



# Annex B: Emergency Support Function #2 – Communications

October 2020

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## Coordinating Agency

Hamilton County Communications Center

## Supporting Agencies

City of Cincinnati Emergency Communications Center  
City of Cincinnati Enterprise Technology Solutions (ETS)  
Hamilton County Amateur Radio Emergency Service (ARES)  
Cincinnati Fire Department (Including IT Section)  
Hamilton County Emergency Management/Homeland Security

## Introduction

### Purpose

The purpose of Emergency Support Function (ESF) #2 – Communications is to establish how activities related to communications and communication infrastructure will be coordinated during and after disasters to meet the emergency needs of Hamilton County, OH. This ESF describes the operational components as well as roles and responsibilities of the agencies necessary to fulfill the duties of ESF #2.

### Scope

ESF #2 serves to coordinate activities related to communications and communication infrastructure in Hamilton County during the response and recovery phases of the emergency management cycle. During and shortly after the incident, ESF #2 is responsible for the assessment of damages to communication infrastructure, the development of alternate communication methods, and the identification of potential communications resources in support of Logistics Coordination Support Section in the Hamilton County Emergency Operations Center (EOC) and in support of Incident Command as requested.

Activities of ESF #2 include supporting communication activities, addressing communication challenges, and coordinating with private sector partners to expedite restoration and repair of telecommunication services.

### Situation

Disasters affect the ability to communicate by damaging and overloading systems and equipment, overwhelming staff and creating conditions that prevent the expedient repair of existing communications systems or transport of new equipment into the affected area. Local and County-level communications are vital in order to protect life and property and restore the affected area to pre-disaster conditions.

Hamilton County has a robust communications system that supports all facets of its Emergency Management Program, including implementation of this *EOP* as well as supporting other plans such as the *Disaster Recovery Framework*, *Continuity of Operations*, and even *Continuity of Government*. The system that exists must not only have redundancies in place in case of failure of the primary systems, but must also be able to adapt to the different operating environments that result from the multitude of hazards that could affect Hamilton County and its communications infrastructure.

Hamilton County has three Public Safety Answering Points (PSAPs): Hamilton County Communications Center (HCCC), City of Cincinnati, and the City of Norwood. The City of Loveland has a designated dispatch center, the Northeast Communications Center, but it is not a PSAP.

Both the Hamilton County and City of Cincinnati radio systems are now part of the Ohio Multi-Agency Radio Communications System (MARCS) network, which improves communications interoperability statewide. In addition, PSAPs in Northern Kentucky and Dearborn County, Indiana also have MARCS radios with a few talkgroups for regional interoperability. Tactical talkgroups are typically available to Hamilton County as needed in addition to the regional and statewide talkgroups. MARCS also has three 80-foot tower on wheels (TOWs) units available that Hamilton County can request.

The HCCC conducts the activations of the regional Hospital Disaster Net for Local Mass Casualty Incidents and National Disaster Management System purposes. The Hospital Disaster Net is used to coordinate communications regarding the distribution of victims/patients in mass-casualty or hazardous materials situations in the most timely, systematic and efficient manner possible.

The HCCC is also one of four rotating dispatch centers in Ohio for the Ohio Fire Chiefs Emergency Response Plan. Central dispatch responsibilities for the plan rotate every two months.

Hamilton County utilizes Amateur Radio Emergency Services (ARES) that can be activated to support emergency communications.

### Assumptions

Planning requires assumptions based on statistics, history, behavior patterns and likely future trends. The following assumptions were made as consideration for ESF #2:

- ESF #2 will assist local emergency organizations with setting up and operating temporary emergency communications capabilities as needed.
- The Regional Operations Center will be operational during large scale emergencies and will support countywide communications operations.
- State and Local governments, in coordination with the telecommunications industry, will assist the county in accomplishing as much restoration and reconstruction of telecommunications facilities as conditions permit.
- The City of Cincinnati and Hamilton County cooperate by providing back up communication on each other's 800 MHz system. If one system were to fail the other system would provide capabilities until the system that is down can be placed back online.

### Concept of Operations

Emergency Support Function (ESF) #2 – Communications consists of three broad activities in relation to the Hamilton County Emergency Operations Plan. These activities are:

ESF #2 Activities	
1.	Supporting Communication Activities
2.	Addressing Communications Challenges
3.	Coordinating with Private Sector Telecommunication Partners

#### Supporting Communication Activities

One of the most important issues to address is the ability for personnel involved in the emergency response to communicate with one another. This ranges from on-scene first responders communicating

with one another to county agencies communicating with neighboring jurisdictions or even the State of Ohio.

