

**EMERGENCY SUPPORT FUNCTION #2 – COMMUNICATIONS****PRIMARY:**

ESF 2 Coordinators – Henderson Emergency Management – Communications Officer and Henderson Emergency Communications Center (911) Supervisor

**LOCAL SUPPORT:**

Henderson Emergency Communications Center  
Chief Elected Officials (City and County)  
Henderson County Emergency Management  
Henderson County Health Department  
Baskett Volunteer Fire Department  
Cairo Volunteer Fire Department  
Corydon Civil Defense  
Hebbardsville Volunteer Fire Department  
Niagara Volunteer Fire Department  
Reed Volunteer Fire Department  
Robards Community Volunteer Fire Department  
Smith Mills Volunteer Fire Department  
Spottsville Volunteer Fire Department  
Zion Volunteer Fire Department  
Henderson City Police Department  
Henderson City Fire Department  
Henderson City / County Rescue Squad  
Henderson City / County Emergency Medical Service (EMS)  
Henderson County Sheriff's Office  
Henderson County Board of Education/Transportation

**LOCAL RESOURCE:**

Henderson Emergency Communications Center  
Chief Elected Officials (City and County)  
Henderson County Emergency Management  
Henderson County Health Department  
Baskett Volunteer Fire Department  
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Zion Volunteer Fire Department  
Henderson City Police Department  
Henderson City Fire Department  
Henderson City / County Rescue Squad  
Henderson City / County Emergency Medical Service (EMS)  
Henderson County Sheriff's Office  
Henderson County Board of Education/Transportation  
Division of Fish and Wildlife (Henderson County Officer)  
American Red Cross – Cardinal Chapter  
The Salvation Army  
Henderson Amateur Radio Emergency Services  
Henderson RACES – Radio Amateur Civil Emergency Service  
Henderson County Weather Spotter Team  
Henderson County – Community Emergency Response Team (CERT)

### **STATE RESOURCE:**

Kentucky Division of Emergency Management  
Kentucky Department of Military Affairs, J6 Communications  
Kentucky State Police (KSP)  
Kentucky Division of Fish and Wildlife  
Kentucky Commonwealth Office of Technology  
Kentucky Department of Transportation (KyDOT)  
Kentucky Volunteer Organizations Active in Disasters (KyVOAD)  
Audubon State Park – Park Rangers

### **FEDERAL RESOURCE:**

US Coast Guard  
US Corp of Engineers  
National Weather Service (NWS/NOAA)  
Federal Communications Commission (FCC)

### **PURPOSE:**

Henderson Emergency Communications Center (911) is the County Warning Point and primary Public Safety Answering Point (PSAP) for Henderson County and the Cities therein. It provides emergency and non-emergency dispatch services for all Fire & Rescue, Emergency Medical Services, Emergency Management, and Law Enforcement Agencies in Henderson County and the Cities therein.

ARES/RACES will provide supplemental amateur radio communications as directed by, and for, the Henderson Emergency Operations Center (EOC) in times of natural or manmade disasters.

**SCOPE:**

To provide emergency communications via Appendix A and maintain an emergency county wide central dispatch center and system, for all emergency services in Henderson County and the Cities therein.

To activate the emergency outdoor warning sirens and systems as directed by Standard Operating Procedures.

To provide amateur radio communications in conjunction with the Henderson Emergency Operations Center (EOC).

To maintain and staff the County's 24 hour Warning and Contact Point.

**SITUATIONS AND ASSUMPTIONS:**

Communications play a critical role in emergency operations, notification and warning.

Communications networks and facilities exist and operate throughout the County and surrounding municipalities.

Local and regional radio and television stations may be off the air due to power loss or other damaging circumstances.

Telephone systems may become overloaded, thus delaying incoming and outgoing calls, or making calls impossible due to increased use.

All available forms of dissemination of information may be required to provide timely notification and warning to the general public and special needs populations during an incident.

The County Emergency Management (EM) Director can issue Emergency Alert System (EAS) messages through the National Weather Service (NWS) to be broadcast on tone alert radios (TARs), and radio and television stations.

Current communications systems are capable of supporting emergency operations within the county.

Local agencies will utilize their normal communications systems during an emergency situation. Support facilities and equipment will be provided through coordination with the County Emergency Operations Center (EOC).

In areas experiencing major emergency conditions or disaster effects, serious disruption of normal communications and overloading of communications systems is anticipated.

County facilities are available for properly discharging county functions during an incident.

The ESF 2 Coordinator will coordinate communications facilities for maintaining effective communications with other agencies of county government.

Some remote communities and/or isolated groups of individuals may require door-to-door notification. Similarly, some areas of the County may be without communications capabilities due to the impact to the incident and would have to be notified door-to-door, if time permits. There will be occasions when there will be no time or mechanism for warning the county's population.

When required, vehicles equipped with mobile public address systems may be required to supplement notification and warning to the general public.

Special care groups or persons residing in assisted living quarters, such as senior citizens' or nursing homes may require individual warning notification.

State assistance may be necessary to procure supplemental communications equipment and/or locate available repair technicians following an incident.

Voice and data communications over the internet may be available for use by the EOC during an incident.

### **MISSION:**

The mission of Emergency Support Function (ESF) 2 is to provide and maintain reliable communications, dispatch services, and to support the emergency communications network during emergency events in Henderson County and the Cities therein. ESF 2 will relay information, dispatch personnel and resources upon request and through established Standard Operation Procedures (SOPs), to assist in, preparedness, mitigation, response and recovery in support of an emergency incident or situation.

ESF 2 will activate the outdoor warning siren systems, and upon request, alert and notify key Elected Officials of the County and the Cities therein, to emergency situations in their respective jurisdictions. ESF 2 will also assist in supporting communications with local and state agencies during an incident.

### **DIRECTION AND CONTROL:**

The ESF 2 Coordinator is responsible for the planning and implementation of ESF 2 activities. Emergency communications resources within the County are coordinated through the County Emergency Operations Center (EOC) and the ESF 2 Coordinator.

