

# **STATE OF OHIO EMERGENCY OPERATIONS PLAN**



## **EMERGENCY SUPPORT FUNCTION # 2 COMMUNICATIONS AND INFORMATION TECHNOLOGY**

### **TAB A – OHIO WARNING PLAN**

#### **FACILITATING AGENCY**

Ohio Emergency Management Agency

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

**COMMUNICATIONS AND INFORMATION TECHNOLOGY**

**TAB A – OHIO WARNING PLAN**

**FACILITATING AGENCY:** Ohio Emergency Management Agency (Ohio EMA)

**SUPPORT AGENCIES:** Ohio State Highway Patrol (OSHP)  
National Weather Service Offices (NWS)

**I. PURPOSE**

- A. The purpose of this plan is to describe the process for the dissemination of warning information throughout the State of Ohio, and to define and outline the responsibilities of the Federal Emergency Management Agency (FEMA), the Ohio Emergency Management Agency (Ohio EMA), the Ohio State Highway Patrol (OSHP) and applicable National Oceanic and Atmospheric Administration (NOAA) Weather Service Offices (NWS), as they relate to the operation and utilization of Ohio’s warning systems.
- B. In this Plan, special attention is given to the use of the National Warning System (NAWAS), NOAA Weather Radio, the Ohio Emergency Alert System (EAS), the State of Ohio Rain/Snow Monitoring System (STORMS), and the Law Enforcement Automated Data System (LEADS),-for the dissemination of information of impending man-made or natural disasters.
- C. NOAA also disseminates Tornado and Flash Flood Warnings, and Tornado Emergencies via the FEMA Wireless Emergency Alerts.

**II. SITUATION**

- A. There are two NAWAS warning points in Ohio. One warning point is at the State of Ohio Emergency Operations Center in Columbus, Ohio, and the other is at the Ohio State Highway Patrol Post in Cambridge, Ohio.
- B. National level warnings will be received from the Federal Emergency Management Agency (FEMA), via the NAWAS system or other federal notification systems.
- C. The Ohio warning network is comprised of NAWAS, LEADS, NOAA Weather Radio, STORMS, and EAS. Each of these systems is designed to operate on a 24-hour basis.

- D. Ohio NWS Weather Forecast Offices (WFO) are in contact with the Ohio EMA Watch Office, who monitor NWS Watches/Warnings that are impacting Ohio.
- E. Operational telephone and radio ~~and data communications~~ systems are used to assist in the dissemination of warnings to the general public.
- F. In some circumstances, emergency alerts may be followed up on with social media postings. The decision to do this will be determined by the Ohio EOC Executive Group.
- G. LEADS terminals are in place in all County Sheriffs' Offices.
- H. County warning plans outline the dissemination of warnings from County Sheriffs to the general public and to all county-level agencies.
- I. Local print and broadcast media are used to assist in the dissemination of warnings to the general public.
- J. Hazardous Weather Outlooks are routinely issued by the NWS, but do include hazards for the next seven days. In addition, NWS Weather Forecast Offices include the Ohio EMA Watch Office on email notifications when hazardous weather is anticipated, and if weather conditions meet warning criteria.

<b>Weather Alert Levels</b>
A <b>Weather Warning</b> will be issued when a hazardous weather or hydrologic event is occurring, imminent, or likely.
A <b>Weather Watch</b> will be issued when the risk of a hazardous weather or hydrologic event has increased significantly, but its occurrence, location or timing is still uncertain. A Weather Watch means that hazardous weather is possible.
A <b>Weather Advisory</b> will be issued when a hazardous weather or hydrologic event is occurring, imminent or likely. The use of Weather Advisories will be limited to conditions that are less serious than Weather Warnings.
<b>Weather Outlooks</b> will be issued when a hazardous weather or hydrologic event is possible within a week's time. The intent of Weather Outlooks will be to raise awareness of the potential for significant weather.

### **III. ASSUMPTIONS**

- A. The use of NAWAS, LEADS, NOAA Weather Radio, the Emergency Alert System (EAS) and other supplemental warning networks will be required to rapidly disseminate warning information.
- B. County warning systems and procedures exist for the dissemination of warnings throughout individual counties, once County Sheriffs have been notified.

### **IV. CONCEPT OF OPERATIONS**

#### **A. General**

- 1. An effective warning system must provide for the receipt and dissemination of warnings on a 24-hour/365-day basis.
- 2. Maps of the locations and coverage areas of the systems that Ohio uses to disseminate emergency warnings and alerts are maintained by the Ohio EMA Communication Branch. Because the information in these maps is subject to frequent changes, they are maintained separately from this plan.