Hamilton County is fortunate in that the existing communication capabilities are used routinely, and that significant redundancy exists which is designed to back up other systems if they fail. In addition to the communication resources discussed in the Basic Plan above, the City of Cincinnati Enterprise Technology Solutions manages the telephone capabilities that exist in the Hamilton County Emergency Operations Center. These capabilities include trunk lines, digital and analog phones, satellite phones, cellular phones, and fax machines. The telephone switch, which supports the Regional Operations Center telephone system, as configured, serves multiple independent telephone instruments.

To support first responders in the field, Hamilton County and the City of Cincinnati provide a joint communications network on the 800 MHz band which is P25 compliant. UHF (ultra-high frequency) and VHF (very high frequency) are also available. These three systems provide clear-voice capabilities and can link local, county, state, and federal entities. Hamilton County and the City of Cincinnati each provide a network template for radios depending on their needs, and can adapt the templates as needs change.

The hospitals within the region have their own radio network which is called the Disaster Radio Network or SurgeNet, which is part of the County 800 MHz network, and is regulated by the Greater Cincinnati Disaster Preparedness Coalition Emergency Response Plan, which is used to facilitate the allocation of victims to the various regional hospitals.

In addition, Ohio Homeland Security Region 6 has developed a *Regional Tactical Interoperability Plan* that discusses how the 800MHz band and MARCS can be used to ensure first responders can communicate with other entities from neighboring jurisdictions.

Hamilton County can utilize the Amateur Radio Emergency Services (ARES) team, which has a radio station at the ROC. This team can communicate with other amateur radio members around the region to facilitate information sharing from the field or from partner agencies.

Numerous common carriers provide cellular telephone and paging services across Hamilton County.

In addition to traditional radio and cellular telephone communications, communication may also occur through data transmission. At the ROC, data communication is enhanced by dedicated T1 data links. Internal data service is provided through servers that provide for the routing and distribution of information for day-to-day and emergency activities. This includes the capability for county agencies to access their servers from the ROC through Virtual Private Network (VPN) access.

The Hamilton County EOC may also utilize pagers, public address systems, smart phones, email, voice mail, or even written documents delivered by personnel to facilitate communications.

### Addressing Communications Challenges

One of the most important activities for ESF #2 will be to address communications challenges that arise as a result of the disaster. Because disasters may affect the ability for first responders and other agencies involved in the response to communicate with one another, ESF #2 will need to be able to address these communications challenges. The challenges may be a result of damaged or overloaded systems and equipment, or personnel or agencies that are brought in to assist with the response being unfamiliar with the or incapable of using the existing systems within Hamilton County.

When different hazards affect Hamilton County, the communications must be able to adapt to unique operating environments. A high wind or tornado event could disrupt power, which is why dispatch centers are protected by generators and uninterruptible power supplies in the event of power outages. If the result of a violent mass casualty incident is telephone circuits are overwhelmed, various personnel in

Hamilton County are assigned Government Emergency Telecommunications Service (GETS) cards. These cards are part of the Telecommunications Priority Service. The purpose of this service is to give priority service, on phone lines, to emergency management and first response agencies. Should radio towers be compromised during a cyberattack, an amateur radio station is located in the Regional Operations Center. In the event of a complete system failure, select members of ARES will operate from the Amateur Radio Room of the Regional Operations Center, and will set up an emergency network within the City, County, State and National Amateur Radio networks, based on identified needs.

Not all communications challenges can be pre-identified, and ESF #2 will first need to be able to understand and diagnose what is causing communications issues. Once the challenge is properly understood, ESF #2 should work with its partners, both public and private, to determine the best possible solution for addressing the issue. Potential solutions could range from patching out-of-state partners into the existing 800 MHz system, to utilizing amateur radio operators with cellular services are overwhelmed, to requesting mobile cell sites from state or private sector partners to augment existing infrastructure. ESF #2 must understand the current operating environment for communications and address any deficiencies that arise due to a hazard.

### Coordinating with Private Sector Telecommunication Partners

Much of the communications infrastructure that the county is dependent on is owned and operated by private sector partners. These partners include regional or national telecommunications service providers (e.g. AT&T), communication equipment providers (e.g. MobilComm), or internet providers (e.g. Cincinnati Bell). ESF #2 will work with these private sector partners to identify and prioritize repair and expedite restoration of communication services to other important sectors that depend on communications for response.

## Organization and Assignment of Responsibilities

The Hamilton County Communications Center (HCCC) has the primary responsibility for the communication functions in Hamilton County. The HCCC will serve as the Coordinating Agency for this ESF.