## **CONCEPT OF OPERATIONS:**

### **Phases of Management:**

#### **Preparedness**

- Review and update disaster procedures as they relate to ESF 2 activities.
- Monitor and manage the development and operation of redundant, disaster resistant and survivable emergency communications systems for the County EOC.
- Test all communications and warning equipment to ensure workability of the equipment.
- Attempt to construct/place new equipment away from possible hazards.
- Develop and maintain backup systems, including backup power.
- Prepare and maintain current list of personnel, equipment and their locations needed to carry out responsibilities as assigned under ESF 2.
- Develop Continuity of Operations Plans for ESF 2 to ensure uninterrupted operations during disasters.
- Prepare and maintain ESF 2 administrative and financial procedures as required to properly document activities of the ESF during activations.
- Maintain and monitor emergency communications with Local and County Emergency Operations Centers.
- Assist in developing county wide emergency communications protocols and Standard Operating Guidelines (SOGs) for emergency and non-emergency radio communications.

#### **Response**

- Provide information about damages that field units observe to the EOC or other established points of contact such as the EM Director.
- Activate disaster communications procedures according to pre-established guidelines.
- Provide central point of contact for communications and warning information.

- Go to backup power, if needed.
- Coordinate with local and county emergency communications managers to ensure uninterrupted emergency communications connectivity to all areas involved with the response to an incident.

### **Recovery**

- Continue to assist with information between agencies regarding recovery activities.
- Check communication equipment and see to it that necessary repairs are made when necessary.
- Provide recovery information about damages that field units observe to the EOC or other established points of contact such as the EM Director.
- Provide ESF 2 coordination and support as required for Recovery Operations.
- Conduct internal After Action Reviews and document lessons learned and recommendations for improvement of Emergency Operations Plans, Procedures and Guidelines.

## **ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES:**

The ESF 2 Coordinator will identify and coordinate with local, state and federal agencies to restore emergency communications systems for the County.

## **GENERAL ORGANIZATION RESPONSIBILITIES:**

Operational control remains the same during emergency situations as during normal activities; however, operations may require 24-hour coverage, and a central point of overall coordination. The ESF 2 Coordinator must be prepared to assist in lengthy operations that start in response and continue through recovery and involve clean up activities and return of resources.

## **SPECIFIC KEY POSITION RESPONSIBILITIES:**

### **Primary – ESF 2 Coordinator**

- When required, the ESF 2 Coordinator or his/her representative will represent ESF 2 – Communications in the local EOC when the EOC is activated.
- Has primary responsibility for providing and assigning emergency communications resources to requesting organizations and coordinating their operations as directed through the County EOC.
- Is responsible for developing and maintaining Standard Operating Procedures for ESF 2.
- Is responsible for the establishment of emergency communications links with all participants internal and external to the County EOC.
- Is responsible for activating ESF 2 in County/State/Federal Exercises as requested by the Kentucky Office of Homeland Security and the State Emergency Operations Center (SEOC).
- Will coordinate the use of all non-governmental communications systems, such as amateur radio operators and the “One Call Now” reverse communications system.

### **Support**

- Supporting Agencies will provide information and resources as required by the ESF 2 Coordinator to ensure the proper functioning of ESF 2.
- Supporting Agencies will ensure their representatives to ESF 2 are properly trained and exercised on the plans and procedures relating to their work.

### **Specific Agency Duties:**

#### Chief Elected Official(s)

- Authority to commit the jurisdiction’s resources.

#### County Health Department (CHD)

- CHD will provide the ESF 2 Coordinator with guidance and direction in the event that the Strategic National Stockpile (SNS) Plan has been implemented and communications assets are required.
- Coordinate access to the Kentucky Health Alert Network (HAN).

- The Kentucky Health Alert Network (HAN) is the primary communication and collaboration tool for public health in Kentucky. HAN is a secure, Internet-based system that provides the ability to instantly be in contact and work together with other government and non-government personnel playing a role in public health. HAN provides simple tools for alerting, sharing and reviewing documentation and retrieving contact information. The system is administered at the state level as well as at the local level by Health Department Public Health Preparedness Planners.

#### Fire Department(s)

- Assist by maintaining the operational readiness of the county volunteer fire department's repeater site (near Anthoston) during power outages.

### **REFERENCES:**

KRS 39A – KRS 39G

The National Response Framework

The National Incident Management System

The National Emergency Communications Plan – Homeland Security

Henderson County Emergency Operations Center - SOP

Henderson ARES/RACES - Part 97.407 of the Federal Communications Commission (FCC) rules and regulations governing amateur radio in the United States.



## Appendix A

### Henderson Kentucky Radio Communications Interoperability Guide

#### General

Henderson County public safety agencies recognize the need for interagency communication, interoperability, and cooperation. Henderson Police, Fire, and Emergency Medical Services (EMS) have interoperability capabilities and mutual aid agreements in place. While these plans and agreements formally extend beyond jurisdictions, they tend to remain intra-discipline in practice.

Today's public safety realities highlight the need for agencies to work together to establish communications interoperability and mutual aid plans—not only across traditional jurisdictional boundaries—but across disciplines as well.

“Interoperability” goes well beyond being able to use radio equipment to communicate. Users of the system have to trust one another by being familiar with capabilities brought to the table by all involved (See Communications Interoperability Continuum, Figure 1).

To remedy the lack of ability to communicate among disciplines, Henderson 911 Communications committee along with local government and the taxpayers of Henderson County have provided an intra-jurisdictional interoperability solution. This solution establishes a Phase II Project 25-compliant Radio System with dedicated radio channels for each emergency service entity to not only operate day to day, but also communicate with one another as well as jurisdictions surrounding Henderson Kentucky. This guide serves as the resource for use of the Radio System by all users. This guide is based on the Communications Interoperability Continuum by SAFECOM. With its Federal partners, SAFECOM provides research, development, testing and evaluation, guidance, tools, and templates on communications-related issues to local, tribal, state, and federal emergency response agencies. A communications program of the Department of Homeland Security's Office for Interoperability and Compatibility, SAFECOM is managed by the Science and Technology Directorate.

