coordinator. MN National Guard Tower, Metro Tower, Verizon Equipment info, SuperBowl Info
1	7/8/2017	ICS 205 for Lifetime Fitness Triathlon
1	5/1/2017 -5/3/2017	Minnesota Public Safety Interoperable Communications Conference in St. Cloud, MN
1	10/9/2016	ICS 205 for the Medtronic Twin Cities Marathon

I certify that I participated in the above activities.

Signature



Date:

3/15/18

MINNESOTA METRO REGION ICS205 INCIDENT, EVENT OR EXERCISE COMMUNICATIONS PLAN			INCIDENT/EVENT NAME		DATE/TIME PREPARED		OPERATIONAL PERIOD DATE/TIME		
			2017 Lifetime Fitness Triathlon		7/6/2017 0300hrs		7/8/2017 0600-1400		
Line	Function (NET) <small>(COMMAND, TACTICAL, SUPPORT, AIR)</small>	Talkgroup/Channel/Phone	Assignment <small>(LAW, FIRE, EMS, OTHER)</small>	RX Freq (N or W)	RX Tone/NAC	TX Freq (N or W)	TX Tone/NAC	Mode <small>(A, G or M)</small>	Remarks
1	COMMAND	ME TAC 8	EMS COMMAND	ARMER		ARMER		D	HENNEPIN EMS, SPFD/EMS COMMAND
2	LAW TACTICAL	ME TAC 7	LAW TACTICAL	ARMER		ARMER		D	MINNEAPOLIS/ST PAUL PD TRAFFIC CONTROL
3	TACTICAL	MPPD 8	MINNEAPOLIS LAW	ARMER		ARMER		D	MPD LAW TAC NET
4	TACTICAL	MFD TAC CH AS NEEDED	FIRE TACTICAL	ARMER		ARMER		D	MFD FIRE TACTICAL NET
5	TACTICAL	SPFD OPS 4	SPFD EMS TACTICAL	ARMER		ARMER		D	SPFD TACTICAL NET
6	TACTICAL	HC-TAC 4	HENNEPIN EMS TACTICAL	ARMER		ARMER		D	HENNEPIN EMS TACTICAL NET
7	SUPPORT	WMRCC	EMS SUPPORT	ARMER		ARMER		D	WEST MRCC
8	SUPPORT		MPLS 911			MPLS 911 ECC			MPLS LE/FIRE DISPATCH
9	SUPPORT		RAMSEY CO 911			RAMSEY CO 911			ST PAUL LAW/FIRE/EMS DISPATCH
10	SUPPORT		HENNEPIN EMS SUPPORT			CELL			Hennepin EMS Deputy Chief Mike Rogers
11									
12									
13									
14									
15									
SPECIAL INSTRUCTIONS									
Minneapolis Fire assigned to the event will have a Hennepin EMS Portable to communicate with Hennepin EMS on HC-TAC 4 for EMS/RESCUE purposes									
COM1: SCOTT HUPPERT			INCIDENT/EVENT LOCATION						
AGENCY: HENNEPIN EMS			MINNEAPOLIS - LAKE NOKOMIS (RUN, SWIM, BIKE) & ST. PAUL - EAST RIVER PKWY (BIKE)						
PHONE: 651-755-4597									
EMAIL: SCOTT.HUPPERT@HCMED.ORG									

The convention calls for frequency lists to show four digits after the decimal place, followed by either an "N" or a "W", depending on whether the frequency is narrow or wide band. Mode refers to either "A" or "D" indicating analog or digital or "M" indicating mixed mode. All channels are shown as if programmed in a control station, mobile or portable radio. Repeater and base stations must be programmed with the Rx and Tx reversed. (MESB Version 1.0, 11/2015)



