WISCONSIN EMERGENCY MEDICAL SERVICES COMMUNICATIONS PLAN

Department of Health Services
Division of Public Health
Bureau of Communicable Diseases and Emergency Response
Wisconsin Emergency Medical Services Section

P-00342 (2/14)

FORWARD

The Wisconsin Emergency Medical Services (EMS) Communications Plan is both a communications guide for EMS providers and an overview of requirements for local EMS systems to assure that a statewide communication plan is in place that can address daily needs as well as large-scale multi-casualty situations. The plan was originally created in 2002 with input from an ad-hoc committee attached to the EMS Advisory Board. Subsequent versions of the plan were adopted as changes in rules and communications technologies occurred.

This current plan, also approved by the EMS Board, blends the original information and guidance with the new interoperability planning and other technical documents released by the Governor-appointed State Interoperability Committee (SIC).

The document is intended to serve four purposes:

1) Provide an overview of EMS communications
2) Provide specific information on EMS communications in Wisconsin
3) Serve as a "user's manual" for providers in creating and maintaining their EMS communications
4) Provide an update to current EMS providers on new communication channels and technologies

The first section provides general information on what is involved in communications between pre-hospital health care providers, Emergency Medical Technicians (EMTs), First Responders, and the other entities with whom they need to communicate on a regular basis. This includes communications with hospitals, other EMS providers, and public safety agencies.

The second section addresses specific information about EMS in Wisconsin. It includes an overview of how communication occurs, the radio channels, and Federal Communications Commission (FCC) rules that apply to Wisconsin EMS service providers.

The third section is a guide to EMS service providers about the laws and provider requirements that govern EMS communications. This section includes information on required radio channels, recommended equipment needs, and a set of questions for providers to consider in setting up their communication system.

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GLOSSARY

9-1-1 – A three-digit emergency telephone number accepted and promulgated by the telephone industry as the nationwide emergency number.

9-1-1 Enhanced – A three-digit emergency telephone number that has additional features such as automatic phone number identification and automatic location identification.

Advanced life support or "ALS" means use, by appropriately trained and licensed personnel, in pre-hospital and interfacility emergency care and transportation of patients, of the medical knowledge, skills and techniques included in the department-approved training required for licensure of emergency medical technicians-intermediate under Administrative Code DHS 111 or emergency medical technicians-paramedic under Administrative Code DHS 112 and which are not included in basic life support.

Base station - An item of fixed radio hardware consisting of a transmitter and a receiver.

Basic life support or "BLS" means emergency medical care that is rendered to a sick, disabled or injured individual, based on signs, symptoms or complaints, prior to the individual's hospitalization or while transporting the individual between health care facilities and that is limited to use of the knowledge, skills and techniques received from training under s. 256.15, Wisconsin Stats, and Wisconsin Administrative Code DHS 110 as a condition for being issued an EMT-basic license.

Call sign – Federal Communications Commission assigned identifying letters and numbers used for identification of a radio station, transmitter, or transmission.

Communications system – A collection of individual communications networks, transmission systems, relay stations, control and base stations, capable of interconnection and interoperations that are designed to form an integral whole. The individual components must serve a common purpose, be technically compatible, employ common procedures, respond to control, and operate in unison.

Continuous tone-controlled squelch system (CTCSS) – A system in which radio receiver(s) are equipped with a tone-responsive device that allows audio signals to appear at the receiver audio output only when a carrier modulated with a specific tone is received. The tone must be continuously present for continuous audio output. CTCSS functions are sometimes referred to by various trade names, such as Private Line or PL (Motorola Communications & Electronics), Channel Guard or CG (General Electric Mobile Radio Department), or Tone Call Guard or TCG (E.F. Johnson).

Coverage area – In a radio communications system, the geographic area where reliable communications exist, usually expressed in terms of miles extending radically from a fixed radio station.

Direct dispatch method – A system in which all 9-1-1 call answering and radio dispatching is performed by the personnel at the public safety answering point.

Emergency medical dispatch center – Any agency that routinely accepts calls for EMS dispatcher assistance from the public and/or that dispatches pre-hospital emergency medical personnel and equipment to such requests.

Emergency medical dispatcher (EMD) – A trained public safety telecommunicator with additional training and specific emergency medical knowledge essential for the efficient management of emergency medical communications.

Emergency medical service (EMS) – Services used in responding to the perceived individual need for immediate medical care in order to prevent loss of life or aggravation of physiological or psychological illness or injury.

Emergency Medical Technician – Basic – An individual who is licensed by the Department of Health Services to administer basic life support and to properly handle and transport sick, disabled or injured individuals.

Federal Communications Commission (FCC) – A board of commissioners appointed by the president under the Communications Act of 1934 to formulate rules and regulations and to authorize use of radio communications. The FCC regulates all communications in the United States by radio or wireline, including television, telephone, radio, facsimile and cable systems.

Fire Ground – A series of VHF radio channels that are designated statewide for use as on-scene tactical communications for fire, rescue, EMS, and MABAS operations.

First Responder – A person who provides emergency medical care to a sick, disabled or injured individual prior to the arrival of an ambulance.

Frequency – The number of cycles, repetitions, or oscillations of a periodic process completed during a unit of time. The frequency of waves in the electromagnetic spectrum (radio waves) is designated in hertz, kilohertz, or megahertz (Hz, KHz, or MHz). One hertz is equivalent to one cycle per second.

Frequency coordination – The cooperative selection and allocation of radio frequencies such that all systems can operate with minimum interference.

ICSG – The Interoperable Communications Standards Group was created by the Wisconsin Interoperability Council to develop standards that will improve the quality and consistency of public safety radio communications across Wisconsin. Standards developed by the ICSG will assist public safety answering points (PSAP) or dispatch centers, as well as provide a credentialing process for individuals responsible for communications under Incident Command System (ICS) protocols.

IFERN – Interagency Fire Emergency Radio Network, formerly WISTAC 1.

Intercept – The transfer of care of a patient between an ambulance and an air medical provider or ALS provider that can provide a higher level of medical care.

MABAS – Mutual Aid Box Alarm System. A method developed for mutual aid and communications support during incidents requiring a large, multi-agency response.

Med Pair – The ten MED Pair channels are designated for EMT-Intermediate and Paramedic care. The MED channels are dedicated to communications among ambulance and hospital personnel directing patient care prior to arrival at the hospital at a paramedic and intermediate level. The channel is for emergency medical care/telemetry and should be limited to this purpose. A secondary use for air medical dispatch is acceptable if it does not interfere with the ability to communicate to provide patient care.

MARC – Mutual Aid Radio Channels (MARC 1, 2, 3, and 4) are statewide interoperability frequencies. Used for communications between public safety agencies and providers.

Medical control or online medical control – Voice communicated medical direction from a physician to EMT personnel to assist in the care provided by EMT personnel in the field.

Mobile station – A two-way radio station in the mobile service intended to be used while in motion or during halts at unspecified points.

Narrow Banding – The effort underway by the FCC to develop more VHF channels for public safety communications. Current channels are 25 KHz. in width. Narrow band channels will be 12.5 KHz. in width. All public safety radios must comply with narrow banding regulations by the end of 2012.

P25 or Project 25 – Project 25 (P25) is the standard for the design and manufacture of interoperable, digital two-way wireless communications products.

Paging – A one-way communications service from a base station to mobile or fixed receivers that provides signaling or information transfer by means such as tone, tone-voice, tactile, optical readout, etc.

Pre-arrival Instructions – Instructions given by the dispatcher to the caller to assist the caller in keeping the patient from injuring him/herself further and to give the caller life-saving information and/or instruction to potentially aid a patient in a life-threatening situation prior to the arrival of medically trained professionals.

Private Line (PL) – Motorola's trademarked name for its continuous, tone-controlled squelch system, CTCSS. DPL, or digital PL, which uses a burst of digital information rather than a continuous tone.

Radio – The transmission and reception of signals by means of electromagnetic waves without a connection wire.

Regional EMS system – An emergency medical services area (trade, catchment, market, patient flow, geographic or governmental) that provides essentially all of the definitive emergency medical care for all emergencies and for the most critically ill and injured patients within the area.

Repeater – A base station radio that receives radio transmissions from weaker mobile and portable radios and simultaneously re-transmits the communications over a much larger area. This method uses two separate channels or frequencies, unlike simplex; see below.

SCIP – The State Agency SCIP Implementation Group has been established by the Interoperability Council to guide the implementation of the Statewide Communications Interoperability Plan (SCIP) among Wisconsin's state government agencies.

SIC – State Interoperability Council. A council appointed by the Governor to address the public safety communications interoperability issues in our state and to develop a solution.

Simplex – Radio communications that use the same frequency to both transmit and receive.

Tactical – Communications that take place over short distances, often at the scene of an incident involving public safety responders. These communications are usually operations based.

Talk group – A term given to assigned groups on a trunked radio system. Unlike a conventional radio which assigns users a certain frequency, a trunk system takes a number of frequencies allocated to the system. Then the control channel coordinates the system so talk groups can share these frequencies seamlessly.

Tone code – A specified character of transmitted tone signals required to effect a particular selection or function.

Trunking – A digital technology that forms "talk groups" instead of channels on computer controlled communications systems and infrastructures. The chief advantage is a greatly increased loading capacity on the system.

Ultra High Frequency (UHF) – Frequencies between 300 and 3000 MHz.

Very High Frequency (VHF) – Frequencies between 30 and 3000 MHz.

VOIP or ROIP – Voice over Internet Protocol (IP) or Radio over IP. This is a method of transmitting and receiving voice communications, either telephony or radio frequency (RF), over the Internet to achieve interoperability between non-compatible systems.

VTAC or VCALL – These are a series of VHF radio channels that are designated within the nationwide interoperability plan for use as on-scene, tactical communications channels for any public safety interagency tactical communications use.

WISCOM – The Wisconsin Interoperable System for Communications (WISCOM) is a shared statewide VHF trunked communications system that public safety personnel in communities across the state will use to communicate during a major disaster, large-scale incident, or in day-to-day use.

