M E T R O P O L I T A N E M E R G E N C Y S E R V I C E S B O A R D

RADIO TECHNICAL OPERATIONS COMMITTEE
AGENDA

Board Room, Metro Counties Government Center
November 18, 2015
1:00 – 3:00 p.m.

MEMBERS:

Ulie Seal, Chair
MN Fire Chiefs Association

Ron Jansen, Vice Chair
Dakota County

Jeff Bjorklund
Metropolitan Airports Commission

Jon Eckel
Chisago County

Clif Giese
Metro Region EMS

John Gundersen
Hennepin County

Chad LeVasseur
Metropolitan Council

Rod Olson
City of Minneapolis

Bob Shogren
Isanti County

Chuck Steier
At-large member, U of M Police

Jake Thompson
Anoka County

Nate Timm
Washington County

Tim Walsh
Carver County

Adam Pirri
Scott County

Scott Williams
Ramsey County

Open
MN Chiefs of Police Association

1. Call to Order

2. Approval of October 28, 2015 Minutes

3. Agenda Items
    a. Review of State Standard 1.8.0 System Change Management - Tretter
    b. Metro Transit SE Light Rail Channels Impact – Chad LeVasseur
    c. ARMER Eligibility Workgroup – Kummer
    d. Grants / 2015 SHSP Grant – Troy Tretter
    e. Metro Funding Priority Change - Timm
    f. Metro Standard 3.14.0 Change – Tretter
    g. System Administrator Training standard workgroup – Thompsen
    h. Timeline removing dual naming from regional interop channels – Jansen
    i. Motorola IP Simulcast Training - Tretter

4. Moves, Additions & Changes to the System
    a. Existing/Other Systems
    b. Update on Removal of Voting from Interoperability System

5. Committee Reports
    a. Metro Mobility System Usage Update—Chad LeVasseur/Dana Rude
    b. System Manager's Group/Metro Owner's Group Update
    c. Reports from SECB Committees—Troy Tretter

6. Other Business
    a. Regional Talkgroup Permissions Updates
    b. Update from Counties regarding SUA2+
    c. December meeting change to 16 December

7. Adjourn

Ulie Seal, Chair

Metropolitan Emergency Services Board
Radio Technical Operations Committee
Meeting Notes
October 28, 2015

Members Present:,
Jon Eckel, Jake Thompson, John Gundersen, Tim Walsh, Ron Jansen, John Sells, Chris Weldon, Adam Pirri, Chad LeVasseur, Dave Pikal, Tony Martin, Jeff Bjorkland, Chuck Steier, Nate Timm, Rod Olson, Chris Kummer, Clif Giese, Jake Thompson, Shane Sheets, Bob Shogren

Guests Present: Jill Rohret; Metropolitan Emergency Services Board, Troy Tretter; Metropolitan Emergency Services Board, Dana Rude; Metro Mobility, Jeff Nelson: PSC Alliance, Steve Pott; PSC Alliance; Dave Waltz; Regions Hospital; Curt Meyer; Hennepin County, Carrie Oster; Motorola; Dwayne Glenn; Health Partners

Call to Order: Ulie Seal called the meeting to order at 1:01P.M.

Minutes of the August 26, 2015 Meeting and the agenda of the October 28, 2015 meeting.
M/S/C- Clif Giese moved to approve the August 26, 2015 meeting minutes and October 28, 2015 agenda. Ron Jansen seconded. .The motion carried.

Agenda Items
Washington County APX VHF Consolette Addition
Nate Timm requested technical approval for this addition to assist communication with Wisconsin. He also would like to be considered for any available grant funding available. They own the microwave link. Mounting antennas on the ice bridge would not be a concern. Jill Rohret said there were no regional funding priorities for this project at this time. It would take MESB and ECN approval to reallocate the grant.
M/S/C-.John Gundersen moved to approve consolette addition. Chris Weldon seconded. The motion carried.

Election voting of Chair and Vice Chair
M/S/C -Motion made by Jake Thompson to re-elect Ulie Seal as Chair and Ron Jansen as Vice Chair to the Radio TOC for 2016. Nate Timm seconded. The motion carried.

HCMC Console Change/CCGW
Curt Meyer speaking on behalf of HCMC requested permission to change console system. They will be adding two additional operator positions and one CCGW.
M/S/C- John Gundersen added that it has been approved by the OTC and made the motion to approve. Clif Giese Seconded.
The motion carried.

This item will go before the MESB Executive Committee in December and would be ratified at the January MSB meeting.

Metro Transit Talk Group request
Chad told members that there are plans to extend the light rail line south. Five more talk groups will be needed. 100 more radios. Trains are projected to be here in 2017. For budgeting purposes, approval would be needed before end of 2015. Jill suggested it would be good to get an idea of traffic. Loading

information from Chad would be helpful. Ulie suggested Chad go back and gather info from the other two lines to bring to this TOC so at least they can address potential concerns for the system. Talk group requests will need to go to the OTC.

HealthPartners Participation Plan

Steve Pott from PSC Alliance and Dwayne Glenn, Director for Patient Logistics at Regions Hospital and Director at HealthPartners for Medical Transportation came before the TOC seeking approval for the technical plan for the HealthPartners Transportation plan. They have a fleet of five ambulances and four specialty transportation vans. They are operating on a private UHS system and are considering moving to the ARMER system. They are part of the metro EMS Emergency plan and right now.

HPMT does not intend to establish a console connection to the ARMER backbone, but rather will access the system using subscriber units only. Service area in Hennepin, Ramsey and some of Anoka and Dakota. Most of their communication can be accomplished on the City Center site.