#### **B. Direction and Control**

##### **1. National Warning System**

- a. The National Warning Center is located in a combat operations center at the North American Air Defense (NORAD) command headquarters at Colorado Springs, Colorado. National warnings originate from this facility.
- b. An alternate national warning center is located in Maryland, and when necessary, can assume the functions of the National Warning Center.
- c. Sources of Warning Information
  - i. The National Weather Service (NWS) of the U.S. Department of Commerce, NOAA, is the national-level government agency that is responsible for the declaration and dissemination of “Severe Weather Watches and Warnings.” Weather warning information is distributed directly from the National Weather Service over the NOAA weather radio, and for some warnings, via the FEMA Wireless Emergency Alert (WEA) System.
  - ii. The National Earthquake Information Center, U.S. Geological Survey, Department of the Interior provides earthquake warning information.
  - iii. An agreement between the National Weather Service of the U.S. Department of Commerce and the Ohio EMA provides the state EMA and county EMAs

the ability to disseminate non-weather related warning messages over the NOAA weather radio system.

- iv. Non-weather related warnings for the state of Ohio can originate at the state or county level.
  - v. Warnings of a disaster or emergency, such as a tornado, storm, flood, high-water, wind-driven water, earthquake, landslide, mudslide, snow storm, fire, explosion, peacetime nuclear incident, aircraft crash or other potential hazards to the public's health, safety and property will follow a specific area message encoder format.
  - vi. Warning titles will follow those outlined for use by the National Weather Service and EAS, as specified in the Federal Communications Commission (FCC) EAS Rules and Regulations. These warning codes can be found in the State of Ohio's EAS Plan.
- d. The State of Ohio's primary warning point is located at the State Emergency Operations Center/Joint Dispatch Facility (EOC/JDF), at the Ohio State Highway Patrol Dispatch Center, 2855 West Dublin Granville Road, Columbus, Ohio 43235-2206, telephone 614 466-2660.
- e. The Alternate Warning Point in the State of Ohio is located at the Ohio State Highway Patrol, Cambridge District Headquarters, 7051 Glenn Highway Road, Cambridge, Ohio 43725, telephone 740-439-1388.
- f. Receipt and Dissemination of National Warnings
- i. The national warning system may be used for national warnings, peacetime disaster messages or for the relay of special emergency information or announcements. All messages must be short, but give all essential information. In most instances, the usage would involve only state and local portions of the system. This information may originate either above or below a warning point.
  - ii. Peacetime disaster warnings in Ohio are usually made in result of severe winds, rain, snow, thunderstorms, floods, earthquakes, tornadoes, peacetime nuclear incidents, air craft crashes, and chemical spills, all of which are threats to the public's health, safety and property.
  - iii. After determining that a national warning or peacetime disaster message should be issued, the National Warning Center will disseminate the warning simultaneously to all warning points on NAWAS.
  - iv. As soon as the Ohio warning point receives a warning, the State warning point operator will immediately-disseminate the information ~~warning~~ to the affected Ohio State Highway Patrol Dispatch Centers over OSP F-3. The dispatch center will notify the county sheriff in their coverage area.
  - v. The Ohio EMA Watch Office will be immediately notified of any warnings received over NAWAS.

## 2. NOAA Weather Radio

- a. Ohio has partnered with the National Weather Service to create statewide National Oceanic and Atmospheric Administration (NOAA) weather radio coverage. NOAA weather radio provides continuous 24-hour/day weather forecasts and warnings. The Ohio NOAA weather radio program serves Ohio through 23 transmitters, and the service is available to more than 99% of Ohio's population. These transmitters are maintained by Ohio EMA through a contract with the National Weather Service. Transmitters are operated by the National Weather Service Offices serving Ohio.
- a. State and local EMAs may activate NOAA weather radios for non-weather related emergencies through an agreement between Ohio EMA and the National Weather Service.
- c. Warnings are transmitted using specific area message encoding to allow for the activation of muted receivers. Ohio radio and television stations, as part of their EAS monitoring assignments, monitor NOAA weather radio and re-transmit severe weather warnings.
- d. NOAA weather radio is also used for the transmission of non-weather related emergency information-

