METROPOLITAN EMERGENCY SERVICES BOARD

List of Acronyms and Terms Frequently Used

Acronyms and Definitions General to MESB

403	*Minnesota Statutes, Chapter 403*. This governs both the 9-1-1 system as well as the ARMER radio system. The Chapter also references regional emergency communications boards and regional radio boards, of which the MESB is one.
ARMER	*Allied Radio Matrix for Emergency Response*. This is the statewide 800MHz radio system installed across the state. All metro counties, cities and local public safety entities, including EMS agencies, utilize this system. The system began in the metro region following 1995 legislation authorizing the construction of the system.
APCO	*Association of Public-Safety Communications Officials*. Focused on public safety radio systems and communications related to public safety response, including 9-1-1. Holds an annual conference in August.
Dakota County	Provides payroll, benefits and human resources services to the MESB.
ECN	*Division of Emergency Communication Networks*. A division of the Department of Public Safety, which runs the state 9-1-1 program and ARMER program. It also staffs the Statewide Emergency Communications Board (SECB). It is sometimes seen as DECN, depending on who is speaking/writing.
EMAC	*Emergency Management Assistance Compact*. A national compact through which requests for personnel and/or equipment are made during emergencies or disasters. EMAC guarantees reimbursement from the requesting agency. In Minnesota, EMAC is run by HSEM, though local personnel provide assistance to the state.
EMD	*Emergency Medical Dispatch*.
EMS	*Emergency Medical Services*.
GIS	*Geographical Information System*. For MESB purposes, this is generally related to 9-1-1.
Hennepin County	Provides legal counsel and investment savings services to the MESB.
HSEM	*Homeland Security and Emergency Management*. Is a division of the State of Minnesota's Department of Public Safety. Many grants received by the MESB are run through HSEM.

ICS	*Incident Command System*. A standardized incident management concept which allows responders to integrate organizational structures during incidents without being hindered by jurisdictional boundaries.
IPAWS	*Integrated Public Alert and Warning System*. This is an effort by the federal government to improve alerting and warning to the public via the Internet and mobile devices. It incorporates the Emergency Alert System (EAS). The MESB does not govern IPAWS, but it can affect PSAPs and the ARMER system. Counties must apply to be a Collaborative Operating Group (COG).
Interoperability	The ability to communicate, as needed, on demand, and as authorized at all levels of government and across all public safety disciplines. Can also apply to public safety networks and databases.
MESB	*Metropolitan Emergency Services Board*. The MESB was officially formed on June 15, 2005, as the Metropolitan 9-1-1 Board assumed the duties and responsibilities of the former Metropolitan Radio Board. It serves the regional radio board or regional emergency communications board for the metro region. Though the 9-1-1 Board was originally formed by the seven metro counties, in creating the MESB it was agreed to add the City of Minneapolis to the board (due to contractual requirements on the ARMER side), as well as Chisago, and Isanti Counties, if they so wished. Chisago County officially joined the MESB in 2006 and Isanti County followed in 2010. In 2019, Sherburne County also joined the MESB.
MRB	*Metropolitan Radio Board*. This board governed the original ARMER system (which was not called ARMER at that time), which began in the metro region. The board was created by the Legislature, and its governing statute included a sunset date for the board. The MRB sunsetted on June 30, 2005; the former Metropolitan 9-1-1 Board assumed the duties of the MRB and became the Metropolitan Emergency Services Board. This acronym isn't used that frequently anymore.
MREMSS	*Metro Region EMS System*. Generally, every two years the MESB applies to the Emergency Medical Services Regulatory Board (EMSRB) to run Metro Region EMS via grant contract. The MESB, and the Metropolitan 9-1-1 Board previously, has been awarded this contract since 1986.
MTUG	*Motorola Trunked Users Group*. A group where users of Motorola trunked radio systems exchange information and present feature requests to Motorola. Holds an annual meeting in conjunction with APCO in August.
NENA	*National Emergency Number Association*. Focused on 9-1-1 systems, including the routing of 9-1-1 calls to public safety answering points. Holds an annual conference each June.
PSAP	*Public Safety Answering Point*. These are the 9-1-1 call and dispatch centers (sometimes called emergency communications centers (ECCs)) operated by the cities and counties, as well as the Metropolitan Airports Commission and the University of Minnesota; these PSAPs are known as

primary PSAPs, in that 9-1-1 calls are initially routed to these entities, as well as the Minnesota State Patrol PSAP. Currently, there are 18 local PSAPs in the metro region, plus the Minnesota State Patrol and the 934th Airlift Wing PSAPs. In addition, there are four secondary PSAPs in the region, operated by EMS agencies (Allina EMS, Hennepin EMS, North Memorial EMS, and Ridgeview EMS). 9-1-1 calls are not directly routed to these agencies; secondary PSAPs receive calls transferred from primary PSAPs.

