

SOCIETY OF BROADCAST ENGINEERS, INC.

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A Strategy for Implementing CAP EAS

To aid implementation of CAP technology for a revised Emergency Alert System, the Society of Broadcast Engineers (SBE) has prepared for consideration a suggested working groups outline with possible tasks to be assigned. The SBE will offer its volunteer member services as appropriate on relevant working groups that relate to the interests of our members.

Note: A glossary of terms used in this document appears on the last page.

Process Details:

Identify the key industry stakeholders in the Next Generation EAS

- SBE, NAB, NASBA, NEMA, SCTE, NCTA, SECC representation, EAS and CAP equipment manufacturer representation

Determine the process

- Form an advisory council with membership from each stakeholder
- Form Working Groups to address individual tasks
- Determine what tasks need to be completed before starting the 180-day FEMA clock

Refine process details

- Mission statement; goals; milestones; feedback; deadlines; timelines; final report to FCC and FEMA.

Proposed Working Groups and assigned tasks

EAS CAP Profile WG

Develops the EAS CAP Profile to be mandated by FEMA for use in every state, regardless of distribution means, to ensure interoperability among states and devices.

- Designates where each EAS parameter goes in EAS CAP message.
- Should EAS parameters be sent as discrete values rather than decoder interpolating value?
- If DEAS has already addressed EAS parameter assignment, look at that.
- Designates how the Governor's message will be identified.
- Designates how the Governor's geo-targeted local alerts will be formatted.
- Develops authentication and security features for EAS CAP messaging.
- Analyzes whether data inserted into required CAP fields must be standardized.
- Analyzes whether other CAP features, such as Exercise, Test, Update, Cancel, and Language, can be implemented in EAS CAP.
- Strive for compatibility with the HazCollect CAP Profile.
- Coordinate with NWS to ensure that any new EAS CAP Profile can be accepted at NWS for use in generating ongoing NWR SAME alerts to the current generation of NOAA Weather Radios now in use by the public.

EAS CAP Distribution Network WG

Work with FEMA and states on developing Next Generation EAS networks.

- Make recommendations to FEMA and FCC on possible solutions, such as using vacated 700 MHz TV bandwidth for local last-mile distribution of EAS CAP alerts.
- Establish best practices for SECC's to follow in building CAP distribution networks.
- If invited, work with FCC in evaluating distribution networks submitted in revised State EAS Plans.

EAS CAP On-Air Presentation WG

Develops recommendations for standardized presentation of the public message across all media.

- Ensure that emergency alerts have a degree of consistency across all media by developing some common elements, such as consistent visual, aural, even tactile (e.g., portable device vibrator cadences) cues that one might almost call "branding elements".
- Investigate the possibility of employing a standard "sounder" that can be used across broadcast, wireless, wireline and even acoustical delivery systems, along the lines of Australia's Standard Emergency Warning Signal (SEWS).
- Work with representatives from programming, production, news, weather and graphics departments to develop best practices for uniform on-air presentation.
- Work with emergency management representatives to develop the most effective on-air warning presentation.
- Work toward standardized presentation on computers, PDAs, digital signage, etc. with representatives from those industries.
- Factor in CMSAAC recommendations on devising a consistent user experience on text-messaging devices.
- Work with NRSC, which is trying to develop a common user experience between FM RBDS and HD Radio text displays.
- Work with equipment manufacturers to ensure they incorporate the capabilities in their devices to carry out the above objectives.

EAS CAP Training WG

Work with FCC and FEMA on partnership-building, training, and best practices for all stakeholders. Assist FCC and FEMA in implementing the training mandated in the R&O.

- EMA training and best practices.
- State Governor's Office training and best practices.
- Work with FEMA on possibly including EAS as a NIMS training module.
- EAS Participant training.
- SECC training.
- Provide guidance to SECC's on what FCC expects to see in the revised EAS State Plans.
- Survey and recommend best practices for SECC's.

EAS CAP Equipment WG

Develops recommendations for the interoperability of EAS CAP Encoders and Decoders.

- What type of user experience can be provided to listeners and viewers? [Audio, video, maps, imagery] Work with the On-Air Presentation WG on this topic.
- If embedded audio is present, should it take precedence over text-to-speech option?
- Can manufacturers handle Circle and Polygon coordinates for the Governor's geo-targeted alerts, or must those be limited to FIPS codes only? [Report result to Profile WG.]
- How should an EAS CAP Decoder react to CAP parameters such as Exercise, Test, Update, Cancel, and Language?
- How should an EAS CAP Decoder react when EAS parameters are not strictly adhered to, such as EAS Time Duration; round up, round down, or ignore the alert?
- Develop recommendations for public end-user device manufacturers.
- If invited, develop recommendations for the FCC Type Acceptance requirements for EAS CAP Decoders.

EAS CAP FCC Rules/FEMA Directives Study WG

- What Directives are needed from FEMA to ensure proper and uniform implementation of EAS CAP?
- What new FCC Rules are needed to ensure proper and uniform implementation of EAS CAP?
- Modify FCC Rules to eliminate the LP/daisy chain model?
- Modify FCC Rules monitoring requirements to move from stations to facilities/sources?
- Review 47 CFR Part 11 to suggest elimination of unnecessary rules.
- Should mandatory EAS RWT and RMT test origination requirements be changed in light of EAS enhancements?
- Should FCC create a GOV or other must-carry EAS Originator Code to enable CAP Decoders to pass this must-carry message status on to the current legacy EAS Decoders?
- If EAS Participant holds an NN Authorization, are they also exempted from carrying the Governor's mandatory CAP alert? If so, what procedure must they follow when a Governor's message is received? Would this policy extend to future mandatory Mayor CAP alerts?
- Address some apparent oversights on items mentioned in the R&O which are not reflected in the revised FCC rules.
- Is a FCC Rules "Type Acceptance" requirement for EAS CAP Decoders needed?

Glossary of terms used in this document

CAP	Common Alerting Protocol
CMSAAC	Commercial Mobile Service Alerting Advisory Committee
DEAS	Digital Emergency Alert System
EAS	Emergency Alert System
EMA	Emergency Management Agency
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
HD Radio©	US Digital Radio
LP	Local Primary (Station)
NAB	National Association of Broadcasters
NASBA	National Alliance of State Broadcasters Associations
NCTA	National Cable and Telecommunications Association
NEMA	National Emergency Management Association
NIMS	National Incident Management System
NN	Non-participating National
NOAA	National Oceanic and Atmospheric Administration
NRSC	National Radio Systems Committee
NWR	NOAA Weather Radio
NWS	National Weather Service
PDA	Personal Digital Assistant
R&O	Report and Order
RBDS	Radio Broadcast Data System
RMT	EAS Required Monthly Test
RWT	EAS Required Weekly Test
SAME	Specific Area Message Encoding
SBE	Society of Broadcast Engineers
SCTE	Society of Cable Telecommunications Engineers
SECC	State Emergency Communications Committee
SEWS	Australia's Standard Emergency Warning Signal
WG	Working Group