

STATE OF OHIO EMERGENCY OPERATIONS PLAN



EMERGENCY SUPPORT FUNCTION #2 COMMUNICATIONS AND INFORMATION TECHNOLOGY

COORDINATING AGENCY

Ohio Emergency Management Agency

PRIMARY AGENCY

Ohio Emergency Management Agency

**OHIO EMERGENCY OPERATIONS PLAN
EMERGENCY SUPPORT FUNCTION # 2**

COMMUNICATIONS AND INFORMATION TECHNOLOGY

COORDINATING

AGENCY: Ohio Emergency Management Agency (Ohio EMA)

PRIMARY AGENCY: Ohio Emergency Management Agency (Ohio EMA)

SUPPORT AGENCIES: Adjutant General’s Department, Ohio National Guard (OHNG)
Ohio Department of Administrative Services (DAS)
Office of Information Technology (OIT)
Multi-Agency Radio Communications Trunking System (MARCS)
Ohio Department of Natural Resources (ODNR)
Ohio Department of Rehabilitation and Correction (ODRC)
Ohio Department of Transportation (ODOT)
Public Utilities Commission of Ohio (PUCO)
Radio Amateur Civil Emergency Services (RACES)
Ohio State Highway Patrol (OSHP)

I. INTRODUCTION

A. Purpose

1. Emergency Support function #2 supports the provision of communications and information technology resources to state and local-level responses in response to emergencies and disasters.
2. ESF-2 details the coordination of activities and communications assets available from state agencies, voluntary groups, the communications industry, county agencies and the federal government.

II. SITUATION

A. Disasters can affect the ability of responders and citizens to communicate by damaging and overloading systems and equipment, overwhelming staff, and creating conditions that prevent the expedient repair of existing communications systems and/or the transport of new equipment into impacted areas. State-level communications support is vital to protecting life and property, and to restoring impacted areas to pre-disaster conditions.

B. Overview of Primary State-Level Communications Support Capabilities

1. The Ohio Emergency Operations Center (State EOC) and the Joint Dispatch Facility (JDF) coordinate their activities closely during emergency and disaster responses. Communication and Information Technology needs and activities are coordinated through designated communications personnel from Primary and Support Agencies to support the security and integrity of State-level emergency communications systems.

C. Land-line/Non-wireless Capabilities

1. Telephonic capabilities within the State EOC include trunk lines, digital and analog telephones, power-bypass lines that provide a safety net in the event of Private Branch Exchange (PBX) failure, fax machines, and emergency and disaster standby telephones that bypass PBX.
2. The telephone switch that supports the State EOC/JDF incorporates redundant processing and switching technology, drawing a dial tone from two independent Central Offices.
3. The EOC/JDF telephone system provides the basis for Ohio EMA's 24-hour communications and dispatch operations for the OSHP and ODNR.
4. A fiber optic ring supports State EOC/JDF telephone service with backup provided over copper cable.
5. Dedicated communications links are established with the federal government through the National Warning System (NAWAS), the Homeland Security information network, and the SHARED RESOURCES High Frequency (HF) Radio Program (SHARES) system. Dedicated communications are also in place with the Perry, Davis-Besse and Beaver Valley Nuclear Power Stations. Secure communications are available through encrypted telephone, data and videoconferencing units.
6. Backup to the main telephone switch is provided through independent, in-coming telephone lines, and by power bypass trunk lines.

D. Wireless Capabilities

1. The MARCS (Multi-Agency Radio Communication System) radio system is the primary wireless multi-functional communication system used in the State of Ohio by state agencies for disaster response and interoperability. The system is currently in use in all of Ohio's 88 counties and is deployed within the following agencies:
 - a. State Agencies
 - i. Ohio Emergency Management Agency
 - ii. Ohio Department of Natural Resources
 - iii. Ohio State Highway Patrol

- iv. Ohio Adjutant General's Department
- v. Ohio Department of Transportation
- vi. Office of Information Technology
- vii. Ohio Department of Health
- viii. Ohio Department of Youth Services
- ix. Ohio Department of Agriculture
- x. Ohio Environmental Protection Agency
- xi. Ohio Dept. of Commerce, State Fire Marshal
- xii. Ohio Department of Taxation
- xiii. Ohio House of Representatives
- xiv. Ohio State Supreme Court
- xv. Ohio Dept. of Rehabilitation and Corrections
- xvi. Public Utilities Commission of Ohio

b. Non-State Agency Single Point Users (Local and County government entities)

