

STATE OF IOWA

Tactical Interoperable Communications



Field Operations Guide



ISICSB

Iowa Statewide Interoperable
Communications System Board

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Interoperability

“The ability of Public Safety responders to share information via voice and data communications systems on demand, in real time, when needed and as authorized.”

SAFECOM - CISA



The ***Iowa Tactical Interoperability Communications Field Operations Guide (FOG)*** is a collection of technical reference material to aid Communications Unit personnel in establishing solutions to support communications during emergency incidents and planned events.

The Iowa FOG is consistent with the goals identified in the ***Iowa Statewide Communication Interoperability Plan (SCIP)*** and the vision statement of the U.S. Department of Homeland Security (DHS), wherein emergency responders can communicate as needed, on demand, and as authorized at all levels of government.

ISICS MISSION

“The board shall develop, implement, and oversee policy, operations, and fiscal components of communications interoperability efforts at the state and local level, and coordinate with similar efforts at the federal level, with the ultimate objective of developing and overseeing the operation of a statewide integrated public safety communications interoperability system.”

For copies of, or questions regarding this Field Operations Guide (FOG) contact the Iowa Statewide Interoperability Coordinator (SWIC):

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Letter of Introduction

It is with great enthusiasm that we present to you the first edition of the Iowa Interoperability Field Operations Guide (IAFOG).

This guide is a collection of radio communications technical reference material for emergency responders, which includes information from the Iowa Statewide Interoperable Communications System Board (ISICSB), the American National Standards Institute (ANSI) Channel Naming Standard, and the National Interoperability Field Operations Guide (NIFOG). This first iteration was developed with inputs from various state, local, and federal agencies and is intended to evolve through regular updates and expand as needed. Included within these pages are usage guidelines, statewide and national interoperability channels, and Incident Command System references. Mutual aid frequencies are open to all emergency responders, who are encouraged to program their radios as appropriate and authorized. As always, Federal Communications Commission (FCC) rules and regulations with regards to licensing and operations must be followed.

Agencies that desire to program non-federal National Interoperability Channels into their radios must follow FCC rules and regulations with regards to licensing and operations. In cases where the use of these channels is necessary for the imminent protection of human life and property, authority to transmit is automatic and will be temporary until the emergency has ended.

I hope this guide becomes an indispensable tool in your day-to-day activities and encourage more efficient and effective use of our limited



mutual aid spectrum. Thank you to all that contributed to the development of the IA FOG.

Kind Regards,

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Chap. 1 About the Iowa Field Operations Guide (IA FOG)

Ch. 1.1 PURPOSE

The purpose of the IA FOG is to be the emergency responders' everyday guide for interoperable radio communications.

The IA FOG supports the Iowa Statewide Communication Interoperability Plan (SCIP) vision of achieving interoperability in the State of Iowa by providing emergency responders with information to achieve interoperability across the State.

The IA FOG:

- Increases efficiency in establishing interoperable communications during incidents.
- Creates a consistent knowledge base of interoperable communications frequencies and networks.
- Provides helpful tools for pre-planning and interoperable communications training and exercises.

All frequency information in the IA FOG is presented in the format as it applies to programming mobile and portable radios.



Ch. 1.2 OVERSIGHT AND REVISION PROCESS

The Iowa Statewide Interoperable Communications Systems Board (ISICSB) oversees the IA FOG while the Iowa Statewide Interoperability Coordinator (SWIC), within the Iowa Department of Public Safety facilitates the update process.

The IA FOG is a living document that will be updated as required or necessary. Please send all comments, corrections, updates, and questions to the ISICSB at [Contact Form | Iowa Statewide Interoperable Communications Systems Board.](#)



Chap. 2 Interoperability “Watch Out” Situations

- ★ *Incidents using channels in more than one band.*
- ★ *Unable to communicate critical information due to radio congestion.*
- ★ *Unfamiliar with radio system(s) or assigned radio functionality.*
- ★ *Instructions and assignments not clear*
- ★ *Have no or inadequate communication with responders or supervisors*
- ★ *Dispatch to Dispatch channel patching*
- ★ *Inadequate number of tactical channels available or assigned.*
- ★ *Multiple conversations on the same talkgroup or channel*
- ★ *Radio systems used for interoperability lack good radio coverage or do not completely support the incident.*
- ★ *High levels of background noise*
- ★ *Emergency button activation – Who is receiving the notification.*
- ★ *Multiple agencies performing radio programming at the incident.*



- ★ *Organizations in the system do not use the same vocabulary.*
- ★ *Mobile gateway devices being used in a strategic (wide area) rather than tactical (local) environment.*
- ★ *Multiple mobile gateways available at the incident*
- ★ *A single COML for the incident is not identified.*
- ★ *Working in the deep interior of a building, parking garage or underground*



Chap. 3 Interoperability Best Practices

Ch. 3.1 COMMUNICATIONS UNIT LEADER (COML) POSITION BEST PRACTICES

The following checklist tasks should be followed by all Communications Unit (COMU) staff members before, during, and after an incident or planned event.

Ch. 3.1(a) Pre-Deployment (Plan and Prepare)

During the pre-deployment or planning phase of the incident, the following tasks should be completed by the COML or designated person:

- Identify and provide ready access to any applicable interoperable communications plans and reference information such as the Incident Action Plan, Incident Command System (ICS) Form 205 (Incident Radio Communications Plan), and Field Operations Guides (FOG).
- Maintain or have access to an up-to-date directory for:
 - Communications Unit staff [i.e., Communications Unit Technician (COMT), COML, etc.] to provide communications support as needed during an incident or event.
 - Agency points of contact (POC) for interoperable communications.
 - Available communications assets, such as mobile communications vehicles, gateways, and radio caches.



- Radio systems, channels and talkgroups that can be used to provide interoperable communications during a critical incident.
- Procedures and contact numbers for the request of communications resources.
- Establish an accountability process to track assignment and return of deployable resources such as radio caches and accessories.
- Maintain copies of planning documents, resource directories, and accountability forms so they are readily accessible during a deployment.
- Ensure that all deployable resources include supporting documentation such as user guides and instructions, as well as frequently used accessories such as radio holsters and spare batteries are maintained with the deployable resource.
- Whenever possible, ensure that agency radios are programmed to include applicable interop channels and talkgroups.
- Establish an accountability process to track assignment and return of deployable resources such as radio caches and accessories.
- Ensure radio equipment is maintained, tested, and aligned regularly, and updated with the latest firmware and software.
- Strive to foster close working relationships with area agencies and communications staff.
- Support the inclusion of a communications component during drill, exercise, and incident planning.



- Participate in interoperable communications tabletop and/or functional exercises that should be conducted on a regular basis.
 - Exercises to include administrative, field, supervisory, and dispatch personnel.
 - Exercise evaluations and after-action reports are developed after each exercise.
 - Improvement plans are developed and implemented as needed.

Ch. 3.1(b) During Deployment (Execute)

During the deployment or active phase of the incident, the following tasks should be completed by the COML or designated person:

- Obtain an incident briefing from the Logistics Section Chief or Incident Commander as appropriate. Briefing should include:
 - Location and extent of the incident.
 - Numbers and types of responders involved in the incident.
 - Current communications resources employed to support the incident including channels and talkgroups.
 - Current and anticipated communications requirements and challenges.
- Provide technical information, as required, on the following issues:
 - Adequacy of communications system currently in use.
 - Geographic limitation on communications equipment.
 - Equipment capabilities.



- Amount and types of equipment available.
- Anticipated problems in the use of communications equipment.
- Assess communications systems in use; advise on communications capabilities and limitations, including:
 - Conventional and trunked radio systems, channels and talkgroups.
 - Data communications requirements and capabilities.
 - Needs assessment for broadband wireless and/or satellite-based data communications resources.
 - Anticipated problems in the use of communications equipment.
- Prepare and implement an Incident Communications Plan ICS Form 205:
 - Obtain a current organizational chart.
 - Determine the most hazardous tactical activity; ensure adequate communications.
 - Administer communications assignments to all other Operations elements, including volunteer, contract, or mutual aid.
 - Identify and address the communications needs for Command, Operations, and Logistics units.
 - Establish and post specific procedures for use of the Incident Command Post communications equipment.



- Organize and staff the Communications Unit as appropriate to the size and needs of the incident, including:
 - Stand up an Incident Communications Center (if needed) and assign an Incident Communications Center Manager (INCM) and Radio Operators (RADO) as needed.
- Identify and staff a Staging Area for assignment and distribution of deployable communications resources, such as radio caches and gateways.
 - Implement the equipment accountability process to document and track assignment and return of deployable resources.
 - Ensure that responders can operate their assigned communications equipment and that assigned channels and talkgroups are readily available.
- Document malfunctioning communications equipment and facilitate repairs.
- Maintain copies of planning documents, resource directories, and accountability forms so they are readily accessible during a deployment.
- Establish an accountability process to track assignment and return of deployable resources such as radio caches and accessories.
- Maintain copies of planning documents, resource directories, and accountability forms so they are readily accessible during a deployment.



- Manage the activation and deactivation of console patches and interoperability repeaters where applicable.
- Manage personnel rotation and relief as needed during lengthy deployments.

Ch. 3.1(c) Post-Deployment (Recover)

Upon completion of the incident, the following tasks should be completed by the COML or designated person:

- Ensure that all activated equipment, such as gateways, channel patches, and interoperable repeaters are disabled or returned to a standby condition.
- If notification of the incident was made to the Iowa Emergency Management Hotline, notify them that the incident has ended.
 - Any channels or talkgroup assignments made through the Hotline staff should be relinquished at this time.
- Supervise the return and inspection of any assigned resources.
 - Use the existing accountability process to check in the equipment as needed.
 - Document damaged or missing equipment or accessories and identify the assignee.
- Keep a record of extraordinary occurrences such as:
 - Missing or damaged equipment or accessories.
 - Malfunctions or technical issues during the incident.
 - Injuries to COMU staff.



- Conduct a hotwash as soon as practicable with any COMU staff present during the incident.
- Prepare a written after-action review with recommendations and attend incident after-action meetings, as necessary.
- Replacement or repair of missing, damaged, or malfunctioning equipment, if applicable.



Chap. 4 Guidelines for Interoperable Radio Communications

Ch. 4.1 USE OF INTEROPERABILITY TALKGROUPS/CHANNELS

All radio transmissions on interoperability channels are for official use only. The radio frequencies may legally be used under the following circumstances:

- The user agency retains an FCC license or a National Telecommunications and Information Administration (NTIA) authorization for these frequencies, or the user is covered by another authority's license.
- A "Letter of Authorization" is granted by the State Frequency Coordinator allowing an agency to use any interoperability frequencies licensed to the State of Iowa. For information, please e-mail Dave Brittain at brittain@dps.state.ia.us for additional information.
- The NTIA issues a "Special Temporary Authorization" for the use of Federal channels in a particular area/event. Please see the NIFOG for a listing of Federal channels.
- The use of the frequency is necessary for the IMMEDIATE protection of life or property. When necessary, radio users may use prudent measures beyond the specifics of their license.

Note: The IA FOG in and of itself does not grant authority to operate on a given radio frequency. Such authority comes in the situations indicated above.



Ch. 4.2 LICENSING OF INTEROPERABILITY CHANNELS

All radio transmitters, both base and mobile, require a current FCC license or a letter of authorization from the licensee before being placed in operation.

Ch. 4.3 CHANNEL/TALKGROUP NAMES

To avoid confusion during interoperable communications, standardized channel/talkgroup names should be stated in widely used terms (e.g., “TAC2” or “VLAW31”). Channel/talkgroup numbers corresponding to specific physical locations should not be used unless the resource cannot display alphanumeric characters (e.g., “Channel 1” or “Channel A14”).

Ch. 4.4 IDENTIFICATION PROCESS

Announce your home agency prior to announcing your unit identifier during interoperable communication situations. On the ISICS, communication should follow Iowa Statewide Interoperable Communications System (ISICS) Standard 1.3.0 - Statewide Interoperable Plain Language Policy.

Ch. 4.5 CHANNEL MONITOR

Personnel should monitor mutual aid channels prior to transmitting to minimize the possibility of interference with communications in progress.

Ch. 4.6 ENCRYPTION

The use of any mutual aid channel for transmission of any encoded, encrypted, or scrambled message is prohibited.



Ch. 4.7 OUT-OF-AREA/ITINERANT MOBILES

Personnel are encouraged to monitor mutual aid channels based on their capabilities. Typically, these channels are the only means for personnel traveling outside their normal jurisdiction to obtain assistance or to report traffic collisions, fires, or other hazards.

Ch. 4.8 PRIORITY LEVELS

Statewide interoperability systems are governed by priority levels that must always be respected. Priority is given to disaster and emergency operations, urgent operations, special events, and drills, tests, and exercises. When a higher priority use is required, all lower priority traffic yields the frequency in areas where interference could occur. Check the interoperability system plans for each interoperability channel's priority levels.

Priority levels for these systems are as follows:

- **Priority 1:** Disaster and extreme emergency operations for mutual aid and interagency communications
- **Priority 2:** Emergency or urgent operations involving imminent safety of life or protection of property
- **Priority 3:** Special event control activities, such as a planned event involving the participation of two or more agencies
- **Priority 4:** Drills, tests, and exercises
- **Priority 5:** Single agency secondary communications



Ch. 4.9 PLAIN LANGUAGE

The use of plain language in emergency response is a matter of public safety, especially the safety of first responders and those affected by the incident. It is critical that all responders, including those from other jurisdictions or states, as well as the federal government, know and utilize common operational structures, terminology, policies, and procedures.