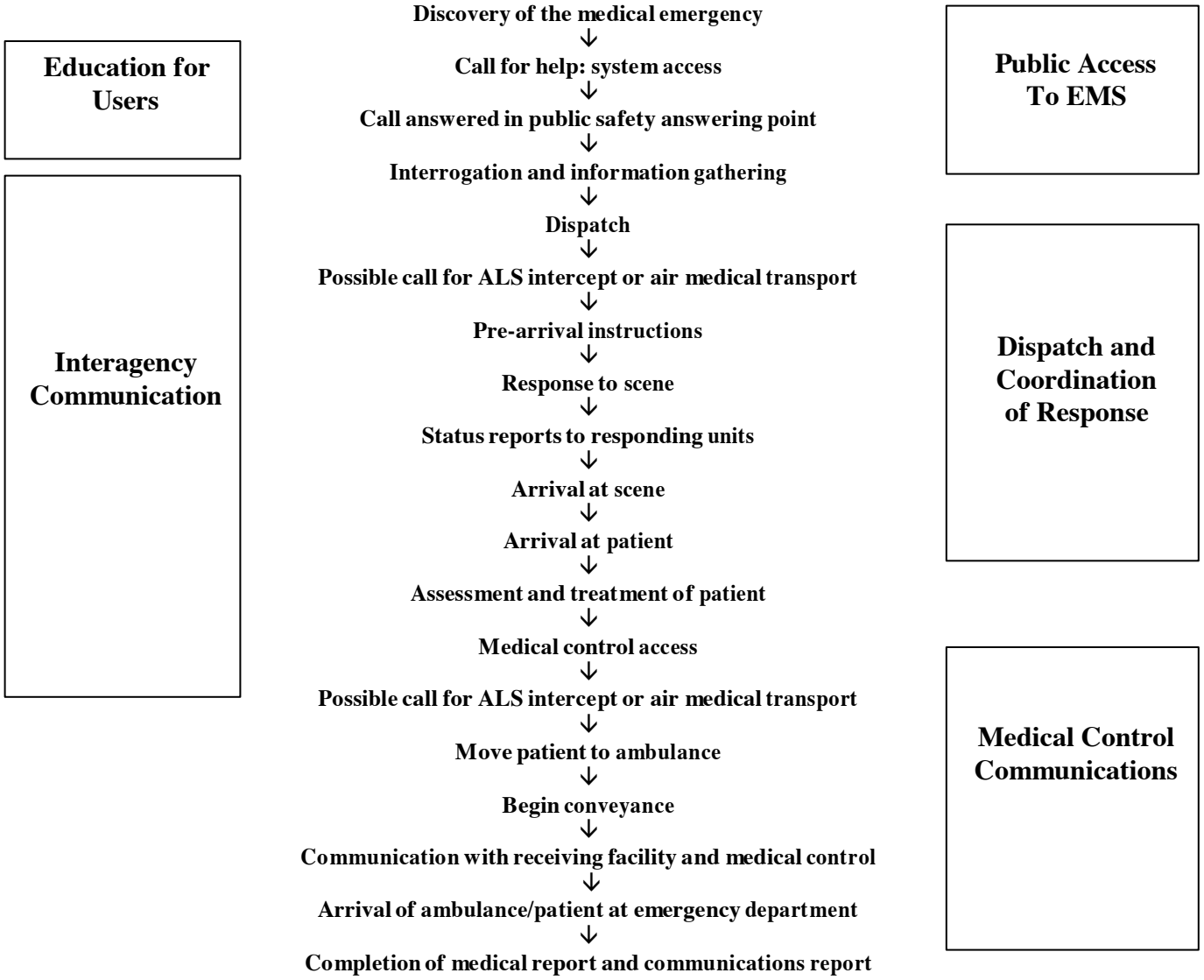
SECTION 1 – COMMUNICATION SYSTEM COMPONENTS

1.0 Introduction – System Components

An Emergency Medical Services (EMS) communication system must take into account many factors. The goal of being able to exchange key information for the EMS system to function is dependent on a system that takes into account five key components:

- Public access to EMS after discovery of a medical emergency;
- Dispatch and coordination of response;
- Medical control communications;
- Interagency Communication (for resource and disaster coordination);
- Education for Users.

Figure 1: Flow of Pre-hospital EMS Highlighting Role of Emergency Medical Communication



1.1 Public Access to EMS after Discovery of a Medical Emergency

An essential component of an EMS communications system during a medical emergency is public access to the three-digit public safety phone number 9-1-1. This is achieved through the use of 9-1-1 public safety answering points (PSAPs), which route all emergency calls to the appropriate agency. Enhanced 9-1-1 (E9-1-1) has the following additional features beyond the basic 9-1-1 system:

- Selective routing of the call to the appropriate center based on originating location
- Automatic number identification (ANI) and automatic location identification (ALI) of the caller

Currently, all Wisconsin counties, but one, are equipped for enhanced 9-1-1 operations. Cellular telephone access to 9-1-1 is still problematic because enhanced 9-1-1 features are not functional without additional infrastructure. Quite often, the location of the caller and routing of the message to the appropriate EMS service are still dependent on spoken information from the caller, which may lead to delayed response times. Current efforts are under way to equip and fund one "wireless PSAP" per county, for automatic location and number identification.

1.2 Dispatch and Coordination of EMS Response

After notification that a call has been received, the next component is to dispatch the appropriate EMS unit to the scene. There is a variety of dispatch methods in Wisconsin. Law enforcement agencies or agencies with combined law enforcement, fire, and EMS responsibilities provide the bulk of EMS communications. Many (approximately half) of the persons providing these services in Wisconsin have completed some type of formal training as an EMS communicator.

Central medical dispatch's primary function is service coordination. This includes: (1) access to EMS staff from the incident; (2) dispatch and coordination of EMS resources; (3) coordination with medical facilities; and (4) coordination with other public safety services.

Pre-arrival medical instructions are an important aspect of EMS communications. However, it may be difficult for a communicator in a multifunctional agency to provide pre-arrival instruction while simultaneously being responsible for other functions. The time and cost of training associated with the provision of medical instructions prior to the arrival of the ambulance require an additional commitment from the dispatch center that includes initial and continuing education and quality improvement activities. Because the provision of pre-arrival instructions constitutes indirect patient care, the Wisconsin EMS Advisory Board has recommended that EMS dispatch centers use an Emergency Medical Dispatch (EMD) system. Further, this EMD system should be approved and monitored by the dispatch center's medical director, and the telecommunicators using the system should be certified in its use.

Ambulance and field personnel should also be trained in the use of communication equipment. Training would include at least the following capabilities:

- The ability to use all the communication equipment for the ambulance
- The ability to communicate accurate patient care reports
- Use of new digital communications technologies and appropriate use of new mutual aid channels

1.3 Medical Control Communications

Medical control communications provide field personnel with a direct link to relay information and receive medical advice from a hospital or other health care facility. In some cases, these communications might also include biomedical telemetry of EKG information directly to the facility while the patient is in route. Medical control communications have been accomplished primarily by radios in the past, but cellular telephones are being used in more cases today. (For cellular phone communication, see Section 3.3.)

The degree to which medical control communications is used varies by areas of the state. Factors that influence how much medical control communications are used include geographical factors and the degree to which standing orders (patient care protocols) are allowed by the ambulance service medical director.

1.4 Interagency Communications (for resource and disaster coordination)

There are a number of reasons why coordination of interagency communications is an important piece of the Wisconsin State EMS Communications Plan. Interagency communications are needed primarily for resource and disaster response coordination, to optimize the ability to communicate with other agencies when necessary, but avoid interference with other agencies when a response is specific to only one agency.

The need for interagency communications can be illustrated by the following list of possible communication paths:

- Hospital to hospital
- Ambulance to hospital
- Ambulance to ambulance
- Ambulance to dispatch
- Hospital to dispatch
- First responder team to medical control
- First responder team to ambulance
- First responder team to dispatch
- Helicopter to hospital
- Ambulance to helicopter
- Helicopter to dispatch
- Telemetry from ambulance
- Medical control to ambulance
- Communication between all public safety agencies

1.5 Education for Users

A communications system is only as good as its users. People need to be educated in each component of the system for it to work as efficiently as possible. In the case of EMS communications, knowledge of how and when to access the system and activate an EMS response, is essential. Continued public education efforts are needed to help in this area.

SECTION 2 – STATE EMS COMMUNICATIONS PLAN

2.0 Administrative Overview – State Authority

Wisconsin Statutes s. 256.08(4)(a) establishes the Wisconsin Department of Health Services as the lead state agency for Emergency Medical Services (EMS). Wisconsin Statutes s.256.08(4)(g) provides substantial authority for the promulgation of administrative rules to plan and implement guidelines for EMS systems and to provide technical assistance to local EMS agencies. A major component of each of the EMS licensing rules is development and submission of an operational plan for each ambulance service, which includes a communications component.

Additionally, statewide planning for coordinated use of radio frequencies for EMS communications is necessary so individual efforts do not become counterproductive to the system. The Federal Communications Commission (FCC) and Emergency Medical Radio Service (EMRS) rules require frequency coordination to comply with state EMS communications plans where they exist.

The Wisconsin EMS Section in the Department of Health Services currently provides limited assistance to Wisconsin EMS providers and agencies in applying for radio licensing and frequencies. FCC license applicants for Emergency Medical Radio Service frequencies submit a request for a letter of support to the State EMS Section describing their proposed application. If the proposal is in conformance with the state EMS communications plan, the Wisconsin EMS Section will provide a letter of support, which the applicant then submits to the national frequency coordinator.

Specific information on FCC license requirements and steps to follow in obtaining a license can be found in Section 2.7 of this guide, and also in Appendix G.

Goals for a State EMS Communications System
The five fundamental goals identified in the National EMS Directors Planning Guide for Emergency Medical Communications are:

1. EMS communications systems should meet the needs of emergency medical systems and nationally accepted standards of functional performance.
2. Local EMS communications should be compatible with, and should not interfere with, EMS communications systems in neighboring or adjacent areas and within the state or in other geographical areas.
3. Local EMS communications systems should be compatible with, and should not interfere with, other types of communications systems that are used by non-EMS agencies.
4. EMS communications should make maximum use of state and other common resources, where this approach is appropriate and cost-effective.

5. The Wisconsin Emergency Medical Services Section acts as the representative of local EMS systems in dealing with federal agencies and national organizations[1].

Taken together, these goals have the following implications for Wisconsin:

- Local services need to follow some minimum standards that ensure communications can occur
- There is oversight of how communications occur on a regional and statewide basis to avoid conflicts and allow for interagency communications
- Communication costs are high and resources must be shared to implement and maintain a communications system
- The Wisconsin EMS Section must serve as a partner and communications conduit between federal agencies and local systems

The following parts of Section 2 describe the key elements of the State EMS Communications Plan. The EMS communications system must provide the means by which emergency medical resources can be accessed, mobilized, managed, and coordinated in both day-to-day and disaster situations.

