

The Common Alerting Protocol (CAP) Standard: Worldwide Applications

*Presented 19 May 2011 in Venice, Italy by
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for the 2nd International Conference on Interoperability*

**The Citizen at the centre ...
Integration of Rescue Services**

Today's Public Warning Patchwork

Every government has various public warning systems:

- **Weather** by news wire, fax, radio, television, e-mail, SMS text on cell phones ...
- **Earthquakes/tsunami** by e-mail, news wire, Web sites, pagers, telephone calls ...
- **Fire, Security, Transportation** by television, radio, sirens, police with bullhorns...
- **And on, and on ...**

New Strategy for Public Warning

- Governments are realizing it makes no sense to build separate public warning systems for each particular type of emergency and for each particular communications medium
- Instead, efficiency and effectiveness argue for addressing public warning requirements with all-media coverage across all-hazards through interoperability standards

Interoperability

Definition:

*differences among systems
are not a barrier to a task
that spans those systems*



"What few things
must be the same
so that everything
else can be different"

What is CAP?

Common Alerting Protocol (CAP), ITU-T Recommendation X.1303, is a standard message format designed for All-Media, All-Hazard, communications:

- ✧ **over any and all media** (*television, radio, telephone, fax, highway signs, e-mail, Web sites, RSS "Blogs", ...*)
- ✧ **about any and all kinds of hazard**
(*Weather, Fires, Earthquakes, Volcanoes, Landslides, Disease Outbreaks, Air Quality Warnings, Transportation Problems, Power Outages ...*)
- ✧ **to anyone:** the public at large; designated groups (civic authority, responders, etc.); specific people

Example CAP Message

```
<?xml version = "1.0" encoding = "UTF-8"?>
<alert xmlns = "urn:oasis:names:tc:emergency:cap:1.1">
  <identifier>KSTO1055887203</identifier>
  <sender>KSTO@NWS.NOAA.GOV</sender>
  <sent>2003-06-17T14:57:00-07:00</sent>
  <status>Actual</status>
  <msgType>Alert</msgType>
  <scope>Public</scope>
  <info>
    <category>Met</category>
    <event>Severe Thunderstorm</event>
    <responseType>Shelter</responseType>
    <urgency>Immediate</urgency>
    <severity>Severe</severity>
    <certainty>Observed</certainty>
    <senderName>National Weather Service Sacramento CA</senderName>
    <headline>Severe Thunderstorm Warning</headline>
    <description>Radar indicated a severe thunderstorm over Alpine County...
      moving southwest at 5 mph. Hail...intense rain and strong damaging winds
      are likely with this storm.</description>
    <instruction>take cover in a substantial shelter until the storm
      passes.</instruction>
    <area>
      <areaDesc>extreme north central Tuolumne County in California,
        extreme northeastern Calaveras County in California, southwestern
        Alpine County in California</areaDesc>
      <polygon>38.47,-120.14 38.34,-119.95 38.52,-119.74
        38.62,-119.89 38.47,-120.14</polygon>
    </area>
  </info>
</alert>
```

Presentation Outline

- Example tool for creating alerts in CAP format
- Key features of CAP message
- Notes on CAP Implementations
- Register of Alerting Authorities

Editing Tool for Alerts in CAP Format

Draft Only	20070815185348.xml Flash flood Warning for South Central San Bernardino, Western Riverside, and North Central San Diego Counties in Southwest California
Draft Only	20110125045333.xml Geomagnetic Storm Alert
Draft Only	20110125050647.xml Mount St Helens Volcano Advisory (aviation color code ORANGE)
Draft Only	20110205030309.xml Magnitude 7.8 Rat Islands, Aleutian Islands, Alaska
As Posted	20110202083709.xml Geomagnetic Storm Alert
As Posted	20110202100830.xml Flash flood Warning for South Central San Bernardino, Western Riverside, and North Central San Diego Counties in Southwest California
As Posted	20110205025759.xml Mount St Helens Volcano Advisory (aviation color code ORANGE) Description: Current status is Volcano Advisory (Alert Level 2); aviation color code ORANGE: Growth of the new lava dome inside the crater of Mount St. Helens continues, accompanied by low rates of seismicity, low emissions of steam and volcanic gases, and minor production of ash. During such eruptions, changes in the level of activity can occur over days to months. The eruption could intensify suddenly or with little warning and produce explosions that cause hazardous conditions within several miles of the crater and farther downwind. Small lahars could suddenly descend the Toutle River if triggered by heavy rain or by interaction of hot rocks with snow and ice. These lahars pose a negligible hazard below the Sediment Retention Structure (SRS) but could pose a hazard along the river channel upstream. Instruction: Wind forecasts from the National Oceanic and Atmospheric Administration (NOAA), coupled with eruption models, show that any ash clouds that rise above the crater rim today would drift principally eastward. Under current eruptive conditions, small, short-lived explosions may produce ash clouds that exceed 30,000 feet in altitude. Ash from such events can travel 100 miles or more downwind.
As Posted	20110205030309.xml Magnitude 7.8 Rat Islands, Aleutian Islands, Alaska