While the National Incident Management System (NIMS) Integration Center does not require plain language for internal operations, it is strongly encouraged. It is important to consistently practice terminology and procedures that will need to be used in emergency incidents and disasters. NIMS implementation is a long-term effort. Though it is not practical to expect a change of ingrained habits overnight, it is expected that over time, everyone will understand the importance of using plain language for day-to-day operations.

The use of 10-codes, signals, unique acronyms, and other codes should not be used on the regional and statewide interoperability talkgroups because there is no standardized set of codes. Plain language should be used in all cases.



All interoperable communications during multi-agency, multi-discipline incidents will be in plain language (See Appendix C). Radio codes, acronyms, and abbreviations should not be used as they may cause confusion between agencies. All verbal requests for assistance or backup must state the reason for the request.

- Plain words such as “help,” “assistance,” and “back-up” may have different operational meanings to different agencies.
- The words “emergency traffic” should be used in the context of a life-threatening situation.
- The word “help” should not be used alone unless in the context of a life-threatening situation.
- Requests for assistance or backup should clarify the reason for the request.
- All verbal requests for assistance or backup should specify the reason(s) for the request and be acknowledged by the receiving station.



Chap. 5 Requests for Communications Assets

Ch. 5.1 GENERALLY

An agency needing support of communications resources or support will contact their local dispatch center.

Requests for communications resources should be geared toward the incident requirements and type of communications needed. (mission-centric), rather than for specific types of equipment.

The local dispatch center will contact the Iowa Emergency Management hotline at **515-725-3231** to make the request.

Resources for planned events should be coordinated with the appropriate agency at least thirty days in advance for any communications asset or resource.

Ch. 5.1(a) Required Request Information

The request guidelines outline the general information required to deploy or activate interoperable communications assets and resources for emergent or planned events:

- Requesting agency.
- Whether in-progress or planned event.
- Incident/event type (e.g., wildland fire, sporting event, etc.).
- Communications capability needed.
- Expected duration of event.
- Location required/access information.
- Incident POC and contact information.



- User/requestor and/or servicing dispatch contact phone number.
- Copy of the ICS-205 Communications Plan, if available.
- Initial calling channel to use upon approach and arrival.
- Additional support services requested (e.g., COMU personnel, generator, etc.).

Ch. 5.2 RESOURCE SPECIFIC INFORMATION

Ch. 5.2(a) *Site on Wheels (SOW) Requests*

Keep in mind that requests for large deployable assets may not always be warranted. Be prepared to present a request for communications capabilities in lieu of specific equipment. Requests for SOW/Area-wide coverage resources should include:

- Requesting agency.
- On-scene agencies requiring interoperability.
- Whether in-progress or planned event.
- Incident/event type (e.g., wildland fire, sporting event, etc.).
- Communications capability needed.
- Expected duration of event.
- Location required/access information.
- Incident POC and contact information.
- User/requestor and/or servicing dispatch contact phone number.
- Copy of the ICS-205 Communications Plan, if available.
- Initial calling channel to use upon approach and arrival.
- Anticipated site location, directions, and access instructions for the equipment.



- Availability of shoreline power, if known.

Ch. 5.2(b) *Broadband Deployable Requests*

Broadband deployable resources typically require a 100-foot x 100-foot open and level area that has a clear view of the southern sky, with the ability to be located at least 500 feet from a command post.

Ch. 5.2(b-1) *Incidents and Emergent Events*

The following information is required to complete a broadband deployable request:

- Primary and Secondary Points of Contact (POC), one of which should be on scene.
- Type of emergency.
- Purpose/Use of deployable.
- Location of connectivity issues (address, county, latitude & longitude).
- Name of local 9-1-1 Emergency Communication Center.
- Additional services required (i.e., data, voice, streaming).
- Need for on-site technical support for duration of deployment.



Ch. 5.2(b-2) Non-Emergency Events (Planned Events or Exercises)

- If request to use a Broadband deployable for a planned event, contact the appropriate broadband provider number listed below, at least 60 days prior to the date of the planned event.
 - FirstNet - **800-574-7000**
NOTE: Only FirstNet users will be able to connect to the FirstNet Deployable. No other wireless provider will have the ability to connect to this asset.
 - Verizon - **800-981-9558**
 - US Cellular - **877-785-5819**
 - T-Mobile - **888-639-0020**
- The Iowa Emergency Management hotline staff must be notified in the event a Broadband deployable has been requested. This will ensure duplicate requests or a conflict in multiple assignments does not occur. If a conflict does occur, IEM staff will work with FirstNet to deconflict based upon priority of need. The Iowa Emergency Management hotline number is **515-725-3231**



Ch. 5.2(c) *Requests for Amateur Radio Support through ARES/RACES*

Requests for Amateur Radio support through the Amateur Radio Emergency Services (ARES) or Radio Amateur Civile Emergency Services (RACES) should be coordinated through the Iowa Emergency Hotline at 800-943-0003, Option 2.

- Requesting agency.
- Incident/event type (e.g., wildland fire, sporting event, etc.).
- Communications capability needed.
- Expected duration of event.
- Location required/access information.
- Incident POC and contact information.
- User/requestor and/or servicing dispatch contact phone number.
- Copy of the ICS-205 Communications Plan, if available.
- Anticipated site location, directions, and access instructions for the equipment.
- Availability of shoreline power, if known.

Chap. 6 Statewide Interoperable Radio Communication Plans

Ch. 6.1 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) WEATHER RADIO (NWR)

NOAA Weather Radio (NWR) All Hazards is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts, and other hazard information 24 hours a day, 7 days a week.

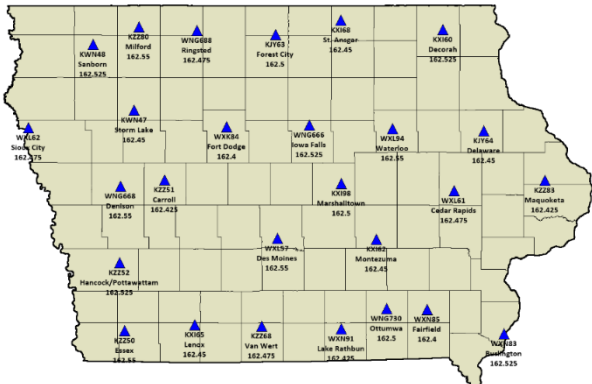


Figure 1: NOAA Weather Radio Site Map



Ch. 6.2 IOWA EMERGENCY MEDICAL SERVICES (EMS) COMMUNICATIONS PLAN

The Iowa 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. If you are interested in receiving a copy of the current plan, please contact the Iowa SWIC, Haley Nichols at nichols@dps.state.ia.us



Chap. 7 Iowa Statewide Interoperable Communications System (ISICS)

Ch. 7.1 OVERVIEW

The ISICS is a statewide Project 25 (P-25) Phase II digital trunked public safety radio system in the 700/800 MHz frequency band that is available for use by all disciplines. ISICS enables users to communicate with multiple public safety agencies to engage in routine interoperable communications and coordinate their mutual aid and multi-discipline incident response efforts on a shared communications system utilizing both regional and statewide interoperability talkgroups.

Ch. 7.2 PLAIN LANGUAGE

All interoperable communications during multi-agency, multi-discipline incidents will be in plain language. Radio codes, acronyms, and abbreviations should not be used as they may cause confusion between agencies. All verbal requests for assistance or backup must state the reason for the request.

Ch. 7.3 UNIT IDENTIFICATION

When operating on the regional and statewide interoperability talkgroups, users should initially identify in the following manner using plain language: Agency name and service branch or function designation, followed by call sign or unit number. Examples: “North EMS 512”, “Elk River Police 512,” “Washington County Public Works 512,” “ISP 512,” etc. Once established, ongoing communications between the same units may be shortened.



Ch. 7.4 RADIO TESTS

Any station/unit conducting a radio test on an ISICS talkgroup shall use the following language to avoid any confusion by those monitoring the talkgroup:

“Radio test on [name of talkgroup]. [Agency/Unit Number or radio service] clear”.

SPECIAL NOTE: Radio testing is not permitted on any xCALLxx or hailing talkgroup.

Ch. 7.5 ENCRYPTION

For the purposes of its use with ISICS, encryption is a process used to electronically encode and decode a voice message with an encryption algorithm using a specific encryption key.

- Except where Operational Security requirements determine otherwise, channels and talkgroups used for interoperable communications should not be encrypted.
- If there is a need for encrypted interoperable talkgroups, several are available on the ISICS platform.
- Encrypted talkgroups used on the ISICS platform, should use the AES-256 encryption algorithm.



Ch. 7.6 BROADBAND DATA COMMUNICATIONS INTERFACE

Public Safety Broadband is an emerging technology that leverages specially regulated frequencies to provide IP-based data communications designated for use by public safety practitioners and can provide additional capabilities for both voice and data transmissions, especially during critical incidents or disasters.

Public Safety broadband devices or other equipment using cellular data or other wireless data systems to provide Radio over IP (RoIP) services should not be considered as mission-critical replacements for P-25 voice communications and is not widely used in Iowa.

Prior approval from the ISICSB is required before any agency interfaces broadband equipment to the ISICS network.



Chap. 8 Radio Channel and Talkgroup Naming Conventions

Ch. 8.1 IOWA INTEROPERABLE TALKGROUP NAMING STANDARDS (COUNTY AND LOCAL TALKGROUPS)

See ISICS Standard 3.2.0 for Talkgroup and Multigroup Naming Standards. One suggested layout is below.

County Code		Agency Identifier		Purpose	
1 st – 2 nd digits		3 rd – 6 th digits		7 th – 10 th digits	
Two-digit Iowa county code.		Two letter agency code followed by the two-letter discipline type listed below (County-level channels will exclude these 4 digits).		The channel use designators signify the primary purpose of operations.	
Agency Identifiers					
SO	Sheriff's Office	PD	Police Dept.	FD	Fire Dept.
PH	Public Health	PW	Public Works	HY	Highway/DOT
EM	Emergency Mgt	DA	Dist. Attorney		
Any other discipline types should use commonly used abbreviations.					

Channel Use Designators	
CALL	Used for interoperability calling (hailing) or during a vehicle pursuit or other dynamic emergency incident which is likely to cross jurisdictional boundaries. NOTE: Every county level radio system will designate a channel/talkgroup as a dedicated Calling (hailing) channel used to establish an initial point of contact for interagency/inter-discipline communications.



Channel Use Designators

DISP	Modifier used to identify the agency's primary communications/dispatch channel(s).
FIRE	Used for incident communications by fire services.
IFERN	Used for incident communications by fire services operating under the Mutual Aid Box Alarm System (MABAS).
GTAC	Used for communications between public safety entities and eligible non- government organizations.
LAW	Used for incident communications by law enforcement agencies.
MED	Used for incident communications by emergency medical services.
TAC	Used for communications by any public safety agency. Generally incident-based and not used for wide-area communications.
COMND	Used for interdisciplinary incident command level communications.
TRVL	Used for communications by any public safety eligible entity to coordinate travel when responding to/from an incident outside of an agency's own jurisdiction.
COM	Used as common channel for general non-incident specific communications.
PAG	Used for paging system communications.
	<ul style="list-style-type: none">• All agencies will identify their agency's primary communications or dispatch channel either using the modifier "DISP" or "DIS" or by adding the number "1" after the agency identifier. Large agencies with multiple dispatching channels should add a number after the modifier as appropriate.• The remaining characters will be used to indicate a channel number or other appropriate modifier.• A "D" for Direct (or talk around) on a simplex (non-repeated) channel.• A "DG" for a P25 digital version of a conventional channel, that is also analog, if applicable.



Channel Use Designators

- Other channel modifiers may include the repeater name/location or other unique identifiers based on specific local needs. Agencies may incorporate APCO/NPSTC definitions as part of their channel naming conventions.

Ch. 8.2 IOWA INTEROPERABLE CHANNEL NAMING STANDARDS (STATE AND FEDERAL CHANNELS)

State or Federal Agency Code	Use Type	Channel Number
State – 3 alpha Federal – 3 alpha	2-4 alpha (See prior table)	1-2 numeric
State/Federal Codes		
Code	Agency	
HHS	Department of Health & Human Services	
DNR	Department of Natural Resources	
DOC	Department of Corrections	
HSEMD	Dept. of Homeland Security and Emergency Management	
ISP	Iowa State Patrol	
USM	U.S. Marshals	
NOTES:	<ul style="list-style-type: none">• Prefix with 8 for 800 if needed to differentiate between the same ISICS talkgroup in multi band radio.• Suffix DG for digital• ENC for Encrypted	

Ch. 8.3 REGIONAL INTEROPERABILITY TALKGROUPS

There are six separate interoperability regions on ISICS that match the Iowa Emergency Management districts.

Each region has been assigned one “calling” talkgroup and eight tactical talkgroups, the last three of which are encrypted. The following table shows the talkgroup assignments with the radio display regional identifier suffix. Note that the regional suffix is NOT used during voice transmissions.