## 3. State of Ohio Rain/Snow Monitoring System

- a. The State of Ohio Rain/Snow Monitoring System (STORMS) was developed to improve the State's ability to forecast flash-flooding throughout Ohio. The primary mission of the STORMS is to provide the National Weather Service with real-time precipitation data for use in flood forecasting. The secondary mission is to provide data to other federal, state and local users. STORMS installation was prioritized to serve the areas at greatest risk for flash-flooding. Drainage basins with a slope of 45' per mile and eight square miles or greater were targeted with STORMS. STORMS gauges appear in 63 of Ohio's 88 counties.
- b. The STORMS is made up of 241 rain gauges and 64 river gauges which report real-time rainfall information to Ohio EMA, the National Weather Service and other users. Rain gauge systems from the Corps of Engineers, U.S. Geological Survey, Miami Conservancy District and city systems are also linked to STORMS, bringing the total number of reporting gauges to 345.
- c. The primary user of the STORMS is the National Weather Service, which uses STORMS data to formulate flood and flash-flood warnings. STORMS software provides text, tabular and alarm information through a graphics display. Alarms based on rainfall in comparison to flash-flood guidance are automatically generated. System maintenance is performed by Ohio EMA.

- d. STORMS gauges report to remote tower sites, which are directly linked to the State EOC. STORMS data is forwarded to NWS via dissemination to a NOAA/NWS National unique IP address. From this NOAA/NWS national server, the data is then shared with NWS WFOs serving Ohio.
  - e. STORMS servers are located at the State Emergency Operations Center/Joint Dispatch Facility (EOC/JDF), the Cleveland National Weather Service and the Wilmington National Service Office. These servers receive raw rain gauge data and convert that data to tabular and graphic formats for use by the National Weather Service and other STORMS users. Redundancy is provided through these servers and dual servers at the state EOC/JDF.
  - f. In addition to providing rainfall data, the STORMS alarms when 80% or 100% of flash-flood guidance is exceeded. A gauge yellow condition exists at 80% and a red condition exists at 100%.
4. Ohio Emergency Alert System (EAS)
- a. The Ohio EAS is designed around twelve Operational Areas. Each of these areas has an assigned Primary and Alternate radio station called a Local Primary 1 and Local Primary 2 station. These stations serve as entry points into the EAS for the Operational Area. All other radio stations in the Operational Area monitor these Local Primary stations. A statewide EAS backbone provides for statewide relay of information to all Local Primary stations for statewide activations.
  - b. The EAS can be activated by authorized notifiers. Ohio's authorized notifiers include; the Governor, the State Emergency Management Agency, the Ohio State Highway Patrol, County Emergency Management Agency Directors and County Sheriffs. Activation is accomplished through the use of EAS encoders at county and state activation points.
  - c. The use of the Ohio EAS is governed through the State's and Twelve Operational Area EAS Plans.
5. Public Safety Emergency Notification System
- a. During times of severe weather or other events that can impede the travel of state employees to and from work or close state government offices, the Governor, through the Director of Public Safety, may order non-essential state employees to stay home from the work place. The weather Emergency Notification System is used in disseminating information related to the requirements of these employees to report to work.
  - b. When triggered, the Weather Emergency Notification System provides notification to contacts in each department, agency, and boards and commissions of the declaration. Notification is made by e-mail, facsimile and by the telephone to multiple devices. Information is posted on a state website for employee access



and on an employee call-in number. The notification is also sent to radio and television stations for public broadcast.

c.

#### 6. Law Enforcement Automated Data System (LEADS)

- a. LEADS is a state of Ohio data system used by all Ohio law enforcement agencies for the sharing of law enforcement information and communications. LEADS is managed by the Ohio State Highway Patrol under the guidance of a steering committee.
- b. LEADS is used as an information sharing system for the dissemination of warnings to all Ohio law enforcement agencies. Software-facilitated linking of the LEADS to the NOAA weather wire automatically forwards weather warnings to all law enforcement agencies with LEADS terminals.

#### 7. Receipt and Dissemination of Warnings over the Ohio NAWAS and LEADS

- a. When the Ohio warning point has received a national level warning, the State operator will immediately call a roll of the warning points in the state. Each warning point not answering the roll call will be contacted by telephone or radio immediately after roll call, and the warning message will be repeated.
- b. NOAA weather wire automatically forwards weather warnings to all law enforcement agencies with LEADS terminals
- b. If LEADS and the NAWAS System is inoperable, the State warning point will be contacted by alternate means of communications for disseminating warnings.
- c. When the above procedures have been established, the State is, essentially, in a status of “watching--readiness.” Warning points should begin the reverse process of relaying “sightings” and weather intelligence to the National Weather Service (NWS) in a coordinated manner so that this information can be used by the NWS offices in formulating further announcements and forecasts.