SAFECOM helps the public safety community and local, tribal, state, and federal policy makers address critical elements for success as they plan and implement interoperability solutions. The program is working with the public safety community to encourage a shift from a technology-centric approach to a comprehensive focus on improving interoperability. Although technology is critical for improving interoperability, other elements, including governance, standard operating procedures, training and exercises, and usage of interoperable communications play a vital role.

To assist this shift to a comprehensive focus on interoperability, SAFECOM worked with public safety practitioners and local communities to develop a comprehensive framework called the Interoperability Continuum (**see Figure 1**).



Figure 1 – SAFECOM Communications Interoperability Continuum

SAFECOM developed the Interoperability Continuum in accordance with its locally driven philosophy and its practical experience in working with communities across the Nation. The Continuum visually depicts the core facets of interoperability according to the stated needs and challenges of the public safety community and aids the efforts of public safety practitioners and policy makers to improve interoperability.

**Objective**

The principal objective of this guide is to provide a real-time means of direct voice communications to intra-jurisdictional users through the use of interoperability channels provided through the Project 25 compliant radio system. Not only will this enhance the efficiency of a multi-agency response, it will save lives by quickly disseminating critical information to participating emergency response agencies at the scene of a significant incident anywhere in the city and county.

**Purpose**

In addition to providing best practices, the purpose of this standard operating guideline (SOG) is to delineate the authority, roles, and procedures for city and county agency personnel to use the P25-compliant radio system.

This SOG also recognizes a number of interoperable communications alternatives to the intra-jurisdictional interoperability communications system, which allow the Henderson KY public safety and public service personnel to communicate during day to day and critical incidents.



**Scope**

Henderson’s public safety and public service agencies have worked cooperatively to develop this intra-jurisdictional interoperability plan. The standard operating guidelines herein will be used at the agency command and end user level during critical incidents. In the future, other agencies may enter into a Memorandum of Understanding (MOU) with the city and county for use of this program and will agree to operate according to the procedures outlined in this document.

**City Departments**

- Henderson City Police Dept
- Henderson City Fire Dept
- Public Works
- Henderson Municipal Gas
- Henderson Water Utility
- Sanitation Dept

**County Departments / Agencies**

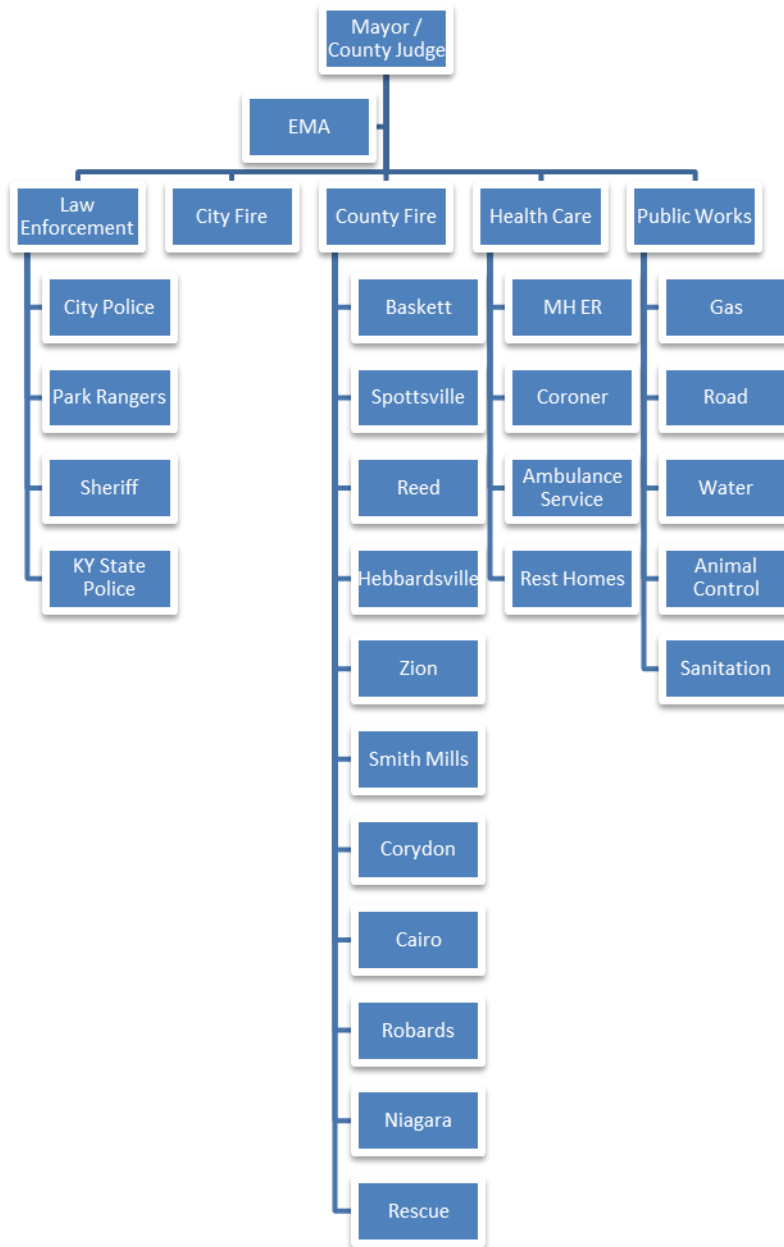
- Henderson County Sheriff Department
- Baskett Volunteer Fire Department
- Cairo Volunteer Fire Department
- Corydon Civil Defense Volunteer Fire Department
- Hebbardsville Volunteer Fire Department
- Niagara Volunteer Fire Department
- Reed Volunteer Fire Department
- Robards Volunteer Fire Department
- Smith Mills Volunteer Fire Department
- Spottsville Volunteer Fire Department
- Zion Volunteer Fire Department
- Henderson Emergency Management Agency
- Henderson Ambulance Service
- Henderson Coroner's Office
- Henderson Animal Control
- Henderson City/County Rescue Squad

**State Agencies**

- Audubon State Park – Park Rangers
- Kentucky State Police
- Kentucky Vehicle Enforcement Agency

**Organizational Structure**

Below is the current organizational structure for users of the intra-jurisdictional P25-compliant interoperable communications system.