MINNESOTA METRO REGION ICS205 INCIDENT, EVENT OR EXERCISE COMMUNICATIONS PLAN				INCIDENT/EVENT NAME		DATE/TIME PREPARED		OPERATIONAL PERIOD DATE/TIME	
				Twin Cities Marathon		9/24/2016 - 2100		October 9th / 0600-1300	
Line	Function (NET) <small>(COMMAND, TACTICAL, SUPPORT, AIR)</small>	Talkgroup/Channel/Phone	Assignment <small>(ARM, JPL, EMS, OTHER)</small>	RX Freq (N or W)	RX Tone/NAC	TX Freq (N or W)	TX Tone/NAC	Mode <small>(A, D or M)</small>	Remarks
1	Command	ME TAC 8-A4	Unified Command	ARMER-800 MHz		ARMER-800 MHz		D	Unified Command
2	Tactical	METAC 7-A3	LE	ARMER-800 MHz		ARMER-800 MHz		D	LE OPS
3	Tactical	MPPD 8	LE	ARMER-800 MHz		ARMER-800 MHz		D	MPD Support
4	Tactical	SPOPS 3	LE	ARMER-800 MHz		ARMER-800 MHz		D	SPPD Reserves
5	Tactical	SPOPS 4	LE	ARMER-800 MHz		ARMER-800 MHz		D	SPPD
6	Tactical	STAC 8 - FTAC 4	FIRE	ARMER-800 MHz		ARMER-800 MHz		D	FIRE OPS
7	Tactical	ME TAC 5-A1	EMS	ARMER-800 MHz		ARMER-800 MHz		D	HENNEPIN EMS/SPED INTEROP
8	Tactical	METAC 6-A2	EMS	ARMER-800 MHz		ARMER-800 MHz		D	MEDICAL NET (RCECC)
9	Tactical	HC TAC 3	EMS	ARMER-800 MHz		ARMER-800 MHz		D	HENNEPIN EMS INTERNAL
10	Logistics	WMRCC	EMS	ARMER-800 MHz		ARMER-800 MHz		D	TRANSPORT LOGISTICS
11	Logistics	EMRCC	EMS	ARMER-800 MHz		ARMER-800 MHz		D	TRANSPORT LOGISTICS
12									
13									
14									
15									
SPECIAL INSTRUCTIONS									
COM1: Scott Huppert AGENCY: Hennepin EMS PHONE: ECC 612-347-2140 CELL: 651-755-4597 EMAIL: scott.huppert@hcned.org				INCIDENT/EVENT LOCATION					
				Cities: Minneapolis & St. Paul, Counties: Hennepin & Ramsey					

The convention calls for frequency lists to show four digits after the decimal place, followed by either an "N" or a "W", depending on whether the frequency is narrow or wide band. Mode refers to either "A" or "D" indicating analog or digital or "M" indicating mixed mode. All channels are shown as if programmed in a control station, mobile or portable radio. Repeater and base stations must be programmed with the Rx and Tx reversed. (MESB Version 1.0, 11/2015)

5465



Minnesota Public Safety  
Communications  
Conference



CERTIFICATE OF ATTENDANCE  
Minnesota Public Safety Communications Conference  
Sponsored by the Minnesota Department of Public Safety  
Division of Emergency Communication Networks (DECN)

May 1-3, 2017  
15 clock hours

Huppert



## METRO REGION

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

Document/ Section:	<b>3. Interoperability Guidelines</b>	Radio TOC Recommendation
Sub-Section:	<b>METRO 3.17.4</b>	Date: 1/25/2012
Procedure Title:	<b>Event &amp; Exercise Communications Planning</b>	
Date Established:	<b>12/5/2011</b>	MESB Approval - Signature:
Replaces Document	<b>1/25/2012</b>	
Dated:		
Date Revised:	<b>10/8/2014</b>	Date: 3/14/2012

#### **1. Purpose and Objective:**

The intent of this standard is to establish protocols and procedures to be used for planning communication for large planned events or exercises that effect multiple agencies or jurisdictions.