2.1 Public Access to EMS after Discovery of a Medical Emergency

The goal of the Wisconsin EMS communications system is to assure a system in which anyone should be able to summon help rapidly in an emergency situation whether for medical, police, fire, rescue, or other emergency need.

The entire state has access to the 9-1-1 system. E9-1-1 (enhanced 9-1-1) coverage is available in all but one county at the time of this writing. Work needs to continue to make E9-1-1 statewide and to include the ability to locate wireless calls to the physical location of the caller. The 9-1-1 system is the recommended means of accessing the EMS system for medical emergencies.

2.2 Dispatch and Coordination of Response

There is a variety of dispatch methods in Wisconsin. Law enforcement agencies or agencies with combined law enforcement, fire, and EMS responsibilities provide the bulk of EMS communications. Many of the persons providing these services in Wisconsin have completed some type of formal training as an EMS communicator.

The communication center's primary function is service coordination. This includes: (1) access to EMS from the incident; (2) dispatch and coordination of EMS resources; (3) coordination with medical facilities; and (4) coordination with other public safety agencies. Recent emphasis on National Incident Management System (NIMS) compliance will assist communications and coordination at large events.

The Wisconsin EMS Board has recommended that EMS dispatch centers use an Emergency Medical Dispatch (EMD) system. Further, this EMD system should be approved and monitored by the dispatch center's medical director and the telecommunicators using the system should be certified in its use.

[1] Planning Emergency Medical Communications, National Assoc. of EMS Directors and National Highway Traffic Safety Administration, June 1995

2.3 Medical Control Communications

The EMS communications system must provide EMS field personnel (Advanced and Basic Life Support) with a channel for communication that permits the exchange of vital medical information between EMS responders and medical control and the receiving medical facility (if different from medical control). This channel can be provided through a variety of mechanisms (radio frequencies and cell phones) and may be dependent on local needs and resources. Additional means of communication such as digital phones and satellite communications will likely be future options.

Although many patient care protocols are executed by standing orders, contact with medical control is still needed or required for certain procedures or conditions. When to contact medical control is determined by the ambulance service medical director and approved by the State EMS Section as part of the service's operational plan required under Wisconsin Administrative Code DHS 110.35.

The ability to communicate with medical control is a requirement for all ambulance services. The ability to talk with medical control from the patient's side is an additional requirement at the EMT-intermediate and EMT-paramedic levels.

Telemetry - Telemetry uses the assigned radio frequencies for not only voice communications, but also medical data such as EKG rhythms. Such systems can use carrier tones or digital encryption to transmit data. The system must have the ability to establish a baseline data set through the use of calibration signals or error correcting software to ensure data accuracy. Systems using telemetry must also adhere to FCC requirements for data transmission.

2.4 Interagency Communications (for resource and disaster coordination)

EMS communications systems should provide a means of communication to enable medical and logistical coordination between EMS field personnel, emergency department personnel and other agencies. If necessary, regional or statewide coordination may be necessary based on the EMS operational plan submitted by the provider to the Wisconsin Department of Health Services, EMS Unit. Below are several examples:

Local Coordination – The EMS communications system must have the capability for mobile and portable radios to communicate between agencies. EMS communications systems should be able to describe their communications capability with mutual aid responding units when an emergency requires multiple EMS agency vehicle response.

Regional Coordination – EMS agencies should establish resource coordination (e.g., first responder, ambulance and other EMS resources) to ensure that the highest level of care required is available to the patient. The EMS communications system should provide for coordination of EMS resources. EMS agencies should consider their involvement in large-scale disasters and anticipate the need for interagency communications. Preplanning with local emergency management agencies is an important aspect of interoperability for agencies' communications systems.

Intercept and Air Medical – The local ambulance service must be able to describe how communications take place for ambulance intercepts and air medical transports.

- This includes a means of communication between units once they are dispatched and the ability to communicate to arrange for the transfer of patient care.
- In the case of air medical transports, this includes a means of communication between air

and ground units once they are dispatched. The recommended channel for air medical communications with ground units while the air medical unit is on the way to the landing zone is MARC 2 or EMS C. (See Sections 2.6 and 3.1 for more information.)

Back-up Communications – The concept of back-up communications is for disaster scenarios and redundancies in case of equipment failure. Concerning EMS communications specifically, the concept of back-up communications as applied to base station or other fixed radio equipment means they must provide the following capabilities:

- Enable dispatch and response communications to continue despite outage of the primary dispatch and response radio base station
- Enable local medical coordination communications to continue despite outage of the primary base hospital
- Minimize the need for additional, widespread training and maintain needed flow of EMS personnel

A failure plan must include provisions for these critical functions:

- Medical control
- Dispatch
- Interagency coordination

The requirement for each ambulance service to have four basic frequencies creates a mechanism for back-up communications. (More detailed information on the required frequencies can be found in Section 2.6.)

Telephone Interconnection – Cellular phones may be used as a primary communications method for ambulance service providers. However, because of some of their limitations, cellular phones cannot take the place of required radio equipment and frequencies. (A more detailed list of the pros and cons of cellular phone vs. radio use can be found in Section 3.3.) Communication during interfacility transport is one area in which cell phones may have an advantage over radios because cell phone use avoids the need to program separate radio channels for large numbers of hospitals. EMS providers may also wish to provide telephone interconnection capability with specialty information and treatment centers (i.e., poison center, burn centers, etc.) that may have statewide contact numbers.

2.5 Ambulance Licensure and Frequency Authorization

State approval for an EMS provider license includes authorization for the ambulance provider and first responders to operate on all EMS frequencies as part of the State FCC licenses. Ambulance providers have permission to use EMS frequencies as outlined and approved as part of their operational plan.

2.6 Frequencies and Tones for EMS Communications

Standard EMS channels are 155.340, 155.400, 155.280, MARC 1, MARC 2 channels and Med Pairs. All EMS transport providers must have the capability to communicate on all these channels except for the Med Pairs and 155.280. Services that do not currently have this capability must add it when purchasing new equipment or when they reprogram equipment. The above requirement applies regardless of which technology or communications system is used locally.

It is recommended that all first responder services have the capability to communicate on 155.340, 155.400, 155.280, and the MARC channels. Use of these frequencies should be coordinated with the local ambulance provider and other related agencies.

There may be existing local systems that will be exceptions to the normal use of these frequencies as explained below. These exceptions should be taken into consideration in terms of how they may affect other agencies and when planning for county and regional communications needs.

EMS B (formerly State EMS channel) (155.340) – 155.340 is dedicated to Basic Life Support (BLS) and Advanced Life Support (ALS) communications with a primary purpose of communications between emergency medical field personnel and hospital personnel directing patient care prior to arrival at the hospital. A secondary purpose is on-scene medical coordination for mobile – to – mobile medical communications. This second use should first be attempted on alternate frequencies (local, 155.280, MARC and then 155.340, in that order). The 155.340 channel is for emergency medical care and should be limited to this purpose.

All ambulances licensed in Wisconsin are required to have the capability to communicate with their receiving hospitals and medical control hospitals on this channel. All hospitals are also required to have the capability to communicate on 155.340 so ambulances from any area can make contact with the facility. This can be accomplished through direct 155.340 communications or through a patch from a central dispatch center.

EMS A (formerly State ALS channel) (155.400) – 155.400 is dedicated to communications among ambulance and hospital personnel directing patient care prior to arrival at the hospital while using advanced skills. The primary and secondary use of this frequency should be for any ALS communications. This channel is for emergency medical care and should be limited to this purpose. Proper use includes communications for ALS intercepts and air medical contact.

EMS C (formerly State Coordination channel) (155.280) – The primary purpose of 155.280 is for communications between hospitals; it provides a backup to the public telephone system, particularly in times of disaster. A secondary purpose is for coordination of landing zone operations for air medical providers, or for interagency EMS field coordination for disasters. This frequency is optional for hospitals that have other means of inter-hospital communication.

Hospital Tones and Codes – Each hospital in Wisconsin is assigned a CTCSS tone or PL (Private Line). These tones are coordinated to allow communications with just the needed hospital and not other local facilities. Tones for EMS B, EMS A, and EMS C are the same for any given facility. A digital code, D156, is also assigned for statewide mutual aid use to allow multiple users and agencies access at the same time. This applies to all three channels, EMS B, EMS A, and EMS C. Providers and hospitals are urged to program accordingly at their next opportunity. (See Appendix D for this list.)

Mutual Aid Radio Channels: MARC 1 (151.280/153.845), MARC 2 (151.280), MARC 3 (formerly WISTAC 2, 154.010), MARC 4 (formerly WISTAC 3, 154.130) – The Mutual Aid Radio Channels (MARC 1, 2, 3, and 4) are statewide interoperability channels. These channels are to be used for communications between public safety agencies and providers of any discipline. Note that MARC 1 is configured for wide area repeater usage. State interoperability plans include the

bolstering of the MARC 1 repeater system throughout the state. (See Appendix B for information on the MARC plan.)

IFERN (formerly WISTAC 1) (154.265) – This channel is for use by any EMS, fire, or rescue use for mutual aid operations and for on-scene tactical use. This channel is part of the MABAS system, and is often used for MABAS dispatch functions.

UHF MED Pairs – The ten MED channels are designated for EMT-Intermediate and Paramedic care. The MED channels are dedicated to communications among ambulance and hospital personnel directing patient care prior to arrival at the hospital at a paramedic and intermediate level. The channel is for emergency medical care/telemetry and should be limited to this purpose. A secondary use for air medical dispatch is acceptable if it does not interfere with the ability to communicate to provide patient care.

UHF Med Pairs Table

Med Mobile Receive channel frequencies	Med Mobile Transmit channel frequencies
Med 1 463.000	Med 1 468.000
Med 2 463.025	Med 2 468.025
Med 3 463.050	Med 3 468.050
Med 4 463.075	Med 4 468.075
Med 5 463.100	Med 5 468.100
Med 6 463.125	Med 6 468.125
Med 7 463.150	Med 7 468.150
Med 8 463.175	Med 8 468.175
Med 9 462.950	Med 9 467.950
Med 10 462.975	Med 10 467.975

Med 9 and Med10 are used primarily for dispatch. Note that these ten pairs of channels are configured for repeater usage. The Med Pair channels need to be coordinated in a geographical area. A requesting provider will normally be approved for Med Pairs 1-8, but normal use is usually limited to either Med Pairs 1-4 or Med Pairs 5-8. Use of these frequencies must be coordinated by the State EMS Communications Coordinator in conjunction with the dispatch center and ambulance services in the area of requested use.