Editing Tool for Alerts in CAP Format

Start Over at login screen

identifier

sender

sent

status msgType scope

language: category:

event:

urgency severity certainty

senderName:

headline

description

instruction

web

image

contact

areaDesc

circle

Circle format: latitude,longitude<space>radius
[Make circle using map](#)

geocode

Geocode format: 'type' = 'value'

polygon

Polygon format: (First and last point must be the same!)
lat-1,long-1 lat-2,long-2 lat-3,long-3 lat-4,long-4 lat-1,long-1
[Make rectangle using map](#)

Save this CAP Alert in drafts directory and send a copy to me by Email

```
<?xml version="1.0" encoding="UTF-8"?>
<cap:alert xmlns:cap="urn:oasis:names:tc:emergency:cap:1.1">
  <cap:identifier>urn:oid:2.49.0.3.1.2011.3.14.9.26.21</cap:identifier>
  <cap:sender>echristian@wmo.int</cap:sender>
  <cap:sent>2011-03-14T09:26:21-00:00</cap:sent>
  <cap:status>Test</cap:status>
  <cap:msgType>Alert</cap:msgType>
  <cap:scope>Public</cap:scope>
  <cap:info>
    <cap:language>en-US</cap:language>
    <cap:category>Met</cap:category>
    <cap:event>Message from USGS Volcanoes Program</cap:event>
    <cap:urgency>Expected</cap:urgency>
    <cap:severity>Minor</cap:severity>
    <cap:certainty>Possible</cap:certainty>
    <cap:senderName>USGS Volcanoes Program, Craig Weaver</cap:senderName>
    <cap:headline>Mount St Helens Volcano Advisory (aviation color code ORANGE)
  </cap:headline>
    <cap:description>Current status is Volcano Advisory (Alert Level 2); aviation
color code ORANGE: Growth of the new lava dome inside the crater of Mount St.
Helens continues, accompanied by low rates of seismicity, low emissions of steam
and volcanic gases, and minor production of ash. During such eruptions, changes
in the level of activity can occur over days to months. The eruption could
intensify suddenly or with little warning and produce explosions that cause
hazardous conditions within several miles of the crater and farther downwind.
Small lahars could suddenly descend the Toutle River if triggered by heavy rain
or by interaction of hot rocks with snow and ice. These lahars pose a negligible
hazard below the Sediment Retention Structure (SRS) but could pose a hazard along
the river channel upstream.</cap:description>
    <cap:instruction>Wind forecasts from the National Oceanic and Atmospheric
Administration (NOAA), coupled with eruption models, show that any ash clouds
that rise above the crater rim today would drift principally eastward. Under
current eruptive conditions, small, short-lived explosions may produce ash clouds
that exceed 30,000 feet in altitude. Ash from such events can travel 100 miles or
more downwind.</cap:instruction>
    <cap:web>http://vulcan.wr.usgs.gov/Volcanoes/MSH/Eruption04/</cap:web>
    <cap:contact>Craig Weaver 1-206-553-0627</cap:contact>
    <cap:resource>
      <cap:resourceDesc>Image file</cap:resourceDesc>
      <cap:uri>http://www.fs.fed.us/gpnnf/volcanocams/msh/</cap:uri>
    </cap:resource>
    <cap:area>
      <cap:areaDesc>Skamania County, Washington, in the Pacific Northwest region
of the United States (96 miles south of Seattle, Washington and 53 miles
northeast of Portland, Oregon</cap:areaDesc>
      <cap:circle>46.2,-122.2 0</cap:circle>
    </cap:area>
  </cap:info>
</cap:alert>
```

