THE OREGON STATE EMERGENCY ALERT SYSTEM PLAN

VERSION 15.0

November 1, 2022

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1. **Intent and Purpose of this Plan**

This Plan is the FCC-mandated document outlining the organization and implementation of the State of Oregon Emergency Alert System (EAS). It is the guideline for Oregon State broadcasters and cable television operators, and state and local entities authorized to use EAS (per TAB definitions) to determine:

Distribution of the President's message.

Mandated and optional monitoring assignments.

Participation by the National Weather Service and Local and State Emergency Agencies.

This Plan is an adjunct to the FCC EAS Rules, and is not meant to be a summary, in whole or in part, of those rules. Consult FCC Rules Part 11 for complete rules regarding the Emergency Alert System.

2. **The National, State, and Local EAS Participation and Priorities**

Required Participation - These actions are required of all broadcasters and subject cable operators:

A. All broadcasters and subject cable operators are required to participate in the national-level EAS (EAN) to broadcast the President's message and national level testing.

B. All broadcasters and subject cable operators are required to poll via an internet protocol a server capable of delivering a message using the Common Alerting Protocol (CAP) in conjunction with the Integrated Public Alerting and Warning Systems (IPAWS). See tab 6 for detailed information on IPAWS, CAP, equipment certification, and monitoring methods.

C. All broadcasters, except Low Power FM (LPFM) and Low Power Television (LPTV), and subject cable operators must transmit a Required Weekly Test (RWT). All broadcasters and subject cable operators, once a month, must transmit or re-transmit the Required Monthly Test (RMT) within one hour of receiving it on their EAS decoder. These actions are required of all broadcasters and subject cable operators.

3. **State/Local EAS Participation**

A. Participation in the State and/or Local Area EAS is *voluntary* for all broadcasters and cable operators. However, broadcast stations and cable operators electing to participate in the State and/or Local Area EAS must follow the procedures found in this Plan.

B. Participation in this Plan shall not be deemed as a relinquishment of program control, and shall not be deemed to prohibit broadcast licenses from exercising independent discretion and responsibility in any given situation. Broadcast stations and cable systems transmitting EAS emergency communications shall be deemed to have conferred rebroadcast authority. Management of each broadcast station and cable system may exercise discretion regarding the broadcast of emergency information and instructions to the general public. This authority is provided by FCC Rules and Regulations [11.55].

4. EAS Priorities

National EAS Messages

Local Area EAS Messages

State EAS Messages including the Governor's Message

Messages from the National Information Center (NIC)

(These are follow-up messages after a national EAS activation)

5. The Oregon State Emergency Communications Committee (THE SECC)

The responsibility of administrating this Plan rests with the members of the Oregon SECC. The SECC Chairpersons are appointed by the FCC. The SECC members include the Chairpersons of the Local Area Emergency Communications Committees (LAECC) and other voluntary members appointed by the SECC.

6. EAS Designations

CAP (Common Alerting Protocol) the method of delivering emergency messages from one source to all properly coded stations simultaneously, via internet, and the Integrated Public Alerting System **(IPAWS)** connections to the CAP server. Oregon uses the server provided by the Federal Emergency Management Agency.

SAME (Specific Area Message Encoding) also known as the legacy EAS system. These analog voice messages are relayed from the source through State and Local Primary stations. All stations and cable operators are required to monitor a minimum of two sources. The sources are listed in the monitoring assignments file.

PEP (Primary Entry Point) these stations are the designated entry point of Emergency Action Notification messages and messages from the President of the United States (P.O.T.U.S.).

SP-1 (State Primary) National and State level Primary stations. Has access to the PEP stations and back-up systems for national messages. They are the Entry Point for all State level emergencies. These stations use the SAME protocol.

LP-1 and LP-2 (Local Primaries) Stations and relay networks that deliver local level emergencies using both the SAME protocol. Oregon State LP stations are listed in TAB 5, Outlines of Local Plans.

L.R.N. (Local Relay Network) A radio or other communications system used to distribute sources of local operational area EAS information to stations and cable systems in specific operational areas.

EAS Protocol (What constitutes an "Emergency") usually an EAS event is one where the public is in immediate threat to life health or property. Immediate is defined as within the next 15 minutes or Amber Alerts within the next three hours.

7. Delivery Plan / Monitoring Assignments

Delivery Plan is common for all stations and cable systems

    A. All stations are required to poll the designated CAP server(s) for messages.

    B. All stations and cable systems are required to monitor a minimum of two analog SAME sources. The SECC is required by the FCC to create a list of these monitoring assignments that accomplish the delivery of all EAS message sources to those stations and systems and list them with the FCC.

    C. Monitoring assignments for all broadcast stations and subject cable systems in Oregon State are included in this plan. The excel file used to list the monitoring assignments is located on the SBE web site; www.sbe76.org/monitoring. Contained in that spread sheet are the following;

        1) There is a worksheet for each operational area.

        2) Each Radio and TV station is listed by frequency or channel.

        3) The stations call letters are included

        4) The two required monitoring assignments are listed first

        5) Two additional monitoring assignments are listed as an option for most stations. Local and State Primary stations may be required to monitor more than two sources as part of their LP-1 agreement.

        6) A worksheet for cable systems that list by county, the two minimum SAME monitoring assignments for cable systems in that county.

    D. If any of the monitoring assignments change, a copy of the file will be e-mailed to the FCC's field office in Vancouver, Washington and the Public Safety and Homeland Security Bureau in Washington DC.

8. Local Plans

The state is divided into "Operational Areas" which loosely duplicate the broadcast stations and subject cable systems area of influence. Each area develops a local plan that defines the following:

    A. The geographic area defined

    B. Using the common alerting protocol with specific event codes to launch emergency messages in that area

    C. Methods used to distribute SAME analog messages using methods employing local relay network and/or Local Primary stations

    D. The plan event codes to be used by originator the local plans identify those parties that agree on the plan and memorandums of understanding in place. Local Primary stations post a memorandum of understanding that define who they are required to monitor and the event codes agreed upon to forward.

9. Origins of EAS Information.

A. **National-Level System**

The President of the United States or other federal authorities may utilize the facilities of EAS in a national emergency. Notification of a national EAS alert comes in the form of an EMERGENCY ACTION NOTIFICATION (EAN) from the White House. These messages are authenticated through the Federal Emergency Management Agency. This notification is distributed to the state via the following methods:

The network of PRIMARY ENTRY POINT (PEP) Broadcast stations deliver National messages through telephone lines and/or satellite.

PEP stations in the Pacific Northwest are:

KOPB-FM, 91.5 MHz, Portland, Oregon
KPNW-AM, 1120 KHz, Eugene, Oregon
KBOI-AM, 670 KHz, Boise, Idaho

The back-up delivery system is the National Public Radio "squawk channel" received by OPB in Portland.

The state primary networks cover every station and cable system in the state. They consist of the following;

1) Oregon Public Broadcasting (OPB) in Portland, Oregon operates a network of radio and television stations through the entire state of Oregon. KOPB-FM being the primary entry point is the key station of this network. The PEP audio received at the KOBP Transmitter site is sent to the studios on Macadam Ave. for distribution on the network. The audio used on the OPB network of AM and FM stations is carried on the OPB television network. All of these stations are connected via either a fiber optic link or microwave links. Radio and television translators are also used for access in the more rural areas of the state. This audio is also delivered to KOBI-TV and KWAX-FM.

2) KOBI-TV in Medford, Oregon operates a network of Television stations and translators throughout southern Oregon. The audio is received from KOPB-TV audio and sent to the Medford area through KLSR-TV Microwave.

3) KLCC-FM and KWAX-FM in Eugene both monitor the PEP station in Eugene, (KPNW-AM) and the PEP station in Portland, (KOPB-FM). Both of these stations operate satellite stations and translators throughout the central Oregon area. They serve the role of SP1 stations.

B. State Level System.

Messages that are delivered statewide are delivered in the exact method as the national level systems. The state system is used by the governor to address the state during wide area emergencies and the state police use the statewide EAS system for Amber Alerts. These messages are originated at Oregon Emergency Response System (OERS). The rebroadcast of these messages is voluntary.

NOTE: *Specific details of this system are outlined in Tab 3 of this plan*

C. Weather Emergencies.

The National Weather Service (NWS) through the radio network of the National Oceanic Atmospheric Administration (NOAA) radio stations deliver emergency weather information to all stations and cable systems throughout the state of Oregon. Depending on location of the stations studio or the head-end of a cable system different transmitter station of the NOAA weather radio network may be assigned. The uses of NOAA weather radio are listed in the monitoring assignments. The rebroadcast of these messages is voluntary.

NOTE: Specific details of the use of NOAA weather radio are listed on Tab 4 of this plan.

D. Local Emergencies.

Cities and counties through networks of primary stations and local relay networks deliver emergency messages within defined operational areas. The local plan defines the events and locations used. The stations and cable systems must monitor a minimum of two sources as listed in the monitoring assignment file. The rebroadcast of these messages is voluntary.

NOTE: Basic outlines of all local plans in each of the operational areas are listed in Tab 5 of this plan.