Trunking Systems (800 MHz/VHF/UHF) – Trunking systems are being used more frequently, especially in urban areas, due to the loading, traffic, and management advantages that this technology offers. The WISCOM VHF trunked communications system is being implemented statewide for public safety use. These systems are generally all-discipline in nature, and can be used for ambulance communications between ambulance providers and hospitals. However, because ambulances need to be able to communicate with any hospital in the state, the required VHF channels still apply as an adjunct to communication.

Air Medical Frequency Recommendations – Local providers must be able to describe how communication takes place for air medical transports. This includes a means of communication between air and ground units once they are dispatched. Often, the air provider cannot land unless a communications link is established with on-scene responders on the ground. The recommended channel for air medical communications on the way to the landing zone is MARC 2. There are several reasons for using MARC 2:

- MARC 2 is a universal public safety frequency that can be used by all landing zone personnel (first responders, EMTs, fire and law enforcement)
- Designating MARC 2 as the standard frequency will avoid confusion in searching for the frequency to hook-up the air and ground units
- Designating MARC 2 will also avoid the inappropriate use of other frequencies that should be left open for other communication

Keep in mind, however, that during a mass casualty event, the MARC 1 repeater system may be activated. The use of MARC 2 by in-flight aircraft could interfere with the MARC 1 repeater system due to the increased transmit range an aircraft would have on MARC 2, which is also the input frequency of the MARC 1 repeater.

An alternative frequency choice for air medical communications would be EMS C (155.280). Regional plans should have the flexibility to use this option if it is a more practical frequency than MARC.

Use of any other channels must be documented in the air medical provider's operational plan, which also must address that these other channels are in addition to the required channels.

2.7 FCC License Requirements

Overview of regulations – The Federal Communications Commission (FCC) regulates all radio communications within the United States. Radio communications are controlled by requiring licensure of all radio transmitters. FCC rules govern who is eligible to license a transmitter and the specific frequencies and equipment configurations allowed for each frequency or service group. (A copy of FCC rules can be obtained from http://wireless.fcc.gov.)

Prior to operating a radio transmitter, the provider must obtain a license from the FCC. A license can be obtained by completing Form 601, "FCC Application for Wireless Telecommunications Bureau Radio Service Authorization." Frequency concurrence for the license application is obtained by contacting the EMS Communications Coordinator at the Wisconsin Emergency Medical Services Section, (608) 266-1568. (See Appendix G for further details.)

EMS service providers and hospitals are required to obtain an FCC license for operating a base station (fixed location radio) and for mobile radios that are not covered by another license. Mobile and portable units operating on all frequencies can legally use a frequency through any of the following licenses:

- Holding their own FCC license
- Hospital license from medical control hospital
- County-wide license
- Statewide license

EMS transport and first responder services that are licensed by the State have permission to use the required EMS channels (EMS B 155.340, EMS A 155.400, MARC 1 and MARC 2) in mobile and portable radios, as well as EMS C 155.280. MARC 1 usage, however, may need to be coordinated with local agencies. The authorization to use these channels is part of approval for the provider license and applies to all mobile and portable radios, but does not apply to base (fixed) stations. In

cases where the hospital uses additional frequencies, EMS mobile and portable radios can operate with authorization under a hospital's license. Providers can contact those hospitals with which they routinely communicate and request authorization under their license.

Providers requiring a FCC license should do the following:

1. When applying for a Public Safety Pool frequency that was formerly included in the Emergency Medical Radio Service (this includes EMS B 155.340, EMS A 155.400, EMS C 155.280, and the Med channels), first request a letter of support from the State EMS Section. This request should include the following information:

    - That the applicant provides ongoing basic or advanced life support (if applying for 155.280, 155.340, 155.400, or the Med channels)
    - That the application is in conformance with the State's EMS Communications Plan

2. File FCC Form 601 and the letter of support from the Wisconsin Emergency Medical Services Section with the national frequency coordinator. Contact the EMS Communications Coordinator for further details regarding this process:

Wisconsin Emergency Medical Services Unit
EMS Communications Coordinator
1 W. Wilson St, Room 1150
PO Box 2659
Madison, WI 35701-2659
Phone: (608) 261-9306
Fax: (608) 261-6392
Email: paul.wittkamp@wisconsin.gov

SECTION 3 – LOCAL PROVIDER AND SYSTEM STANDARDS

The system requirements defined in Section 3 will be part of each Provider's EMS operational plan submitted to the Wisconsin EMS Section for ambulance provider license approval.

3.0 Overview and Laws

There are required operational plan and tactical elements for every EMS license level. The references to EMS communications in Wisconsin Administrative Code 110 are as follows:

DHS 110.04 (76): "Wisconsin Emergency Medical Services Communications Plan" means the written plan for emergency medical services communications throughout the state that specifies what communication equipment is required on all ambulances.

DHS 110.33 (12): Maintain a communications system that allows communication between medical control and EMS personnel and complies with the Wisconsin Emergency Medical Services Communications Plan.

DHS 110.44 (10): Description of on-site communications between the event manager, event staff, dispatch, and 9−1−1 dispatch.

DHS 110.44 (11): Explanation of how medical control will be contacted for on-site medical direction at the patient location.

There are also requirements in Wisconsin Administrative Code TRANS 309 for the communications equipment in an ambulance. The two specific requirements are as follows:

TRANS 309.18 (1): Each ambulance shall have a permanently mounted radio to contact the hospital emergency department of the hospital it serves. There shall be a microphone and speaker permanently mounted in the patient compartment. The radio shall comply with Administrative Code DHS 110.

TRANS 309.18 (2): Each ambulance service provider operating ambulances staffed either wholly or partially with EMTs practicing advance skills shall have remote two-way communications for personnel when they are away from the ambulance.

3.1 EMS Provider Requirements – Radio Frequency Capabilities

EMS Providers – As described in section 2.6, standard EMS frequencies are EMS B, EMS A, EMS C, MARC 1, MARC 2 and Med Pair channels. All EMS providers must have the capability to communicate on all these channels except for the Med Pairs and 155.280. Services that do not currently have this capability must add it when purchasing new equipment or when they reprogram equipment as part of an upgrade in level of care. It is recommended that all first responder services have the capability to communicate on 155.340, 155.400, 155.280 and the MARC channels. Use of these frequencies should be coordinated with the local ambulance provider and other related agencies to avoid congestion on these frequencies.

See Appendix A for a detailed table of EMS communications frequencies. More information on EMS frequencies can be found in Section 2.6.

3.2 EMS Equipment Needs and Requirements

Ambulance: Must have a primary and back-up means of communication. Must have a VHF radio with the following specifications:

- VHF radio with the four required frequencies.
- PL, local or statewide – Must have PL tones for local hospitals, hospitals in adjacent counties and hospitals for which you routinely do emergency transports. Providers do not need to have PL tones for all hospitals in the state; the statewide D156 code should be programmed for mutual aid operations. Interfacility transports can be done by cell phone.
- Required radio in patient compartment.
- 25-100 watts depending on what is appropriate for the area served. Higher power is recommended for rural areas with large coverage areas or services that have unique radio coverage issues.

Hospital: Must have a VHF radio with EMS B (155.340). EMS A (155.400) and EMS C (155.280) are optional, but recommended for ALS communications and coordination. Local and statewide PL codes should be programmed. See "Hospital Tones and Codes" in Section 2.6 for further details. The ability to operate on, or at least monitor, other local public safety channels should be considered, although this may take coordination with these other agencies. The ability to monitor the local EMS / fire paging channel will provide lead time for the emergency department in case of a mass event. An emergency department phone number for ambulance contact is also recommended.

Narrowband Requirements: On January 1, 2013, EMS radio systems operating in the 150-512 MHz radio bands must cease operating using 25 kHz efficiency technology, and begin operating using at least 12.5 kHz efficiency technology. This deadline is the result of an FCC effort that began almost two decades ago to ensure more efficient use of the spectrum and greater spectrum access for public safety and non-public safety users. Migration to 12.5 kHz efficiency technology will allow the creation of additional channel capacity within the same radio spectrum, and support more users. See Appendix D for further information from the Wisconsin Interoperability Council regarding the narrowband effort and how it affects EMS communications. Also see the following link for more information: http://transition.fcc.gov/pshs/public-safety-spectrum/narrowbanding.html

3.3 Considerations in Setting Up Your Communication Systems and Purchasing Equipment

These are questions you need to consider in completing the communications component of your EMS operational plan. Although not all of these questions must be addressed in the operational plan, they should all be considered as you set up your communications system.

Dispatch Considerations

1. How do citizens access EMS?
   E9-1-1
   9-1-1
   Wireless E9-1-1

2. How are you dispatched?
   Radio/pager
   Telephone
   Mobile data terminal

3. Who does your dispatching?
   Law enforcement
   County public safety
   Private company
   Other _____

4. Are your dispatchers trained to give pre-arrival instructions?
   Yes
   If yes, what system or method to provide consistency is in use?
   If yes, who provides medical direction for the dispatch agency?
   No

Response Considerations

1. What is your communication link to other public safety agencies such as law enforcement and fire departments (method/frequency)?

2. Do you have intercept agreements with ALS? If yes, how do you communicate with them (method/frequency)?

3. Do you use air medical for transports? If yes, how do you communicate with them (method/frequency)? ***Recommendation: MARC 2, then EMS C (155.280)***

4. Do you have telecommunications ability with your first responders? If yes, how do you communicate with them (method/frequency)?

5. If you provide service for special events outside your primary service area, what is the method of contact with the local provider, hospital, dispatch center and medical control for special events?

6. If you provide service for interfacility transports outside your primary service area, what is the method of contact with the receiving hospital and medical control during transport?

Medical Control Considerations

1. Describe method(s) for contact with medical control:
   155.400
   155.340
   Med Pairs
   Cell phone
   Other _____

2. What is the method to contact the receiving hospital during interfacility transports if it is different from method to contact medical control?

3. If applicable, what is your method for telemetry?

Communications Equipment Considerations

1. How large is your coverage area, and will your equipment cover that entire area? How did you test your coverage area to determine the extent of communications coverage?

2. Are there any unique geographical characteristics that may affect communications coverage? (Such as forests, hills, buildings, etc.)

3. Did you consider both daily needs and "worst case scenarios" in determining your communication needs, including a back-up means of communication?