Make circle using map

circle

46.225,-120.921 99.55

Circle format: latitude,longitude<space>radius

[Make circle using map](#)

geocode

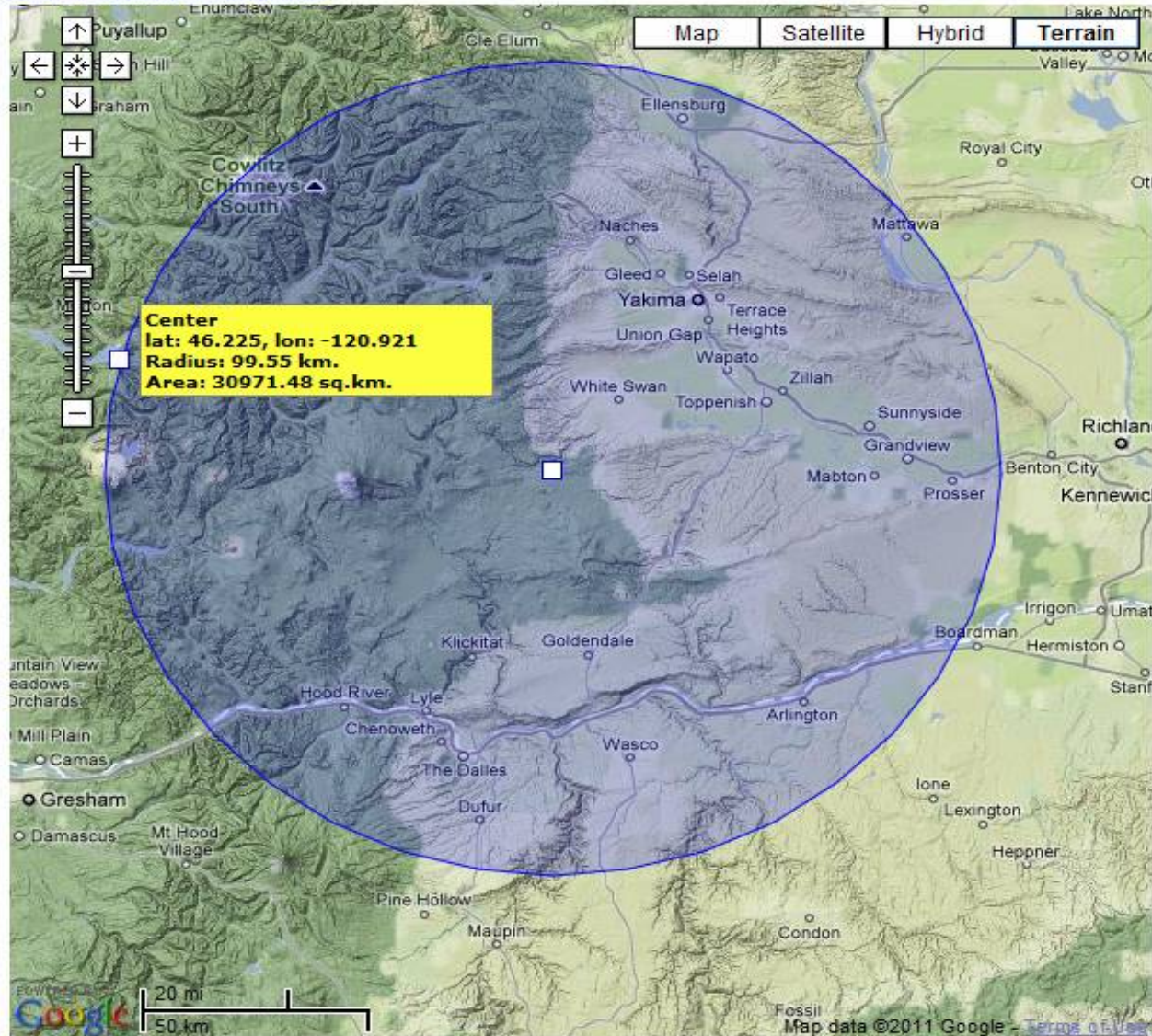
Geocode format: 'type' = 'value'

polygon

Polygon format: (First and last point must be the same!)

lat-1,long-1 lat-2,long-2 lat-3,long-3 lat-4,long-4 lat-1,long-1

[Make rectangle using map](#)