4)   IPAWS.

The Integrated Public Alert and Warning System (IPAWS) is the national, State and Local distribution system managed by the Federal Emergency Management agency (FEMA) using the Common Alerting Protocol (CAP) to deliver messages to every EAS decoder that the message is programmed for.

At the federal level, the president's message is sent.

At the state level, messages can be delivered to every decoder in the state.

At the local level messages can sent to single or multiple counties for local emergencies.

The SECC and the OEM sign off with IPAWS as the emergency event codes that can be used.

10. The EAS Message.

All EAS messages created using either the Common Alerting Protocol or the SAME protocol consist of the following elements:

The Event Code: The emergency message will use a specific event code. The code that is used must match a code programmed into each EAS decoder for the decoder to respond to the message. All event codes used in this plan are approved by the SECC. They are defined in this plan and the local plans.

The Location: The area is defined county by county by using the F.I.P.S. codes listed in this plan. For the message to broadcast in multiple areas, each counties F.I.P.S. must be included.

NOTE: For a list of FIPS codes for counties used see TAB 3, Delivery of the president's message

The Duration: The predicted length of the event defined in 15 minute to 6 hour duration increments.

The Message: An EAS activation must include an aural message. This message using the Common Alerting Protocol may be delivered as an attached audio file. It may also be delivered via text where the EAS decoder may convert this text to speech. The analog SAME system will record incoming audio and play it back when delivering the message.

The Attention Signal: EAS activations will include the two-tone attention signal. The two-tone attention signal must consist of the fundamental frequencies of 853 and 960 Hz transmitted simultaneously [11.31a2] and must be from 8 to 25 seconds in duration [11.31c]. When used, the attention signal must follow the EAS header and must precede an aural message. The default time in Oregon for all encoders and decoders is 8 seconds.

11. Testing

All broadcasters and subject cable operators are required to transmit Required Weekly Tests (RWT) and Required Monthly Tests (RMT) with the following exceptions:

Class D FM, LPFM and LPTV stations are required to have EAS decoders but are not required to have EAS encoders. They are not required to run RWT but must retransmit the RMTs minus the header codes and attention signal. LPTV stations must present all EAS information visually, just as all other TV stations must.

A. Required Weekly Test (RWT)

All broadcasters and subject cable operators must initiate an RWT once each week at random days and times. If a required monthly test or any EAS emergencies air during that calendar week, the weekly test is not required for that week. There are no time-of-day restrictions. This is a 10.5second test, consisting only of the EAS header and end of message codes.

Note: The definition of "once each week" is once in any seven-day period. The SECC has determined that a week is a calendar week beginning on Sunday and ending on Saturday.

All broadcasters and subject cable operators receiving a RWT from one of their monitored sources must log receipt of this test. No further action is required. All broadcast stations and subject cable systems are required to poll and monitor a designated the FEMA CAP server. These weekly test messages occur on Mondays at 11:00 AM local time. A failure to receive these scheduled tests should result in a notation in the station log.

Note: No script is used for the RWT the entire test takes 10.5 seconds.

B. Required Monthly Test (RMT)

All broadcast stations and subject cable systems, LPTV, and LPFM stations are required to forward a monthly test once each calendar month. This test may be delivered by IPAWS, or through local relay networks or through a primary station. All broadcasters and subject cable operators receiving an RMT must re-transmit this test within one hour of receiving it. For daytime-only stations receiving nighttime RMT, this test must be re-transmitted within one hour of the daytime-only stations sign-on. Transmission of this RMT may take the place of the Required Weekly Test (RWT). Times should be logged for both the receipt and re-transmission of the RMT. Broadcast and cable management should impress upon their staff that re-transmission of this test is not an option. It is a violation of the FCC rules for failure to re-transmit this test within one hour of receiving it.

The tests are generated by Oregon's Emergency Response System (OERS) on a state wide level, the National Weather Service, and Local Emergency Operations or dispatch centers.

The tests are usually scheduled in the first calendar week of the month. Tests are run in a daytime and nighttime rotation according to Part 11. Waivers can be granted by the FCC to alter this schedule. These tests are scheduled three months in advance by the SECC and the schedules are posted on the website www.sbe76.org.

A make-up date is scheduled usually 6-7 days after. In the event of serious technical issues the station or system did not receive the test on the scheduled dates there should be an investigation as to why and that reason noted in the station log.

The SECC strongly suggests that monthly tests be conducted by the very agencies that would be generating an emergency message. In the event the primary station is in an area where a test cannot be delivered by a governmental agency which is the normal source of monthly tests, then the monthly test must be generated by the station itself.

The duration used on the monthly test shall be three hours.

Monthly test script - Emergency managers at the local and state level, and the National Weather Service may use the monthly test scripts to inform the public of specific actions during specific emergencies. These are most useful when the tests are run during prime time broadcasting hours and target a specific event. Examples such as tsunami warnings, fire dangers and Amber Alerts can have crafted scripts thus using the time of the monthly test to further educate the public of the EAS system and how to respond during these specific emergencies. It is at the discretion of the originator and local and state committees to use optional scripts. They should always include a sentence explaining that this is a test of the emergency alert system.

A sample script used in a generic monthly test would be as follows:

This station is testing its emergency alert system equipment. Originating from (Name of Agency) with the cooperation with public safety, broadcasters, and cable operators, this system informs you of events that pose an immediate threat to your life, health or property. If this had been an actual emergency requiring immediate action or evacuation, official messages would follow the alert tone. This test will conclude in five seconds.

12. Guidance for Originators of EAS Alerts

Only those entities specifically authorized by the applicable LAECC and/or the Oregon SECC. shall input emergency messages into the EAS system.

Those entities generating messages using IPAWS and the Common Alerting Protocol (CAP) must first be certified by the Office of Emergency Management in Salem, and then approved by the Federal Emergency Management Agency (FEMA). This agreement will specify the event codes that can be used and a Memorandum of Agreement/Understanding.

The National Weather Service (NWS) issue EAS weather messages via the NOAA Weather Wire Teletype, NOAA Weather Radio (NWR), and the Emergency Management Weather Information Network (EMWIN) using the NOAA-SAME/EAS Codes. NWS personnel will follow NWS procedures relating to the transmission of SAME/EAS codes, the NWR 1050 Hz warning alarm, and reading of the weather and flood bulletin scripts.

In the event of a failure in the National Weather Service's NOAA Weather radio system, the Oregon Emergency Response System dispatch center in Salem may originate the weather emergency message.

13. Certification

The following page is the certification of this plan by the Federal Communications Commission.

CERTIFICATION:

Section 11.21 of the FCC rules specify that this plan be reviewed and approved by the Chief of the Public Safety and Homeland Security Bureau, prior to implementation to ensure that it is consistent with national plans, FCC regulations, and EAS operations.

This page certifies by the signatures attached that the Oregon State EAS Plan has been reviewed and approved by both the Oregon State Emergency Communications Committee (SECC) and by the Policy Division of the Federal Communications Commission's Public Safety and Homeland Security (FCC).

Date:

State Emergency Communications Committee

_____

_____Date:

Chief, Public Safety and Homeland Security Bureau
Federal Communications Commission

TAB 1

LIST OF THE SECC MEMBERS

Chris Murray, Oregon SECC, South Valley Operational Area, LAECC
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Ryan Sandler Warning Coordination Meteorologist, Medford Oregon, National Weather Service
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Marcus Austin, Warning Coordination Meterologist, Pendleton, Oregon,
Marcus.austin@noaa.gov   541-276-7832 ext. 223

TAB 2
LIST OF OPERATIONAL AREAS and LAECC Chairs

NAME: Portland Operational Area
Counties Served: Clackamas, Columbia, Multnomah, Washington, Clark County Washington
LAECC Chair**:** kent.randles@gmail.com

NAME: Capitol Operational Area
Counties Served: Marion, Yamhill, Polk
LAECC Chair: Ken Lewetag ken@kwvtsalem.com

NAME: South Valley Operational Area
Counties Served: Lane, Benton, Linn, Coastal Douglas
LAECC Chair: Chris Murray Ichabod@kmge.fm

NAME: Southern Oregon Operational Area
Counties Served: Klamath, Jackson, Josephine, Eastern Douglas, Curry, Coos
TBD

NAME: Clatsop Operational Area
Counties Served: Clatsop
LAECC Chair: Graham Nystrom, stationmanager@coastradio.org

NAME: North Coast Operational Area
Counties Served: Lincoln, Tillamook
LAECC Chair: Ernie Hopsaker, bedrock02@earthlink.net

NAME: Columbia Gorge Operational Area
Counties Served: Hood River, Wasco, Sherman, Gilliam, Klickitat and Skamania Counties, Washington
LAECC Chair: John Mackey , jmackey@bicoastalmedia.com

NAME: Central Oregon Operational Area
Counties Served: Deschutes, Crook, Jefferson, Wheeler, Southern Wasco, Lake, Harney
LAECC Chair: Terry Cowan tcowan@knlr.com

NAME: Eastern Oregon Operational Area
Counties Served: Morrow, Umatilla, Union, Wallowa, Grant, Baker
LAECC Chair: Randy Mckone, Elkhorn Media Group randy@elkhornmedia.com

NAME: Warm Springs Reservation
Area served Warm Springs
Local Chair Sue Matters, KWSO

TAB 3
Specific Information of the Statewide and Local Alerting Systems

The following pages detail the various methods of the statewide alerting systems. They are in various forms and methods as follows:

1. ***The Presidents message*** - How the President of the United States gets his or her message on every radio and television station and cable system in the state of Oregon. This tab has a county by county list of FIPS codes.

