THE MARYLAND STATE

EAS

PLAN
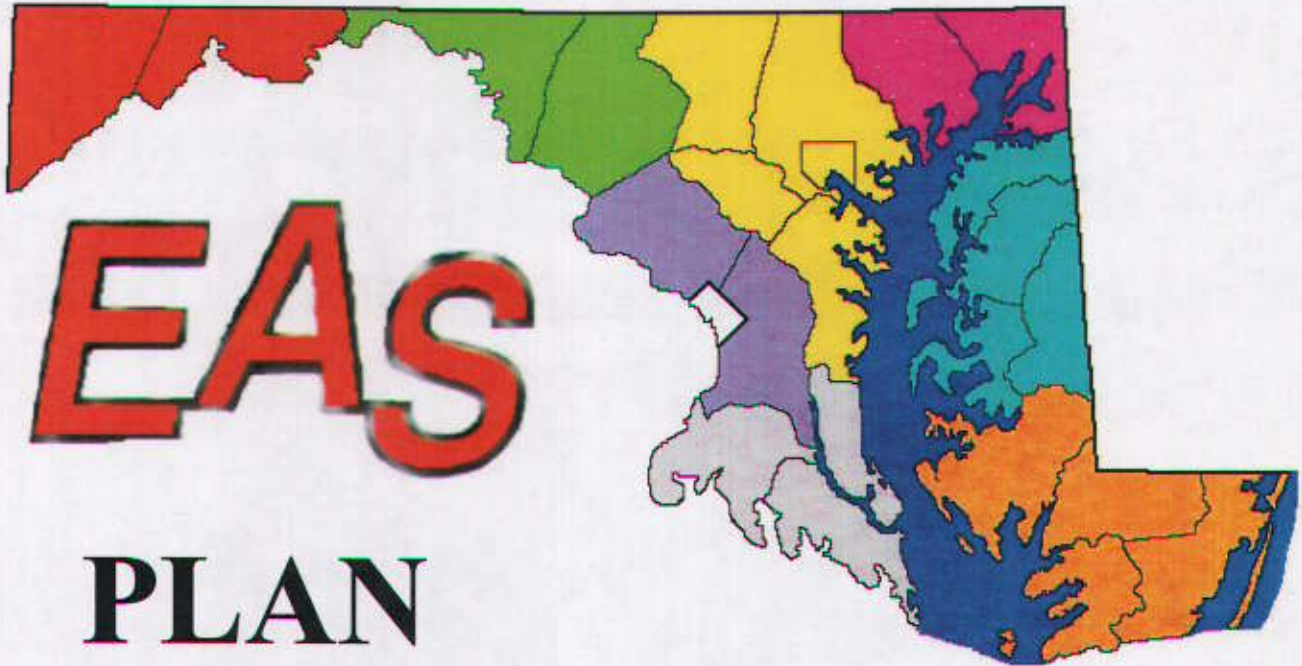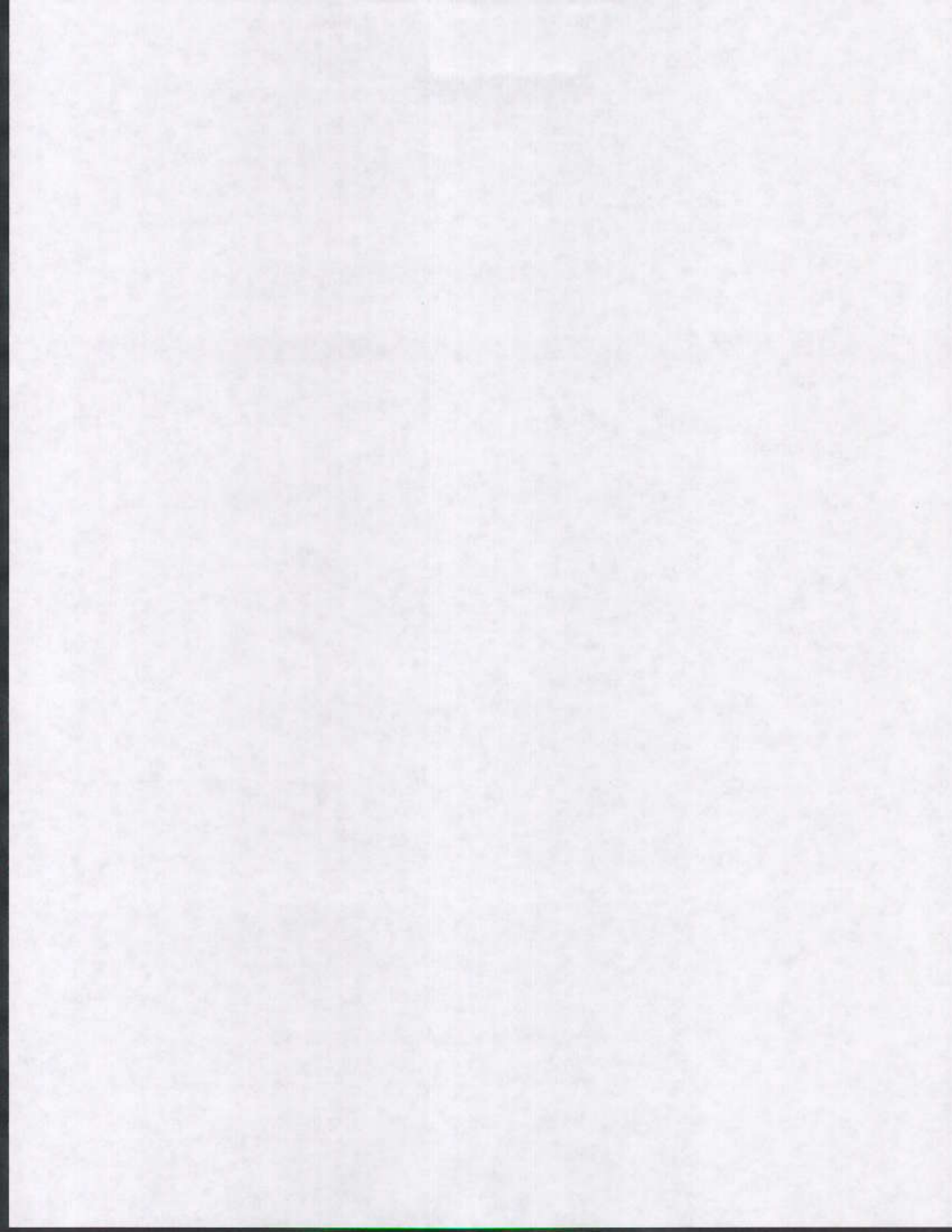
Rules for Activating the Emergency Alert System in Maryland for Broadcasters, Cable Operators, Emergency Managers and Others Concerned with Public Warning.

Maryland State EAS Plan

Annexes -

Annex 01 - LP Monitoring Assignments
Annex 02 - State Relay Network
Annex 03 - NOAA Weather Radio Monitoring Assignments
      Annex 03 Appendix 1 – NOAA MOU for CEMs
Annex 04 - Required Monthly Test Schedule (RMT)
Annex 05 - RMT Test Screipts Approved for Use
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Annex 07 - Local EAS Plan – Local EAS Plan Model
Annex 08 - EAS Events and Maryland Automation Event Settings
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Annex 11 - Terms and Definitions Used in this Plan
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Annex 13 - Members of the Maryland State Emergency Communications Committee

Intent and Purpose of this Plan

Overview

This plan is the FCC-mandated document outlining the organization and implementation of the State of Maryland Emergency Alert System (EAS). It is a guideline for Maryland broadcasters and cable TV operators and determines how to relay emergency information/instructions for emergencies throughout the State. The document details specific procedures for testing, issuing, and disseminating this emergency information.

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. FCC Rules, Part 11, contain the general rules regarding the Emergency Alert System. Stations can download FCC Emergency Alert System (EAS) AM/FM and TV Handbooks and Part 11 rules via the World Wide Web from the FCC's Web Site: http://www.fcc.gov/eb/eas/. The handbook(s) contains basic operational procedures for national, state, and local activations, testing procedures, and script samples that may be used by stations.

Plan Summary

The following sections in this plan covers
- Monitoring assignments for each station/cable operator – Annex 1.
- EAS Header codes ands sequences.
- Required Weekly and Monthly Tests.
    - Local Tests are to be made once weekly, on random days, at random *times*.
    - The once monthly statewide test will be conducted on the last Wednesday of the month. See Annex 4 for the Maryland Statewide once monthly test times. (Also see FCC EAS Handbook).

It is highly recommended that all broadcast stations and cable systems add the National Weather Service's NOAA Weather Radio (NWR) as one of the inputs to their EAS decoder. Please refer to Annex 3 which has a coverage map and list of NWR transmitters, their locations, frequencies, and power.

Please note that Montgomery and Prince George's County stations, which were formerly in the District of Columbia's plan, now monitor two areas, Maryland and the District of Columbia. Those broadcast stations and cable systems will all monitor one DC station assigned by the DC plan with priority given to DC area activations. A second station will be assigned by the Maryland plan.

NATIONAL, STATE, AND LOCAL EAS

Per FCC EAS Rules, the EAS system's notification hierarchy places importance on the message transmitted in this order of priority: National, Local, and State.

National EAS Participation

All broadcasters and cable operators are required by FCC rules to participate in the National-level EAS. In the event of National EAS activation, Participating National ("PN") stations and all cable operators would relay Presidential messages while Non-Participating National ("NN") stations would sign-off after making an announcement to notify listeners/viewers to tune to a local "PN" station for their area.

Part of the National Plan involves weekly and monthly testing of the EAS System. All stations/cable operators must transmit a Required Weekly EAS Test (RWT), and retransmit a Required Monthly Test (RMT) within 1 hour of reception via an EAS decoder.

State/Local EAS Participation

Broadcast and Cable participation in the Maryland State or Local EAS is voluntary. Stations that elect to participate will follow the procedures in this plan.

Conditions of EAS Participation

By participating in this plan, individual broadcast operations do not relinquish their ability to exercise independent action during any situation. These rights and responsibilities are granted to individual licensees per FCC Rules and Regulations. Those who do relay announcements/material from other stations do have all necessary rebroadcast authority per FCC rules and this plan.

National EAS Designations

National Primary (NP) Primary source of all National EAS Alerts.
These stations along with the NWS and State EOC will receive and relay all National level EAS Alerts.

Local Primary (LP-1) Primary source of all local area EAS messages.
They will be relaying National, State, and Weather Alerts. These may also be the input point for Local EAS Alerts. In some areas, due to the size, there may be an LP-2 and LP-3 station to help cover the entire area.

State Primary (SP) is a source of EAS State messages. These messages can originate from the Governor or a designated representative in the State Emergency Operating Center (EOC) or State Capital. Messages are sent via the State Relay Network.

State Relay (SR) Primary source of all State EAS messages.
These stations will receive State level messages from the State EOC and NWS and will also relay all National level messages.[1]

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[1]   Note: This is the official FCC designation and definition. This however has never been the practice in any of the previous MD State EBS or EAS plans. Our present daisy chain uses the LP stations for this function, and the stations with SR designation have performed basically a Local Relay (LR) function for stations too far away to reliably receive one of the LP station's signals for their area. The State Relay function would better be referred to as that of the State Relay Network. See Annex 2.

Participating National (PN): Most broadcasters and cable operators are designated as "PN".

Non-Participating National (NN): Broadcasters who hold an "NN" authorization from the FCC must sign off the air during a National Emergency.

Maryland State Designations -

The following are other terms used in the organization of the Maryland EAS Plan.

Local Relay (LR): A message outlet needed to complete the message chain. Here this refers to a broadcaster who is not an LP station designation, but who is needed to relay messages to a remote location so others further down the daisy chain can receive the messages.

NWS: The National Weather Service (NWS) encodes their alerts using the S.A.M.E. coding method as used by other originators of EAS. NWS will activate EAS through broadcasts over NOAA Weather Radio (NWR). As noted earlier, it is recommended that you monitor the NWR for your local area. See Annex 3 for a list of transmitters and their service areas. NWS will be able to also request EAS activation via EMNet and other wire services and telecommunication methods. (See below and Annex 3 for more information.)

STATE EOC: Maryland Emergency Management Agency. This will be the origination point for messages from the Governor.

Maryland EAS-Specific Information
FCC Mandated Event Codes

The FCC requires that broadcasters and cable operators program their EAS Decoders for the following events:
- o "EAN" (National EAS Activation) - Must be re-transmitted immediately.
- o "EAT" (National EAS Termination) - Must be re-transmitted immediately.
- o "RMT" (Required Monthly Test) - containing your station's County FIPS code or State FIPS Code. Must be re-transmitted within 1 hour of receipt.
- o "RWT" (Required Weekly Test) - containing the county FIPS code for your station's location of received test for that FIPS code area need only be logged. No re-broadcast is necessary.

See Annex 8 for more Event Codes Information

EAS TESTS

Required Weekly Tests
Required Weekly Tests are those transmitted by participating stations per FCC Rules and are beyond the scope of this document.

Note: The NWS transmits a weekly test (RWT) via all NWR transmitters every Wednesday between 11 am and noon. The only exception to this would be if real-time weather alerts are occurring, then no test is conducted.

Required Monthly Tests
The once monthly Statewide test will be conducted on the last Wednesday of the month. For a list of Maryland Statewide once monthly test times, see Annex 4. All Statewide EAS tests must be broadcast by all stations and logged as a received state EAS test.

DAYTIME Only Stations
Daytime only stations receiving an overnight RMT must log the test received in the appropriate manner, and rebroadcast within its valid duration after sign-on. If the time stamp of the RMT has expired, you should log it's receipt and send an RWT in place of the RMT in your first 15 minutes. Daytimers receiving an actual activation overnight must immediately rebroadcast the alert if the time stamp for that emergency is still valid, otherwise, you need only log the event in the appropriate manner that the activation has been received. As with any RWT you receive, daytimers receiving one while off air, need only log the test as received in an appropriate manner.

AUTHORIZED SOURCES FOR ACTIVATING THE EAS
STATE EAS ACTIVATION

Governor, State of Maryland
Director, Maryland Emergency Management Agency
Director's Designee, Maryland Emergency Management Agency

Maryland EAS System Design and Implementation
State activations are designed around the EMNet system which will be rolled-out to participating stations starting in the first quarter of 2004. On May 24, 2004 the Maryland EMnet EAS system became fully operational. The EMnet system serves as another source of emergency information for participating stations. (See Annex 2 for details.)

- o State activations will originate from the State Emergency Operations Center.

- o Selected codes will be preset by each station for automatic activation in the event a station is automated. (See Annex 9 for details.)

- o The system stays basically a daisy chain, however there is the ability for the state to enter the chain at any level. EMnet EAS eliminates the unreliable nature of the over-the-air daisy chain, but the daisy chain is still one of our State Relay system. (See Annex 2 for more details.)

Local Jurisdiction Activation

- o All local emergencies (other than weather alerts) shall be declared only by the local jurisdiction's Emergency Management Agency.

- o Local Jurisdictions will go directly to their local LP Stations and other broadcasters. The State will monitor, but will not interfere or direct a local activation request unless requested by the Local Jurisdiction.

- o Local Jurisdictions are also encouraged to use Maryland Emergency Management EMnet EAS State Relay Network for local activations and emergency messages when necessary. (For additional Local Activation information see the Local Plans in Annex 7.)

NATIONAL WEATHER SERVICE

The National Weather Service (NWS) has the mission of warning the public of impending weather and water hazards. One of the primary methods used by NWS is NOAA Weather Radio (NWR). There are four NWS Offices that service the State of Maryland that will issue watches, warnings, advisories and statements via NWR transmitters across Maryland (See Annex 3 for transmitters and area covered).

While broadcasters may receive all the weather codes listed in Annex 3 (also see Annex 8) only a subset of these codes from the NWS will request EAS activation. The text version of these warning messages say "BULLETIN – EAS ACTIVATION REQUESTED". The NWS requests EAS Activation on all Tornado Warnings (TOR) and Flash Flood Warning (FFW) messages. NWS asks that broadcasters set their equipment to automatically air these messages when stations are in automated mode.

All other coded messages will normally say "IMMEDIATE BROADCAST REQUESTED" in the text version. This is not an EAS activation. Under rare situations where other conditions pose an immediate, life-threatening danger to the public, the NWS may request EAS activation. In these cases, the text message will state "EAS ACTIVATION REQUESTED" and the local LP-1 station may receive a direct call from NWS to alert them of the message or a message/alert through EMnet.

NWS also has an Memorandum of Understanding (MOU) with the State of Maryland to use NWR as an "All Hazards Warning Radio" using the Civil Emergency Message (CEM) event code. Other events will soon be available as the NWR system and State of Maryland MOU is updated. This allows the state and local jurisdictions to contact the NWS to help issue an EAS activation via NWR.

WEATHER EAS ALERTS

National Weather Services will issue weather activations over the NWR and NWWS system. When it becomes possible to arrange, this information will be available via EMnet EAS as well.

SIGNATURES OF ACCEPTANCE

The Maryland State Emergency Alert System (EAS) Plan was developed by the Maryland State Emergency Communications Committee (MD SECC). It was done with assistance of many people, and through the cooperation of the Maryland Emergency Management Agency (MEMA), the Maryland Emergency Management Association, the National Weather Service (NWS), the Maryland AMBER Committee, the Maryland State Police, and the Maryland, District of Columbia, Delaware Broadcasters Association (MDCD). It is accepted and authorized by the following representatives:

For the Maryland State Emergency Communications Committee

Hank Volpe, Co-Chair   Chip Weinman, Co-Chair
MD SECC   MD SECC

For the Maryland Emergency Management Agency and State Association

John W. Droneburg, Director   Fred Webster, Representative
Maryland Emergency Management Agency   MD Emergency Management Association

For the National Weather Service   **For the Maryland Amber Committee**

David R. Manning,   David R. Johnson, Detective Sgt.
Warning Coordination Meteorologist   Technical Investigation Section
National Weather Service   Maryland State Police

For the Federal Communications Commission:

James A. Dailey, Director
Office of Homeland Security
Enforcement Bureau
Federal Communications Commission

2006
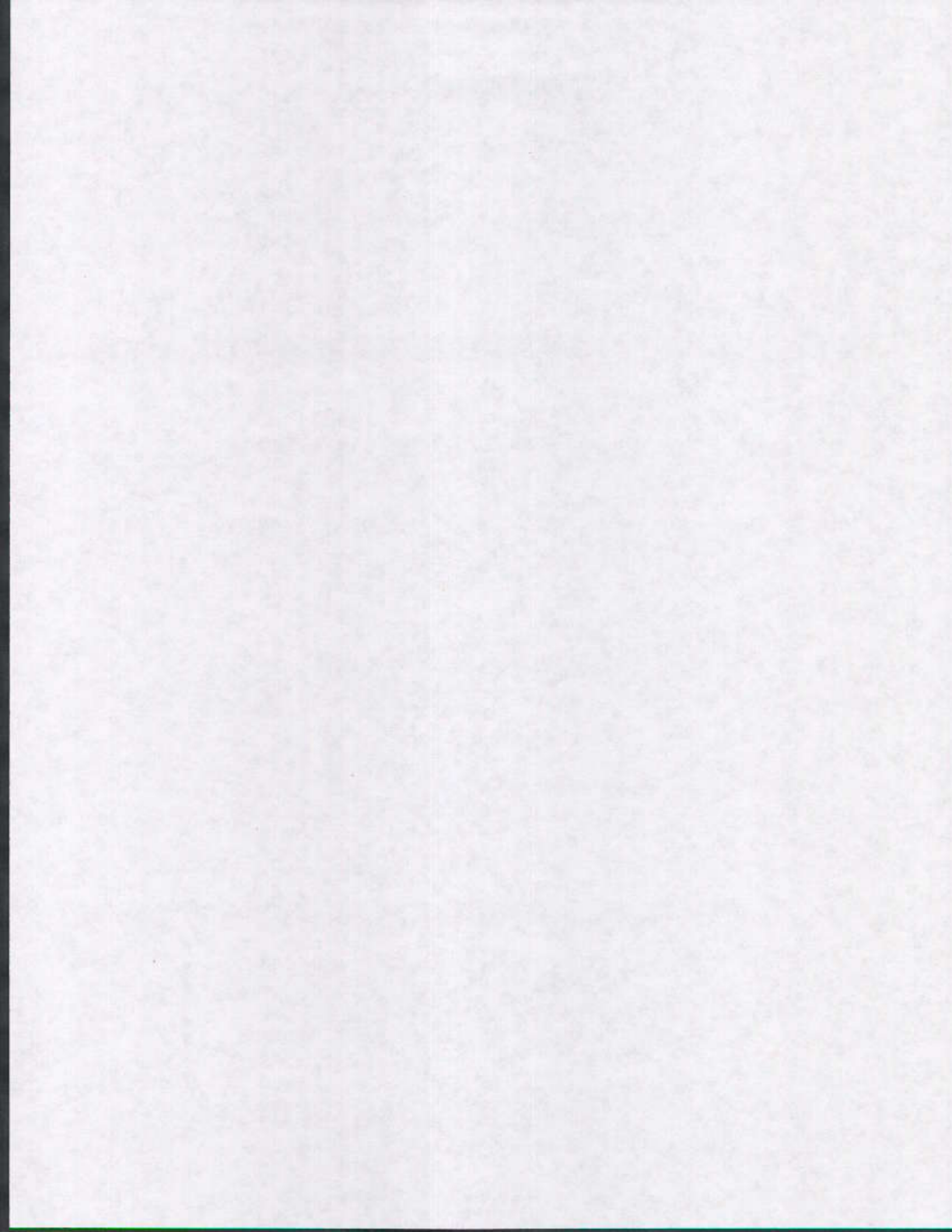
MARYLAND EAS OPERATIONAL AREAS

Map Color Key

Allegany/Garrett EAS Local Area

Frederick/Washington EAS Local Area

Baltimore Metropolitan EAS Local Area

Cecil/Harford EAS Local Area

Upper Eastern Shore EAS Local Area

Lower Eastern Shore EAS Local Area

Southern Maryland EAS Local Area

Washington DC EAS Plan

Maryland Marine Areas
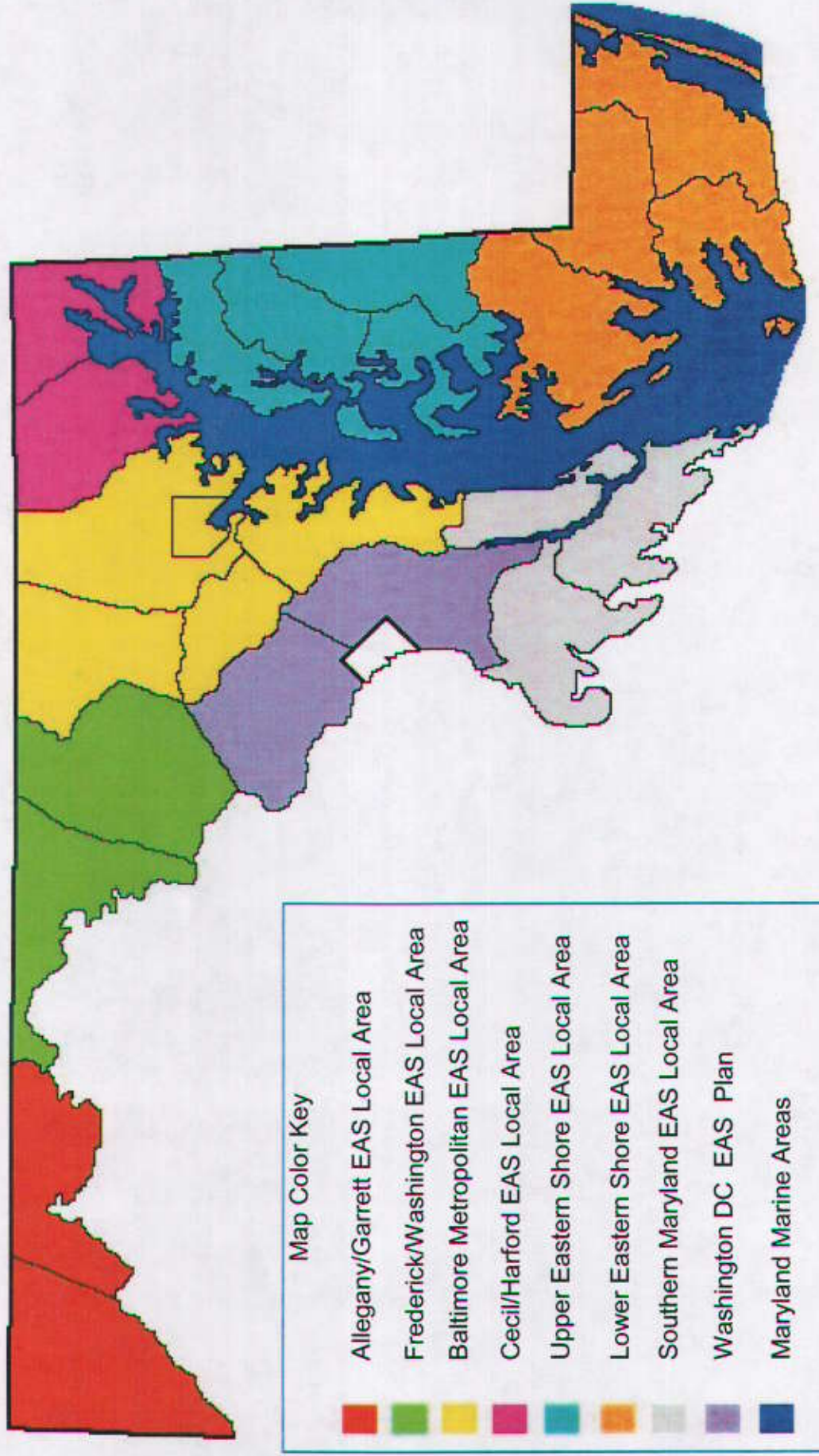
EAS MONITORING ASSIGNMENT GRID

The following grid shows the EAS monitoring assignments for the Local Areas in the State of Maryland. To comply with the FCC requirements found in Part 11, you must monitor two sources that provide EAN coverage, which are designated as LP1 and LP2. If it is not possible to reliably get one of your two LP assignments, you are authorized to monitor the assignment under local relay, another broadcast station upstream that is able to monitor and will send out local EAS events.

Additional sources are available for Local/State EAS Activations and Weather activations. To get these you will need the ability to monitor more than two sources. It might be good to upgrade to at least four or more audio input ports. The third assignment should be the State Relay Network. In fact this is the single most important for local/state activations, but it does not supercede the FCC requirements. The State Relay Network will be available through MD EMnet equipment only and is a satellite connection that will reach all broadcast and Cable systems so equipped simultaneously. Everyone receives all the messages for Maryland, and settings local to your operation determine which ones you will decode and send. The National Weather Service's NOAA Weather Radio is the fourth assignment. It too may provide State and Local alerts as well as Weather information.

MARYLAND EAS MONITORING ASSIGNMENTS						
EAS Operational Area Name:	LP1 (Best Two from different columns Required)	LP2 (Best Two from different columns Required)	LP3 (Best Two from different columns Required)	State Relay Network* (SRN)	National Weather Service	Other Assignment or Local Relay (SR)
Allegany/Garrett	WFRB 560 WFRB-FM 105.3	WTBO 1450 WKGO 106.1		EMnet EAS	NWR	
Baltimore Metro	WBAL 1090 WIYY 97.9	WPOC 93.1		EMnet EAS	NWR	
Cecil/Harford Counties	WXCY 103.7	WHFC 91.1		EMnet EAS	NWR	
Frederick/ Washington Counties	WFMD 930 WFRE 99.9 WAYZ-FM 104.7	WAFY 103.1		EMnet EAS	NWR	WCRH 90.5
Lower Eastern Shore	WQHQ 104.7	WSCL 89.5 WSDL 90.7	WCEM 1240 WCEM 106.3	EMnet EAS	NWR	WOLC 102.5
Southern Maryland	WWZZ 104.1	WMDM-FM 97.7		EMnet EAS	NWR	
Upper Eastern Shore	WEMD 1460 WCEI-FM 96.7	WKHS 90.5		EMnet EAS	NWR	WXCY 103.7
Washington DC Metro EAS Area in Maryland	WPGC 1580 WPGC-FM 95.5	Washington DC Assignment		EMnet EAS	NWR	

*EMnet EAS is the official State EAS Network made available to broadcasters in a multi-part roll out that includes all Maryland LP stations, television stations, county emergency management centers. Until EMnet EAS sources qualify to get LP designations, they will have to be used as a third audio port. At this time, not all broadcasters will get this option. It will include NWWS text coverage as an option, in the future EMnet EAS will carry local weather warnings generated from the NWWS text.