### Coordinating Agency Responsibilities

Hamilton County Communications Center will:

1. Coordinate the activities of Support Agencies within ESF #2 to fulfill operational objectives.
2. Direct the activities of the ESF #2 in conjunction with assistance from ESFs at the local, State, or Federal levels as applicable.
3. Collaborate with other Coordinating Agencies to ensure an effective response between ESFs.
4. Designate sufficient representatives (no less than three) to support/staff 24-hour operations at the Hamilton County EOC. The Hamilton County EMHSA will maintain listings of these personnel, 24-hour contact information, and directions for contacting them in the event of communication outages.
5. Develop and train all staff responsible for implementing ESF #2 on standard operating procedures.
6. Share ESF #2 activity information with appropriate EOC personnel.
7. Prioritize ESF #2 operational strategies in alignment with the EOC and on scene objectives.
8. Assess communications infrastructure following a disaster.
9. Provide technical assistance regarding communications issues to local personnel.
10. Provide ongoing maintenance and restoration to county-owned systems.
11. Request transportable communications systems to include radio base stations, satellite links, and portable communications equipment.
12. Coordinate the establishment of video conferencing links as needed.
13. Support ESF #5 by developing ICS 205 and other incident communication plans as requested.
14. Identify temporary communication solutions to be implemented when primary systems are unavailable or overwhelmed.

15. Establish and maintain operational awareness of communications activities through direct communications links with units in the field, others PSAPs, and/or their appropriate coordinating agencies (other local agencies with communication responsibilities, private sector partners, etc.).
16. Provide and or coordinate County communication resources as necessary throughout the county.
17. Conduct communication disaster impact and needs assessments.
18. Receive, manage, and track resource requests for ESF #2 in accordance with established resource management procedures.
19. Coordinate with ESF #15 – Emergency Public Information for the inclusion of appropriate information for public dissemination.
20. Provide longer-term coordination of the restoration and recovery of the affected communications systems and infrastructure if required.
21. Assist in the development of the After Action Report. This report is a detailed, written analysis of the strengths and weaknesses of county-level emergency response and short-term recovery activities based upon extensive research of the event and interviews with participating assessment, response, and short-term recovery personnel.

### Supporting Agencies Responsibilities

City of Cincinnati Emergency Communications Center may:

1. Provide personnel to support/staff 24-hour operations at the Hamilton County EOC. Maintain listings of these personnel, 24-hour contact information, and directions for contacting them in the event of communication outages.
2. Provide personnel from the City of Cincinnati ESF #2 to concurrently serve as the Hamilton County ESF #2 Coordinating Agency.

City of Cincinnati Enterprise Technology Solutions (ETS) will:

1. Provide telecommunications technical support for telephone resources within the ROC.
2. Provide technical assistance for the restoration of communications support systems.
3. Support the creation of a phone bank at the ROC.

Hamilton County Amateur Radio Emergency Service (ARES) will:

1. Assist local, state and federal agencies and relief organizations with radio communications by providing the ability and means to transmit messages and information in and out of a disaster area when needed.
2. Establish a County Control Station (CCS) from which amateur operations will be controlled and administered.
3. Assign each served agency and/or individual area a Control Station (CS) to communicate with the CCS and serve as a control for local operations.
4. Designate Official Traffic Stations (OTS) as required for the handling of formal radio traffic.
5. Coordinate amateur radio frequencies used in the county.
6. Provide a communications network operated by qualified and licensed radio amateurs in accordance with established plans.

Cincinnati Fire Department (Including IT Section) will:

1. Establish and maintain the automated computer system needed for the Regional Operations Center.
2. Provide computer technical support to the ROC, Command Room, Joint Information Center, and Hamilton County Emergency Management/Homeland Security offices.
3. Provide personnel and equipment as required to support ROC operations.
4. Coordinate data communication links for county agency computers as needed in the ROC during emergencies.
5. Assist with the establishment of video conferencing in the ROC as needed.

Hamilton County Emergency Management & Homeland Security Agency will:

1. Manage and maintain communications capabilities within the Regional Operations Center, in coordination with the individual PSAP's and their corresponding jurisdictions.
2. Assist in collecting telecommunications-specific information through the use of ESF #5 — Information & Planning during county-level assessment, response, and recovery activities.
3. Assist in coordination of communications capabilities to fill unmet communication requirements.
4. Provide IPAWS activation as needed for emergency notification.
5. Coordinate with OEMA for support as needed.
6. Prioritize assistance based on assessments.

## References

U.S. Department of Homeland Security. (2015). *Communications Sector-Specific Plan. An Annex to the NIPP 2013*. Retrieved from <https://www.cisa.gov/sites/default/files/publications/nipp-ssp-communications-2015-508.pdf>