2. How ***statewide messages*** from Oregon Emergency Management, Oregon State Police and/or Oregon Emergency Response System get on every radio and television station and cable system in the state of Oregon using the SAME legacy analog EAS system.

3. ***Specific Information*** on using IPAWS (CAP) for all messages.

4. How ***statewide messages*** from Oregon Emergency Management, Oregon State Police, and/or Oregon Emergency Response System get a message on every radio and television station and cable system in the state of Oregon using IPAWS with the Common Alerting Protocol.

5. How ***local counties*** get a message on every radio and television station and cable system in their Operational Area using the legacy EAS system.

6. How ***local counties*** get a message on every radio and television station and cable system in their Operational Area using IPAWS

7. How ***local counties*** get a message on every radio and television station and cable system in their Operational Area using IPAWS by using the statewide network?

1. THE PRESIDENT'S MESSAGE

The President of the United States has the ability to get a message on every radio and television station and cable system in the state of Oregon.

The message will be delivered using the event code *"EAN" (*Emergency Action Notification). All stations and cable systems are required to carry these messages.

The President's message will be delivered in the SAME analog format to the State of Oregon using these methods:

A. The Primary Entry Points (PEP) are three radio stations, KOPB-FM, Portland, 91.5 MHz , KPNW-AM, Eugene 1120 KHz. and KBOI-AM 690 KHz. Boise. These stations use dedicated phone lines and satellite receivers to receive the massage from the Federal Emergency Management Agency (FEMA).

B. Oregon Public Broadcasting (OPB) is an affiliate of National Public Radio and has access to the NPR squawk channel (this would be the back-up audio source).

C. Once the message is received, it will be broadcast on the PEP radio stations that will cover the two largest metropolitan areas in the state - Portland and Eugene, Oregon. The monitoring assignments will "daisy chain" this message to every radio and television station and cable system in those areas.

D. In addition to the direct monitoring of a PEP station, other distribution methods are used to cover the parts of the state that cannot directly monitor these PEP stations.

   1) The audio from the transmitter site at the KOPB-FM PEP station will be sent via microwave link to the studios of KOPB-FM. There, the audio will be distributed statewide through the networks of Oregon Public Broadcasting's radio and television. These networks consist of hardened microwave sites and fiber optic delivery systems.

   2) Two stations in Eugene Oregon, KLCC-FM and KWAX-FM monitor both KPNW-AM and KOBP Television for the PEP message. KLCC uses a network of five satellite stations and four translators and KWAX uses a network of two stations and eight translators to distribute the message over a large area in west central Oregon.

   3) The audio from OPB's FM network is available at the KEPB-TV site on the Blanton Heights antenna farm south of Eugene Oregon. This audio is sent by private lines to the KLSR-TV transmitter site where the audio is delivered via microwave to the EAS decoder at KOBI-TV in Medford, Oregon. Through a network of two stations and twenty translator sites, KOBI-TV can deliver the President's message into its coverage area in Southern Oregon.

   4) The PEP signal is available on Local Primary Stations that use the Premiere Radio Network. The majority of the populated areas have access to the PEP signal via Premiere.

E. *County By County distribution chart*. The following list outlines each county in Oregon, its FIPS code and how it receives the President's message:

Baker County, 041001, Eastern Oregon Operational Area
Monitors KOBK-FM 88.9, Baker City, OPB Radio Network, PEP station
Also Monitors KBOI-AM 690, Boise, PEP Station

Benton County, 041003, South Lane Operational Area
Monitors KOAC-AM 550, Corvallis, OPB Radio Network, PEP Station
Monitors KKNU-FM 93.3, Eugene monitoring KPNW-AM Eugene, PEP Station

Clackamas County, 041005, Portland Metro Operational Area
Monitors KOPB-FM, 91.5, Portland PEP Station
Monitors KXL-FM, 101.1, Portland, Premiere Satellite FEMA Feed

Clatsop County, 041007, Clatsop Operational Area
LP-1 Monitors KOAC-FM, Astoria, OPB Radio Network PEP Station
LP-1 Monitors NPR Squawk Channel

Columbia County, 041009, Portland Metro Operational Area
Monitors KOPB-FM, 91.5, Portland, PEP Station
Monitors KXL-FM, 101.1, Portland, Premiere Satellite FEMA Feed

Coos County, 041011, Southern Oregon Operational Area
Monitors KOBI-TV, Ch. 5 Medford KOBI-Television Network, OPB PEP Microwave Feed
KOBI-TV monitors the Premiere Satellite FEMA Feed via KMED-AM, Medford.

Crook County, 041013, Central Oregon Operational Area
Monitors KOAB-FM 91.3, Bend, OPB Radio Network, PEP Station
Monitors KLBR-FM Satellite of KLCC monitoring KPNW Feed

Curry County, 041015, Southern Oregon Operational Area
Monitors KOBI-TV, Ch. 5 Medford, KOBI-Television Network, OPB PEP Microwave Feed
KOBI-TV monitors the Premiere Satellite PEP Feed via KMED-AM, Medford

Deschutes County, 041017, Central Oregon Operational Area
Monitors KOAB-FM 91.3, Bend, OPB Radio Network PEP Station
Monitors KLBR-FM Satellite of KLCC monitoring KPNW Feed

Douglas County, 041019, Southern Oregon Operational Area
Monitors KLBR-FM Satellite of KLCC monitoring KPNW Feed
Monitors KWAX-FM Translator 98.9 monitoring KPNW Feed

Gilliam County, 041021, Columbia Gorge Operational Area
No radio or radio stations in this county

Grant County, 041023, Eastern Oregon Operational Area
Monitors KOJD-FM 89.7, John Day, OPB Radio Network PEP Station
No second source

Harney County, 041025, Central Oregon Operational Area
Monitors KOBN-FM 90.1, Burns, OPB Radio Network PEP Station
No second source

Hood River County, 041027, Columbia Gorge Operational Area
Monitors KHRV-FM, 90.1, Hood River, OPB Radio Network PEP Station
Monitors KMSW Premiere Satellite FEMA Feed

Jackson County, 041029, Southern Oregon Operational Area
Monitors KOBI-TV, Ch. 5, Medford, KOBI Television Network OPB PEP Microwave Feed
KOBI-TV monitors the Premiere Satellite PEP Feed via KMED-AM, Medford

Jefferson County, 041031, Central Oregon Operational Area
Monitors KOAB-FM 91.3, Bend, OPB Radio Network PEP Station
Monitors KLBR-FM Satellite of KLCC monitoring KPNW Feed

Josephine County, 041033, Southern Oregon Operational Area
Monitors KOBI-TV, Ch. 5, Medford, KOBI Television Network
KOBI-TV monitors the Premiere Satellite PEP Feed via KMED-AM, Medford

Klamath County, 041035, Southern Oregon Operational Area
Monitors KOBI-TV, Ch. 5, Medford, KOBI Television Network OPB PEP Microwave Feed
KOBI-TV monitors the Premiere Satellite PEP Feed via KMED-AM, Medford

Lake County, 041037, Central Oregon Operational Area
Monitors KOAP-FM 88.7, Lakeview, OPB Radio Network
No second source

Lane County, 041039, South Valley Operational Area
Monitors KKNU-FM who monitors KPNW-AM 1120 Eugene PEP Station
Monitors KWAX-FM OPB PEP Microwave Feed

Lincoln County, 041041, North Coast Operational Area
Monitors KLFO-FM satellite of KLCC monitoring KPNW-AM
Monitors KWAX-FM Translator 91.3 monitoring KPNW-AM

Linn County, 041043, South Valley Operational Area
Monitors KOAC-AM 550, Corvallis, OPB Radio Network, PEP Station
Monitors KKNU-FM 93.3, Eugene monitoring KPNW-AM Eugene, PEP Station

Malheur County, 041045, Idaho State Plan
Monitors KBOI-AM 690, Boise Idaho, PEP Station
Only one AM and one FM station in the county

Marion County, 041047, Capitol Operational Area
Monitors KOPB-FM, 91.5, Portland PEP Station
Monitors KWVT-TV who monitors KXL-FM Portland Premiere Satellite FEMA Feed

Morrow County, 041049, Eastern Oregon Operational Area
There are no radio or television stations in this county

Multnomah County, 041051, Portland Operational Area
Monitors KOPB-FM, 91.5, Portland, PEP Station
Monitors KXL-FM, 101.1, Portland, Premiere Satellite FEMA Feed