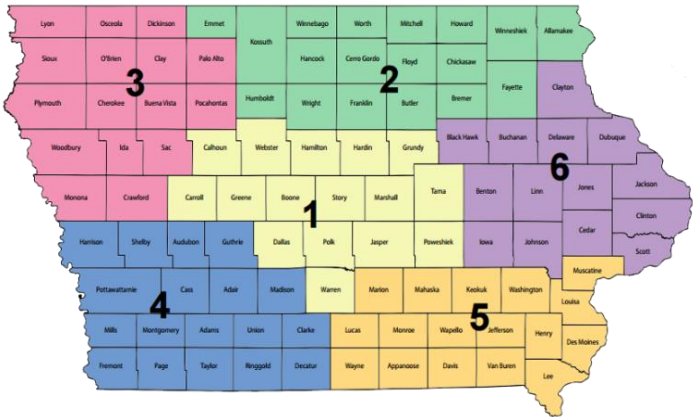


Figure 2: Iowa Emergency Management Regions



ISICS TRUNKED SYSTEM TALKGROUPS					
NAME	TALKGROUP		SLN/CKR	REGION	PRIMARY USE
	DEC	HEX			
Statewide					
IACALL1	3001	BB9		Statewide	
IATAC2	3002	BBA		Statewide	
IATAC3	3003	BBB		Statewide	
IATAC4	3004	BBC		Statewide	
IATAC5	3005	BBD		Statewide	
IATAC6	3006	BBE		Statewide	
IATAC7E	3007	BBF	786	Statewide	
IATAC8E	3008	BC0	786	Statewide	
IATAC9E	3009	BC1	786	Statewide	
IA EMTAC	3020	BCC		Statewide	
Region 1					
R1CALL11	13001	32		Region 1	
R1TAC12	13002	32CA		Region 1	
R1TAC13	13003	32CB		Region 1	
R1TAC14	13004	32CC		Region 1	
R1TAC15	13005	32CD		Region 1	
R1TAC16	13006	32CE		Region 1	
R1TAC17E	13007	32CF	786	Region 1	
R1TAC18E	13008	32D0	786	Region 1	
R1TAC19E	13009	32D1	786	Region 1	
R1EMTAC	13020	32DC		Region 1	
SR1CALL111	13011	32D3		Sub-Region 1	
SR1TAC112	13012	32D4		Sub-Region 1	



ISICS TRUNKED SYSTEM TALKGROUPS					
NAME	TALKGROUP		SLN/CKR	REGION	PRIMARY USE
	DEC	HEX			
SR1TAC113	13013	32D5		Sub-Region 1	
SR1TAC114	13014	32D6		Sub-Region 1	
SR1TAC115	13015	32D7		Sub-Region 1	
SR1TAC116	13016	32D8		Sub-Region 1	
SR1TAC117E	13017	32D9	786	Sub-Region 1	
SR1TAC118E	13018	32DA	786	Sub-Region 1	
SR1TAC119E	13019	32DB	786	Sub-Region 1	
Region 2					
R2CALL21	13601	3521		Region 2	
R2TAC22	13602	3522		Region 2	
R2TAC23	13603	3523		Region 2	
R2TAC24	13604	3524		Region 2	
R2TAC25	13605	3525		Region 2	
R2TAC26	13606	3526		Region 2	
R2CALL21	13601	3521		Region 2	
R2TAC22	13602	3522		Region 2	
R2TAC23	13603	3523		Region 2	
R2TAC24	13604	3524		Region 2	
R2TAC25	13605	3525		Region 2	
R2TAC26	13606	3526		Region 2	
R2TAC27E	13607	3527	786	Region 2	
R2TAC28E	13608	3528	786	Region 2	
R2TAC29E	13609	3529	786	Region 2	
R2EMTAC	13620	3534		Region 2	



ISICS TRUNKED SYSTEM TALKGROUPS					
NAME	TALKGROUP		SLN/CKR	REGION	PRIMARY USE
	DEC	HEX			
Region 3					
R3CALL31	13801	35E9		Region 3	
R3TAC32	13802	35EA		Region 3	
R3TAC33	13803	35EB		Region 3	
R3TAC34	13804	35EC		Region 3	
R3TAC35	13805	35ED		Region 3	
R3TAC36	13806	35EE		Region 3	
R3TAC37E	13807	35EF	786	Region 3	
R3TAC38E	13808	35F0	786	Region 3	
R3TAC39E	13809	35F1	786	Region 3	
R3EMTAC	13820	35FC		Region 3	
Region 4					
R4CALL41	14001	36B1		Region 4	
R4TAC42	14002	36B2		Region 4	
R4TAC43	14003	36B3		Region 4	
R4TAC44	14004	36B4		Region 4	
R4TAC45	14005	36B5		Region 4	
R4TAC46	14006	36B6		Region 4	
R4TAC47E	14007	36B7	786	Region 4	
R4TAC48E	14008	36B8	786	Region 4	
R4TAC49E	14009	36B9	786	Region 4	
R4EMTAC	14020	36C4		Region 4	



ISICS TRUNKED SYSTEM TALKGROUPS					
NAME	TALKGROUP		SLN/CKR	REGION	PRIMARY USE
	DEC	HEX			
Region 5					
R5CALL51	14201	3779		Region 5	
R5TAC52	14202	377A		Region 5	
R5TAC53	14203	377B		Region 5	
R5TAC54	14204	377C		Region 5	
R5TAC55	14205	377D		Region 5	
R5TAC56	14206	377E		Region 5	
R5TAC57E	14207	377F	786	Region 5	
R5TAC58E	14208	3780	786	Region 5	
R5TAC59E	14209	3781	786	Region 5	
R5EMTAC	14220	378C		Region 5	
Region 6					
R6CALL61	14401	3841		Region 6	
R6TAC62	14402	3842		Region 6	
R6TAC63	14403	3843		Region 6	
R6TAC64	14404	3844		Region 6	
R6TAC65	14405	3845		Region 6	
R6TAC66	14406	3846		Region 6	
R6TAC67E	14407	3847	786	Region 6	
R6TAC68E	14408	3848	786	Region 6	
R6TAC69E	14409	3849	786	Region 6	
R6EMTAC	14420	3854		Region 6	



Ch. 8.3(a) Use of the R#CALL#1 Talkgroups

- R#CALL#1 is the designated public safety regional calling and high priority radio traffic talkgroup on ISICS. It is the initial contact point for all communications in each region.
- R#CALL#1 communications are broadcast region-wide by any mobile, portable, or base radio monitoring/scanning this talkgroup.
- R#CALL#1 should be used as the default communication center-to-communication center pathway to transmit assistance requests such as vehicle pursuits, injury accidents, officer(s) requesting aid or assistance, bank alarms, robbery in process, or other typical emergency radio traffic.
- Based upon the type of console system used by the dispatch center, high priority incidents being transmitted on R#CALL#1 may also be patched/simulcast over the center's primary channels or talkgroups.
- As a regional "calling" talkgroup, all communications centers need to closely monitor R#CALL#1 for transmissions from all public safety field personnel who are requesting assistance from a specific county communications center.
- Since R#CALL#1 is a calling and high priority radio traffic talkgroup, once it is determined that extended interoperable communications is required, all involved agencies will be directed to move to a specific R#TAC#x talkgroup. The dispatch center for the agency with incident command shall be responsible for migration to the R#TAC#x talkgroup and will use the following format for the announcement:



“Attention all units responding to [incident/location], switch to R#TAC#x for all traffic related to this incident, authority [Agency with incident command], via [lead communications center name if different from the authority]”.

- Incident of high priority or that are emergent and unplanned should be assigned to the first available tactical talkgroup, ex. R1TAC12. Incident of lower priority, that are planned in advance or that are for training purposes should utilize the tactical talkgroups of higher numbers such as R1TAC16.
- The dispatch center should check StatusBoard to monitor system resources and avoid any talkgroup assignment conflict before assigning a talkgroup. See ISICS Standard 1.17.0 – StatusBoard.
- If the nature or scale of the incident or event requires additional talkgroups, then another available regional tactical talkgroup should be assigned.
- Upon completion of the incident or event, the lead communications center shall instruct all involved units to switch to their primary talkgroup (or channel) and resume normal operations. The lead communications center will also announce on R#CALL#1 that R#TAC#x is available for use.

Ch. 8.3(b) Use of the IA TAC# Talkgroups

- The IA TAC# talkgroups are available for routine interoperable communications, mutual aid incidents, or planned events that are mobile, have the potential to be mobile, span multiple regions, or are otherwise not contained.



- The IA TAC# talkgroups can be utilized for communications between field units that are physically located in different regions of the state, when the local R#TAC#x are not available or when the nature or the scale of the incident or event dictates their use.
- Any interoperable talkgroup used on the ISICS platform should be reserved in StatusBoard.
- Unplanned and emergent incidents will be assigned to the first available resources, IA TAC2 then IA TAC3, and so forth.
- Planned Events should be scheduled on the highest numerical designation first — (i.e., IA TAC 6) for in the clear communications. The next available talkgroup used for a planned event would be the next one — (i.e., IA TAC 5) for in the clear communications.
- Encrypted talkgroups, IA TAC7E, IA TAC8E, and IA TAC9E are available for assignment as needed, following the same notification procedures as other event talkgroups.
- The incident command agency will notify all ISICS capable agencies within the region of planned use of the talkgroups prior to the event via a StatusBoard reservation or other appropriate message.
- ISICS representatives can be notified of the prolonged planned event usage of a resource via email at isicsnoc@dps.state.ia.us for situational awareness and statewide prior communication information sharing purposes.
- Upon completion of the incident or event, the lead communications center shall instruct all involved units to switch to their primary talkgroup (or channel) and resume normal operations.



Chap. 9 ISICSB Interoperability Channels

Ch. 9.1 CHANNEL SELECTION

When identifying and selecting channels and talkgroups to use for an incident or event, it is important to note that there are several factors that should be considered prior to finalizing the communications plan.

- Localized incidents may be able to make better use of locally defined channels or talkgroups reserved for specific localities. Use of local interoperability or mutual aid channels reduces the likelihood of multiple users operating on the same channel or talkgroup.
- Avoid local assignment of Statewide Interoperability Channels and Talkgroups for routine interoperable communications as they are in daily use.

Ch. 9.2 MINIMUM INTEROPERABLE RADIO CHANNELS

Ch. 9.2(a) ISICSB Minimum Interoperable Radio Channels (VHF)

ISICSB MINIMUM INTEROPERABLE RADIO CHANNELS (VHF)						
CHANNEL NAME	MOB REC'V		MOB XMIT		A D	NOTES
	FREQ	TONE	FREQ	TONE		
VCALL10	155.7525	156.7	155.7525	156.7	A	
VTAC11	151.1375	156.7	151.1375	156.7	A	
VTAC12	154.4525	156.7	154.4525	156.7	A	
VTAC13	158.7375	156.7	158.7375	156.7	A	
VTAC14	159.4725	156.7	159.4725	156.7	A	
VFIRE21 *	154.2800	156.7	154.2800	156.7	A	Fire Mutual Aid
VLAW31 *	155.4750	CSQ	155.4750	156.7	A	LE Mutual Aid



ISICSB MINIMUM INTEROPERABLE RADIO CHANNELS (VHF)						
CHANNEL NAME	MOB RECV		MOB XMIT		A D	NOTES
	FREQ	TONE	FREQ	TONE		
VMED28 *	155.3400	CSQ	155.3400	156.7	A	EMS Mutual Aid
Point to Point	155.3700	DCS 271	155.3700	DCS 271	A	Communications Centers

For FCC Part 90 licensees, the non-Federal National Interoperability Channels VCALL10-VTAC14, UCALL40- UTAC43, and 8CALL90-8TAC94 are covered by a "blanket authorization" from the FCC - "Public safety licensees ... can operate mobile units on these interoperability channels without an individual license." See FCC 00-348, released 10/10/2000, paragraph 90.

*WARNING: These frequencies are NOT covered by the blanket authorization for nationwide interoperability channels. A valid FCC license for these frequencies is required. Availability subject to other licensed users in the same area.

Ch. 9.2(b) ISICSB Minimum Interoperable Radio Channels (UHF)

ISICSB MINIMUM INTEROPERABLE RADIO CHANNELS (UHF)						
CHANNEL NAME	MOB RECV		MOB XMIT		A D	NOTES
	FREQ	TONE	FREQ	TONE		
UCALL40	453.2125	156.7	458.2125	156.7	A	
UCALL40D	453.2125	156.7	453.2125	156.7	A	
UTAC41	453.4625	156.7	458.4625	156.7	A	
UTAC41D	453.4625	156.7	453.4625	156.7	A	
UTAC42	453.7125	156.7	458.7125	156.7	A	
UTAC42D	453.7125	156.7	453.7125	156.7	A	
UTAC43	453.8625	156.7	458.8625	156.7	A	
UTAC43D	453.8625	156.7	453.8625	156.7	A	



ISICSB MINIMUM INTEROPERABLE RADIO CHANNELS (UHF)

CHANNEL NAME	MOB RECV		MOB XMIT		A D	NOTES
	FREQ	TONE	FREQ	TONE		
For FCC Part 90 licensees, the non-Federal National Interoperability Channels VCALL10-VTAC14, UCALL40- UTAC43, and 8CALL90-8TAC94 are covered by a "blanket authorization" from the FCC - "Public safety licensees ... can operate mobile units on these interoperability channels without an individual license." See FCC 00-348, released 10/10/2000, paragraph 90.						