Editing Tool for Alerts in CAP Format

Save this CAP Alert in drafts directory and send a copy to me by Email

```
<?xml version="1.0" encoding="UTF-8"?>
<cap:alert xmlns:cap="urn:oasis:names:tc:emergency:cap:1.1">
  <cap:identifier>urn:oid:2.49.0.3.1.2011.3.14.9.26.21</cap:identifier>
  <cap:sender>echristian@wmo.int</cap:sender>
  <cap:sent>2011-03-14T09:26:21-00:00</cap:sent>
  <cap:status>Test</cap:status>
```

Start Over at login screen

CAP message sent by e-mail to **echristian@wmo.int**

Publish this alert message to the RSS news feed?

Start Over at login screen

CAP alert saved to alerts directory as: **20110314092621.xml**

RSS news feed for alerts has also been updated.

Return to alert message editing

RSS Feed for Alerts in CAP Format

```
<?xml version="1.0" encoding="UTF-8" ?>
- <rss version="2.0" xmlns:geo="http://www.w3.org/2003/01/geo/wgs84_pos#" xmlns:dc="http://purl.org/dc/elements/1.1/">
- <channel>
  <title>Alerts Issued by ACMAD</title>
  <link>http://www.acmad.org/alerts/rss.xml</link>
  <description>Latest alerts posted by the African Centre of Meteorological Applications for Development</description>
  <dc:publisher>ACMAD (African Centre of Meteorological Applications for Development)</dc:publisher>
  <language>en-us</language>
  <copyright>public domain</copyright>
  <pubDate>Mon, 14 Mar 2011 10:37:11 +0000</pubDate>
  <lastBuildDate>Mon, 14 Mar 2011 10:37:11 +0000</lastBuildDate>
  <docs>http://blogs.law.harvard.edu/tech/rss</docs>
- <image>
  <title>Latest Alerts posted by ACMAD</title>
  <url>http://www.acmad.org/images/acmad.gif</url>
  <link>http://www.acmad.org/alerts/rss.xml</link>
</image>
- <item>
  <title>Mount St Helens Volcano Advisory (aviation color code ORANGE)</title>
  <link>http://www.acmad.org/alerts/20110314092621.xml</link>
  <description>Current status is Volcano Advisory (Alert Level 2); aviation color code ORANGE: Growth of the new lava dome inside the crater of Mount St. Helens continues, accompanied by low rates of seismicity, low emissions of steam and volcanic gases, and minor production of ash. During such eruptions, changes in the level of activity can occur over days to months. The eruption could intensify suddenly or with little warning and produce explosions that cause hazardous conditions within several miles of the crater and farther downwind. Small lahars could suddenly descend the Toutle River if triggered by heavy rain or by interaction of hot rocks with snow and ice. These lahars pose a negligible hazard below the Sediment Retention Structure (SRS) but could pose a hazard along the river channel upstream.</description>
  <author>echristian@wmo.int</author>
  <category>Met</category>
  <guid>http://www.acmad.org/alerts/20110314092621.xml</guid>
  <pubDate>2011-03-14T09:26:21-00:00</pubDate>
</item>
```