Polk County, 041053, Capitol Operational Area
Monitors KOPB-FM, 91.5, Portland PEP Station
Monitors KWVT-TV who monitors KXL-FM Portland Premiere Satellite FEMA Feed

Sherman County, 041055, Columbia Gorge Operational Area
There are no radio or television stations in this county

Tillamook County, 041057, North Coast Operational Area
Monitors KTMK, Tillamook, 91.1 OPB Radio Network PEP station
Monitors KYTT who Monitors Premiere Satellite FEMA Feed

Umatilla County, 041059, Eastern Oregon Operational Area
Monitors KRBM-FM 90.9, Pendleton, OPB Radio Network PEP Station
Monitors KCMB-FM Baker City who has two PEP stations to monitor

Union County, 041061, Eastern Oregon Operational Area
Monitors KTVR 90.3 LaGrande, OPB Radio Network PEP Station
Monitors KCMB-FM Baker City who has two PEP stations to monitor

Wallowa County, 041063, Eastern Oregon Operational Area
Monitors KETP 88.7, Enterprise, OPB Radio Network PEP Station
Also monitors KBOI-AM 670, Boise Idaho, PEP Station

Wasco County, 041065, Columbia Gorge Operational Area
Monitors KOTD, 89.7, The Dalles, OPB Radio Network PEP Station
Monitors KMSW Premiere Satellite FEMA Feed

Washington County, 41067, Portland Metro Operational Area
Monitors KOPB-FM, 91.5, Portland PEP Station
Monitors KXL-FM, 101.1, Portland, Premiere Satellite FEMA Feed

Wheeler County, 41069, Central Oregon operational Area
Monitors KOAB-FM 91.3, Bend, OPB Radio Network PEP Station
Monitors KLBR-FM Satellite of KLCC monitoring KPNW Feed

Yamhill County, 41071, Capitol Operational Area
Monitors KOPB-FM, 91.5, Portland PEP Station
Monitors KWVT-TV who monitors KXL-FM Portland Premiere Satellite FEMA Feed

STATEWIDE MESSAGES USING THE LEGACY EAS SYSTEM, THE SAME PROTOCOL

Messages delivered on a statewide basis are accomplished in a similar manner as the Presidents message. The primary difference is that the PEP stations are not involved in creating the messages and the event codes are different.

Originators: All statewide messages are created from the Oregon Emergency Response System (OERS) located on 3565 Trelsad Ave. Salem, Oregon This dispatch center operates 24 hours daily and is staffed by trained personnel.

Links: OERS uses two methods to deliver the message to the studios of Oregon Public Broadcasting on Macadam Ave. in Portland.

   A.   A radio transmitter on 455.600 MHZ is received in Portland and retransmitted on 166.25 MHZ to be received by OPB.
   B.   A dedicated telephone line is used connected to an "auto-coupler" at the OPB studios.

LOCATION: Locations used for statewide messages are the entire state of Oregon and Clark County Washington.

Event Codes: The event codes used on a statewide level are as follows:

"**CEM" Civil Emergency**: This is a generic event code for all EAS emergencies that meet the EAS Protocol as being an immediate threat to life, health or property.

"**CAE" Child Abduction Emergency**: This event is used for Amber Alerts. These alerts are issued only by the Oregon State Police (OSP). OSP having received a request for an Amber Alert from any law enforcement agency within Oregon and at times from adjacent states must first evaluate the protocol before the alert can be launched. The Amber Alert Protocol is as follows:

   A.   A law enforcement agency has determined that an abduction has taken place,
   B.   It has been determined that the abducted child is under the age of 18 or of special needs,
   C.   It has been determined that the child is in immediate danger of harm or death,
   D.   It is determined there exists enough information about the abductor, abductors vehicle, license plate number etc. that the broadcast of this information will create the desired result of recovery of the child.

"**RMT" Required Monthly Test:** This event is used to test the overall condition of the EAS analog legacy system. They are performed on a semi-monthly basis, usually at night.

"**RWT" Required Weekly Test**: This event is used to test the system's connection to OPB on an unscheduled basis.

"**DMO" Demonstration Only:** This event is used to test the EAS system between OERS and OPB to evaluate audio quality.

NWS: OERS may be asked to launch weather emergencies for the National Weather Service in the event of the failure of the NOAA weather radio system. Refer to tab 4 for specific information on events and procedures.

SPECIFIC INFORMATION USING THE COMMON ALERTING PROTOCOL FOR ALL MESSAGES

Definitions:

IPAWS: During an emergency, alert and warning officials need to provide the public with life-saving information quickly. The *Integrated Public Alert and Warning System* (IPAWS) is a modernization and integration of the nation's alert and warning infrastructure and will save time when time matters most, protecting life and property.

Federal, State, territorial, tribal and local alerting authorities can use IPAWS and integrate local systems that use Common Alerting Protocol standards with the IPAWS infrastructure. THE IPAWS provides public safety officials with an effective way to alert and warn the public about serious emergencies using the Emergency Alert System (EAS), Wireless Emergency Alerts (WEA), the National Oceanic and Atmospheric Administration (NOAA) Weather Radio, and other public alerting systems from a single interface.

CAP: Common Alerting Protocol is a specific HTML document that has definitions to allow it to be used by multiple platforms, including EAS.

FEMA: The Federal Emergency Management Agency, Washington DC. This is the federal agency that manages the CAP servers for use.

CAP SERVER(s): The bank of computers at the FEMA facility that receive incoming requests for emergency messages sent by the public safety agencies in Oregon. The server will apply security through designated users and passwords. All EAS decoders in Oregon will poll these servers for messages that match locations and events. When a match occurs, the EAS decoders will receive the emergency message.

POLLING: A communication link between the CAP server and each EAS decoder. The SECC has selected thirty (30) seconds as the polling rate. Every thirty seconds, the EAS decoder asks the server if it has any messages that would match the filters in the EAS decoder. If the polling finds a match, the EAS unit will respond to the emergency massage as programmed.

LOCAL SETTINGS: See tab 6 for specific information on using the CAP protocol.

AUTHENTICATION: In order to gain access to the FEMA CAP server, an application must first be approved through the Section Director, Technology & Response Services of Oregon Office of Emergency Management and the SECC. Event codes and locations to use are submitted. FEMA then approves the application and assigns a user name and password.

For local users, when the authentication process is approved by OEM, the applicant is asked to agree to a memorandum of Agreement.

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WIRELESS EMERGENCY ALERTS (WEA): Uses in conjunction with IPAWS CAP, messages being delivered via wireless mobile devices. These messages van be sent to mobile devices in a specific area. Local emergency managers launch these messages using software interfaces with the message delivered to both mobile devices and EAS encoders in the operational area at the same time.

The event codes for specific emergencies that are sent by the encoder located within the public safety sector need to be programmed in the decoder of the primary station(s) before the event can be forwarded by that primary station. That is part of the M.O.U. between the originators and the primary station(s). Likewise, all those stations monitoring the primary station(s) must have their decoders programmed for that event and location before it will forward the message. Stations and systems monitoring the primary stations are only required to forward the monthly test. All other event codes are voluntary.

The codes that are approved by the SECC for local use in this plan are as follows:
NOTE: Additional event codes may be added to this list with the approval of the SECC.

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ADR   Administration Message, Used to forward non-critical emergency messages to the radio and television stations. Administrative messages are considered non-critical emergency messages and are not broadcast or forwarded to the public. The recorded voice announcement however, can be played back from the decoder without using the header and alert codes. Any audio Files or picture files can be attached and downloaded by the stations for use. *Not used by WEA*

AVW   Avalanche Warning

CAE   Child Abduction Emergency * State Police Only

CDW   Civil Danger Warning

CEM   Civil Emergency Message (The generic event code for most all emergencies.)

DMO   Practice/Demo Warning (Log Only, used for testing)

EQW   Earthquake Warning

EVI   Evacuation immediate (Can be used for Levels 1, 2. &3) includes evacuation routes This is used to evacuate specific areas of the population within the area due to emergency conditions such as fires, tsunami and etc.

FFW   Flash Flood Warning Not usually issued by the NWS

FRW   Fire Warning

HMW   Hazard Material Warning

LAE   Local Area Emergency (determined by WEA)

LEW   Law enforcement Warning

NUW   Nuclear Power Plant Warning

RHW   Radiological Hazard Warning

RMT   Required Monthly Test Used to test the system within the operational area or state.

RWT   Required Weekly Test (By all participants) Originators are encouraged to schedule random or scheduled tests to insure the operational status of the system.

SPW   Shelter in Place Warning

TOE   911 Telephone Outage Emergency Used to notify the public of alternate phone numbers in the event of the primary notification number, such as 911 outage.

VOW   Volcano Warning

2. STATEWIDE MESSAGES USING IPAWS

Statewide messages are launched at the dispatch center of Oregon Emergency Response System (OERS) in Salem, Oregon. This center is located at 3565 Trelsad Ave. Salem, Oregon, the General Headquarters of the Oregon State Police. Third Party Software such as Everbridge and Alert Sense provide a path to the FEMA CAP server. Messages can also be launched at the Oregon Emergency Management offices on State Street in Salem Oregon.

