State of Alaska
Emergency Alert System Plan
Second Edition

As Of 5/15/03

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I. INTENT AND PURPOSE OF THIS PLAN

This Plan is the Federal Communications Commission (FCC) mandated document outlining the organization and implementation of the State of Alaska Emergency Alert System (EAS). It is the guideline for Alaska broadcasters, cable television operators, state and local entities authorized to use the EAS (as listed in Appendix A) to determine:

- Mandated and optional monitoring assignments;
- Codes to be used in the EAS Header sequence;
- Schedule of the Required Monthly Tests (RMTs) which must be relayed by all broadcasters and cable operators;
- National Weather Service (NWS)/National Oceanic Atmospheric Administration (NOAA) Weather Radio (NWR) participation; and
- Any other elements of the EAS which are unique to this state.

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. All references located within brackets in the following text refer to the aforementioned FCC Rules Part 11.

EMERGENCY SERVICE PERSONNEL NOTE:

A WORD OF CAUTION: The Emergency Management/Services community has acquired a valuable new tool in gaining direct access to all area broadcasters and subject cable operators via the EAS. However, **if not used prudently, you put yourself in danger of losing this tool. Broadcasters and cable operators are expecting the EAS to be used only for very serious emergencies**. Keep in mind two things. First, some broadcasters and cable operators have their EAS decoders set on Automatic Mode. There will be no one there to screen your message and decide if it should be aired. They are depending on you to **send an EAS Alert only for a very serious emergency**. The first time you trigger the system for a frivolous event, you will **lose** the confidence of your area broadcasters and cable operators. The second thing to remember is that broadcasters and cable operators participate in the local level EAS on a **voluntary** basis. No one can force them to carry out your EAS Alerts. Maintain a good relationship with your local broadcasters and cable operators, and they will come through for you in a crisis.

II. THE NATIONAL, STATE AND LOCAL EMERGENCY ALERT SYSTEM: PARTICIPATION AND PRIORITIES

A. *National Emergency Alert System Participation*

All broadcasters and subject cable operators are required to participate in the National-level EAS. Participating National (PN) stations and cable operators will carry the Presidential message; Non-Participating National (NN) stations will make an announcement and sign off. In addition, all broadcasters and subject cable operators must

transmit a Required Weekly Test (RWT). In addition, once a month broadcasters must re-transmit a Required Monthly Test (RMT) within 60 minutes of their EAS decoder receiving it. These actions are required of all broadcasters and subject cable operators, regardless of their "PN" or "NN" EAS status.

B. *State/Local Emergency Alert System Participation*

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. Stations designated "NN" (Non-Participating National) may participate in the State and/or Local Area EAS without any prior FCC approval even though they elect not to carry National EAS Alerts.

C. *Conditions of Emergency Alert System Participation*

Participation in this Plan shall not be deemed to prohibit broadcast licensees 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 [11.54d].

D. *Emergency Alert System Priorities*

EAS Priorities as set forth in the FCC rules [11.44] are as listed in Table 1.

Table 1. Emergency Alert System Priorities

Priority Level	Priority
First	National Level EAS Messages
Second	Local Area EAS Messages
Third	State EAS Messages
Fourth	Messages from the National Information Center (NIC)

Messages from the National Information Center are follow-up messages sent after a national EAS activation.

III. THE STATE OF ALASKA EMERGENCY COMMUNICATIONS COMMITTEE

The responsibility of administering this Plan rests with the members of the Alaska State Emergency Communications Committee (SECC). The FCC appoints the SECC Chairpersons. SECC members include the Chairpersons of the Local Emergency Communications Committees (LECC) and other voluntary members appointed by the SECC. Refer to Appendix B for a listing of SECC members.

IV. ORGANIZATION AND CONCEPTS OF THE ALASKA STATE EMERGENCY ALERT SYSTEM

All broadcast and cable systems will have a designation under the EAS plan. The new EAS system requires a network of points of access for EAS messages, with each EAS participant able to reach at least one access point for EAS alerts. Therefore, the State of Alaska is divided up into State Operational Areas. Refer to Appendix C for a map of the State Operational Areas.

A. *Emergency Alert System Designations*

Every broadcast station and subject cable system will be assigned an EAS designation status, as shown in Table 2.