Ch. 9.2(c) ISICSB Minimum Interoperable Radio Channels (700 MHz)

ISICSB MINIMUM INTEROPERABLE RADIO CHANNELS (700 MHz)						
CHANNEL NAME	MOB RECV		MOB XMIT		A D	NOTES
	FREQ	TONE	FREQ	TONE		
7CALL50	769.24375	\$F7E	799.24375	\$293	D	Calling
7CALL50D	769.24375	\$F7E	769.24375	\$293	D	Calling
7TAC51	769.14375	\$F7E	799.14375	\$293	D	General Public Safety
7TAC51D	769.14375	\$F7E	769.14375	\$293	D	General Public Safety
7TAC52	769.64375	\$F7E	799.64375	\$293	D	General Public Safety
7TAC52D	769.64375	\$F7E	769.64375	\$293	D	General Public Safety
7TAC53	770.14375	\$F7E	800.14375	\$293	D	General Public Safety
7TAC53D	770.14375	\$F7E	770.14375	\$293	D	General Public Safety
7TAC54	770.64375	\$F7E	800.64375	\$293	D	General Public Safety
7TAC54D	770.64375	\$F7E	770.64375	\$293	D	General Public Safety
7TAC55	769.74375	\$F7E	799.74375	\$293	D	General Public Safety
7TAC55D	769.74375	\$F7E	769.74375	\$293	D	General Public Safety

A public safety entity meeting the requirements of 47 CFR § 90.523 may operate mobile or portable units on the Interoperability channels in the 769-775 MHz and 799-805 MHz frequency bands without a specific authorization from the Commission provided it holds a part 90 license.



Ch. 9.2(d) ISICSB Minimum Interoperable Radio Channels 700 MHz (Air-to-Ground)

ISICSB MINIMUM INTEROPERABLE RADIO CHANNELS 700 MHz (AIR-TO-GROUND)						
CHANNEL NAME	MOB REC V		MOB XMIT		A D	NOTES
	FREQ	TONE	FREQ	TONE		
7AG58	769.13125	\$F7E	799.13125	\$293	D	Air-Ground
7AG58D	769.13125	\$F7E	769.13125	\$293	D	Air-Ground
7AG60	769.63125	\$F7E	799.63125	\$293	D	Air-Ground
7AG60D	769.63125	\$F7E	769.63125	\$293	D	Air-Ground
7AG67	770.13125	\$F7E	800.13125	\$293	D	Air-Ground
7AG67D	770.13125	\$F7E	770.13125	\$293	D	Air-Ground
7AG68	770.63125	\$F7E	800.63125	\$293	D	Air-Ground
7AG68D	770.63125	\$F7E	770.63125	\$293	D	Landing zone use
7AG78 *	773.11875	\$F7E	803.11875	\$293	D	Air-Ground
7AG78D **	773.11875	\$F7E	773.11875	\$293	D	Air-Ground
7AG80 ***	773.61875	\$F7E	803.61875	\$293	D	Air-Ground
7AG80D ****	773.61875	\$F7E	773.61875	\$293	D	Air-Ground
7AG85	774.11875	\$F7E	804.11875	\$293	D	Air-Ground
7AG85D	774.11875	\$F7E	774.61875	\$293	D	Air-Ground
7AG88	744.61875	\$F7E	804.61875	\$293	D	Air-Ground
7AG88D (LZ)	774.61875	\$F7E	774.61875	\$293	D	Landing zone use

*See FCC rule 90.531(7).

**Airborne use of these channels is limited to aircraft flying at or below 457 meters (1500 feet) above ground level.

***Aircraft may transmit on either the mobile or base transmit side of the channel pair.

****Aircraft are limited to 2 watts effective radiated power (ERP) when transmitting while airborne on these channels.



Ch. 9.2(e) ISICSB Minimum Interoperable Radio Channels (800 MHz)

ISICSB MINIMUM INTEROPERABLE RADIO CHANNELS (800 MHz)						
CHANNEL NAME	MOB RECV		MOB XMIT		A D	NOTES
	FREQ	TONE	FREQ	TONE		
8CALL90	851.0125	156.7	806.0125	156.7	A	Calling
8CALL90D	851.0125	156.7	851.0125	156.7	A	Calling - Direct
8TAC91	851.5125	156.7	806.5125	156.7	A	Tactical
8TAC91D	851.5125	156.7	851.5125	156.7	A	Tactical - Direct
8TAC92	852.0125	156.7	807.0125	156.7	A	Tactical
8TAC92D	852.0125	156.7	852.0125	156.7	A	Tactical - Direct
8TAC93	852.5125	156.7	807.5125	156.7	A	Tactical
8TAC93D	852.5125	156.7	852.5125	156.7	A	Tactical - Direct
8TAC94	853.0125	156.7	808.0125	156.7	A	Tactical
8TAC94D	853.0125	156.7	853.0125	156.7	A	Tactical - Direct

For FCC Part 90 licensees, the non-Federal National Interoperability Channels VCALL10-VTAC14, UCALL40- UTAC43, and 8CALL90-8TAC94 are covered by a "blanket authorization" from the FCC - "Public safety licensees ... can operate mobile units on these interoperability channels without an individual license." See FCC 00-348, released 10/10/2000, paragraph 90.



Ch. 9.2(f) ISICSB Licensed Frequencies

ISICSB LICENSE FREQUENCIES						
CHANNEL NAME	MOB RECV		MOB XMIT		A D	NOTES
	FREQ	TONE	FREQ	TONE		
7ITALK1D	774.93125	\$F7E	774.93125	\$293	D	
7ITALK2D	774.95625	\$F7E	774.95625	\$293	D	
7ITALK3D	774.98125	\$F7E	774.98125	\$293	D	

These frequencies are licensed by ISICSB and authorizes any public safety agency possessing an FCC Part 90 license.



Chap. 10 Nationwide Interoperability Channels

Ch. 10.1 VHF BAND

Ch. 10.1(a) Nationwide Interop (VHF-Low)

NON-FEDERAL VHF-LOW BAND NATIONAL INTEROPERABILITY CHANNELS				
DESCRIPTION	CHANNEL NAME	MOB. RX	MOB. TX	RX/TX CTCSS TONE
Law Enforcement	LLAW1	39.460	45.860	156.7
Law Enforcement	LLAW1D	39.460	39.460	156.7
Fire (Proposed)	LFIRE2	39.480	45.880	156.7
Fire (Proposed)	LFIRE2D	39.480	39.480	156.7
Law Enforcement	LLAW3	45.860	39.460	156.7
Law Enforcement	LLAW3D	45.860	45.860	156.7
Fire (Proposed)	LFIRE4	45.880	39.480	156.7
Fire (Proposed)	LFIRE4D	45.880	45.880	156.7

- All channels are Wideband, Analog, Conventional
- Base station channel use requires an FCC license.

Ch. 10.1(b) Nationwide Interop (VHF)

NON-FEDERAL VHF NATIONAL INTEROPERABILITY CHANNELS					
DESCRIPTION	CHANNEL NAME	MOB. RX FREQ.	MOB. RX TONE	MOB. TX FREQ.	MOB. TX TONE
Calling	VCALL10	155.7525	156.7	155.7525	156.7
Tactical	VTAC11	151.1375	156.7	151.1375	156.7
Tactical	VTAC12	154.4525	156.7	154.4525	156.7
Tactical	VTAC13	158.7375	156.7	158.7375	156.7
Tactical	VTAC14	159.4725	156.7	159.4725	156.7
Tac Rptr (VTAC 14/11)	VTAC33	159.4725	156.7	151.1375	136.5



NON-FEDERAL VHF NATIONAL INTEROPERABILITY CHANNELS

DESCRIPTION	CHANNEL NAME	MOB. RX FREQ.	MOB. RX TONE	MOB. TX FREQ.	MOB. TX TONE
Tac Rptr (VTAC 13/12)	VTAC34	158.7375	156.7	154.4525	136.5
Tac Rptr (VTAC 14/13)	VTAC35	159.4725	156.7	158.7375	136.5
Tac Rptr (VTAC 11/14)	VTAC36	151.1375	156.7	159.4725	136.5
Tac Rptr (VTAC 12/13)	VTAC37	154.4525	156.7	158.7375	136.5
Tac Rptr (VTAC 13/14)	VTAC38	158.7375	156.7	159.4725	136.5

- All channels are Narrowband, Analog, Conventional and limited to 3 watts ERP North of Line A or East of Line C.
- Base station channel use requires an FCC license.
- VTAC11-12, VTAC33-34, and VTAC36-37 may not be used in Puerto Rico or the USVI.
- VTAC33-38 recommended for deployable tactical repeater use only (FCC Station Class FB2T).
- VTAC36-38 are preferred; VTAC33-35 should be used only when necessary due to interference.

Ch. 10.1(c) Nationwide VHF Mutual Aid (NIFOG)

VHF PUBLIC SAFETY MUTUAL AID AND COMMON CHANNELS

FREQUENCY (MHZ.)	USAGE	NAME	NOTE
155.1600 base/mob.	Search and Rescue Common (CTCSS 127.3 TX and RX)	VSAR16, SAR NFM, or SAR160	Not restricted to SAR by FCC; availability varies
154.2800 base/mob.	Fire Mutual Aid	VFIRE21	Not available in Puerto Rico and the U.S. Virgin Islands
154.2650 base/mob.		VFIRE22	
154.2950 base/mob.		VFIRE23	
154.2725 base/mob.		VFIRE24	
154.2875 base/mob.		VFIRE25	
154.3025 base/mob.		VFIRE26	
155.3400 base/mob.	EMS Mutual Aid	VMED28	May be designated EMS Mutual Aid
155.3475 base/mob.		VMED29	



VHF PUBLIC SAFETY MUTUAL AID AND COMMON CHANNELS

FREQUENCY (MHZ.)	USAGE	NAME	NOTE
155.4750 base/mob.	Law Enforcement Mutual Aid	VLAW31	
155.4825 base/mob.		VLAW32	

- All channels are Narrowband, Analog, Conventional
- All channel use requires an FCC license.
- EXCEPT for VSAR16, the recommended CTCSS tones are 156.7 receive and transmit for all channels; local use may specify other tones.

Ch. 10.1(d) VHF Marine Channels

¹- VHF MARINE CHANNELS

CHANNEL	FREQUENCY	STONE	USAGE
16	156.8000 W	CSQ	International Distress, Safety and Calling
17	156.8500 W	CSQ	State & local govt maritime control
21A	157.0500 W	CSQ	U.S. Coast Guard assigned
23A	157.1500 W	CSQ	U.S. Coast Guard assigned
81A	157.0750 W	CSQ	Environmental protection ops or as assigned
83A	157.1750 W	CSQ	U.S. Coast Guard assigned

¹ - Use VHF Marine channel 16 to make contact (30 seconds max), then move to the appropriate working channel as directed by the local USCG Sector Commander. Non-maritime use of any VHF Maritime channel requires FCC Special Temporary Authority or appropriate license. VHF marine channels use wideband FM. Emission 16K00F3E.

Direction from USCG, FCC, or FAA overrides information in this table. This table does not convey authority to operate.



Ch. 10.2 UHF BAND

Ch. 10.2(a) Nationwide UHF Interop (NIFOG)

NON-FEDERAL UHF NATIONAL INTEROPERABILITY REPEATER CHANNELS			
DESCRIPTION	CH. NAME	MOB. RX	MOB. TX
Calling	UCALL40	453.2125	458.2125
Calling	UCALL40D	453.2125	453.2125
Tactical	UTAC41	453.4625	458.4625
Tactical	UTAC41D	453.4625	453.4625
Tactical	UTAC42	453.7125	458.7125
Tactical	UTAC42D	453.7125	453.7125
Tactical	UTAC43	453.8625	458.8625
Tactical	UTAC43D	453.8625	453.8625

- All channels are Narrow Band, Analog, Conventional, CTCSS 156.7 TX and RX
- Base station channel use requires an FCC license.