A. A state owned EAS, encoder, certified by the FCC for launching messages using the Common Alerting Protocol is located in Portland, Oregon at the studios of Oregon Public Broadcasting. This encoder is separate from the EAS EnDec used by OPB for their own network.

B. A private network has been established through the cooperation of Oregon Office of Emergency Management, Oregon Department of Transportation, the Oregon State Police and Oregon Public Broadcasting. This link creates a private internet protocol connection between ORESOERS in Salem and OPB in Portland.

C. Staff at OERS then can log onto the CAP encoder in Salem and enter the following four parts of an EAS message.
   1) *The Location* (using the FIPS codes)
   2) *The Duration* (from 15 minutes to three hours)
   3) *The Event Code* (from the list below)
   4) *The Text* (exactly what will be said through text to speech technology)

D. Once the message has been delivered to Portland, the EASCAP EnDec will send the message to the FEMA CAP server.

E. Once the message has been entered into the CAP server in Washington D.C., all stations and systems polling the CAP server will recognize that the location and event codes matching those programmed into the individual EAS decoders and they will forward the message.

F. If the message was entered into the system as text, the individual decoders will convert the text to speech. If the message created by OERS attached an MP3 audio file, it will play that file. Those decoders that lack a text to speech option will not forward the message at all and would rely on the back-up analog message.

G. Once the message has been sent to the CAP server for distribution, an analog copy of the same message will be sent as an analog message to the EAS EnDec of the OPB system. The duplicate message will then be distributed by the legacy analog network that facilitates the President's message statewide. Decoders that have received the message by polling the CAP server will ignore the duplicate message. Those decoders that lack a text to speech option will broadcast the analog message if the message was originated as text only. This will occur if there was not an attached audio file.

H. Oregon Emergency Management in Salem also can use another EAS CAP compliant encoder located in their dispatch center. In the event the EAS Encoder in Portland cannot be accessed, or the unit has lost its connection to the FEMA CAP server, this unit can also be used to access the CAP server and launch an emergency message. What would not occur in this back-up scenario would be the simultaneous launching of the analog message. An analog message could be launched after the fact using the legacy system in place at OERS.

3. LOCAL MESSAGES USING THE LEGACY EAS SYSTEM and the SAME protocol

Counties have the ability to generate local emergency messages within the counties and their operational area using the legacy SAME EAS system.

In order to launch an EAS message only within an operational area these elements are required:

A. A functioning legacy EAS Encoder located in an area that would give access to the local emergency manager(s) or dispatch center(s). Multiple locations each with an encoder will add redundancy to the alerting process.

B. A link, usually a radio link or a local relay network to connect the encoder to the primary station(s).

C. A primary station or stations (radio and / or television) that has agreed through a memorandum of understanding (MOU) to forward the agreed upon emergency messages.

D. A Local EAS plan should be developed within each operational area to specify the details of the originating sources, the events used, the distribution methods, the testing schedules, MOU's and any review process. These local plans then act as the legal documents establishing a Local EAS Plan. This plan stays with the primary station(s) and the public safety originators and get modified as the changes are needed.

Tab 5 in this plan will summarize the basics of the local plans.

4. LOCAL MESSAGES USING IPAWS

Local emergency managers have the ability to generate messages directly through the internet to all stations and systems simultaneously without the need to be relayed by a primary station.

In order to launch an emergency message only within the operational area using the common alerting protocol the following elements are needed;

A. Third Party Software that allows a simple and user-friendly computer user interface to send emergency messages and tests to IPAWS.

B. An locally installed EAS encoder that has been certified by the FCC and by FEMA to launch EAS messages using the CAP through the CAP server of FEMA.

C. The County, through the OEM, the SECC and FEMA has been certified to use the system. The counties, through the certification process, agree to a memorandum of understanding that may allow other counties to launch emergencies for each other.

D. An internet connection. This connection should be of ample bandwidth to allow the attachment of MP3 audio files and picture files.

5. LOCAL EMERGENCIES GENERATED THROUGH THE STATEWIDE SYSTEM

Counties that wish to generate a local EAS message using the CAP protocol and do not have the ability to generate their own, or have equipment problems that would inhibit the delivery of a CAP message can use the following methods to broadcast the message.

The Oregon Emergency Response System (OERS) in Salem, Oregon can use the same equipment and embedded systems used for statewide messages. To deliver the message to OERS the following methods can be used;

LEDS: Known as the Law Enforcement Data System. It is an internet connection between all Public Safety Answering Points (PSAP's) messages can be sent through the LEDS as part of a memorandum of understanding between the managing parties. The emergency information needs the following information:

A. The location, note the county or counties involved.
B. The event code,
C. The duration of the emergency from 15 minutes to three hours.
D. The text as to what you wish to say.
E. Who is requesting the alert?

OERS will receive the message through LEDS and transcribe the information onto the CAP encoder and send the message to the FEMA's CAP server.

FAX: As a last resort, the information listed above can be faxed to OERS.

TAB 4

SPECIFIC INFORMATION OF THE USE OF NOAA WEATHER RADIO FOR WEATHER EMERGENCIES

The National Weather Service (NWS) operates a radio service for the National Oceanographic and Atmospheric Association (NOAA) that transmit information on six VHF radio frequencies 24 hours daily.

Participation forwarding weather emergencies is voluntary, but highly encouraged due to the potential for saving lives and minimizing property damage.

The NWS operates five field offices in the state of Oregon. Each office is responsible for maintaining radio transmitters in all of the Oregon counties. A list of these field offices and relevant information is as follows:

Office: Portland
Contact: Treena Jenson , Warning Coordination Meteorologist, 503- 326-2340, ext. 223 David.Bright@noaa
Treena.jenson@noaa.gov
Call Letters: KPQR/NWS
Counties Served: Benton, Clackamas, Clatsop, Columbia, Hood River, Lane, Linn, Lincoln, Marion, Multnomah, Polk, Tillamook, Washington, Yamhill

Office: Medford
Contact: Ryan Sandler, Warning Coordination Meteorologist, 541-776-4303, ext. 223
ryan.sandler@noaa.gov
Call Letters: KMFR/NWS
Counties Served: Coos, Curry, Douglas, Jackson, Josephine, Lake, Klamath

Office: Pendleton
Contact: Marcus Austin, Warning Coordination Meteorologist, 541-276-7832, ext. 223
marcus.austin@noaa.gov
Call Letters: KPDT/NWS
Counties Served: Crook, Deschutes, Grant, Gilliam, Jefferson, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler

Office: Boise
Contact: Jay Breidenbach, Warning Coordination Meteorologist, 208-334-9861, ext. 223
jay.breidenbach@noaa.gov
Call Letters: KBOI/NWS
Counties Served: Baker, Harney, Malheur

FREQUENCIES: The National Weather Service NOAA weather radio uses seven frequencies. The frequencies selected may be different in each operational area, as the location of the stations, studios or cable head-end dictate which radio transmitter is best to monitor. Station by station and cable assignments are listed in the monitoring assignments file. Those frequencies are:

162.400	162.500
162.425	162.525
162.450	162.550
162.475	

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For a complete Map of all the NOAA transmitters in Oregon and the areas they serve, use the following link
http://www.nws.noaa.gov/nwr/Maps/PHP/oregon.php

EVENTS: The SECC and the National Weather Service have agreed to broadcast the following event codes for weather emergencies.

FFW- Flash Flood Warning
FLW – Flood Warning (Note: Only in rare and severe flooding events)
SVR – Severe Thunderstorm Warning
TOR – Tornado Warning
TSW – Tsunami warning (NOTE: The Oregon Tsunami Plan that follows)

TESTING: The NWS will conduct a weekly test each Wednesday between 10:00 am and 12:00 am local time. This test will use the 8 second alert tone and an aural message. The test is not meant to be forwarded.

Alternate Delivery System: In the event of a system failure with any or all of the four regional NWS offices the emergency message can be forwarded by the Oregon Emergency Response System in Salem. It would be delivered using the Legacy analog EAS system.

Monthly Testing: The National Weather Service may schedule with the SECC, a monthly test in all or parts of the state. An example would be during their tsunami alert awareness month, they may schedule a monthly test as part of those exercises. The test would only be aired in counties west of the Cascade mountain range.

Tsunami Plan: Due to the severe and immediate nature of tsunami events, the SECC, OEM and the western Oregon counties have developed a tsunami alert plan that will create an immediacy of danger to the message delivered to the public. The plan calls for three EAS alerts in succession:

1. The first alert will be broadcast by NOAA weather radio on all western Oregon counties. It is on considered that once the weather service has made the decision to issue the alert, a considerable knowledge exists that the event will have an effect on the lives of the coastal citizens. The event code used is **TSW**.

2. It is conceivable that some radio transmitters may not be functioning, or stations and systems may be unable to receive the message. To cover this scenario, the Oregon Emergency Response System, also with considerable knowledge of the severity of the event will also issue an emergency message within 15 minutes of the weather service message. It will also use the **TSW** event code with the same duration as the National Weather Service's broadcast. The message will be sent using both the common alerting protocol, wireless emergency alerts, and the legacy EAS system to alert as many coastal residents as possible.