- Approximately 500 transports per month
- 300 are ambulance transports-60 minutes per month
- 200 wheelchair transports-60 minutes per month

Requesting 15 radio IDs, and up to 5 additional IDs over the next five years. A mobile for each of the ambulance and a portable for the vehicles-wheelchair vans. 20 total.
No network connectivity needed. Audio logging would be off the consolette if needed. Each of the vans have their own channels. Need 4 talk groups, one of them roaming.
All personnel are EMT trained and therefore would insure using system responsibly. HPMT has funding in 2015 to make the migration to the ARMER System and desires to secure MESB, OTC, and SECB approvals by December 31, 2015
They will commit to user training. They use all voice.
Chris Kummer said that it is a HealthPartners service not a public service like Metro Mobility.
Dwayne Glenn responded that most of their runs are non- HealthPartners. They service most of the west metro nursing homes. They discharge a large number of patients out of HCMC and also support Regions Hospital.
Jake Thompson said that 15% of their load is from EMS which do not contribute. HPMT is essentially getting free air time and his concern that eventually if they keep approving noncontributing users they will have to buy more infrastructure.
John asked who was sponsoring them. Steve Pott said possibly a North or Allina or Mayo type sponsor.
A subscriber agreement with the MESB would be necessary. That would not be executable until the January 2016 meeting. MN Dot also signs off.
If they were asking for statewide access it would have to go to the OTC.
Concerns:
Not having a 911 service area
System administration support

Chris Kummer suggested we clearly define EMS. Discussion explained that other services that use the ARMER system provide some sort of emergency service, and need to determine what the definition of EMS is at the OTC and TOC levels.

Rod Olson asked if all 4 Talk Groups were needed?

Steve told members that they have slimmed down from 10-3 talkgroups.
Ulie told group that just because we approve one group- doesn't mean we have to approve more, and that loading in the system will be a future concern. He suggested the TOC today decide how to handle these requests going forward.

Jake said that if you are sponsored by a company it goes on their system. Ulie said that regardless it is a load on the system.

Would this group ever be called on to do patient evacuation. Yes.
They are part of the metro EMS emergency plan.
Dave Waltz- Director of Regions EMS said the definition of an EMS provider is that they are licensed by the EMSRB.
Jeff Nelson added they had a discussion with the HPMT staff and were aware these concerns would be raised. The HPMT request is consistent with past practices.
Jill encouraged members to decide how they will be limiting participation in the future.
A nongovernmental agency can be a subscriber to the system, but the system was built for EMS. The argument could be was it built just for ALS? Most agencies that are sponsored are on for Interop. Not day to day business. You could make the motion that you approve if they are sponsored.

Jake said there is a financial impact to counties are who are also financing utilities to keep the system running.

It was asked how many are STS providers are EMS recognized. STS providers are licensed through MN Dot. Those ambulances that have a transportation component to them are licensed by the EMSRB. In the metro HealthPartners is the only one.

M/S/C- Nate Timm made the motion to approve the request to allow HPMT access to the ARMER System. Bob Shogren seconded. Voice vote. Motion did not pass.

M/S/C- Ron Jansen made the motion to form a workgroup prior to the next meeting that defines who can and cannot be on the metro ARMER System. Chris Kummer seconded. Motion Carried.

GTR800 Training-Spring 2016
Troy told members that grant funds hosted GTR800 training through Motorola for 10 attendees. Troy asked members if another or different class should be hosted?
M/S/C - Ron Jansen made the motion that the next class be the Simulcast IP class. Nate Timm seconded. Motion Carried.

Metro System Administrator Training
Ron Jansen told members the state training team meeting got little decided regarding the Administrator Training. Standards can be made by the region. He asked for comments and suggestions. Troy pointed out that at one time there was a standard. It could be resurrected. A workgroup was formed and their recommendations will be brought before the November TOC.

Grants/2015 SHSP Grant
Troy said the ECN will contribute 25,000 to the metro region for training and the remaining funds would be competitive, regional priorities have been set. Ron Jansen said we should apply for the grant and suggested those grant funds be used to replace the 21 MESB cache radios. *There was no motion on*

this as it was not required to move forward with the application process. The application will be approved before it is submitted.

Moves, Additions & Changes to the System
City of Egan taking down water tank and will be replaced with a portable tower.
STR trailer still in Washington County
Jake-Started MCC upgrade
Isanti completed console upgrade
Ramsey finished their migration

Update on Removal of Voting from Interoperability System
Voting system going away after system upgrade.

Committee Reports
Metro Mobility update
Sending weekly reports on Tuesdays. All the consoles are in.

SMG
Kim Harper gave an update on system. Can patch two talk group together and not get a busy.
Mn Dot update on microwave dual link project
715 upgrade information update will occur in January
Talk group access files, the Metro has been modified to one Metro-Wide Profile
Getting rid of old admin accounts, MnDot will send out a note prior to disabling the accounts
HPD plan to re-use OTAP

SECB Committee Reports – Troy Tretter

Update from Counties regarding SUA2+
Jill told members that Isanti, Anoka, Dakota, Washington have submitted responses. Chisago – but don't know if they have voted yet.
Scott, Carver, Hennepin, Ramsey and Minneapolis not submitted yet. The intent that it will be ready for the SECB meeting in December.

November meeting changed to November 18.

The meeting was adjourned at 3:00

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

Document Section 1	**Management of System**	**Status:** Complete
State Standard Number	**1.8.0**	
Standard Title	**System Change Management**	
Date Established		**SRB Approval:** 04/28/2011
Replaces Document Dated		
Date Revised	**02/04/2011**	

1. Purpose or Objective

The purpose of this standard is to establish the procedure for managing and approving moves, additions, upgrades, and other changes to the ARMER system backbone.

2. Technical Background

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

3. Operational Context

Among other responsibilities, the Statewide Emergency Communications Board (SECB) is responsible for:

- Defining the backbone of the system and the standards for system backbone performance necessary to ensure system wide development that maximizes interoperability throughout the system.
- Establishing and enforcing performance and technical standards for the operation of the system backbone.
- Establishing and enforcing priorities or protocols for the system that facilitate statewide uniformity.