4. What frequencies and codes do you need programmed into your radio, in addition to the four required frequencies?

   Local hospital tones
   Regional hospital tones
   Statewide code
   Dispatch frequency
   Med Pairs
   IFERN, MARC 3, MARC 4
   Others _____

Radio vs. Cellular Phone Use

Pros and Cons for Radio vs. Cellular phone use:

PROS – Two-way radio communication	**CONS – Two-way radio communication**
❑ Local control ❑ Paging ❑ Monitor other agencies ❑ Broadcast capabilities ❑ Multi channel ❑ Direct contact on talk-around channels ❑ Once in place, ongoing costs are minimal ❑ Priority access	❑ Cost of implementation and operation ❑ Communications can be monitored ❑ Coverage area dependent on related equipment (towers, etc.) ❑ Cannot provide telemetry ❑ Interference from other users
PROS – Cellular phone	**CONS – Cellular phone**
❑ Good voice quality in strong cell area ❑ Large number of available channels ❑ Communications are not monitored ❑ Can provide limited telemetry ❑ Access to translation services	❑ Dependent on location and availability of cell tower ❑ Can only talk to one location (cannot broadcast) ❑ Cell system will be overloaded in a disaster ❑ Cannot interrupt an ongoing conversation ❑ Vulnerable to availability of an open phone line ❑ Battery life ❑ Beyond local system control

APPENDICES:

A. Detailed table of EMS communication channels

B. Wisconsin VHF Mutual Aid Channels

C. Regional Communications Planners

D. Suggested Priority for EMS Channel Programming

E. Wisconsin hospital tones for EMS B (155.340 MHz) and EMS A (155.400 MHz)

F. EMS and Other Mutual Aid Channel Use

G. WISCOM Statewide VHF Trunking Communications Backbone

H. WISCOM Local Hospital / EMS Talk Groups

I. WISCOM EMS Statewide Talk Group Plan

APPENDIX A - DETAILED TABLE OF EMS COMMUNICATIONS CHANNELS:

Channel Name	Frequency	Tone	Call Sign	Primary Use	Secondary Use
EMS B (Former State EMS) FOR LOCAL HOSPITAL AND STATEWIDE USE. **EMS REQUIRED**	155.340 (receive and transmit) **LOCAL HOSPITAL USE** 155.340 (receive and transmit) **STATEWIDE MUTUAL AID**	Varies (transmit) Varies (receive) See Appendix D D156 (transmit) None (receive)	KH4762	BLS and ALS contact with hospitals for medical care.	On-scene medical coordination from mobile to mobile (should be done on other channels, if possible).
EMS A (Former State ALS) FOR LOCAL HOSPITAL AND STATEWIDE USE. **EMS REQUIRED**	155.400 (receive and transmit) **LOCAL HOSPITAL USE** 155.400 (receive and transmit) **STATEWIDE MUTUAL AID**	Varies (transmit) Varies (receive) See Appendix D D156 (transmit) None (receive)	KH4762	ALS contact with hospitals for medical care.	This includes ALS contact for intercepts and air medical.
MARC1 **MARC2** Mutual Aid Radio Channels **EMS REQUIRED**	151.280 (receive) 153.845 (transmit) 151.280 (receive and transmit)	136.5 (transmit) 136.5 (receive) 136.5 (transmit) 136.5 (receive)	WNPG812 WNPG812	Statewide interagency communications.	MARC 2 for landing zone coordination and air-scene communications.

Channel Name	Frequency	Tone	Call Sign	Primary Use	Secondary Use
IFERN (Former WISTAC1) **MARC3** (Former WISTAC2) **MARC4** (Former WISTAC3) More mutual aid channels	154.265 (receive and transmit) 154.010 (receive and transmit) 154.130 (receive and transmit)	210.7 (transmit) None (receive) 71.9 (transmit) 71.9 (receive) 82.5 (receive) 82.5 (receive)	KO2099 KO2099 KO2099	Mutual aid for EMS / fire/ rescue, on-scene tactical. Usage for all three channels is restricted in some parts of the state. See plan text for further description.	Mutual aid for any discipline. IFERN receive tone of 210.7 may be required in the future as WISTAC1 / IFERN transition is completed.
EMS C (Former State Coordination)	155.280 (receive and transmit)	D156 (transmit) D156 (receive)	KH4762	Communication between hospitals. Use may be limited due to non-EMS users.	Field coordination between public health agencies. Alternate for air medical.
MED1 **MED2** **MED3** **MED4** **MED5** **MED6** **MED7** **MED8** **MED9** **MED10** UHF Med Channels	463.000 (receive) 468.000 (transmit) 463.025 468.025 463.050 468.050 463.075 468.075 463.100 468.100 463.125 468.125 463.150 468.150 463.175 468.175 462.950 467.950 462.975 467.975	Transmit - Varies by hospital. See Appendix D	Varies by hospital	EMT-P and EMT-I to base for medical care.	Air-medical dispatch in some areas.

APPENDIX B - **WISCONSIN VHF MUTUAL AID CHANNELS:**
WISCONSIN STATEWIDE VHF PUBLIC SAFETY COMMON FREQUENCY CHART

MOBILE RX FREQ	RX TONE	MOBILE TX FREQ	TX TONE	STATE NAME	NATIONAL NAME	STATE CALLSIGN	PRIMARY USE
155.340	None	155.340	D156	EMS B	VMED28	KH4762	EMS BASIC STATEWIDE
155.340	None	155.340	See chart D	EMS B	VMED28	KH4762	EMS BASIC LOCAL
155.400	None	155.400	D156	EMS A	NONE	KH4762	EMS ALS STATEWIDE
155.400	None	155.400	See chart D	EMS A	NONE	KH4762	EMS ALS LOCAL
155.280	D156	155.280	D156	EMS C	NONE	KH4762	EMS COORD & HOSPITAL
151.280	136.5	153.845	136.5	MARC1	NONE	WNPG812	ALL
151.280	136.5	151.280	136.5	MARC2	NONE	WNPG812	ALL
154.010	71.9	154.010	71.9	MARC3	NONE	KO2099	ALL
154.130	82.5	154.130	82.5	MARC4	NONE	KO2099	ALL
156.000	136.5	156.000	136.5	WEM CAR	NONE	KGT483	EMERGENCY MANAGEMENT
155.475	156.7 OPTIONAL	155.475	156.7	VLAW31 FORMERLY WISPERN	VLAW31	KA6570	LAW

APPENDIX B continued - **WISCONSIN VHF MUTUAL AID CHANNELS:**

WISCONSIN STATEWIDE VHF PUBLIC SAFETY
COMMON FREQUENCY CHART

155.370	146.2 OPTIONAL	155.370	146.2	POINT	NONE	KA6570	LAW
154.265	210.7	154.265	210.7	IFERN	VFIRE22	KO2099	MUTUAL AID DISP. ON SCENE TACTICAL
153.830	69.3	153.830	69.3	FG RED	NONE	KO2099	FIRE OPS. ON SCENE TACTICAL
154.280	74.4	154.280	74.4	FG WHITE	VFIRE21	KO2099	FIRE OPS. ON SCENE TACTICAL
154.295	85.4	154.295	85.4	FG BLUE	VFIRE	KO2099	FIRE OPS. ON SCENE TACTICAL
153.8375	91.5	153.8375	91.5	FG GOLD	NONE	KO2099	FIRE OPS. ON SCENE TACTICAL
154.2725	94.8	154.2725	94.8	FG BLACK	VFIRE24	KO2099	FIRE OPS. ON SCENE TACTICAL
154.2875	136.5	154.2875	136.5	FG GRAY	VFIRE25	KO2099	FIRE OPS. ON SCENE TACTICAL
154.3025	67.0	154.3025	67.0	IFERN2	VFIRE26	KO2099	FIRE OPS. ON SCENE TACTICAL
155.160	127.3	155.160	127.3	NATSAR	SAR	KO2099	SEARCH RESCUE
155.7525	156.7	155.7525	156.7	VCALL10	VCALL10	KO2099	ALL
151.1375	156.7	151.1375	156.7	VTAC11	VTAC11	KO2099	ALL