Use the chart above to determine the appropriate monitoring assignments for Cable Outlets and Broadcasters who are not LP stations. If you can not receive one of the three main assignments 24/7 you can use the fifth choice, Local Relay as a replacement. However it is necessary that you be able to receive a minimum of two broadcast signals from the above list for all operating hours of your station to fulfill EAN monitoring requirements. Two of the

black lettered choices are required. They may not be from the same column. The blue lettering is optional if you have the extra ports. Those with EMnet EAS equipment should do their best to get it connected to their EAS Endecs, or be certain to use the EMnet Remote Note Interface.

The chart below is for LP stations to understand their monitoring assignments. Note this is based on the daisy chain relay already established.

LP STATION MONITORING ASSIGNMENTS					
Designation for EAS Operational Area	LP Station Call Sign	EAS Source #1	EAS Source #2	State/Regional Relay Network Source #3	EAS Source #4
Allegany / Garrett LP1	WFRB WFRB-FM	WFMD 930 WFRE 99.9 WAYZ 104.7	WTBO 1450 WKGO 106.1	EMnet EAS	NWR
Allegany / Garrett LP2	WTBO WKGO	WAFY 103.1	WFRB 560 WFRB 105.3	EMnet EAS	NWR
Baltimore Metro LP1 Alt. State Primary 1	WBAL	WTOP 1500	WPOC 93.1	EMnet EAS	NWR
Baltimore Metro LP2 Alt. State Primary 2	WPOC	WBAL 1090 WIYY 97.9	WMAL 630	EMnet EAS	NWR
Cecil/ Harford County LP1	WXCY	WBAL 1090 WIYY 97.9	WHFC 91.1	EMnet EAS	NWR
Cecil/ Harford County LP2	WHFC	WPOC 93.1	WXCY 103.7	EMnet EAS	NWR
Frederick / Washington LP1	WFMD WFRE-FM WAYZ-FM	WBAL 1090 WIYY 97.9	WAFY 103.1	EMnet EAS	NWR
Frederick / Washington LP2	WAFY	WPOC 93.1	WFMD 930 WFRE 99.9 WAYZ-FM 104.7	EMnet EAS	NWR

LP Station Monitoring Assignments (continued)					
Designation for EAS Operational Area	LP Station Call Sign	EAS Source #1	EAS Source #2	State/Regional Relay Network Source #3	EAS Source #4
Southern Maryland LP1	WWZZ	WCEI 96.7	WMDM 97.7	EMnet EAS	NWR
Southern Maryland LP2	WMDM-FM	WHFS 99.1	WWZZ 104.1	EMnet EAS	NWR
Lower Eastern Shore LP1	WQHQ	WCEI 96.7	WCEM 106.3	EMnet EAS	NWR
Lower Eastern Shore LP2	WSCL	WPOC 93.1	WQHQ 104.7	EMnet EAS	NWR
Lower Eastern Shore LP3	WCEM	WBAL 1090 WIYY 97.9 or WCEI 96.7	WSCL 89.5 WSDL 90.7	EMnet EAS	NWR
Upper Eastern Shore LP1	WEMD WCEI-FM	WBAL 1090 WIYY 97.9	WPOC 93.1	EMnet EAS	NWR
Upper Eastern Shore LP2	WKHS	WPOC 93.1	WCEI 96.7 WEMD 1460	EMnet EAS	NWR
Washington DC Metro. In Maryland LP1	WPGC WPGC-FM	WBAL 1090 WIYY 97.9	Washington DC Area LP Assignment	EMnet EAS	NWR

Explanation of the above - All LP stations should have a minimum of four audio input ports monitoring a minimum of four EAS sources. Those listed in the table above are the ones to be monitored. Remember the first two sources are required by the FCC, same as in the past plan.

It is also important here to note that the only legal responsibility that an LP station has is to provide EAN coverage so all local broadcasters will get the EAN message should EAS ever experience a national activation. Carrying EAN is "required" of all broadcasters who are not designated as non participants, the MD SECC is not asking you to do more than what stations have to do anyway.

The State of Maryland is providing EMnet EAS to all LP stations with the understanding that it will used wisely. As EMnet EAS becomes more widely used, all broadcasters become "like LP stations," and able to receive State and Local EAS activations directly. Except for EAN coverage, an LP station designation will not require anything extra that is already in place. Currently, help is needed in getting the local messages out to broadcasters not yet EMnet equipped. If a station is asked to support the Maryland EAS program by serving as an LP Station, it is because the station has a strong broadcast signal and an exceptional broadcast operation that can be heard by the most local broadcasters in the served area. There is no greater public service that a broadcast station can perform than to serve as a Local Primary Station.

If a station has a problem receiving one of the assigned LP stations, station management should contact one of the MD SECC Chairpersons for a revision to this annex to accommodate a new assignment. As LP stations serve as relays to inject an EAN message to non-LP stations in the Maryland EAS network, using an original source for EAN where it is available is best. For this reason NPR stations are often recruited to be an LP as they have access to a connection within their radio network to cover EAN messages. They actually compliment the Primary Entry Point (PEP) network, and provide a separate source of EAN coverage. This is important, should the PEP system ever fail. NPR could essentially carry the EAN message into our EAS network.

It is suggested stations and cable operators monitor as many EAS sources as possible. This is done in an effort to help broadcasters improve EAS in a regional context. (1) Emergency messages by EAS carry across state lines so that all people listening to a station are warned whether or not they are in danger, and (2) listening to another area provides other ways to get the EAN message if the local system fails.   This does not require stations or cable operators to listen to another State's LP signal, a closer station with a stronger signal would probably provide enough coverage so long as they are not designated as "Non Participating."

One other note, a dedicated Land Line connection for Emergency Management to connect directly to a station's EAS Endec, or a Local EAS Radio Network would be a far better monitoring choice for the fourth, (fifth or sixth) input where available. EMnet EAS is capable of providing Weather alerts. Contact one of the MD SECC Chairpersons for assistance in planning and engineering, if need be.

PARTICIPATING STATE/LOCAL PLAN -

Please Note: Under this Maryland State EAS Plan, all broadcasters and cable outlets are considered to be participating members of the State Plan. If for some reason a station or cable operator does not wish to participate, please contact the MD SECC. Communication is important to the success of the Maryland EAS system. Please let the MD SECC know about any problems or concerns with this EAS Plan, Relay Network, and participation to provide fast public warning.

MAP BOOK -
Map Book Note -
The following is based on an FCC list from 2002. The cable companies are not from an FCC List but have been provided by the MD SECC cable representative. If anything has changed please notify the MD SECC whose contact information is found in Annex 12 of the MD EAS Plan.

Maryland EAS MAP BOOK - by EAS Operational Area

ALLEGANY/GARRETT EAS LOCAL AREA
Broadcast Stations -

Callsign	FIPS Code	City of License	Frequency	Facililties	EAS Designation
WCBC	24001	Cumberland	1270	1./5. KW DA-2 U	PN
WKGO	24001	Cumberland	106.1	5.4 KW 430 Meters	LP-2
WNTR	24001	Cumberland	1230	1. KW ND-1U	PN
WROG	24001	Cumberland	102.9	3.5 KW 438 Meters	PN
WTBO	24001	Cumberland	1450	1. KW ND-1U	LP-2
WFRB	24023	Frostburg	560	5. KW ND-D D	LP-1
WFRB-FM	24023	Frostburg	105.3	13.5 KW 292 Meters	LP-1
WFWM	24023	Frostburg	91.9	1.3 KW 434 Meters	NN
WLIC	24023	Frostburg	97.1	.150 KW 413 Meters	PN
WAIJ	24023	Grantsville	90.3	10.0 KW 171 Meters	PN
WKHJ	24023	Mountain Lake Park	104.5	1.5 KW 202 Meters	PN
WGPT	24023	Oakland	CH 36	245 KW 216 Meters	PN
WMSG	24023	Oakland	1050	0.075/1. KW ND-1U	PN
WWHC	24023	Oakland	92.3	1.4 KW 210 Meters	PN
WWPN	24001	Westernport	101.1	0.32 KW 417 Meters	PN

Cable Companies –

Adelphia
Cablevision Communications - Oakland
Charter Communications - Cumberland
Old Town Community Systems – Allegany County
Tele-Media - Barton

Maryland EAS MAP BOOK - by EAS Operational Area

BALTIMORE METROPOLITAN EAS LOCAL AREA
Broadcast Stations -

Call sign	FIPS Code	City of License	Frequency	Facilities	EAS Designation
WBIS	24003	Annapolis	1190	10. KW DA-D D	PN
WFSI	24003	Annapolis	107.9	50.0 KW 152 Meters	PN
WHFS	24003	Annapolis	99.1	50 KW 140 Meters	SR
WMPT	24003	Annapolis	CH 22	5000 KW 265 Meters	PN
WNAV	24003	Annapolis	1430	1./5. KW DA-NU	PN, BSPP
WYRE	24003	Annapolis	810	0.25 KW ND-D D	PN
W63BO	24510	Baltimore	CH 63	6.92 KW Meters	PN
WBAL	24510	Baltimore	1090	50./50. KW DA-NU	NP, LP-1, SP, BSPP
WBAL-TV	24510	Baltimore	CH 11	316 KW 305 Meters	PN
WBFF	24510	Baltimore	CH 45	1290 KW 386 Meters	PN
WBGR	24510	Baltimore	860	0.066/2.5 KW DA-2 U	PN
WBJC	24510	Baltimore	91.5	50. KW 152 meters	PN
WBMD	24510	Baltimore	750	0.73 KW ND-D D	PN
WCAO	24510	Baltimore	600	5. KW DA-1 U	PN, LP-2
WCBM	24510	Baltimore	680	5./10. KW DA-2 U	PN
WEAA	24510	Baltimore	88.9	12.5 KW 67 Meters	PN
WERQ-FM	24510	Baltimore	92.3	37. KW 174 Meters	PN
WUTB	24510	Baltimore	CH 24	1170 KW 326 Meters	PN
WITH	24510	Baltimore	1230	1. KW ND-1 U	PN
WIYY	24510	Baltimore	97.9	13.5 KW 288 Meters	SP, LP-1
WJFK	24510	Baltimore	1300	5./5. KW DA-2 U	PN
WYPR	24510	Baltimore	88.1	10.0 KW 130 Meters	NN
WJZ-TV	25410	Baltimore	CH 13	316 KW 292 Meters	PN
WLIF	25410	Baltimore	101.9	13.5 KW 293 Meters	PN
WMAR-TV	25410	Baltimore	CH 02	100 KW 297 Meters	PN
WMPB	25410	Baltimore	CH 67	1000 KW 250 Meters	PN
WNUV-TV	25410	Baltimore	CH 54	5000 KW 349 Meters	PN
WSMJ	25410	Baltimore	104.3	32. KW 148 Meters	PN
WOLB	25410	Baltimore	1010	0.026/1. KW ND-1 U	PN
WPOC	25410	Baltimore	93.1	16.0 KW 264 Meters	LP-2, SR, SP-2
WRBS	24510	Baltimore	95.1	50 KW 152 Meters	PN
WWIN	24510	Baltimore	1400	1. KW ND-1 U	PN
WWLG	24510	Baltimore	1370	1.5/5. KW DA-2 U	PN
WWMX	24510	Baltimore	106.5	7.4 KW 371 Meters	PN
WXYV	24510	Catonsville	102.7	50. KW 133 Meters	PN
WQSR	24510	Baltimore	102.7	50. KW 133 Meters	BSPP
WJRO	24003	Glen Burnie	1590	1./1/ KW DA-2 U	PN
WWIN-FM	24003	Glen Burnie	95.9	3.00 KW 91 Meters	PN
WNST	24005	Towson	1570	0.237/5. KW ND-1 U	PN
WMJF-LP	24005	Towson	CH 16	1.22 KW Meters	PN
WTMD	25005	Towson	89.7	10.0 KW 72 Meters	PN
WZBA	24013	Westminster	100.7	16.0 KW 262 Meters	PN
WTTR	24013	Westminster	1470	1./1. KW DA-N U	PN

Cable Companies –

Adelphia – Carroll County
Comcast – Anne Arundel County, Baltimore City, Baltimore County, Howard County

Maryland EAS MAP BOOK - by EAS Operational Area
FREDERICK-WASHINGTON EAS LOCAL AREA

Broadcast Stations -

Call sign	FIPS Code	City of License	Frequency	Facilities	EAS Designation
WWVZ	24021	Braddock Heights	103.9	0.38 KW 278 Meters	PN
WTRI	24021	Brunswick	1520	0.5 KW ND-D D	PN
WMTB-FM	24021	Emmitsburg	89.9	0.1 KW 44 Meters	PN
WFMD	24021	Frederick	930	2.5/5. KW DA-2 U	LP-1, BSPP
WFPT	24021	Frederick	CH 62	3160 KW 138 Meters	PN
WFRE	24021	Frederick	99.9	7.9 KW 355 Meters	LP-1
WXTR	24021	Frederick	820	0.43/4.3 KW DA-N U	PN
WARK	24043	Hagerstown	1490	1. KW ND-1 U	PN
WARX	24043	Hagerstown	106.9	9 KW 237 Meters	PN
WETH	24043	Hagerstown	89.1	0.9 KW 408 Meters	PN
WHAG-TV	24043	Hagerstown	CH 25	1350 KW 375 Meters	PN
WJAL	24043	Hagerstown	CH 68	3890 KW 394 Meters	PN
WJEJ	24043	Hagerstown	1240	1. KW ND-1 U	PN, BSPP
WAYZ-FM	24043	Hagerstown	104.7	8.3 KW 420 Meters	LP-1
WWPB	24043	Hagerstown	CH 31	4070 KW 373 Meters	PN
WHAG	24043	Halfway	1410	0.099/1. KW DA-2 U	PN
WDLD	24043	Halfway	96.7	4.8 KW 50 Meters	PN
WAFY	24021	Middletown	103.1	1.0 KW 174 Meters	LP-2
WGOP	24021	Walkersville	700	5. KW DA-D D	PN
WCRH	24043	Williamsport	90.5	10.0 KW 268 Meters	SR
WKMZ	24043	Williamsport	95.9	3.3 KW 91 Meters	PN

Cable Companies –

Adelphia – Frederick County, Washington County
Antietam CATV Hagerstown – Washington County, Hagerstown

Maryland EAS MAP BOOK - by EAS Operational Area

HARFORD / CECIL COUNTY EAS LOCAL AREA
Broadcast Stations –

Callsign	FIPS code	Cityof License	Frequency	Facilities	EAS Designation
WAMD	24025	Aberdeen	970	0.5/0.5 KW DA-2 U	PN
WHFC	24025	Bel Air	91.1	1.10 KW 69 Meters	LP-2
WHRF	24025	Bel Air	1520	0.25 KW ND-D D	PN
WJSS	24025	Havre de Grace	1330	0.5/5. KW DA-N U	PN
WXCY	24025	Havre de Grace	103.7	37 KW 168 Meters	SR, LP-1

Cable Companies –

Clearview CATV – Northern Harford County
Comcast – Harford County

Maryland EAS MAP BOOK - by EAS Operational Area
SOUTHERN MARYLAND EAS LOCAL AREA
Broadcast Stations -

Callsign	FIPS Code	City of License	Frequency	Facilities	EAS Designation
WWGB	24017	Indian Head	1030	50. KW DA-D D	PN
WKIK	24017	LaPlata	1560	1. KW ND-D D	PN
W52AX	24037	Leonardtown	CH 52	1.00 KW Meters	PN
WMDM-FM	24037	Lexington Park	97.7	3.3 KW 91 Meters	LP-2
WPTX	24037	Lexington Park	1690	1./5. KW DA-2 U	PN
WSMD-FM	24037	Mechanicsville Prince	98.3	3.0 KW 100 Meters	PN
WBZS-FM	24009	Frederick	92.7	2.85 KW 145 Meters	PN
WWZZ	24017	Waldorf	104.1	20 KW 244 Meters	LP-1

Cable Companies –

Comcast – Calvert County, Charles County
Gans Multimedia Partnership – North Beach (Calvert County), St. Mary's County

Maryland EAS MAP BOOK - by EAS Operational Area

UPPER EASTERN SHORE EAS LOCAL AREA

Broadcast Stations -

Callsign	FIPS Code	City of License	Frequency	Facilities	EAS Designation
WCTR	24029	Chestertown	1530	0.25 KW ND-D D	PN
WKDI	24011	Denton	840	1. KW DA-D D	PN
WEMD	24041	Easton	1460	0.5/1. KW DA-2 U	LP-1, BSPP
WCEI-FM	24041	Easton	96.7	25.0 KW 78 Meters	LP-1, SR
WOEL-FM	24015	Elkton	89.9	3.00 KW 79 Meters	PN
WXHL	24015	Elkton	1550	0.001/1. KW DA-2 U	PN
WTDK	24011	Federalsburg	107.1	3.9 KW 124 Meters	PN
WRNR-FM	24035	Grasonville	103.1	6.0 KW 100 Meters	PN
WKHS	24029	Worton	90.5	17.5 KW 66 Meters	LP-2

Cable Companies --

Armstrong Utilities – Rising Sun (Cecil County)
Charter – Kent County, Queen Anne's County, Talbot County
Comcast – Cecil County, Caroline County
Easton Utilities – Talbot County

Maryland EAS MAP BOOK - by EAS Operational Area

LOWER EASTERN SHORE EAS LOCAL AREA
Broadcast Stations -

Callsign	FIPS Code	City of License	Frequency	Facilities	EAS Designation
WOCQ	24047	Berlin	103.9	3.00 KW 100 Meters	PN
WBEY	24039	Crisfield	96.9	2.8 KW 123 Meters	PN
WBLP-LP	24047	Ocean City	CH 22	.061 KW 23 Meters	PN
WKHZ	24047	Ocean City	1590	0.5/1. KW Da-2 U	PN
WRAV-LP	24047	Ocean City	CH 08	.297 KW Meters	PN
WRXS	24047	Ocean City	106.9	4.5 KW 117 Meters	PN
WWFG	24047	Ocean City	99.9	38 KW 143 Meters	PN
WQHQ	24045	Ocean City - Salisbury	104.7	33. KW 186 Meters	LP-1
WQJZ	24047	Ocean Pines	97.1	4.6 KW 114 Meters	PN
WDMV	24047	Pocomoke City	540	0.243/0.5 KW ND-1 U	PN
WKHW	24047	Pocomoke City	106.5	1.80 KW 104 Meters	PN
WESM	24039	Princess Anne	91.3	45. KW 91 Meters	PN
WOLC	24039	Princess Anne	102.5	50. KW 152 Meters	SR
WBOC-TV	24045	Salisbury	CH 16	4070 KW 302 Meters	PN
WCPB	24045	Salisbury	CH 28	776 KW 155 Meters	PN
WDIH	24045	Salisbury	90.3	0.38 KW 55 Meters	PN
WICO	24045	Salisbury	1320	0.028/1. KW ND-1 U	PN
WICO-FM	24045	Salisbury	97.5	4.5 KW 91 Meters	PN
WJDY	24045	Salisbury	1470	5. KW DA-D D	PN
WLVW-FM	24045	Salisbury	105.5	2.10 KW 117 Meters	PN
WMDT	24045	Salisbury	CH 47	2190 KW 304 Meters	PN
WSBY-FM	24045	Salisbury	98.9	6.00 KW 99 Meters	PN
WSCL	24045	Salisbury	89.5	33.0 KW 178 Meters	LP-2
WSDL	24047	Ocean City	90.7	18.5. KW 101 Meters	LP-2
WTGM	24045	Salisbury	960	5./5. KW DA-2U	BSPP
WKHI	24045	Fruitland	107.5	18.5 KW 103 Meters	PN
WQMR	24047	Snow Hill	101.1	1.2 KW 149 Meters	PN
WXMD	24047	Pokomoke	92.5	2.95 KW 144 Meters	PN
WCEM	24019	Cambridge	1240	1. KW ND-1 U	LP-3
WCEM-FM	24019	Cambridge	106.3	6.0 KW 99 Meters	LP-3
WAAI	24019	Hurlock	100.9	1.30 KW 153 Meters	PN
WINX-FM	24019	Cambridge	94.3	4.6 KW 110 Meters	PN

Cable Companies –

Charter Communications – Crisfield (Somerset County)
Comcast – Dorchester County, Somerset County, Wicomico County, Worcester County
Mediacom – Worcester County

Maryland EAS MAP BOOK - by EAS Operational Area

Washington DC Metropolitan EAS Local Area
Broadcast Stations -

Callsign	FIPS Code	City of License	Frequency	Facilities	EAS Designation
WARW	24031	Bethesda	94.7	20.5 KW 235 Meters	PN
WMMJ	24031	Bethesda	102.3	2.90 KW 146 Meters	PN
WTNT	24031	Bethesda	570	1./5. KW DA-2U	PN
WMUC-FM	24033	College Park	88.1	.010 KW 1 Meters	PN
WMET	24031	Gaithersburg	1150	0.5/1. KW DA-2 U	PN
WILC	24033	Laurel	900	0.5/1.9 KW DA-2 U	PN
WPGC	24033	Morningside	1580	0.27/50. KW DA-2 U	LP-2
WPGC-FM	24033	Morningside	95.5	50. KW 148 Meters	LP-2
WCTN	24031	Potomac-Cabin John	950	0.047/2.5 KW DA-1 U	PN
WLXE	24031	Rockville	1600	0.5/1. KW DA-N U	PN
WPLC	24031	Silver Spring	1050	0.044/1. KW ND-1 U	NN
WGTS	24031	Takoma Park	91.9	29.5 KW 50 Meters	PN
WACA	24031	Wheaton	1540	5. KW ND-D D	PN

Cable Companies –

Comcast – Montgomery County, Prince Georges County.
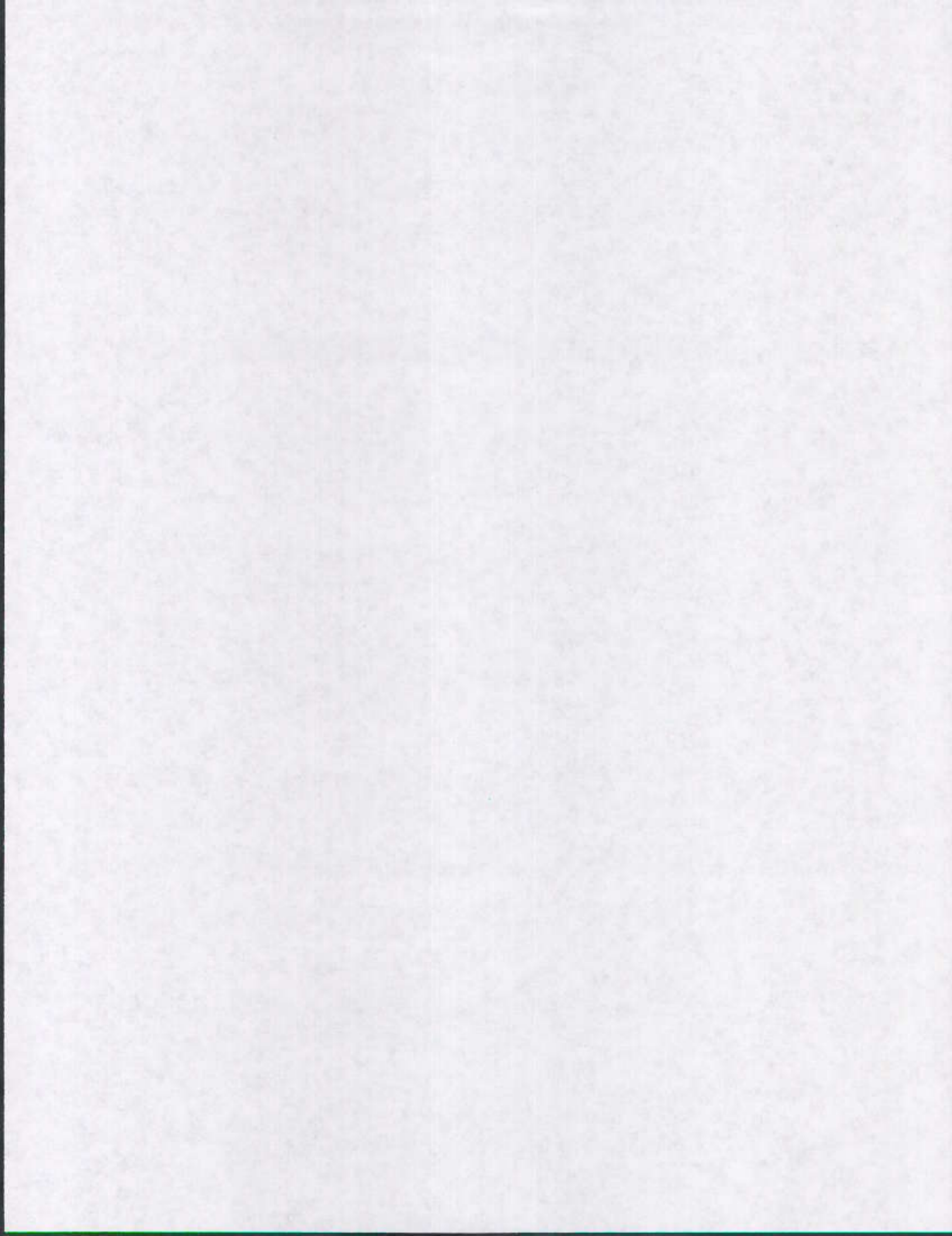
The Maryland State EAS Relay Network

The idea behind the Emergency Alert System is that it be capable of conveying any needed Emergency Warning or message to the public in a fast and efficient method.

In 1997, the Federal Communications Commission (FCC) brought the National Warning System to a new level when it replaced the antiquated Emergency Broadcast System with the new more technologically advanced Emergency Alert System. Here they designed a system full of promise and capable of being used as a way to directly connect Emergency Managers and broadcasters. It was designed to be more easily used when needed, and to free broadcasters of the costs having to maintain a staff presence 24/7 when on air.

The broadcasters were required to have this equipment purchased and installed by January 1, 1997 with cable outlets by various dates after that depending on the size of their service. Since the first day of 1997 when EBS ceased to exist, EAS has had an available base of usable equipment. But while the FCC can control what the broadcast industry does, it can not dictate what other government entities must do. So while one side of the coin was ready; the other side was lagging far behind. For the most part, EAS, like EBS has been reliant upon the old EBS daisy chain relay method.

As if the EBS still existed, Emergency Managers still basically did the same thing. One called the local radio station, gave them the information, and asked that they issue the EAS Alert. Then the broadcast staff would initiate EAS and provide the vocal message. The stations surrounding that broadcast station would receive this message with their EAS equipment and could pass on the alert to their audiences and those further down the line. Or, they could receive the alert and just log its reception without broadcasting it if it did not suit their programming schedule or interests. In that case the message would stop there, the link to other areas would be broken, and many may not hear the message. This is because, one MUST carry an emergency message that EAS legally requires a broadcaster to transmit and that is the EAN Presidential message. That means that State, Local and National Weather Service EAS activations are totally voluntary. So no one can make any broadcast station carry any particular EAS message except for the Presidential EAN. With this said, it is plain to see that we have a problem with two parts of the Emergency Alert System in the local setting. One shows how the messages are initiated, the other shows whether the messages will actually be received and broadcast.