### **Intra-Agency Operations – Command Channel**

Within the Phase II Project 25-compliant radio system, the Channel “**Disaster 1**” shall be designated as the “Intra-Agency Command Channel”. When in use, Disaster 1 shall be designated for agency and community leaders to communicate together in real-time.

### **Activation, Transfer and Discontinuance - Rules of Use**

#### **Plain Language**

The National Incident Management System (NIMS) requires plain language is to be used when communicating on the intra-jurisdictional interoperability channel. When necessary, the phonetic alphabet is recommended to ensure clear messages are transmitted over the channel. (See Appendix 1) for examples of the national and law enforcement phonetic alphabet.

#### **Incident Command System (ICS)**

Each agency shall follow (ICS) as an operational guideline at incidents where the intra-jurisdictional interoperability channel is activated. ICS forms are maintained in the Henderson Emergency Operations Center by Henderson Emergency Management.

#### **Procedures**

During command channel activation, in addition to all agencies involved, the 911 dispatch/radio communications center shall guard the channel until the incident is terminated.

Non-incident communications will be directed to the respective agency’s primary dispatch channel.

Each emergency services and public service agency represented by this guide is responsible for disseminating this information to its respective personnel.

### **Operational Procedure and Guidelines for Limited and Full Activation**

**Limited Activation** Limited activation is appropriate when an incident can be resolved by the resources of public safety or public service agencies.

**Full Activation** Full activation is appropriate when an incident requires the activation of the Emergency Operations Center (EOC) as ordered by County Judge Executive and/or the emergency management director. During a large-scale incident, previously defined procedures will be on the intra-agency interoperability channel until the EOC is fully staffed. Agency heads will be able to speak to each other for acquisition of resources. Once the EOC is fully staffed, the operations officer at the EOC will be the primary source for acquisition of resources. At this point, the intra-agency interoperability channel’s function will shift to unified command, incident mitigation, and personnel safety.

### **Command Channel Activation Authority**

Use of the intra-agency interoperability channel(s) may be requested whenever an agency’s incident commander (IC), the highest-ranking officer of the controlling agency, determines the need to communicate directly with other agency representatives who have access to the channel. Each agency has the right to use the channel as necessary

for public safety and availability of necessary resources. It is important to note that use of the channel(s) is not intended to replace the establishment of an on-scene unified command post among responding agencies. The intra-agency interoperability channel is intended to assist communications until a command post can be established or to speak with an agency representative not yet on the scene.

### **Establishing and Transferring Lead Dispatch Command Control**

The IC, identifying the need for interoperable communications, will contact the 911 communications center "Control" by telephone or their primary channel. The IC will then request from "Control" that specific agencies leaders (i.e., mayor's office, 911 dispatch center, fire, and/or EMS) switch their radio to the intra-agency interoperability channel.

- "Control" has the responsibility to notify all other required agencies by radio or telephone in accordance with the procedures outlined in this SOP.
- "Control" will become the lead dispatch/radio communications center and guard the Intra-Agency Command Channel until its discontinuance.

The designation of the dispatch/radio communications center may be changed as the lead agency requires or requests.

If the IC is transferred, the new IC will notify "Control" using standard (ICS) practices.

### **Activation Process for Establishing Command and Control**

Each agency participating in the intra-agency interoperability channel will follow its own internal notification procedures for establishing command and control. The Mayor, County Judge Executive, Emergency Management Agency (EMA) Director, Sheriff's Office, Police Chief, Fire Chief, EMS Director, Henderson City / County Rescue Squad, County Fire Chiefs or their designees are authorized to activate the intra-jurisdictional interoperability channel.

### **Discontinuation of the Command Channel**

At such a time that communication on the intra-jurisdictional interoperability channel is no longer required, the IC of the lead agency will notify his/her respective dispatch/radio communications center to discontinue/terminate active use of the intra-jurisdictional interoperability channel, and normal monitoring will resume. The lead dispatch/radio communication center will notify all participating dispatch/radio communications centers that the intra-jurisdictional interoperability channel is no longer in use.

## **Radio Procedures for County Fire & Rescue**

### **History of Henderson County Fire Radio Usage**

For the past twenty five years most emergencies radio communications have been carried out on the primary county fire repeater frequency, 154.160 MHz. In some cases, operations were moved off the repeater to talk-around (simplex or direct radio to radio use of 154.160 Mhz.

However, this practice still limited communications efforts because if there was a different emergency, the repeater would over-ride fire-ground operations because of its power output. In addition, multiple agencies on an emergency run at the same time trying to use the same frequency overloads that frequency which hampers overall communications capabilities.

To combat this, some fire districts use their own fire-ground frequencies and would occasionally shift off of the primary dispatch frequency leaving someone on scene (usually the incident commander) to monitor the 154.160 MHz for additional communications. Dispatch did not have the ability to monitor or communicate on any of the county public service departments secondary frequencies.

This practice leaves a huge gap in radio communications effectiveness that can risk the lives of first responders and those they are protecting during times of emergency. The goal of The Henderson County Radio Communications Interoperability Guide when implemented is to provide standard procedures to fill this gap.

### **Phase II Project 25 Interoperable Communications System**

Henderson County has purchased a Phase II Project 25 compliant Interoperable Radio communications system for use by Henderson City and County Public Safety and Public Service Agencies.

No radio system alone will fill all the gaps in radio communications. To do this will take a concerted effort by all users to implement best practices in operational techniques, mutual aid and acquired trust with each other. This is where the Interoperability Continuum (See Figure 1) comes into operation. Jurisdictions within Henderson County should study and train on its usage to help achieve true interoperability.

### **Procedures**

During day to day operations, the primary channel will be Zone A, Channel1 – “Co Fire #1”. Channel A2 is designated as “Co Fire #2” and a mirror of Zone C2 (8Call90D). This is a secondary channel for use as needed by all responders for mutual aid or additional fire ground operations. “Co Fire #1” is monitored 24/7 by the 911 Dispatch Center.