Ch. 10.2(c) Nationwide UHF Med Channels

NATIONAL UHF MED CHANNELS							
CHANNEL NAME	MOBILE RX/BASE TX		MOBILE TX/BASE RX		A OR D	BANDWIDTH	USAGE
	FREQ	TONE	FREQ	TONE			
MED-1	463.0000	Varies	468.0000	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-11	463.00625	Varies	468.00625	Varies	A	6.25 KHz	Coord/Control
MED-12	463.01250	Varies	468.01250	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-13	463.01875	Varies	468.01875	Varies	A	6.25 KHz	Coord/Control
MED-2	463.02500	Varies	468.02500	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-21	463.03125	Varies	468.03125	Varies	A	6.25 KHz	Coord/Control
MED-22	463.03750	Varies	468.03750	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-23	463.04375	Varies	468.04375	Varies	A	6.25 KHz	Coord/Control
MED-3	463.05000	Varies	468.05000	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-31	463.05625	Varies	468.05625	Varies	A	6.25 KHz	Coord/Control
MED-32	463.06250	Varies	468.06250	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-33	463.06875	Varies	468.06875	Varies	A	6.25 KHz	Coord/Control
MED-4	463.07500	Varies	468.07500	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-41	463.08125	Varies	468.08125	Varies	A	6.25 KHz	Coord/Control
MED-42	463.08750	Varies	468.08750	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-43	463.09375	Varies	468.09375	Varies	A	6.25 KHz	Coord/Control
MED-5	463.10000	Varies	468.10000	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-51	463.10625	Varies	468.10625	Varies	A	6.25 KHz	Coord/Control



NATIONAL UHF MED CHANNELS							
CHANNEL NAME	MOBILE RX/BASE TX		MOBILE TX/BASE RX		A OR D	BANDWIDTH	USAGE
	FREQ	TONE	FREQ	TONE			
MED-52	463.11250	Varies	468.11250	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-53	463.11875	Varies	468.11875	Varies	A	6.25 KHz	Coord/Control
MED-6	463.12500	Varies	468.12500	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-61	463.13125	Varies	468.13125	Varies	A	6.25 KHz	Coord/Control
MED-62	463.13750	Varies	468.13750	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-63	463.14375	Varies	468.14375	Varies	A	6.25 KHz	Coord/Control
MED-7	463.15000	Varies	468.15000	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-71	463.15625	Varies	468.15625	Varies	A	6.25 KHz	Coord/Control
MED-72	463.16250	Varies	468.16250	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-73	463.16875	Varies	468.16875	Varies	A	6.25 KHz	Coord/Control
MED-8	463.17500	Varies	468.17500	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-81	463.18125	Varies	468.18125	Varies	A	6.25 KHz	Coord/Control
MED-82	463.18750	Varies	468.18750	Varies	A	12.5 or 6.25 KHz	Coord/Control
MED-83	463.19375	Varies	468.19375	Varies	A	6.25 KHz	Coord/Control
MED-9 *	462.95000	Varies	467.95000	Varies	A	12.5 or 6.25 KHz	Dispatch
MED-91 *	462.95625	Varies	467.95625	Varies	A	6.25 KHz	Dispatch
MED-92 *	462.96250	Varies	467.96250	Varies	A	12.5 or 6.25 KHz	Dispatch
MED-93 *	462.96875	Varies	467.96875	Varies	A	6.25 KHz	Dispatch
MED-10 *	462.97500	Varies	467.97500	Varies	A	12.5 or 6.25 KHz	Dispatch



NATIONAL UHF MED CHANNELS							
CHANNEL NAME	MOBILE RX/BASE TX		MOBILE TX/BASE RX		A OR D	BANDWIDTH	USAGE
	FREQ	TONE	FREQ	TONE			
MED-101*	462.98125	Varies	467.98125	Varies	A	6.25 KHz	Dispatch
MED-102*	462.98750	Varies	467.98750	Varies	A	12.5 or 6.25 KHz	Dispatch
MED-103*	462.99375	Varies	467.99375	Varies	A	6.25 KHz	Dispatch

- Channel use requires an FCC license.-
 -Tone squelch are set by local use.-
 *- Denotes primary use for dispatch

Ch. 10.3 700 MHz BAND

Ch. 10.3(a) Nationwide Interop Channels (700 MHz)

700 MHz NATIONWIDE INTEROPERABILITY CHANNELS			
PRIMARY USE	CH. NAME	MOBILE RX	MOBILE TX
Calling Channel	7CALL50	769.24375	799.24375
Calling Channel	7CALL50D	769.24375	769.24375
General Public Safety	7TAC51	769.14375	799.14375
General Public Safety	7TAC51D	769.14375	769.14375
General Public Safety	7TAC52	769.64375	799.64375
General Public Safety	7TAC52D	769.64375	769.64375
General Public Safety	7TAC53	770.14375	800.14375
General Public Safety	7TAC53D	770.14375	770.14375
General Public Safety	7TAC54	770.64375	800.64375
General Public Safety	7TAC54D	770.64375	770.64375
General Public Safety	7TAC55	769.74375	799.74375
General Public Safety	7TAC55D	769.74375	769.74375



700 MHz NATIONWIDE INTEROPERABILITY CHANNELS			
PRIMARY USE	CH. NAME	MOBILE RX	MOBILE TX
General Public Safety	7TAC56	770.24375	800.24375
General Public Safety	7TAC56D	770.24375	770.24375
Other Public Service	7GTAC57	770.99375	800.99375
Other Public Service	7GTAC57D	770.99375	770.99375
Mobile Repeater	7MOB59	770.89375	800.89375
Mobile Repeater	7MOB59D	770.89375	770.89375
Law Enforcement	7LAW61	770.39375	800.39375
Law Enforcement	7LAW61D	770.39375	770.39375
Law Enforcement	7LAW62	770.49375	800.49375
Law Enforcement	7LAW62D	770.49375	770.49375
Fire	7FIRE63	769.89375	799.89375
Fire	7FIRE63D	769.89375	769.89375
Fire	7FIRE64	769.99375	799.99375
Fire	7FIRE64D	769.99375	769.99375
EMS	7MED65	769.39375	799.39375
EMS	7MED65D	769.39375	769.39375
EMS	7MED66	769.49375	799.49375
EMS	7MED66D	769.49375	769.49375
Mobile Data	7DATA69	770.74375	800.74375
Mobile Data	7DATA69D	770.74375	770.74375
Calling Channel	7CALL70	773.25625	803.25625
Calling Channel	7CALL70D	773.25625	773.25625
General Public Safety	7TAC71	773.10625	803.10625
General Public Safety	7TAC71D	773.10625	773.10625
General Public Safety	7TAC72	773.60625	803.60625
General Public Safety	7TAC72D	773.60625	773.60625
General Public Safety	7TAC73	774.10625	804.10625
General Public Safety	7TAC73D	774.10625	774.10625



700 MHz NATIONWIDE INTEROPERABILITY CHANNELS			
PRIMARY USE	CH. NAME	MOBILE RX	MOBILE TX
General Public Safety	7TAC74	774.60625	804.60625
General Public Safety	7TAC74D	774.60625	774.60625
General Public Safety	7TAC75	773.75625	803.75625
General Public Safety	7TAC75D	773.75625	773.75625
General Public Safety	7TAC76	774.25625	804.25625
General Public Safety	7TAC76D	774.25625	774.25625
Other Public Service	7GTAC77	774.85625	804.85625
Other Public Service	7GTAC77D	774.85625	774.85625
Mobile Repeater	7MOB79	774.50625	804.50625
Mobile Repeater	7MOB79D	774.50625	774.50625
Law Enforcement	7LAW81	774.00625	804.00625
Law Enforcement	7LAW81D	774.00625	774.00625
Law Enforcement	7LAW82	774.35625	804.35625
Law Enforcement	7LAW82D	774.35625	774.35625
Fire	7FIRE83	773.50625	803.50625
Fire	7FIRE83D	773.50625	773.50625
Fire	7FIRE84	773.85625	803.85625
Fire	7FIRE84D	773.85625	773.85625
EMS	7MED86	773.00625	803.00625
EMS	7MED86D	773.00625	773.00625
EMS	7MED87	773.35625	803.35625
EMS	7MED87D	773.35625	773.35625
Mobile Data	7DATA89	774.75625	804.75625
Mobile Data	7DATA89D	774.75625	774.75625



700 MHz NATIONWIDE INTEROPERABILITY CHANNELS

PRIMARY USE

CH. NAME

MOBILE RX

MOBILE Tx

Mode: Only P25 FDMA Phase 1 Common Air Interface permitted
per FCC R&O 14-172 ¶ 87 (10/24/2014).

TX NAC: \$293 (659₁₀).

RX NAC \$F7E (3966₁₀).

Talk Group ID: \$00001 (1₁₀)

Manufacturer' ID: \$00 (0₁₀)

Message ID: \$00000000000000000000 (0₁₀)

Encryption:

No encryption on calling
channels.

Algorithm ID: \$80 (128₁₀)

Key ID: \$0000 (0₁₀)

“\$” indicates hexadecimal value, “10” subscript indicates decimal value.

- Base station channel use requires an FCC license.
- Mobile/portable use under blanket authorization by the FCC.
- All channels are Narrowband, Digital P-25 Phase I Conventional



Ch. 10.3(b) National Air-Ground Channels (700 MHz)

700 MHz NATIONWIDE AIR-GROUND CHANNELS			
PRIMARY USE	CHANNEL NAME	MOBILE RX	MOBILE TX
Air-Ground	7AG58	769.13125	799.13125
Air-Ground	7AG58D	769.13125	769.13125
Air-Ground	7AG60	769.63125	799.63125
Air-Ground	7AG60D	769.63125	769.63125
Air-Ground	7AG67	770.13125	800.13125
Air-Ground	7AG67D	770.13125	770.13125
Air-Ground	7AG68	770.63125	800.63125
Air-Ground	7AG68D	770.63125	770.63125
Air-Ground	7AG78	773.11875	803.11875
Air-Ground	7AG78D	773.11875	773.11875
Air-Ground	7AG80	773.61875	803.61875
Air-Ground	7AG80D	773.61875	773.61875
Air-Ground	7AG85	774.11875	804.11875
Air-Ground	7AG85D	774.11875	774.11875
Air-Ground	7AG88	774.61875	804.61875
Air-Ground (LZ)*	7AG88D	774.61875	774.61875

*7AG88D is recommended for Landing Zone use.

TX NAC: §293 (659¹⁰). RX NAC §F7E (3966¹⁰). These channels are reserved for air-ground communications to be used by low-altitude aircraft and ground-based stations: See FCC rule 90.531(7). (i) Airborne use of these channels is limited to aircraft flying at or below **457 meters (1500 feet) above ground level**. (ii) **Aircraft are limited to 2 watts effective radiated power (ERP)** when transmitting while airborne on these channels. (iii) Aircraft may transmit on either the mobile or base transmit side of the channel pair. (iv) States are responsible for the administration of these channels. These are NOT nationwide interoperability channels.



Ch. 10.3(c) 700 MHz Low Power Itinerant Channels

700 MHz Low Power Itinerant Channels					
LICENSING REQUIRED: These frequencies are NOT covered by the “Blanket Authorization” for nationwide interoperability channels. Use of these channels must be licensed or authorized by STA.					
ASSIGNMENT	CHANNEL NAME	MOBILE RX	MOBILE RX CTCSS/NAC	MOBILE TX	MOBILE TX CTCSS/NAC
Low Power - PS	7-US-01	769.05625	156.7/ \$F7E	799.05625	156.7/ \$293
Low Power - PS	7-US-01D	769.05625	156.7/ \$F7E	769.05625	156.7/ \$293
Low Power - PS	7-US-02	769.06875	156.7/ \$F7E	799.06875	156.7/ \$293
Low Power - PS	7-US-02D	769.06875	156.7/ \$F7E	769.06875	156.7/ \$293
Low Power - PS	7-US-03	774.99375	156.7/ \$F7E	804.99375	156.7/ \$293
Low Power - PS	7-US-03D	774.99375	156.7/ \$F7E	774.99375	156.7/ \$293
LICENSING NOTES: These Channels may be licensed for national itinerant mobile use . These channels may be used in either Analog or Digital mode and are limited to 2 watts (ERP) . - Licensees are responsible for the administration of these channels. - Utilize normal squelch in programming which will use the default talkgroup - \$0001 (1 ₁₀).					



Ch. 10.4 800 MHz BAND

Ch. 10.4(a) Mutual Aid Repeater Channels (800 MHz)

NON-FEDERAL 800 MHz NATIONWIDE MUTUAL AID REPEATER CHANNELS			
DESCRIPTION	CH. NAME	MOBILE RX	MOBILE TX
Calling	8CALL90	851.0125 (866.0125)	806.0125 (821.0125)
Calling – Direct	8CALL90D	851.0125 (866.0125)	851.0125 (866.0125)
Tactical	8TAC91	851.5125 (866.5125)	806.5125 (821.5125)
Tactical - Direct	8TAC91D	851.5125 (866.5125)	851.5125 (866.5125)
Tactical	8TAC92	852.0125 (867.0125)	807.0125 (822.0125)
Tactical - Direct	8TAC92D	852.0125 (867.0125)	852.0125 (867.0125)
Tactical	8TAC93	852.5125 (867.5125)	807.5125 (822.5125)
Tactical - Direct	8TAC93D	852.5125 (867.5125)	852.5125 (867.5125)
Tactical	8TAC94	853.0125 (868.0125)	808.0125 (823.0125)
Tactical - Direct	8TAC94D	853.0125 (868.0125)	853.0125 (868.0125)

CTCSS 156.7(5A) receive and transmit.
*The frequency in parenthesis, which is 15 MHz higher, is the frequency used before rebanding - channel names were ICALL, ITAC1 - ITAC4. Wideband FM 20K0F3E before and after rebanding.



Chap. 11 Federal Interoperability Channels

Ch. 11.1 VHF BAND

Ch. 11.1(a) Federal VHF Incident Response (NIFOG)

VHF INCIDENT RESPONSE (IR) FEDERAL INTEROPERABILITY CHANNELS				
SUGGESTED ASSIGNMENT	NAME	NOTE	MOB. RX	MOB. TX
Incident Calling	NC 1	Calling	169.5375	164.7125
Incident Command	IR 1		170.0125	165.2500
Medical Evac. Control	IR 2		170.4125	165.9625
Logistics Control	IR 3		170.6875	166.5750
Interagency Convoy	IR 4		173.0375	167.3250
Incident Calling (Direct)	IR 5	Direct for NC 1	169.5375	169.5375
Incident Command (Direct)	IR 6	Direct for IR 1	170.0125	170.0125
Medical Evac. Control (Direct)	IR 7	Direct for IR 2	170.4125	170.4125
Logistics Control (Direct)	IR 8	Direct for IR 3	170.6875	170.6875
Interagency Convoy (Direct)	IR 9	Direct for IR 4	173.0375	173.0375

Default operations should be carrier squelch on receive, CTCSS 167.9 transmit. If the user can enable/disable without reprogramming the radio, the indicated CTCSS tone should also be programmed for receive, and the user instructed how and when to enable/disable. All channels on this page are NARROWBAND only.