Currently Maryland uses the Daisy Chain Relay method inherited from the old Emergency Broadcast System and still mandated by the new EAS rules. While it can be sometimes seen as unreliable in keeping the message going, Part 11 EAS strives to improve chances that a message will get through to its intended audience when the FCC created a double path or duplicate channel to also carry the message to the broadcaster. **This idea is called redundancy, and it was thought that having multiple sources would benefit the system, because it would double the chances it would be received.** This does work to some extent, but it may require more than two channels to have enough redundancy to carry the emergency message to those who need to be alerted. While

monitoring only two channels for EAS information are required by the FCC, experts agree that a minimum of four channels would work better.

While the daisy chain can be a problem at times and is slow in relaying the messages, it is capable of carrying the message through if everyone forwards the message. Of course, this is just an old radio relay setup. It was a one way, top down system. It lacks some of the things really needed to get the message out more than once, and it lacks a means to know that the message was received. While the current set up for EAS messages meets most of the audio requirements for radio stations, it does not completely fulfill the requirements on video programmers about carrying the message from the alert vocal in a visual form.

It seems that one of the things left out of the EAS rules was a way to transmit the alert's vocal portion in text form in the EAS Alert Encoding. Sure the headings were easy to transpose, but the main portion of the emergency message was only in audible form. Without the ability to send along the alert message text, EAS can not be easily repeated by an announcer, or run as a crawl. Running the alert's headers as text in a video crawl has proven at times to be confusing or even misleading. Try copying down the vocal by hand from your EAS Box, without the aid of a rewind or pause buttons, so the exact message can be repeated by an announcer or used in a video screen or text crawl. You will find it is very time consuming. There has to be a better solution.

What about the Emergency Management side of EAS and its functions? Maryland was better than most; it had bought equipment for each County Emergency Management office to use for EAS activations.   While the counties had equipment, they did not have any connectivity or any guidance to make certain equipment was working properly. Without a final State Plan there could be no Local Plans established, so the connectivity was not really there.

In practice, the only way to get a message out, was to either call broadcasters directly or ask the State Primary broadcasters to begin the message, and hope it made it down to the local level. Would it get there? That too was uncertain.   The FCC rules left the EAS system open ended. There are no required report-back methods, so Emergency Managers are left unsure if the message ever reached the broadcaster or was even carried over the broadcast signal to the public. Besides all this, the daisy chain did not always work. Sometimes some would get and send the message; sometimes no one got it. There has to be a better way, where they can send messages directly from Emergency Management to the broadcasters without the losses caused when the daisy chain fails.

As an unfunded, non-directed program, EAS was left with the remnants from the old EBS setup.   So, EAS has had a struggle to move forward to become a better emergency messaging system. If current EAS equipment breaks or loses contact, unless more than one week (for RWT, individual stations), or a month (for RMT, stations system-wide), go by and no test messages are received, then no one will know. EAS rules require someone to take notice and find out why it stopped working. Of course some endec manufacturers have a few built in safety features, like what some EAS units do if they do not send or receive a test in a seven day period, the unit prints a strip reporting no tests received or sent. Even

with that it a person must take notice and for something to be done about it. Obviously, things must be improved for the future.

Emergency Managers have a job to do. When an emergency happens that will affect many people and there is no time to use conventional methods to inform everyone, they need a fast and reliable system to warn people. They plan. They set up what they should do, how to react, and even what they should say. Emergency Managers and Media Broadcasters want to know that the Emergency Alert System is there when it is needed. One or two radio stations or TV channels may not be enough to get the word out in a world with a wide variety of choices. They need to use a system that can reach those in the area affected no matter what radio or TV station or cable system to which the local people are listening. Only a well planned and engineered EAS system can do this.

What does it take to get a broadcaster to do an EAS message? More and more, broadcast stations are being automated. Radio and TV programming can be run from tape or received from satellite from remote locations, with local advertising and station identification inserted on cue from the remote service automatically. Broadcasters with bigger stations may still be manned 24/7, but staff have more responsibilities, and less time to answer the phone or take on extras. Broadcasters want to be locally involved and perform their community service, so long as it does not cost them time or money. EAS has a federal requirement for EAN, but not for Local or State EAS, or even for weather events. If the broadcaster wants to keep a local audience, they can sell advertising and make money. Broadcasters will support EAS if it is as painless as possible. That is, they will honor EAS requests for the ones they consider important. It is good public service. And, it is a one-time event lasting a maximum of just two minutes. So it is a win-win situation.

What broadcasters do not want is the liability involved in originating EAS alerts. If something should go wrong, they would rather it not have been their fault. If they have their equipment to set up to do it automatically, they would prefer to receive the message and just forward it on to their audience. That way the broadcaster is just a conduit, a source for EAS messages to be heard by those in need of the information. For these reasons the Emergency Managers must be certain to provide a good vocal audio signal that can be directly utilized by the broadcast stations and cable operators.

Fortunately, the leadership in the State of Maryland has recognized the many problems that we now have in our EAS system. Because they want EAS to work for everyone, they have looked at what needs to be done to fix it. Now they want you to know that the future has arrived in Maryland. That future is now with the added redundancy of an emergency messaging system called EMnet EAS or Emergency Managers Network for Emergency Alert System. It greatly improves our State's EAS Relay Network.

We are not replacing the old daisy chain system at this time. <u>You must continue to monitor your local LP assignments</u> to fulfill FCC EAS requirements for EAN coverage. What we are doing is enhancing the system with more redundancy. We are creating an extra channel to receive State and local EAS alerts and messages, that is an enhanced state of the art fully functional and feature packed State Relay System. This is being done now in a partial roll out, with the expectation that all broadcast operations that reach a fairly

Maryland State EAS Relay Network

good sized audience will eventually be included. It will be a big improvement to our current operating Daisy Chain Relay Network. But first you must understand how relay network systems work to appreciate the full impact of this new enhanced State Relay Network.

How State Relay Networks Work

The Old Way came from EBS, it is known as a daisy chain – a simple daisy chain looks much like this.

This way works when one station relays messages to another. Timeline for the above: 18 Minutes. The Daisy Chain is a one direction messaging system. If started locally, those above the start point in the chain do not hear the alert, as they are not monitoring lower stations in the chain. Also the biggest drawback is the dependency of the uplink broadcaster to keep the message flowing. As State, Local, and Weather EAS messages are voluntary, this may not happen.
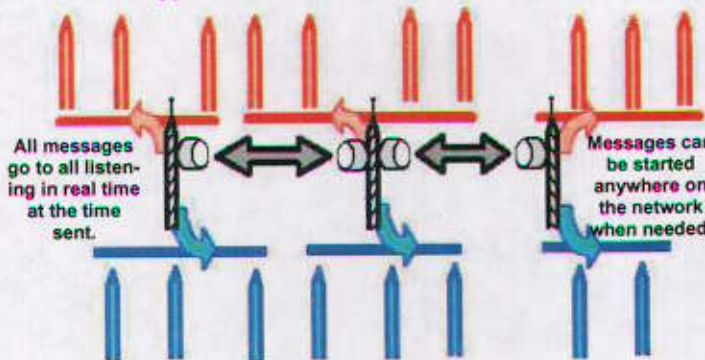
Slightly improved is the method employed by linking to local Primary Stations and having them relay the messages locally. This is currently the setup we use for disseminating EAS messages here in Maryland.

State LP1

State LP2
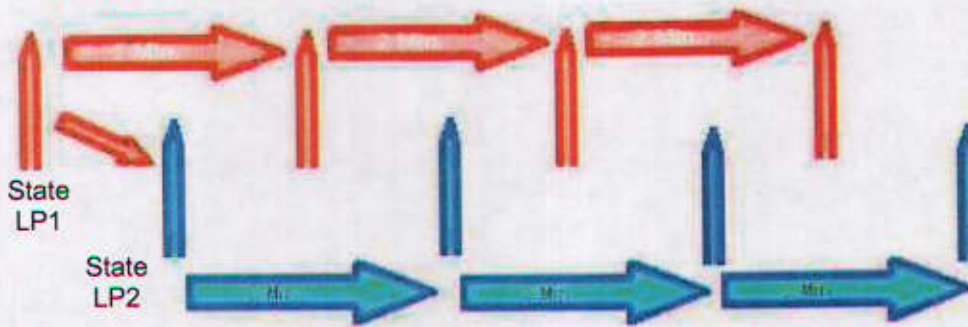
This method shortens the relay a bit, it also provides two paths for the message and this improves chances it is heard by more stations as we get a layer of redundancy. Timeline still is 10 minutes.
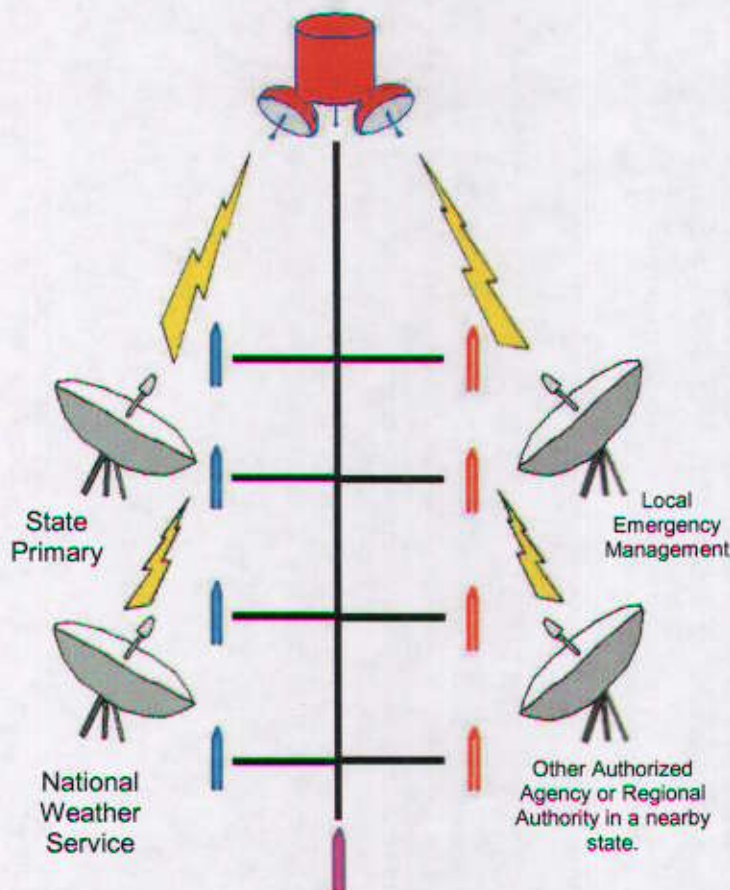
Radio/Microwave Relay Networks work better. Using microwave-repeater technology, the message goes out as fast as it is received saving any time delay. Many States do this using already established set-ups like a State Police or State Highway Radio/Microwave Repeater System. This technology also allows a bit of two-way communication. No matter where the message begins, everyone on the system hears it at the same time. Here is an example of a basic Radio/-Microwave Relay network.

All messages go to all listening in real time at the time sent.

Messages can be started anywhere on the network when needed.

Here all of the people listen to the State Relay Network and receive the message all at once. You listen to the relay tower nearest your location, and the relay carries the message to everyone on the relay, only your box does not react to messages not for your area. Timeline for this one is about 6 minutes. OK, I will explain, it takes two minutes to create an EAS

Alert Vocal, two minutes to send it, and two minutes for the broadcasters to automatically forward the message. As there is only one hop, it is very fast at getting the word out to the area affected. This still has a few drawbacks. It still leaves the loop open. No one knows if the message was received or sent out by any broadcasters or cable outlets. It also has no external connections, and can receive only messages from those on this system. Also, it does not know if anyone's receiver is working and unless some other arrangement is made, if the system goes down it does not provide an automatic backup, so that you end up with just the old daisy chain. It also does not allow easy delivery of background information and text of the alert vocal.

State
Primary

National
Weather
Service

Local
Emergency
Management

Other Authorized
Agency or Regional
Authority in a nearby
state.

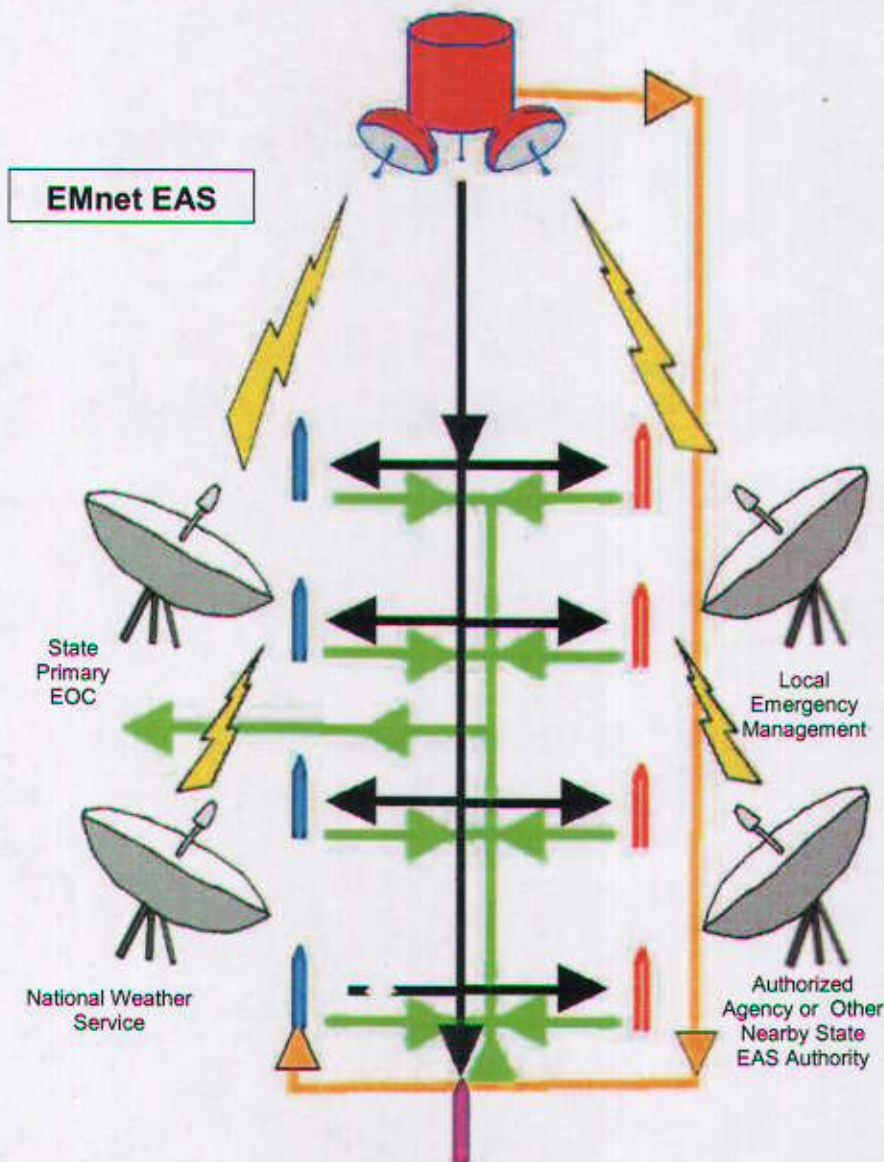**The next level Improves Speed** of Delivery **and Allows AREA WIDE Coverage -**

Satellite Delivery System

With a **satellite delivery system**, you take a step up in the potential coverage area, and the ability to increase delivery speed using compression technology. What would take two minutes in conventional radio style gear, can be sent with wider bandwidth and greater speed. So the recorded message could get there in a very short time, say 30 seconds. This graphic shows a good example of a satellite network in a simple diagram. Not every Satellite network is the same, this one just shows the basic network arrangement, with many listening stations and a smaller number of authorized and equipped message senders. It does not automatically provide feedback, security, or a backup system.

Note, this two dimensional graphic does not show the direct line of sight that a Satellite system uses. The ladder appearance is deceptive in that it really no longer exists. Basically, this is a tree to show everyone is connected to the same network and receives it all at once.

EMnet EAS is another step (or two) **beyond the basic Satellite System** - It takes the diagram above and improves on the weaknesses of the current system. It provides security by encrypting all messages sent over the system. It closes the loop by providing feedback to the State Emergency Management operation, showing if you received the message, and opened it. (Also if the message was forwarded on for transmission could be another feature, and if monitoring equipment was installed, it could acknowledge that the message was aired.) Using a heartbeat, it knows if and when a node (user terminal) goes down and notifies those necessary that the system has lost contact, but it does not stop there, when it detects a lost node, it switches that location (node) to an alternate delivery method.

Maryland State EAS Relay Network

EMnet EAS

State Primary EOC

National Weather Service

Local Emergency Management

Authorized Agency or Other Nearby State EAS Authority

The EMnet diagram here does not show all the steps necessary to send an alert. Not all authorized initiators will have equipment to up link messages, but will use a normal network connection.

Wait that is not all it does. EMnet EAS has the ability to forward the audio text used to all broadcasters, so it can be printed out. No more having to listen to the alert and copy down the text in order to read it again on the air. It will also generate the full crawl text including the text used for the alert vocal for video programmers. Yes, you could then use Automatic Forwarding in television and be confident that the correct message is forwarded at the time it is received. This greatly speeds up the ability to warn people. Video programmers also will benefit from graphics like photos for Child Amber Alerts, graphic screens, and Maps when appropriate in the future. It should also be able provide some background communication with tips on what to do during an emergency, and other information that Emergency Management feels you or your audience should know. All in an individually addressable delivery format.

This is why Maryland has purchased the EMnet EAS because it can do everything needed to function as a State Relay System for Emergency Communications. When you take all these parts together, and in the regional capability, you get quite a good communications system. It also helps that all these surrounding States are also utilizing the same EMnet system, and Emergency Communications will never be the same. The States participating in our region of the United States are Delaware, Pennsylvania, Virginia and Washington D.C.

The illustration above uses the following conventions: The yellow Lightning bolts are the uplink to the satellite. The black line is the downlink feed that shows the relay network. The orange line is the Alternate link established to keep communications where one of the nodes has lost connection via the satellite feed. The green line is the feedback network that lets our State Emergency Management Agency see if the message arrived and was read.

NOAA Weather Radio – All Hazards Program:

One last EAS (Relay) source should be mentioned, and that is the NOAA Weather Radio System. Recently NOAA updated its EAS capability to include all of the new approved event codes. By special arrangement, the people at the National Weather Service can initiate EAS alerts, or repeat them on the Weather Radio system. EAS encoding is an outgrowth of SAME technology developed by the National Weather Service to warn people of approaching storms and the dangers they contain. By expanding its ability to handle all EAS messages, Emergency Officials are able to reach out to more people with emergency messages and life saving instructions.

Two things need to be noted. To send an EAS message to all surrounding NWR transmitters, it is sent as text and read by the automated announcer. It hopefully will use exact encoding to avoid starting a different alert. This is done by exactly duplicating the header information, which believe it or not, is the same thing done by every EAS encoder/decoder each time you forward an EAS Alert. The only difference is the vocal message is replaced by the automated voice instead of using a recording of the vocal received. EMnet EAS will help enhance the ability to do this more quickly.

EMnet – More than just an EAS Relay

EMnet is a communications relay system designed to allow Emergency Managers (EM) to communicate with each other is a secure way. The interface that the EM EMnet units use is multi-functional and can send messages in a variety of priority levels. Besides messages, it has the full capability of sending and receiving EAS alerts with all the encoding, vocal, including the vocal's text. It is also capable of receiving weather information via a Real EMWIN interface which, when configured, can receive the local weather text from the NWWS.

This is a little view of EMnet on the EM side of the coin. For this plan it is the method of choice for Emergency Managers to initiate EAS, which is the other side of EMnet. While they might use the help of another nearby county's EOC or the State EOC, the National Weather Service, or a phone link to an EAS box, EAS messages can be initiated in many ways. The alert's emergency message is not limited in distribution in just these ways; you might also see it in a fax, a news wire release, or even a telephone call to a broadcaster. The objective is to get the emergency message out in a fast and efficient means with the hopes that the message will reach as many people as possible. EMnet will probably be the fastest method available.

EMnet EAS –

EMnet EAS is the broadcaster side of the EAS equation. This system does all of the above, except broadcasters are basically limited to receiving EMnet EAS messages. While Emergency Managers can create the EAS alerts and send them out, broadcasters do not have the program for creating and sending EAS alerts. Only the broadcast station EAS equipment's administrator can send low level messages back to Emergency Managers. This is to allow verification of the unit's functioning. For the most part, the broadcaster is to just click acknowledgement that the message was viewed. Otherwise EMnet EAS is able to do all of the things mentioned above, and will be very useful to a broadcast station.

One of the important things not mentioned above is that it is a secure system. You do not have to call anyone for verification. To send an alert, the user must have an authorized user name and password. All messages are encrypted before being sent and will only be decrypted by the party for whom it was intended. Another rather unique feature of EMnet is the ability for EMnet to activate pagers and send email of the messages received. This means, the News Department can get an instant email or page, and that the news director could be paged to alert them that something is happening. Your EMnet administrator can know the system is up and running (it can send out a daily test) and will be paged if the system goes down. And yes, it is possible to even use the email to create an instant web page for your stations web site if you know what you are doing. And the sound files are of broadcast quality files. One other thing about EMnet EAS is that it is software controlled, and this should make it easy to upgrade if any of the FCC's EAS Rules change.

EMnet Setup Configurations –

No matter how good the EMnet system sounds, it is not useful until you set it up to help with your EAS coverage. If you do not connect the EMnet computer equipment to your EAS box, or to an interrupt unit (EMnet's Remote Node Interface) in your audio feed, it will do you very little good.

Members of the SECC have worked hard to explain the needs for our state to have a real means of connecting with broadcasters and major cable outlets. We talked about the costs already put out of pocket by these private operations for EAS equipment. We also explained the hardship buying more equipment could place on smaller broadcast operations. Our understanding is that we bought the equipment required of us to participate in EAS. It is the State and Local Government responsibility to provide connections that work with the equipment that is already in place. EMnet is the solution chosen by the Maryland Emergency Management Agency.

EMnet does meet all the necessary requirements to provide a very powerful Local/State Relay System. It does however not meet all of the necessary FCC requirements to be a stand alone EAS box, nor does it provide adequate PEP coverage for National level alerts. This means that EMnet EAS can not be used for an LP1 or LP2 assignment yet. So to utilize this extra input channel for EAS you will need to do one of the two recommended procedures. The recommended approach [best method] will have some cost to you if you do not have a minimum of four audio input ports on your EAS box. The State of Maryland EMnet EAS equipment has been provided to select broadcast stations at no cost. The State will cover the cost of the monthly satellite service where it has provided the equipment. (See Illustration 1 for explanation.)

Recommended Procedure

The recommended procedure is to put EMnet EAS into an audio input port on your existing EAS box. This will allow the two EAS systems to function together as if they were one unit. In this configuration, the EMnet EAS message is just being used as another input source (which is what it actually is, another redundant input source for EAS alerts). Using this method, video programmers should be able to make use of older EAS crawl programs to proof the crawl if they choose not to use the EMnet simple crawl generator.

Alternate Procedure

Alternately, you could use the interrupt circuit that came with the amplification/interrupt module, to patch EMnet directly into your broadcast stream. This would have to be done at a point just before the FCC required EAS box. By doing so, the State EAS messages bypass the EAS box that must

remain in service to handle National level emergencies. This can be done because the FCC does not regulate the State/Local parts of EAS.

But by using the alternate method you create a few problems because you bypass the other EAS box. To overcome those problems, you may find that approach more costly than just buying the ports, as video programmers would need two Codi video Interface units instead of one. It also does not tell the other box that the alert has happened, so the other box will think it is a new alert, as it will only know about it from an LP transmission. Because of these complications, we strongly urge you to use the recommended set up procedure.

If you use the alternate solution, **you must** (1) set up your old EAS equipment to do only EAN automatically, this box will still have to be used for RWT and RMT operations per FCC rules. (2) Set up EMnet EAS to do all the other alerts. (3) Be sure to keep the old interrupt unit (the one getting the audio feed from the EAS box doing EAN) as the last interrupt stage or final stage before sending your signal to the transmitter. The State level would come just before this in the output line. That way an EAN will override everything else, and it could even interrupt an EAS from Local/State emergencies.