Table 2. EAS Designation Definitions

EAS Designation	Full Title	Definition
NP	National Primary	A source of national EAS alerts
SRN	State Relay Network	A State-operated radio and telephone system which originates from the State Emergency Coordination Center. The SRN system is a primary source of State EAS messages.
LP	Local Primary	Broadcast stations which are primary sources of local area, national, and State weather/flood warnings, tsunami warnings and/or watches. Alaska State LP stations are listed in Appendix D of this Plan.
PN	Participating National	Broadcast stations and cable systems which deliver all levels of EAS to the general public. Most broadcasters and cable operators are designated as "PN."
NN	Non-participating National	Broadcasters which have elected not to participate in the national level EAS. These stations must have specific authorization from the FCC to sign off the air during a national emergency.

B. *Delivery Plan*

The SECC is required by the FCC to develop an EAS message delivery plan which will provide a minimum of two sources for all levels of EAS alerts to each broadcast station and subject cable system. However, due to the unique difficulties faced by the State of Alaska due to lack of infrastructure, it may not be possible in all cases for each station to have two sources to monitor. The SECC shall provide two sources whenever feasible, and locate new sources when they become available.

Monitoring assignments for all broadcast stations and subject cable systems in Alaska State are included in this plan. Refer to Appendix D for a listing of the State of Alaska monitoring assignments.

C. *Development of Local Emergency Alert System Structure and Plans*

A basic EAS system would have at least one point of access for all authorized agencies within a local operational area. This point would consist of an EAS encoder and a communication link capable of sending EAS information to an LP station.

LP stations will operate their encoders in the automatic mode at all times.

Local operational area plans should be written to detail the structure and procedures for each local operational area. As changes are made in local EAS structure and procedure, the local operational area plans should be revised to reflect those changes.

The initial plans and all revisions are to be submitted by LECC chairpersons for inclusion in this state plan.

A local area plan template is provided within to assist local operational areas in developing their local plan. See Appendix E for the Local Area Plan Template.

D. *Origins of Emergency Alert System Information*

1. *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. This notification is distributed to the nation via one method:

- The network of PRIMARY ENTRY POINT (PEP) AM broadcast stations. The PEP station in the State of Alaska is KFQD Anchorage.

See Appendix F for a detailed description of the National-level EAS system.

2. *State-Level System*

The Statewide Activation of EAS is as depicted in Appendix G. The primary statewide EAS Activation Point (EAS-AP) is the State Emergency Coordination Center, Building 49000, Fort Richardson, Alaska. The Department of Military and Veterans Affairs, Division of Emergency Services (DES) is the primary agency responsible for Statewide activation of EAS. Although DES is responsible for the statewide activation of EAS, other Federal and State agencies may activate EAS based upon their statutory and regulatory requirements. DES will author and enter into Memorandums of Understanding (MOUs) on a case-by-case basis with these agencies. MOUs written in support of statewide activation of the EAS Plan will become part of the State of Alaska Emergency

Alert System Plan when signed by DES and those agencies. A copy of the MOU will be forwarded to the Chair of the SECC within 10 working days of its completion.

3. *National Weather Service Distribution*

NOAA/NWS operate NOAA Weather Radio stations at select locations in the state. These facilities transmit Weather/Flood Warnings, and Tsunami Warnings and/or Watches, and other emergency information to broadcast stations and cable systems as well as to the general public. They also perform a required weekly test. See Appendix H for the NOAA/NWS Information and Map.

V. AUTHENTICATION

A. ***National***

Per FCC public notice (http://www.fcc.gov/mmb/asd/decdoc/letter/1998--09--03--eas2.html) the authenticator code list is no longer distributed by the FCC, and is no longer required.

B. ***State***

A statewide activation of the EAS involves operating equipment located at various locations throughout the State as delineated in Appendix G. Responsibilities and guidance associated with the Statewide activation of the EAS are contained in Federal Emergency Management Agency Civil Preparedness Guides (CPGs) 1-40 and 1-41. Specific guidance and authorizations for the activation of the State of Alaska Emergency Alert System are as outlined in Appendix I.

C. ***Local***

Each local operational area has included authentication procedures within their plans. Consult the local operational plan for your area for specific instructions.

VI. EMERGENCY ALERT SYSTEM PROTOCOL

EAS activations (tests or alerts) will consist of up to four elements:

- A header code (mandatory);
- An attention signal (optional);
- An aural message (optional); and
- An end of message code (mandatory).

A. ***Header Code***

All EAS activations will include a header code data burst. The header code will be sent three times, with a one-second pause after each transmission, to ensure proper reception by EAS decoders.

EAS header codes consist of the following elements sent in the sequence shown in Table 3.