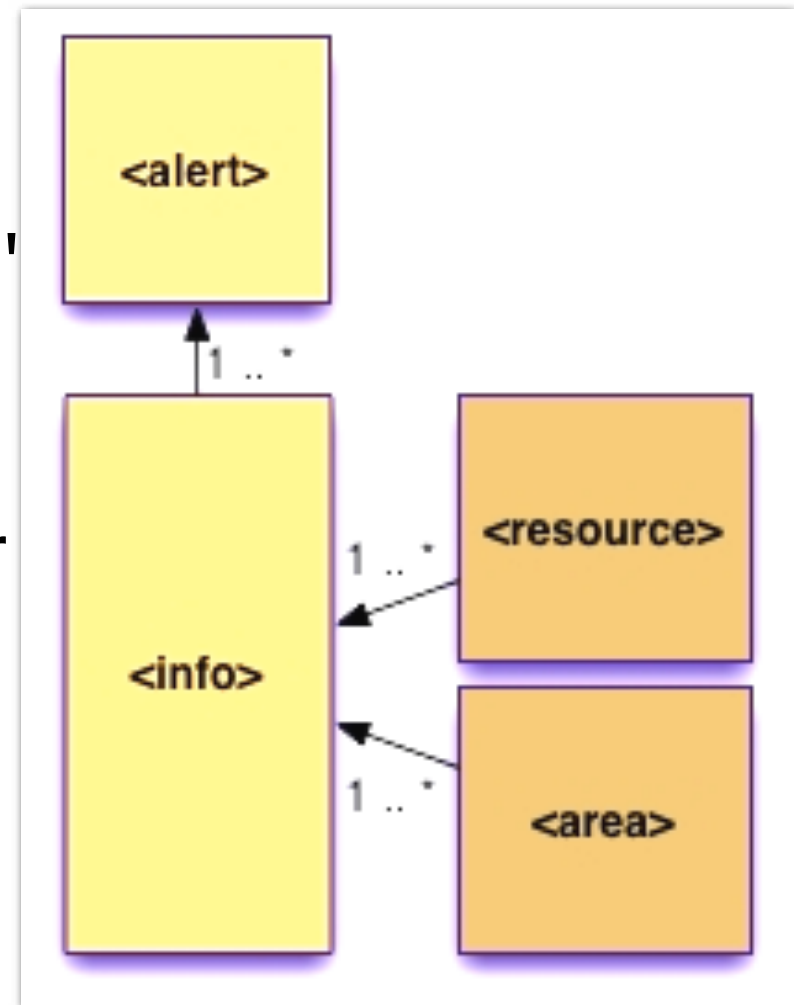
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- Example tool for creating alerts in CAP format
- ➡ Key features of CAP message
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Structure of a CAP Message

CAP Messages contain:

- Text values for human readers, such as "headline", "description", "instruction", "area description", etc.
- Coded values useful for filtering, routing, and automated translation to human languages



Filtering and Routing Criteria

- **Date/Time**
- **Geographic Area**
(polygon, circle, geographic codes)
- **Status**
(Actual, Exercise, System, Test)
- **Scope**
(Public, Restricted, Private)
- **Type**
(Alert, Update, Cancel, Ack, Error)

Filtering and Routing Criteria

- **Event Categories**

(Geo, Met, Safety, Security, Rescue, Fire, Health, Env, Transport, Infra, Other)

- **Urgency:** Timeframe for responsive action
(Immediate, Expected, Future, Past, Unknown)

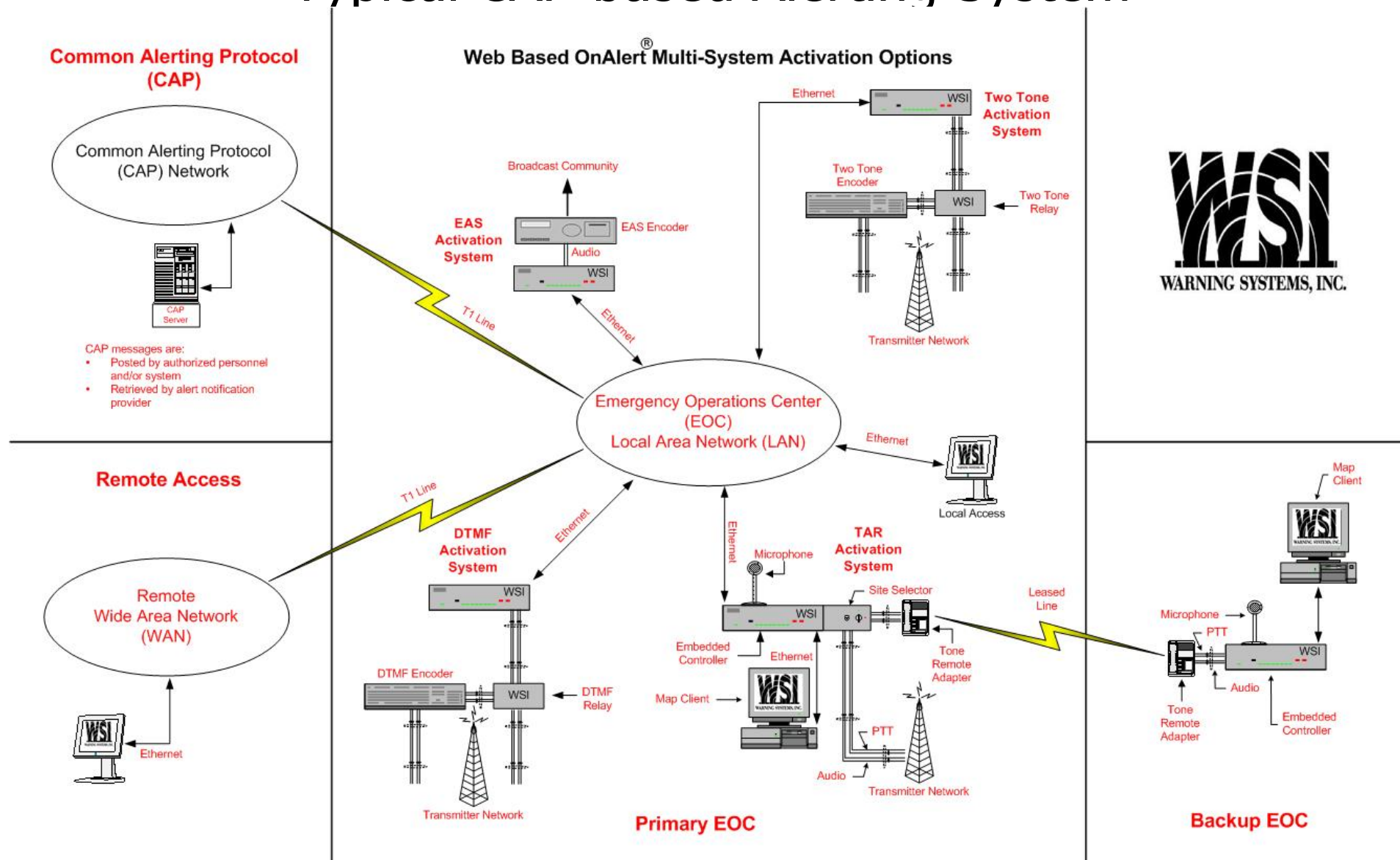
- **Severity:** Level of threat to life or property
(Extreme, Severe, Moderate, Minor, Unknown)