APPENDIX B continued - **WISCONSIN VHF MUTUAL AID CHANNELS:**

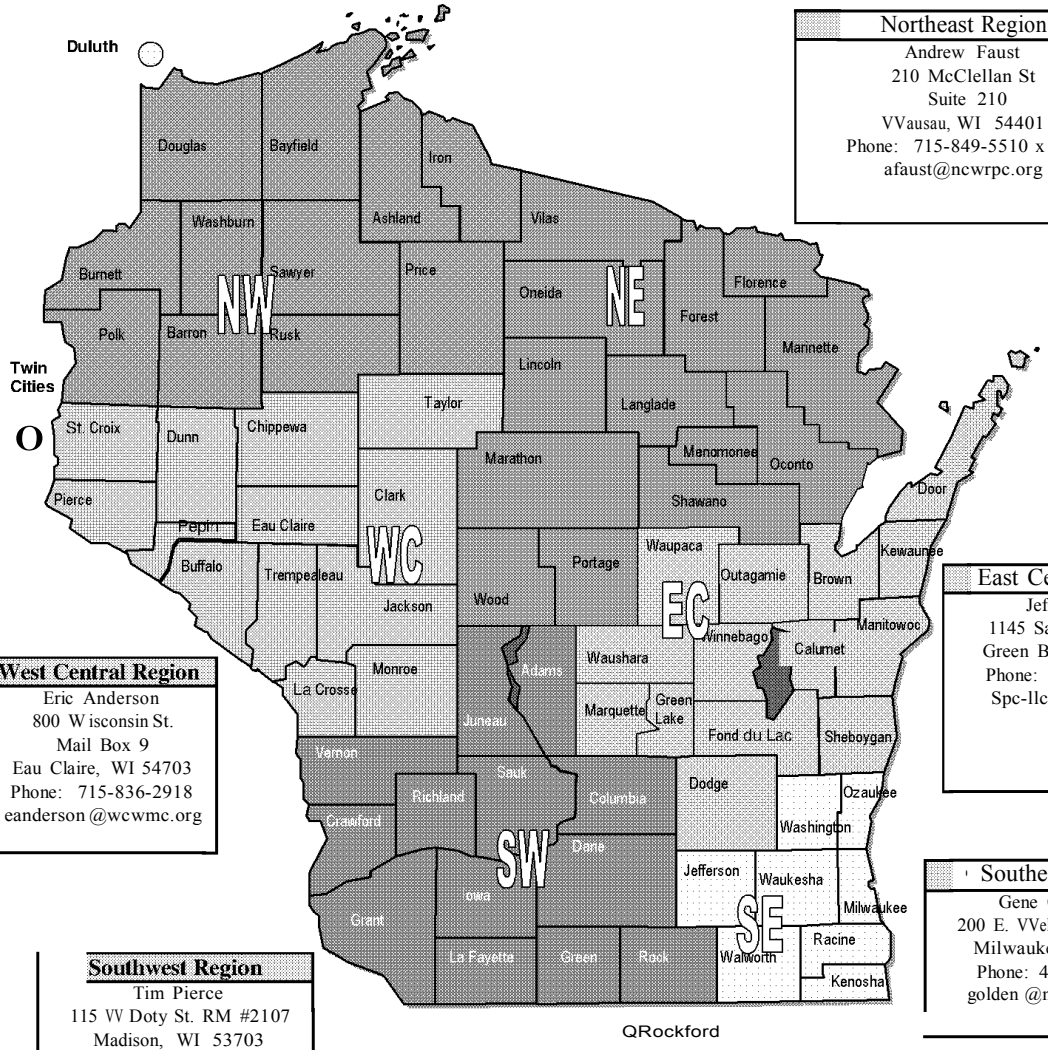
WISCONSIN STATEWIDE VHF PUBLIC SAFETY
COMMON FREQUENCY CHART

154.4525	156.7	154.4525	156.7	VTAC12	VTAC12	KO2099	ALL
158.7375	156.7	158.7375	156.7	VTAC13	VTAC13	KO2099	ALL
159.4725	156.7	159.4725	156.7	VTAC14	VTAC14	KO2099	ALL
151.1375	N293 OPTIONAL	151.1375	N293	VTAC11DG	NONE	KO2099	ALL
154.4525	N293 OPTIONAL	154.4525	N293	VTAC12DG	NONE	KO2099	ALL
158.7375	N293 OPTIONAL	158.7375	N293	VTAC13DG	NONE	KO2099	ALL
159.4725	N293 OPTIONAL	159.4725	N293	VTAC14DG	NONE	KO2099	ALL
151.1375	156.7	159.4725	136.5	VTAC36	NONE	KO2099	ALL
151.1375	N293 OPTIONAL	159.4725	N293	VTAC36DG	NONE	KO2099	ALL
155.3475	156.7	155.3475	156.7	NONE	VMED29	KH4762	EMS PORTABLE ONLY

APPENDIX C - REGIONAL COMMUNICATIONS PLANNERS:

Wisconsin Interoperability Initiative

Regional Communications Interoperability Planners



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Wisconsin Interoperability Coordinator
POSITION OPEN

Communications Interoperability Planning Analyst
POSITION OPEN

***APPENDIX D* – SUGGESTED PRIORITY FOR EMS CHANNEL PROGRAMMING:**

NOTE: Required VHF EMS channel programming indicated by asterisk.

PRIORITY	EMS	NOTES
1a	EMS B LOCAL A	Same as EMS B 155.340 MHz, PL tone for local hospital A
1b	EMS B LOCAL B	Same as EMS B 155.340 MHz, PL tone for local hospital B
1c	EMS B LOCAL C	Same as EMS B 155.340 MHz, PL tone for local hospital C
1d	EMS B LOCAL D	Same as EMS B 155.340 MHz, PL tone for local hospital D
2*	**EMS B STATE***	**Ambulance to hosp comms, alt for EMS tactical on scene**
3*	**MARC1***	**Wide area mutual aid repeater channel, all discipline**
4*	**MARC2***	**Medical aircraft LZ coordination, on-scene tactical**
5a	EMS A LOCAL A	Same as EMS A 155.400 MHz, PL tone for local hospital A
5b	EMS A LOCAL B	Same as EMS A 155.400 MHz, PL tone for local hospital B
5c	EMS A LOCAL C	Same as EMS A 155.400 MHz, PL tone for local hospital C
5d	EMS A LOCAL D	Same as EMS A 155.400 MHz, PL tone for local hospital D
6*	**EMS A STATE***	**ALS to hospital, ALS intercept communications**
7	MARC3	Fire rescue – EMS on-scene tactical communications
8	MARC4	Fire rescue – EMS on-scene tactical communications
9	IFERN	MABAS mutual aid base / mobile dispatch
10	EMS C	Hospital to hospital comms, alternate for air medical LZ
11	FG RED	MABAS fireground operations, on-scene tactical
12	FG WHITE	MABAS fireground operations, on-scene tactical
13	FG BLUE	MABAS fireground operations, on-scene tactical
14	VLAW31	Interagency comms only if directed by law enforcement
15	NATSAR	Coordination for public safety and search - rescue groups
16	WEM CAR	Emergency management on scene tactical incident comms
17	FG GOLD	MABAS fireground operations, on-scene tactical
18	FG BLACK	MABAS fireground operations, on-scene tactical
19	FG GRAY	MABAS fireground operations, on-scene tactical
20	IFERN2	Alternate MABAS mutual aid base / mobile dispatch
21	VCALL10	Public safety interagency calling channel, nationwide
22	VTAC11	Public safety interagency tactical communications
23	VTAC12	Public safety interagency tactical communications
24	VTAC13	Public safety interagency tactical communications
25	VTAC14	Public safety interagency tactical communications
26	VTAC36	Public safety interagency wide-area repeater on-scene comms

APPENDIX E - WISCONSIN HOSPITAL TONES FOR EMS B 155.340 AND EMS A 155.400 CHANNELS

CITY	HOSPITAL	TONE (hz)	TELEPHONE
Amery	Amery Regional Medical Center	131.8	715 268 7151
Antigo	Langlade Hospital	88.5	715 623 2331
Appleton	Appleton Medical Center	110.9	920 731 4101
Appleton	St. Elizabeth Hospital - Appleton	107.2	920 738 2000
Ashland	Memorial Medical Center	107.2	715 685 5320
Baldwin	Baldwin Area Medical Center	82.5	715 684 3311
Baraboo	St. Clare Hospital Health Services	100.0	608 356 5561
Barron	Luther Middlefort Hospital Northland	82.5	715 537 3186
Beaver Dam	Beaver Dam Community Hospital, Inc.	114.8	920 887 7181
Beloit	Beloit Memorial Hospital	118.8	608 364 5151
Berlin	Berlin Memorial Hospital	91.5	920 361 1313
Black River Falls	Black River Memorial Hospital	162.2	715 284 5361
Bloomer	Luther Middlefort Hospital Chippewa Valley	136.5	715 568 2000
Boscobel	Boscobel Area Health Care	123.0	608 375 4112
Brookfield	Elmbrook Memorial Hospital	103.5	262 785 2000
Burlington	Aurora Memorial Hospital of Burlington	110.9	262 767 6100
Chilton	Calumet Medical Center	123.0	920 849 2386
Chippewa Falls	St. Joseph's Hospital	114.8	715 726 3220
Columbus	Columbus Community Hospital	136.5	920 623 2200
Cudahy	Aurora St. Luke's South Shore	156.7	414 489 4055
Cumberland	Cumberland Memorial Hospital	146.2	715 822 2741
Darlington	Memorial Hospital of LaFayette County	114.8	608 776 4466
Dodgeville	Upland Hills Health Center	206.5	608 930 8000
Durand	Chippewa Valley Hospital	186.2	715 672 4211
Eagle River	Eagle River Memorial Hospital	118.8	715 479 7411
Eau Claire	Luther Middlefort Hospital	110.9	715 838 3242
Eau Claire	Sacred Heart Hospital	110.9	715 839 4222
Edgerton	Edgerton Hospital and Health Services	136.5	608 884 3441
Elkhorn	Aurora Lakeland Medical Center	114.8	262 741 2120
Fond du Lac	St. Agnes Hospital	97.4	920 929 2300
Fort Atkinson	Fort Healthcare	97.4	920 568 5000
Friendship	Moundview Memorial Hospital	173.8	608 339 3331

CITY	HOSPITAL	TONE (hz)	TELEPHONE
Grafton	Aurora Medical Center Grafton	127.3	262 329 1000
Grantsburg	Burnett Medical Center, Inc.	110.9	715 463 5353
Green Bay	Aurora Baycare Medical Center	131.8	920 288 4301
Green Bay	Bellin Hospital and Health Center	192.8	920 433 7534
Green Bay	St. Mary's Hospital Medical Center	151.4	920 498 4560
Green Bay	St. Vincent's Hospital	173.8	920 433 8383
Hartford	Aurora Medical Center – Washington County	167.9	262 673 2300
Hayward	Hayward Area Memorial	100.0	715 934 4321
Hillsboro	St. Joseph's Community Health Services	123.0	608 489 2211
Hudson	Hudson Memorial Hospital	167.9	715 531 6000
Janesville	Mercy Health System	100.0	608 756 6000
Janesville	St. Mary's Hospital Medical Center	141.3	608 373 8000
Kenosha	Aurora Medical Center	107.2	262 942 5640
Kenosha	United Hospital System - Kenosha Med Center	107.2	262 656 2202
Keshena	Menominee Tribal Clinic	146.2	715 799 3361
Kewaunee	St. Mary's Kewaunee Memorial Hospital	82.5	920 388 2210
LaCrosse	Gunderson Lutheran Medical Center	97.4	608 785 0530
LaCrosse	Franciscan Skemp Health Care - LaCrosse	97.4	608 785 0940
Ladysmith	Rusk County Memorial Hospital	118.8	715 532 5561
Lake Geneva	Mercy Walworth Hospital Medical Center	114.8	262 245 2230
Lancaster	Grant Regional Health Care	123.0	608 723 2143
Madison	Meriter Park Hospital	167.9	608 267 6000
Madison	St. Mary's Hospital Medical Center	167.9	608 251 6100
Madison	University of Wisconsin Hosp and Clinics	167.9	608 262 2398
Madison	Wm S. Middleton Memorial Veterans Admin	167.9	608 255 2345
Manitowoc	Holy Family Memorial Medical Center	179.9	920 320 2011
Marinette	Bay Area Medical Center	156.7	715 735 6621
Marshield	Ministry Saint Joseph's Hospital	82.5	715 387 7676
Mauston	Hess Memorial Hospital	82.5	608 847 6161
Medford	Memorial Health Center	88.5	715 748 8107
Menomonee Falls	Community Memorial Hospital	173.8	262 251 1000
Menomonie	Red Cedar Medical Center – Mayo Health System	100.0	715 235 5531
Mequon	Columbia St. Mary's Hospital – Ozaukee Campus	206.5	262 243 7373
Merrill	Good Samaritan Health Center	85.4	715 536 5511
Milwaukee	Children's Hospital of Wisconsin	156.7	414 266 2000