- i. County EMAs
- ii. County Sheriffs' Offices
- iii. County Health Departments
- iv. Emergency Medical Services
- v. Hospitals
- vi. Local Fire Departments
- vii. Local Police Departments

2. Mobile Communication Resources

- a. The Ohio Emergency Management Agency maintains four (4) mobile satellite trailers that provide infrastructure free data backhaul. Each Satellite trailer has both wireless and wired data capabilities.
 - b. The Buckeye State Sheriffs' Association (BSSA) Regional Interoperability Vehicles (11) are available to any Incident Commander. These vehicles provide command level interoperability.
 - c. The Ohio Department of Natural Resources Special Response Vehicle and Trailer. Provide port security and command level interoperability resources to any first responders.
3. Wireless or radio capabilities in the Ohio EOC include multiple two-way radio systems, which include both encrypted and clear-voice capabilities, linking local, state, federal and volunteer organizations.
4. Satellite communications systems and satellite links for two-way communications to field-deployed satellite systems, the receipt of video, weather radar and forecast information are also available.

5. Communications capabilities to support state, federal, and local personnel in the field and at the site of the emergency include the following:
 - a. Radio caches containing 24, 12 and 1 radios each. These radios operate on the state MARCS system.
 - b. A mobile radio tower that can provide 800MHz, VHF and UHF radio repeater capabilities.
 - c. Deployable cellular phones
 - d. Non-encrypted mobile radios
 - e. Small portable satellite telephones
 - j. Four portable satellite trailers that provides data and voice capability

E. Data

1. Facility data communications include dedicated OC3 and T1 lines to the Ohio Data Network, ODNR, statewide law enforcement organizations through the Law Enforcement Automated Data System (LEADS), the National Weather Service (Cleveland and Wilmington offices), Ohio EMA, ODOT, FEMA, ODPS and SOCC.
2. Internal data service is provided through multiple servers on a secured switched network that provides for the routing and distribution of information for day-to-day and emergency activities. This includes the capability for state agencies to access their servers from the Ohio EOC during emergencies. The server software allows for automated management of emergencies, routing of electronic mail, electronic mapping and modeling.
3. WebEOC, a web-based software system, is used to organize and facilitate State EOC operations. The system is used to coordinate the sending of messages; requests for assistance and resources; mission development, assignment and tracking; and the deployment of state-level emergency and disaster response resources.

F. Ohio EMA maintains a Secure Communications Room within the State EOC that is capable of providing secure voice communication.

G. Other State EOC communications capabilities include, a public address system, electronic mail, voice mail, the State of Ohio Rain/Snow Monitoring System (STORMS), information collection and distribution procedures and warning dissemination including Emergency Alert System (EAS) activation.

H. Ohio EMA coordinates with other state agencies and private vendors for additional capabilities when needed.

III. ASSUMPTIONS

- A. ESF-2 will assist local emergency organizations and responders with setting up and operating temporary emergency communications capabilities, as needed.
- B. The State EOC will be operational and will be able to support statewide communications operations with the cooperation and assistance of federal, state, and local organizations.
- C. State and Local governments, in coordination with the communications industry, will accomplish the restoration and reconstruction of communications facilities as conditions permit.

IV. CONCEPT OF OPERATIONS

A. Overview of the ESF-2 Response

- 1. Ohio EMA, through the State EOC, is responsible for activating and notifying ESF-2 Support Agencies for assessment, response, and recovery operations during emergencies and disasters.
- 2. ESF-2 Support Agencies that will receive initial notification include OSHP, DAS, OIT, ODNR, ODRC, OHNG, PUCO and ODOT. Other support agencies will be notified and activated for ESF-2 depending on the nature and extent of the emergency.
- 3. Cyber System Failure/Attack Response
 - a. Governmental jurisdictions, corporations, educational institutions, utilities, chemical companies, transportation systems, dams, and other critical infrastructure points in Ohio could all be vulnerable to damages and/or system failures due to cyber system infiltration and/or attack from either a domestic or foreign source. The “cyber system” is a fragmented collection of individual entities’ operating systems that are loosely and indirectly connected via the internet. Although there have been a few recent documented attacks to systems that have originated from outside the country where the attack occurred, most cyber system attacks have originated from inside the country where the attack occurs.
 - b. The above-mentioned entities have varying levels of capability and capacity to detect and respond to attacks/failures to their operating systems that create, store, and transmit data and information; or control the operations of critical infrastructure, including power generation, water purification and delivery, control of dams, transportation systems and traffic control, emergency responder dispatch, etc.
 - c. The State’s EOC-based response to an incident caused by an attack/failure of an entity’s operating system would be similar to a non-cyber-based incident response. Depending on the nature of the entity that is impacted, a cyber-