With the implementation of the new P25 system, users will notice a distinctive “double beep” when the transmit button is depressed. This beep is the user’s indication to start speaking. If you attempt to start speaking too soon, you’ll hear a solid tone indicating you keyed the radio before the repeater had dropped the previous transmission. It is

recommended to wait 1-2 seconds before transmitting. See Section **Radio Etiquette** for additional recommended techniques and procedures.

Each county department has at least one dedicated “Fire Ground” channel assigned, Channel A4 on each department’s respective P25 radios is their “Fire Ground” channel. The next few channels are designated as mutual aid Fire Ground channels for contiguous districts.

**Inter-agency runs.** Once the dispatch has been received by assigned department, the responsible district’s “Fire Ground” channel will become the primary channel to setup command for all responding units to automatically switch to and communicate on once on scene. This procedure frees up “Co Fire #1” for additional dispatches to/from other districts. The 911 dispatch center, when requested, should “un-mute” and monitor the respective fire ground channel during inter-agency operations.

Incident commanders may still need to monitor “Co Fire #1” for direct communications with the 911 Dispatch Center, call sign “Control” if they are unable to monitor due to work loads.

Incident commanders may choose to designate additional mutual aid channels for Operations, Logistics, Planning, Finance, PIO, Safety & Liaison Officer use. Currently, there are additional mutual aid channels such as “Mutual Aid”, “Disaster 1” and additional channels on Zone C. The exception to this is the use of Channel 8Call90 (C-1) which is normally monitored 24/7 by Kentucky State Police (KSP) for emergency contact and command & control). This channel should be kept clear for KSP to eventually guard in the near future.

### **Law Enforcement Communications**

Requests for direct communications with Henderson City or County Law Enforcement may be requested through 911 Dispatch as necessary. This will allow responding law enforcement units to maintain better situational awareness prior to arrival on scene and also respond to direct communication requests from on scene commanders. Incident Commanders will need to designate which channel for law enforcement to meet them on. Typically “Mutual Aid”, “Disaster 1” or district fire ground channels if law enforcement radios are so equipped.

### **Kentucky State Police & Mutual Aid**

The Kentucky State Police (KSP) operates on a Phase I, P25 Compliant radio system within the 400 MHz (UHF) band. The KSP Mutual Aid Plan is available for download alongside other important reference materials at [kwiec.ky.gov](http://kwiec.ky.gov). Their mutual aid agreement contained in the KSP Mutual Aid Plan must be submitted by any Kentucky agency requiring access and approved by KSP.

Current hardware configuration of the Henderson County Phase II P-25 compliant radio system does not allow for direct radio communication with KSP Post 16. Nor does it allow for direct contact with KSP within the recommended frequency plan via the KSP Mutual Aid Plan via VHF, UHF or 800Mhz mutual aid frequencies.



At this time, the radio communications center in the Henderson Emergency Operations Center (EOC) maintains direct radio communications with Kentucky State Police via VTAC and UTAC frequencies.

The EOC maintains statewide radio communications via the Kentucky Emergency Warning System (KEWS) which provides link between the Commonwealth Emergency Operations Center (CEOC) in Frankfort and all Emergency Management offices throughout KY.

The EOC also maintains direct radio communications with Vanderburgh County Emergency Management via 800 MHz mutual aid frequencies 8TAC91 through 8TAC94 and others as they are added to the Henderson P-25 System in the near future. Contact Henderson Dispatch to request Vanderburgh County units meet on one of the above channels if needed. Channels with a "D" in the name are for short range "Radio to Radio" communications. Channels without a "D" are tied to a repeater that covers Henderson, Evansville and Owensboro area.

All Frequency plan information is maintained in the EOC on ICS FORM 217A. During times of county wide emergencies or disasters where the EOC is activated, Unified Command will direct communications usage via the Incident Action Plan.

Mutual Aid communications with surrounding agencies are offered through our network of VHF repeaters, the legacy systems used for Henderson City Fire, Henderson County Sheriff's Office and Henderson Police Department.

Additionally, Henderson County is collaborating with US Coast Guard, and their Area Maritime Security Committee (AMSC) to establish regional communications via our VHF network since many areas do not have P25 capable radio systems.

A list of frequencies is available in the Henderson Emergency Operations Center.

## **Radio Etiquette**

### **Recommended Guidelines During Normal Operations**

The secret to working quickly and efficiently in an emergency net is to use standard procedures. The techniques presented herein are the most common. It doesn't take much analysis to see that standards and guidelines must be established and then utilized.

Before you key your mike, gather your thoughts about what you are going to say. Many people with radios have a tendency to talk and/or repeat too much. Say what you need to say without unnecessary repeats. Keep in mind that you must strive to get your message through the first time.

In general, there are seven points to Calling/Communications. The more serious or complex the situation, the more important these procedures become. The information contained herein **MUST** be practiced until it is second nature.

Practicing proper day-to-day radio procedures will make emergency radio procedures automatic and reduce confusion. Another way of saying this is that the secret to working quickly and efficiently in an emergency is to use common approved radio communication procedures and guidelines and practice, practice, practice.

1. You **MUST** give your unit number and the unit number of the station you are calling. (EX: 101 "One Zero One" to Control, if no answer after a few seconds, repeat).
2. Say your unit number slowly and clearly. This is extremely important in cases where there is a lot of confusion or poor audio quality due to poor signal conditions. Garbled audio is common in Voice over IP based systems such as what is being used via the P25 system.
3. Only use your unit number unless you're using the Inter-Agency Command Channel where you may be required to use your agency name and position. Do not use your name on the radio.
4. Speak slowly and clearly using enough loudness so the receiving station can hear you when they are in a noisy environment. Pause after logical phrases. The receiving station may need to write or type your words so don't go too fast.
5. Do not use the word "break" when you pause. Using "break" is confusing, wastes time and has other connotations. Merely pause and resume. (They can't key up until you un-key your radio).
6. Pause at least 1-2 seconds between receiving and transmitting. This allows you and others to copy messages on paper or computer if needed. It also allows you to prepare your next transmissions or allows someone with priority or emergency traffic to break in.
7. You can end your conversation with the word "CLEAR" or "OK", however it isn't required.