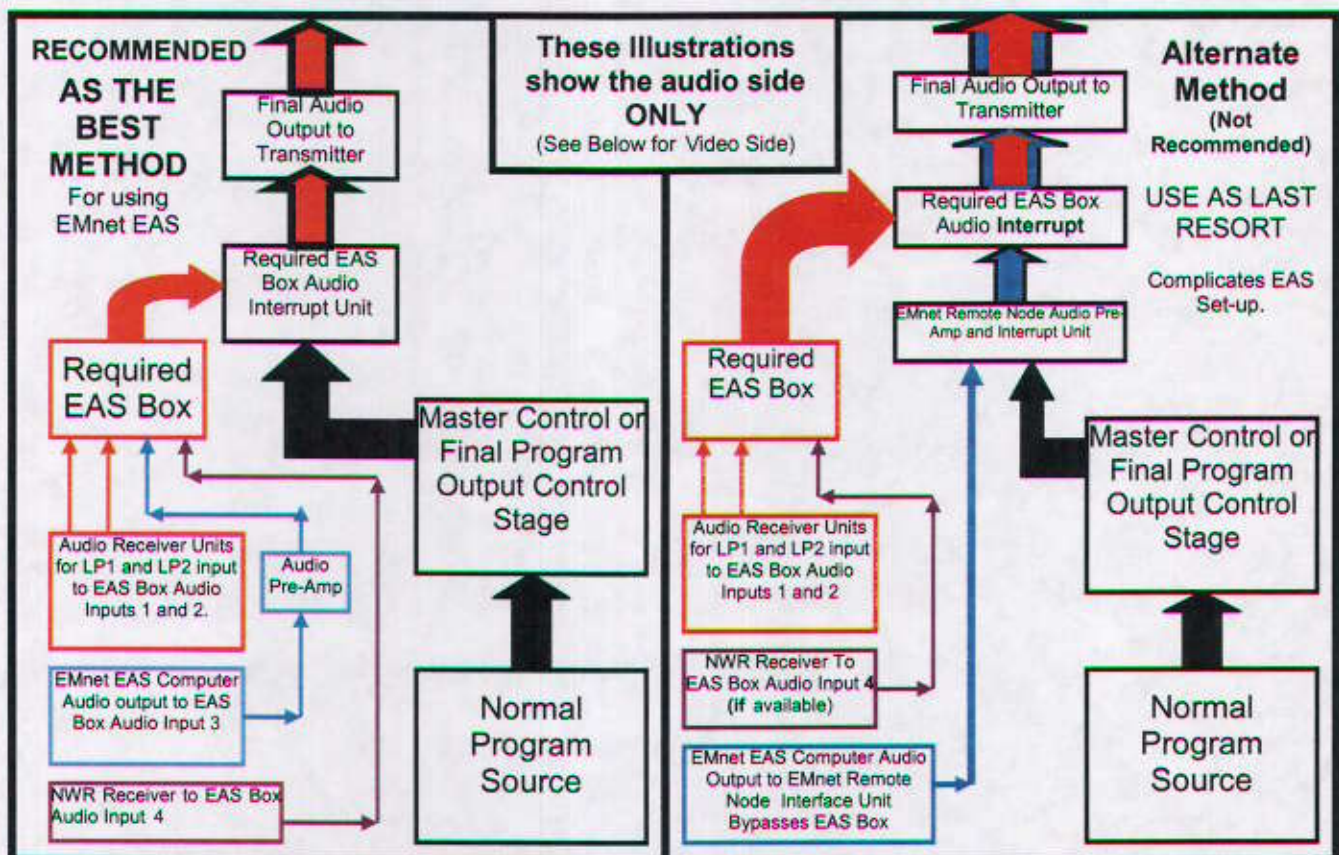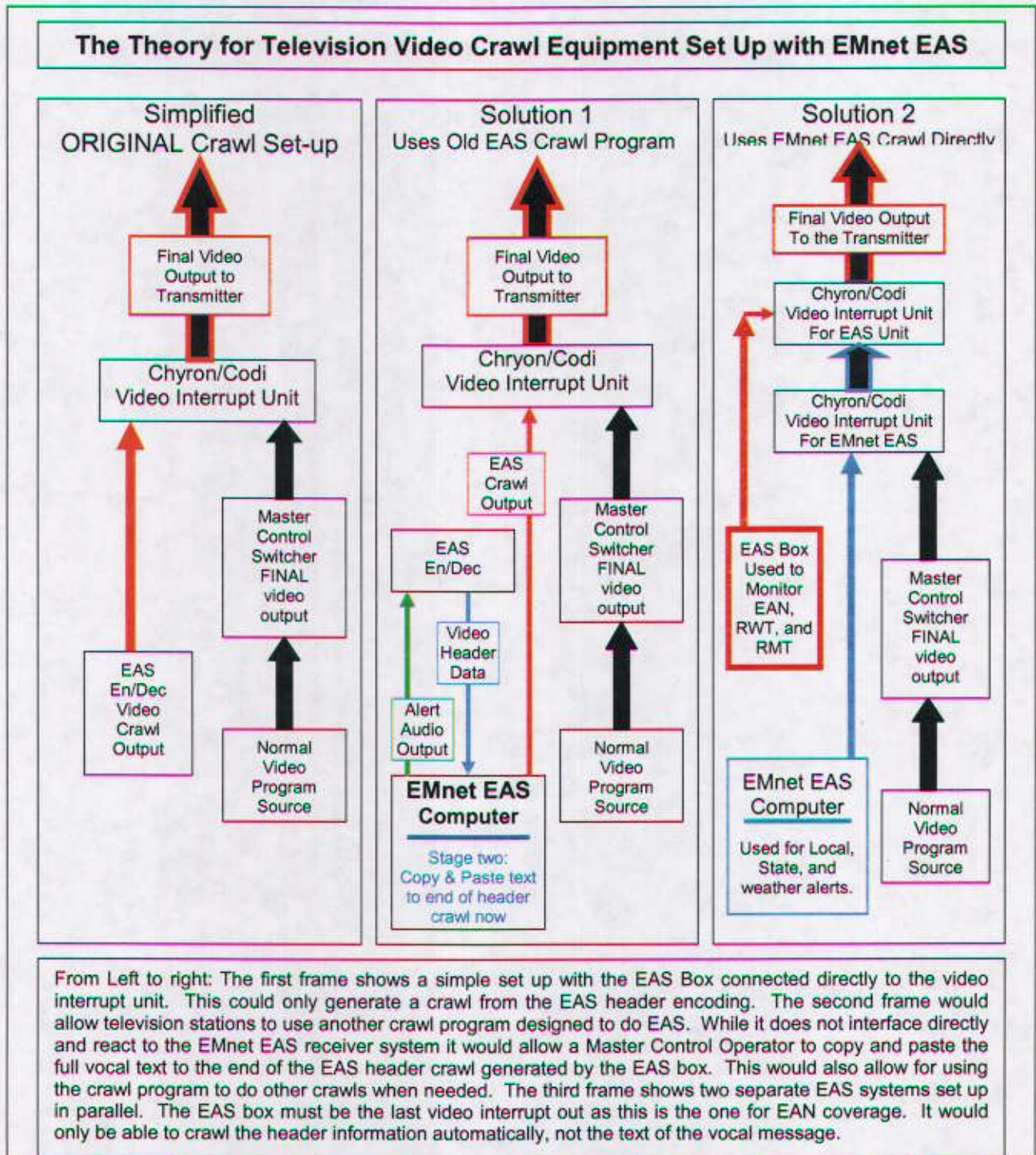Here are a couple of simple diagrams of how these two set ups might look.

Illustration 1 – Recommended & Alternate Audio Method Diagrams

If you have four inputs we would recommend using the NWR input as another EAS source. If you only have the two inputs, you must keep your LP 1 and 2 assignment active there.

LP stations using a full card for monitoring assignments may use EMnet to do monitor weather as this is available (if activated by the user) to provide warnings for your coverage area. The NOAA Weather Wire products are available on EMnet using Real EMWIN. This creates the weather text files but does not have an actual connection to trigger the EAS side of EMnet EAS.

The Theory for Television Video Crawl Equipment Set Up with EMnet EAS

Simplified ORIGINAL Crawl Set-up

- Final Video Output to Transmitter
- Chyron/Codi Video Interrupt Unit
- Master Control Switcher FINAL video output
- EAS En/Dec Video Crawl Output
- Normal Video Program Source

Solution 1 — Uses Old EAS Crawl Program

- Final Video Output to Transmitter
- Chryon/Codi Video Interrupt Unit
- EAS Crawl Output
- EAS En/Dec
- Video Header Data
- Alert Audio Output
- **EMnet EAS Computer**
  - Stage two: Copy & Paste text to end of header crawl now
- Master Control Switcher FINAL video output
- Normal Video Program Source

Solution 2 — Uses EMnet EAS Crawl Directly

- Final Video Output To the Transmitter
- Chyron/Codi Video Interrupt Unit For EAS Unit
- Chyron/Codi Video Interrupt Unit For EMnet EAS
- EAS Box Used to Monitor EAN, RWT, and RMT
- **EMnet EAS Computer**
  - Used for Local, State, and weather alerts.
- Master Control Switcher FINAL video output
- Normal Video Program Source

From Left to right: The first frame shows a simple set up with the EAS Box connected directly to the video interrupt unit. This could only generate a crawl from the EAS header encoding. The second frame would allow television stations to use another crawl program designed to do EAS. While it does not interface directly and react to the EMnet EAS receiver system it would allow a Master Control Operator to copy and paste the full vocal text to the end of the EAS header crawl generated by the EAS box. This would also allow for using the crawl program to do other crawls when needed. The third frame shows two separate EAS systems set up in parallel. The EAS box must be the last video interrupt out as this is the one for EAN coverage. It would only be able to crawl the header information automatically, not the text of the vocal message.

The EMnet Advantage -

One last feature of EMnet that has not been mentioned before is the regional coverage capability it brings to your EAS coverage area. By this it is meant that with one audio input channel, stations can get EAS alerts for most of States that surround Maryland who are using EMnet EAS. Why is this important? Because, by adding the EMnet EAS you get it all in one place. One receiver can cover Maryland, Delaware, and Virginia, for those broadcasters on the Eastern Shore. Western and Central Maryland can get Pennsylvania and/or Virginia Alerts. Those surrounding the Washington DC area can get DC alerts via EMnet EAS too. All the States surrounding Maryland (except West Virginia) are using (or will shortly be using) EMnet with their EAS plans. So this will finally enable an easy means to get EAS alerts for your whole broadcast area, even if State Lines are crossed.

EAS BEYOND MARYLAND -

Yes, you can do an EAS alert for another state in your broadcast area if you want to as a public service for your audience in that out-of-state area. All that is necessary is for you to add the FIPS codes for the State(s) and/or Counties of that surrounding State that are within your broadcast pattern. You will need to let them know about your ability to provide EAS coverage using EMnet. And when they have an EAS alert you will get it at your broadcast facility. It is important when using out-of-state alerts that you follow the other State's EAS Plan when covering their EAS Events. It has never been easier to do this than with EMnet EAS.

A special note about out-of-state coverage and out-of-state Required Monthly Tests, according to FCC rules broadcasters and cable operators are responsible to run the RMT for your location based on City of License. At least, that is how we understand it. So if you have a FCC license for a Maryland location, this is the test you must do for your RMT obligation. This is not to say you can not do an RMT from another state too, but we would really like to know the Maryland EAS system is running smooth and your participation is expected during the monthly coordinated test. As we believe that any EAS time used should count as a fully qualified public service announcement, we hope that you will do as many as you desire.

Automation is possible under EAS, but it does not come without a cost. Stations who rely on automation to keep their broadcast signal going when their operation is unmanned, should bear fully in mind the responsibility they have to maintain an EAS presence. Yes, this means one should define what will be carried or not carried for EAS activations and plan accordingly **in concert with the local emergency manager** so that one's equipment is configured to cover those alerts. A consequence of not being manned is having to accept EAS activations as they are received. As people in the general public are listening to broadcasters, the public is counting on broadcasters to help keep them safe by providing adequate EAS coverage for a given broadcast area. Of course the saying "those asleep at the switch" might fit, as automated EAS may not integrate as smoothly as when an operator is present, but that is a small price to pay for knowing that broadcasters are doing their part. [Please note that if a broadcaster is running automation overnight, one might get an out-of-state RMT if the station equipment is programmed to cover the out-of-state area as well, the station will get more than one RMT in that month.]

EMnet EAS Roll Out –

While it would be best to provide the EMnet EAS Satellite Receiver equipment to all broadcasters in the State, it is not possible to do so due to budget constraints. However, the State has chosen to

provide the equipment to as many broadcasters as possible with the understanding that the others who serve a significant audience within the State of Maryland may be included in the future. Equipment has been distributed to all local jurisdiction Emergency Management operations within the State. They have been distributed to all of the LP Broadcast Stations as they provide the best connectivity to all the other broadcasters and cable outlets, and to select television stations due to the need to receive the vocal text electronically for their video crawls. Other units are being distributed to radio sites which have multiple stations in a single location. One EMnet EAS receiver can be used to feed multiple broadcast signals that might reach the greatest number of people.

EMnet EAS Equipment Property Rights -

The equipment provided to receive EMnet EAS is property of the State of Maryland, and contains software programs considered essential to our State's Public Safety. Maryland will maintain ownership of the units. This equipment is provide for the expressed purpose of being used for the Emergency Alert System and the handling of State and Local EAS activations. Broadcast radio and television stations that have been provided EMnet EAS equipment by the State are asked to maintain these computers in running condition by: (1) supplying uninterruptable power, (2) a connection to one's EAS Endec or the installation of EMnet's Remote Node Interface into your final audio feed to your transmitter, (3) virus protection and (4) an internet connection. The EMnet EAS computer and the EMnet Satellite Receiver should never be turned off, except for maintenance. Broadcasters and Emergency Managers may not alter the programs on the computer necessary to run the EMnet EAS network. These programs are maintained remotely by MEMA through ComLabs to meet the EAS community's needs. Other uses of this EMnet EAS equipment must be approved by the Maryland Emergency Management Agency's Communications Officer, and must not interfere with the EMnet EAS operation.

EAS and NOAA WEATHER RADIO (NWR)

NOAA Weather Radio is actually the only active National Warning System available today that the public is familiar with and could relay warnings. (Yes, there is a PEP system, but it is not actively seen by the public.) So it is easy to see that this is a valuable tool to get the word out about the dangers which exist about us. This is what the ALL Hazard Radio Program is about. It is also proper to remember that the people working for the National Weather Service who are responsible for weather warnings are also some of the most knowledgeable on issuing warnings. So when EAS came along, it is not a surprise that they modeled the system to provide warnings after the NWR's Specific Area Message Encoding (SAME) system. There are a few differences between the SAME and EAS systems, using similar encoding enables good cross communication.

In this section you will find all of the information needed to be sure your EAS box is set up to receive NWR Warnings.

WEATHER RELATED EVENTS – That could be issued by the NWS in Maryland –

BZW	Blizzard Warning	SPS	Special Weather Statement
CFW	Coastal Flood Warning	SVA	Severe Thunderstorm Watch
FFA	Flash Flood Watch	SVR	Severe Thunderstorm Warning
FFW*	Flash Flood Warning*	SVS	Severe Weather Statement
FFS	Flash Flood Statement	TOA	Tornado Watch.
FLW	Flood Warning	TOR*	Tornado Warning*
HLS	Hurricane Statement	TRA	Tropical Storm Watch
HUA	Hurricane Watch	TRW	Tropical Storm Warning
HUW	Hurricane Warning	TSW	Tsunami Warning
SMW	Special Marine Warning	WSW	Winter Storm Warning

*These are life-threatening events with fast onset. The NWS requests these Event Codes always be auto-forwarded.

Monitoring NOAA Weather Radio –

Monitoring NOAA Weather Radio is not a requirement, but it is highly recommended. This can be considered your third or fourth EAS monitoring assignment. First you need to get Tornado Warnings and Flash Flood Warnings out as quickly as possible, as time can mean lives in this sort of emergency. The best way to do this is to monitor NWR for weather activations. This is also another source for EAS input. NWR can not do EAN as yet, so it can not replace your LP1 or LP2 monitoring assignment. But with the ALL HAZARD Weather Radio program, NWR can be used to carry local emergency messages when needed. By monitoring the nearest NWR station, stations can get fast weather alerts, plus another source for State and Local alerts. [Note: ALL HAZARD portions require an agreement between State and Local Emergency Management Agencies and the National Weather Service as to what will be covered.]

MARYLAND NOAA WEATHER RADIO ZONE MAP

Please monitor the NWR transmission with the strongest signal strength for your area.

REMEMBER:

Each broadcaster or cable operation is only required to monitor the two LP stations assigned to their area, but it is suggested that each Broadcast /Cable outlet should monitor up to four sources of EAS information when enough audio input ports are available. Besides the FCC required LP1 and LP2 assignments, you should listen to the State Relay Network as well as NOAA Weather Radio if it is at all possible.
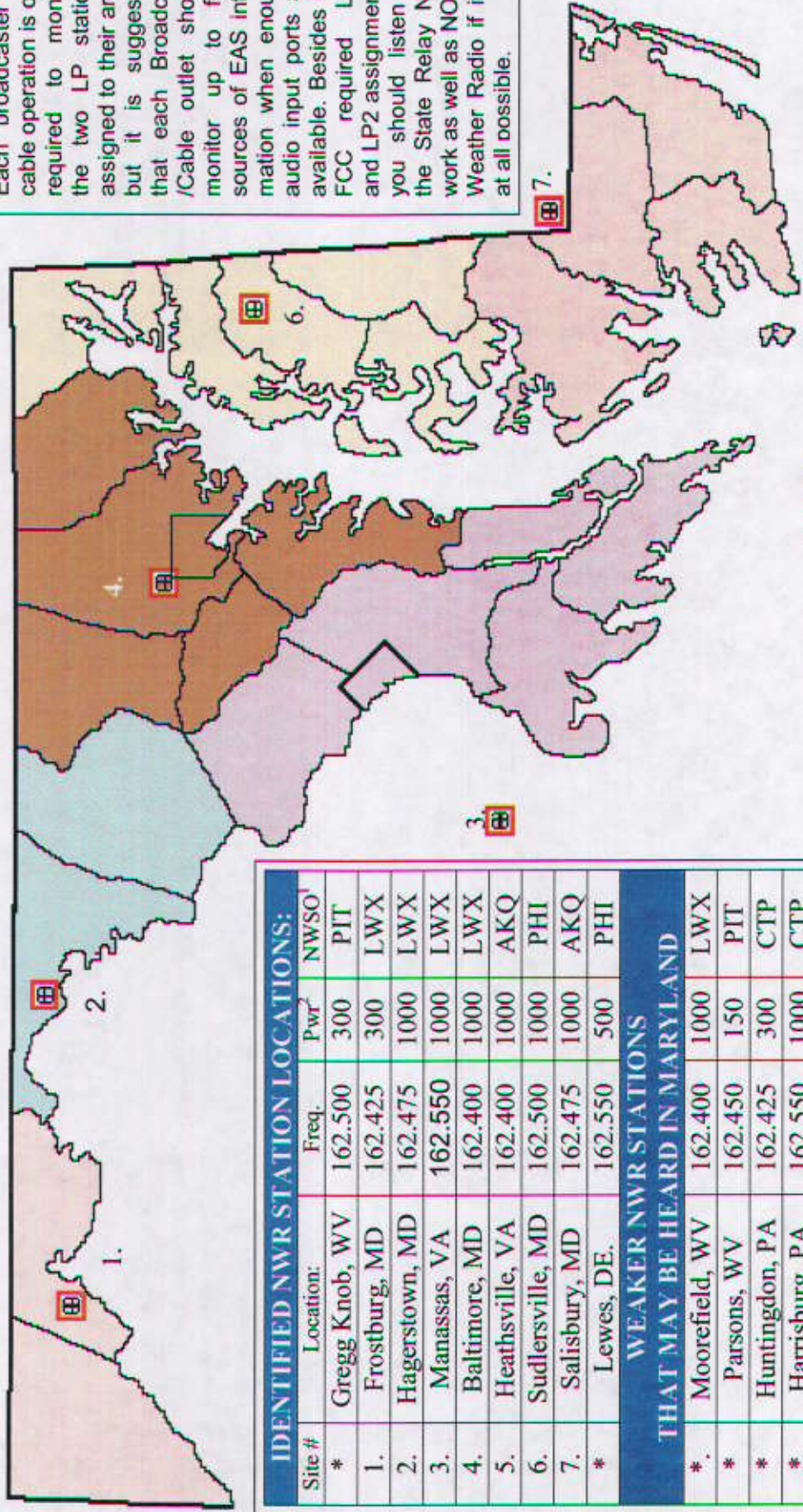
IDENTIFIED NWR STATION LOCATIONS:				
Site #	Location:	Freq.	Pwr[2]	NWSO[1]
*	Gregg Knob, WV	162.500	300	PIT
1.	Frostburg, MD	162.425	300	LWX
2.	Hagerstown, MD	162.475	1000	LWX
3.	Manassas, VA	162.550	1000	LWX
4.	Baltimore, MD	162.400	1000	LWX
5.	Heathsville, VA	162.400	1000	AKQ
6.	Sudlersville, MD	162.500	1000	PHI
7.	Salisbury, MD	162.475	1000	AKQ
*	Lewes, DE.	162.550	500	PHI
WEAKER NWR STATIONS THAT MAY BE HEARD IN MARYLAND				
*.	Moorefield, WV	162.400	1000	LWX
*	Parsons, WV	162.450	150	PIT
*	Huntingdon, PA	162.425	300	CTP
*	Harrisburg, PA	162.550	1000	CTP

*Location Not shown. [2] Power in Watts.

0   25   50   75   100   125   150   175   200   225   250

Map Scale in Miles.   [1] NWSO abbreviations used: AKQ=Wakefield, VA , LWX = Sterling, VA , PHI= Mount Holly, NJ, CTP= State College, PA., PIT= Pittsburgh, PA.

Maryland NOAA Weather Transmitter Coverage, FIPS Codes, and Frequencies

State	County/City	FIPS Code	NWR Transmitter Location	Frequency MHz	CALL SIGN	Power in WATTS	Remarks
MD	Allegany	24001	Frostburg	162.425	WXM-43	300	Primary
			Hagerstown	162.475	WXM-42	1000	Secondary
			Moorefield WV	162.400	WXM-73	500	Tertiary
MD	Anne Arundel	24003	Pikesville	162.400	KEC-83	1000	Primary
			Sudlersville	162.500	WXK-97	1000	Secondary
MD	Baltimore City	24510	Pikesville	162.400	KEC-83	1000	Primary
			Sudlersville	162.500	WXK-97	1000	Secondary
MD	Baltimore County	24005	Pikesville	162.400	KEC-83	1000	Primary
			Sudlersville	162.500	WXK-97	1000	Secondary
MD	Calvert	24009	Manassas VA	162.550	KHB-36	1000	Primary
			Salisbury	162.475	KEC-92	1000	Secondary
			Pikesville	162.400	KEC-83	1000	Tertiary
MD	Caroline	24011	Sudlersville	162.500	WXK-97	1000	Primary
			Lewes DE	162.550	WXJ-94	500	Secondary
			Salisbury	162.475	KEC-92	1000	Tertiary
MD	Carroll	24013	Pikesville	162.400	KEC-83	1000	Primary
			Hagerstown	162.475	WXM-42	1000	Secondary
MD	Cecil	24015	Sudlersville	162.500	WXK-97	1000	Primary
			Philadelphia PA	162.475	KIH-28	1000	Secondary
MD	Charles	24017	Manassas VA	162.550	KHB-36	1000	Primary
MD	Dorchester	24019	Salisbury	162.475	KEC-92	1000	Primary
			Sudlersville	162.500	WXK-97	1000	Secondary
MD	Frederick	24021	Hagerstown	162.475	WXM-42	1000	Primary
			Manassas	162.550	KHB-36	1000	Secondary
			Pikesville	162.400	KEC-83	1000	Tertiary
MD	Garrett	24023	Frostburg	162.425	WXM-43	300	Primary
			Gregg Knob WV	162.500	KWN-36	300	Secondary

Maryland NOAA Weather Transmitter Coverage, FIPS Codes, and Frequencies

State	County/City	FIPS Code	NWR Transmitter Location	Frequency MHz	CALL SIGN	Power in WATTS	Remarks
MD	Harford	24025	Pikesville	162.400	KEC-83	1000	Primary
			Sudlersville	162.500	WXK-97	1000	Secondary
MD	Howard	24027	Pikesville	162.400	KEC-83	1000	Primary
MD	Kent	24029	Sudlersville	162.500	WXK-97	1000	Primary
			Pikesville	162.400	KEC-83	1000	Secondary
MD	Montgomery	24031	Manassas VA	162.550	KHB-36	1000	Primary
			Pikesville	162.400	KEC-83	1000	Secondary
MD	Prince Georges	24033	Manassas VA	162.550	KHB-36	1000	Primary
			Pikesville	162.400	KEC-83	1000	Secondary
MD	Queen Annes	24035	Sudlersville	162.500	WXK-97	1000	Primary
			Pikesville	162.400	KEC-83	1000	Secondary
			Salisbury	162.475	KEC-92	1000	Tertiary
MD	St Mary's	24037	Manassas VA	162.550	KHB-36	1000	Primary
			Heathsville VA	162.400	WXM-57	1000	Secondary
			Salisbury	162.475	KEC-92	1000	Tertiary
MD	Somerset	24039	Salisbury	162.475	KEC-92	1000	Primary
			Heathsville VA	162.400	WXM-57	1000	Secondary
MD	Talbot	24041	Sudlersville	162.500	WXK-97	1000	Primary
			Salisbury	162.475	KEC-92	1000	Secondary
MD	Washington	24043	Hagerstown	162.475	WXM-42	1000	Primary
			Frostburg	162.425	WXM-43	300	Secondary
MD	Wicomico	24045	Salisbury	162.475	KEC-92	1000	Primary
			Lewes DE	162.550	WXJ-94	500	Secondary
MD	Worcester	24047	Salisbury	162.475	KEC-92	1000	Primary
			Lewes DE	162.550	WXJ-94	500	Secondary

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

AGREEMENT FOR TRANSMISSION OF WARNING MESSAGES ON NOAA WEATHER RADIO AND NOAA WEATHER WIRE SERVICE SYSTEMS

This Agreement is entered into between the United States of America, Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, hereinafter referred to as NWS, and the State of Maryland, Military Department, Maryland Emergency Management Agency, hereinafter referred to as the Maryland EMA.

This Agreement identifies certain responsibilities of both NWS and the Maryland EMA in the dissemination of information over NOAA Weather Radio (NWR) and NOAA Weather Wire Service (NWWS) in or serving the State. It defines the general scope of messages NWS will disseminate. It also outlines procedures to be used by the Maryland EMA in relaying its own non-weather related emergency messages and those from local jurisdiction emergency management agencies, hereinafter referred to as "others," to NWS for dissemination.

I. GENERAL:

A. Both parties to this Agreement acknowledge that the primary mission of NWR and NWWS is to deliver meteorological and hydrological information to the public via messages transmitted on both systems. The transmission of other non-weather related emergency messages is only permitted where such messages will help to minimize the potential for loss of life and/or property. There may be cases where NWS, the Maryland EMA, and/or others have non-weather related emergency messages to issue at approximately the same time. In such situations, the local NWS office will make a decision on the relative priority of the messages based solely on the potential for the loss of life and/or property as determined by the NWS.

B. Maryland EMA and others will request transmission on NWR/NWWS only when other means of dissemination are not adequate to ensure the fastest delivery of urgent information of an imminent threat. Where NWR/NWWS have been used to disseminate a non-weather related emergency messages, these systems may also be used for brief follow-up messages. Normally, such messages will simply direct listeners to commercial/public radio and television stations for further information.

C. In the case of NWR, the warning alarm should be activated only for the transmitter serving the area affected.

D. Not all emergencies or hazards for which transmissions may be requested by Maryland EMA

or others can be foreseen and documented in this Agreement. The local NWS office should exercise its best judgment when considering such requests by determining the seriousness and immediacy of the threat to life and/or property.

E. The parties agree that the use of NWR/NWWS for non-weather related emergency messages will not be authorized unless procedures have been developed, approved, and accepted by NWS, Maryland EMA, and any local jurisdiction emergency management agency desiring use of the systems.

II. AUTHORITY:

A. The NWS is authorized to enter unto this Agreement pursuant to 15 U.S.C. Section 313. NWS participation in this Agreement is subject to the availability of appropriations.

B. The Maryland EMA is authorized to enter into this Agreement pursuant to Maryland Annotated Code Sections ???? through ????. Maryalnd EMA's participation in this Agreement is subject to the availability of appropriated funds for this purpose.

III. NWS AGREES THAT:

A. Operation of NWR/NWWS will be in accordance with instructions contained in the National Weather Service Operations Manual and the controlling NWS office's Station Duty Manual.

B. Upon receipt of a request for transmission of a non-weather related emergency message from Maryland EMA or others and following proper authentication, those messages will be disseminated on both systems without further coordination. The NWR warning alarm and/or NWWS alert signal should be used with all warnings.

C. It will work with Maryland EMA and others to create appropriate procedures for the transmission of non-weather related emergency messages over NWR and NWWS. No non-weather related emergency messages will be transmitted until approved procedures are in place.

D. It will promptly notify Maryland EMA and others of changes in its use of NWR/ NWWS, including hours of operation and information carried.

E. To the extent permitted by applicable law, it will be responsible for claims of any nature, including costs and expenses, for or on account of any or all suits or damages of any character whatsoever resulting from injuries or damages sustained by any person(s) or property by virtue of negligence on the part of the NWS, its officers, agents, and employees, in the performance of this Agreement. See, Federal Tort Claims Act, 28 U.S.C. Sections 2671, et.seq. NWS in no manner assumes any liability for the actions or omissions of the Maryland EMA, its officers, agents, and employees or for the actions or omissions of others related to the performance of this Agreement.

IV. MARYLAND EMA AND OTHERS AGREE THAT:

A. Nothing in this Agreement limits NWS' current or future use of NWR/NWWS, including hours of operation and information carried.

B. Any request to broadcast non-weather related emergency messages over NWR/ NWWS shall be based solely on the imminent threat of danger to the health, safety, or property of the citizens of Maryland.

C. Messages will be transmitted to the appropriate NWS office by telephone, facsimile, computer/internet/electronic mail, and/or radio and will be broadcast, identically, on both NWR and NWWS.

D. It will coordinate its needs and those of others and will work with NWS to develop and approve

procedures for transmission of non-weather related emergency messages. The procedures will outline appropriate use of NWR/ NWWS, appropriate message content, appropriate identification of the sender,

identification of the commercial/public radio and television stations for more information, and an authentication process. The procedure will include the NWS requirement that no message exceed 200 words.

E. To the extent permitted by applicable law, it will be responsible for claims of any nature, including costs and expenses, for or on account of any or all suits or damages of any character whatsoever resulting from injuries or damages sustained by any person(s) or property by virtue of negligence on the part of the Maryland EMA, its officers, agents, and employees, in the performance of this Agreement. See, Maryland Annotated Code Chapter/Section ?? Maryland EMA in no manner assumes any liability for the actions or omissions of NWS, its officers, agents, and employees or for the actions or omissions of others related to the performance of this Agreement.