generated State EOC-based response could be to a transportation system incident, a communication system incident, a dam failure incident, a hazmat incident, a power outage incident, etc. Additional State EOC-based facilitation and coordination activities in response to a cyber-system attack and/or failure could include connecting an impacted entity to the U.S. Computer Emergency Response Team (US-CERT) or another organization that could assist them in recovering from the impacts.

- d. US-CERT is charged with providing response support and defense against cyber-attacks for the Federal Civil Executive Branch and with information sharing and collaboration with state and local government, industry and international partners. US-CERT interacts with federal agencies, industry, the research community, state and local governments, and others to disseminate reasoned and actionable cyber security information to the public.

B. Relationships between Levels of Government

1. Federal

- a. Federal support addressed in ESF-2 in the National Response Plan provides national security and emergency preparedness support to federal, state, and local disaster response elements. This support includes government-furnished communications, commercially-leased communications and expedited communications services provided under the Telecommunications Service Priority System (TSP). These capabilities can be accessed by mission requests from the state.
- b. The following organizations compose the federal ESF-2 Team and will work with Ohio's ESF-2 Team during emergencies from the Regional Operations Center (ROC), the Joint Field Office (JFO) and the site of the emergency:
 - i. Department of Homeland Security, Information Analysis and Infrastructure Protection/National Communications System (Primary)
 - ii. General Services Administration, Federal Technology Service
 - iii. Department of Commerce
 - iv. Department of Defense
 - v. Department of Interior
 - vi. Federal Communications Commission
 - vii. U.S. Department of Agriculture, U.S. Forest Service

2. State

- a. In accordance with the Ohio Revised Code 5502, the Ohio Emergency Management Agency is in charge of coordinating state-level emergency communications support between the agencies of state, federal and local government from activation of the EOC to recovery.

- b. Coordination may be internal within the ESF-2 Team member organizations and it may include coordination with governmental and private organizations external to the team.
3. Local
- a. The ESF-2 Team coordinates emergency activities with an affected area’s local EOC when it is activated.
 - b. Specifics issues related to communications problems in a local area may be addressed directly between the ESF-2 Team and local responders at the site of the problem.

The chart, below, shows the relationship between federal, state and local communications organizations.

Local Organizations	State Organizations	Federal Organizations
Local EMAs	Ohio EMA (with respect to federal and local organizations listed in this row)	Department of Homeland Security, Information Analysis and Infrastructure Federal Communications Commission U.S. Department of Commerce
*	Ohio State Highway Patrol	*
*	Department of Administrative Services	General Services Administration
*	Adjutant General’s Department, Ohio National Guard	U.S. Department of Defense
*	Ohio Department of Natural Resources	U.S. Department of the Interior
*	Public Utilities Commission of Ohio	*
*	Ohio Department of Rehabilitation and Correction	*
*	Ohio Department of Transportation	*
*	Civil Air Patrol	Civil Air Patrol
	Ohio RACES	National RACES
	Office of Information Technology	*

* There is no comparable designated organization at this level of government.

V. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITY

A. Organization

1. The Ohio Emergency Management Agency is the Coordinating Agency for ESF-2, and will be responsible for working with this ESF's Support Agencies to ensure that there is a seamless integration of, and transition between preparedness, response, and recovery activities. The Coordinating Agency's primary responsibility will be to focus on engaging Support Agencies in pre-incident planning and coordination opportunities.
2. The Ohio emergency management Agency is the Primary Agency for ESF-2, and will take the lead in coordinating and reporting on ESF-2-related missions and operations.
3. ESF-2 agencies will be activated through the State EOC for assessment, response, and recovery operations based on the needs of the emergency. Primary and Support Agencies will coordinate with one another to ensure the most effective use of personnel and equipment, to avoid redundant activities, and to cooperate on emergency response missions.
4. All agency-based resources will be provided as they are needed, as they are available, and as agencies are able to provide them.
5. Internal management and supervisory practices of the agencies that make up ESF-2 are maintained throughout emergency operations.
6. The Ohio EMA administers briefings in the Ohio EOC for ESF-2 Team operations.