#### **2. Operational Background:**

During large scale events, communications among multiple jurisdictions and disciplines, including emergency medical, fire, and law enforcement services, is essential. Unfortunately, the absence of on-scene communications coordination has often compromised critical operations. To ensure this gap is covered, an All-Hazards Type III COML should be used to establish a communication plan.

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.

#### **3. Operational Context:**

Planned events and exercises can include complex communications issues. In addition, there is also a potential for the event to grow quickly into a large scale incident. It is imperative that all disciplines are aware and prepared to communicate effectively.

A COML can also ensure that the event does not inadvertently affect normal daily operational needs by over-utilization and/or over-loading of ARMER system resources.

#### **4. Recommended Procedure:**

During large scale events, communications among multiple jurisdictions and disciplines, including emergency medical, fire, and law enforcement services, is essential. An individual that has completed official COML training and is a recognized COML(t) or Minnesota Certified COML should be utilized to complete an ICS 205 Communication Plan.

**5. Recommended Procedure:**

When it becomes apparent that interagency coordination of personnel from different agencies or disciplines will be needed, a COML or COML(t) should be requested by the event or exercise planner or planning team to coordinate and document communications for the event.

The event or exercise planner or planning team may utilize COML(t) or COML personnel from an agency that is participating in the event/exercise. It is recommended that the lead agency COML be utilized and work in conjunction with other agency COML's as appropriate and necessary.

If the event or exercise COML is a COML(t), the communications plan should be reviewed by a COML.

If the event or exercise planner does not have access to a COML, they will contact the MESB Radio Coordinator, who will utilize CRTF resources to assist.

**6. Management:**

The system managers, administrators and users will be responsible to see that this policy is implemented as defined.

The Metro Region Communications Response Taskforce (CRTF) Steering Workgroup will review all metro region ICS205 documents for adherence to both state and metro standards, policies and best practice, and provide feedback to the COML that created or approved the document. This review and feedback is to be done after the fact and is not considered an approval, rather, it is a mechanism to ensure shared resources and regional communications operations are used and impacted appropriately, applied uniformly, and issues can be addressed in a timely and efficient manner to mitigate problems.

The CRTF Steering Workgroup will create a report of its reviews and will submit it to the Interoperability Subcommittee.

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

Document/ Section:	<b>3. Interoperability Guidelines</b>	Radio TOC Recommendation
Sub-Section:	<b>METRO 3.17.4</b>	Date: 1/25/2012
Procedure Title:	<b>Event &amp; Exercise Communications Planning</b>	
Date Established:	<b>12/5/2011</b>	MESB Approval - Signature:
Replaces Document	<del>12/5/2011</del> <b>10/8/2014</b>	
Dated:		
Date Revised:	<del>1/25/2012</del> <b>4/18/2018</b>	Date: 3/14/2012

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### **1. Purpose and Objective:**

The intent of this standard is to establish protocols and procedures to be used for planning communication for large planned events or exercises that effect multiple agencies or jurisdictions.

### **2. Operational Background:**

During large scale events, communications among multiple jurisdictions and disciplines, including emergency medical, fire, and law enforcement services, is essential. Unfortunately, the absence of on-scene communications coordination has often compromised critical operations. To ensure this gap is covered, an All-Hazards Type III COML should be used to establish a communication plan.

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.

### **3. Operational Context Recommended Protocol / Standard:**

Planned events and exercises can include complex communications issues. In addition, there is also a potential for the event to grow quickly into a ~~large-scale~~ **large-scale** incident. It is imperative that all disciplines are aware and prepared to communicate effectively.

A COML can also ensure that the event does not inadvertently affect normal daily operational needs by over-utilization and/or over-loading of ARMER system resources.

### **4. Recommended Procedure:**

During large scale events, communications among multiple jurisdictions and disciplines, including emergency medical, fire, and law enforcement services, is essential. An individual that has completed official COML training and is a recognized COML(t) or Minnesota Certified COML should be utilized to complete an ICS 205 Communication Plan.