- **Certainty:** Probability of occurrence
(Very Likely, Likely, Possible, Unlikely, Unknown)

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Typical CAP-based Alerting System



Notes on CAP Implementations 2011

Based on the recent CAP
Implementation Workshop

- **CAP and
Google Crisis Response**
- **CAP Support in ESRI's
Open Source GeoPortal Server**
- **CAP in the United States**



National Oceanic and Atmospheric Administration's

National Weather Service

Site Map

News

Local forecast by
"City, St"

City, St

Sign-up for Email
Alerts

XML RSS Feeds

Warnings

Current

By State/County...

UV Alerts

Observations

Radar

Satellite

Snow Cover

Surface Weather...

Observed Precip

Forecasts

Local

Graphical

Aviation

Marine

Hurricanes

Severe Weather

Space Weather

Fire Weather

Text Bulletins

By State

By Message Type

National

Forecast Models

Numerical Models

Statistical Models...

MOS Prod

GFS-LAMP Prod

Climate

Past Weather

Home >

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.

CAP Overview

CAP is an XML-based information standard used to facilitate emergency information sharing and data exchange across local, state, tribal, national and non-governmental organizations of different professions that provide emergency response and management services. NWS CAP messages are produced in the [CAP v1.1 format defined by the Organization for the Advancement of Structured Information Standards \(OASIS\)](#).

Developers and re-packagers of NWS CAP messages should review the [Technical Notes](#) about the NWS CAP 1.1 Messages.

ATOM Overview

ATOM is an XML based document format for syndicating news and other timely news-like information. The NWS ATOM feeds act as an index for active CAP messages by state, county, and NWS forecast zones to aid the automated dissemination of this information.

ATOM provides headlines, URLs to the source document and brief description information in an easy to understand and use format. Software libraries exist to read the ATOM format and present ATOM headlines on webpages, personal computer workstations, and mobile devices. For consumers of these feeds as indexes to the CAP messages, the ATOM feeds contain several CAP data fields to assist in the tracking of available CAP messages with the goal of reducing the need to query the complete CAP message at every refresh.

Global Disaster Alert and Coordination System

GDACS is a Joint Initiative of the United Nations and the European Commission. GDACS is collecting data and information from scientific and media sources in participation with European Commission Joint Research Centre, UNOSAT and OCHA ReliefWeb.