Table 3. Header Code Sequence

Header Code Sequence	Header Code	Name of Code	Definition
First	Preamble	N/A	Clears the system. The preamble is automatically sent by the EAS encoder.
Second	ZCZC	Start Code	An identifier which indicates the start of the ASCII code. Automatically sent by the EAS encoder.
Third	ORG	Originator Code	The code describes the type of entity originating an EAS activation. See subsection 1 below.
Fourth	EEE	Event Code	This code describes the type of event that has occurred. See subsection 2 below.
Fifth	PSSCCC	Location Code	This code identifies the states, boroughs, municipalities and unincorporated areas affected by the EAS alert. See subsection 3 below.
Sixth	TTTT	Duration Code	This code defines how long the alert is expected to be in effect. See subsection 4 below.
Seventh	JJJHHMM	Date and Time of Day Code	Date and time of day the EAS was activated. See subsection 5 below.
Eighth	LLLLLLLL	Encoder Identifier Code	This code identifies the specific entity originating the EAS alert. See subsection 6 below.

1. *Originator Code*

The user programs their originator code (ORG) into the EAS encoder at initial setup. The valid originator codes are given in Table 4 [11.31d]:

Table 4. EAS Originator Codes

Originator Code	Definition
EAN	Emergency Action Notification Network

PEP	Primary Entry Point System
WXR	National Weather Service
CIV	Civil Authorities
EAS	Broadcast Station or Cable System

2. *Event Code*

The Event Code (EEE) must be programmed into the encoder by the originator for each activation. In some cases, such as tests, the encoder may use a macro function that assigns the event code, causing it to appear that no event code was specified.

The Event Codes listed in Appendix J have been approved by the FCC for EAS use in Alaska [11.31e]. Only those codes approved by the FCC may be used. Any agency that desires to use a code not on the list of approved event codes must submit the proposed code to the SECC for approval. If the SECC agrees with the need for a new code the request will be sent to the FCC for approval by a consortium of the FCC, FEMA, and NWS officials. Once the code is approved it will be added to the "master list" of event codes. Eventually the FCC will update the Part 11 rules to include the new code.

3. *Location Code*

The location code (PSSCCC) must be programmed by the alert originator each time an alert is sent. Note that in some cases, such as tests, the encoder may use a macro function that assigns the location code, causing it to appear that no location code was specified.

EAS location codes are based on FIPS (Federal Information Processing System) codes [11.31c]. Each state has been assigned a number and each county in each state has been assigned a number. The combination of the state number and the county number gives each county in the entire country a unique identification number. This makes up the "SSCCC" portion of the EAS location code. An additional digit has been added at the head of the FIPS code to make up the EAS location code. This digit, represented by the "P", further defines the location described by the FIPS code, allowing each county to be broken down into nine smaller areas (see Appendix K). The boundaries of the smaller areas are determined by the State Division of Emergency Services in cooperation with local emergency management authorities and the National Weather Service.

The FIPS code for the State of Alaska is 02. Table 5 gives some example EAS location codes for areas in Alaska.

Table 5. Example Location Codes

Location	Location Code
Ambler	02188

Haines	02100
Mountain Village	02270
Port Alsworth	02164
Sishmaref	02180
Yakutat	02282

4. Duration Code

The duration code (TTTT) must be determined by the alert originator each time an alert is sent.

Valid durations can be entered in 15 minutes segments for time periods of less than one hour, and in 30 minute segments for time periods exceeding an hour. Example duration codes are shown in Table 6 below.

Table 6. Example Duration Codes

Duration Code	Duration
0015	Fifteen minutes
0030	Thirty minutes
0045	Forty-five minutes
0100	One hour
0230	Two hours thirty minutes
0400	Four hours

5. *Date and Time of Day Code*

The Date and Time of Day Code (JJJHHMMM) is based on a Julian calendar and is sent automatically by the EAS encoder. The duration of the event is calculated as starting from this time.

6. *Encoder Identifier Code*

The Encoder Identifier Code (LLLLLLLL) identifies the broadcaster, cable operator, Weather Service office, civil authority or industrial plant that operated the encoder that transmitted or retransmitted the activation. The information is programmed into the encoder at initial setup and is automatically added to the EAS header by the encoder.

Table 7 lists the formats for the mandatory "L-Codes" for various organizations and agencies.