Ch. 11.2 UHF BAND

Ch. 11.2(a) Federal UHF Incident Response (NIFOG)

UHF INCIDENT RESPONSE (IR) FEDERAL INTEROPERABILITY CHANNELS				
SUGGESTED ASSIGNMENT	NAME	NOTE	MOB. RX	MOB. TX
Incident Calling	NC 2	Calling	410.2375	419.2375
Ad Hoc Assignment	IR 10		410.4375	419.4375
Ad Hoc Assignment	IR 11		410.6375	419.6375
SAR Inc. Command	IR 12		410.8375	419.8375
Ad Hoc Assignment	IR 13		413.1875	413.1875
Interagency Convoy	IR 14		413.2125	413.2125
Incident Calling (Direct)	IR 15	Direct for NC 2	410.2375	410.2375
Ad Hoc Assignment (Direct)	IR 16	Direct for IR 10	410.4375	410.4375
Ad Hoc Assignment (Direct)	IR 17	Direct for IR 11	410.6375	410.6375
SAR Inc. Command (Direct)	IR 18	Direct for IR 12	410.8375	410.8375

Default operations should be carrier squelch on receive, CTCSS 167.9 transmit. If the user can enable/disable without reprogramming the radio, the indicated CTCSS tone should also be programmed for receive, and the user instructed how and when to enable/disable.



Ch. 11.3 FEDERAL INTEROPERABILITY SEARCH AND RESCUE

FEDERAL/NON-FEDERAL SAR COMMAND INTEROPERABILITY PLAN			
CHANNEL NAME*	MOB. RX	MOB. TX	CTCSS
IR 12**	410.8375	419.8375	167.9 TX, CSQ RX
VTAC14	159.4725	159.4725	156.7 TX and RX
UTAC43	453.8625	458.8625	156.7 TX and RX
8TAC94 (ITAC4 before rebanding)	853.0125 (868.0125 before rebanding)	808.0125 (823.0125 before rebanding)	156.7 TX and RX
Marine Ch 17***	156.8500 (this use requires FCC STA)	156.8500 (this use requires FCC STA)	NONE



FEDERAL/Non-FEDERAL SEARCH AND RESCUE OPERATIONS	
SAR FUNCTIONS	FREQUENCY/CHANNEL(s)
Ground Operations	155.1600 narrowband FM
Maritime Operations*	VHF Marine ch.21A or 23A as specified by U.S. Coast Guard Sector Commander
Air Operations – Civilian	123.1000 MHz AM
Air Operations – USCG/Military	345.0 MHz AM for initial contact only, then move to 282.8 MHz AM or another working channel
Air Rescue Assets to Air Rescue Assets (deconfliction)	As chartered on standard air chart or MULTICOM 122.850 (south or west sector) & 122.900 MHz (north or east sector), or as specified by the Federal Aviation Administration (FAA). 122.850 may not be used for testing or exercise.
Ground to Air SAR Working Channel	157.175 83A (21A, 23A, 81A alternates as specified by local USCG Sector Commander) **
Ground to Maritime SAR Working Channel	157.050 21A (23A, 81A, 83A alternates as specified by local USCG Sector Commander) **
Maritime/Air/Ground SAR Working Channel	157.175 83A (21A, 23A, 81A alternates as specified by local USCG Sector Commander) **
EMS/Medical Support	155.3400 (narrowband FM)
Hailing ¹ & DISTRESS only – Maritime/Air/Ground	Marine channel 16



*Use VHF Marine ch.16 to make contact (30 seconds max.), then move to appropriate working channel as directed by local USCG Sector Commander. Non-maritime use of any VHF Marine channel requires FCC Special Temporary Authority or appropriate license. VHF marine channels use wideband FM, emission 16K0F3E.

**VHF Marine channels: 16=156.800 21A=157.050 22A=157.100 23A=157.150
81A=157.075 82A=157.125 83A=157.1750

Direction from USCG, FCC, or FAA overrides information in this table. This table does not convey authority to operate.



Chap. 12 Amateur Radio ARES/RACES Resources

The amateur radio community may be a key component and play a significant role in interoperable communications in response to public safety or emergency response. As the State of Iowa prepares to build appropriate protocols and policies, amateur radio operators and agencies are encouraged to reference the [Auxiliary Communications Field Operations Guide \(AUXFOG\) Version 1.1](#)

Ch. 12.1 AMATEUR RADIO POINTS OF CONTACT

COUNTY	CALL SIGN	NAME	AFFILIATION	24/7 PHONE E-MAIL
State Agencies				
Linn	WAOUIG	Lea Garner	ARES	319-213-3539
Polk	NOVPR	Tom Reis	RACES	515-314-5666
Story	K0GR	Clint Miller	RACES	515-231-6504 isuforester@hotmail.com
Region 1				
Story	W0YR	Paul Cowley	ARES	515-979-4899 pncowley@msn.com
Region 2				
Butler	AE5EI	Joe Hoepfner	ARES	319-215-9709 hoepfnerjoe@gmail.com
Region 3				
Buena Vista	KE0EJS	Jason Knapton	ARES	712-299-5288 jason@ke0eis.com



COUNTY	CALL SIGN	NAME	AFFILIATION	24/7 PHONE E-MAIL
Region 4				
Adair	WD0FIA	Keith Carpenter	ARES	641-781-0153 wd0fia@hotmail.com
Region 5				
Des Moines	K0BMW	Mike Rosenblatt	ARES	k0bmw@arri.net
Region 6				
Black Hawk	W0ALO	Charles Angel	ARES	319-269-2271



Chap. 13 Dispatch Center Information

Ch. 13.1 DISPATCH CENTERS

DISPATCH CENTERS			
COUNTY / Co #	DISPATCH CENTER	LOCATION	24/7 PHONE
Adair / 01	Adair Co. Sheriff's Office	302 E Iowa St. Greenfield, IA	641-743-2148
Adams / 02	Adams Co. Sheriff's Office	901 Davis Ave. Corning, IA	641-322-4444
Allamakee / 03	Allamakee Co. Sheriff's Office	877 Hwy. 9 Waukon, IA	563-568-4521
Appanoose / 04	Centerville 911	22158 Dewey Rd. Centerville, IA	641-437-7100
Audubon / 05	Audubon Co. 911 Communications	318 Leroy St. Audubon, IA	712-563-2631
Benton / 06	Benton Co. Sheriff's Office	113 East 3rd St. Vinton, IA	319-472-2337
Black Hawk / 07	Black Hawk Consolidated Communications Center	225 E 6th St. Waterloo, IA	319-291-2515
Boone / 08	Boone Co. Communications	1019 W. Mamie Eisenhower Boone, IA	515-433-0524
Bremer / 09	Bremer Co. Waverly Law Center	111 4th St. NE Waverly, IA	319-352-5400
Buchanan / 10	Buchanan Co. Communications Center	210 5th Ave. NE Independence, IA	319-334-2567



DISPATCH CENTERS			
COUNTY / Co #	DISPATCH CENTER	LOCATION	24/7 PHONE
Buena Vista / 11	Buena Vista Co. 911 Communications Center-Storm Lake	411 Expansion Blvd. Storm Lake, IA	712-749-2525
Butler / 12	Butler Co. Sheriff's Office	428 6th St., Allison, IA	319-267-2410
Calhoun / 13	Calhoun Co. Sheriff's Office	416 4th St., Rockwell City, IA	712-297-7583
Carroll / 14	Carroll Co. Communications	114 E. 6th St. Carroll, IA	712-775-2294
Cass / 15	Cass Co. Public Safety Communications Center	705 Poplar St. Atlantic, IA	712-243-2204
Cedar / 16	Cedar Co. Sheriff's Office	711 E. South St. Tipton, IA	563-886-2121
Cerro Gordo / 17	Cerro Gordo Co. Sheriff	17262 Lark Ave. Mason City, IA	641-421-3000
Cerro Gordo / 17	Clear Lake PD	511 1st Ave. North Clear Lake, IA	641-357-2186
Cherokee / 18	Cherokee Co. Sheriff	111 N 5th St. Cherokee, IA	712-225-6728
Chickasaw / 19	Chickasaw Co.	116 N Chestnut Ave. New Hampton, IA	641-394-3121
Clarke / 20	Clarke Co. Sheriff's Office	220 Townline Rd. Osceola, IA	641-342-2914
Clay / 21	Clay Co. PSAP	712 Grand Ave. Spencer, IA	712-262-2151



DISPATCH CENTERS			
COUNTY / Co #	DISPATCH CENTER	LOCATION	24/7 PHONE
Clayton / 22	Clayton Co. Sheriff's Office	22680 230th St. Saint Olaf, IA	563-245-1414
Clinton / 23	Clinton Co. Communications	241 7th Ave., North Clinton, IA	563-243-1458
Crawford / 24	Crawford Co. Communications Center	1119 1st Ave. North Denison, IA	712-263-3195
Dallas / 25	Dallas Co. Sheriff Communications	5747 N Ave. Ste. E Adel, IA	515-993-4567
Davis / 26	Davis Co. Law Center	102 Anderson St. Bloomfield, IA	641-664-2700
Decatur / 27	Decatur Co. Sheriff's Office	206 NE 2nd St. Leon, IA	641-446-4111
Delaware / 28	Delaware Co. Communication Center	208 East Main St. Manchester, IA	563-927-1145
Des Moines / 29	DESCOM - Des Moines Co.	1401 W Agency Rd. Ste. #070 West Burlington, IA	319-671-7001
Dickinson /30	Dickinson Co. Sheriff's Office	802 Hill Ave., Ste. 1200 Spirit Lake, IA	712-336-2525
DPS	Cedar Falls Comm Center	1510 W 1 St Cedar Falls, IA	319-277-4761
DPS	Cedar Rapids Comm Center	5400 16 Ave SW Cedar Rapids, IA	319-396-4414



DISPATCH CENTERS			
COUNTY / Co #	DISPATCH CENTER	LOCATION	24/7 PHONE
DPS	Johnston Comm Center-STARC Armory	6100 NW 78th Ave Johnston, IA	515-323-4360
DPS	Storm Lake Comm Center	1103 E Lakeshore Dr. Storm Lake, IA	712-732-1341
Dubuque / 31	Dubuque Co. Communications Center	770 Iowa St. Dubuque, IA	563-583-1711
Emmet / 32	Emmet Co. E911	114 North 6th St. Estherville, IA	712-362-3515
Fayette / 33	Fayette Co. Sheriff's Office	220 N. Industrial Pkwy. West Union, IA	563-422-6128
Floyd / 34	Floyd Co. Communications Center	105 Milwaukee Mill Charles City, IA	641-228-3366
Franklin / 35	Franklin Co. EM Communications	105 5th St. SW Hampton, IA	641-456-2731
Fremont / 36	Fremont Co. Sheriff's Office	2814 200th St. Sidney, IA	712-374-2424
Greene / 37	Greene Co. Sheriff's Office	204 S Chestnut St. Jefferson, IA	515-386-2136
Grundy / 38	Grundy Co. Sheriff's Office	705 8th St., Grundy Center, IA	319-824-6933
Guthrie / 39	Guthrie Co. Sheriff's Office	200 N 5th St. Ste 7, Guthrie Center, IA	641-747-2214



DISPATCH CENTERS			
COUNTY / Co #	DISPATCH CENTER	LOCATION	24/7 PHONE
Hamilton / 40	Hamilton Co. Sheriff's Office	2300 Superior St. Ste. 8, Webster City, IA	515-832-9500
Hancock / 41	Hancock Sheriff's Office	875 State St. Garner, IA	641-923-2621
Hardin / 42	Hardin Co. Sheriff	1116 14th Ave. Eldora, IA	641-939-8190
Harrison / 43	Harrison Co. Communications	111 S 1st Ave. Logan, IA	712-600-9770
Henry / 44	Henry Co. Sheriff's Office	106 E Clay St. Mt Pleasant, IA	319-385-2712
Howard / 45	Howard Co. Sheriff's Office	124 South Park Pl. Cresco, IA	563-547-3535
Humboldt / 46	Humboldt Co. Law Enforcement Center	430 Sumner Ave. Humboldt, IA	515-332-2600
Ida / 47	Ida Co. Sheriff's Office	401 Moorehead Ida Grove, IA	712-364-3146
Iowa / 48	Iowa Co. Sheriff's Office	960 Franklyn Ave. Marengo, IA	319-642-7307
Jackson / 49	Maquoketa PD	102 S Niagara St. Maquoketa, IA	563-652-2468
Jasper / 50	Jasper Co. Sheriff's Office	2300 Law Center Dr. Newton, IA	641-792-5912
Jefferson / 51	Jefferson Co. Law Center	1200 West Grimes Fairfield, IA	641-472-4146