Financially supported for 2008-2009 by EC MIC

19/05/2011

The screenshot displays the GDACS website in a Windows Internet Explorer browser. The page title is "Global Disaster Alert and Coordination System - Windows Internet Explorer provided by World Meteorological Organization". The address bar shows "http://www.gdacs.org/". The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The Favorites bar shows links to ASI, GEO, Google Maps, Intranet, Supersites, UNDP, and Landsat Imagery. The address bar also shows "Wmo.int Mail - Convegno Int..." and "Global Disaster Alert and ...".

The main content area features the GDACS logo and a description: "The Global Disaster Alert and Coordination System provides near real-time alerts about natural disasters around the world and tools to facilitate response coordination, including media monitoring, map catalogues and Virtual On-Site Operations Coordination Centre." Below this are navigation tabs for Alerts, Coordination, and About GDACS. The Alerts tab is active, showing "Current events", "Archive", "My alert account", and "About alerts".

The "Current Disaster Events" section includes a "Reload page every 60 seconds" checkbox and a list of recent disasters:

- Earthquake Papua New Guinea 15 hours ago
- Earthquake 21 hours ago
- Earthquake Afghanistan 14 May 2011
- Earthquake Japan 13 May 2011
- Earthquake Costa Rica 13 May 2011
- Cyclone AERE-11 11 May 2011
- Flood Philippines 8 May 2011
- Flood Brazil 8 May 2011
- Flood USA 1 May 2011
- Flood USA 1 Apr 2010

Below the list, a note states: "Events in this list are picked up from multiple sources and automatically analyzed by a computer program to determine the likelihood of humanitarian intervention. News, damage maps and humanitarian situation reports are collected automatically from over 1000 on-line sources." There are buttons for "Show/hide" and "Earthquakes", "Cyclones", "Floods", "Volcanoes", and "All".

The "Earthquakes and tsunamis" section shows "Orange alerts or M=6 in the last 4 days" and "Last updated: 3 hours ago". It features an "AUTOMATIC IMPACT REPORT (JRC)" for "Papua New Guinea (M 6.5, depth 43.2km, 48000 people)" with a "CAP" status. Below this is a "DOCUMENTS FROM OTHER ORGANISATIONS" section with links to "USGS Shakemap" and "6.5 - BOUGAINVILLE REGION, PAPUA NEW GUINEA Sun, 15 May 2011 18:56:04 +0000".

The "Highlighted disasters" section shows "Last updated: 3 hours ago" and an "AUTOMATIC IMPACT REPORT (JRC)" for "Spain (M 5.1, depth 2km, 1 million people)" with a "CAP" status. It includes a map of Spain and a "DOCUMENTS FROM OTHER ORGANISATIONS" section with links to "Japan (M 9.0, depth 32km, 318000 people)" and "Guatemala entrega donación a víctimas de Jani y Mon 11 Abr 2011".

The taskbar at the bottom shows the Start button and several open applications: "stc16sydney_03052011...", "SquirrelMail 1.4.21 - Win...", "Global Disaster Alert ...", "Wmo.int - Calendar - Wi...", "wmo", and "Microsoft PowerPoint - [c...".

Introduction to Common Alerting Protocol (CAP)

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Notes on CAP Implementations 2011

- **Satellite Alert Channel**
- **CAP worldwide over GTS**
- **CAP across Europe: MeteoAlarm**
- **CAP in Germany**
- **CAP in Sri Lanka and India**

Meteoalarm.eu

Integrates all important severe weather information originating from the official National Public Weather Services across a large number of European countries.



Notes on CAP Implementations 2011

- **CAP in South Africa**
- **CAP in Canada**
- **CAP Pilot System in China**
- **CAP for Disasters in Japan**
- **CAP in Australia**

Notes on CAP Implementations 2011

- **Caribbean CAP network**
- **CAP in New Zealand**
- **Severe Weather Forecasting Demonstration Project**
- **Others**