SECB — *Statewide Emergency Communications Board*. This is a statewide board, similar to the MESB, but doesn't cover EMS. It governs ARMER, 9-1-1, FirstNet, IPAWS, and promotes interoperability. Its composition is determined by statute, MS 403.36, and is made up of one-third state agencies, one-third local metro agencies, and one-third local Greater Minnesota agencies.

WACO — *Washington County*. Generally, when used by MESB staff, it is specifically referring to Washington County Financial Services, the MESB's fiscal agent.

9-1-1 Acronyms and Definitions[1]

Alternate Routing — The capability of routing 9-1-1 calls to a designated alternate location(s) if all 9-1-1 trunks are busy or out of service. It may be activated upon request or automatically when 9-1-1 equipment fails or the PSAP itself is disabled.

ALI — *Automatic Location Identification*. The automatic display at the PSAP of the caller's telephone number, the address/location of the telephone and supplementary emergency services information of the location from which a call originates. Note: at this time, exact location is only provided from landline or VoIP phones with a static location. Wireless calls present the address of the cell tower the call hits, though telecommunicators must make a second request (called a rebid) to obtain more accurate location information, generally shown as geographic coordinates for latitude/longitude (x,y).

ANI — *Automatic Number Identification*. This is the telephone number displayed at the public safety answering point and the 9-1-1 system uses it to query the 9-1-1 database for location information associated with that telephone number. For wireline phones, this is the telephone number associated with the access line from which a 9-1-1 call originates.

CO — *Central Office*. A local exchange carrier facility where access lines are connected to switching equipment for connection to the telephone network.

[1] Many definitions are taken wholly or in part from the National Emergency Number Association's (NENA) Master Glossary of 9-1-1 Terminology, NENA-ADM-000, 19-2016.

CTL	*CenturyLink (now known as Lumen)*. The current 9-1-1 system provider for the State of Minnesota.
CLEC	Competitive Local Exchange Carrier. A telecommunications service provider under regulation by the Minnesota Public Utilities Commission (PUC) which operates its own switch, but generally utilizes wholesale agreements to “rent” portions of a Local Exchange Carrier’s (LEC) network to connect to its (CLEC) customers. CLECs may provide service at the national, state, or regional level.
CAD	*Computer Aided Dispatch*. A computer application which aids PSAP telecommunicators by automating selected dispatching and record keeping activities. In use in all metro PSAPs. CAD systems track calls for service, as well as the emergency response units assigned to calls and units available to respond to calls.
CPE	*Customer Premises Equipment*. Communications equipment located at the PSAP. General the phone answering system for MESB discussions.
Data Synchronization	Keeping multiple GIS datasets in coherence with one another to maintain data integrity.
Default Routing	The capability to route a 9-1-1 call to a designate (default) PSAP when the incoming 9-1-1 call cannot be selectively routed due to an ANI failure or other cause.
DoS	*Denial of Service*. In terms of 9-1-1, a type of cyber-attack intended to overwhelm the resources of the PSAP, generally by generating numerous 9-1-1 calls, tying up the network and preventing legitimate 9-1-1 calls from coming through.
Egress	Egress refers to the portion of the 9-1-1 network which transports 9-1-1 calls from the Next Generation Core Services (NGCS) to the PSAPs.
ESInet	*Emergency Services IP Network*. A managed IP network that is used for emergency services communications, and which can be shared by all public safety agencies. It provides the IP transport infrastructure upon which independent application platforms and core services can be deployed. This is a required element in NG9-1-1.
E9-1-1	*Enhanced 9-1-1*. A telephone system which includes network switching, database and PSAP premise elements capable of providing automatic location identification data, selective routing, selective transfer, fixed transfer and a call back number. The metro 9-1-1 system has been E9-1-1 capable since 1982, when the Metropolitan 9-1-1 Board was created.
i3	A concept introduced by NENA of an ESInet which is designated as an IP-based inter-network (network of networks) shared by all agencies which may be involved in any emergency. Affiliated with NG9-1-1 systems and equipment. Will often hear the phrases “i3 compliant” or “achieve full i3.” NENA is working on a set of standards which define the