V. EFFECTIVE DATE:

This Agreement shall become effective on the last date shown below when executed by both parties hereto. This Agreement is valid and binding until terminated by either party upon 60-days prior written notice.

VI. AMENDMENTS:

This Agreement may be amended or modified at any time by mutual agreement of the parties hereto.

STATE OF MARYLAND   UNITED STATES OF AMERICA
Military Department   Department of Commerce
Maryland Emergency Management Agency   National Oceanic and Atmospheric
                                            Administration
                                            National Weather Service

By: _____   By: _____
        Donald L Keldsen   Dean P. Gulezian
Title: Acting Director   Title: Eastern Region Director

Date: Aug. 30, 2002   Date: 1/24/03

PROCEDURES FOR ISSUING CEM REQUESTS VIA NWR

National Oceanic and Atmospheric Administration (NOAA) Weather Radio (NWR) Civil Emergency Message (CEM) Procedures

I. PURPOSE. This document details procedures for the broadcast of Civil Emergency Messages via the NOAA Weather Radio Network.

II. AUTHORITY. Agreement between the United States of America, Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Weather Service (NWS) and the State of Maryland, Military Department, Maryland Emergency Management Agency (MEMA), dated Jan. 24, 2003.

III. GENERAL.

A. Use of the NWR and NOAA Weather Wire Service (NWWS) provides local jurisdictions with several notable advantages:

1) While not the primary portal into the Emergency Alert System (EAS), the NWR/NWWS activates the Emergency Alert System providing a near real time secondary gateway to commercial/public broadcasters.

2) NWR provides immediate access to thousands of homes, businesses, and schools equipped with NOAA weather radios.

3) Upon receipt, the involved Weather Service Forecast Office (WSFO) will immediately release a submitted CEM to all wire and internet services using the NOAA Weather Wire Service (NWWS).

B. The primary mission of the NOAA Weather Radio (NWR) and National Weather Wire Service (NWWS) is the timely delivery of meteorological and hydrological information to the general public. The transmission of non-weather related emergency messages is authorized **to minimize the potential for loss of life and/or property**. Where the situation requires the simultaneous broadcast of weather and non-weather emergency messages, the local NWS office determines the priority of message broadcasts based on the potential for loss of life and/or property as assessed by the NWS.

C. Maryland emergency management personnel may request the broadcast of non-weather emergency information only when other means of dissemination are unavailable or untimely. A CEM shall not be submitted to advise the public of important but non life-threatening situations, e.g. school closures.

D. Where the NWR/NWWS has been used to disseminate non-weather emergency messages, brief follow-up messages may be appropriate. Broadcasts of follow-up messages will follow the same procedures/format as for the original message. Such messages normally will update or revise previous messages and direct listeners to commercial/public radio and television stations for further information.

IV. STATE OR LOCAL ACTIVATION INSTRUCTIONS.

A. Maryland emergency management personnel upon determining that the NWR/NWWS is the most effective method to inform the public of an emergency will use the most expeditious means available to contact the supporting WSFO. The preferred method is via commercial FAX with a follow-up call to confirm receipt of the message. To facilitate this process, the following NWS telephone numbers are provided:

Forecast Office	Supported Jurisdictions	Phone/FAX Numbers
Wakefield VA	Dorchester/Ocean City Somerset/Wicomico & Worcester Counties	**FAX: 757- 899-5107** Phone: 757-899-2415
Forecast Office	Supported Jurisdictions	Phone/FAX Numbers

Mount Holly NJ	Cecil/Caroline/Kent Queen Anne's/Talbot Counties	FAX: Phone:	**609-261-6614** 609-261-6604
Sterling VA (Balt/Wash)	Allegany/Anne Arundel Baltimore City/Baltimore Calvert/Carroll/ Charles Frederick/Harford/Howard Montgomery/ Prince George's/Saint Mary's Washington Counties	FAX: Phone:	**703-260-0809** 703-260-0105 703-260-0209
Pittsburgh PA	Garrett	FAX: Phone:	**412-262-9488** 412-262-2034 (Backup) 412-262-1988 1-800-242-0510

National Warning System (NAWAS)   State and local emergency management jurisdictions may use, in lieu of commercial lines, the Maryland and Regional NAWAS circuit to contact the NWS forecast office serving its area. This will require the call to be bridged through the State or Alternate State Warning Point. Use of NAWAS during times of emergency ensures calls receive priority and eliminates the need for the NWS to verify the call.

B. Messages provided to the WSFO shall be in the format found at Appendix A. To ensure accuracy and expedite processing, messages should be FAXed with follow-up phone or NAWAS calls to verify receipt. If FAX is not available telephonic dictation of the message is acceptable. Message format remains the same. To ensure faster broadcast and fewer errors, messages should be short and to the point. A CEM transferred to the Emergency Alert System (EAS) must be less than two minutes in length to conform to the requirements of this system. This is in addition to the NWS requirement that a CEM not exceed 200 words.

C. Upon receipt of a CEM, the Forecast Office will call back using previously provided phone numbers or NAWAS warning point to verify the authenticity of the message. If the phone number is not continuously monitored, submitting officials must ensure some one is present to receive the follow-up verification call.

D. As a last resort, if telephonic communication is impossible, local jurisdictions may use supporting amateur radio service to contact the Sterling WSFO via SKYWARN amateur radio operators. (SKYWARN frequencies: 147.300+ MHz voice repeater / SKYWARN Packet Station: WX4LWX at 145.730 MHz.)

MOU / SOP - Appendix A Civil Emergency Message Format

Message Information required by NWS:

1) Name of the Originating Agency
   The originating agency is the responsible emergency management office or its designated representative, e.g., police, fire or health department. It should be the agency directing the public to take action.

2) Jurisdiction Recipients
   Jurisdictions shall be identified by county except for Baltimore City. This is for assigning location codes (FIPS) which will set off individual tone-alert receivers so configured. Individual municipalities need not be identified.

3) <u>Expiration Time</u>
Specify how long the message should be in effect. The maximum time is 6 hours, the minimum is 15 minutes.

4) <u>Description of the emergency</u>. Provide a <u>short</u> narrative (not to exceed either 200 words or two minutes in broadcast length) outlining the nature of the emergency, the desired specific action(s) to be taken by the public, e.g. remain in place, the actions initiated or pending by local jurisdictions, e.g. road closures, and the commercial/public broadcasters where additional information may be obtained.

5) <u>Emergency location</u>. This may include adjacent areas, yet unaffected, expected to be impacted by the emergency, e.g. the projected downwind area of a chemical spill.

6) <u>Date/Time of emergency</u>. Use local time.

Message Format: (Example Message issued by NWS Sterling)

```
WBCCEMLWX
TTAA00 KLWX 242300
MDC027-250500-

CIVIL EMERGENCY MESSAGE
NATIONAL WEATHER SERVICE BALTIMORE-WASHINGTON
700 PM EST FRI DEC 24 2002

THE FOLLOWING MESSAGE IS BEING TRANSMITTED AT THE REQUEST OF THE HOWARD COUNTY FIRE
DEPARTMENT AND EMERGENCY MANAGEMENT...

AT 650 PM...A TRAIN DERAILED NORTH OF ELKRIDGE MARYLAND. THE RESULTANT CHLORINE GAS
LEAK HAS CLOSED I-895 AND US ROUTE 1 NEAR ELKRIDGE. RESIDENTS OF THE COMMUNITY OF
XXXX ARE ASKED TO EVACUATE IMMEDIATELY. FURTHER EAST...RESIDENTS OF XXXX ARE ASKED TO
STAY AT HOME...KEEP ALL DOORS AND WINDOWS CLOSED AND TUNED TO XXXX ON YOUR AM/FM DIAL
FOR FURTHER INSTRUCTIONS.
END
```

DRAFT

MARYLAND

RMT

SCHEDULE

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DRAFT

Maryland Coordinated Monthly EAS RMT Test Schedule 2008

MONTH/ YEAR	DAY OF WEEK	DAY OF MONTH	VALID TIME WINDOW FOR TEST TO BEGIN	WHO WILL START	AREA OF COVERAGE	SUGGESTED TEXT
It is assumed in this schedule is that the Monthly Test schedule will take place on the Last Wednesday of the month.						
January 2008	Wednesday	30	10A-11A	MEMA	Full State	Standard
February 2008	Wednesday	27	2A-4A	MEMA	Full State	Standard
March 2008	Wednesday	26	10A-11A	MEMA	Full State	Standard
April 2008	Wednesday	30*	2A-4A	MEMA	Full State	Standard
May 2008	Wednesday	28	10A-11A	MEMA	Full State	Standard
June 2008	Wednesday	25	2A-4A	MEMA	Full State	Standard
July 2008	Wednesday	30	10A-11A	MEMA	Full State	Standard
August 2008	Wednesday	27	2A-4A	MEMA	Full State	Standard
September 2008	Wednesday	24	10A-11A	MEMA	Full State	Standard
October 2008	Wednesday	29	2A-4A	MEMA	Full State	Standard
November 2008	Wednesday	26	10A-11A	MEMA	Full State	Standard
December 2008	Wednesday	31*	2A-4A	MEMA	Full State	Standard

* Fall Back Plan Option – When the test is scheduled on the last day of the month, if WBAL does not receive the test before the test window expires, then they are to initiate the test to be sure it will be done. This will be known as the Fall Back Plan, as a Required Monthly Test must be done every month.

Other RMT Potential Starting points – This RMT schedule is based on tests starting by MEMA using EMnet EAS to carry the emergency message. It might be good to also use some of the other Warning partners to initiate the RMT for a given month to allow a better understanding of how well our EAS network are working. These partners might include the NWS via EMnet and NWR, MD State Police, and Local Area Communication Committees. A revised schedule will be issued if this option is used.

Please note: The Suggested Test Text could be changed with SECC approval to include various EAS topic reminders, that might help your audience better understand the Role of EAS. All tests will contain the RMT event code and will be clearly labeled with the words, "This is a Test." Also note, initiators could be changed as well if needed.

From the FCC Handbook Concerning Monthly Tests:

Required monthly tests (RMT) consists of transmitting: the EAS digital Header Codes, the two tone attention signal, a brief test script and end of message code. And for TV: a visual display of header code data. A monthly test can be substituted for one weekly test. In the odd months monthly tests must be conducted in daylight hours (8:30 AM to sunset). In even months monthly tests must be conducted at night (sunset to 8:30 AM). Monthly Tests must be retransmitted within 60 minutes of receipt. They can be scheduled by the State/Local Plan.

No monthly test is necessary during a month when there is an EAS activation that includes a two tone alert signal, and an audio message (including a video message for TV). However, unless this activation is one for the full state, the SECC has determined that a monthly test will be sent so all equipment in the state is tested monthly. Also, the RMT monthly test code is reserved for use only by those authorized by the SECC or LECC according to this schedule.

MARYLAND

RMT

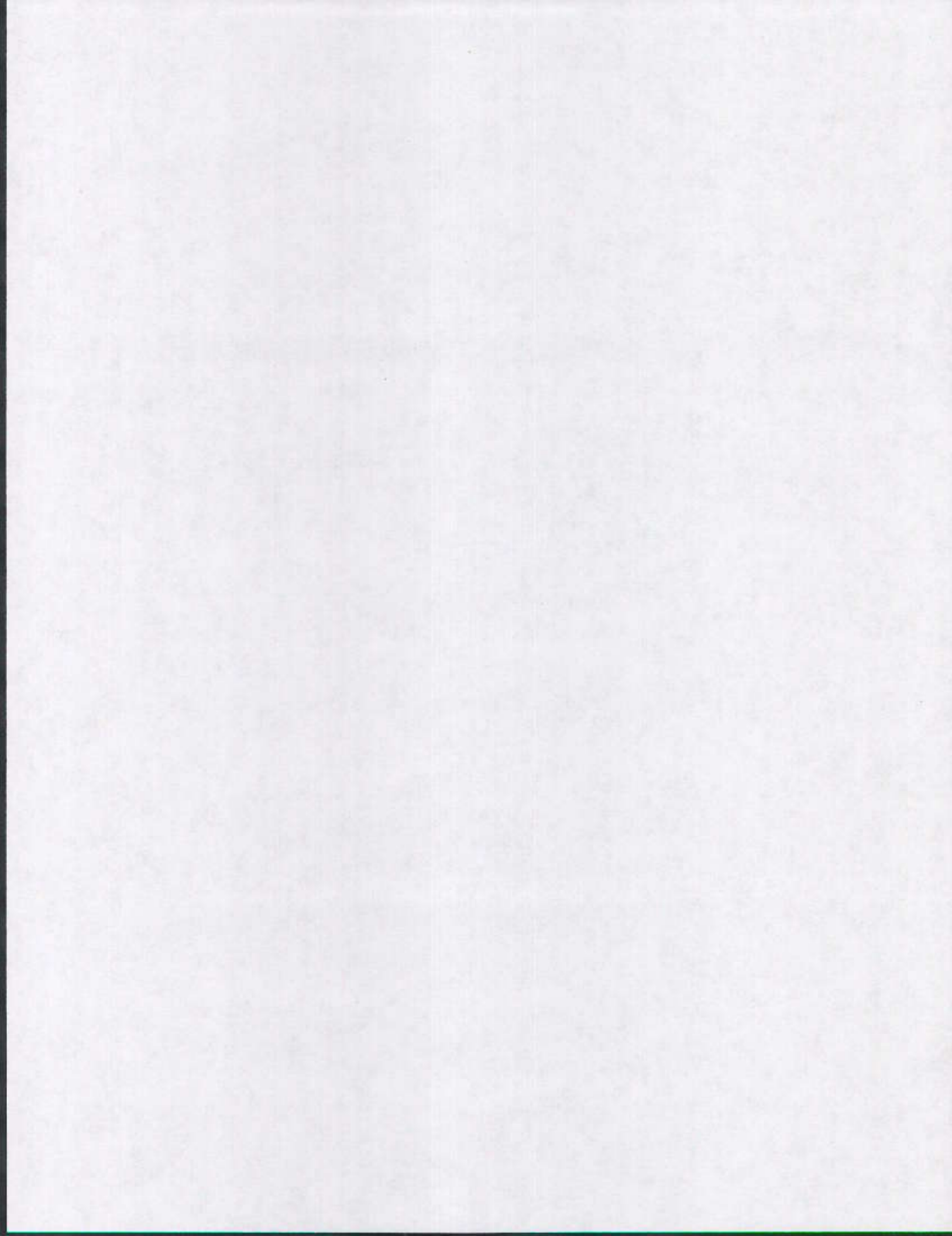# SCHEDULE

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Maryland Coordinated Monthly EAS RMT Test Schedule 2006

MONTH/ YEAR	DAY OF WEEK	DAY OF MONTH	VALID TIME WINDOW FOR TEST TO BEGIN	WHO WILL START	AREA OF COVERAGE	SUGGESTED TEXT
It is assumed in this schedule is that the Monthly Test schedule will take place on the Last Wednesday of the month.						
January 2006	Wednesday	25	10A-11A	MEMA	Full State	Standard
February 2006	Wednesday	22	2A-4A	MEMA	Full State	Standard
March 2006	Wednesday	29	10A-11A	MEMA	Full State	Standard
April 2006	Wednesday	26	2A-4A	MEMA	Full State	Standard
May 2006	Wednesday	31*	10A-11A	MEMA	Full State	Standard
June 2006	Wednesday	28	2A-4A	MEMA	Full State	Standard
July 2006	Wednesday	26	10A-11A	MEMA	Full State	Standard
August 2006	Wednesday	30	2A-4A	MEMA	Full State	Standard
September 2006	Wednesday	27	10A-11A	MEMA	Full State	Standard
October 2006	Wednesday	25	2A-4A	MEMA	Full State	Standard
November 2006	Wednesday	29	10A-11A	MEMA	Full State	Standard
December 2006	Wednesday	27	2A-4A	MEMA	Full State	Standard

* Fall Back Plan Option – When the test is scheduled on the last day of the month, if WBAL does not receive the test before the test window expires, then they are to initiate the test to be sure it will be done. This will be known as the Fall Back Plan, as a Required Monthly Test must be done every month.

Other RMT Potential Starting points – This RMT schedule is based on tests starting by MEMA using EMnet EAS to carry the emergency message. It might be good to also use some of the other Warning partners to initiate the RMT for a given month to allow a better understanding of how well our EAS network are working. These partners might include the NWS via EMnet and NWR, MD State Police, and Local Area Communication Committees. A revised schedule will be issued if this option is used.

Please note: The Suggested Test Text could be changed with SECC approval to include various EAS topic reminders, that might help your audience better understand the Role of EAS. All tests will contain the RMT event code and will be clearly labeled with the words, "This is a Test." Also note, initiators could be changed as well if needed.

From the FCC Handbook Concerning Monthly Tests:

Required monthly tests (RMT) consists of transmitting: the EAS digital Header Codes, the two tone attention signal, a brief test script and end of message code. And for TV: a visual display of header code data. A monthly test can be substituted for one weekly test. In the odd months monthly tests must be conducted in daylight hours (8:30 AM to sunset). In even months monthly tests must be conducted at night (sunset to 8:30 AM). Monthly Tests must be retransmitted within 60 minutes of receipt. They can be scheduled by the State/Local Plan.

No monthly test is necessary during a month when there is an EAS activation that includes a two tone alert signal, and an audio message (including a video message for TV). However, unless this activation is one for the full state, the SECC has determined that a monthly test will be sent so all equipment in the state is tested monthly. Also, the RMT monthly test code is reserved for use only by those authorized by the SECC or LECC according to this schedule.

Discussion of
PROPOSED CHANGES FOR 2007 RMT SCHEDULE -

The schedule for the Maryland Required Monthly Test above follows the one day and time period tests as we have done in the past (based on the odd/even-Day/night system devised by the FCC). The question is should we move to a varying day and time test schedule. Doing this would allow the tests to help train personnel working on other work shifts. In proposing this, we are trying to simulate how emergencies can occur at any time. As a proposal, this is open for review and comments.

We want your comments and thoughts on a variable date and monthly EAS test schedule. What problems do you foresee? What about the length of the test, should it be kept at 30 seconds or could it be expanded to one minute? Part of the test is for us to actually test the system and its equipment. The other side of it is that this could be an easy way to help educate people about EAS, and how it can help them when needed. So we hope you will not take this request for comments lightly as we want to make EAS work for you.

Maryland Coordinated Monthly EAS RMT Test Schedule 2007

MONTH/ YEAR	DAY OF WEEK	DAY OF MONTH	VALID TIME WINDOW FOR TEST TO BEGIN	WHO WILL START	AREA OF COVERAGE	SUGGESTED TEXT
It is assumed in this schedule is that the Monthly Test schedule will take place on the Last Wednesday of the month.						
January 2007	Wednesday	31*	10A-11A	MEMA	Full State	Standard
February 2007	Wednesday	28*	2A-4A	MEMA	Full State	Standard
March 2007	Wednesday	28	10A-11A	MEMA	Full State	Standard
April 2007	Wednesday	25	2A-4A	MEMA	Full State	Standard
May 2007	Wednesday	30	10A-11A	MEMA	Full State	Standard
June 2007	Wednesday	27	2A-4A	MEMA	Full State	Standard
July 2007	Wednesday	25	10A-11A	MEMA	Full State	Standard
August 2007	Wednesday	29	2A-4A	MEMA	Full State	Standard
September 2007	Wednesday	26	10A-11A	MEMA	Full State	Standard
October 2007	Wednesday	31*	2A-4A	MEMA	Full State	Standard
November 2007	Wednesday	28	10A-11A	MEMA	Full State	Standard
December 2007	Wednesday	26	2A-4A	MEMA	Full State	Standard

* Fall Back Plan Option – When the test is scheduled on the last day of the month, if WBAL does not receive the test before the test window expires, then they are to initiate the test to be sure it will be done. This will be known as the Fall Back Plan, as a Required Monthly Test must be done every month.

Other RMT Potential Starting points – This RMT schedule is based on tests starting by MEMA using EMnet EAS to carry the emergency message. It might be good to also use some of the other Warning partners to initiate the RMT for a given month to allow a better understanding of how well our EAS network are working. These partners might include the NWS via EMnet and NWR, MD State Police, and Local Area Communication Committees. A revised schedule will be issued if this option is used.

Please note: The Suggested Test Text could be changed with SECC approval to include various EAS topic reminders, that might help your audience better understand the Role of EAS. All tests will contain the RMT event code and will be clearly labeled with the words, "This is a Test." Also note, initiators could be changed as well if needed.

RMT Scripts

Listed below are the officially approved Required Monthly Test (RMT) Scripts for Maryland's Coordinated Monthly EAS Test.

## 1. Standard RMT Script:

For MEMA-

This is the Maryland Emergency Management Agency with the coordinated test of the Emergency Alert System. Broadcasters are testing equipment used to warn you during an emergency. This concludes this test of the Emergency Alert System. (approx. 13 seconds)

For the National Weather Service- [Used with RMT for the State of Maryland or the local Weather Service Forecast Area concerned depending on how the NWS does their tests. It can be sent via EMnet/EAS or using NWR to start the test.]

This is the National Weather Service at _____, with the coordinated test of the Emergency Alert System. Broadcasters from Maryland are testing equipment used to warn you during an emergency. This concludes this test of the Emergency Alert System. (approx. 14 seconds)

For WBAL-

This is a test of the Maryland Emergency Alert System. In the event of an emergency, this system could bring you important information. This concludes this test of the Emergency Alert System. (approx. 12 seconds) (The one currently used)

or

This is the coordinated test of the Emergency Alert System. Broadcasters from Maryland are testing equipment used to warn you during an emergency. This concludes this test of the Emergency Alert System. (approx. 11 seconds)

2. Approximate RMT Times:

4 seconds to send the header
8 seconds for the attention signal
1 second of blank
12 -14 seconds for the vocal audio
1 second of blank
4 seconds for the end of message signal.

_____

30 - 32 seconds total
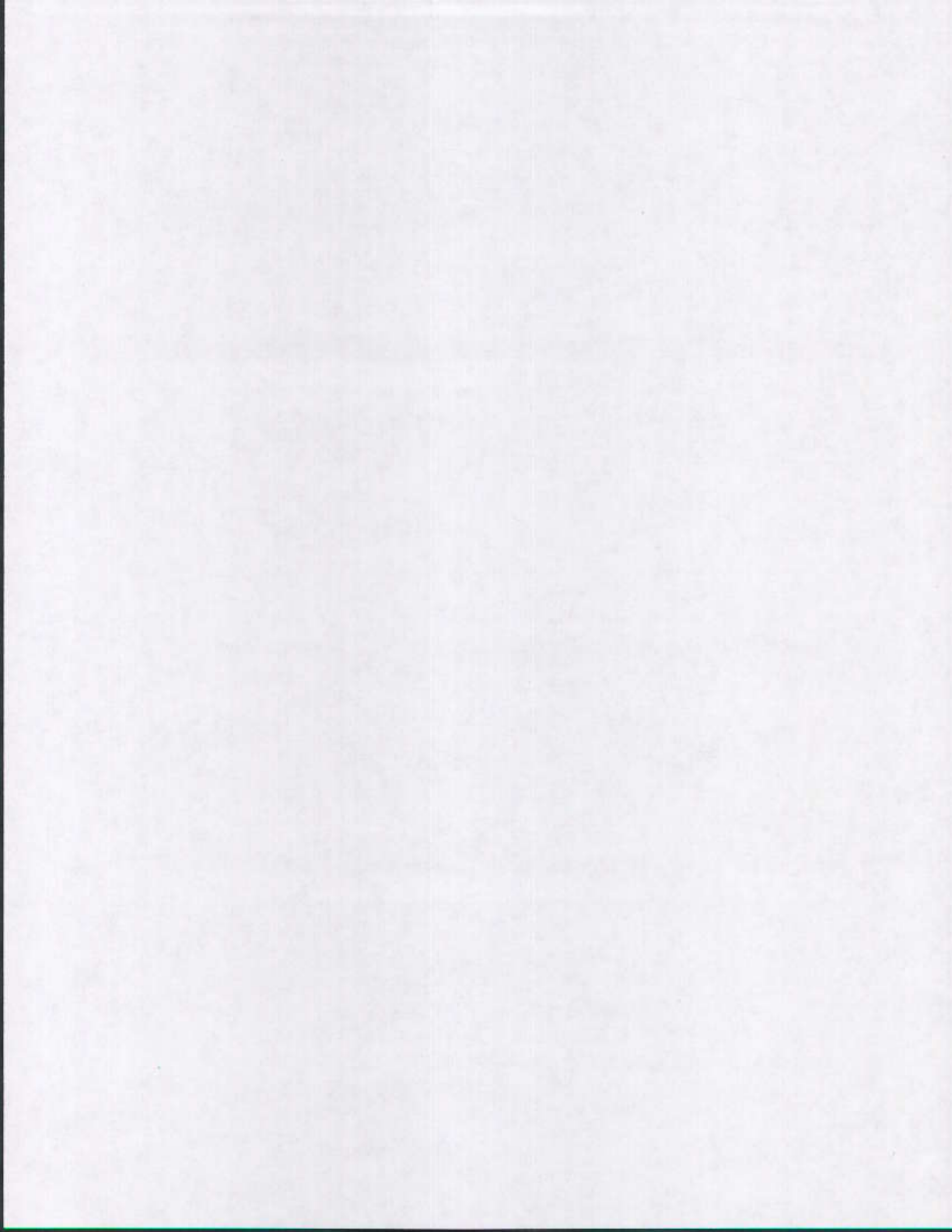
MARYLAND CHILD AMBER ALERT –

1. AMBER is part of the voluntary side of EAS. It can be a valuable service for your audience if you understand how it works and how it can help save young lives.

2. The OFFICIAL EAS Event Code for all Maryland Child AMBER Alerts is "CAE" (Child Abduction Emergency). No other event code may be used for official EAS activations when issuing the initial Maryland Child Amber Alert. This event code may NOT be used except in an actual emergency, as per FCC Rules. If you have not upgraded your EAS equipment to receive this event code, you may want to consider doing so now.

The Maryland State Police is the only agency authorized to initiate a CAE for any location in Maryland. This is done upon requests made by local law enforcement. No other Police agency in Maryland may authorize a CAE. It must come from the Maryland State Police to be official.

Law enforcement agencies making such requests must first determine that the following criteria exist:

    A. Law Enforcement verifies that a child has been abducted.
    B. There is reasonable belief, which law enforcement can articulate, that an abduction has occurred.
    C. The abduction is of a child under age 18 (age 17 years old or younger).
    D. The law-enforcement agency has reason to believe that the child is in imminent danger of serious bodily injury or death.
    E. There is enough descriptive information about the abduction for law enforcement to issue an AMBER Alert to assist in the recovery of the child. (This will most often include description of the child, abductor as well as a suspect vehicle).
    F. The abductor and/or child are likely to still be in the broadcast area.
    G. The child's name and other critical data elements, including the Child Abduction flag, have been entered into the National Crime Information Center (NCIC).

Upon confirmation of the above criteria by the Maryland State Police, they will contact MEMA and request that EAS activation for the Maryland Child AMBER Alert.

Official Verification of an active Amber Alert in Maryland can be found at: www.mdamberplan.com .   If it is found on that web site, it is an official activation.

The protocol of the Maryland Child AMBER Alert Team will have MSP contact the Maryland Emergency Management Agency's Maryland Joint Operations Center (MJOC) to issue the EMnet EAS Child Abduction Emergency EAS bulletin. MSP will provide the text of the CAE to the MJOC. The exact text provided by MSP will be entered into the EMnet EAS Encoder by the MJOC Personnel.   The MJOC will then create a recording of the text provided by the Maryland Child AMBER Alert Team and will add a digital photo(s) as attachments if available.

