The Common Alerting Protocol for Early Warning Systems

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Breaking News: A Flood is Coming
The Key Facts

• **What** is the emergency?
• **Where** is the affected area?
• **How soon** do we need to act?
• **How bad** will it be?
• **How certain** are the experts?
• **What** should we do?
CAP Carries Key Facts

All-Hazards

All-Media
A CAP Alert is like a News Article

<table>
<thead>
<tr>
<th>News Article</th>
<th>CAP Alert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headline</td>
<td>Headline</td>
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<tr>
<td>Dateline</td>
<td>Sent  Onset Expires</td>
</tr>
<tr>
<td>Byline</td>
<td>Sender  Contact</td>
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<tr>
<td>Body of the Article</td>
<td>Category Description</td>
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<tr>
<td></td>
<td>Instruction</td>
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<tr>
<td></td>
<td>Urgency Severity Certainty</td>
</tr>
<tr>
<td></td>
<td>AreaDescription AreaPolygon</td>
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</table>
Google Crisis Response

Search

Maps

iOS Notifications

Android Notifications
CAP Alerts to In-vehicle Navigation Systems

TPEG2 Emergency Alerts and Warnings (EAW)

Traveller Information Services Association (TISA)
picture from TISA Press Release (Sep 2021)
https://alerts.weather.gov/cap/wwaatemget.php?x=CAC037&y=1
NWS Public Alerts in XML/CAP v1.1 and ATOM Formats

Overview
This page provides access to NWS watches, warnings, advisories, and other similar products in the Common Alerting Protocol (CAP) and Atom Syndication Format (ATOM).

Use of ATOM and CAP with Traditional and Emerging Technologies
NWS CAP and ATOM feeds can be used to launch Internet messages, trigger alerting systems, feed mobile device (e.g., cell phone/smart phone and tablet) applications, news feeds, television text captions, highway sign messages, and synthesized voice over automated telephone calls or radio broadcasts.

The ATOM and CAP feeds are updated about every two minutes.

More information on NWS CAP and ATOM feeds is available in the Service Description Document for NWS Watches, Warnings, and Advisories using CAP and ATOM based Formats.

A|C|D|F|G|H|I|K|L|M|N|O|P|R|S|T|U|V|W|—U.S.—

<table>
<thead>
<tr>
<th>State (Zone List</th>
<th>County List)</th>
<th>ATOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>National (all)</td>
<td>ATOM</td>
<td></td>
</tr>
<tr>
<td>Alabama — (Zone List</td>
<td>County List)</td>
<td>ATOM</td>
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<tr>
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<td>County List)</td>
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<td>Colorado — (Zone List</td>
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<td>ATOM</td>
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https://alerts.weather.gov/cap/us.php?x=0
U.S. Integrated Public Alert and Warning System (IPAWS)
CAP in India

1. Typical Vertical Horizontal Integration
   - IMD
   - CWC
   - GSI
   - INCOIS
   - SASE
   - NCS
   - Railway
   - MHA
   - MoAFW
   - MoHW

2. Vertical
   - National
   - State level
   - District level
   - Block, City, Town, Village level

3. "Horizontal" info sharing
   - Integrated CAP – Early Warning Platform
     - Collection
     - Process
     - Transmission
     - Store
     - Control
     - Monitor

   - Project Management System
   - Network Management System

   - A Variety of Means to Public
     - TV News
     - Radio
     - Social Media
     - SMS
     - Pop Up on internet
     - IVR Call
     - Electronic Siren / Railway Announcement System
     - Electronic Road Signage
MeteoAlarm (Europe)
CAP Alert Hubs

- Each CAP Alert Hub aggregates published CAP alerts and republishes them to its own audience.
- CAP Alert Hubs provide only a copy of the alert; they do not have the role of an alerting authority.
- Global examples: AccuWeather, Google Public Alerts, IFRC Alert Hub, MeteoBlue, Windy.com, WMO Alert Hub...
## Register of Alerting Authorities

[http://www.wmo.int/alertingorg](http://www.wmo.int/alertingorg)

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**Alerting authorities by WMO Member or Organization**

To monitor updates to this Register, subscribe to the [RSS](http://www.wmo.int/alertingorg) or [ATOM](http://www.wmo.int/alertingorg) news feed.

<table>
<thead>
<tr>
<th>Afghanistan</th>
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<th>Angola</th>
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<td>Eritrea</td>
<td>Eswatini</td>
<td>Fiji</td>
<td>Dominica</td>
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CAP Implementation by Nation

for a click map with zoom and pan, see
https://cap-uptake.alert-hub.org/map.html
Call to Action on Emergency Alerting

International organizations, international NGOs, and international companies involved in emergency alerting are urged to endorse the Call to Action on Emergency Alerting:

To scale up efforts to ensure that by 2025 all countries have the capability for effective, authoritative emergency alerting that leverages the Common Alerting Protocol (CAP), suitable for all media and all hazards.
Free Tool for CAP Alert Creation and Publishing

https://cap.alert-hub.org
Explore Further

Some videos about CAP:
- Animation, created by IFRC [YouTube](https://www.youtube.com) (2 m 40 s)
- Volcano alert [YouTube](https://www.youtube.com) (1 m 23 s)
- Introduction to CAP [YouTube](https://www.youtube.com) (15 m)
- CAP for Broadcasters [drrhub.org/learn-cap.php](http://drrhub.org/learn-cap.php) (40 m)

CAP Training and other matters – contact
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