#### 8. Weather Observations

- a. Weather observations may be requested by a Weather Forecast Office (WFO).
- b. If the county (local) EMA director, Sheriff, or other authorized official issues a “warning” for his/her county (area), the sighting and action taken must be immediately reported to the WFO responsible for that area.



## V. ADMINISTRATION and LOGISTICS

### A. The National Warning System (NAWAS)

1. The Federal Emergency Management Agency (FEMA) has the responsibility for disseminating national warnings. NAWAS is a FEMA dedicated, nationwide, telephone system operated on a 24-hour basis. It has two national warning centers, manned continuously by warning officers. Its special-purpose telephone circuits connect the national warning centers to FEMA Headquarters and nine FEMA Regional Offices;

### B. Emergency Alert System (EAS)

1. The national level Emergency Alert System (EAS) provides the President a readily available and reliable emergency communications with the American people. It affords a communications capability in grave emergencies when national communications resources may have been damaged and the survival of the Nation is threatened. Presidential broadcasts over EAS would be made to reassure and give direction to the public regarding survival and recovery of the Nation. The national level EAS is activated only upon the order of the President.
2. The EAS has also been designed to provide operational capability to the State, and local governments. It uses facilities and personnel of non-government communications industry on a voluntary basis, and is operated by the industry under appropriate government regulations in a controlled manner consistent with national security requirements during a national emergency. It consists of broadcast stations licensed by the Federal Communications Commission (FCC) and participating in the EAS.
3. The state EAS and local EAS may be used to broadcast information on peacetime disasters or emergencies. Such use is encouraged, especially for announcing tornado watches and warnings and other natural or man-made disaster information. It also may be used at state or local government option to disseminate new weather related information to the public in their areas of responsibility.
4. Procedures for the use of EAS throughout the State of Ohio are outlined in the State of Ohio Emergency Alert System Plan.

### C. NOAA Weather Radio System

1. The operations of the NOAA Weather Radio system are the responsibility of the National Weather Service (NWS). System maintenance is performed by Ohio EMA in accordance with a contract with the NWS. Use of the system and non-weather related emergencies is triggered by State and local EMAs.

2. NOAA Weather Radio stations provide continuous around-the-clock broadcasts of the latest weather information directly from a WFO. Recorded weather messages are repeated every 4-to-6 minutes, and are routinely revised every 2-to-3 hours, or more frequently if needed.
3. NOAA Weather Radio is designated as the government-operated radio system to provide direct warnings into private homes for both natural disaster and nuclear attack alerts. This radio-based capability supplements warnings by sirens and by commercial radio, television and cable television.
4. Twenty-three NOAA Weather Radio stations are currently providing broadcasts throughout Ohio. Broadcasts are made on all 7 high-band FM frequencies. A list of locations of stations to include appropriate programming and broadcasting WFO is maintained by Ohio EMA's Communications Section.
5. During severe weather, weather service forecasters will interrupt their routine weather broadcasts and substitute special weather warning messages. Forecasters will also activate specially designed warning receivers. These receivers either sound an alarm indicating that an emergency exists, alerting the listener to turn the receiver up to an audible volume; or, when operated in a muted mode, are automatically turned on so that the warning message is heard. Warning alarm receivers are an especially-valuable resource for schools, hospital, public-safety agencies, and news media offices.
6. Ohio EMA and County EMAs are permitted, after coordinating with the appropriate programming and broadcasting WFO, to preempt selected NOAA weather transmissions during or after any disaster, man-made or natural, when such disaster could result in loss of life or property, and there is a need for the rapid dissemination of pertinent information to impacted areas.
7. In the event of an incident at a nuclear power plant, the NOAA weather radio system, along with EAS and other warning systems, will be used to provide rapid public notification of plant status and emergency actions to be taken. The access of the NOAA weather radio system for notification of a nuclear power plant incident is outlined in Ohio's plan for response to radiological emergencies at licensed nuclear facilities.

#### D. Weather Radar

1. A weather watch is maintained by the WFOs in Cleveland, Ohio; Wilmington, Ohio; Pittsburgh PA; Northwestern Indiana; and Charleston, WV. Weather service specialists operating radar and other monitoring equipment at the WFOs have the capability of tracking severe storms, and therefore, are key players in Ohio's "Weather Watch and Warning System".

