Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of

Public Safety and Homeland Security Bureau
Seeks Comment on Implementation of
Multilingual Wireless Emergency Alerts

PS Docket Nos. 15-91
PS Docket No. 15-94

REPLY COMMENTS OF
THE ALLIANCE FOR TELECOMMUNICATIONS INDUSTRY SOLUTIONS

The Alliance for Telecommunications Industry Solutions (ATIS) hereby replies to the comments submitted in response to the Public Notice released on May 13, 2024. In these reply comments, ATIS, on behalf of its Wireless Technologies and Systems Committee (WTSC), notes that it supports the presentation of the English-language broadcast WEA along with the presentation of the indicated event template in the user’s selected preferred language. While ATIS recognizes regional ASL dialects do exist, it believes that users should be able to comprehend the instructions proposed in the Public Notice. ATIS also notes that downloading regional-specific video packages is a complex undertaking and could cause significant capacity problems in networks. In addition, ATIS explains in its reply comments that adding new templates and/or languages would impact the implementation timeline. ATIS notes that most commenting Alerting Agencies have indicated that they do not intend to use pre-scripted, pre-installed templates. Finally, ATIS WTSC joins other commenters in recommending that the Federal Communications Commission (Commission) reframe this proceeding as a Notice of Inquiry to allow a review of developments in Machine Language Translation, before committing to a complex and limiting template-based solution.
I. Reply Comments

A. Presentation of English in Addition to Preferred Language

The Federal Emergency Management Agency (FEMA) in its comments suggests that it is not known how the public would respond to the English-language message accompanying a template in another language.\(^1\) However, the pairing of the English-language broadcast message with a translated message already occurs in WEA. As ATIS WTSC explained in its comments, the English-language version of the alert is always presented, while the Spanish language translation may also be presented if the user settings indicate that it should be.\(^2\) ATIS WTSC recommends that this approach – namely, presenting the received English-language alert in addition to presenting the indicated event template in the user’s preferred language – should continue. A number of commenters, including ATIS WTSC, have explained that there is a benefit to always presenting the English-language broadcast version of the alert because this text would carry event-specific details not included in the pre-scripted and pre-installed templates in the preferred language.\(^3\) ATIS WTSC believes that these details would assist all consumers.

The National Oceanic and Atmospheric Administration’s National Weather Service (NWS) suggests in its comments that the presentation of the preferred-language template occur before the presentation of the English alert text.\(^4\) ATIS WTSC notes that accommodating a specific order in presentation has never been required with the currently supported English and Spanish alert text and would create additional complexity in device operations.

ATIS WTSC also notes the importance of consumer education. The addition and presentation of templates will result in changes to WEA from a consumer perspective. Consumer

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\(^1\) FEMA Comments at p. 4.
\(^2\) ATIS Comments at p. 5.
\(^3\) See, e.g., ATIS Comments at pp. 5-6, CTIA Comments at p. 14, NWS Comments at p. 2.
\(^4\) NWS Comments at p. 2.
education regarding any changes to WEA is extremely important to avoid confusion, address concerns and questions, and improve the effectiveness of WEA.

B. ASL Video Downloads

In its comments, NWS states that there are regional variations to ASL across the country and suggests that downloadable ASL video packages could be regionally constructed based on the user’s language and location settings. ATIS WTSC agrees that there are various regional dialects of ASL, much like any language varies in the use of local idioms (slang or professional terminology) and accents. However, simply because such variations exist does not mean that these variations must be accommodated in WEA in order to provide clear and effective alerts. An alert text reflects basic instructions, such as “drop, hold and cover,” take shelter,” and “move to higher ground.” ASL users, therefore, should be able to comprehend the instructions proposed in the Public Notice. To facilitate understanding by ASL users, ATIS WTSC recommends that ASL videos be composed using the most universal signs for these instructions so that these videos can be understood by the largest number of ASL users.

From a technical perspective, ATIS WTSC notes that the proposal to download video packages on a regional basis could cause significant capacity problems in networks and poses challenges associated with determining which devices would get which regional variation. A user traveling from one region of the country to another also may receive the incorrect ASL video dialect since they are outside their home region. Moreover, overloading networks by downloading ASL videos could cause all customers to experience slower network operations. In order to support NWS’ recommendation for periodic downloads of regional ASL videos based

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5 NWS Comments at pp. 2-3.
on device location, a sophisticated download management system would be required and may also require a user preference indication for ASL video selection.

C. Recommendations for Additional Event Templates and Languages

Some comments in this proceeding have proposed that the Commission adopt additional WEA event templates and/or languages. NWS, for example, recommends adding additional event templates at the Emergency and Warnings levels for Tornado Warning and Flash Flood Warning. NWS, along with other commenters, also recommends requiring WEA alerts in additional languages beyond the 13 proposed. ATIS WTSC cautions that adding new templates and/or languages would impact the design, standardization, and implementation timeline. As explained in its comments, and based on an analysis of similar technical features, ATIS WTSC believes that a minimum of 36 months would be required after the Commission completes this proceeding and resolves all open issues with the potential to impact the design, development, testing and deployment. Changes to the proposed event templates and number of supported languages following the start of the design phase could negatively impact this timeline.