**Recommended Guidelines During Emergencies**

1. Identify yourself at the beginning of each transmission especially where confusion may result if omitted.

2. Listen before transmitting.

3. Know what you are going to say before you push the mike button; in other words, take a couple seconds and compile your thoughts first.

4. Hold the transmit button down for at least 1-2 seconds before beginning your message to insure that the first part of your message is not cut off. This is important because a repeater is involved to re-transmit your signal and it takes it 1-2 seconds to detect your signal on a different frequency, key its transmitter and start to transmit what you're saying. The new P25-compliant system works under the same concept.

5. Talk across the face of the microphone instead of directly into it. This technique reduces distortion and makes the radio transmission more understandable. The Motorola APX 6000 Series radio has excellent noise canceling microphones to help filter out unwanted noises like wind or other background noises.

6. Speak slowly, distinctly, clearly, and do not let your voice trail off at the end of words or sentences. Give each and every word equal force. For some this takes a lot of practice and conscious effort but do it. Don't be a "mush mouth"; one who does not announce words clearly which causes "say again" multiple times which takes precious seconds during emergencies.

7. Never acknowledge calls or instructions unless you understand the call or instructions clearly. If you do not understand, respond with "say again" the missed traffic.

8. When you have understood the message, acknowledge the receipt with the words "copy", "received", "OK", or "acknowledged." The word "OK" is preferred. Do NOT use "10-4". Remember, we use plain language not 10 Codes (per NIMS/ICS requirements)

9. If you have emergency traffic on a channel where there is communications already in progress, wait for the transmitting unit to stop, there should be a pause before the next station responds. Use the pro-words "Emergency Traffic" so someone can respond to you and assist with your emergency.

NOTE: If you try to key your microphone on a channel where communications is already in progress, you will hear a tone indicating you can't transmit until a break in the conversation is reach. This is why pausing before transmitting is so important.

10. Always acknowledge calls and instructions. Nothing is more disruptive to the smooth flow of communications than dead silence in response to a message. If you cannot copy or respond to the call immediately, then ask the caller to "say again" or "stand by." Otherwise, acknowledge each call immediately.

11. Under stress, many operators have a tendency to talk too loud and too fast. Instead, gather your thoughts, take a breath then transmit. Your transmission will be received with better clarity eliminating the need for "Say Again".

12. If you are relaying a message for another person, be sure you repeat the message exactly, word for word as it is given to you. If it makes no sense to you, get an explanation before you put it on the air. If necessary, refer the message back to the originator for clarification.

13. Ham Radio or Military "Q" signals or signals from any other radio service during official and emergency communications are not desired. They are too easily misunderstood, rarely save time, and often result in errors and violate NIMS requirements. The use of "plain language" is the preferred method.

14. Do not act as a relay station unless Dispatch, or another radio station, asks for a relay – and you can fulfill the requirement with your station. Doing this when un-needed only slows down the communications process.

15. When transmitting numbers (house numbers, street & telephone numbers, etc.), always transmit number sequences as a series of individual numbers. For example, 1000 street name is pronounced "One Zero Zero Zero" street name.

16. If a proper name needs to be transmitted, try to spell it out using the recognized radio phonetic alphabet (See phonetic alphabet in Appendix 1). Avoid using the phrase "common spelling" to reduce confusion. In today's world, there's no such thing as common spelling of most names.

17. If your message is a question, deduction, educated guess, or hearsay, identify it as such. Do not clutter up the air with non-essential information. Be careful what you say on the air. There are many ears listening. Many facts will be taken out of context even when carefully identified.

18. If you do not understand the whole message given to you or if you missed a word out of the transmission, reply with "Say Again". Do not say "please repeat" because it sounds too much like the word "received" when conditions are poor.

19. Chewing gum, eating, and other activities with items in the mouth tend to clutter up the clarity of your speech.

20. Avoid angry or sarcastic comments on the air at all costs. Obscene statements are not necessary and are out of place in all radio communications. And also against FCC Regulations.

21. Be alert. Nothing destroys confidence as much as a bored or weary sounding radio operator. If you are tired, get a relief operator.

22. During an incident, communications suffers enough confusion without wisecracks and jokes. When providing emergency communications you must remember that it is serious business and should be treated as such at all times.

23. Stay off the air unless you are sure you can be of assistance. It does no good to offer advice, assistance, comments or other input to a communication unless you can truly provide clarification.

24. Always know your location. If you are mobile or portable and moving around, always keep a sharp lookout for landmarks. This helps provide situational awareness. You must be able, if called upon, to accurately describe your location or surroundings at any time. This is particularly important if you're with a search team or other mobile units.

25. When you are on the fringes of communications, (such as in a building or at the near end of communications boundaries) look for a receiving "hot spot" site and use it. Don't walk around talking while in a communications fringe area. Repeaters have much more power than your handheld radio. Even if you have a good signal from a repeater, it does not mean the repeater can hear you. Find a vehicle or nearby building that may already be setup as a repeater site.

26. If you have an emergency, use the pro-word "Emergency traffic" after you identify yourself when you make your radio call. Only use your orange emergency button during your own life and death emergencies.

**“MAYDAY, MAYDAY, MAYDAY”**

To establish guidelines and procedures that members are to utilize when they require emergency assistance. These procedures shall be used whenever members find themselves lost, disoriented, trapped, or in any other similar danger. The use of these procedures is intended to assist in expediting their rescue, in an effort to avoid injury or death.

**Procedure**

A. Henderson County First Responders in need of assistance, because they are facing a life threatening situation, shall initiate the “MAYDAY” procedures by performing the following:

Initiate radio communications.