2. In line with the foregoing information, the WFO's radar units function to initiate early action suggestions for counties that come under the jurisdiction of the WFOs. Conversations on NAWAS and the MARCS radio between WFOs can be monitored by NAWAS officials. This system allows everyone on the circuit to follow the progress of radar-observed events, and automatically alerts warning points of "new events" taking place in their respective areas.
3. EMA and NAWAS officials are asked to solicit local reports on the basis of information gathered from the monitoring of the conversations. These reports should be fed back to the NWS as soon as possible, so they may be added to other information which is being used to make weather status decisions at WFOs.
4. Direct contact with the warning points by WFOs is encouraged. An exchange of information during a period when severe phenomena is developing can yield immediate and direct benefits, while also establishing a higher level of confidence and mutual respect between the cooperators.

#### E. State of Ohio NAWAS

1. Operating that portion of NAWAS within the state is the responsibility of the Director of Public Safety. The Ohio primary warning point is located at the State EOC/JDF, Dispatch room, 2855 West Dublin Granville Road, Columbus, Ohio 43235-2206. Telephone numbers are: Primary 614-466-2660, Alternate 614-889-7150.

#### F. Emergency Alert System (EAS)

1. The development of System plans and procedures and notifier activation is the responsibility of the Ohio EMA.
2. Individual broadcast stations are responsible for station equipment configuration, station equipment maintenance, the development of station procedures, and the airing of EAS messages in accordance with The EAS Plans and the Federal Communications Commission (FCC) Rules and Regulations.
3. Notifier equipment maintenance is the responsibility of the owning agency. Ohio EMA provides technical assistance on equipment maintenance, equipment software configuration and programming, and level settings related to installation and user training.

#### G. State of Ohio Rain/Snow Monitoring System (STORMS)

1. Maintenance of the STORMS is the responsibility of Ohio EMA. This includes the maintenance of remote gauges, the backbone transmission system, and computer hardware and software applications.

3. The NWS is responsible for providing flash-flood guidance data to Ohio EMA, the monitoring of STORMS, and the formulation and issuance of flood and flash-flood warnings.
4. Other STORMS users are responsible for locally used hardware and system monitoring. Client software and technical assistance is provided by Ohio EMA.

#### H. Weather Emergency Notification System

1. Ohio EMA is responsible for coordinating the decision process for the issuance of a Weather Emergency Notification.
2. Activation of the system is accomplished by the Ohio State Highway Patrol.
3. Maintenance of the e-mail, facsimile and calling system is the responsibility of Ohio EMA. As part of this maintenance, Ohio EMA has the responsibility to maintain contact information, and to conduct training on system use for message recipients.
4. The Department of Administrative Services (DAS) issues Policy Directives on the notification of a weather emergency. The 1-800 employee call-in-number is also provided by DAS. Message recording and 1-800 line activation is accomplished by the Ohio State Highway Patrol. Procedure development is the responsibility of Ohio EMA. DAS is responsible to assist Ohio EMA in agency training.
5. Ohio Department of Public Safety and Governor's Office Public Information staff are responsible for the notification of media during a weather emergency.
6. Each State agency, Board and Commission is responsible for providing primary and secondary agency contacts. In addition, these agencies are responsible for developing internal notification procedures, notifying their employees, addressing employee inquiries, and attending annual training on the notification process.

#### I. Local Warning Dissemination

1. Sheriffs of each county will receive warnings from the local OSP dispatch centers in their affected area.
2. The development of procedures for the dissemination of warnings and emergency information from Sheriffs' Offices to officials of government, industry and to the public is the responsibility of local governments. Each county, city and village will establish systems and procedures to ensure that warnings are rapidly disseminated. These systems may necessitate the use of:
  - a. Outdoor and indoor warning devices, i.e., sirens, public address systems, automated calling systems and tone activated radio receivers, etc.

- b. Commercial radio, television and cable television broadcast through the Emergency Alert System (EAS).
- J. Warning and Notification of vulnerable populations, including, but not limited to: hearing impaired or non-English speaking persons, may be accomplished by local jurisdiction response using door-to-door or mobile public address notification by local emergency service officers.