            Maryland Joint Operations Center

State Emergency Operations Center
Maryland Emergency Management Agency
Camp Fretterd Military Reservation
Telephone: 410-517-3676 or toll free 1-877-636-2872.
Email: MDJOC@mema.state.md.us

The MDJOC will, upon the approval of a member of the Maryland Child AMBER Alert Team, issue the CAE via EMnet EAS to all of Maryland. EAS stations are encouraged to broadcast a CAE to all media outlets. The participating media outlets then broadcast the alert to the public.

Definitions

Abduction: A child is reported to be involuntarily missing from the person(s) having care-taking responsibilities for the child. There is an eyewitness who states that the child was taken by a person or persons for whom there is a physical description, a vehicle description (if one is involved), and a direction of travel from the point last seen. Lacking an eyewitness, evidence exists that the child's disappearance was not voluntary.

Child: A person under the age of 18 (Federal guidelines state age 17 or younger).

Child Abduction Emergency (CAE): the event code utilized to distribute the Maryland Child AMBER Alert via the Emergency Alert System.

Broadcast to the public

The initiator will record and transmit the alert to all area media outlets via the State EAS Relay Network and EMnet.

The broadcast can include the EAS encoding and attention signal, EAS vocal and End of Message (EOM) during the initial reception and forwarding of the EAS alert. A live station announcer may choose to read the information manually from the official text found within the CAE.

If the Alert is being manually forwarded from a manned broadcast station, before they forward the EAS CAE bulletin, the announcer may want to tell the recipient station "This is a Child Abduction Emergency Alert – please stand by for important information." Then the relaying station should forward the EAS CAE Alert as it was received.

Subsequent or follow up coverage will only happen at manned stations, or only when automation be can programmed to add the alert vocal to repeat it. No one can expect more from an unmanned operation.

Broadcasters and cable operators using automation are encouraged to configure their "On Air" EAS equipment to auto forward the CAE code when station staff are not present to manually forward the alert.

Broadcast stations and cable operators are encouraged to repeat the Child Amber Alert vocal message from a recording of the initial EAS message, or by reading it to their audience from the official text, when staff is present. In the case of television stations, you can graphically represent or crawl the alert's vocal information on screen as a way to fulfill FCC inclusiveness requirements. This should be done within a reasonable amount of time. It is hoped the message will be repeated three or four times an hour for the first two or three hours. News departments should actively cover the

story as it unfolds for their audience and follow up with the story to show how the public assisted police.

Updated alerts may be broadcast if significant new information is developed which may result in the location of the abductor and/or the child; this may be done using EMnet text messaging. If the child has not been recovered with 24 hours, the AMBER Alert is self-canceling. Please note the EAS CAE event duration is 4 hours, not to be confused with the AMBER alert itself.

Only repeat the alert information on air while the alert is active. After the alert is cancelled, discontinue active use, and refer it to the news department for follow up. When the alert is cancelled, it is suggested your announcer thank your audience for their participation, as it is only with the public's help that a Child Amber Alert is effective.

Activation Review

As soon as practical after the activation of a Maryland Child AMBER Alert, the Maryland Coordinating Council members will meet with the law enforcement agency that activated the Maryland Child AMBER Alert to review the implementation of established procedures and address any deficiencies. The Maryland Coordinating Council law enforcement members may invite other individuals to participate in the review process. If Maryland EAS is utilized for the AMBER Alert, the Maryland Coordinating Council usually invites selected members of the Maryland State Emergency Coordinating Committee (MD SECC) to also participate in the review.

USE OF OUT-OF-STATE CHILD AMBER ALERTS –

Broadcasters are reminded that quite often their transmission signal crosses state boundaries and reaches a larger audience than just people from Maryland. It is possible for many people outside of Maryland to need information that may affect a state that borders Maryland. You can choose to broadcast that information as you feel is appropriate for your station. If you choose to do this, be certain that you are following the state rules for the other state in such activations, in forwarding the EAS Alert. So long as you act within the rules provided by the nearby state concerning EAS activations in their jurisdictions, we will not hinder your assistance to provide your audience information on their out-of-state emergency.

For broadcast and cable situations with demographics in more than one state, EMnet EAS can help you with this regional coverage. EMnet EAS can be programmed to receive more than just Maryland EAS Alerts.

If a nearby State feels that the suspect may flee to Maryland, they may request a Maryland CAE activation through the Maryland State Police. MSP will determine if the request fits the Maryland Child AMBER Alert criteria. If it does, the alert may be issued to all or part of Maryland.

IN STATE and OTHER NEARBY OFFICIAL STATE AMBER ALERT Resources –

Maryland Amber Plan = www.mdamberplan.com
Delaware Amber Plan = http://www.state.de.us/dsp/pio/newsroom.htm
Pennsylvania Amber Plan = www.amber.state.pa.us/amber/site/default.asp
Virginia Amber Plan = www.vaamberalert.com
Washington D.C. Amber Plan = www.dcamberplan.com
West Virginia Amber Plan = www.wvstatepolice.com/amber.htm

HOW AMBER WORKS -

Now that you know the protocol concerning EAS use of Child AMBER Alerts in Maryland, here is a quick review on how the system should work, and why everyone should participate.

The idea behind AMBER Alerts is that we have the greatest chance of saving the abducted child's life if they are recovered in the first 3 hours. Chances of finding them alive after that point of time diminish greatly. With this understood, it is important to get the word out quickly.

A common misconception: While the AMBER Alert efforts have made a big splash on television news, it should be noted that an AMBER Alert is not initially a television event. What is needed is to get people who are out and about to begin looking. You can not watch TV and drive a car safely, but you can listen to the radio. That is why it is so important for ALL radio stations to at least carry the initial EAS CAE Alert to their audiences. Because some one out there, on the road, may be listening to your radio station and get the word, "Be on the look out." They are the ones most likely to see the suspect vehicle and report it. This all can happen because you helped by issuing the initial CAE EAS Alert. If you can add the EAS data stream to your RDBS or traffic report system where available, even more people who may be listening to CDs or tapes in their cars could get the word.

Television's role is one of keeping people informed, and providing pictures of the child and suspect when available. Television and Radio News Departments are also helpful in following the developments of the Child AMBER Alert situation. After the event concludes, they can follow up on what happened. But take note, the AMBER Alert incidents you see on TV news are mostly over, thanks to those on the road listening to the Radio.

Broadcasters are reminded that this is a good public service. It is voluntary. It is of significant importance. Advocates of the AMBER Alert model are very well tuned to the need for broadcasters to do this public service. While we can not say that broadcasters and cable operators must do this, we suggest broadcasters and cable operators carefully consider active participation in this public effort.

LOCAL EAS PLANS

Introduction -

In compliance with FCC Part 11 Rules, this State Plan recognizes the need for the Local EAS areas to organize a Local Emergency Communications Committee (LECC) and local EAS Plans for the State's various operational areas. The LECCs should consider organizing their operational area local plan into regions. It would encourage all media outlets capable of being heard from a given location to carry the same emergency message about a single event within the same time frame.

The Local EAS Plan (or Local Area Plan) will offer guidance for local level emergencies. The Local Plan will provide guidance to both Emergency Management and the broadcast/cable sectors of the EAS community. In order that the Local EAS operations will be coordinated and reach the intended audience. Each EAS operational area needs to establish a LECC and create an EAS Plan for the specific location.

This does not mean that each EAS Operational Area has to be thought of as being alone. While one operational area alone might feel their resources are limited, they may find working together with other nearby operational areas beneficial because of the added assistance each operational setting could provide to the larger group setting. This could work if they come together and develop a joint plan for the wider area instead of each having individual plans. While individual control is still maintainable in such a scenario, an area wide plan will accomplish more. Local EAS Areas can use combined resources, and improve communications among all within their Local Area. It means all broadcasters and Emergency Management organizations utilize a common set of rules. It avoids confusion by not having to follow multiple plans. It keeps things consistent which benefits everyone, in that, one area wide plan can help coordinate a better flow of communications.

Whenever possible, LECCs will be composed of equal part representation between government officials and private sector participants. They will meet as needed to create and maintain a Local EAS Plan, and oversee its implementation within that local area. Local Broadcaster representation on this committee shall include someone from each Local Primary (LP) station in the EAS Area.

Local Emergency Communication Committees are hereby authorized under the State's EAS Plan to create a local EAS Plan for the specific Operational Area. Until that can be accomplished and plans are officially submitted and approved by the MD SECC and FCC, Local EAS Operational Areas can function under the following EAS Area Model Operational Plan. This model plan shall be superseded by the approved Local EAS Plan for a specific local Operational Area.

Once approved, the Local EAS Plans from a recognized Maryland LECC will be added as an appendix to this Annex of Maryland State EAS Plan.

MODEL LOCAL EAS PLAN

Emergency Alert System Procedures for the Local Areas in Maryland until formal plans are composed and submitted.

PURPOSE: This Local Area Plan (Model) is to provide procedures for activating the Emergency Alert System by authorized local area government officials, by broadcasters and by cable operators so they might be able to relay the critical information during an emergency situation. It will provide both sides of the alerting system with guidance on what to do to send an EAS Alert out and what to do when an EAS Alert is received to get the information to the public in a timely manner. While this is not intended to be an exhaustive authority, it is important to note the changes in both FCC rules and the alerting process since the old EBS days.

AUTHORITY: Title 47 U.S.C. [add correct numbers here if changed] Part 11, [add correct subpart here], FCC Rules and Regulations, Radio Broadcast Services, Emergency Alert System (EAS) as pertains to day to day emergency operation.

INTRODUCTION:

BY WHOM - These procedures were prepared by the State Emergency Communications Committee in conjunction with federal and State Emergency Management officials to provide guidance until an official Local EAS Plan can be created by each EAS operational area in the State.

AUTHORIZATION- This section provides authority for the local EAS operations to function until a local plan is approved.

EXPLANATION OF CHANGES - It must be understood by both sides that with the creation of the Emergency Alert System the FCC changed the rules for broadcasters, allowing for automation to replace manned operation, for some if not all of the broadcast day. This changes the way things must happen because it is no longer feasible for local emergency officials to call the broadcaster to get the alert message out.

> ## ACTIVATION of the EMERGENCY ALERT SYSTEM MUST BE DONE BY THE AUTHORITY WHO IS ISSUING THE ALERT.

Because of automation and other considerations, broadcasters should no longer be relied upon to help in this process. The Maryland Joint Operations Center can assist a local emergency manager with EAS activations when they cannot. Broadcasters must ensure forwarding the emergency message either manually or automatically when an emergency exists which affects the life and safety of the public in their broadcast audience. Become familiar with these procedures and follow them whenever EAS is needed.

Acceptance of/or participation in this plan shall not be deemed as a relinquishment of program control and shall not be deemed to prohibit a licensee from exercising his/her independent discretion

and responsibility in any given situation. As noted in Part 11 Rules any use of the EAS Attention Signal confers automatic rebroadcast authority.

Parts of an EAS Alert

The State of Maryland is providing Emergency Management officials at the county level with specialized equipment that is capable of providing a fully encoded EAS alert message and inserting it into the EAS monitored stream. To use this equipment, Emergency Managers must know that all of the required EAS Alert parts are provided according to FCC specifications. If this is done correctly, the EAS messages can be seen by broadcast stations En/Dec equipment and forwarded, either automatically as appropriate or manually by broadcast staff. To comply with this, the initiator of the EAS alert must provide the following information to have a full EAS alert:

(1) EAS header encoding: This includes the following information: preamble* and sync codes*, an originator ID*, the event code, the code(s) for location(s) affected, the expected duration of the event, a UTC time stamp*, the Sending Station ID*. (*These parts are usually automatically generated according to machine set up.)

(2) the EAS Attention Signal,

(3) a Vocal Alert Message,

(4) and End of Message codes.

Incomplete messages, messages with non-intelligible audio components, and messages that lack all the parts needed might be ignored by the EAS En/Dec automation. Additionally it could cause the system to continue operating beyond the EAS message. Such EAS activations may not be used, and may not reach the public intended.   EM staff who provide emergency messages should be certain to **do it right the first time**. Remember, because of automation, EAS is a "one time" system. One gets a single 2-minute window to give out the necessary information to save lives and property. Use the time wisely as you may not get another chance, and it may not get repeated. So be sure you get out the full message.

Multiple EAS messages are not easily accomplished. Due to limitations of current EAS equipment, broadcasters need a minimum of 6 minutes to get the initial message out. This allows for only two layers in a daisy chain, and assumes immediate retransmission. Alerts that come too fast after the prior activation will stop the initial message from getting out, and overwrite the original message, effectively erasing it from the broadcaster's EAS equipment's memory. So space multiple alerts appropriately if one wants to be effective.

One word of advice: **This really is a "one time" system**. Every message provided will interrupt the broadcasters regular programming, effectively costing the broadcasters money.

If one begins repeating the information by starting multiple alerts emergency managers run the risk of loosing the privilege of having alert requests honored and carried by many broadcasters. Remember EAS is voluntary at the local level. Broadcasters are not legally required to air them. So **_keep EAS activation strictly for extreme emergencies_**, and **_do it right the first time_**. As the broadcasters have put it, "**_Less is BEST_**."   Also remember, this may be the one shot to get the full message out. If people are asked to evacuate and are not told the location and name of a specific

shelter, do not expect them to show up later, as they may not hear later messages if they are evacuating or have already evacuated.

LOCAL PLAN TARGET COVERAGE AREA

This temporary local plan is for the *(provide location here see list)* EAS Area. It applies to all Designated Local Government Officials within this operational area and to all broadcast and cable operators with a potential audience within this area. It remains the active plan until superceded by a new or updated plan.

LOCAL EAS ACTIVATION

Local EAS activation will be coordinated by the County Office of Emergency Management or the other appropriate authority for the counties within this local plan. Local officials wanting to issue EAS messages to the public must contact their appropriate EM officials following the proper procedures.

County Emergency Operations Centers who are too busy to do an alert correctly, or may be in the evacuation zone, may request mutual aid from another nearby county EOC or the State EOC to issue the appropriate alert(s). In this way, you would be making use of other available resources. Initiators are reminded to use only the appropriate FIPS codes for the affected area, not necessarily for their own county area.

Activation Procedure for initiating an EAS Alert

Local Authorities in Maryland who are authorized to activate the EAS system will use the EMnet State Relay Network to initiate alerts into the monitored EAS network stream. These alerts are to be local EM operational area(s) specific. If broader activation is necessary, it should be referred to MEMA.

It is the responsibility of each EM operational area to assure (1) the equipment is kept operational and ready for use. They must also assure (2) that those who will actually issue the Emergency Vocal Message are fully trained on the equipment, and know how to correctly issue the alert (both mechanically and vocally). **Remember: if you make a mistake, it will probably be unstoppable once the message is sent.** Yes, it is true, most broadcast stations do EAS in automatic mode when staff is not present. Very few broadcasters still have staff present 24/7. Most are not staffed at night and on weekends. Also, a mistake which is broadcast might cause broadcasters to literally "turn you off", so you would never get the chance to make that mistake again. EAS is voluntary for broadcaster locally and they will not want to be fined for some FCC rule violation on your part. **SO DO IT RIGHT THE FIRST TIME!** To do that you must know what to do and practice doing it safely.

Here are the steps to complete a successful EAS Activation:

> (1) Open EMnet messaging screen.
> (2) Click on EAS box on the right panel of EMnet window.
> (3) Click on the Template tab of EMnet EAS window.
> (4) Create a Template Name (file name) in the box in the center of the screen.

(5) Click on the Audio Check Box for Local.

(6) Click on the record Button.

(7) Type in an alert vocal, load a pre-made message, or copy and paste another vocal message script or complete and use the one below. Remember all EAS Alerts must run under two minutes in length as that is the limit for most EAS equipment, so nothing beyond the two minute length will be broadcast. Pre-planning is a must here. Keeping pre-timed templates on hand for a variety of situations can greatly speed alert preparations.

Sample Vocal Template:

This is an Emergency Alert System activation for __(Name of County)__ County. At the request of __(Name of Office of authorized requesting authority)__ , for the area of __(Name of Location of Incident)__ . Because of __(Type of Incident)__ . People in an area should _____(Information as to what people nearby should do)__ . Repeat the location affected, the type of incident, and briefly what people should do.

(8) Once you have typed in the message into the EMnet EAS text area, record the message using that text and the EMnet vocal message recorder. Then listen to it to be sure it is correct, clear, and easy to understand. If it is not right, re-do the recording. Remember to speak slowly, so that all words are easily understood.

(9) Set up Encoding on the EMnet EAS computer by clicking the close button on the recorder window. Use caution to do it correctly, and double check that all parts are set up correctly.

(10) Save the template.

(11) Send the message into the EAS monitored stream. All LP Stations in Maryland and select TV Stations are equipped to receive EAS via this method.

NOTE: It is the responsibility of Emergency Management (EM) to initiate EAS. Under current FCC rules it is still possible to ask for broadcast assistance from one of the local primary radio stations. EM officials are reminded that many LP stations are not manned much of the time. Also remember, EAS is an excellent method of warning the public. Broadcast personnel are not trained to write or produce warnings as such and because of this fact (and the liabilities that could result if something is not done correctly) **it is NOT advisable for broadcasters to initiate EAS bulletins**. During EBS, it was the norm to use broadcasters to start emergency messages that were written or voiced by EM officials. EBS ended on December 31, 1996. With EAS it is now the responsibility of the Emergency Managers to be the initiator of local EAS broadcast requests.

Receiving Local EAS Alerts for YOUR Broadcast Area -

When you receive an EAS alert for your broadcast area, it is important that you consider how important your relaying of that message is to those immediately involved with the situation. Literal seconds may make all the difference in some of these situations. When you get an EAS message dealing with a life or death issue, like a tornado warning or an evacuation order due to a hazardous

materials incident, the faster you forward the message on to the public in your audience, the more lives you will be helping to save.

Immediate Transmission Requested

It is strongly suggested that when considering the priority of messages that you broadcast the following messages immediately without delay:

EVI = Immediate Evacuation   **HMW = Hazardous Materials Warning**
FRW = Fire Warning   **CEM = Civil Emergency Message**
TOR = Tornado Warning   **FFW = Flash Flood Warning**

Short Delays Tolerated

For the following EAS messages, a short delay to allow smoother insertion into the program stream can be tolerated, but these messages are still vital to provide notice to the public:

CAE = Child Abduction Emergency   **CDW = Civil Danger Warning**
LEW = Law Enforcement Warning   **LAE = Local Area Emergency**
RHW = Radiological Hazard Warning   **SPW = Shelter In Place Warning**
TOE = 911 Telephone Emergency   **FLW = Flood Warning[3]**
HUW = Hurricane Warning[3]   **SVR = Severe Thunderstorm Warning[3]**
TRW = Tropical Storm Warning[3]   **TOA = Tornado Watch[3]**
TSW = Tsunami Warning[3]   **WSW = Winter Storm Warning[3]**

Broadcaster Discretion Allowed

The following Local EAS Events may be used as either an EAS alert or a news event at the discretion of station management:

Weather Watches not listed above[3]   **Weather Warnings not listed above[3]**
ADR[*] = Administrative Message   **DMO* = Practice/Demo Warnings**
NMN* = Network Message Notification

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[3]   How weather warnings and watches are handled is up to the broadcast station's own policy when professional meteorological staff personnel are locally employed or live "on air" personnel might be able to read the weather information. You are reminded however, issue of an official weather warning is the sole responsibility of the NWS. Also please remember that not using EAS encoding could potentially cause people needing the warning to not receive it. Many radios, and even some TVs are equipped with SAME decoders that can automatically be turned on by the EAS encoding. This is why we strongly urge the use of EAS alerts for Tornado and Flash Flood Warnings.

[*]   Not used except by special arrangement. DMO could be used in conjunction with a prearranged disaster drill to test EAS connectivity. ADR may later be assigned a special purpose. NMN has no known defined purpose at this time.

EAS EVENTS Not Used by Maryland

The following EAS Events will not be used by this local Area as they do not apply to Maryland:

VOL = Volcano Warning

TESTS by Local Emergency Management

EMnet EAS does not require much testing to verify it's ability to function as several elements are embedded in the system's architecture and software. RWTs could be sent to local broadcasters using EMnet occasionally. Broadcasters and Cable companies do not have to re-broadcast RWTs. The RMT event code is a function of the State Emergency Communications Committee. The "All Maryland" FIPS code is reserved for State level activations and tests only.

Broadcasters and Cable operators will follow the normal testing procedures as prescribed by the FCC EAS Rules. RWT testing should be done using your normal EAS box.

FIPS Subdivisions (Not Currently Set for Maryland)

FCC Part 11 EAS Rules allowed codification of specific state and county identifiers with a prefix digit for subdivisions to be easily identified within those geo-political identifiers. While a standard was already in place for the state and county identities, no subdivision breakdowns have been officially designated for Maryland by the National Weather Service. They are not currently used. This means all EAS activations will be designated for a full county/city even if the area affected is only a small part. Until the SECC, LECCs, local EMAs, MEMA, and the NWS can meet and work out the specific subdivision layout and structure for given areas in Maryland and register same with the appropriate NIST office, subdivisions can not be officially used.

Important Note: This is a potential weakness in the EAS alerting system that could cause undue confusion. Because Video Programmers (TV Stations, and Cable Systems) must generate a video crawl from the EAS Header codes which include the FIPS location, the crawl may literally say that EAS was activated for EVACUATION of an entire county. While the vocal message may be much more specific, it will still say on TV what the FIPS Code says, e.g. a hurricane is approaching the coastal regions of Maryland from the South. TV stations have to crawl "Evacuation for Worcester County" even though evacuation was only for Ocean City and coastal low lying areas. This is why we have pushed hard to find a way for the spoken vocal text to be sent along with the EAS bulletin. Fortunately EMnet EAS overcomes this problem by providing broadcasters with the vocal message text at the same time the alert is received. This will help prevent much of the visual confusion.

PERSONS AUTHORIZED TO ACTIVATE EAS

Part 11 Requires All EAS Plans to provide a full list of those empowered to activate EAS as a public warning tool. When specific names are known for office holders that do not change frequently, then the name should be included, otherwise the functional title of the office empowered may be enough. It is the responsibility of EOC and 911 staff to protect the EAS equipment from misuse. They should

follow correct procedures in verifying a person's identity before issuing any EAS alerts under said authority.

PERSONS AUTHORIZED TO ACTIVATE EAS for this Local EAS Operational Area are:

> (1) Any local jurisdiction Emergency Management Director or Deputy Director of Emergency Management for the EAS Operational Area[4]
> (2) Any Authorized official in the State EAS Plan who is present at an EOC in your local EAS Operational area. [5]
> (3) Any authorized federal Official who in the Federal Regulations is permitted to do so, who can provide proof of authorization, and who is present at an EOC in your EAS Operational Area.[5]

PRIORITY OF MESSAGES

Following FCC EAS Rules as found in Part 11 and the various EAS Operational Handbooks, Local EAS activations fall between Presidential Messages (EAN) and State Messages. In giving Local Messages a priority over State EAS messages, the FCC is recognizing that those in the trenches are better qualified to see to local needs. During a disaster, common sense would indicate that priority be given to Life Threatening Warnings first, and other related information messages after that as needed. Remember in larger disasters where multiple communities are affected, some coordination of messages may be needed.

FOLLOW PLANS and More INFORMATION

When an EAS activation is necessary, an Emergency exists. Remember, at this time people need information in a fast, efficient, and timely manner. This includes the initial alert information, plus any additional support that is possible to do. Things like maps, lists of what to do, and what not to do, shelter locations, how to get medical help, evacuation routes, even supplies that are needed, and notification to volunteers to report, can all be done in the background without additional alerts whenever possible. Radio and TV stations should announce additional information as it becomes available. TV and Cable can do informational crawls or the EAS video page for the duration of the event (or at least the first few hours). Advanced planning on the part of Emergency Management on what support should be provided is suggested.

REVIEW OF EAS USAGE

It would be advisable that the LECC hold a review session within a week or so after an activation. All persons involved should be invited to participate to include one representative each from the SECC and the LECC(s) involved. Review what worked as planned, what did not work, and how to deal with the problems to improve performance when EAS is needed in another Emergency.

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[4]   NB: The Maryland State EAS Plan specifies that, "All local Emergencies (other than weather alerts) shall be declared only by the local or County Emergency Management Agency. All others wanting EAS activation for an emergency situation must go through their local Emergency Management office.

[5]   Unless the person is in the rules of your local County EM to issue an order to start EAS, and does so by following the prescribed procedures of your county, you should not honor the request and issue an EAS. It is important that you know from whom the order came and that said person is a duly authorized. To be certain of their ID you can have any visiting authorities provide proof of authority, and they should be present at the EOC before locally initiating an EAS activation.

List of the Designated EAS Operational Areas in Maryland

Allegany/Garrett EAS Local Area
Baltimore Metropolitan EAS Local Area[6]
Cecil/Harford EAS Local Area
Frederick/Washington EAS Local Area
Lower Eastern Shore EAS Local Area[7]
Southern Maryland EAS Local Area[8]
Upper Eastern Shore EAS Local Area[9]
Maryland Counties[10] of the Washington DC Metropolitan EAS Plan

PERMISSION FOR RE-USE GRANTED -

Local Emergency Communication Committees or Local Area Emergency Communications Committees with official jurisdiction for EAS activities within the State of Maryland are granted permission to use this Local EAS Model Plan in whole or in part as desired. It is hopeful that each group would customize this plan or create another Local EAS Plan that includes all parts needed for that plan to be successful for its local area. Full document files for reworking this plan can be obtained from the MD SECC.

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[6] Baltimore City, Anne Arundel, Baltimore, Carroll and Howard Counties
[7] Dorchester, Somerset, Wicomico, Worcester Counties and Ocean City
[8] Calvert, Charles and St. Mary's Counties
[9] Caroline, Kent, Queen Anne's and Talbot Counties
[10] Montgomery and Prince George's Counties
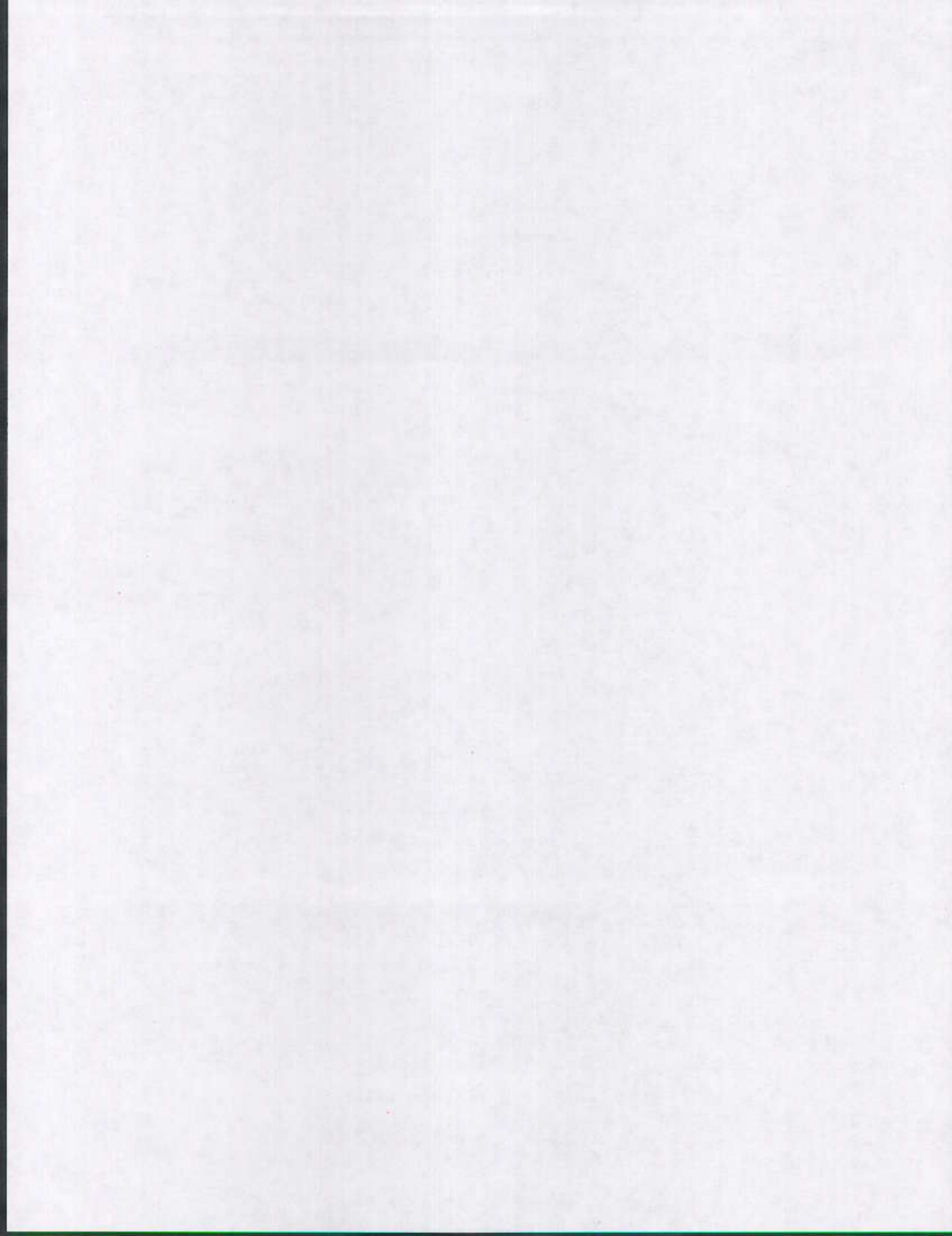
EAS Event Codes and Maryland Automation Event Set Up Information

MANDATED FCC ORIGINATOR AND EVENT CODES

The following are mandated FCC Originator codes that determine who authorized the generation of an event.