3. The third is an optional alert for use by local emergency managers. In Oregon, only the County Sheriff, or their designee, may issue an order to evacuate. To order an evacuation using EAS, the **EVI** event code will be used. This alert will be used to both reinforce the first two alerts but also provide specific details of evacuation routes and shelters in place. It is at the discretion of the emergency managers to broadcast additional EAS alerts if the timing is such that it would be effective. This is an option if the event occurred during late night hours and there would be more time during daylight hours to notify more people.

TAB 5 Outlines of the Local Plans

Each of the nine operational areas in Oregon may draft a local plan to facilitate the launch of local emergencies within their operational area. The primary station(s) agree to forward local messages, however the broadcast of these local emergencies by the radio and television stations and cable systems is voluntary but highly encouraged. The contents of a local plan are as follows:

    A. The name of the operational area.
    B. The areas that define the boundaries of the operational area. Counties or portions of counties may apply. Operational areas are loosely crafted to the area of influence of the local media market. Local emergencies that occur in a specific area need to broadcast on all the media outlets that cover that area.
    C. The members of the Local Area Emergency Communications Committee (LAECC) that crafted or maintain the plan and the chairperson of that committee are listed.
    D. A list of the originators of EAS messages in both the legacy SAME format and the digital CAP format. Also a list of the authorized users that will activate a local message and the security methods used.
    E. A list of the event codes that the area will use
    F. A description of the delivery method used to connect the public safety entity to the primary station(s).
    G. A list of primary stations that will forward the messages and the memorandums of understanding between the originators and the primary station(s).
    H. A description of how the system gets tested and the testing schedule
    I. A description of any review process developed.
    J. A signature page of the local committee drafting the plan.

Copies of the local plans should be filed with the originators of EAS messages and the primary station(s), as they are the entities that have entered into an agreement to create and forward certain emergency messages.

In this State Plan, the outline of the local plans is listed by operational area. These outlines will include:

The Operational Area name
The geographic area
The LAECC chair and contact information
The originators
The use of the common alerting protocols (CAP)
The events agreed upon
The delivery method(s)
The primary stations including local, and those stations monitored for national and state messages
A list of weather radio transmitters used in the area

All Event Codes authorizes by Local and State Users

NAME: *The Portland Metro Operational Area*

AREA: The counties of Clackamas, Columbia, Multnomah, Washington, and Clark County, Washington.

CHAIR: Kent Randles, Chair, Portland Area LAECC
0700 S.W. Bancroft Street, Portland, Oregon 97239
Kent.randles@gmail.com
503-544-4289 Cell

ORIGINATORS:
Clark Regional Emergency Services Agency, Clark County, Washington
Bureau of Emergency Communications, Multnomah County, and the City of Portland

IPAWS: Clark County, Washington can launch local messages using third party GUI software
All stations and systems monitor the FEMA CAP Server

EVENTS:
CEM- Civil Emergency
EVI- Immediate Evacuation Emergency
TOE- Telephone Outage Emergency
ADR- Administrative Message
RMT- Required Monthly Test
RWT – Required Weekly Test
DMO – Demonstration Only

DELIVERY: A local relay network. A UHF transmitter on 455.600 MHZ repeated on the skyline tower on 166.25 MHZ

LOCAL PRIMARY STATION(S):
KXL-FM 101.1 MHZ
KOPB-FM 91.5 HHZ

STATE PRIMARY STATIONS(S):
KOPB-FM 91.5 MHZ (Primary Entry Point)

WEATHER RADIO TRANSMITTERS(S):
KIG98 162.550 MHZ

NAME: *The Capitol Operational Area*

AREA: Marion, Polk, Yamhill Counties

CHAIR: Ken Lewetag
17980 Brown Road, Dallas, Oregon 97338
ken@kwvtsalem.com
503-930-7228

ORIGINATORS:
Willamette Valley Communications Center, Salem (WVCC)
Yamhill County Communications Agency, McMinnville (YCOM)
Newport ND Newberg/Dundee 911 (NDD)

IPAWS
Yamhill and Marion County can launch emergency messages through the FEMA Cap Server
All stations and systems monitor the FEMA CAP Server

EVENTS:
CEM- Civil Emergency
EVI- Immediate Evacuation Emergency
TOE- Telephone Outage Emergency
ADR- Administrative Message
RMT- Required Monthly Test
RWT – Required Weekly Test

DELIVERY:

LOCAL PRIMARY STATION(S):
KWVT-TV Channel 17

STATE PRIMARY STATIONS(S):
KOPB-FM 91.5 MHZ (Primary Entry Point)

WEATHER RADIO TRANSMITTERS(S):
WXL-96 162.475 MHZ, Salem

NAME: *The South Valley Operational Area*

AREA: Benton, Lane, and Linn Counties and the Reedsport area of Douglas County

CHAIR: Chris Murray
925 Country Club Rd. Eugene, Oregon 97401
Ichabod@kmge.fm
541-484-9400

ORIGINATORS: The dispatch center of the Lane County Sheriff's Office
MOU's exist with Benton and Linn Counties to launch emergencies for those counties

IPAWS: Lane County can launch emergency messages through the FEMA Cap Server
All stations and systems monitor the FEMA CAP Server

EVENTS:
CEM- Civil Emergency
EVI- Immediate Evacuation Emergency
TOE- Telephone Outage Emergency
ADR- Administrative Message
RMT- Required Monthly Test
RWT – Required Weekly Test

DELIVERY: A local relay network consisting of a 455.600 MHZ transmitter on the roof of the county courthouse. The signal is received directly at the studios of KWAX and KKNU.

LOCAL PRIMARY STATION(S):
LP-1 KKNU-FM 93.3 MHZ, Eugene, 100.9 Florence, 104.1 Oakridge, 92.9 Cottage Grove
LP-2 KWAX-FM 91.1 MHZ, Eugene, 91.5 Florence, 101.9 Cottage Grove

STATE PRIMARY STATIONS(S):
KWAX-FM 91.1 MHZ, Eugene, 91.5 Florence, 101.9 Cottage Grove, KWVZ, 91.5, Florence
KOAC-AM 550 KHZ, Albany, and 103.1 MHZ. Corvallis, satellite of KOPB-FM
KLCC-FM 89.7 MHZ. Eugene, KLFO 81.1, Florence

PEP STATION:
KPNW-AM 1120 KHZ

WEATHER RADIO TRANSMITTERS(S):
KEC-42, 162.400 Eugene
WNG-674, 162.525 Florence
WZ-2509, 162.525 Reedsport
WXL-96, 162.475 Salem

NAME: *Southern Oregon Operational Area*

AREA: Coos, Curry, Douglas, Jackson, Josephine, and Klamath Counties

CHAIR: Karl Sargent
P.O. Box 1489, Medford, Oregon, 97501
ksargent@kobi5.com
541-282-1217 direct

ORIGINATORS: Jackson and Josephine County Emergency Management
A memorandum of understanding between Jackson County and Douglas, Jackson, Josephine, and Klamath Counties facilitates the launching of emergency messages for counties by Jackson County.

IPAWS: Jackson and Josephine Counties can launch emergency messages through the FEMA Cap Server. In addition, Jackson County can launch using the Legacy EAS System (DASDEC).
All stations and systems monitor the FEMA CAP Server

EVENTS:
CEM- Civil Emergency
EVI- Immediate Evacuation Emergency
TOE- Telephone Outage Emergency
ADR- Administrative Message
RMT- Required Monthly Test
RWT – Required Weekly Test

DELIVERY: A local relay network. A UHF transmitter on 455.600 MHZ repeated on the King Mountain on 166.25 MHZ.

LOCAL PRIMARY STATION(S):
KOBI-TV Ch. 5, Medford, Ch. 49, Grants Pass, Ch. 36, Coos Bay, Ch. 8 Port Orford, Ch. 25, Gold Beach, Ch. 7
KOTI-TV, Ch. 13, Klamath Falls
KRSB-FM, 103.1, Roseburg

STATE PRIMARY STATIONS(S):
KOBI-TV Ch. 5, Medford
KOTI-TV Ch. 13, Klamath Falls
KMPQ-FM 88.1, Roseburg

WEATHER RADIO TRANSMITTERS(S):
WWF-97 162.475 MHZ, Ashland
KIX-37, 162.550 MHZ, Brookings
WIX-32, 162.400 MHZ, Coos Bay
WXL-95, 162.550 MHZ, Klamath Falls
WXL-85, 162.400 MHZ, Medford
WNG-596, 162.425 MHZ, Port Orford
WXL-98, 162.550 MHZ, Roseburg

NAME: *Central Oregon Operational Area*

AREA: Deschutes, Crook, Jefferson, Wheeler, Southern Wasco, Lake, Harney, and Northern Klamath Counties

CHAIR: Terry Cowan
P.O. Box 7408, Bend, Oregon 97708
tcowan@knlr.com
541-389-8873 Office

ORIGINATORS:
Deschutes County, Lake County, and Harney County 911 Centers

IPAWS: Counties in this area can launch emergency messages by contacting the Oregon Emergency Response System and have them create the emergency message through the FEMA Cap Server.
All stations and systems monitor the FEMA CAP Server.