When more than one regional interoperability talkgroup is used, the ICS 205 must be sent to the MESB Radio Coordinator for distribution to the region.

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FINAL

FINAL

An agency desiring to implement a patch for a pre-planned event should prepare an Incident Communications Plan using an ICS-205 form indicating the resources to be patched.

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The StatusBoard calendar schedule feature must be utilized. When the exercise or event is planned farther out than seven days, the requested resource will be reserved on the StatusBoard at least one week in advance.

Exercise or event planners will include the local city or county radio system manager in the exercise development process from the beginning so local system resources are properly utilized.

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#### **5. Recommended Procedure:**

When it becomes apparent that interagency coordination of personnel from different agencies or disciplines will be needed, a COML or COML(t) should be requested by the event or exercise planner or planning team to coordinate and document communications for the event.

The event or exercise planner or planning team may utilize COML(t) or COML personnel from an agency that is participating in the event/exercise. It is recommended that the lead agency COML be utilized and work in conjunction with other agency COML's as appropriate and necessary.

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#### **6. Management:**

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The CRTF Steering Workgroup will create a report summary of its reviews and will submit report it to the Interoperability Subcommittee, Metro Radio Technical Operations Committee.

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# **METRO REGION**

## **800 MHz Trunked Regional Public Safety Radio System**

### **Standards, Protocols, Procedures**

Document/ Section:	<b>3. Interoperability Guidelines</b>	Radio TOC Recommendation
Sub-Section:	<b>METRO 3.17.4</b>	Date: 1/25/2012
Procedure Title:	<b>Event &amp; Exercise</b>	
	<b>Communications Planning</b>	
Date Established:	<b>12/5/2011</b>	MESB Approval - Signature:
Replaces Document	<b>10/8/2014</b>	
Dated:		
Date Revised:	<b>4/18/2018</b>	Date: 3/14/2012

#### **1. Purpose and Objective:**

The intent of this standard is to establish protocols and procedures to be used for planning communication for large planned events or exercises that effect multiple agencies or jurisdictions.

#### **2. Operational Background:**

During large scale events, communications among multiple jurisdictions and disciplines, including emergency medical, fire, and law enforcement services, is essential. Unfortunately, the absence of on-scene communications coordination has often compromised critical operations. To ensure this gap is covered, an All-Hazards Type III COML should be used to establish a communication plan.

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.

#### **3. Recommended Protocol / Standard:**

Planned events and exercises can include complex communications issues. In addition, there is also a potential for the event to grow quickly into a large-scale incident. It is imperative that all disciplines are aware and prepared to communicate effectively.

A COML can also ensure that the event does not inadvertently affect normal daily operational needs by over-utilization and/or over-loading of ARMER system resources.

#### **4. Recommended Procedure:**

During large scale events, communications among multiple jurisdictions and disciplines, including emergency medical, fire, and law enforcement services, is essential. An individual that has completed official COML training and is a recognized COML(t) or Minnesota Certified COML should be utilized to complete an ICS 205 Communication Plan.

When more than one regional interoperability talkgroup is used, the ICS 205 must be sent to the MESB Radio Coordinator for distribution to the region.

An agency desiring to implement a patch for a pre-planned event should prepare an Incident Communications Plan using an ICS-205 form indicating the resources to be patched.

The StatusBoard calendar schedule feature must be utilized. When the exercise or event is planned farther out than seven days, the requested resource will be reserved on the StatusBoard at least one week in advance.

Exercise or event planners will include the local city or county radio system manager in the exercise development process from the beginning so local system resources are properly utilized.

### **5. Recommended Procedure:**

When it becomes apparent that interagency coordination of personnel from different agencies or disciplines will be needed, a COML or COML(t) should be requested by the event or exercise planner or planning team to coordinate and document communications for the event.

The event or exercise planner or planning team may utilize COML(t) or COML personnel from an agency that is participating in the event/exercise. It is recommended that the lead agency COML be utilized and work in conjunction with other agency COML's as appropriate and necessary.