The Standards, Protocols, and Procedures have been developed by ARMER participants through statewide and regional committees and boards and have been adopted by the SECB. Periodically, changes to the ARMER State Standards or the ARMER backbone will be required to maintain optimum system backbone operations. Those changes must receive due consideration for state and local economic impacts, operational impacts, and other issues that may compromise the integrity and use of the system backbone before those changes can be implemented.

Additions and changes to the Standards, Protocols, and Procedures that affect standard operating procedures (SOPs) are governed by State Standard 1.5.2. Additions and changes

to a requesting entity's participation plan are governed by State Standard 1.10.0. Some additions and changes could need to be evaluated under more than one process.

4. Recommended Protocol/ Standard

All requests for changes to the Standards, Protocols, and Procedures or any other change that affect the system backbone shall be submitted, evaluated, and approved through this change management procedure, depicted in Figure 1.

5. Recommended Procedure

Change proposals may be submitted at any time. Proposals should be submitted through the proposer's contracting entity (State Standard 1.9.0), a Regional Radio Board (RRB), or the Minnesota Department of Transportation (MnDOT). Change proposals should be submitted on a standard form provided on the SECB website and shall include a proposed implementation plan.

MnDOT will collect suggestions for changes from the RRBs and present the collected suggestions to the next scheduled meeting of the Operations and Technical Committee (OTC), who shall determine if the proposed changes are major or minor.

Minor changes have the following characteristics:

- They do not result in measurable impacts to the performance of the system backbone.
- They do not impact users of the system backbone with additional training effort or changed operational procedures.
- They do not create costs to the backbone or users beyond routine maintenance costs.

Major changes are all changes that are not minor. Major changes require a more rigorous review, because they are likely to require the expenditure of fiscal and human resources on the system backbone and by the system users. Examples of major changes are:

- vendor software upgrades that require backbone connected hardware to be replaced
- implementation of a new radio technology that forces subscriber unit reprogramming
- backbone technology improvements that cost more than the maintenance budget can accomplish

Minor changes may be referred to the Statewide System Administrator for evaluation and recommendation. The Statewide System Administrator shall perform the necessary evaluation and recommend an action to the OTC. The OTC may elect to vet the request through additional committees, the RRBs, or other user groups. Upon receipt of a recommendation from the OTC, the SECB may approve or deny the requested change.

Major changes shall be held by the OTC until such time as the OTC determines that the number and importance of proposed major changes warrants the initiation of a major change process. Depending upon the nature of the change request, the OTC may elect to direct MnDOT to notify stakeholders that a major change cycle is beginning through a notice published on the SECB website and be distributed to the regional leadership. The solicitation period should last at least three months to allow sufficient time for regional committees to meet and forward ideas through their RRBs.

At the close of the solicitation period, MnDOT will coordinate with the major change proposers to present their requested changes to the OTC. Change proposals will be made available for public review on the SECB website at least one week prior to the OTC meeting

The OTC shall consider the proposed changes and determine which proposals have sufficient need and benefit to warrant further evaluation. If the OTC determines that a change proposal does not warrant evaluation and rejects the proposal, the proponent of the change request may appeal the decision, per State Standard 7.3.0.

MnDOT staff, supplemented with other resources as required, will assess the requests forwarded by the OTC. The assessment should include:

- conformance with the Plan and the technical and operational standards previously adopted by the SECB
- previous experience with the change on the ARMER system
- how the change will affect operations
- the extent of programming and infrastructure changes
- the merit or benefits of the proposed change
- the cost of the proposed change including operational and maintenance costs
- how long will the change take to accomplish
- what other alternatives could accomplish the requested change
- impact on future system capacity and development plans
- legislation needed

The results of the assessment will be distributed by MnDOT to the System Administrators for additional review and comments. If contradictory issues are identified by the System Administrators, the request shall be returned to the OTC for reconsideration of necessity and benefit.

MnDOT will summarize the changes recommended and create a change proposal, including transition steps and schedules. The change proposal should be vetted at all RRBs. MnDOT, along with regional representatives to the SECB Committees and working groups, will be responsible for facilitating discussions and gathering comments. MnDOT will summarize all comments received.

If there is a cost to the change proposals, MnDOT and the Division of Emergency Communication Networks (DECN) will first pass the recommendations through the Finance

Committee, who will be responsible for determining how the costs should be allocated and securing RRB agreement in any regional or local costs.

Once the cost allocation is approved, or if there are not costs to allocate, MnDOT and the DECN will present the change proposals to the OTC for review and recommendation.

The SECB shall review the recommendations of the OTC and may approve the change recommendations, reject the change recommendations, or return the recommendation to committee for further review.

MnDOT or other responsible entities will implement the change plan. Activities in this phase may include construction of new infrastructure, replacement of existing infrastructure, hardware and software upgrades, programming, or other activities required by the plan. The change plan may also involve multiple changes on different implementation schedules.

MnDOT will report on the status of the implementation to the SECB.

6. Management

The OTC and MnDOT will manage the process for major technical change requests. The Statewide System Administrator will manage minor change request process.