DISPATCH CENTERS			
COUNTY / Co #	DISPATCH CENTER	LOCATION	24/7 PHONE
Johnson / 52	Johnson Co. Joint Emergency Communications Services Assn.	4529 Melrose Ave. Iowa City, IA	319-356-6800
Jones / 53	Jones Co. Sheriff	500 West Main Anamosa, IA	319-462-4371
Keokuk / 54	Keokuk Co. Sheriff's Office	204 S Stone St. Sigourney, IA	641-622-2727
Kossuth / 55	Algona PD	121 West State St. Algona, IA	515-295-3515
Lee / 56	Lee Co. PSAP (LeeComm)	2530 255th St. Montrose, IA	319-372-1310
Linn / 57	Cedar Rapids Joint Communications Agency	505 1st St. SW Cedar Rapids, IA	319-286-5491
Linn / 57	Linn Co. Sheriff's Office	310 2nd Ave. SW Cedar Rapids, IA	319-398-3911
Linn / 57	Marion PD	6315 Hwy. 151 Marion, IA	319-377-1511
Louisa / 58	Louisa Co. Sheriff's Office	12635 County Rd. G56 Ste. 102 Wapello, IA	319-523-4371
Lucas / 59	Lucas Co. Sheriff's Office	48559 Hy-Vee Rd Chariton, IA	641-774-5083
Lyon / 60	Lyon Co. Sheriff	410 South Boone Rock Rapids, IA	712-472-8300



DISPATCH CENTERS			
COUNTY / Co #	DISPATCH CENTER	LOCATION	24/7 PHONE
Madison / 61	Madison Co. Sheriff's Office	1012 N John Wayne Dr. Winterset, IA	515-462-3575
Mahaska / 62	Mahaska Co. 911 Center	214 High Ave East, Oskaloosa, IA	641-673-0347
Marion / 63	Marion Co. Sheriff's Office	211 North Godfrey Ln. Knoxville, IA	641-828-2220
Marion / 63	Pella PD	614 Main St. Pella, IA	641-628-4921
Marshall / 64	Marshall Co. Communications Center	909 S 2nd St. Marshalltown, IA	641-754-5725
Mills / 65	Mills Co. Communications Center	418 Sharp St. Glenwood, IA	712-527-4871
Mitchell / 66	Mitchell Co. Communications Center	211 S 6th St. Osage, IA	641-732-4740
Monona / 67	Monona Co. Sheriff's Office	909 7th St. Onawa, IA	712-433-2525
Monroe / 68	Monroe Co. Sheriff Office	114 19th Ave. West Albia, IA	641-932-7815
Montgomery / 69	Montgomery Co. Sheriff's Office	106 W. Coolbaugh St. Red Oak, IA	712-623-5107
Muscatine / 70	MUSCOM	312 East 5th St. Muscatine, IA	563-263-9922
O' Brien / 71	O'Brien Co. Sheriff	240 1st St. NE Primghar, IA	712-757-3415



DISPATCH CENTERS			
COUNTY / Co #	DISPATCH CENTER	LOCATION	24/7 PHONE
Osceola / 72	Osceola Co. Sheriff's Office	309 6th St. Sibley, IA	712-754-2556
Page / 73	Page Co. Communications Center	200 S. 15th St. Clarinda, IA	712-542-1419
Palo Alto / 74	Palo Alto Communications Center	2001 11th St. Emmetsburg, IA	712-852-3535
Plymouth / 75	Plymouth Co. Sheriff Office	451 14th Ave. E Le Mars, IA	712-546-8191
Pocahontas / 76	Pocahontas Sheriff's Office	99 Court Sq., Ste. 9 Pocahontas IA	712-335-3308
Polk / 77	Des Moines PD	25 East 1st St. Des Moines, IA	515-283-4811
Polk / 77	Polk Co. Sheriff's Office	6023 NE 14th St. Des Moines, IA	515-286-3334
Polk / 77	Westcom Emergency Communications	8055 Mills Civic Pkwy West Des Moines, IA	515-222-3321
Pottawattamie / 78	Pottawattamie Co. Law Enforcement 911 Center	227 S 6th St. Council Bluffs, IA	712-328-5737
Poweshiek / 79	Poweshiek Co.	4802 Barnes City Rd. Montezuma, IA	641-623-5679
Ringgold / 80	Ringgold Co. Sheriff's Office	801 W South St. Mount Ayr, IA	641-344-9691
Sac / 81	Sac Co. Sheriff's Office	116 S State St. Ste. C, Sac City, IA	712-662-7127



DISPATCH CENTERS			
COUNTY / Co #	DISPATCH CENTER	LOCATION	24/7 PHONE
Scott / 82	Scott Emergency Communications Center (SECC)	1100 E. 46th St. Davenport, IA	563-484-3000
Shelby / 83	Shelby Co. Communications	612 Court St. Harlan, IA	712-755-2124
Sioux / 84	Sioux Co. Sheriff's Office	4363 Ironwood Ave. Orange City, IA	712-737-3307
Story / 85	Ames PD	515 Clark Ave. Ames, IA	515-239-5133
Story / 85	Story Co. Sheriff's Office	1315 S B Ave. Nevada, IA	515-382-6566
Tama / 86	Tama Co. 911 Communication Center	100 N Main St. Toledo, IA	641-484-3760
Taylor / 87	Taylor Co. Sheriff's Office	1601 Justice St. Bedford, IA	712-523-2153
Union / 88	Union Co. Sheriff's Office	302 N Pine St. Creston, IA	641-782-8402
Van Buren / 89	Van Buren Co.	907 Broad St. Keosauqua, IA	319-293-3426
Wapello / 90	Ottumwa PD	330 W 2nd St. Ottumwa, IA	641-683-0661
Wapello / 90	Wapello Co. Sheriff's Office	330 W 2nd St. Ottumwa, IA	641-684-4350
Warren / 91	Warren Co. Sheriff's Office	115 North Howard St. Indianola, IA	515-961-1122



DISPATCH CENTERS			
COUNTY / Co #	DISPATCH CENTER	LOCATION	24/7 PHONE
Washington / 92	Washington Co. 911	221 West 2nd St. Washington, IA	319-653-2107
Wayne / 93	Wayne Co.	207 N. Lafayette Corydon, IA	641-872-1566
Webster / 94	Webster Co. Telecommunications	702 1st Ave. South Fort Dodge, IA	515-573-2323
Winnebago / 95	Winnebago Co. Communications	935 Hwy. 69 N Forest City, IA	641-585-8800
Winneshiek / 96	Decorah PD	400 Claiborne Dr. Decorah, IA	563-382-3667
Woodbury / 97	Woodbury Co. Communications	4647 Stone Ave. Sioux City, IA	712-279-6960
Worth / 98	Worth Co. Sheriff's Office	1000 Central Ave. Northwood, IA	641-324-2481
Wright / 99	Wright Co. Communications	719 2nd St. SW Clarion, IA	515-532-3722

Chap. 14 Interoperable Communications Assets

Ch. 14.1 INTEROPERABILITY FIXED REPEATERS AND BASE STATIONS

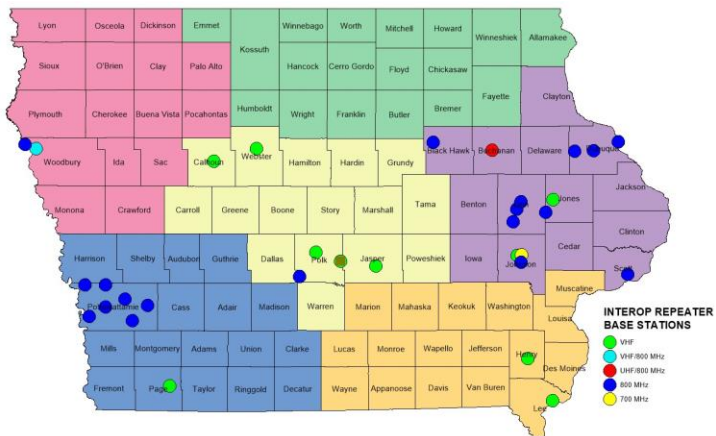


Figure 3: Interoperability Fixed Repeaters and Base Stations



FIXED REPEATERS AND BASE STATIONS				
County	Agency	24/7 Phone	Location	Channel
State Agencies				
Calhoun	IA DOC	712-695-7140	42.392111; 94.606389	- VCALL10 & VTACS
Henry	IA DOC	712-695-7140	40.955770; -91.535910	VCALL10 & VTACS
Jasper	IA DOC	712-695-7140	41.618972; -93.055194	VCALL10 & VTACS
Jasper	IA DOC	712-695-7140	41.6295; -93.05691667	VCALL10 & VTACS
Johnson	IA DOC	712-695-7140	41.705360; -91.641900	VCALL10 & VTACS
Jones	IA DOC	712-695-7140	42.111460; -91.289470	VCALL10 & VTACS
Lee	IA DOC	712-695-7140	40.650380; -91.297170	VCALL10 & VTACS
Page	IA DOC	712-695-7140	40.760210; 95.037510	- VCALL10 & VTACS
Polk	IA DOC	712-695-7140	41.729650; 93611160	- VCALL10 & VTACS
Polk	IA DOC	712-695-7140	41.666000; -93.366810	VCALL10 & VTACS
Webster	IA DOC	712-695-7140	42.484920; -94.192170	VCALL10 & VTACS
Region 1				
Polk	Westcom Emerg. Comms	319-286-5491	S 50 th & Waterford West Des Moines, IA	8CALL90
Polk	Westcom Emerg. Comms	319-286-5491	S 50 th & Waterford West Des Moines, IA	8TAC91



FIXED REPEATERS AND BASE STATIONS				
County	Agency	24/7 Phone	Location	Channel
Region 2				
None identified				
Region 3				
Woodbury	Sioux City	712-737-3307	4647 Stone Ave., Woodbury, IA	8CALL90
Woodbury	Sioux City	712-737-3307	4647 Stone Ave., Woodbury, IA	8TAC91
Woodbury	Sioux City	712-737-3307	3301 W 19 th St., Sioux City, IA	8TAC92
Woodbury	Sioux City	712-737-3307	4647 Stone Ave., Woodbury, IA	VCALL10
Region 4				
Pottawattamie	Pottawattamie Co Law Center	712-328-5737	Memorial Park Tower Council Bluffs, IA	8CALL90
Pottawattamie	Pottawattamie Co Law Center	712-328-5737	40790 Highway 92 Carson, IA	8CALL90
Pottawattamie	Pottawattamie Co Law Center	712-328-5737	5 Mi W of Hancock Hancock, IA	8CALL90
Pottawattamie	Pottawattamie Co Law Center	712-328-5737	2 Mi E of McClelland McClelland, IA	8CALL90
Pottawattamie	Pottawattamie Co Law Center	712-328-5737	16664 Whippoorwill Honey Creek, IA	8CALL90
Pottawattamie	Pottawattamie Co Law Center	712-328-5737	27270 Whippoorwill Neola, IA	8CALL90
Pottawattamie	Pottawattamie Co Law Center	712-328-5737	48751 Juniper Rd., Hancock, IA	8CALL90



FIXED REPEATERS AND BASE STATIONS				
County	Agency	24/7 Phone	Location	Channel
Region 5				
None identified				
Region 6				
Black Hawk	University of Northern Iowa	319-273-2712	125 Gilchrist Hall Cedar Falls, IA	8CALL90
Buchanan	Buchanan Co Comms	319-334-2567	210 5 th Ave., NE Independence, IA	8CALL90
Dubuque	Dubuque Co Comms	563-583-1711	2375 Roosevelt Dubuque, IA	8CALL90
Dubuque	Dubuque Co Comms	563-583-1711	Wuchter Road Dyersville, IA	8TAC91
Dubuque	Dubuque Co Comms	563-583-1711	2375 Roosevelt Dubuque, IA	8TAC92
Dubuque	Dubuque Co Comms	563-583-1711	Wuchter Road Dyersville, IA	8TAC93
Dubuque	Dubuque Co Comms	563-583-1711	Sroka Lane Epworth, IA	8TAC94
Johnson	Johnson Co Comms	319-356-6800	Coralville, IA	7TAC73
Johnson	Johnson Co Comms	319-356-6800	Coralville, IA	7TAC74
Johnson	Johnson Co Comms	319-356-6800	Iowa City, IA	8TAC91
Jones	Jones Co SO	319-462-4371	108 Hubbell St. Martelle, IA	8TAC91
Linn	Cedar Rapids Joint Comms	319-286-5491	1000 27 th Ave., SW Cedar Rapids, IA	8TAC92



FIXED REPEATERS AND BASE STATIONS				
County	Agency	24/7 Phone	Location	Channel
Linn	Cedar Rapids Joint Comms	319-286-5491	707 Boyson Rd. NE Cedar Rapids, IA	8TAC94
Linn	Marion PD	319-377-1511	2425 Country Home Marion, IA	8CALL90
Scott	Scott Co Emerg Comms	563-484-3000	1100 E. 46 th St. Davenport, IA	8CALL90
Scott	Scott Co Emerg Comms	563-484-3000	Forest Grove Dr., Bettendorf, IA	8TAC92
Scott	Scott Co Emerg Comms	563-484-3000	1100 E. 46 th St., Davenport, IA	8TAC94
Scott	Scott Co Emerg Comms	563-484-3000	18860 Scott Park Rd. Eldridge, IA	7TAC51
Scott	Scott Co Emerg Comms	563-484-3000	Lost Grove Rd., Princeton, IA	7TAC52
Scott	Scott Co Emerg Comms	563-484-3000	.9 km S I-280/US-61	7TAC53
Scott	Scott Co Emerg Comms	563-484-3000	220 th St., Durant, IA	7TAC54



Ch. 14.2 TRANSPORTABLE REPEATERS

TRANSPORTABLE REPEATERS				
Agency	24/7 Phone	Location	Band	Channel(s)
State				
ISICSB	515-323-4360	Central STR, Aurelia	UHF	
ISICSB	515-323-4360	Central STR, Aurelia	800 MHz	
ISICSB	515-323-4360	Eastern STR, Iowa City Summer, Davenport Winter	800 MHz	
ISICSB	515-323-4360	West STR, Des Moines	VHF 700 MHz	
Region 1				
Region 2				
Region 3				
Region 4				
Region 5				
Region 6				