	core functions for handling, routing, and processing 9-1-1 calls in an end-to-end IP-based environment, referred to as i3.
IES	*Independent Emergency Services*. Formed by seven independent telephone companies in central Minnesota to provide 9-1-1 service in greater Minnesota. The state's ESInet utilizes some of the IES 9-1-1 network and ALI database, which are incorporated into the CenturyLink 9-1-1 system, providing a statewide 9-1-1 system. IES is also a vendor for CPE and other applications and provides maintenance on those systems for several metro PSAPs.
Ingress	Ingress refers to the portion of the 9-1-1 network which brings 9-1-1 calls to the Next Generation Core Services (NGCS).
Intrado	Formerly known as West or West Public Safety Services. Intrado is a partner with CenturyLink and provides many 9-1-1 services to Minnesota, including ALI. Intrado also has a division with which we work regarding routing of wireless 9-1-1 calls. Additionally, Intrado has a division which serves as a VPC.
LAN	*Local Area Network*. An IP-based network which provides connectivity in a limited area, such as the PSAP or county government center, and is usually managed by a single entity.
LEC	*Local Exchange Carrier*. A telecommunications carrier under the state/local Public Utilities Act that provides local exchange telecommunications services (telephone service).
LDB	*Location Database*. A server that retains all of the current information, functionality, and interfaces of today's ALI and can utilize the new protocols required in an NG9-1-1 deployment.
Lumen	Formerly known as CenturyLink. The current E9-1-1 network provider.
MSAG	*Master Street Address Guide*. A comprehensive list of valid address ranges for each street in every community. Maintained by counties and cities the operate PSAPs. In the E9-1-1 world, this is tabular data. In NG9-1-1, this will be a GIS-based dataset.
MnGEO	*Minnesota Geospatial Information Office*. A division of MnIT, it has a legislatively defined responsibility to coordinate GIS within Minnesota. The MESB and ECN work with MnGEO on the data synchronization processes for 9-1-1 data, which will all be GIS-based in NG9-1-1.
MnIT	*Minnesota Information Technology Services*. The state's IT division; it provides diverse connections to the 9-1-1 network/ESInet for some PSAPs in the state, most often where Lumen cannot provide the required diversity for the PSAP's connection to the 9-1-1 system. Each PSAP in the state has two physically diverse connections to the ESInet/9-1-1 system.

MLTS	*Multi-Line Telephone Systems*. MLTS are telephone systems, typically installed in large buildings or campus environments, which support multiple extensions. They are also known as Private Branch Exchanges (PBX). MS 403 requires these systems to be 9-1-1 compliant, meaning they are required to provide accurate caller location and call back numbers to the 9-1-1 system. It should be noted that many MLTS are not in compliance with statute.
MMS	*Multimedia Messaging Service*. Allows cell phone users to send pictures, videos, audio or other data over wireless carriers' data spectrum, between the same or different carries. This is not supported in E9-1-1, nor will it be supported when Minnesota begins to accept texts-to-9-1-1, as carriers cannot yet deliver these messages with a 9-1-1 call.
NG9-1-1	*Next Generation 9-1-1*. An Internet Protocol (IP)-based system comprised of managed ESInets, functional elements (applications), and databases that replicated traditional E9-1-1 features and capabilities. NG9-1-1 is designed to provide access to emergency services from all connected communications sources and provide multimedia data capabilities for PSAPs and other emergency service organizations.
NGCS	*Next Generation Core Services*. The set of services required to process a 9-1-1 call on an NG9-1-1 ESInet. The NGCS validates 9-1-1 call locations and identifies the appropriate PSAP for 9-1-1 call routing. The NGCS relies on GIS data and policy routing configurations to perform its functions.
POI	*Points of Ingress*. Physical demarcations between an originating carrier network and an NG9-1-1 network
Policy Routing	Routing based on an established set of rules. For example (and it is an extreme example), if Ramsey County decided to only staff its PSAP from 8:00 a.m. – 5:00 p.m., there could be a rule to say send all 9-1-1 calls to Ramsey County's PSAP during those hours, and all other hours route 9-1-1 calls to Dakota County's PSAP. That is an example of policy routing.
PIDF-LO	*Presence Information Data Format-Location Object*. NGCS data format which provides a flexible and versatile means to represent location information.
PBX	*Private Branch Exchange*. See MLTS.
RCL	*Road Centerline*. A line digitized along the center of a geographical feature, such as a road. The road centerline dataset will play an important role in NG9-1-1.
Selective Routing	The process by which 9-1-1 calls/messages are routed to the appropriate PSAP or other designated destination, based on the caller's location information, and any other policy rules. This is in existence in E9-1-1 and in NG9-1-1.