If the event or exercise COML is a COML(t), the communications plan should be reviewed by a COML.

If the event or exercise planner does not have access to a COML, they will contact the MESB Radio Coordinator, who will utilize CRTF resources to assist.

### **6. Management:**

The system managers, administrators and users will be responsible to see that this policy is implemented as defined.

The Metro Region Communications Response Taskforce (CRTF) Steering Workgroup will review all metro region ICS205 documents for adherence to both state and metro standards, policies and best practice, and provide feedback as needed to the COML that created or approved the document. This review and feedback is to be done after the fact and is not considered an approval, rather, it is a mechanism to ensure shared resources and regional communications operations are used and impacted appropriately, applied uniformly, and issues can be addressed in a timely and efficient manner to mitigate problems.

The CRTF Steering Workgroup will create a summary of its reviews and will report it to the Metro Radio Technical Operations Committee.

# METRO REGION

## 800 MHz Trunked Regional Public Safety Radio System

### Standards, Protocols, Procedures

Document Section:	<b>3-Interoperability Guidelines</b>	Radio TOC Recommendation:
Sub-Section:	<b>METRO 3.22.0</b>	Date: 3/26/08
Procedure Title:	<b>Use of Mobile/Portable Gateways to Connect to Fixed Network Interoperability Resources</b>	
Date Established:	<b>3/5/08</b>	MESB Approval - Signature:
Replaces Document		
Dated:	<b>3/5/08</b>	
Date Revised:	<b>1/27/16</b>	Date: 4/16/08

#### **1. Purpose or Objective:**

Establish a policy and procedure for the use of mobile/portable audio gateway devices when interconnecting to ARMER conventional or trunked shared resources.

#### **2. Operational Background:**

##### **▪ Capabilities**

Various audio gateway devices have proliferated within the public safety community. These devices are marketed under different names but basically provide the ability to “patch” one radio system to another radio system. A partial listing of the common devices is contained in the following table.

<b>GATEWAY NAME</b>	<b>VENDOR</b>	<b>FUNCTIONALITY</b>
ACU-1000	Raytheon JPS Communications	Audio Gateway
ICRI	Communications Applied Technology	Audio Gateway
RIOS Portable	SyTech Corporation	Audio Gateway
SmartMSG	Codespear	VoIP/Network
TCB	Link Communications	Audio Gateway
VIPER	Telex Communications	Audio Gateway
Transpeater III	Transcrypt International	Audio Gateway
Tiger	Microvoice Corporation	Audio Gateway
Motobridge	Motorola	VoIP/Network
Wave for LMR	Twisted Pair	VoIP/Network
IPICS	Cisco	VoIP/Network

##### **▪ Constraints**

Unless used properly with knowledge of the networks being patched, these devices can be harmful to the normal operations of those networks. Their use can be particularly harmful to a simulcast digital trunked radio system such as the metro area ARMER system.

Mobile/portable gateways must be optimized in order to provide intelligible audio through the patch. Non-optimized gateway connections often cause message truncation (loss of words at the beginning or end of a transmission), audio holes in the middle of messages, audio level problems (too loud or too quiet), audio distortion, excessive end of message hang times resulting in “bonks” or call rejects, and other problems.

If multiple connections are established to the same resources on different gateways (one of which may be a console patch) an audio loop will occur locking up all channels/talkgroups in the patch causing constant noise which cannot be talked over by a user.

Connecting multiple patches in a “daisy chain” fashion causes excessive key-up delays, message truncation and most commonly intelligibility problems due to multiple audio processing conversions of digital to analog / receiver to transmitter, etc.