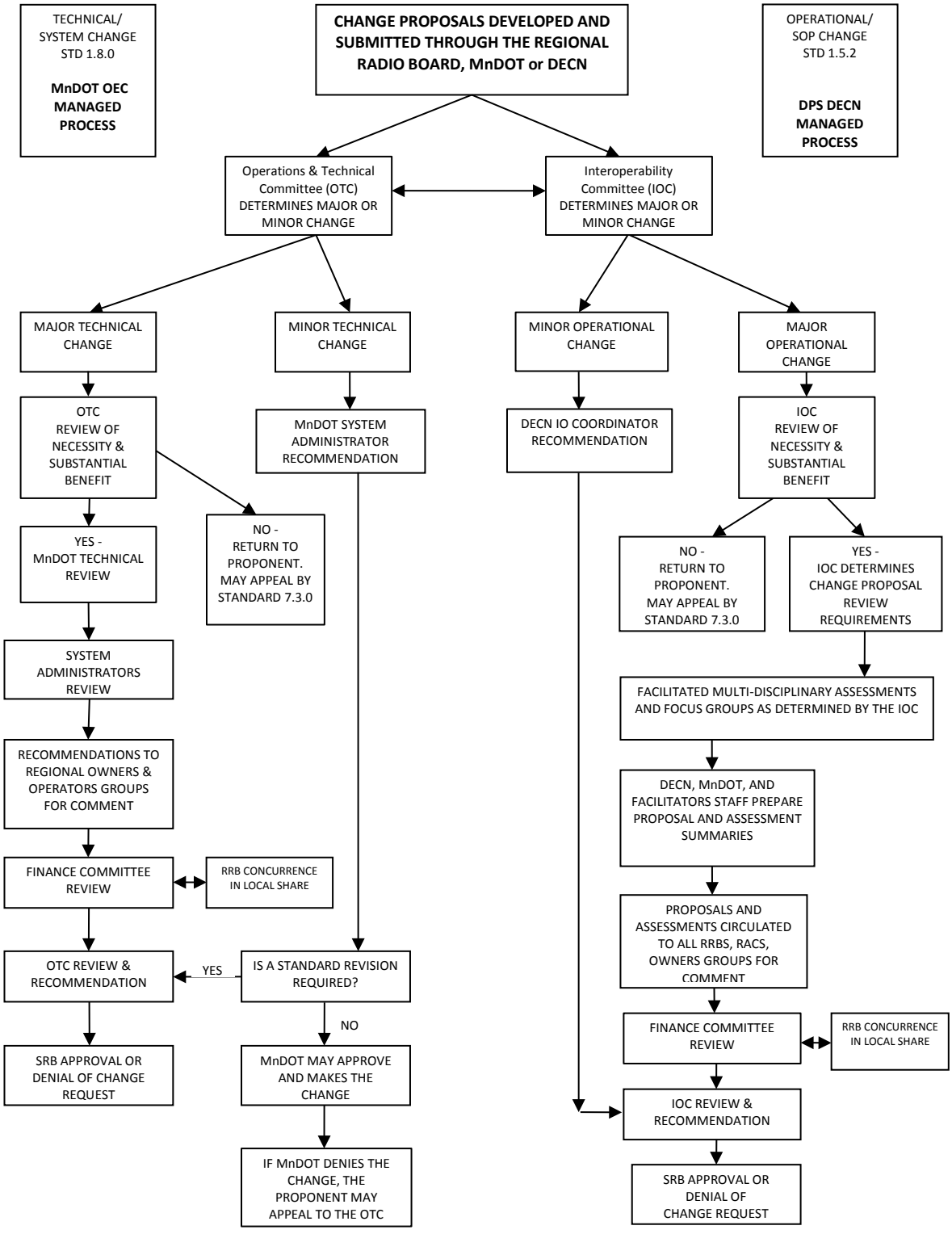


Figure 1 Change Management Process

MESB Radio TOC Ad-Hoc ARMER Eligibility Workgroup

November 10, 2015

Workgroup: Ron Jansen (Dakota), Curt Meyer (Hennepin), Rod Olson (Minneapolis), Chris Kummer (MAC), Dave Pikal (Ramsey), Jake Thompson (Anoka)

Note: Clif Giese (North Memorial Ambulance) was originally invited to participate but recused himself and did not attend.

The following documents were reviewed:

- Minnesota Statute
- Minnesota Rules
- MESB ARMER Standards
- State ARMER Standards
- FCC Part 90 rules
- MnDOT STS Information
- EMSRB Licensing Information
- Minnesota EMS Communications Plan

ARMER Eligibility Recommendation Summary

After review, the workgroup concludes that Metro Region *full* ARMER participation eligibility should be limited to "public safety" and "public service" organizations, unless otherwise provided for in standard. To further define these terms, the workgroup offers the following definitions found in state statute:

- *"Public safety agency" means a functional division of a public agency which provides firefighting, police, medical, or other emergency services, or a private entity which provides emergency medical or ambulance services.*
  (Source: State Statute 403.02, subd. 18)

- *"Public service" means any public facility, department, agency, board or commission, owned, operated or managed by or on behalf of the state of Minnesota, or any subdivision thereof, including any county, city, town, township, or independent district in the state.*
  (Source: State Statute 363A.03, subd. 35)

An organization that wants to request participation, but falls outside of these definitions would then be directed to State Standard 1.10.2, "Requesting Participation by Non-Public Safety/Non-Public Service Organizations."

Emergency Medical Services(EMS)/Ambulance Service Definition Recommendation

Since the workgroup was the result of a participation request from HealthPartners Medical Transportation (HPMT), the members also discussed the definition of "emergency medical" and "ambulance service" and agreed it needed to be further clarified. The members believed that the intent and spirit of language used in ARMER standards used to describe Emergency Medical Services (EMS) or ambulance service was meant to mean "emergency" medical response agencies, and not the non-emergency ambulance, or specialized transport industry. Unfortunately, the references found do not define EMS or ambulance service further.

The workgroup considered the following facts:

- The Minnesota Department of Transportation, which governs Specialized Transportation Services (STS), directs STS providers that may use an ambulance to the Minnesota Emergency Medical Services Board (EMSRB) for licensure and governance for any ambulance work.
- Emergency Medical Services Regulatory Board (EMSRB) licensure outlines the operations an ambulance organization is allowed. All ambulance licensees have the same communication requirements found under State Statute 144E.103, subd. 5: *"Communication equipment. An ambulance must be equipped with a two-way radio that is programmed and operating according to the most recent version of the statewide radio board shared radio and communication plan or its equivalent as determined by the Emergency Medical Services Regulatory Board."* This language currently points an ambulance licensee to the Minnesota EMS Communication Plan. This plan currently recommends (but does not require) that EMS/ambulance service use ARMER. There is no differentiation made between emergency and non-emergency work.
- The Federal Communications Commission (FCC) defines eligibility to use the public safety spectrum in Part 90 rules (.47 CFR 90.20). These rules state that *"ambulance companies regularly engaged in providing medical ambulance services"* (among other medical entities), are eligible to hold authorizations to use the public safety spectrum pool. There is no differentiation made between emergency or non-emergency work.