SLA	*Service Level Agreement*. A contract between a service provider and the end user that defines the level of service expected from the service provider. Generally, output based.
SIP	*Session Initiated Protocol*. A protocol that defines a method for establishing multimedia sessions over the Internet. Required in NG9-1-1 and i3-compliant systems. The current Minnesota ESInet is SIP-based, but only supports voice call delivery at this time.
SMS	*Short Message Service*. A service typically provided by mobile carriers that sends short (160 characters or less) messages to an endpoint. Fast, but not real time; no photos, video, audio can be attached. When Text-to-9-1-1 first launches, these will be the only types of text messages PSAPs will be able to receive.
Sinch Voice	Formerly known as Inteliquent. Sinch Voice is the NG9-1-1 ingress network provider for Minnesota. Sinch provides the process of call aggregation of all 9-1-1 calls in the state at specific POIs. Sinch then delivers the 9-1-1 calls to the ESInet provider (at this time Lumen).
Telecommunicator	Also known as dispatcher or call-taker. A person employed by a PSAP and/or an Emergency Medical Dispatch service provider qualified to answer incoming emergency telephone calls and/or provides for the appropriate emergency response either directly or through communication with the appropriate PSAP.
Trunk	A communication path between central office switches or between the 9-1-1 control office and the PSAP. These are finite resources.
VoIP	*Voice over Internet Protocol*. Technology that permits delivery of voice calls and other real-time multimedia sessions over IP networks.
VPC	*VoIP Positioning Center*. Provides routing information to support the routing of VoIP emergency calls and delivers location information to the PSAP over the existing ALI database infrastructure. Generally, VPCs rely on the VoIP telecommunications service provider to provide and update customers' service location.
WAN	*Wide Area Network*. An IP-based network which spans a large geographic area and consists of two or more interconnected local area networks (LAN). These are usually managed on behalf of local entities involved.

EMS Acronyms and Definitions

3ECHO	*3E's – Enter, Evaluate, Evacuate*. 3ECHO is a FEMA approved course which teaches strategies and tactics for how Police, Fire and EMS

	agencies can safely train and respond together to hostile events, resulting in more lives saved.
EMSMACC	*EMS Multi-Agency Coordination Center*. During large events, such as the Republican National Convention in 2008, an EMSMACC is set up at the MESB offices to coordinate EMS response to not only the large event, but also to ensure adequate resources are available for day-to-day business.
EMSRB	*Emergency Medical Services Regulatory Board*. Licensing board for EMS agencies, certifies emergency medical personnel, and approves EMS training programs. Provides grants to EMS regions, the EMS System Grant and the Volunteer Training Reimbursement (VTR) Grant. The EMSRB also pays each region its share of revenue from seatbelt fines. The grants pay for overhead costs to operate Metro Region EMS, training, research, and coordination of the metro EMS system.
HCID	*High Consequence Infectious Disease*. Examples include Ebola, Marburg Disease, Viral Hemorrhagic Fevers. There is a renewed focus on response to HCID in the public health community.
MRCC	*Medical Resource Control Center*. There are two in the state: one at Hennepin EMS and one at Regions Hospital.
MNAST	*Minnesota Ambulance Strike Team*. An ambulance strike team (AST) consists of five staffed ambulances and one strike team leader. ASTs deploy when an EMS agency requests intrastate assistance; it is possible that MNAST could be requested for an interstate deployment via EMAC. ASTs are also used during large events.
MDH	*Minnesota Department of Health*.
Narcan	Also known as Naloxone. A drug used to reverse or block the effects of opioids, particularly in overdose situations. The MESB has a grant to provide Narcan to first responder agencies.