FCC Mandated Originator Codes

The following Originator codes are mandated by FCC Rules:

Originator	ORG Code
Broadcast station or cable system	EAS
Civil authorities	CIV
National Weather Service	WXR
Primary Entry Point System	PEP

FCC Mandated Event Codes

The FCC requires that broadcasters and cable operators program their EAS Decoders for following events:

- "EAN" (National EAS Activation) - Must be re-transmitted immediately.
- "EAT" (National EAS Termination) - Must be re-transmitted immediately.
- "RMT" (Required Monthly Test) - containing your County of License code or State Code. Must be re-transmitted within 1 hour of receipt.
- "RWT" (Required Weekly Test) - containing your County of License code of received test need only be logged. No re-broadcast is necessary.

The following is a complete list of all Mandated FCC Event Codes that must be programmed into EAS decoders:

Nature of Activation	Event Codes
Emergency Action Notification (National only)	EAN
Emergency Action Termination (National only)	EAT
National Information Center	NIC
National Periodic Test	NPT
Required Monthly Test	RMT
Required Weekly Test	RWT

Maryland Event Codes (EEE)

State, Local, and Weather Codes (Optional):

Administrative Message	ADR
Blizzard Warning	BZW
Child Abduction Emergency	CAE[1]
Civil Emergency Message	CEM
Coastal Flood Warning	CFW[1]
Earthquake Warning	EQW[1]
Evacuation Immediate	EVI
Fire Warning	FRW[1]
Flash Flood Warning	FFW
Flash Flood Watch	FFA
Flash Flood Statement	FFS
Flood Warning	FLW
Hazardous Materials Warning	HMW[1]
High Wind Warning	HWW
Hurricane Warning	HUW
Hurricane Statement	HLS
Law Enforcement Warning	LEW[1]
911 Telephone Outage Emergency	TOE[1]
Practice/Demo Warning	DMO
Radiological Hazard Warning	RHW[1]
Severe Thunderstorm Warning	SVR
Severe Thunderstorm Watch	SVA
Severe Weather Statement	SVS
Shelter in Place Warning	SPW[1]
Special Marine Warning	SMW[1]
Tornado Warning	TOR
Tornado Watch	TOA
Tropical Storm Warning	TRW[1]
Tsunami Warning	TSW
Winter Storm Warning	WSW

[1]Upgrading to these new codes is voluntary but highly recommended. All models of EAS equipment manufactured after August 1, 2003 must be capable of receiving and transmitting these event codes. Broadcast stations, cable systems and wireless cable systems which replace their EAS equipment after February 1, 2004 must install equipment that is capable of receiving and transmitting these event codes.

AUTOMATION EVENT CODES

With the advent of the Emergency Alert System, broadcasters have been able to depend on automation to carry programming on nights and weekends, leaving the broadcast studios empty at times. As the messages carried by the Emergency Alert System are vital to the safety of the general public of your broadcast area, we respectfully request you program your EAS Equipment to handle the following Event Codes automatically. So when you switch from having your broadcast station manned to being unmanned and operating under automation mode your EAS equipment will forward the following events.

You may choose to automatically forward all of the other EAS event codes too. Remember with no one at your station to tell people the weather, this is a way to provide your audience with good weather coverage should a weather event be issued. The other emergencies in the Event code list should also be considered for auto forwarding. The following list however are the ones considered most critical for public safety.

List of Event Codes to Automatically Transmit:

YOU MUST DO THE NATIONAL ACTIVATIONS: EAN, EAT, NIC, and RMT when automated. This is an FCC requirement. Do not change these codes.

State/Local and Weather Events[1] that need immediate broadcast to save lives:

CEM	Civil Emergency Message	RHW	Radiological Hazard Warning
EVI	Immediate Evacuation	SPW	Shelter In Place
FFW	Flash Flood Warning	TOE	911 Telephone Outage
FRW	Fire Warning	TOR	Tornado Warning
HMW	Hazardous Materials Warning	CAE	Child Abduction Emergency
TSW	Tsunami Warning		

Note: Tsunami Warning (TSW) is included in this list which locally seems to be very unlikely but if it ever needed there will probably be very little advance warning time. Only broadcasters with signal patterns near the Chesapeake Bay and Coast and cable operations in bay and coastal communities would need to consider this event. A recent NWS release indicates they will begin to issue Tsunami Watch/Warnings if ever needed.

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[1] All State, Local, and Weather EAS events are optional. It is up to each broadcaster to decide which events will be covered. The MD SECC recommends that life threatening events be considered for those that will affect a given listening/viewing audience. The group are events with immediate consequences for people needing the warning information. The Child Abduction Emergency (CAE) for a Child AMBER Alert is one the MD SECC hopes is considered by all stations, but it is not one that warns the public of extreme danger, but rather asks the public to assist in saving a child's life. It is up to station management to decide on its station's participation in the voluntary part of EAS. This list requires a station's EAS Endec is upgraded to the latest EAS event codes. Those stations not having upgraded should at least set their Endecs to use the first three events, CEM, EVI, and FFW in the automatic mode. Stations without Event Code upgrades will not be able to receive and decode CAE events. The Child AMBER Alert information is ONLY sent using the CAE. FCC Rules prohibit using any other Event Code to activate EAS for an AMBER Alert.

MARYLAND & LOCAL EAS EVENTS DEFINED

To keep things consistent as to what each EAS event code covers, as well as to keep us on track with all states in our surrounding area and nationally, so that we can maintain a consistent message that is understood by everyone, this section is included. It is complete as provided by the National Weather Service in preparations for their All Hazards National Weather Radio. Here are the definitions we will follow for the events listed that are for local and State use. Please note the exclusions from Maryland use listed in brackets following the definition.

Administrative Message (ADR). A non-emergency message that provides updated information about an event in progress, an event that has expired or concluded early, pre-event preparation or mitigation activities, post-event recovery operations, or other administrative matters pertaining to the Emergency Alert System.

Avalanche Watch (AVA). A message issued by authorized officials when conditions are forecast to become favorable for natural or human-triggered avalanches that could affect roadways, structures, or backcountry activities.

Avalanche Warning (AVW). A warning of current or imminent avalanche activity when avalanche danger is considered high or extreme. Authorized officials may recommend or order protective actions according to state law or local ordinance when natural or human-triggered avalanches are likely to affect roadways, structures, or backcountry activities.

Child Abduction Emergency (CAE). An emergency message, based on established criteria, about a missing child believed to be abducted. A local or state law enforcement agency investigating the abduction will describe the missing child, provide a description of the suspect or vehicle, and ask the public to notify the requesting agency if they have any information on the whereabouts of the child or suspect.

Civil Danger Warning (CDW). A warning of an event that presents a danger to a significant civilian population. The CDW, which usually warns of a specific hazard and gives specific protective action, has a higher priority than the Local Area Emergency (LAE). Examples include contaminated water supply and imminent or in-progress military or terrorist attack. Public protective actions could include evacuation, shelter in place, or other actions (such as boiling contaminated water or seeking medical treatment).

Civil Emergency Message (CEM). An emergency message regarding an in-progress or imminent significant threat(s) to public safety and/or property. The CEM is a higher priority message than the Local Area Emergency (LAE), but the hazard is less specific then the Civil Danger Warning (CDW). For example, the CEM could be used to describe a change in the Homeland Security Alert System level in response to a terrorist threat.

Earthquake Warning (EQW). A warning of current or imminent earthquake activity. Authorized officials may recommend or order protective actions according to state law or local ordinance.

Evacuation Immediate (EVI). A warning where immediate evacuation is recommended or ordered according to state law or local ordinance. As an example, authorized officials may recommend the evacuation of affected areas due to an approaching tropical cyclone. In the event a flammable or explosive gas is released, authorized officials may recommend evacuation of designated areas where casualties or property damage from a vapor cloud explosion or fire may occur.

Fire Warning (FRW). A warning of a spreading wildfire or structural fire that threatens a populated area. Evacuation of areas in the fire's path may be recommended by authorized officials according to state law or local ordinance.

Hazardous Materials Warning (HMW). A warning of the release of a non-radioactive hazardous material (such as a flammable gas, toxic chemical, or biological agent) that may recommend evacuation (for an explosion, fire or oil spill hazard) or shelter in place (for a toxic fume hazard).

Law Enforcement Warning (LEW). A warning of a bomb explosion, riot, or other criminal event (e.g. a jailbreak). An authorized law enforcement agency may blockade roads, waterways, or facilities, evacuate or deny access to affected areas, and arrest violators or suspicious persons.

Local Area Emergency (LAE). An emergency message that defines an event that by itself does not pose a significant threat to public safety and/or property. However, the event could escalate, contribute to other more serious events, or disrupt critical public safety services. Instructions, other than public protective actions, may be provided by authorized officials. Examples include: a disruption in water, electric or natural gas service, road closures due to excessive snowfall, or a potential terrorist threat where the public is asked to remain alert.

Network Message Notification (NMN). Not yet defined and not in the suite of products for relay by NWS. **[Not for Maryland Use at this time.]**

911 Telephone Outage Emergency (TOE). An emergency message that defines a local or state 911 telephone network outage by geographic area or telephone exchange. Authorized officials may provide alternative phone numbers in which to reach 911 or dispatch personnel.

Nuclear Power Plant Warning (NUW). A warning of an event at a nuclear power plant classified such as a Site Area Emergency or General Emergency as classified by the Nuclear Regulatory Commission (NRC). A Site Area Emergency is confined to the plant site; no off-site impact is expected. Typically, a General Emergency is confined to an area less

than a 10-mile radius around the plant. Authorized officials may recommend evacuation or medical treatment of exposed persons in nearby areas.

Radiological Hazard Warning (RHW). A warning of the loss, discovery, or release of a radiological hazard. Examples include: the theft of a radioactive isotope used for medical, seismic, or other purposes; the discovery of radioactive materials; a transportation (aircraft, truck or rail, etc.) accident which may involve nuclear weapons, nuclear fuel, or radioactive wastes. Authorized officials may recommend protective actions to be taken if a radioactive hazard is discovered.

Shelter in Place Warning (SPW). A warning of an event where the public is recommended to shelter in place (go inside, close doors and windows, turn off air conditioning or heating systems, and turn on the radio or TV for more information). An example is the release of hazardous materials where toxic fumes or radioactivity may affect designated areas.

Volcano Warning (VOW). A warning of current or imminent volcanic activity. Authorized officials may recommend or order protective actions according to state law or local ordinance. **[Not for Maryland Use.]**

Adopted from NWSI 10-518. Not all of these events are considered applicable for use in Maryland.

MARYLAND FIPS CODES

ALL MARYLAND BROADCASTERS/CABLE OPERATORS MUST INCLUDE THE STATE FIPS CODE

024000

This is to receive full State MARYLAND EAS Messages and RMT Event Codes.
Plus one needs to include any of these county codes that are appropriate for to the coverage area.

MARYLAND COUNTY FIPS CODE CHART

Subdivision Number (Not Used) Use All County	State Number	County Number	County Name	Combined to make FIPS Code:
		001	Allegany	024001
		003	Anne Arundel	024003
		005	Baltimore	024005
		009	Calvert	024009
		011	Caroline	024011
		013	Carroll	024013
		015	Cecil	024015
		017	Charles	024017
		019	Dorchester	024019
		021	Frederick	024021
		023	Garrett	024023
0	**24**	025	Harford	024025
		027	Howard	024027
		029	Kent	024029
		031	Montgomery	024031
		033	Prince George's	024033
		035	Queen Anne's	024035
		037	St. Mary's	024037
		039	Somerset	024039
		041	Talbot	024041
		043	Washington	024043
		045	Wicomico	024045
		047	Worcester	024047

INDEPENDENT CITY and Special FIPS Area Codes in Maryland –

Subdivision Number (not used) Use All County	State Number	Special Location Number	Location Name	Combined to make FIPS Code
0	**24**	510	Baltimore City	024510

SPECIAL MARINE AREA FIPS CODES WITHIN MARYLAND

Subdivision Number (not used)	Marine Area Number	Marine Location Number	Location Identified as: CB=Chesapeake Bay PR= Potomac River	Combined to Make the FIPS Code
		530	CB - North of Pooles Island	073530
		531	CB - Pooles Island to Sandy Pt	073531
		532	CB - Sandy Pt to North Beach	073532
		533	CB - North Beach to Drum Point	073533
0	**73**	534	CB - Drum Pt MD to Smith Pt VA	073534
		535	PR- Key Bridge to Indian Pt	073535
		536	PR- Indian Head to Cobb Island	073536
		537	PR- Cobb Island to Smith Pt	073537
		650	Coastal Waters – Fenwick Is DE to Chincoteague VA	073650

There may be other Location codes broadcasters may want to cover for adjoining out-of-state locations and Marine interests nearby that are not listed here. It is up to each broadcaster to determine.

MD FIPS CODE CODES AND AREAS

LOCAL EMERGENCY MANAGEMENT
AREAS OF RESPONSIBILITY:

The following is a listing of Maryland County and Local Emergency Management Agencies (EMA) and the FIPS codes. The next two paragraphs describe these responsibilities briefly with the exceptions and limitations to that apply in each case as listed otherwise in this plan.

Local emergencies are the responsibility of the local County and/or Local City Emergency Management agency. As such these organizations are the ones responsible for issuing any EAS warning messages for their areas, with the exception of weather warnings which will be issued only by the National Weather Service for their area. Exception: Warnings are important, too important to be overlooked. If the agency has any trouble issuing the alert, they may ask others for help to do it. If they have trouble with equipment, or have too great an immediate workload to issue the warning in a fast and effective manner, they may want to use the resources around them. To accomplish this they may request mutual aid from another County or Local EMA within their EAS Operational Area, or the Maryland State EMA to issue the alert. This will help assure that the critical message is provided the public in an quick and accurate way. Those issuing EAS for another County should only issue it for the county involved unless it also affects those in the nearby county as well.

The Required Monthly Test (RMT) is a requirement of the FCC but is reserved in this plan as the responsibility for the SECC. All of these tests should be issued using the state relay, via our daisy chain, and occasionally via NWR.

The Required Monthly Test (RMT) is different than a Required Weekly Test (RWT) in that the broadcast stations and cable outlets are required to forward the EAS message within one hour of its receipt. At any time, other than when you are authorized to issue an RMT, you want to test your equipment's connectivity with a broadcaster or cable outlet in your area, you must use the Required Weekly Test (RWT). This will be actively received by those broadcasters and cable companies listening to your FIPS code, but does not have to be aired when received. Instead they log the receipt of the test. This does sufficiently show the connectivity of the local EAS system.

Below is the Listing of County and Local Emergency Management Agencies and authorized Emergency Operational Centers that may activate EAS, with their contact information, and authorized FIPS codes for operations of EAS events and RMTs in their area.

LOCAL MD EM AGENCIES AREAS OF RESPONSIBILITY

| EM/EOC Name:	County and Local Emergency Management Agency Areas of Responsibility- Contact Information:	FIPS for Local Responsibility	Other FIPS for your Operational Area
Allegany/ Garrett EAS Local Area			
Allegany County 911/EOC	Allegany County Emergency Management Agency 414 Hudson Avenue Constitution Park P.O. Box 1340 Cumberland, MD 21502 Office: 301-777-5908 Fax: 301-777-8196	024001	024001 024023
Garrett County Office of Emergency Management	Garrett County Office of Emergency Management 311 East Alder Street Oakland, MD 21550 Office: 301-334-7619 Fax: 301-334-8946	024023	024001 024023
Baltimore Metropolitan EAS Local Area			
Anne Arundel County EOC	Anne Arundel County Emergency Management Bureau 8501 Veteran's Highway Millersville, MD 21108 Office: 410-222-8040 Fax: 410-222-8039	024003	024003 024005 024013 024027 024510
Baltimore City 911	Baltimore City Office of Disaster Control and Civil Defense 1201 East Cold Spring Lane Baltimore, MD 21239 Office: 410-396-6175 Fax: 410-532-6125	024510	024003 024005 024013 024027 024510
Baltimore County 911/EOC	Baltimore County Office of Emergency Preparedness Baltimore County Fire Department 700 East Joppa Road, Third Floor Towson, MD 21286-5500 Office: 410-887-5996 Fax: 410-337-7445	024005	024003 024005 024013 024027 024510
Carroll County 911/EOC	Carroll County Emergency Management Agency Office of Public Safety 225 North Center Street, Room #020 Westminster, MD 21157 Office: 410-386-2296 Fax: 410-857-3522	024013	024003 024005 024013 024027 024510
Howard County 911	Howard County Fire and Rescue Office of Emergency Management 6751 Columbia Gateway Drive Fourth Floor Columbia, MD 21046 Office: 410-313-6331 Fax: 410-313-3423	024027	024003 024005 024013 024027 024510

LOCAL MD EM AGENCIES AREAS OF RESPONSIBILITY

EM/EOC Name:	Contact Information:	FIPS for Local Responsibility	Other FIPS for your Operational Area
County and Local Emergency Management Agency Areas of Responsibility-			
Frederick/Washington EAS Local Area			
Frederick County 911	Frederick County Civil Defense & Disaster Preparedness 340 Montevue Lane Frederick , MD 21702 Office: 301-694-1418 Fax: 301-695-7960	024021	024021 024043
Washington County 911	Washington County Emergency Management Washington County Dept. of Emergency Services 33 West Washington Street Hagerstown, MD 21740 Office: 240-313-2904 Fax: 240-313-2930	024043	024021 024043
Cecil / Harford County EAS Local Area			
Cecil County Dept. ES	Cecil County Department of Emergency Services 107 Chesapeake Blvd. Suite 108 Elkton, MD. 21921 Office: 410-996-5350 Fax: 410-398-0536	024015	024011 024015 024029 024035 024041
Harford County 911	Harford County Division of Emergency Operations 2220 Ady Road Forest Hill, MD 21050-1707 Office: 410-638-3409 Fax: 410-879-5091	24025	24025
Southern Maryland EAS Local Area			
Calvert County EOC	Calvert County Division of Emergency Management Court House 175 Main Street Prince Frederick, MD 20678 Office: 410-535-1623 Fax: 410-535-3997	024009	024009 024017 024037
Charles County 911	Charles County Department of Emergency Services P.O. Box 2150 200 Baltimore Street La Plata, MD 20646 Office: 301-609-3402 Fax: 301-609-3410	02417	024009 024017 024037
St. Mary's County 911	St. Mary's County Emergency Management Agency Emergency Operations Center 23090 Leonard Hall Drive P.O. Box 653 Leonardtown, MD 20650-0653 Office: 301-475-4440 Fax: 301-475-4512 301-475-4924	024037	024009 024017 024037

| County and Local Emergency Management Agency Areas of Responsibility-			
EM/EOC Name:	Contact Information:	FIPS for Local Responsibility	Other FIPS for your Operational Area
Upper Eastern Shore EAS Local Area			
Caroline County 911/EOC	Caroline County Department of Emergency Management 7 N. First Street Denton, MD 21629 Office: 410-479-2622 Fax: 410-479-4200	024011	024011 024015 024029 024035 024041
Kent County 911	Kent County Emergency Management Agency Unit D, 104 Vickers Drive Chestertown, MD 21620 Office: 410-778-3758 Fax: 410-778-4601	024029	024011 024015 024029 024035 024041
Queen Anne's County 911	Queen Anne's County 911 100 Communications Drive Centerville, MD 21617 Office: 410-758-4500 Fax: 410-758-2194	024035	024011 024015 024029 024035 024041
Talbot County 911/EOC	Talbot County Emergency Management Agency 605 Port Street Easton, MD 21601 Office: 410-770-8160 Fax: 410-770-8163	024041	024011 024015 024029 024035 024041
Lower Eastern Shore EAS Local Area			
Dorchester County 911/EOC	Dorchester County Emergency Management Agency 829 Fieldcrest Road Cambridge, MD 21613 Office: 410-228-1818 Fax: 410-228-1216	024019	024019 024039 024045 024047
Ocean City 911	Ocean City Office of Emergency Management P.O. Box 158 6501 Coastal Highway Ocean City, MD 21843-0158 Office: 410-723-6646 Fax: 410-723-6962	024047	024019 024039 024045 024047
Somerset County 911/EOC	Somerset County Department of Emergency Services 11916 Somerset Avenue Princess Anne, MD 21853 Office: 410-651-0707 Fax: 410-651-3350	024039	024019 024039 024045 024047
Wicomico County 911/EOC	Wicomico County Emergency Management Agency Public Safety Complex 411 Naylor Mill Road, Suite 200 Salisbury, MD 21801 Office: 410-548-4921 Fax: 410-548-4932	024045	024019 024039 024045 024047

EM/EOC Name:	Contact Information:	FIPS for Local Responsibility	Other FIPS for your Operational Area
	County and Local Emergency Management Agency Areas of Responsibility-		
	Lower Eastern Shore EAS Local Area Continued		
Worcester County 911	Worcester County Emergency Services 1 West Market Street Court House, Room L14 Snow Hill, MD 21863 Office: 410-632-1311 Fax: 410-632-2141	024047	024019 024039 024045 024047
	Washington DC Metropolitan EAS Local Area (Maryland Counties Only)		
Montgomery County Fire 911	Montgomery County Fire 911 Box 4117 Gaithersburg, MD 20885-4117 Office: 240-777-2325 Fax: 240-777-2345	024031	024031 024033
Prince George's County EOC	Prince George's County Office of Emergency Preparedness 6820 Webster Street, Suite 113 Landover, MD 20784 Office: 301-583-1899 Fax: 301-583-1986	024033	024031 024033

MD FIPS CODE MAP

MARYLAND COUNTY FIPS CODE MAP
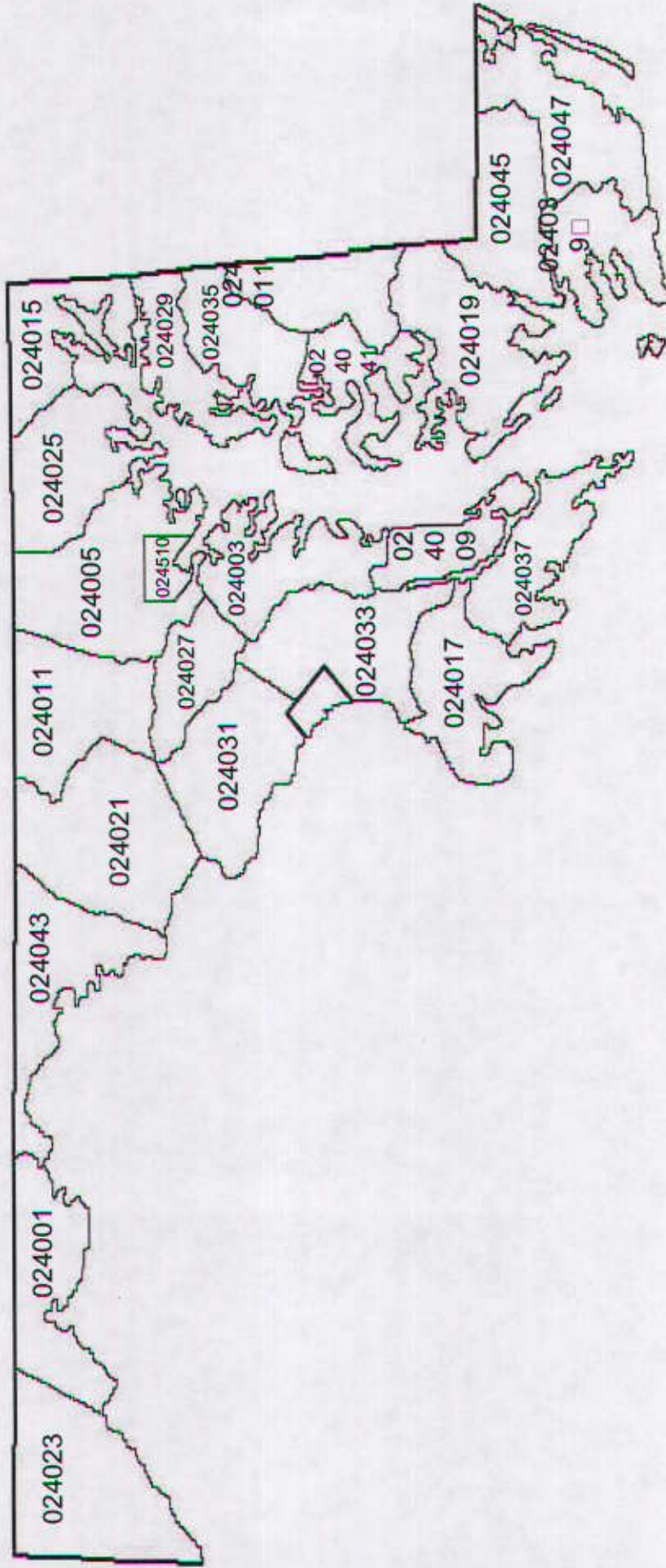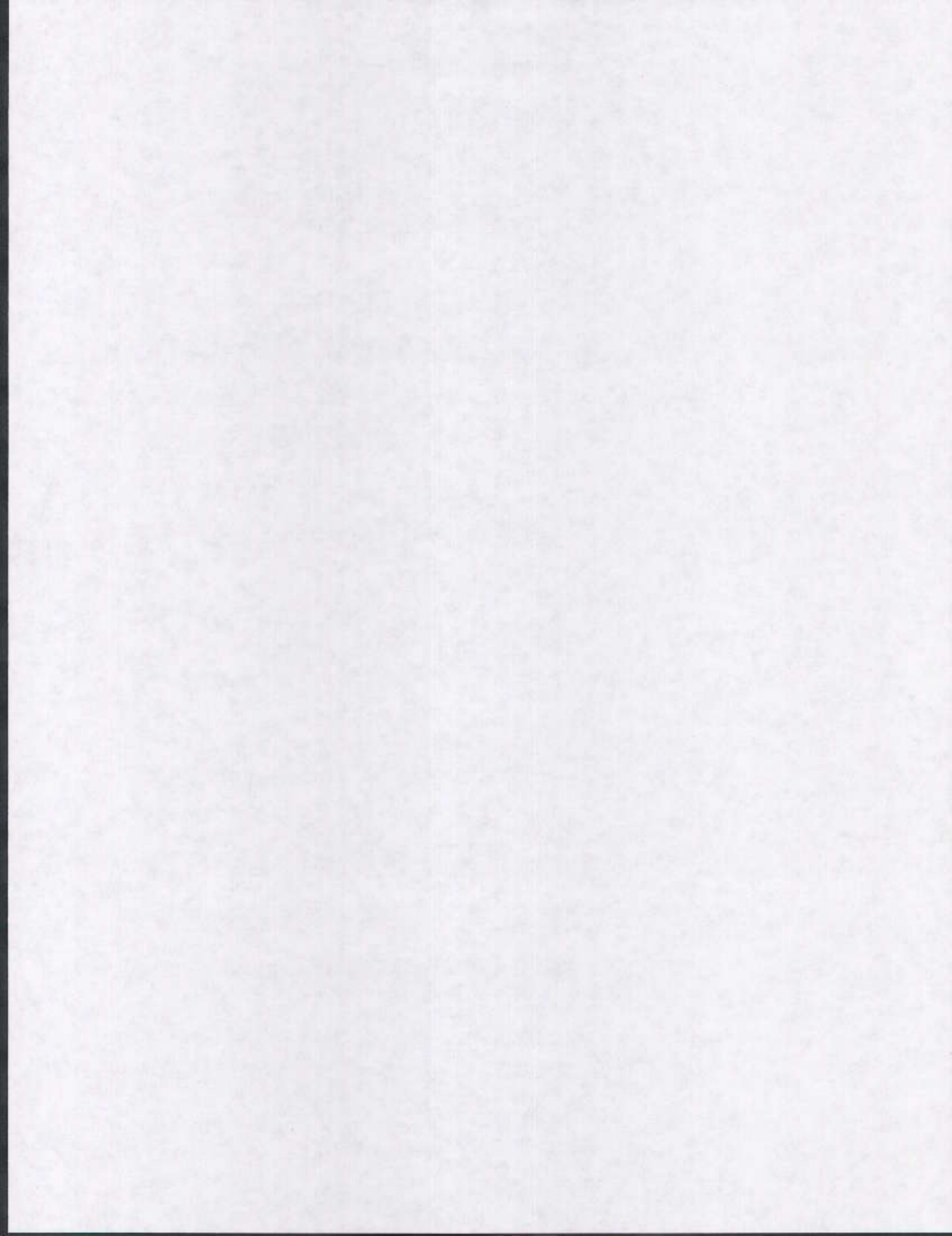
EAS TRAINING RECOMMENDATIONS

EAS Training Recommendations Annex

The idea behind this section is to create a recommended training process to help get everyone on the same page as far as what EAS is and how EAS will be used in Maryland. To get the most from the EAS system, it is important that everyone is trained as to their part as far as EAS is concerned. Currently the MD SECC does not have a full training program available. For the present time a list available resources is provided that can one gain an understanding of EAS.