CITY	HOSPITAL	TONE (hz)	TELEPHONE
Milwaukee	Columbia St. Mary's Hospital – Columbia Campus	156.7	414 961 3300
Milwaukee	Aurora Sinai Medical Center	156.7	414 219 6666
Milwaukee	Wheaton Franciscan St. Francis Hospital	156.7	414 647 5165
Milwaukee	Wheaton Franciscan St. Joseph's Regional Medical Center	156.7	414 447 2171
Milwaukee	Aurora St. Luke's Medical Center	156.7	414 649 6333
Milwaukee	Columbia St. Mary's Hospital – Milwaukee Campus	156.7	414 291 1200
Monroe	The Monroe Clinic	114.8	608 324 1160
Neenah	Theda Clark Medical Center	141.3	920 729 3100
Neillsville	Memorial Medical Center	85.4	715 743 3101
New London	New London Family Medical Center	100.0	920 531 2000
New Richmond	Westfield Hospital	127.3	715 246 2101
Oconomowoc	Memorial Hospital of Oconomowoc	131.8	262 569 9119
Oconto	Oconto Memorial Hospital and Medical Center	167.9	920 834 8800
Oconto Falls	Community Memorial Hospital	103.5	920 846 3444
Osceola	Ladd Medical Center	91.5	715 294 2111
Oshkosh	Aurora Medical Center of Oshkosh	131.8	920 456 7400
Oshkosh	Mercy Medical Center of Oshkosh, Inc.	186.2	920 236 2000
Osseo	Luther Middlefort - Oakridge	173.8	715 597 3121
Park Falls	Flambeau Hospital	146.2	715 762 2484
Platteville	Southwest Health Center	123.0	608 348 2331
Pleasant Prairie	United Hospital System – St Catherine Med Center	107.2	262 577 8202
Portage	Divine Savior Hospital	162.2	608 742 4131
Prairie du Chien	Prairie du Chien Memorial Hospital	151.4	608 326 2431
Prairie du Sac	Sauk Prairie Memorial Hospital	141.3	608 643 3311
Racine	Wheaton Franciscan Healthcare - All Saints	229.1	262 636 4201
Reedsburg	Reedsburg Area Medical Center	103.5	608 524 6487
Rhinelander	Ministry Saint Mary's Hospital	114.8	715 369 6700
Rice Lake	Lakeview Medical Center	192.8	715 234 1515
Richland Center	Richland Hospital, Inc.	118.8	608 647 6321
Ripon	Ripon Medical Center	85.4	920 748 3101
River Falls	River Falls Area Hospital	85.4	715 425 6155
Shawano	Shawano Medical Center	127.3	715 526 2111

CITY	HOSPITAL	TONE (hz)	TELEPHONE
Sheboygan	Aurora Sheboygan Memorial Medical Center	186.2	920 451 5553
Sheboygan	St. Nicholas Hospital	146.2	920 459 8300
Shell Lake	Indianhead Medical Center	123.0	715 468 7833
Sparta	Franciscan Skemp Health Care - Sparta Campus	156.7	608 269 1770
Spooner	Spooner Health Systems	123.0	715 635 2111
St. Croix Falls	St. Croix Regional Medical Center	203.5	715 483 3261
Stanley	Ministry Our Lady of Victory Hospital	156.7	715 644 5571
Stevens Point	Ministry Saint Michael's Hospital	206.5	715 346 5100
Stoughton	Stoughton Hospital	91.5	608 873 6611
Sturgeon Bay	Door County Memorial Hospital	123.0	920 743 5566
Summit	Aurora Medical Center - Summit	162.2	262 434 1000
Sun Prairie	St Mary's Emergency Center	151.4	608 229 8484
Superior	St. Mary's Hospital of Superior	151.4	715 395 5400
Tomah	Tomah Memorial Hospital	156.7	608 372 2181
Tomahawk	Sacred Heart Hospital	85.4	715 453 7762
Two Rivers	Aurora Medical Center of Manitowoc County	94.8	920 794 5135
Viroqua	Vernon Memorial Hospital	131.8	608 637 4261
Watertown	Watertown Memorial Hospital	88.5	920 262 4222
Waukesha	Waukesha Memorial Hospital	141.3	262 928 1000
Waupaca	Riverside Medical Center	203.5	715 258 1040
Waupun	Waupun Memorial Hospital	71.9	920 324 5581
Wauwatosa	Froedtert Memorial Hospital	156.7	414 259 3000
Wauwatosa	Wisconsin Heart Hospital	156.7	414 778 7800
Wausau	Aspirus Wausau Hospital	167.9	715 847 2121
Weston	Ministry Saint Clare's Hospital	179.9	715 393 3000
West Allis	West Allis Memorial Hospital	156.7	414 328 6111
West Bend	St. Joseph's Community Hospital	94.8	262 334 5533
Whitehall	Tri-County Memorial Hospital	107.2	715 538 4361
Wild Rose	Wild Rose Community Memorial Hospital	110.9	920 622 3257
Wisconsin Rapids	Riverview Hospital	82.5	715 423 6060
Woodruff	Howard Young Medical Center	114.8	715 356 8000

APPENDIX F - EMS AND OTHER MUTUAL AID CHANNEL USE: AUTHORIZATION PROCEDURES MISCELLANEOUS OTHER NOTES

The use of mutual aid channels must be authorized. All two-way public safety radio use is controlled by the Federal Communications Commission (FCC).

Refer to appendix B of this document.

Authorization for the use of those channels covered by the FCC state license call sign KO2099 shown in appendix B is obtained by making written request to:

Frequency Coordinator
WSP, Bureau of Communications
PO Box 7912, Madison,
WI 53707-7912.

The Frequency Coordinator's phone number is 608-266-2497.

Authorization for use of those EMS required channels covered by the FCC state license call signs KH4762 and WNPG812 shown in Appendix B is granted when the EMS service provider license is granted. Without the service provider license, channel usage may be obtained by making written request to:

EMS Communications Coordinator
Wisconsin EMS Section
PO Box 2659, Madison,
WI 53701-2659.

The Communications Coordinator's phone number is 608-261 9306.

Except for the EMS channels, EMS A, EMS B, and EMS C, the use of mutual aid channels is granted for mobile or portable use only. Base station usage of EMS channels must be licensed by the hospital or provider. See Section 2.7 FCC License Requirements for further details.

All EMS service providers and hospitals in Wisconsin are encouraged to implement the statewide common EMS and mutual aid channels. Adopting the State EMS Communications Plan will foster further interoperability among all EMS responders in out-of-service area mutual aid situations and also foster communications between EMS and responders from other disciplines.

In some cases local assignments may conflict with the State EMS Communications Plan. It is highly desirable for these situations to be integrated into the state plan. The State Frequency Coordinator and EMS Communications Coordinator will work with those county and local EMS agencies affected to address these situations.

APPENDIX G - WISCOM OVERVIEW:
WISCONSIN STATEWIDE VHF TRUNKING COMMUNICATIONS NETWORK
FOR PUBLIC SAFETY RESPONDERS

Most local emergency responders communicate with responders from neighboring communities by programming their public safety radios with a small number of shared "mutual aid" channels. This approach works well for routine incidents but does not support emergency communications between agencies outside these established networks, resulting in communication failures when coordination is especially critical and time is of the essence.

The Wisconsin Interoperable System for Communications (WISCOM) is a shared system that first responders in communities across the state will use to communicate during a major disaster or large-scale incident. WISCOM will support up to four simultaneous conversation paths during an incident and dramatically increase the current capacity available with statewide mutual aid channels, allowing responders from any area of the state to assist another community without losing communications capabilities.

The WISCOM build out is almost complete. With WISCOM, 95% of the state will have coverage using mobile public safety radios.

WISCOM HAS THE FOLLOWING ADVANTAGES:

- Leverages existing radio towers and other infrastructure, resulting in less initial cost.
- Does not use proprietary technology. Itwill be flexible and work with the wide variety of local systems currently operating in the state.
- Shares a statewide infrastructure that will result in long-term cost savings for everyone. Currently, communities are already spending millions of dollars on systems that do not allow interoperability. As communities replace their aging local systems, they will be able to leverage the state backbone, sharing infrastructure costs and avoiding costly duplication of equipment. Communities can then build additional local coverage and capacity to meet their needs when they are ready.
- Will be managed by the Statewide System Management Group (SSMG), which includes public safety executives from federal, tribal, state, county and local law enforcement, fire, EMS and emergency management disciplines. This willensureg that the WISCOM project has input from a variety of potential users and meets the needs of the entire public safety community.

EMS agencies should think seriously about establishing WISCOM capability to enhance interoperability and bolster communications.

APPENDIX H - WISCOM LOCAL HOSPITAL / EMS TALK GROUPS:

CITY	HOSPITAL	LOCAL EMS TALK GROUP	TALK GROUP ALIAS
Amery	Amery Regional Medical Center	4885	POHEARMC
Antigo	Langlade Hospital	4850	LGHELANH
Appleton	Appleton Medical Center	4879	OUHEAMC
Appleton	St Elizabeth Hospital	4880	OUHESEH
Ashland	Memorial Medical Center	4802	ALHEMMC
Baldwin	Baldwin Area Medical Center	4900	SCHEBAMC
Baraboo	St Clare Hospital	4905	SAHESCH
Barron	Mayo Clinic Health System-Northland Barron	4805	BNHEMNB
Beaver Dam	Beaver Dam Community Hospital	4840	DOHEBDCH
Beloit	Beloit Memorial Hospital	4894	ROHEBMH
Berlin	Berlin Memorial Hospital	4839	GLHEBMH
Black River Falls	Black River Memorial Hospital	4841	JAHEBRMH
Bloomer	Mayo Clinic Health System Chippewa Valley	4813	CHHEMCV
Boscobel	Boscobel Area Health Care	4835	GTHEBAHC
Bowler	Stockbridge-Munsee Health & Wellness Center	4908	SHHESMH
Brookfield	Wheaton Franciscan Healthcare - Elmbrook Memorial Hospital	4924	WKHEEMH
Burlington	Aurora Memorial Hospital Burlington	4890	RAHEAMHB
Chilton	Calumet Medical Center	4812	CAHECMC
Chippewa Falls	St Joseph's Hospital - Chippewa Falls	4815	CHHESJH
Columbus	Columbus Community Hospital	4816	COHECCH
Cudahy	Aurora St. Luke's South Shore Hospital	4861	MCHEASLS