D. Templates versus Broadcast

The Port of Seattle notes that it supports the proposed templates and has implemented WEA alerting at the Seattle-Tacoma International Airport. However, it explains that its concept of WEA operations would not be served by the alert type templates regardless of the addition of fillable elements. The Port of Seattle requests the option for alert text to be written at the time of the event and sent in the CAP signaling along with the current English and Spanish alert text

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6 NWS Comments at p. 4.
7 NWS Comments at p. 4 (recommending Samoan, Chamorro, and Ilocano); Port of Seattle at p. 2 (recommending Somali, Ukrainian, Amharic, Punjabi, Japanese, Cambodian, Laotian, Farsi, Tigrinya, Oromo, and Samoan); Restoring Dignity Comments at pp. 1-2 (recommending Burmese, Dari/Farsi, Karen, Kiswahili/Swahili, Nepali, Pashto, Q’anjob’al, and Somali).
8 ATIS Comments at pp. 10-11.
9 Port of Seattle Comments at pp.1-2.
10 Id.
and, for ASL, a second weblink CAP field or the ability to attach a video file.\textsuperscript{11} As discussed in previous ATIS filings in this docket, the WEA system is, by design, a one-way unacknowledged broadcast.\textsuperscript{12} This System Information Block (SIB) is designed for transmitting system information from the base station (eNodeB or gNodeB) to mobile devices (UEs), and as such the broadcast channel was not designed for carrying large sets of data. The capacity requirements needed to support WEA were multiplied ten-fold when WEA 2.0 and 3.0 rolled into the field due to the increase from 90 to 360 characters and the addition of up to 100 coordinates to support Device-Based Geo-Fencing (DBGF), while at the same time adding support for Spanish which is broadcast separately from English. Additional languages cannot be added to the broadcast channel without jeopardizing the performance of the cellular system as a whole as the information conveyed through that broadcast channel supports all cellular services. Any additional load may impact consumers’ service and may impact chances of reaching out for assistance. This risk, as previously acknowledged by the Commission,\textsuperscript{13} would increase during emergencies with more than one active alerting event.

E. Views of Alerting Agencies

ATIS WTSC notes that the majority of commenting Alerting Agencies are indicating no intent to use pre-scripted, pre-installed templates. NWS, an Alerting Agency triggering a large percentage of the alerts in the U.S. and whose needs are a closer match for the proposed templates, supports the template proposal in the \textit{Public Notice}\textsuperscript{14}, though still acknowledging that adequate templates cannot be provided for non-weather emergencies due to their uniqueness and

\textsuperscript{11} \textit{Id.}
\textsuperscript{12} ATIS Comments to April 2022 \textit{Further Notice of Proposed Rulemaking} at p. 7.
\textsuperscript{13} The Commission acknowledged CSRIC VIII finding that “[i]f multiple additional languages are included in the WEA broadcast, capacity limits may not allow for the expected behavior of the WEA system in the case of a crisis scenario with multiple live alerts in three or more languages.” \textit{Further Notice of Proposed Rulemaking} at ¶12.
\textsuperscript{14} NWS Comments at p. 5.
the specificity required. The Port of Seattle finds that the pre-scripted templates would not serve
their needs and does not intend to use them.\textsuperscript{15} Adams County 911 Authority, Arapahoe County
911 Authority, Arapahoe County Office of Emergency Management, Boulder County
Communications - Boulder County Sheriff’s Office, Boulder Office of Disaster Management
City and County of Boulder, Boulder Police and Fire Communications - City of Boulder,
Jefferson County Emergency Communications Authority and Larimer Emergency Telephone
Authority support only voluntary implementation of the templates, explaining that making the
WEA templates a requirement for alert originators would have significant negative impacts to
local authorities and diminish the effective emergency alert and warning translation systems that
Alerting Agencies currently have in place.\textsuperscript{16} ATIS agrees with Art Botterell, the originator and
lead designer of CAP, who explains that introducing pre-written and pre-translated warning
messages stored “downstream” on individual wireless devices would “reduce the flexibility and
expressiveness, and thus the effectiveness, that the alert originator currently can rely on.”\textsuperscript{17}

Before Alerting Agencies could use these pre-scripted, pre-installed templates, significant
software and hardware development would be required by the agencies’ alert origination
software vendors. As Art Botterell notes in his comments, “[t]he scope of this proposed
disruption of existing workflows for IPAWS and WEA would extend far beyond the CMS
Providers, to impact on FEMA, on the State, Local, and Tribal alerting authorities who rely on
WEA and IPAWS, and ultimately on the public. It also will disrupt the commercial marketplace
for software alert origination tools, with effects rebounding onto local alert originators in costs,

\textsuperscript{15} Port of Seattle Comments at p. 2; Comments of Adams County 911 Authority, Arapahoe County 911 Authority,
Arapahoe County Office of Emergency Management, Boulder County Communications - Boulder County Sheriff’s
Office, Boulder Office of Disaster Management City and County of Boulder, Boulder Police and Fire
Communications - City of Boulder, Jefferson County Emergency Communications Authority and Larimer
Emergency Telephone Authority at pp. 2-3.
\textsuperscript{16} \textit{Id.}
\textsuperscript{17} Art Botterell Comments at p. 2.
training, and warning effectiveness.” Training for agency staff on the extra steps involved in sending alerts using templates would also be required.

Taking into account the alignment between the needs of NWS and the proposed templates in the Public Notice, and the very static nature of instructions that apply to weather events, the proposed event templates in the Public Notice may represent the ideal starting point for a focused effort by experts to determine the readiness of the Machine Language Translations technology and the greater potential it offers for both alerting authorities and consumers.

II. Conclusion

Based on the differing views of Alerting Agencies regarding the value of the pre-scripted template approach, as well as the technical issues that ATIS WTSC has raised, ATIS WTSC strongly urges the Commission to consider a different approach. ATIS WTSC supports the proposal made by Art Botterell, who joins with other commenters in respectfully asking the Commission “to recycle and reframe this proceeding as a Notice of Inquiry, which among other things would allow an objective up-to-date review of the state of the art of Machine Language Translation, before committing the nation to a disruptive and retrograde scheme affecting our critical national public warning infrastructure.”

Respectfully submitted,

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18 Id. at p. 3.
19 Art Botterell Comments at p. 10.