## **VI. ASSIGNMENTS OF RESPONSIBILITY**

### **A. Ohio Emergency Management Agency (Ohio EMA)**

1. Maintain access to information and warning messaging through the National Warning System.
2. Maintain access to NOAA Weather Radio reports and warnings.
3. Maintain the State of Ohio Rain/Snow Monitoring System (STORMS) to provide the National Weather Service with real-time precipitation data for use in flood forecasting and to provide data to other federal, state and local users.
4. Maintain operational readiness of public warning systems through the Ohio Emergency Alert System and the Public Safety Emergency Notification System.
5. Maintain the Ohio NAWAS System to enable the receipt and dissemination of national-level warnings and other emergency information.
6. In cooperation with the National Weather Service, support the dissemination of emergency weather information to and from local weather service offices through the NOAA Weather Radio System.

### **B. Ohio State Highway Patrol (OSHP)**

1. Maintain the State's Primary Warning Point at the Ohio State Highway Patrol Dispatch Center in Columbus, Ohio, and maintain the State's Alternate Warning Point at the Ohio State Highway Patrol Post in Cambridge, Ohio.
2. Support the maintenance of the Law Enforcement Automated Data System (LEADS).

### **C. National Weather Service Offices (NWS)**

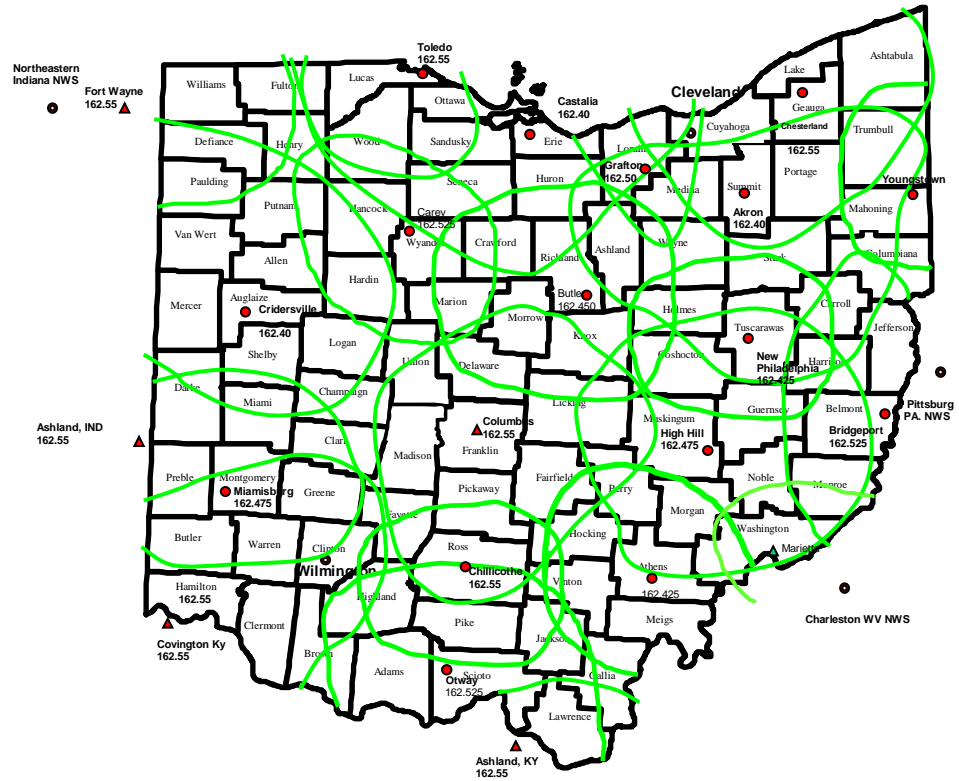
1. In cooperation with the Ohio Emergency Management Agency, support the dissemination of emergency weather information to and from local weather service offices through the NOAA Weather Radio System.

2. Through Weather Service Offices in Cleveland, Ohio; Wilmington, Ohio; Pittsburgh PA; Northwestern Indiana; and Charleston, W.V., initiate early action suggestions for counties that come under the jurisdiction of the WSFOs to allow responders to follow the progress of radar-observed events.

## **VII. PLAN DEVELOPMENT AND MAINTENANCE**

- A. This Warning Plan is maintained by the State of Ohio Emergency Management Agency (Ohio EMA), which is responsible for its review and update. Notification of changes to this plan should be submitted to the State of Ohio Emergency Management Agency, 2855 West Dublin Granville Road, Columbus, Ohio 43235-2206.

# NOAA Radio Coverage Map



- Transmitter Locations
- National Weather Service Offices
- ▲ Weather Radio Stations for which Ohio EMA is not responsible