Table 7. Encoder Identifier Code Formats

Activation Entity	Identifier Code	Example
Broadcasters	Station call letters. For two stations	Single Station: KXXX (FM)

	give both stations' call letters in sequence (as shown in example). For three or more stations, the call letters of one station is sufficient.	Two Stations: KXXXKYYY
Cable Television	Six-digit FCC Cable ID Number	XXXXXX
Weather Service Offices	Use the station call sign (PXXX) followed by /NWS	PXXX/NWS
Civil Authorities	L-Codes for civil authorities will be constructed using the initials of the civil agency. For Local Activation please refer to local plans.	Alaska Division of Emergency Services: ADES
Military Groups	As given in examples.	Army: USARMY Navy: USNAVY Air Force: AIRFORCE Marine Corps: USMC Coast Guard: USCG

B. *Attention Signal*

Following the header code, a two-tone attention signal may be used to alert listeners and viewers that an EAS activation has occurred and that an aural message will follow. The attention signal should be used if, and **only if**, an aural message will be included as part of the alert. All NWS RWT and designated warnings will use the 1050HZ-tone alarm.

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. Use of the two-tone attention signal and an aural message will be determined by the originator of the alert; they are not required, but if one is used the other must accompany it. It is not required for state and local alerts [11.51b].

C. *Aural Message*

An EAS alert may also include an aural message. EAS decoders are required to have the capability to record and store at least two minutes of audio information [11.33a3i]. The originator may supply an aural message of up to, but not more than, two minutes in length. The aural message will be transmitted following the attention signal. Transmission of the aural message is not required for state and local alerts [11.51b].

D. *End of Message*

In addition, all EAS alerts will contain an end-of-message code burst to indicate the complete reception of the message [11.31c]. The end-of-message code burst is sent three times, as with the header code, to ensure proper reception by EAS decoders. The end of message character string is comprised of four ASCII "N" characters.

E. *Time-Duration and Borough-Location Codes to be used in Testing*

The TIME DURATION used in the EAS header code for all EAS tests shall be 30 MINUTES. The time duration used for the RWT shall be 15 MINUTES.

BOROUGH LOCATION codes used in the EAS header code for EAS tests shall conform to these guidelines:

- SRN Stations: All tests shall use the Location Code for the entire state (02000).

- PN Stations, NN Stations, and Cable Operators: The RMT shall be re-transmitted unchanged, except for the "L-Code". Thus, RMTs will include all boroughs present in the original message. For the RWT performed every week by each PN and NN station, and each cable operator, the borough-location code used shall be the borough for the broadcaster or cable operator's service area. Other boroughs in the station's/system's service area may be added at management discretion.

VII. REQUIRED EMERGENCY ALERT SYSTEM TESTS

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

- LPTV stations that do not originate local programming and TV translators are not required to have EAS equipment.

A. *Required Weekly Test*

1. *Transmission*

All broadcasters, subject cable operators, and the National Weather Service must initiate a required weekly test (RWT) once a week at random days and times except for the week of the RMT test. There are no time-of-day restrictions. This is a 10.5-second test, consisting only of the EAS Header and End-of-Message Codes. The National Weather Service will make this test every Wednesday between the hours of 11:00 a.m. and 3:00 p.m.

2. *Reception*

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.

B. *Required Monthly Test*

1. *Transmission*

Required monthly tests (RMTs) are to be initiated by the State of Alaska DES or the SRN. During the designated week for this test, all other broadcasters and cable operators are to wait for this test and then react as described in (3) below. These tests shall always use the Event Code "RMT".

2. *RMT Scheduling*

A. WEEK AND TIME OF DAY

RMTs shall always occur during the first full Sunday-through Saturday week of the month.

Per guidance contained in 11.61 of CFR the State of Alaska SECC has determined the required monthly tests be as follows due to the high latitude of the State:

- Between 8:30 pm and 8:30 am on even numbered months; and
- Between 8:30 am and 8:30 pm on odd numbered months.

B. RECOMMENDED TIME CONSTRAINTS

Due to the intrusive nature of the RMTs to television broadcasters and cable operators, it is highly recommended that the dates and times of these tests be scheduled at least 6 to 12 months in advance. The State of Alaska Division of Emergency Services and emergency management authorities in the operational areas will be responsible for periodically originating these monthly tests. The advanced cooperation with designated representatives of local operational areas, TV broadcasters, and cable operators. The current RMT schedule will be made available by DES on a web site at www.ak-prepared.com/ctoc/eas.htm

The intent of this section is to acknowledge the potential financial impact of such tests on the television programming of broadcasters and cable operators alike, and to provide a mechanism whereby such tests can be scheduled with input from such affected industries.