EVENTS:
CEM- Civil Emergency
EVI- Immediate Evacuation Emergency
TOE- Telephone Outage Emergency
ADR- Administrative Message
RMT- Required Monthly Test
RWT – Required Weekly Test
VOW- Volcano Warning

DELIVERY: Deschutes County 911 Center delivers the EAS message via a dedicated phone line to KOAB-FM. As a back-up, the 911 Center can call KLRR and have the station staff initiate an emergency message locally. Both Lake County and Harney County emergency managers have a legacy EAS encoders connected to the primary stations via a UHF Radio Links.

LOCAL PRIMARY STATION(S):
LP-1 KLRR-FM 101.7 KHZ, Bend
LP-2 KOAB-FM 91.3 MHZ, Bend (OPB)
LP-1 KYQT-FM, Burns
LP-1 KLCR-FM, 95.3 MHZ, Lakeview

STATE PRIMARY STATIONS(S):
KOAB-FM 91.3 MHZ, Bend (OPB)
KWRX-FM 88.5 MHZ, Redmond (KWAX-FM Network)
KOBN-FM, 90.1 MHZ Burns
KOAP-FM 88.7 MHZ, Lakeview

WEATHER RADIO TRANSMITTERS(S):
WWF-80 162.500 MHZ, Bend
WNG-559 162.550 Fossil

KHB-30 162.475 MHZ, Burns
(No NWS service in Lakeview) Weather Emergencies forwarded by KOBI-TV 7

NAME: *Columbia Gorge Operational Area*

AREA: Hood River, Wasco, Sherman, Gilliam, Klickitat and Skamania Counties, Washington

CHAIR: John Macky
503 706-6506 Cell

ORIGINATORS: Wasco County 911 Center

IPAWS: Counties in this area can launch emergency messages by contacting the Oregon Emergency Response System and have them create the emergency message through the FEMA Cap Server.
All stations and systems monitor the FEMA CAP Server.

EVENTS:
CEM- Civil Emergency
EVI- Immediate Evacuation Emergency
TOE- Telephone Outage Emergency
ADR- Administrative Message
RMT- Required Monthly Test
RWT – Required Weekly Test

DELIVERY: A UHF Radio Link on 455.600 MHZ connects the Wasco County Courthouse
To the Local Primary Station, KMSW-FM

LOCAL PRIMARY STATION(S):
KMSW-FM, 92.7 MHZ, The Dalles, 102.9 MHZ, Hood River

STATE PRIMARY STATIONS(S):
KHRV-FM, 90.1 MHZ, Hood River, OPB Radio Network
KOTD, 89.7 MHZ, The Dalles, OPB Radio Network

WEATHER RADIO TRANSMITTERS(S):
WXM-34, 162.400 MHZ, The Dalles
WNG559, 162.550 MHZ. Fossil

NAME: *Eastern Oregon Operational Area*

AREA: Morrow, Umatilla, Union, Wallowa, Grant, and Baker Counties

CHAIR: Randy Mckone,
541-786- 5223
randy@elkhornmediagroup.com

ORIGINATORS: Within the counties of the Eastern Oregon Operational Areas, there isn't any county that has the ability to generate a local emergency message. To launch an emergency message using the legacy EAS system, a local emergency manager would need to contact the local primary station in that county and has the station's staff create the message manually.

IPAWS: Counties in this area can launch emergency messages by contacting the Oregon Emergency Response System and have them create the emergency message through the FEMA Cap Server.
All stations and systems monitor the FEMA CAP Server.

EVENTS:
CEM- Civil Emergency
EVI- Immediate Evacuation Emergency
TOE- Telephone Outage Emergency
ADR- Administrative Message
RMT- Required Monthly Test
RWT – Required Weekly Test

DELIVERY: There are no local emergency delivery systems employed in this area.

LOCAL PRIMARY STATION(S): Due to the remote nature and sparse population of the Eastern Oregon Area there lacks a station that would have the ability to serve all five counties and act as a local primary. Therefore separate primaries are used for Grant and Wallowa Counties.

LP-1 KCMB-FM 104.7 MHZ, Baker City, Baker, Morrow, Umatilla and Union Counties:, 541-963-3405
LP-1 KJDY-FM, 94.5 MHZ, John Day, Grant County, 541-575-1185
LP-1 KWVR-FM, 92.1 MHZ Wallowa County:, Enterprise, 541-426-7477
LP-1 KUMA-AM 1230 KHZ. Umatilla County, Pendleton.

PEP STATION
KBOI-AM 670, Boise Idaho
STATE PRIMARY STATIONS(S):
KOBK-FM 88.9 MHZ, Baker City, OPB Radio network, Also Monitors KBOI-AM 690, Boise, PEP Station
KOJD-FM 89.7 MHZ, John Day, OPB Radio Network, KRBM-FM 90.9 MHZ, Pendleton, OPB Radio Network
KTVR 90.3 MHZ, LaGrande, OPB Radio Network, KETP 88.7, Enterprise, OPB Radio Network
WEATHER RADIO TRANSMITTERS(S):
WXK-68, 162.550 MHZ, Boise (Baker Co.), WXL-95, 162.400 MHZ, Pendleton (Umatilla, Union, Wallowa,
WHG-560, 162.500 MHZ, John Day (Grant), WWH28, 162.425, MHZ. Heppner, WWH27, 162.425 MHZ.
Plymouth

NAME: *North Coast Operational Area*

AREA: Lincoln and Tillamook Counties

CHAIR: Ernie Hopsaker,
Bedrock02@earthlink.net
503-930-7118

ORIGINATORS: Lincoln County Emergency Management Office.

CAP: Lincoln County can launch emergency messages through the FEMA Cap Server.
All stations and systems monitor the FEMA CAP Server.

EVENTS:
CEM- Civil Emergency
EVI- Immediate Evacuation Emergency
TOE- Telephone Outage Emergency
ADR- Administrative Message
RMT- Required Monthly Test
RWT – Required Weekly Test

DELIVERY: A VHF radio link is established between the Emergency Management Office in Newport and the studios of KYTE-FM

LOCAL PRIMARY STATION(S):
LP-1 KYTE-FM. 102.7 MHZ. Lincoln City
LP-2 KSHL-FM 97.5 MHZ. Lincoln Beach
KTIL-FM 95.9, Bay City

STATE PRIMARY STATIONS(S):
KTMK, Tillamook, 91.1 OPB Radio Network
KWAX-FM 91.3 Toledo, KWAX-FM Radio Network
KLFO-FM-FM 90.5, Newport, KLCC network

WEATHER RADIO TRANSMITTERS(S):
KIH-33 162.550 MHZ., Newport
WWF-95 162.475 Tillamook

NAME: *Clatsop Operational Area*

AREA: Clatsop County

CHAIR: Graham Nystrom,
stationmanager@coastradio.org
503-325-0010

ORIGINATORS: This area does not have an originator. Public safety officials that desire to launch a local emergency legacy EAS message can contact the primary station,

IPAWS: This county can launch emergency messages by contacting the Oregon Emergency Response System and have them create the emergency message through the FEMA Cap Server.
All stations and systems monitor the FEMA CAP Server.

EVENTS:
CEM- Civil Emergency
EVI- Immediate Evacuation Emergency
TOE- Telephone Outage Emergency
ADR- Administrative Message
RMT- Required Monthly Test
RWT – Required Weekly Test

DELIVERY: There are no local emergency delivery systems employed in this area.

LOCAL PRIMARY STATION(S):
KMUN-FM 91.9

STATE PRIMARY STATIONS(S):
KOAC-FM, 89.7 (Primary Entry Point)

WEATHER RADIO TRANSMITTERS(S):
KEC-91 162.400 MHZ, Astoria
WWF-94 162.425 MHZ, Neahkahnie

TAB 6 THE COMMON ALERTING PROTOCOL.

Common Alerting Protocol

The IPAWS Open Platforms for Emergency Networks (IPAWS-OPEN) collects Common Alerting Protocol (CAP) alerts issued by authorized public officials and distributes them to EAS participants via an EAS CAP feed. The EAS CAP feed is available on the internet and EAS participants *require* an internet connection to poll IPAWS-OPEN.

The IPAWS Profile ensures that CAP data will be compatible with EAS Decoders.

Common Alert Protocol-based networks do not replace, rather strengthen the resiliency of over-the-air methods of monitoring EAS tones.

Likewise, CAP does not replace the existing EAS protocol, compatible with the National Weather Service's Weather Radio Specific Area Message Encoding (SAME) and State and Local analog systems. EAS participants will use CAP-based equipment to translate CAP messages to the EAS protocol and message format. CAP-based equipment consists of stand-alone converters, firmware upgrades to existing encoders/decoders, or newer encoder/decoder models with CAP fully integrated.

