

- **EAS audio format:** Some standard format should be chosen for attached audio. As of now, it looks like the probable front-runners as candidates for that format are MP3 and Vorbis OGG. There are numerous tests that have been performed to compare the two formats and each has its benefits and detractors on numerous points such as price, audio quality, file size, encoding and decoding performance, PC resource usage, driver availability, native support, etc.
- **Additional usage:** I don't think that many more constraints for additional uses should be added (e.g. cell phones, non-EAS radio/TV users, etc.) as all they will do is convolute and lengthen the messages. One of the stated goals of the CAP system is “reduction of costs and operational complexity by eliminating the need for multiple custom software interfaces to the many warning sources and dissemination systems involved in all-hazard warning.” By adding additional elements for each of many different specific end users (i.e. the proposed separate <info> block for everyone who wants to participate with the same or similar value but different restrictions on populated fields), we adulterate the format and corrupt the idea of having one message format that can be interpreted by many clients and end up with many formats for many clients all crammed into one message. Ideally, I think that the format should include the data necessary for certain integral systems (i.e. EAS) as well as enough additional information to adequately define the situation and make it the responsibility of the end-user to organize and interpret the data.

This single-data-block model would also help to ensure the consistency of messages being disseminated in that it would prevent a message from being sent out with, say, an <info> block intended for EAS consumption which contains the correct event data and another <info> block for the same event with different/incorrect data intended for another recipient.

- **Languages:** It is my opinion that any alert messages to be conveyed in languages other than English be initially transmitted by the message originator in such languages and, where appropriate, accompanied by pre-translated audio resources. It cannot be the responsibility of the message recipient/CAP-to-EAS conversion unit to correctly translate alerts or convert them to appropriate audio. It is possible for each message to have more than one <info> block and it would be possible to contain this foreign language alert.
- **State abbreviations:** In any fields which may be used for text-to-speech conversion, state abbreviations (any any other abbreviations) should be avoided as the TTS converter will simply read them as written rather than speaking the full word or phrase.
- **Enumerated types:** It was suggested in at least one of the proffered CAP-EAS profiles that some of the enumerated types specified by the CAP 1.1 standard be either restricted or expanded to better suit the specific needs of messages intended for EAS consumption. This should be finalized.
- **Geocodes:** It has been suggested that perhaps SAME formatted geocodes should be abandoned as obsolete and outdated and instead require that EAS participants make use of next-generation

representations using the geospatial shapes polygon and circle. It is my understanding that the goal of this project is not to alter the way the EAS works but rather to provide a way to translate CAP 1.1 messages to the current format of EAS headers. If this project is to be done in a timely fashion and without the substantial costs to every EAS participant of replacing their EAS units, it is not a particularly reasonable suggestion that EAS units be able to decode geospatial shapes into areas and would likely require many more months or possibly years to change FCC part 11 with respect to EAS.

- **EAS Audio File Size:** I'm not certain that file size restrictions would necessarily be as useful as would message duration restrictions and bit-rate limits, which would, in effect, put a ceiling on the size of the resulting file. It may, however, be useful to require the file size to be included in the <resource> block in order to calculate download time required to retrieve the audio file to determine if TTS conversion should instead be used.