1. Announce a “MAYDAY-MAYDAY-MAYDAY” if radio equipped, on the operations channel or predesignated channel by pressing the Orange button on mobile or hand held radios. This will alert everyone listening on the channel you’re currently on as well as Co-Fire #1.
  - a. IC will notify 911 dispatch immediately of the Mayday with information as it becomes available so additional resources can be dispatched if necessary
  - b. If an evacuation is warranted, the lead in pumper will be responsible to blast its air horn three (3) times in succession to alert those on scene of the evacuation order.
  - c. Once the button is pressed, the transmitter of the radio will transmit for 15 seconds. You’re last known position will be sent to the console at Control so they can help track you.
2. Once communications have been established the person(s) requiring assistance will present a report to the IC using the mnemonic L.U.N.A.R.

**Location**

**Unit number/name**

**Number of members requiring assistance**

**Assignment**

**Resources needed for rescue (air, SCBA components, tools...)**

Activate your PASS device manually.

The member(s) in distress will provide updates on their status to the IC, the Rapid Intervention Group Supervisor and the RIT. This is particularly important if the member(s) in distress is on the move and attempting self-rescue.

If the member(s) requiring assistance cannot communicate with the IC, they shall activate the emergency button on their radio. Once activated, this will allow the member(s) to transmit over the emergency channel. This transmission should follow the L.U.N.A.R. format.

The P.A.S.S.S.S. mnemonic is a convenient way to remember the steps that should be performed in a MAY-DAY: This is to be used in conjunction with radio communications:

- Do not **Panic**
- **Activate** the PASS device manually.
- **Stay** together as a unit.
- **Sound** a MAYDAY.
- **Search** to an avenue of escape or area of safety (if physically capable)
- **Shine** a light towards the ceiling, this will serve as a beacon

B. Once a MAYDAY is called, the following shall occur:

1. The Incident Commander (IC) will order all units operating at the incident to maintain radio silence.
2. The IC will then attempt to establish communications with the person(s) who declared the MAYDAY.
3. If communications cannot be established the IC will consult the accountability system/officer to determine the last known location, on the incident scene, of the person(s) who declared MAYDAY.
4. Once this information is provided, the IC will place the RIT in service in order to locate, assist, and remove the member(s) in distress.
5. The IC will appoint a Rapid Intervention Group Supervisor to oversee the rescue efforts.
6. Fire ground operations will switch to a separate channel from that of the "MAYDAY".
7. The IC, Rapid Intervention Group Supervisor, the RIT, and members in distress shall be the only units operating on the channel on which the MAYDAY was transmitted.

C. Command WILL NOT be transferred during a MAYDAY situation.

D. All other personnel not assigned to the rescue efforts will carry on with their assigned tasks and not abandon them. It is imperative that these personnel have the discipline to continue to perform their assigned tasks, because if the incident can be controlled, it is more likely that the member(s) in distress will survive their emergency.

E. Henderson City Fire, Henderson City Police and Henderson County Sheriff's Department members have separate Mayday procedures not covered by this guide.

### **Communications Alternatives**

Several alternatives may have been identified to ensure interoperable communications remain available among all agencies if the interoperability channel is not available. A sample list of alternatives is provided below.

#### **Telephone Conference Bridges**

Telephone conference bridges permit direct communication among a number of users, assuming they have access to telephone services.

#### **Cellular/Push-to-Talk Commercial Wireless Technology**

Currently, most agencies use cellular/push-to-talk commercial wireless communications technology. In the event that the intra-jurisdictional interoperability channel is malfunctioning, this technology may be used to disseminate critical information to department heads and/or designees.

#### **Computerized Emergency Notification System**

The computerized emergency notification system will be programmed to contact specific individuals and agencies, depending on the nature of the incident. This includes appropriate media outlets, which could be used to inform the general public of situation updates, specific instructions, and/or emergency locations, if warranted.

#### **Internet/E-mail**

A lesson learned from September 11, 2001 was the power of the Internet and e-mail. While conventional communications outlets (i.e., wireless phones and land lines) were either damaged or overwhelmed, the Internet was up and provided an invaluable service to the general public. In the same way, the city's online Emergency Operations Center (EOC) can be used as a means to pass information to various agencies that are involved in the event.

#### **Amateur Radio**

Amateur Radio Operators are recognized by Kentucky Amateur Radio Emergency Services and managed at the local level by an Emergency Coordinator (EC). They can supplement local, regional, statewide or national radio communications, (voice and data) even shadow responders to ensure communications links are maintained during time of emergency or disaster. They are deployed by the Henderson Emergency Management Agency who maintains a Mutual Aid Agreement.

#### **Cache of Portable Radios on Various Bands**

Caches of public service and Amateur Radios with High Frequency (HF) capabilities, VHF, UHF, 700MHz & 800MHz portable radios are available through Henderson Emergency Management during times of disaster or widespread emergencies. These radios are able to provide a communications system on a local, regional, and statewide level in accordance with existing mutual aid MOUs, resource-sharing agreements, and requests from other emergency responder agencies.



Because these radios work only on potentially alternate FCC licensed bands or ITAC channels, their activation must be coordinated with the Kentucky State Police or Henderson EMA prior to use.

### **Mobile Capabilities with Conventional Channels**

In addition to the Henderson Emergency Management Mobile Command Post, there are several other mobile command posts and communications support vehicles are available through various public safety agencies. These resources can be deployed to provide: a cache of spare VHF / UHF radio equipment, batteries, network video downlink capability and cross band patching.

### **Dispatch/Radio Communications Center Messaging**

Henderson City Police, Fire, and County EMS share a common computer-aided dispatch (CAD) system capable of providing text messaging between users.

### **Runner System**

In the unlikely event that the intra-jurisdictional interoperability channel and redundant back-up systems are all unavailable, the police department will arrange for a “runner system” in which designated personnel respond to the residence of department heads and other key agency representatives to make notifications and provide transportation as necessary.

### **Hyper-Reach**

Hyper-Reach is a community notification system for emergencies. It is used for public notifications during times of severe weather or other emergencies. It can also be used for intra-agency text based, email or voice notification of emergency and non-emergency situations. Please see [www.hyper-reach.com](http://www.hyper-reach.com) or contact the Henderson EMA Director (Unit #EMA-1) at (270) 831-1235 for more information.