The workgroup agreed that historical eligibility for current EMS/ambulance agencies using ARMER was predicated on their role as an "emergency" medical (ground or air) responder, which has been deemed as public safety. While some EMS/ambulance agencies also happen to conduct other types of business that falls under non-emergency or STS, this was not the reason

for entry. So, the HPMT request is unique in that regard, since their EMSRB license outlines the operation as wholly non-emergency, they do not have a designated emergency primary service area (PSA) where they are responsible to respond to medical 911 calls for service, and they are not allowed to respond with lights and siren.

The workgroup further believes that it would be a hardship for an organization doing different types of business (e.g. emergency, non-emergency, STS, or air ambulance) to have to utilize different radio systems for different parts of their business. The entry into ARMER participation was largely that for emergency work, but the non-emergency parts of the business also function as a back-up to emergency work, so it was a decision made in the best interest of public safety, which the workgroup believes remains valid. For that reason it is problematic to make comparison between HPMT and other current EMS full ARMER users.

System loading and infrastructure maintenance costs also remain a concern shared by many. Currently, EMS (regardless of type of business) is a relatively heavy ARMER user that in most cases does not contribute funding towards backbone infrastructure maintenance at a city, county or state level. The Minnesota EMS/ambulance service industry must use due regard for system partners, limitation and cost when entering or expanding participation.

Following review of the matter, absent further official definition, the workgroup offers the following definition of EMS or ambulance service for the purpose of full ARMER eligibility:

- *An EMS agency or ambulance service is defined as one licensed by the Minnesota EMSRB to provide service with a designated emergency primary service area (PSA) where they are responsible to respond to medical 911 calls for service; or an air ambulance, also licensed by the EMSRB that provides emergency response.*

The workgroup recommends that EMS/ambulance service organizations meeting this definition be considered a public safety agency for the purpose of eligibility for full ARMER participation.

In addition, it is recommended that Metro Region Standard 1.10.1 be revised to include the workgroup's definitions for full eligibility, public safety, public service and EMS/ambulance service. It further recommends that these definitions be forwarded to the OTC for consideration at the state level, and included in related state standards.

Investment Hierarchy

Grants Workgroup Review Rating Form (Step3)

FY2015 SHSP

Applicant projects should fit within the scope of the priorities listed below. This hierarchy pertains to this grant only. All equipment is at a 50% match and invoices and proof of payment must demonstrate the agency paid the equivalent.

Priority 1 Training & Exercises

Training and exercise events that enhance the abilities of emergency responders to achieve seamless interoperable communications. Examples are ARMER Train the Trainer; Refresher ARMER Train the Trainer, System Admin Training; Dispatch training; ICS/Communication Workshops; Radio Programming; ICS 300; Interoperability Conference; CASM training; tabletop exercises for planned events, dispatch exercises.

*NOTE: All training must be **pre-approved** by the DECN per HSEM requirements. Forms can be found on the ECN website.*

Priority 2 ARMER Integration Costs (Infrastructure Enhancements):

Investments into infrastructure projects which result in a material enhancement to the performance of the ARMER backbone by expanding its capacity, coverage area, or wide-area network that is necessary to complete the transition to ARMER. Examples of such are channel additions, tower sites, MCC7500 consoles and outdoor BDAs as needed to fill in coverage gaps. NOTE: All outdoor BDAs must be approved through OTC to ensure MNDOT is aware of them and they are set up correctly so as not to cause interference with ARMER backbone.

Priority 3 Local ARMER Integration Costs (Subscriber Equipment)

Investments in end-user subscriber equipment that is required for users to utilize the ARMER system. Includes radios, control stations and equipment in PSAPs to deal with site trunking.

Priority 4 Other Non-ARMER Interoperability Infrastructure (must be consistent with the SCIP)

Infrastructure investments which generally enhance interoperability but do not provide any material enhancement to the performance of the ARMER backbone. Examples include indoor BDAs for public safety sites such as LECs, jails or courthouse and schools only.

Washington County

Office of the Sheriff

Commitment to Excellence

William M. Hutton
Sheriff

Dan Starry
Chief Deputy

11/09/2015

Ulie Seal, Chair Metro TOC
1800 West Old Shakopee Rd
Bloomington, MN 55431

Chair Seal,

Washington County respectfully requests an amendment to the 2015 grant priorities. We submitted a technical plan at last month's TOC meeting to increase our interoperability with our Wisconsin partners. This plan was approved. We now seek grant funds to help pay for this project.

As I understand it, the current metro grant priorities do not allow for interoperability projects.

I believe this individual project does present a benefit to the region, and are in the spirit of the grant's intentions:

- These interoperable Wisconsin resources may be loaded in any zone 1 console
- With a CCGW replacement, these resources could be loaded into any ARMER console
- Any large scale events on the border would be served by these resources

There may be other forthcoming projects in the metro region that could also be served by amending the grant priorities to include interoperable projects.

I would propose that the region consider adopting the State's "Priority 4 Non-ARMER interoperability infrastructure" language:
Infrastructure investments which generally enhance interoperability but do not provide any material enhancement to the performance of the ARMER backbone. Examples include indoor BDAs for public safety sites such as LECs, jails or courthouse and schools only.

Thank you for your consideration.

Sincerely,

Nathan Timm
Radio System Manager
Washington County Sheriff's Office

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

Document Section:	**3. Interoperability Guidelines**	Radio TOC Recommendation
Sub-Section:	**METRO 3.14.0**	Date: 5/24/01
Procedure Title:	**Use of Metro ARMER ME TACs**	
Date Established:	**1/6/2001**	MESB Approval - Signature:
Replaces Document Dated:	**9/26/2012**	
Date Revised:	**11/12/2014**	06/01/01

1. Purpose or Objective

To establish policy & procedures for use of the metro region ARMER ME TAC 1-8 talkgroups. These talkgroups are a region-wide resource to facilitate communications between agencies that typically do not communicate with each other on a regular basis. This policy will serve to minimize usage conflicts when an interoperability talkgroup is needed for an event.