### **3. Operational Context:**

Patching disparate radio systems is essential to facilitate interoperability between users that do not have compatible radio equipment. The preferred method of patching is currently the use of a fixed gateway (dispatch console) which is hardwired to the radio infrastructure needing to be patched. Such patches are commonly established between ARMER trunked talk groups and the metro region ARMER conventional interoperability system (VMED28, VLAW31, etc.) This method of patching is effective when all end users are within the coverage range of the radio infrastructures involved in the patch.

In some cases, an incident requires the interconnection of channels with no associated infrastructure interfaced with the fixed gateway system, or out of the coverage range of these channels. In these cases the use of mobile/portable gateways is necessary.

### **4. Recommended Protocol / Standard:**

Because of the high potential for harmful interference and disruption of communications, no mobile/portable audio gateway device may be connected, attached or used on the metro region ARMER system unless the patch is setup by a trained gateway operator and such use has the approval of a certified ICS Communications Unit Leader (COML) or Communications Unit Technician (COMT) under an approved ICS-205 Incident Communications Plan.

### **5. Recommended Procedure:**

An agency desiring to implement a mobile/portable audio gateway patch for a pre-planned event should prepare an Incident Communications Plan using an ICS-205 form indicating the resources to be patched. If the agency does not have a certified COML or COMT, it should

request assistance from a certified COML from the subsystem owner it will be connecting to or from the MESB. The COML will be responsible to review the proposed patch to determine that it will not cause interference. The COML will also be responsible to notify the appropriate dispatch center responsible to update the status board application to indicate the resources are reserved for use.

An agency desiring to implement a mobile/portable audio gateway patch for an emergent incident should notify the dispatch center controlling the incident to inform them of the resources requested to be patched. The dispatch center will update the status board applications to indicate the patched resources are in use and patched. If the agency does not have a certified COML or COMT, it should request assistance from another certified COML and complete an ICS-205 as soon as possible for dissemination to the Incident Commander and the dispatch center controlling the incident. COML assistance may be provided remotely. If a certified COML is unavailable the appropriate ARMER Subsystem Administrator should be consulted prior to initiating the portable/ mobile gateway patch.

The following guidelines should be followed when utilizing mobile/ portable gateways:

- Mobile/portable gateway patches should only be setup by a trained gateway operator that is familiar with the equipment and the resources to be patched.
- Radio resources should only be contained in a single patch in a single mobile/ portable gateway. “Daisy chaining” resources across multiple gateways, e.g. a talk group to a conventional channel in one gateway and the same conventional channel patched to a different talk group in a second gateway should not be attempted due to poor performance.
- Radio ports should be configured for COR detect rather than VOX whenever possible to reduce the problem with loss of the first few syllables.
- Prior to establishing the patch the gateway operator should make an announcement on the applicable resources that a patch is being setup.
- Upon connecting the patch the gateway operator should test the patch end to end to verify acceptable performance.
- If performance is poor, the gateway operator will make any necessary adjustments to audio levels, delay timers, tone control, etc.
- The gateway operator will make an announcement that the patch is setup and ready for use.

- The gateway operator will monitor the performance of the patch while it is in use.
- Once the patch is no longer needed the gateway operator will announce that the patch is being removed and will disconnect the patch.

#### **6. Management:**

The metro region TIC Plan will contain a list of certified COMLs and COMTs which may be consulted regarding the use of mobile/ portable gateways. The System Managers Group will have the responsibility to investigate and resolve problems associated with the use of mobile/ portable audio gateways.



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

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Dated:	<del>1/27/16</del> <b>3/5/08</b>	
Date Revised:	<del>1/27/16</del> <b>4/18/18</b>	Date: 4/16/08

**1. Purpose or Objective:**

Establish a policy and procedure for the use of mobile/portable audio gateway devices when interconnecting to ARMER conventional or trunked shared resources.

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▪ **Constraints**

Unless used properly with knowledge of the networks being patched, these devices can be harmful to the normal operations of those networks. Their use can be particularly harmful to a simulcast digital trunked radio system such as the metro area ARMER system.

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**Commented [t1]:** Or do we want this with the Metro Radio TOC?

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