### **Social Media**

Social Media is a powerful tool to communicate with the public or together. Facebook and Twitter both have person to person communications capabilities.

**Training Requirements**

Participating agencies will be responsible for ensuring that their personnel are familiar with this guideline and are properly trained in accordance with the guiding principles in Appendix 2.

**Channel Testing Requirements**

Annually in June, Henderson Emergency Management participates in a Statewide Communications Exercise (COMEX) where all available radios and frequencies (including Amateur Radio) are tested for readiness.

Henderson Emergency Management also does regular weekly tests with various agencies to test readiness. During these standardized testing periods, the testing agency will communicate with participating public safety and public service agencies on designated intra-jurisdictional interoperability channel.

**1. Public Service Operational Test:** The purpose of this test is to allow public safety or public service agencies to attempt to make contact with Henderson County to further enhance interoperable capabilities. This radio test of the intra-jurisdictional interoperability network will be conducted by The Henderson Emergency Management Agency (HEMA), call sign "Henderson EOC", each Monday morning on Channel "8TAC91" (Zone C3) at 0900 hours with the representatives of all participating departments and agencies in the P25-compliant interoperable communications system. The Henderson Emergency Management Agency (HEMA) will maintain a list of issues that arise and coordinate with the County Radio Technician to ensure any issues are resolved in a timely manner.

**2. Supportive Agency Operational Test:** This radio test will be conducted on the Henderson P25 system by (HEMA), call sign "Henderson EOC", each Monday morning on Channel "EMA Operations" at 1000 hours. Agencies involved are Methodist Hospital Emergency Room, Colonial Assisted Living, Red Banks Nursing Home, Red Banks Regency, Red Banks Towers, Red Banks Pleasant Point, Henderson Manor, Henderson Nursing & Rehab and others as necessary.

**3. Regional Mutual Aid Operational Test:** The purpose of this test is to allow mutual aid public service agencies to attempt to make contact with Henderson County to further enhance interoperable capabilities. This radio test will be conducted by (HEMA), call sign "Henderson EOC", each Tuesday morning at 0900 hours. This test will occur on The Henderson Emergency Management VHF Repeater on 158.730 MHz.

**Agency Responsibility**

It will be the responsibility of agency leaders to ensure that these SOGs are followed when necessary.

It will be the responsibility of all communication personnel to be familiar with and comply with these SOGs.

### **Channels & Frequencies**

Henderson Emergency and Public services agencies operate on multiple frequencies and on multiple frequency bands. During an incident, Form ICS-217A is used as a communications pool to assign resources for use in the Form ICS-205 (Communications Plan). Form ICS-217A is maintained in the Henderson Emergency Management Agency Office.

All of this is part of the Incident Action Plan (Form ICS-201) which is used for every single or multi-agency incident managed under the National Incident Management System (NIMS) and the Incident Command System (ICS).

### **Summary**

The Henderson Radio Communications Interoperability Guide is a compiled set of rules and regulations intended to help you become not only a better radio operator, but provide a framework for interoperability with all agencies and departments throughout Henderson, KY and surrounding jurisdictions.

It is recommended that you analyze your present operating methods and polish each of the SAFECOM Interoperability Continuum elements using the recommendations herein.

### **Guidance**

*Kentucky Statewide Communications Interoperability Plan (SCIP), Commonwealth of Kentucky, Jan 2017*

*KY Field Operations Guide (KYFOG), Commonwealth of Kentucky / Kentucky State Police, 2014*

*National Interoperability Field Operations Guide (NIFOG), Office of EMCOMM, U.S. Homeland Security*

*Writing Guide for righting Standard Operating Procedures, SAFECOM*

*Voice Radio Communications for the Fire Service, U.S. Fire Administration*

*Kentucky State Police, Mutual Aid Agreement*

Approved by

Name Larry Koerber, EMA Director Date 9/28/17

**Appendix B - Official International Phonetic Alphabet**

	Police & Civilian	US Armed Forces / Amateur Radio Operators
A	Adam	Alpha
B	Boy	Bravo
C	Charles	Charlie
D	David	Delta
E	Edward	Echo
F	Frank	Foxtrot
G	George	Golf
H	Henry	Hotel
I	Ida	India
J	John	Juliet
K	King	Kilo
L	Lincoln	Lima
M	Mary	Mike
N	Nancy or Nora	November
O	Ocean	Oscar
P	Paul	Papa
Q	Queen	Quebec
R	Robert	Romeo
S	Sam	Sierra
T	Tom	Tango
U	Union	Uniform
V	Victor	Victor
W	William	Whiskey
X	X-ray	X-ray
Y	Yellow or Young	Yankee
Z	Zebra	Zulu

## **Appendix C - Training Guidance & Principles**

At a minimum, each agency will give its own overview of the following:

- How the radio is set up
- How to select the right channel
- How to identify and properly operate the radio
- Proper terminology and radio etiquette (See Section: Radio Etiquette in Appendix A)
- Requirement that agencies using the system must use plain English
- Requirement that agencies using the inter-agency command channel (when designated) will use agency affiliation and title (Fire IC, EMS Staging Officer, etc.) in lieu of established agency call signs.
- Who to notify in their agency if there is a radio problem
- When contact is established before a message is given
  - (No blind communications)

### **Command Channel**

#### **Example:**

“Fire Command to Public Works Highway Superintendent, have three front-end loaders report to Location 1 and 2 for removal of debris.”

The basic content of messages requiring an action is then repeated to the originator.

#### **Example:**

“Public Works Highway Superintendent to Fire Command, sending three front-end loaders to Location 1 and 2 for removal of debris.”

If the person being called responds with “Who is calling the Public Works Highway Superintendent?,” then he/she did not understand who was calling. The initiating party would then repeat his/her agency affiliation and title in addition to those of the person being called to establish contact.

#### **Example:**

“Fire Command to Public Works Highway Superintendent”