2. Technical Background:

- **Capabilities**

It is possible to have access to ME TAC talkgroups in radios used by metro agencies that share use of the ARMER system. These common talkgroups can be used for a wide range of intercommunication when coordination of activities between personnel of different agencies is needed on an event. Patching of the talkgroups can be done to any single non-hard patched conventional resource, other common talkgroups or to private talkgroups as needed to facilitate communications for an event.

- **Constraints**

Some of these talkgroups may be used as part of a soft patch to common VHF channels that are restricted for use by personnel of specific services such as the VLAW31 VHF frequency may only be used by law enforcement and EMS personnel. 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 soft patch) use of these regional resources.

The availability of and the use of these talkgroups should be easily understood by radio user personnel who are primarily concerned with their mission.

ME TACs are not to be used for an internal event. Private, other tactical, administrative or common talkgroups are for internal agency communications. ME TACs should be used only when interoperability with external agencies is needed or is likely.

The ME TAC regional talkgroups are not capable of encryption.

Any metro region-wide ARMER talkgroup can be in only one patch at a time.

3. Operational Context:

These talkgroups are metro- region resources to facilitate communications between agencies that typically do not communicate with each other on a regular basis.

ME TAC1-4 are only available for use by public safety users.

ME TAC5-8 are available for use by all users.

4. Recommended Protocol/ Standard:

ME TAC 1-4 [PTAC] TALK GROUPS

TG Requirements	**For Whom?**
Highly Recommended	All public safety mobiles, portables, PSAPs
Recommended	All public safety mobiles, portables, PSAPs
Optional	None
Not Allowed	Public service

Cross Patch Standard	**YES / NO**	**To TalkGroups**
Soft Patch	Optional	As Needed
Hard Patch	No	

ME TAC5-8 [ATAC] TALK GROUPS

TG Requirements	For Whom?
Highly Recommended	All public safety and public service mobiles, portables, PSAPs
Recommended	
Optional	None
Not Allowed	None

Cross Patch Standard	YES / NO	To TalkGroups
Soft Patch	Optional	As Needed
Hard Patch	No	

In order to meet the communications needs for an event, the ME TAC talkgroups may be patched to:

- Conventional RF resources, such as VHF, UHF etc.
- Private agency talkgroups, such as dispatch mains, tactical talkgroups etc.
- Direct patches between the ME TAC ~~[ATAC & PTAC]~~ talkgroups, although this would not be preferred as a method of resolving communications needs.

The "Status Board" application will be used to manage the talkgroup resource.

The ME TAC 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 this resource when it is needed for important events.

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

The ME TAC recording procedure falls under ARMER Standard 3.7.0—Recording Interoperability Channels and Talkgroups.

It is highly recommended that metro region ARMER system public safety dispatch consoles have all the ME TAC talkgroups available for patching.

It is highly recommended that public safety radio users program a sufficient quantity of ME TAC talkgroups into their subscriber radios to meet their interagency communications needs, starting with ME TAC1 & ME TAC5.

It is highly recommended that metro region ARMER system non-public safety dispatch consoles have all the ME TAC 5-8 talkgroups available for patching.

It is highly recommended that non-public safety radio users program a sufficient quantity of ME TAC 5-8 talkgroups into their subscriber radios to meet their interagency communications needs, starting with ME TAC5.

If an agency elects to not program a sufficient quantity of these tactical talkgroups, it is the individual agency's responsibility to understand that they will be limiting their ability to communicate with other agencies during an emergency event. The agency will be responsible to resolve its interagency communications methods during an event.

5. Recommended Procedure:

The pool talkgroups may either be used directly, or be patched to other resources to meet the communications needs of an event.

The usage of ME TAC 1-4 will be reserved for public safety use only. The usage of these talkgroups for **EMERGENCY or IN PROGRESS** interoperability events should be ME TAC 1, 2, 3, 4. . .8 in that order.

The usage of ME TACs for **PREPLANNED NON-EMERGENCY** interoperability events should be ME TAC 8, 7, 6, 5. . .1 in that order. ***ME TAC1 & ME TAC5 will not be reserved for planned events.***

~~It should be noted that during the transition period from November 22, 2013 through June 30, 2015, some agencies may only have a portion of the ME TACs in their radios. It is possible that agencies may have approved variances in place after June 30, 2015.~~ When formulating communications plans, 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 the Status Board.

Resources that are patched to these talkgroups, such as VLAW31, VFIRE23, and VMED28 VHF radio frequencies shall continue to adhere to the rules set forth by the groups that govern the use of their respective conventional radio resources.

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

6. Management

Metro region dispatch center managers & supervisors for agencies on the ARMER system shall insure that this procedure for usage and assignment of the ME TAC talkgroups be adhered to, as well as the setting up of soft patches for which they are responsible.

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

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

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

Document Section 1	**Management of System**	**Status:** Complete
State Standard Number	**1.11.1**	
Standard Title	**Training System Administrators**	
Date Established	**10/01/2003**	**SRB Approval**: 09/01/2005
Replaces Document Dated		
Date Revised	~~02/17/2005~~**10/07/2015**	

1. Purpose or Objective

The purpose of this standard is to establish the minimum training standards for system administration staff. This is to ensure that system functionality and integrity are maintained because qualified personnel are performing any system administration functions.

2. Technical Background

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

3. Operational Context

System functionality and integrity must be maintained by all personnel who~~ensuring that only qualified personnel~~ perform system administration functions.

4. Recommended Protocol/ Standard

Local System Administrators are responsible for maintaining system configuration databases for local infrastructure, subscriber databases, and console configuration databases. System Administrators with system access shall have completed appropriate training. It is recommended that System Administrators who have no system access ~~Therefore, they shall have successfully~~ complete~~d~~ ~~the~~ appropriate training on ~~the~~ system management functions. ~~Appropriate training shall~~

The respective Regional Radio Board (RRB), Emergency Communication Board (ECB), or Emergency Services Board (ESB) is responsible for determining the appropriate training for Local System Administrators.