Radio Acronyms and Definitions

700	*700 MHz band*. A frequency band.
800	*800 MHz band*. A frequency band. This band is utilized by the ARMER system.
AECS	*Auxiliary Emergency Communications Specialist*. A communications position within the ICS structure.
COML	*Communications Unit Leader*. A communications position within the ICS structure.
COMT	*Communications Technician*. A communications position within the ICS structure.

CRTF	*Communications Response Task Force*. A metro team of communications professionals which can be deployed to assist local jurisdictions for special events or disasters. Made up of COMLs, COMTs and RADOs. The RADOs also form the state's Telecommunicator Emergency Response Taskforce (TERT), which can be deployed for interstate needs via EMAC.
Console	Generally, the control interface for fixed radios installed in PSAPs and used by telecommunicators to converse with public safety agencies on the ARMER system. In recent years, Motorola has developed a mobile console, the MCC 7500e, which can be used on laptops.
Control Station	Also known as Consolette. A fixed radio station.
Cooperative Agreement	An agreement between MESB and individual counties (and the City of Minneapolis) which own/operate sub-systems on the ARMER system.
Ethernet	A form of network connectivity. In the ARMER system, network connections are being converted to Ethernet connections from T1 connections.
FirstNet	Has multiple definitions. 1. A nationwide, interoperable, wireless broadband mobile data system for public safety use. Authorized by the Middle Class Tax Relief and Job Creation Act. See the section on FirstNet in the Board Reference Manual for more information. 2. The board/agency which governs the wireless broadband system. ECN leads the effort on this under the term Wireless Broadband.
INCM	*Incident Communications Center Manager*. A communications position within the ICS structure.
INTD	*Incident Tactical Dispatcher*. A communications position within the ICS structure.
LTACs	Statewide, shared law enforcement-only interoperability talkgroups.
Logging	Audio recording of a radio communication. Same term is also used for audio recordings of 9-1-1 calls.
MCC7500E	Motorola consoles used on the system. All PSAPs in the metro region utilize MCC7500 or MCC7500E consoles in the PSAP.
MHz	*Megahertz*. Associated with radio frequencies.
ME TACs	Metro Tactical shared interoperability talkgroups. These are common resources meant for communications across multiple agencies within the metro region.

Microwave	Transmits signals (generally data) from one fixed point in a direct, line of sight fashion to another fixed point. Fixed points are microwave dishes mounted on radio towers.
Mobile	A radio, generally installed in a vehicle, intended to be used while in motion.
Participation Plan	A plan, filed with both the regional emergency communications board and the SECB, which details a county or agencies plan to use the ARMER system. This must be filed and approved by both the regional and state boards before construction can begin or the ARMER system can be used. In the metro region, original ARMER participants didn't file a separate participation plan as they were included in the original system design.
Portable	A freestanding radio which may be hand-carried or worn by a radio user.
RADO	*Radio Operator*. A communications position within the ICS structure.
RIC	*Regional Interoperability Coordinator.* A position within ECN.
RRB/RECB	Regional Radio Board/Regional Emergency Communications Board. Can be used interchangeably. There are seven radio regions in the state: NW, NE, Central, Metro, SW, SE, South Central. All regions have renamed themselves from regional radio boards to regional emergency communications boards (though two boards use emergency services board) to serve as governing boards for 9-1-1. The MESB serves as the metro region's regional emergency communications board; the MESB pre-dates the name changes.
Repeated	To transmit on one frequency and receive on a different frequency, which is done by a repeater or re-broadcast in real time over other channels in the same band. Generally used in reference to conventional systems (non-trunked).
Site	Can be used in two ways. 1. A group of individual radio tower stations in a simulcast cluster. Thus, the Ramsey County subsystem can be referred to as a site. 2. An individual tower site, such as the Empire radio tower (built next to the Dakota Communications Center).
Simplex	To transmit and receive on the same frequency/channel.
Simulcast	All metro sub-systems are programmed and designed to be simulcast systems, meaning, all of the sites in those individual subsystems function as a single site during transmit and receive. So, a conversation on one talkgroup in Eagan, could also be heard in Hastings. Simulcast is a term used regarding trunked systems, rather than conventional systems. Simulcast systems require fewer frequencies, which is advantageous in the metro region.
SWIC	*Statewide Interoperability Coordinator*. A position within ECN.