3. *Reception and Re-transmission*

All broadcasters and subject cable operators receiving an RMT must re-transmit this test within 30 minutes of receiving it. For daytime-only stations receiving a nighttime RMT, this test must be re-transmitted within 30 minutes of the daytime-only station's sign-on. Transmission of the RMT takes 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. Failing to retransmit the RMT within 30 minutes of its reception is a violation of FCC regulations.

VIII. STATE OF ALASKA EMERGENCY ALERT SYSTEM TEST SCRIPTS AND FORMATS

The following test scripts and formats shall be used by all Alaska broadcasters, cable operators, and emergency agencies when originating EAS tests.

> EAS encoders will perform RWTs and RMTs according to standard EAS protocol once the required information is entered into the device. The exact procedures for programming a test will vary depending upon the manufacturer of the equipment. Consult your operations manual for information specific to your encoder and practice the procedure prior to attempting to perform an actual test.

A. ***Required Weekly Test***

No script is used for the RWT. The entire test takes 10.5 seconds and must be formatted as follows:

- One-second pause;
- Send EAS header;
- One-second pause;
- 1050 hertz attention signal for 10 seconds (NWS only);
- NWS Script (NWS only);
- Send EAS end-of-message code;
- One-second pause; and
- Resume normal programming.

Though standard RWTs are not scripted, RWTs initiated by the National Weather Service (NWS) follow an NWS script.

B. ***Required Monthly Tests***

Originators of the Required Monthly Tests shall use the following format. All other broadcasters and subject cable operators will receive the test in this format and must retransmit it within 30 minutes in the same format.

1. *RMT Format and Script*

- Send the EAS header code
  Use the "RMT" event code
  Use 30-minute duration,
- One second pause;
- Send the tow-tone attention signal for 8 seconds;
- Transmit the following test script:

"**This is a test of the Emergency Alert System and the Alaska Amber Alert System. In the event of an emergency or child abduction, this system would provide important information. This test is now concluded."**

- One second pause; and
- Send EAS end-of-message code.

The RMT script can be read in nine to ten seconds. All other elements the RMT (the header codes, attention signal and end of message codes) take from 19 to 21 seconds to complete, depending on the number of location codes contained in the header. The goal of writing this short test script was to fit the entire test into a 30-second time period. Originators should make every attempt to complete their test within 30 seconds. Pre-recording the script at the length needed to achieve this is highly recommended.

2. *Optional Test Introduction and Wrap-ups*

In addition to the required elements in the RMT format, broadcasters and cable systems may elect to add an optional introduction to the test and/or an optional test wrap-up. When a test is received, the station could run the optional introduction followed by a one-second pause, retransmit the RMT as outlined above, run the test wrap-up, and then return to regular programming.

The content of the introduction and wrap-up is entirely up to the broadcasters and subject cable operators.

An example of an optional test introduction is:

"This station, in cooperation with national, state, and local officials, participates in the Emergency Alert System. The following is an EAS test."

An example of an optional test wrap-up is:

"**For information regarding the Emergency Alert System, contact this station or your local emergency services organization**."

IX. EMERGENCY ALERT SYSTEM STATE AND LOCAL ACTIVATION PROCEDURES

A. ***State Activation Procedures***

- Program EAS encoder with required header information;
- Record audio message; and
- Transmit the EAS message to SRN using established procedures.

B. *Local Area Activation Procedures*

- Program EAS encoder with required header information;
- Record audio message; and
- Transmit the EAS message via the LRN or other communications circuit using established procedures in accordance with Local Operations Area Plans.

X. GUIDANCE FOR ORIGINATORS OF EMERGENCY ALERT SYSTEM ALERTS

Only those entities specifically authorized by the applicable LECC and/or the SECC shall input emergency messages into the EAS system. Those entities are listed in Appendix A.

A. *Guidance for National Weather Service Personnel*

NWS Personnel issue EAS weather messages via NOAA Weather Radio (NWR) using the NOAA-Specific Area Message Encoder (SAME)/EAS Codes. NWS procedures are followed related to transmission of SAME/EAS codes, the NWR 1050 Hz warning alarm, and reading of the weather/flood/tsunami bulletin script.

B. *Guidance for Emergency Management/Services Personnel*

The Emergency Alert System (EAS) is designed so that agencies with an emergency message need transmit that message only once. In order to generate an EAS message, an EAS encoder is required. The encoder is connected to a communications circuit by which local broadcasters and subject cable operators will receive the message simultaneously, enabling them to deliver it to the general public.