Each region will provide Local System Administrator contact information to the Statewide System Administrator annually by December 31. ~~, at a minimum, include formal factory training, either at the factory or in the field, conducted by a qualified instructor.~~

Regions are encouraged to develop a standard governing terms of mentorship and system administrator training.

Local System Administrators shall be familiar with the ARMER State Standards.

In addition, personnel responsible for day-to-day database administration (i.e., moves, changes, or additions to a system or subsystem subscriber database) shall be trained either at formal ~~factory~~ training or by a ~~the~~ previously trained, appropriate local System Administrator.

Comment [AC1]: To allow for mentorship

The appropriate Local System Administrator will ~~shall~~ certify that:

- Personnel are properly trained and maintain a current record of personnel that are certified.
- System access rights shall not be given to personnel who have not had proper training.
- ~~The Statewide System Administrator shall maintain a list of training completed by local System Administrators.~~

5. Recommended Procedure

This manual does not contain specific training procedures or training modules; however, it is highly recommended that all System Administrators read and familiarize themselves with each ~~all~~ Minnesota Communications Best Practice Guide~~s~~ as part of their training. The Best Practice Guides are available at https://dps.mn.gov/divisions/ecn/programs/armer/Pages/Guide-Books.aspx.

Comment [AC2]: Semantics

Additionally, online training for the ARMER system should be completed and is available at http://www.alextech.edu/static/d2l.html?logout=1. If you need a user name and password, see instructions under the Refresher Training Plan section in all Best Practice Guides except Fire. While web-based training is supplemental, all users must attend classroom training for the ARMER system.

6. Management

Local System Administrators are responsible for ensuring that:

- An appropriate training plan has been developed for their agency that includes statewide interoperability training.
- Minimum training requirements are met.
- Only qualified personnel perform system administration functions.
- Local System Administrators are familiar with all applicable sections of the system standards manual.

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

Document Section:	**1—Management of System**	Radio TOC Recommendation
Sub-Section:	**METRO 1.10a (1.11.1)**	Date: 4/5/01
Procedure Title:	**Training – System Administrators**	
Date Established:	**2/21/01**	MESB Approval - Signature:
Replaces Document Dated:	**4/25/01**	
Date Revised:		Date: 5/4/01

1. Purpose or Objective

To establish the minimum training standards for system administration staff. This is to insure that system functionality and integrity are maintained because qualified personnel are performing system administration functions.

2. Technical Background: **N/A**

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

3. Operational Context:

System functionality and integrity must be maintained by ensuring that only qualified personnel perform system administration functions.

4. Recommended Protocol/ Standard:

- **System administrators** are responsible for maintaining system configuration databases for system or subsystem infrastructure, subscriber databases and console configuration databases. Therefore, they shall have successfully completed the appropriate training on the system management functions. Appropriate training shall, at a minimum, include formal factory training either at the factory or in the field, conducted by a qualified instructor.

- **System administrators** shall be familiar with the system standards.

- In addition, **personnel responsible for the day to day data base administration** (i.e., moves, changes, or additions to a system or subsystem subscriber database) shall be trained either at formal factory training or by the previously trained appropriate system or subsystem administrator.
  - ✓ The appropriate system or subsystem administrator shall certify that these personnel are properly trained and maintain a current record of personnel that are certified.

- System access rights shall not be given to personnel that have not had the proper training.

- System managers shall maintain a list of training completed by system administrators.

5. Recommended Procedure:

This manual does not contain specific training procedures or training modules. However, see *Appendix 5 - Technical Training Matrix* and *Appendix 6 - Operational Training Matrix* for the general training curriculum.

6. Management

System Managers are responsible to ensure that:

- An appropriate training plan has been developed for their agency that includes Regional Interoperations Training program.
- Minimum training requirements are met
- Only qualified personnel perform system administration functions
- System administrators are familiar with all applicable sections of the system standards manual

MOTOROLA SOLUTIONS

MESB - Metropolitan Emergency Services Board, MN
Proposal 150364R1

CUSTOMER TRAINING CENTER

An investment in the future

TABLE OF CONTENTS

TRAINING

OVERVIEW

Motorola Solutions understands that successful implementation and use of your communications system depends on effective training. We have developed a training proposal for the Metropolitan Emergency Services Board to ensure a comprehensive understanding of your proposed system and all user equipment. We are leveraging over 85 years of training experience working with customers just like you to provide recommendations for your consideration. The training proposal detailed in the following pages incorporates customer feedback coupled with a best practices systematic approach to produce effective course delivery and content.

Our commitment to the Metropolitan Emergency Services Board is to provide unsurpassed services that ensure the equipment operates efficiently for the life of the system. To do so, we directly train your personnel to utilize the system to its maximum potential.

The Metropolitan Emergency Services Board personnel will gain in-depth understanding of the power of your new system through education and proficient daily use. Our high-quality training focuses on student needs. The training is complemented by detailed documentation and available continuing education programs.

We will collaborate with the Metropolitan Emergency Services Board to develop a final customized training plan that fits your needs. Our goal is to insure system administrators, technicians and end users are skilled in using your new system.