STACs	Statewide, shared interoperability talkgroups available to all users.
SCIP	*Statewide Communications Interoperability Plan*. The statewide strategic plan for emergency communications, approved by the SECB.
STR	*Strategic Technology Reserve*. Can be used in multiple ways. 1. A state program for sharing technology equipment for use in disaster/emergency/large event situations. 2. An individual component of a portable tower/satellite dish owned by Hennepin County Sheriff's Office. 3. A small portable tower with limited frequencies gifted to each region by the state of Minnesota. This tower is often referred to as the "little" STR tower.
Subscriber	Can be used in two ways. 1. In terms of radios, a subscriber unit is a portable or mobile radio. 2. In terms of ARMER participation, it means an agency which uses or subscribes for use of the ARMER system. Generally, agencies which are described as subscribers do not add infrastructure to the system; rather they simply buy portable or mobile radios for use on the system.
Sub-system	The ARMER system is grouped into sub-systems, each of which have one site controller. In the metro region, these sub-systems are generally organized by counties. There are some exceptions: Carver and Scott Counties are grouped into one sub-system, the Norwood sub-system; Chisago and Isanti Counties are grouped into one sub-system, the North Branch sub-system; Hennepin County operates two sub-systems, Hennepin East and Hennepin West; the Washington County sub-system can be called the Hastings sub-system, based on where the site controller is; and the City of Minneapolis operates a sub-system. Each sub-system has at least one System Manager and Sub-System Administrator. In the metro region, each county is considered a sub-system owner, and owns and operates ARMER infrastructure in the sub-system.
Sub-System Administrator	An individual responsible for the day-to-day radio sub-system operations of a participating agency. Is generally a county employee. Can be used interchangeably with System Administrator.
System Administrator	An individual responsible for day-to-day radio system operations of a participating agency. Can be used interchangeably with System Manager or Sub-System Administrator. The Statewide System Administrator is a MnDOT employee.
System Manager	An individual in charge of the radio system of a participating agency. Can sometimes be used interchangeably with System Administrator.
SUA2/SUA2+	System Upgrade Agreement 2/System Upgrade Agreement 2+. These are types of maintenance agreements with Motorola for the ARMER system. Any agency which owns infrastructure, including consoles, must participate in this agreement and pays a share of the cost to have the agreement/services. The 2 refers to the frequency of system upgrades; our agreement provides an upgrade every two years. The + indicates a

	different level of agreement and this agreement covers the replacement of more equipment than an SUA2. It is also more expensive than an SUA2. System owners prefer to have an SUA2+ when major system components must be replaced.
T1	A high-speed data transmission line which is a point-to-point, dedicated, digital circuit provided by telephone companies. Used to connect to the ARMER system via a wired connection. Has a speed of 1.544 Mbps. T1s are also used in the 9-1-1 system.
TICP	*Tactical Interoperable Communications Plan*. A regional document which lists shared talkgroup, hardware/equipment, or personnel resources. This was originally a required document for the metro region; it is now an optional document.
Talkgroup	The ARMER system's version of a traditional radio channel.
TERT	*Telecommunicator Emergency Response Taskforce*. The Metro Region CRTF serves as Minnesota's TERT by MOU with the State of Minnesota's Homeland Security and Emergency Management. TERTs only go on interstate deployments through the Emergency Management Assistance Compact.
Trunked/Trunking	A computer-managed radio system with multiple radio channels. For each transmission, the computer assigns a channel for the participants on the given talkgroup for the duration of that transaction. Once the transaction is over, the channel is available for use by users of another talkgroup. A conversation on one talkgroup could occur on multiple channels.
UHF	*Ultra-High Frequency*. A frequency band.
VHF	*Very High Frequency*. A frequency band.