Ch. 14.3 FIXED GATEWAYS

FIXED GATEWAYS			
Owning Agency	24/7 Phone	Gateway Type	Connected Systems
State			
Region 1			
Region 2			
Region 3			
Region 4			
Region 5			
Region 6			



Ch. 14.4 TRANSPORTABLE GATEWAYS

TRANSPORTABLE GATEWAYS			
Owning Agency	Location Kept	24/7 Phone	Make/Model
State			
ISICSB	Central STR Trailer, Aurelia, IA	515-725-3231	JPS/ACU5000
ISICSB	East STR Trailer, Iowa city, IA in summer and Davenport, IA in winter	515-725-3231	JPS/ACU5000
ISICSB	West STR Trailer, De Moines, IA	515-725-3231	JPS/ACU5000
Region 1			
Region 2			
Region 3			
Region 4			
Region 5			
Region 6			



Ch. 14.5 MOBILE RADIO SYSTEM

TRANSPORTABLE GATEWAYS			
Owning Agency 24/7 Phone	Location Kept	Freq. Band	Channel(s)
State			
ISICSB 515-725-3231	Central STR Trailer, Des Moines, IA	Tri-Band	UHF/700/800
ISICSB 515-725-3231	East STR Trailer, Iowa city, IA in summer and Davenport, IA in winter	Quad-Band	VHF/UHF/700/ 800
ISICSB 515-725-3231	West STR Mobile Radio System, Des Moines, IA	Dual-Band	700/800
Region 1			
Region 2			
Region 3			
Region 4			
Region 5			
Region 6			



Ch. 14.6 RADIO CACHES

RADIO CACHES						
Agency	24/7 Phone	VHF	UHF	700/800 MHz	800 MHz	Other
State						
ISCSB – Central STR	515-725-3231		9			23 (Dual) 4 (Dual)
ISCSB – Eastern STR	515-725-3231					36 (Quad)
ISCSB – West STR	515-725-3231	32				4 (Dual)
ISICSB/DPS	515-725-3231					25 V/7/8
Region 1						
Region 2						
Region 3						
Region 4						
Region 5						
Region 6						



Ch. 14.6(a) Radio Cache Programming Templates

Ch. 14.6(a-1) Law Enforcement Template

CH	VHF BAND	VHF BAND	UHF BAND	UHF BAND	700/800 BAND	700/800 BAND
1	VCALL10	VLAW31	UCALL40		7CALL50	8CALL90
2	VTAC11	VLAW32	UCALL40D		7TAC51	8CALL90D
3	VTAC12		UTAC41		7TAC51D	8TAC91
4	VTAC13		UTAC41D			8TAC91D
5	VTAC14		UTAC42			8TAC92
6			UTAC42D			8TAC92D
7			UTAC43			8TAC93
8			UTAC43D			8TAC93D
9						8TAC94
10						8TAC94D
11						8TAC95
12						8TAC95D
13						8TAC96
14						8TAC96D



Ch. 14.6(a-2) Fire Service/EMS Template

CH	VHF BAND	VHF BAND	UHF BAND	UHF BAND	700/800 BAND	700/800 BAND
1	VCALL10	VFIRE21	UCALL40		7CALL50	8CALL90
2	VTAC11	VFIRE22	UCALL40D		7TAC51	8CALL90D
3	VTAC12	VFIRE23	UTAC41		7TAC51D	8TAC91
4	VTAC13	VMED28	UTAC41D			8TAC91D
5	VTAC14	VMED29	UTAC42			8TAC92
6			UTAC42D			8TAC92D
7			UTAC43			8TAC93
8			UTAC43D			8TAC93D
9						8TAC94
10						8TAC94D
11						8TAC95
12						8TAC95D
13						8TAC96
14						8TAC96D



Ch. 14.6(a-3) All Discipline Template

CH	VHF BAND	VHF BAND	UHF BAND	UHF BAND	700/800 BAND	700/800 BAND
1	VCALL10	VLAW31	UCALL40		7CALL50	8CALL90
2	VTAC11	VLAW32	UCALL40D		7TAC51	8CALL90D
3	VTAC12	VFIRE21	UTAC41		7TAC51D	8TAC91
4	VTAC13	VFIRE22	UTAC41D			8TAC91D
5	VTAC14	VFIRE23	UTAC42			8TAC92
6		VMED28	UTAC42D			8TAC92D
7		VMED29	UTAC43			8TAC93
8			UTAC43D			8TAC93D
9						8TAC94
10						8TAC94D
11						8TAC95
12						8TAC95D
13						8TAC96
14						8TAC96D



Ch. 14.7 MOBILE COMMAND/COMMUNICATIONS VEHICLES

MOBILE COMMUNICATIONS VEHICLES					
VEHICLE ID RESPONSIBLE AGENCY	24/7 PHONE	LOCATION STORED	GATEWAY OR CACHE	SEATING DISP.	CONF
State					
DPS MCV Mobile Command Iowa DPS	515-725-3231	Des Moines, IA		2	4
Central STR ISICSB	515-725-3231	Aurelia, IA Statewide	Gateway/Cache	1	0
East STR ISICSB	515-725-3231	Iowa City / Davenport, IA Statewide	Gateway/Cache	1	0
West STR ISICSB	515-725-3231	Des Moines, IA	Gateway/Cache	1	0
Region 1					
Region 2					
Region 3					
Region 4					



MOBILE COMMUNICATIONS VEHICLES					
VEHICLE ID	24/7 PHONE	LOCATION STORED	GATEWAY OR CACHE	SEATING DISP.	
RESPONSIBLE AGENCY					
Region 5					
Region 6					

Ch. 14.8 STRATEGIC TECHNOLOGY RESERVE

STRATEGIC TECHNOLOGY RESERVE			
UNIT ID	24/7 PHONE	LOCATION STORED	DESCRIPTION
East STR	515-725-3231	Iowa City - Summer Davenport - Winter	16' enclosed trailer equipped with 40' tower, 36 Harris quad band portable radios, Harris Unity Mobile Quad Band radio, gateway w/cables, Harris 800 MY repeater, diesel generator with 48-hour fuel supply
Central STR	515-725-3231	Aurelia	16' enclosed trailer equipped with 40' tower, 9 UHF single band portable radios, 23 dual band portable radios, 4 UHF/7-9=800 portable radios, 1 tri-band radio, gateway with cables, two portable repeaters, diesel generator with 48-fuel supply.



STRATEGIC TECHNOLOGY RESERVE			
UNIT ID	24/7 PHONE	LOCATION STORED	DESCRIPTION
West STR	515-725-3231	Des Moines, IA	16' enclosed trailer equipped with 32 VHF single band portable radios, 4 dual band portable radios, 1 dual band mobile radio, 1 mobile repeater, six-channel trunking site configured to integrate with the ISICS in site or wide area trunking, gateway w/cables, diesel generator with 48-hour fuel supply.

Ch. 14.9 OTHER TRANSPORTABLE EQUIPMENT

OTHER TRANSPORTABLE EQUIPMENT		
OWNING AGENCY 24/7 PHONE	LOCATION	DESCRIPTION
State		
Iowa DPS 515-725-3231	DPS MCV, Des Moines, IA	Diesel Generator
ISICSB 515-725-3231	Central STR, Aurelia, IA	Diesel Generator
ISICSB 515-725-3231	East STR, Iowa City/Davenport, IA	Diesel Generator
ISICSB 515-725-3231	West STR, Des Moines, IA	Diesel Generator
Region 1		



OTHER TRANSPORTABLE EQUIPMENT		
OWNING AGENCY 24/7 PHONE	LOCATION	DESCRIPTION
Region 2		
Region 3		
Region 4		
Region 5		
Region 6		

Ch. 14.10 COMMUNICATIONS UNIT PERSONNEL

COMMUNICATIONS UNIT PERSONNEL			
AGENCY	NAME	24/7 PHONE	COMU POSITION(S)
		EMAIL	
State			
Region 1			



COMMUNICATIONS UNIT PERSONNEL			
AGENCY	NAME	24/7 PHONE EMAIL	COMU POSITION(S)
Region 2			
Region 3			
Region 4			
Region 5			
Region 6			



Chap. 15 Technical Reference

Ch. 15.1 TONE CODED SQUELCH (CTCSS)

CTCSS (CONTINUOUS TONE CODED SQUELCH SYSTEM) TONES AND CODES					
FREQ. (Hz)	MOT. PL	ICOM #	FREQ. (Hz)	MOT. PL	ICOM #
67.0	XZ	01	136.5	4Z	21/04
69.3**	WZ	--	141.3	4A	22/13
71.9	XA	02	146.2	4B	23/05
74.4	WA	03	151.4	5Z	24/14
77.0	XB	04	156.7	5A	25/06
79.7	WB	05	162.2	5B	26
82.5	YZ	06	167.9	6Z	27/07
85.4	YA	07	173.8	6A	28
88.5	YB	08	179.9	6B	29
91.5	ZZ	09	186.2	7Z	30
94.8	ZA	10	192.8	7A	31
97.4	ZB	11	203.5	M1	32
100.0	1Z	12/09	206.5	8Z	--
103.5	1A	13/08	210.7	M2	33
107.2	1B	14/10	218.1	M3	34
110.9	2Z	15/01	225.7	M4	35
114.8	2A	16/11	229.1	9Z	--



CTCSS (CONTINUOUS TONE CODED SQUELCH SYSTEM) TONES AND CODES

FREQ. (Hz)	MOT. PL	ICOM #	FREQ. (Hz)	MOT. PL	ICOM #
118.8	2B	17	233.6	M5	36
123.0	3Z	18/02	241.8	M6	37
127.3	3A	19/12	250.3	M7	38
131.8	3B	20/03	254.1	OZ	--

** 69.4 in some radios

Ch. 15.2 DIGITAL CODED SQUELCH (DCS)

DCS (DIGITAL CODED SQUELCH) CODES

NORM.	INVERT.	NORM.	INVERT.	NORM.	INVERT.	NORM.	INVERT.
023	047	155	731	325	526	516	432
025	244	156	265	331	465	523	246
026	464	162	503	332	455	526	325
031	627	165	251	343	532	532	343
036	172	172	036	346	612	546	132
043	445	174	074	351	243	565	703
047	023	205	263	364	131	606	631
051	032	212	356	365	125	612	346
053	452	223	134	371	734	624	632
054	413	225	122	411	226	627	031
065	271	226	411	412	143	631	606
071	306	243	351	413	054	632	624
072	245	244	025	423	315	654	743



DCS (DIGITAL CODED SQUELCH) CODES							
NORM.	INVERT.	NORM.	INVERT.	NORM.	INVERT.	NORM.	INVERT.
073	506	245	072	431	723	662	466
074	174	246	523	432	516	664	311
114	712	251	165	445	043	703	565
115	152	252	462	446	255	712	114
116	754	255	446	452	053	723	431
122	225	261	732	454	266	731	155
125	365	263	205	455	332	732	261
131	364	265	156	462	252	734	371
132	546	266	454	464	026	743	654
134	223	271	065	465	331	754	116
143	412	274	145	466	662		
145	274	306	071	503	162		
152	115	311	664	506	073		
032	051	315	423				



Ch. 15.3 P25 DIGITAL CONVENTIONAL CODES

NAC – NETWORK ACCESS CODES	
\$293	Default NAC
\$F7E	Receiver will unsquelch with any incoming NAC
\$F7F	A repeater with this NAC will allow incoming signals to be repeated with the NAC intact
TGID – TALKGROUP ID	
\$0001	Default
\$0000	No one, talkgroup with no users - used for individual call
\$FFFF	Talkgroup which includes everyone
UNIT ID	
\$000000	No one – never associated with a radio unit
\$000001-\$98767F	For general use
\$989680-\$FFFFFFE	For talkgroup use or other special purposes
\$FFFFFFF	Designates everyone – used when implementing a group call with a TGID3













Chap. 16 Phonetic Alphabet, Morse Code, Nautical Flags, and Sign Language

Letter	MILITARY	Phonetic	Morse Code	Nautical	Sign
A	Alfa	Adam	• —		
B	Bravo	Boy	— • • •		
C	Charlie	Charles	— • — •		
D	Delta	David	— • •		
E	Echo	Edward	•		
F	Foxtrot	Frank	• • — •		
G	Golf	George	— — •		
H	Hotel	Henry	• • • •		
I	India	Ida	• •		
J	Juliet	John	• — — —		



Letter	MILITARY	Phonetic	Morse Code	Nautical	Sign
K	Kilo	King	— • —		
L	Lima	Lincoln	• — • •		
M	Mike	Mary	— —		
N	November	Nora	— •		
O	Oscar	Ocean	— — —		
P	Papa	Paul	• — — •		
Q	Quebec	Queen	— — • —		
R	Romeo	Robert	• — •		
S	Sierra	Sam	• • •		
T	Tango	Tom	—		
U	Uniform	Union	• • —		



Letter	MILITARY	Phonetic	Morse Code	Nautical	Sign
V	Victor	Victor	•••—		
W	Whiskey	William	•— —		
X	X-ray	X-ray	—••—		
Y	Yankee	Young	—•— —		
Z	Zulu	Zebra	— —••		



Chap. 17 Notes