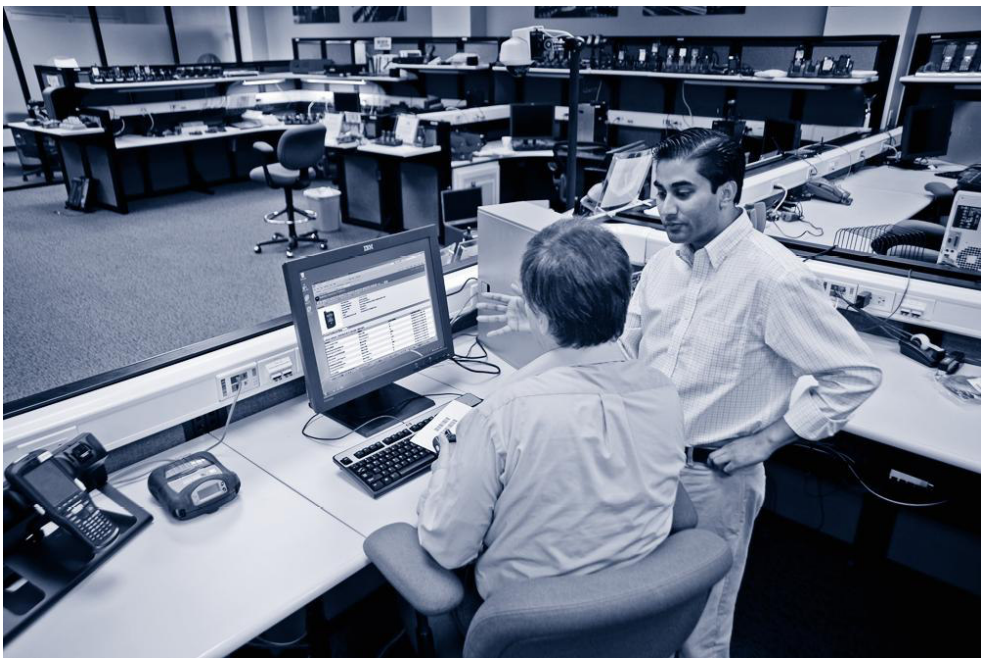
TRAINING APPROACH

Our training solutions deliver a combination of online training and field based instructor-led training in classrooms at the Metropolitan Emergency Services Board locations using operational equipment. Motorola Solutions will employ knowledgeable and experienced instructors to deliver well-designed courseware and integrated lab activities.

Training is based upon several key criteria:

- Course design is driven by an analysis of student needs. It focuses on specific application rather than theory.
- Learning objectives are based upon what students need to accomplish on the job.
- Hands-on lab opportunities using the Metropolitan Emergency Services Board specific job aids are incorporated to maximize learning and retention.

Our instructors bring invaluable experience and knowledge of customer communication solutions into their training approach. This gives them better insight and understanding into the practical aspects of the Metropolitan Emergency Services Board manager, technician and end user job functions. Each instructor has the proven ability to communicate with a novice as well as expert personnel.



PROPOSED COURSES

Motorola Solutions has identified the following course(s) that are necessary to achieve the training goals for the Metropolitan Emergency Services Board. Course description files for the recommended courses are provided in the matrix below. Class delivery for instructor-led courses in the field will be tailored for your system and features.

Specifically, our proposed training plan addresses the following categories as identified in your request for proposal:

- Technicians

It is recommended that participants bring their laptop computers for all system administrator and technician classes.

Console Technician Training Plan

Course Title	Target Audience	Sessions	Duration	Location	Date	Participants
ASTRO 25 IV&D IP Based Digital Simulcast Workshop (Instructor-led)	Technicians	1	3 days	Minneapolis, MN	Prior to maintaining	12
Course Synopsis: The ASTRO 25 IV&D IP Based Digital Simulcast workshop provides an understanding of the components that comprise the ASTRO 25 IV&D IP Simulcast subsystem, and how they operate in conjunction with each other. The workshop also explains the tools and methods available for troubleshooting components within the IP Based Simulcast subsystem.						 ACS715217_ASTR 25 IV&D IP BASED

To open the course description, double-click on the icons in the above matrix.

FIELD CLASS COSTS

Field class delivery is "tailored" to the customer's specific system. We are providing classes which are not offered as standard "Open Resident" classes in Schaumburg, IL. The students benefit from working on their own systems, at their home location and within their schedules.

Technician

Course Title	Participants	Duration	Price
ASTRO 25 IV&D IP Based Digital Simulcast Workshop (Instructor-led)	Up to 12	3 days	$15,655.00

It is recommended that participants bring their laptop computers for all system administrator and technician classes.

Grand Total for Training Pricing:	**$15,655.00**

Prices are good through 2016.

An increase of 5%—10% for each subsequent year may apply.

QUALIFICATIONS AND ASSUMPTIONS

1. A successful training event requires that the students have adequate time for hands-on interaction with their equipment. The customer or project team will supply product equipment, cables, and test equipment. The Motorola Solutions Learning Organization recommends that there be one subscriber unit available per participant in the training session. For console end user training, we recommend one console position for every two dispatch operators.

2. A successful training event also requires appropriate classroom environment in which to deliver training. The customer or project team will ensure that the necessary equipment (which includes a whiteboard, projector, student tables and chairs) is in place for the training event.

3. Student materials will be furnished by Motorola Solutions Learning Organization.

4. While it is important that Motorola Solutions meets the customer's requested training dates, the final class dates are determined by instructor availability. This is especially important when training in a language other than English because of the limited resources available.

5. Training dates will only be scheduled once payment has been received by the Motorola Solutions Learning Organization. Without payment, Motorola Solutions reserves the right to cancel a field training course. By supplying the agreed form of payment, the Customer or project team accepts all terms and conditions.

6. Acknowledging there are costs associated with preparing a training program, the Customer agrees to notify the Motorola Solutions Learning Organization immediately if Customer or project team requires a date change for a scheduled training event. If a class is cancelled or postponed within 30 days of the scheduled training, the Customer will pay 100% of the instructor delivery rate and any additional costs which have been incurred (i.e. airfare cancellation, materials, shipping, etc.). If the Motorola Solutions Learning Organization is able to reschedule the instructor, the instructor delivery rate will be waived accordingly.

7. The effort has been made in advance to gather all relevant information to produce this proposal and is based on information available at this time. Additional information made available later may require a revision of this proposal and the price.

8. **All prices are valid through the year 2016**, unless specified otherwise. An increase of 5%–10% for each subsequent year may apply.