LINKS

The following links correspond to the documents below;
Common Alerting Protocol Version 1.2 –
http://docs.oasis-open.org/emergency/cap/v1.2/CAP-v1.2.pdf
Common Alerting Protocol, v1.2 USA Integrated Public Alert and Warning Systems Profile Version 1.0
http://docs.oasis-open.org/emergency/cap/v1.2/ipaws-profile/v1.0/cap-v1....
ECIG Recommendations for CAP EAS Implementation Guide
http://www.eas-cap.org/ECIG-CAP-to-EAS_Implementation_Guide-V1-0.pdf

Benefits of CAP

- CAP alerts are transmitted in digital format; therefore, there is no degradation of quality of the content that may be experienced with analog methods such as radio.
- CAP alerts can be directly available to encoder/decoder equipment within seconds of their creation; therefore, delays or disruptions relating to station-to-station, over-the-air relay are reduced.
- The internet infrastructure has a high level of redundancy and reliability, and may survive when other channels of communication do not.
- In addition to EAS-required data, CAP alerts may carry rich information such as audio, video, geographical-location data, etc., that EAS participants may opt to use for supplemental information to provide to their audiences.

Encoder/Decoder CAP Conformity

To support EAS participants in their selection of CAP-capable encoder/decoder equipment, the IPAWS Conformity Assessment Program tested voluntarily submitted equipment for conformance to CAP 1.2, the IPAWS CAP Profile, and the Emergency Alert System Common Alerting Protocol Industry Group (ECIG). Manufacturers whose equipment successfully passed conformity testing may reference this fact through a Supplier's Declaration of Conformity (SDoC) posted on the Responder Knowledge Base Website (select "IPAWS SDoCs").
http://www.rkb.us/search.cfm/typeid/

FEMA published the Integrated Public Alert and Warning System (IPAWS) Guide for Independent Testing of Emergency Alert System Equipment to describe testing requirements for any Independent Testing Authority (ITA) who wishes to provide testing services for the manufacturers of EAS decoder equipment for purposes of meeting FCC equipment certification requirements.

Private sector manufacturers and system developers may continue to submit their products to the Supporting Technology Evaluation Program (STEP) for conformance testing. See the Preparedness-Technology, Analysis, and Coordination (P-TAC) Center Website for additional information.
www.ptaccenter.org/step/index

To support EAS participants in their selection of CAP-capable encoder/decoder equipment, the IPAWS Conformity Assessment Program tested voluntarily submitted equipment for conformance to CAP 1.2, the IPAWS CAP Profile, and the Emergency Alert System Common Alerting Protocol Industry Group (ECIG). Manufacturers whose equipment successfully passed conformity testing may reference this fact through a Supplier's Declaration of Conformity (SDoC) posted on the Responder Knowledge Base Website (select "IPAWS SDoCs").
http://www.rkb.us/search.cfm/typeid/

MONITORING IPAWS-OPEN

The IPAWS Program Management Office (PMO) released the information necessary to allow CAP compatible EAS equipment to poll the **IPAWS-OPEN** system. Once equipment manufacturers update and release their firmware for this new system, EAS participants will be able to enter the following URL, **https://apps.fema.gov/**, into encoder/decoder devices. However, please note that CAP-compatible EAS equipment manufacturers must first provide firmware updates before message polling will work. EAS participants should check their equipment manufacturer's web sites for information on when these software updates will be available

TESTING with IPAWS-OPEN

FEMA generates, processes, and serves one CAP message per week for each of the nine local U.S. time zones. This CAP message consists of a Required Weekly Test (RWT) message directed to all states and is issued at 11:00 AM local time each Monday, (for purposes of these exercises, states divided into two time zones are assigned to the time zone that includes the largest area within the state). These log-only RWT messages will serve as non-disruptive internal test messages to provide EAS participants with the opportunity to verify configuration and message connections.

STATE TESTING with IPAWS-OPEN

Oregon Office of Emergency Management in Salem generates, processes, and serves one CAP message per week. This CAP message consists of a Required Weekly Test (RWT) message directed to all of Oregon and is issued at 11:00 AM local time each Thursday. These log-only RWT messages will serve as non-disruptive internal test messages to provide EAS participants with the opportunity to verify configuration and message connections.

TAB 7 GUIDANCE FOR CLASS D-FM, LPFM AND LPTV STATIONS
(Low Power Stations)

1. Equipment Requirements Section 11.11:
   a. LPFM and Class D FM's are not required to employ a two-tone encoder, or an EAS encoder. (see 11.32)
   b. These stations are required to have an EAS decoder   and the ability to forward an audio message. (see 11.33)
   c. LPTV stations are not required to employ a two-tone encoder or an EAS encoder. (see 11.32).
   d. These stations are required to employ an EAS decoder and the ability to forward an audio message, and scroll a video message. (see 11.33)
2. Required Messages of Low Power Stations.
   a. Stations are not required to generate a weekly test.
   b. Stations are required to respond to a monthly test within one hour after receipt. Only the script needs to be displayed and the message read over the air and logged.
   c. The header codes and the attention signal do not need to be aired.
   d. The audio of an EAN message is required to be transcribed on the air.
   e. If the president's message cannot be placed on the air the station must cease on air operations until the EAT message is issued.
3. Unattended Operation.
   a. If the LPFM, LPTV, or Class D FM station is operating unattended, where there is not an operator near the EAS equipment during times when an incoming message is received, provisions will be required to forward a monthly test or an EAN message.
   b. The text of the message is still required to be placed on the air.
4. Equipment Limitations.
   a. Of all the of listed equipment type accepted by the FCC to employ a decoder for EAS functions, none have the ability to strip the data bursts and two-tone alerting signal from the incoming EAS message and air just the audio or scroll just the script.   The minimum requirements for Low Power stations operating unattended are hard to achieve.
   b. Therefore, in order for Low Power stations to comply with the rules, the EAS decoder equipment that is type-accepted and available for use would transmit the data bursts and two-tone attention signal. There are exceptions for LPTV Satellite stations.
5. Satellite Stations
   a. Satellite Stations LPTV stations that operate as television broadcast translator stations, as defined in § 74.701(b) of this chapter, are not required to comply with the requirements of this part.
   b. Broadcast stations that operate as satellites or repeaters of a hub station (or common studio or control point, if there is no hub station) and rebroadcast 100% of the programming of the hub station (or common studio or control point) may satisfy the requirements of this rules through the use of a single set of EAS equipment at the hub station (or common studio or control point which does comply with 11.32 AND 11.33.

6. Summary of what messages are required and those that are not.
   a. The president's message must be aired, either by monitoring an LP-1, LP-2 or PEP station on an EAS decoder located in series with the transmitter on the air chain.
   b. Every station in Oregon must monitor the CAP (Common Alerting Protocol) server at FEMA. (apps.fema.gov)

c. Monthly tests must be aired. Either by monitoring an LP-1, LP-2 or PEP station on an EAS decoder located in series with the transmitter's program delivery chain.
d. Weekly Tests are not required.
e. Local Emergency Messages from civil authorities and the National Weather Service are not required. However at the discretion of the local broadcasters, these messages can be forwarded.
f. LPTV stations that operate as a translator of a hub station must air the EAS messages received by that local station or control point. The president's message will still be forwarded and a monthly test aired by the local hub station or control point will be aired. Monthly tests will usually only contain a script that explains the purpose of the EAS system. The monthly message will still be delivered via another source.

TAB 8
LISTING OF COORDINATED FREQUENCIES

To facilitate the establishment of local radio networks (LRN), the following is a list of frequencies that are coordinated statewide for the development and use for local relay networks. They are all in the RPU band of frequencies listed in part 74 of the FCC rules. They are designed as secondary services for broadcaster, and can be licensed as that to a station license. We are currently operating on these frequencies under the 720 hour rule whicjh permits temporary use as long as the frequencies are coordinated and shared.

166.2500 is the one VHF frequency used for repeater use.
450.6000 is used normally as a down link.
455.6000 is used normally as an uplink.

The bandwidth is set to 5KHZ. with 3.5 KHZ. deviation being full modulation.

Some repeaters such as the Portland area LRN, will transmit 24/7. This repeater is licensed as a secondary service to KOBP-FM, Portland.

TAB 9, List of Contract Engineers

The following table is a list of currently available contract engineers. These persons can be hired by counties to perform programming and technical repairs to EAS Encoders employed in the public safety communities.

They are available, and it is understood that billing cannot exceed $100.00 per hour. Travel time not to exceed $0.8 per mile.

Engineer	Home Base	Areas Covered	Cell Phone Number
James Boyd Boyd's Broadcast Technical	Portland	Oregon	503-703-8360
Tom Woods Woods Communications	Eugene	Douglas, Lane, Linn, Benton, Central Oregon, Klamath Clatsop to Coos Bay	541-513-0716
John Mackie	Portland	Western Oregon Gorge	503-706-6506
Paul Bjornstad	Eugene	Willamette Valley Central Oregon Coast Central Oregon	541-515-8253
Robin O'Kelly	Marcola	Yamhill to Douglas Newport to Coos Bay	541-214-0681
Dan Ebnother	Medford	Medford Area	541-890-2031
Terry Cowen	Bend	Central Oregon Counties	541-389-8873