Emergency Officials - Recommended resources:

> EMnet training via MEMA by calling 1-877-MEMA-USA (1-877-636-2872)

> FEMA – Information found at: www.training.fema.gov/EMIWeb

Broadcasters and Cable Operators - Recommended resources:

> FCC EAS Handbooks and other information found at: www.fcc.gov/eb/eas

> Society of Broadcast Engineers (SBE) Emergency Alert Pages found at: http://sbe.org/
> Click on Emergency Alert System in the Left Menu section.

> SBE also has a great EAS discussion list called the SBE-EAS Remailer that is probably the best information and help forum on EAS for Broadcasters. They have an extensive archive of discussions too. To sign up for the SBE-EAS remailer or to see the information in the archive, go to:
> http://www.broadcast.net/mailman/listinfo/sbe-eas

> Additional help may be available from the Maryland, D.C., Delaware, Broadcasters Association (MDCD), who have a good Alternate inspection program available that includes EAS. More information might be found at http://www.mdcd.com/ or by calling MDCD at: 410-653-4122.

Also for government recommendations about Emergency Preparedness you can go to:

> Media Security and Reliability Council's web sites - at the FCC:
> http://www.fcc.gov/MSRC/ and at their own web site:
> http://www.mediasecurity.org/

> NOAA Weather Radio information is available at: http://www.nws.noaa.gov/nwr/
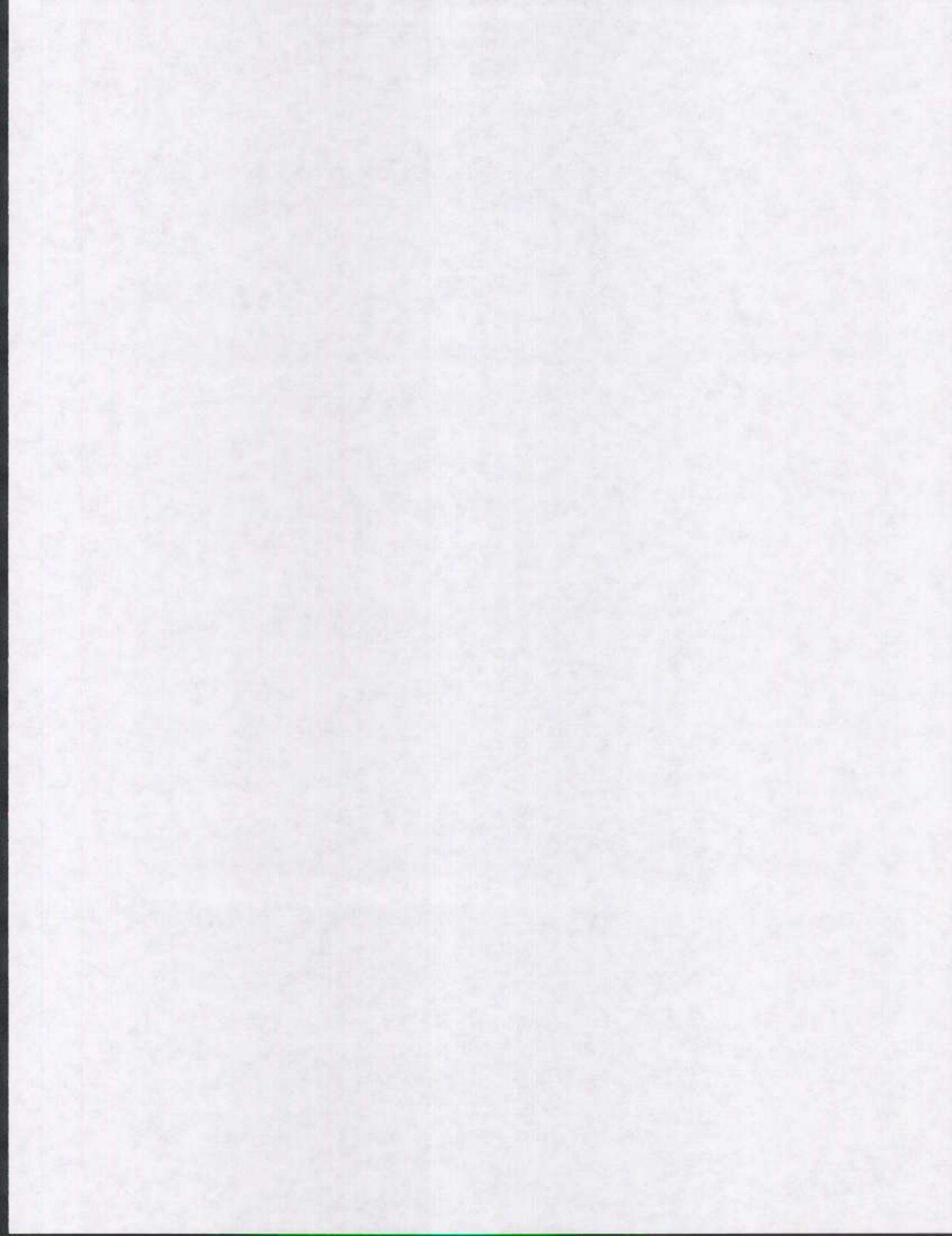
Terms and Definitions

Terms with Definitions As Used in This Plan

DEFINITIONS

Automation: A system of using equipment to operate normal sequences of events with NO human intervention. Thanks to Part 11 Rules, Broadcast and Cable operations can now be automated 24/7 if the management so desires and sets up their operation accordingly. This means that Emergency Managers wanting to provide emergency messages to the public using the Emergency Alert System can not reasonably rely on broadcasters to insert the message into the system, as there literally may not be anyone there to help.

Daisy Chain: A method of relaying messages from one broadcaster to another until all broadcasters have received the message. Started during the EBS days, this method is slow at getting the message to all participants, as it adds levels of hops (from one broadcaster to another) which consume time. By design the Daisy Chain segments must be capable of reliably receiving the broadcast signal of the previous tier in the chain, and while slow, it is only reliable when all broadcasters forward the messages received.

Designated Local Government Officials: The person or persons designated by the local government signatory to this procedure to make emergency announcements and/or broadcasts.

EAS: Abbreviation for the Emergency Alert System. Officially became the national emergency alerting system on January 1, 1997.

EAS OPERATIONAL AREA: An area based on grouping EM Operational Areas in a way consistent with broadcast patterns as assigned by the State EM or traditional relationships.

EBS: Abbreviation for the Emergency Broadcast System. Served as the official national emergency alerting system until December 31, 1996, when it ceased to exist.

EM: Abbreviation for Emergency Management.

EM Operational Area: An area controlled by one Emergency Management organization or authority. These operational areas are based on county and municipal Geo-political boundaries in Maryland.

Emergency: A situation posing an extraordinary threat to the safety of life and property. Examples are: tornadoes, hurricanes, floods, severe thunderstorms, earthquakes, icing conditions, heavy snows, widespread commercial power failures, chemical spills, explosions and fires, nuclear hazards, transportation accidents involving hazardous materials, and industrial accidents with possible severe environmental pollution effects.

Terms and Definitions

EMnet: Abbreviation for Emergency Managers Network. It is also used to indicate computer and satellite equipment used to facilitate communications via that network. This is a system designed to provide a fast and secure communications link for emergency managers, Emergency Operations Centers, and other government agencies for communication about alert and warning matters. This equipment also allows authorized personnel to issue EAS Alert messages directly to individual or grouped broadcasters, or into the State Relay Network. Thus, broadcasters, cable operators and others concerned with warning the public may receive the emergency communications simultaneously and directly for all of those who are so equipped. This is a closed loop system that automatically reports back to the originating authority that messages are received and/or acknowledged at EMnet EAS equipped locations.

EMnet EAS: It refers to the Emergency Managers Network for Emergency Alert System messaging and equipment. It consists of a computer terminal running specialized software and satellite downlink equipment designed to allow broadcast stations, cable companies, and others in the State EAS Relay Network for the fast reception of EAS alerts. It is a secure system that enables all messages to be sent to all receivers, but only allows decoding of the messages intended for the correct terminal. This means that all EAS alerts received via this system are authentic. It is fast, and can process a full EAS Activation complete with a 2 minute vocal message (which is compressed and decompressed) when sent via the satellite link in about 30 seconds from the time it was uplinked. (It will still take two minutes for the computer to play back the Alert message to regular Endec equipment.) For video programmers, it will also include the full vocal text for EAS crawls in electronic form that can be instantly added via the simple EMnet Remote Node interface, or copied and pasted into a EAS Crawl Program. (Future releases may include generic graphics, like maps and video screens as attachments, with appropriate instructions for the EAS alert being received. EMnet non-EAS messaging currently allows such attachments.)

EN/DEC or Endec: Abbreviation for specialized EAS equipment designed to Encode and Decode EAS Messages that are either inserted or received via the State Relay Network.

FIPS Code: Code provided for a given state and county as created by the National Institute of Standards and Technology. FIPS is an abbreviation for Federal Information Processing Standard. In EAS and the SAME encoding for the NWS, this FIPS code can be prefaced by a subdivision code that is not currently authorized for use in Maryland. These subdivisions will be defined at a future date by the NWS and its emergency management partners.

Forwarding (an EAS Bulletin): An emergency message maybe forwarded by a receiving station by interrupting the normal broadcast audio (and video) feed at the final stage before transmission and inserting the emergency message. This process can be done either automatically, or manually. By forwarding the emergency message as received, you will not cause other EAS receivers to see your EAS bulletin as a separate incident (proper protocol).

Initiation of EAS Messages: It is the originator's obligation to provide the full EAS encoding, attention signal, vocal message, and end of message marker, and insert it into the monitored EAS stream. This is done using Endec equipment specially designed for this

Terms and Definitions

purpose. This may only be done by those who are authorized and trained to do so, and only when approved by the designated local government official as being necessary. EAS should be a last resort method to notify the public of an emergency which threatens the safety of their life and property.

LECC or **LAECC**: Local Emergency Communications Committee or Local Area Emergency Communications Committee. This is the committee of volunteers who oversee the Local Emergency Alert System Plan (for an EAS Operational Area). For our purposes here, an LECC serves one EAS Operational Area based on a geographical area assigned (or by traditional grouping). An LAECC would serve as the committee for a group of EAS Operational Areas based on broadcast patterns and community identity boundaries. In this way an LAECC's geographical boundary can span a broader area and include people in more than one state, county, or EAS Operational Area.

Local Primary Source (LP): This is the official designation for a broadcaster or other communication source which is capable of monitoring one of the FCC required PEP sources for National Level EAS messages. These national level EAS messages can include any of the following messages: Emergency Action Notification (EAN), Emergency Action Termination (EAT), and National Information Center (NIC). In Part 11 of the FCC the sole purpose required for LP source is the relaying of National level EAS messages into the local EAS Area. Besides relaying National level EAS messages, the only other requirement for an LP station is that they are usually operational 24 hours a day and 7 days a week. **These are the official monitoring requirements for all broadcasters and cable outlets in a given EAS operational area, as you are required to receive two sources for EAN activations.** LP sources are usually numbered LP1, LP2, and there may be more available as necessary to provide adequate coverage for an area or as more redundancy becomes available. LP Sources are not necessarily required to be broadcasters, they can be a state relay network or other background network that is capable of providing PEP coverage. Where possible, both should not be located in one facility. If only one is available for a given EAS operational area, then an LP source for an adjacent EAS operational Area may be assigned for monitoring as your second source. See your State EAS Plan for the official monitoring assignments for your EAS Operational Area.

(Note: EMnet EAS does not yet qualify here as a PEP source. While it may in the future, it is not yet considered as a source for EAN. It may be considered for other than the first two EAS listening port connections on an Endec.)

As key LP stations have in the past been relied upon to also be key in processing local EAS alerts. This can not be considered reliable for local EAS message initiation now under the new Part 11 automation rules, as broadcasters are no longer required to be manned.

Local Relay: A message outlet needed to complete the message chain. Here this refers to a broadcaster who is not an LP station designation, but who is needed to relay messages to a remote location so others further down the daisy chain can receive the messages.

Terms and Definitions

Local Relay Network: A message relay network system designed and operated in a local area for inserting EAS messages into the monitored EAS stream. It may be separate from a State Relay Network.

MEMA: Maryland Emergency Management Agency

NWR: NOAA Weather Radio. (See Annex 3 of this plan for NWR related information.)

Network: A system of communication points who assist each other with information or are a part of one in the same.

One Time System: This is a reminder to EM officials that EAS is a one shot deal when broadcast stations are automated. As current EAS equipment doe not provide a means of periodically repeating the emergency message, but will only forward it one time. It is advisable that EM be sure to get the message right the first time, as it may be their only chance to be heard by the public.

Relay: A means of communicating between several points. A relay is repeating a message to others who are dependent on you to understand what is happening, and how they should react.

Repeating the EAS Message: While it could be done automatically at unmanned broadcast stations, repeating the message usually requires manual intervention at a broadcast station as it is currently done. To enable doing this, broadcasters need the actual bulletin text in hard copy to re-read the information over the air. Television and Cable outlets need the text in electronic form to repeatedly crawl the information on screen, or create a video screen page. Everyone needs it electronically to create informational web pages with the information. While Older EAS Endec equipment do not provide a way yet to send the text of the vocal message contained in the bulletin with the original EAS message, newer EMnet EAS equipment can do this. It is advisable to use a system like this whenever possible. Fax is also usable, but can cause delays with electronic media outlets as manual typing messages is time consuming.

**RMT:** Abbreviation and event code for Required Monthly Test.

RWT: Abbreviation and event code for Required Weekly Test.

Satellite Relay Network System: A relay system or network using satellite (uplinks and downlinks) to communicate the EAS message by more directly connecting the sender and receiver. This is a modern and up-to-date method of relaying critical emergency information. It speeds communication by using increased bandwidth, and eliminating dependence on relayed information from other broadcasters.

Terms and Definitions

State Relay Network: The State Relay Network is a background communications channel which relays Emergency Messages to all Emergency Management and Media Outlets who have available receivers. This network when used allows direct communication between Emergency

Management (EM) officials and media outlets such as broadcasters and cable operators who are capable of providing the public the emergency message instantly, or with minimum delay. This can include networks of many types, but is usually done using Radio, Microwave Communications Relay Systems, Satellite, and even sometimes the Internet, where a communication backbone is available and can be monitored by EAS Endec Equipment.
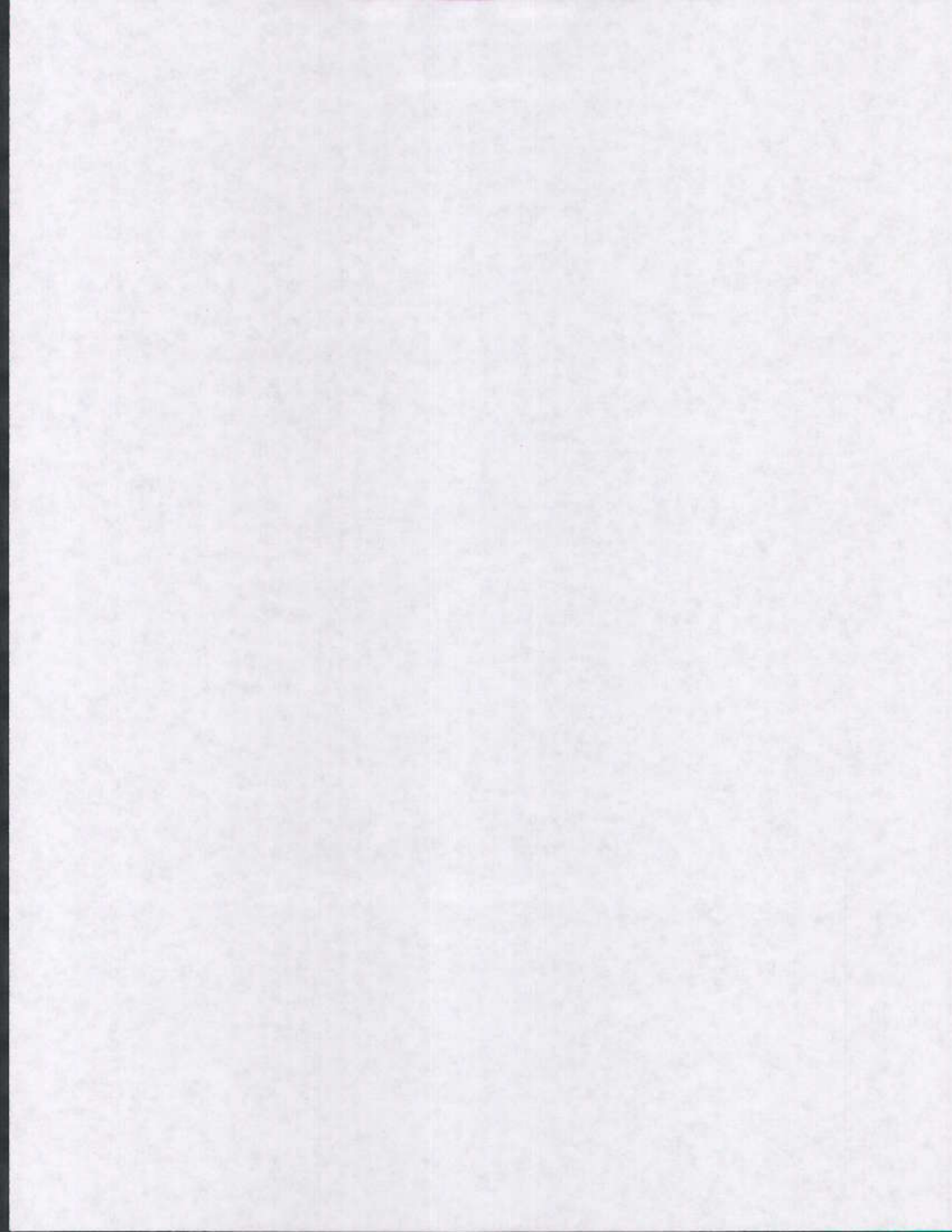
FCC RULE CHANGES – DIGITAL INCLUSION

The Federal Communications Commission who governs broadcast and other forms of communication are currently considering EB Docket No. 04-296, concerning FIRST REPORT AND ORDER and also FURTHER NOTICE OF PROPOSED RULEMAKING concerning EAS and the inclusion of all digital broadcast and programming formats. This includes all Digital TV and Digital Radio broadcasters, Digital Cable, and also Satellite audio and video programmers offering direct to consumer services. We also include these services in our plan and establish monitoring procedures to parallel the regular analog TV and Radio, or Cable system LP assignments for the area that the service is located in and where possible to also monitor the State Relay System. For the new services added which include regional/national satellite to consumer video and audio services a local LP should be monitored whenever practical, but these services can also monitor the State Relay Network, EMnet EAS, to facilitate reception of information for more distant operational centers. While the broadcast of State and Local EAS messages is voluntary at this point we hope that find ways to inform their Maryland audiences of emergency situations that warn them of situations affecting their own personal safety. The FCC has set specific dates for compliance in this First Report and Order, at which the new services must be able to do any national level activation and required tests.

Given the interest in improving the Emergency Alert System since the events during our hurricane season, and the Homeland Security reorganization of the Federal Partners who utilize Emergency Alert System to provide warnings, the future monitoring assignments may require monitoring NOAA Weather Radio as well as the other LP assignments. Currently a Bill in Congress involves a study to reorganize EAS under National Weather Service direction. While these changes will not go into effect immediately it is advisable to understand that the Emergency Alert System is continuing to grow and improve, and that rule changes in the future are to be expected.
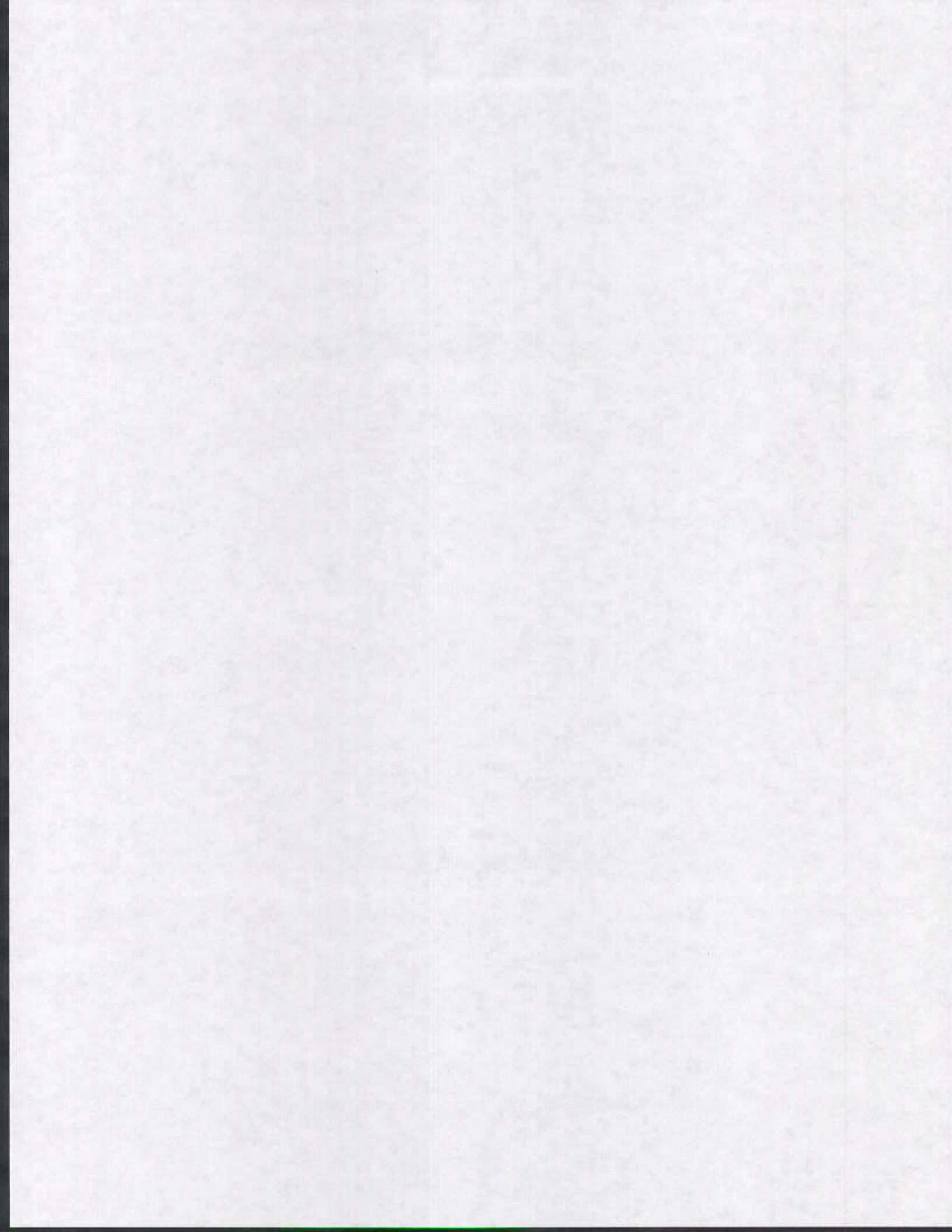
STATE EMERGENCY COMMUNICATIONS COMMITTEE

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	Chip Weinman	Maryland, D.C., Delaware Broadcasters Assn. 106 Old Court Road Suite 300 Baltimore, Maryland 21208 V: 410-653-4122 cweinman@mdcd.com
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	Ken Evans	WMDT-TV47 P.O. Box 4009 - 202 Downtown Plaza Salisbury, MD 21803 V: 410-742-4747 F: 410-742 5767 ken_evans@wmdt.com
	David Manning	NOAA NWS Sterling 44087 Weather Service Road Sterling, Va. 20166 V: 703-260-0107 F: 703-260-0809 david.manning@noaa.gov
	Rick Otradovec	Comcast Cable Communications, Inc. Atlantic Division 11800 Tech Road Silver Spring, MD 20904 V: 301-625.3524 F: 301.625.3575 Rick_otradovec@cable.comcast.com
	Aaron Rehkoph	WPOC, WSMJ, WCAO Clear Channel Radio 711 W. 40th Street Suite 350 Baltimore, MD 21211 V: 410-554-1898 F: 410-235-3899 arehkopf@wpoc.com
	Fred Webster	Worcester County Emergency Services 1 West Market Street Court House, Room L14 Snow Hill, MD 21863 V: 410-632-3080 fwebster@co.worcester.md.us
	Fred Willard	WFDC, WMDO, Univision 962 Wayne Avenue Suite 900 Silver Spring, MD 20910 V: 301-589-0030 F: 410-486-7354 fwillard@univision.net
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Technical Adviser	Henry D Black	Maryland Emergency Management Agency 5401 Rue Saint Lo Drive Reisterstown, MD 21136-4541 V: 877-636-2862 F: 410-517-3610 hblack@mema.state.md.us