CITY	HOSPITAL	LOCAL EMS TALK GROUP	TALK GROUP ALIAS
Cumberland	Cumberland Memorial Hospital	4803	BNHECMH
Darlington	Memorial Hospital of Lafayette County	4849	LFHEMHLC
Dodgeville	Upland Hills Health	4825	IOHEUHH
Durand	Chippewa Valley Hospital	4883	PEHECVH
Eagle River	Ministry-Eagle River Memorial Hospital	4915	VIHEERMH
Eau Claire	Mayo Clinic Health System in Eau Claire	4831	ECHEMCEC
Eau Claire	Sacred Heart Hospital	4832	ECHESHH
Edgerton	Edgerton Hospital & Health Services	4895	ROHEEHH
Elkhorn	Aurora Lakeland Medical Center	4916	WWHEALMC
Fond du Lac	St Agnes Hospital	4834	FDHESAH
Fort Atkinson	Fort Memorial Hospital/Fort HealthCare	4842	JEHEFMH
Franklin	Wheaton Franciscan Healthcare - Franklin	4869	MCHEWFHF
Friendship	Moundview Memorial Hospital & Clinics	4801	ADHEMMH
Grafton	Aurora Medical Center Grafton	4881	OZHEAMCG
Grantsburg	Burnett Medical Center	4811	BTHEBMC
Green Bay	Aurora BayCare Medical Center	4806	BRHEABMC
Green Bay	Bellin Memorial Hospital	4807	BRHEBMH
Green Bay	Bellin Psychiatric Center	4808	BRHEBPC
Green Bay	St Mary's Hospital Medical Center - Green Bay	4809	BRHESMH
Green Bay	St Vincent Hospital	4810	BRHESVH
Greenfield	Kindred Hospital Milwaukee	4866	MCHEKHM
Hartford	Aurora Medical Center Washington County	4920	WAHEAMCW
Hayward	Hayward Area Memorial Hospital	4906	SWHEHAMH
Hillsboro	St Joseph's Health Services	4913	VEHESJHS

CITY	HOSPITAL	LOCAL EMS TALK GROUP	TALK GROUP ALIAS
Hudson	Hudson Hospital & Clinics	4901	SCHEHHC
Janesville	Mercy Hospital and Trauma Center	4896	ROHEMHTC
Janesville	Mercy Hospital and Trauma Center Emergency North	4897	ROHEMHER
Janesville	St Mary's Janesville Hospital	4898	ROHESMJH
Kenosha	Aurora Medical Center Kenosha	4844	KEHEAMCK
Kenosha	Kenosha Medical Center Campus - United Hospital System	4845	KEHEKMC
LaCrosse	Gundersen Lutheran Medical Center	4847	LCHEGLMC
LaCrosse	Mayo Clinic Health System Franciscan Healthcare	4848	LCHEMFH
Ladysmith	Rusk County Memorial Hospital and Nursing Home	4899	RUHERCMH
Lake Geneva	Mercy Walworth Hospital & Medical Center	4917	WWHEWHMC
Lancaster	Grant Regional Health Center	4836	GTHEGRHC
Madison	Meriter Hospital	4819	DAHEMERH
Madison	St Mary's Hospital Medical Center	4821	DAHESMH
Madison	University of Wisconsin Hospital and Clinics	4823	DAHEUWHC
Madison	William S. Middleton Memorial Veterans Hospital	4824	DAHEVAMC
Manitowoc	Holy Family Memorial	4854	MTHEHFM
Marinette	Bay Area Medical Center	4857	MRHEBAMC
Marshfield	Ministry Saint Joseph's Hospital	4935	WOHESJH
Mauston	Mile Bluff Medical Center	4843	JUHEMBM
Medford	Memorial Health Center Medford	4911	TAHEMHC
Menomonee Falls	Community Memorial Hospital	4923	WKHECMH
Menomonie	Mayo Clinic Health System - Red Cedar	4830	DUHEMCRC
Mequon	Columbia - St Mary Ozaukee	4882	OZHECSMO
Merrill	Ministry Good Samaritan Health Center	4851	LIHEGSHC

CITY	HOSPITAL	LOCAL EMS TALK GROUP	TALK GROUP ALIAS
Milwaukee	Aurora Sinai Medical Center	4859	MCHEASMC
Milwaukee	Aurora St. Luke's Medical Center	4860	MCHEASLM
Milwaukee	Children's Hospital of Wisconsin	4863	MCHECHW
Milwaukee	Columbia - St Mary Milwaukee	4864	MCHECSMM
Milwaukee	Froedtert Hospital	4865	MCHEFROH
Milwaukee	Milwaukee County Paramedic Base	4858	MCHEPB
Milwaukee	Wheaton Franciscan - St. Joseph	4868	MCHEWFSJ
Milwaukee	Wheaton Franciscan Healthcare - St. Francis	4870	MCHEWFSF
Monroe	Monroe Clinic	4838	GRHEMONC
Neenah	Children's Hospital of Wisconsin-Fox Valley	4932	WIHECHW
Neenah	Theda Clark Medical Center	4934	WIHETCMC
Neillsville	Memorial Medical Center Neillsville	4938	CLHEMMC
New London	New London Family Medical	4929	WPHENLFM
New Richmond	Westfields Hospital	4902	SCHEWESH
Oconomowoc	Oconomowoc Memorial Hospital	4925	WKHEOMH
Oconto	Bellin Health Oconto Hospital	4876	OCHEOHMC
Oconto Falls	Community Memorial Hospital	4875	OCHECMH
Osceola	Osceola Medical Center	4886	POHEOMC
Oshkosh	Aurora Medical Center Oshkosh	4931	WIHEAMCO
Oshkosh	Mercy Medical Center	4933	WIHEMMC
Osseo	Mayo Clinic Health System Oakridge Osseo	4937	TRHEMOO
Park Falls	Flambeau Hospital, Inc.	4889	PRHEFLAH
Platteville	Southwest Health Center	4837	GTHESWHC
Pleasant Prairie	St Catherine's Medical Center - United Hospital System	4846	KEHESCMC

CITY	HOSPITAL	LOCAL EMS TALK GROUP	TALK GROUP ALIAS
Portage	Divine Savior Healthcare	4817	COHEDSH
Prairie du Chien	Prairie du Chien Memorial Hospital	4818	CRHEPDCM
Prairie du Sac	Sauk Prairie Memorial Hospital	4904	SAHESPMH
Racine	Wheaton Franciscan - All Saints	4891	RAHEWFAS
Racine	Wheaton Franciscan - All Saints Spring St	4892	RAHEWFSS
Reedsburg	Reedsburg Area Medical Center	4903	SAHERAMC
Rhinelander	St Mary's Hospital Rhinelander	4878	ONHESMH
Rice Lake	Lakeview Medical Center	4804	BNHELMC
Richland Center	The Richland Hospital, Inc.	4893	RIHERICH
Ripon	Ripon Medical Center	4833	FDHERMC
River Falls	River Falls Area Hospital	4884	PCHERFAH
Shawano	Shawano Medical Center	4907	SHHESMC
Sheboygan	Aurora Sheboygan Memorial Medical Center	4909	SBHEASMM
Sheboygan	St Nicholas Hospital	4910	SBHESNH
Shell Lake	Indianhead Medical Center	4918	WBHEIMC
Sparta	Mayo Clinic Health System Franciscan Sparta	4872	MOHEMFS
Spooner	Spooner Health System	4919	WBHESHS
St Croix Falls	St Croix Regional Medical Center	4887	POHESCRM
Stanley	Ministry Our Lady of Victory Hospital	4814	CHHEOLV
Stevens Point	Ministry Saint Michael Hospital	4888	PTHESMH
Stoughton	Stoughton Hospital	4822	DAHESTOH
Sturgeon Bay	Ministry Door County Medical Center	4828	DRHEDCMC
Summit	Aurora Medical Center Summit	4922	WKHEAMCS
Sun Prairie	St Mary's Emergency Department, Sun Prairie	4820	DAHESMSP

CITY	HOSPITAL	LOCAL EMS TALK GROUP	TALK GROUP ALIAS
Superior	St Mary's Hospital of Superior	4829	DGHESMHS
Tomah	Tomah Memorial Hospital	4873	MOHETMH
Tomah	Tomah Veterans Affairs Medical Center	4874	MOHEVAMC
Tomahawk	Sacred Heart Hospital Tomahawk	4852	LIHESHH
Two Rivers	Aurora Medical Center Manitowoc County	4853	MTHEAMCM
Viroqua	Vernon Memorial Healthcare	4914	VEHEVMH
Watertown	Watertown Regional Medical Center	4826	DOHEWRMC
Waukesha	Rehabilitation Hospital of Wisconsin	4926	WKHERHW
Waukesha	Waukesha Memorial Hospital	4927	WKHEWMH
Waupaca	Riverside Medical Center	4928	WPHERMC
Waupun	Waupun Memorial Hospital	4827	DOHEWMH
Wausau	Aspirus Wausau Hospital	4855	MNHEAWH
Wauwatosa	Aurora Psychiatric Hospital	4871	MCHEAPH
Wauwatosa	Wheaton Franciscan Healthcare - The Wisconsin Heart Hospital	4867	MCHEWHH
West Allis	Aurora West Allis Medical Center	4862	MCHEAWAM
West Bend	Froedtert Health, St. Joseph's Hospital	4921	WAHEFHSJ
Weston	Ministry Saint Clare's Hospital	4856	MNHESCH
Whitehall	Tri County Memorial Hospital	4912	TRHETCMH
Wild Rose	Wild Rose Community Memorial Hospital	4930	WSHEWRCM
Wisconsin Rapids	Riverview Hospital Association	4936	WOHERHA
Woodruff	Howard Young Medical Center	4877	ONHEHYMC

APPENDIX I - WISCOM EMS
STATEWIDE TALK GROUP PLAN:

TALK GROUP NAME	**TALK GROUP ALIAS**	**TALK GROUP NUMBER**
HOSPITAL STATE EMS 1	HSEMS1	4951
HOSPITAL STATE EMS 2	HSEMS2	4952
HOSPITAL STATE EMS 3	HSEMS3	4953
HOSPITAL STATE EMS 4	HSEMS4	4954
HOSPITAL STATE EMS 5	HSEMS5	4955