B. Assignments of Responsibility

1. Ohio Emergency Management Agency (Primary)
 - a. Responsible for the coordination of emergency communications.
 - b. Manage communications capabilities within the Ohio EOC.
 - c. Provide state mobile communications as needed during emergencies.
 - d. Assess communications infrastructure following a disaster.
 - e. Prioritize assistance based on assessments.
 - f. Maintain Ohio EMA's access to the GETS (Government Emergency Telecommunications Service) system to enable the state to have contact with federal, state, local, and tribal government, industry, and non-governmental organization (NGO) personnel in performing their National Security and Emergency Preparedness (NS/EP) missions.

- g. Evaluate, define and assign emergency missions to team members and other organizations as required.
 - h. Provide technical assistance and advice to local, state, and federal organizations.
 - i. Establish and maintain the automated computer system needed for Ohio EOC operations.
 - j. Establish data communication links for state agency computers as needed in the Ohio EOC during emergencies.
 - k. Deploy mobile communications assets.
 - l. Provide ongoing maintenance and restoration of Ohio EMA owned systems.
 - m. Deploy and install transportable communications systems to include radio base stations, satellite links and portable communications equipment.
 - n. Establish video conferencing links as needed.
 - o. Obtain remote video images or remote TV broadcasts as needed from the disaster.
2. Adjutant General's Department, Ohio National Guard
- a. When a Governor's declaration has been issued, provide general and unique services.
 - b. Assist in the provision, set up, and operation of emergency communications equipment, satellite systems and portable telephone systems.
 - c. Act as liaison for the deployment of the Military Auxiliary Radio System (MARS).
 - d. Coordinate with the Ohio Wing of the Civil Air Patrol (CAP) in the deployment of communications assets. The Ohio Wing of the Civil Air Patrol maintains command and control of all of its resources.
 - e. Provide technical support for ESF-2 operations as needed.
3. Office of Information Technology (OIT)
- a. Provide coordination and information technologies needs and activities to ensure the security and integrity of state emergency communications, including GIS support.
 - b. Responsible for Multi-Agency Radio Communications System (MARCS) infrastructure.

4. Ohio Department of Administrative Services
 - a. Obtain contract communications resources as needed.
 - b. Provide technical support for ESF-2 as needed.
5. Ohio Department of Natural Resources
 - a. Maintain a 24-hour dispatch capability.
 - b. Deploy the ODNR Mobile Command Center in coordination with Ohio EMA
 - c. Maintain ongoing communications with field forces.
 - d. Provide radio equipment to supplement communications.
 - e. Provide technical assistance for the restoration of communications systems.
 - f. Provide technical support for ESF-2 as needed.
6. Ohio Department of Rehabilitation and Correction
 - a. Maintain communications systems within all prisons throughout Ohio.
 - b. Deploy communications equipment to supplement emergency needs as required.
 - c. Provide technical support for ESF-2 as needed.
7. Ohio Department of Transportation
 - a. Maintain 24-hour staffing of the Ohio EOC during emergencies.
 - b. Through data communications, provide information on road conditions during emergencies.
 - c. Provide technical assistance for the restoration of communications systems.
 - d. Provide radio equipment to supplement communications.
 - e. Provide technical support for ESF-2 as needed.
8. Public Utilities Commission of Ohio
 - a. Act as an information link with phone companies.
 - b. Provide technical support for ESF-2 as needed.

9. Radio Amateur Civil Emergency Services

- a. Provide a parallel communications network operated by qualified and licensed radio amateurs.
- b. Provide radio communications between localities within the state, with adjacent states and the Ohio EOC.

10. Ohio State Highway Patrol

- a. Provide Communications infrastructure assessments from the site.
- b. Maintain data communications to all law enforcement agencies through the use of Ohio's Law Enforcement Automated Data System (LEADS).
- c. Deploy the OSHP Mobile Command Center in coordination with Ohio EMA.
- d. Provide technical support for system restorations.
- e. Provide supplemental radio units to state and local agencies.

VI. COMMUNICATIONS RESOURCE REQUIREMENTS

- A. Resource requirements and Standard Operating Procedure information for state communications that do not appear in ESF-2 can be found in resource listings and SOPs maintained on file in the Technical Services Branch of Ohio EMA.