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The Need for a Register

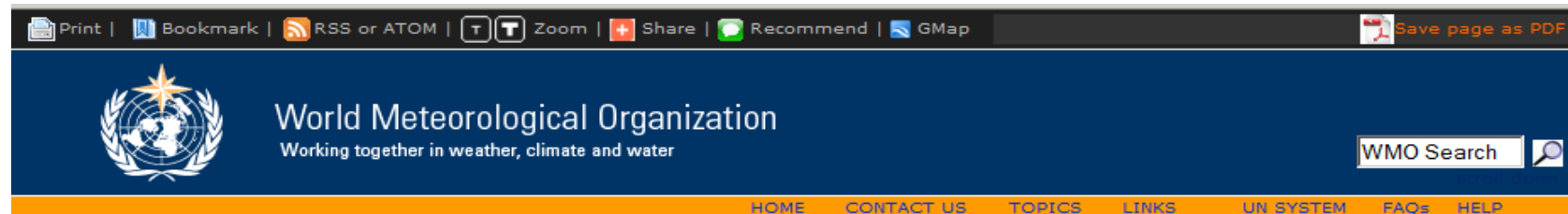
- Aggregators and other intermediaries may lack direct knowledge needed to distinguish an authoritative source of alert messages
- This lack becomes critical as alerting makes use of large public networks
- The WMO Register of Alerting Authorities is a reference to address that lack

Register of Alerting Authorities

- Developed for WMO Public Weather Services
- WMO Members can identify their officially recognized alerting authorities
- Each Register entry asserts that a particular source of alert messages is regarded by a WMO Member as authoritative for particular categories of hazards over a particular area
- Register includes URL's for forecasts and CAP messages
- Aggregators of alert messages and others can subscribe to a news feed to stay current with any changes to the register

Register of Alerting Authorities

<http://www.wmo.int/alertingorg>



Public Weather Services established this register of information about alerting authorities as identified by Members. For questions, [please contact us](#). This page is using nested navigation, but is [available without frames](#) as well. Select a country to get started.

Alerting authorities by WMO Member or Organization

To monitor updates to this Register, subscribe to the [RSS](#) or [ATOM](#) news feed.

<input type="radio"/> Afghanistan	<input type="radio"/> Albania	<input type="radio"/> Algeria	<input type="radio"/> Angola	<input type="radio"/> Antigua and Barbuda
<input type="radio"/> Argentina	<input type="radio"/> Armenia	<input type="radio"/> Australia	<input type="radio"/> Austria	<input type="radio"/> Azerbaijan
<input type="radio"/> Bahamas	<input type="radio"/> Bahrain	<input type="radio"/> Bangladesh	<input type="radio"/> Barbados	<input type="radio"/> Belarus
<input type="radio"/> Belgium	<input type="radio"/> Belize	<input type="radio"/> Benin	<input type="radio"/> Bhutan	<input type="radio"/> Bolivia
<input type="radio"/> Bosnia and Herzegovina	<input type="radio"/> Botswana	<input type="radio"/> Brazil	<input type="radio"/> Brunei Darussalam	<input type="radio"/> Bulgaria
<input type="radio"/> Burkina Faso	<input type="radio"/> Burundi	<input type="radio"/> Cambodia	<input type="radio"/> Cameroon	<input type="radio"/> Canada
<input type="radio"/> Cape Verde	<input type="radio"/> Central African Republic	<input type="radio"/> Chad	<input type="radio"/> Chile	<input type="radio"/> China
<input type="radio"/> Colombia	<input type="radio"/> Comoros	<input type="radio"/> Congo	<input type="radio"/> Cook Islands	<input type="radio"/> Costa Rica
<input type="radio"/> Cote d'Ivoire	<input type="radio"/> Croatia	<input type="radio"/> Cuba	<input type="radio"/> Cyprus	<input type="radio"/> Czech Republic
<input type="radio"/> Democratic People's Republic of Korea	<input type="radio"/> Denmark	<input type="radio"/> Djibouti	<input type="radio"/> Dominica	<input type="radio"/> Dominican Republic
<input type="radio"/> Ecuador	<input type="radio"/> Egypt	<input type="radio"/> El Salvador	<input type="radio"/> Eritrea	<input type="radio"/> Estonia
<input type="radio"/> Ethiopia	<input type="radio"/> Fiji	<input type="radio"/> Finland	<input type="radio"/> France	<input type="radio"/> French Polynesia

OID: 2.49.0.0.840.0 WMO Member: United States of America ISO 3166: US USA 840

Issuing Organization:

Hazard Categories : ☒ Geo ☒ Met ☐ Safety ☐ Security ☐ Rescue ☒ Fire ☒ Health ☒ Env ☐ Transport ☐ Infra ☒ CBRNE ☐ Other

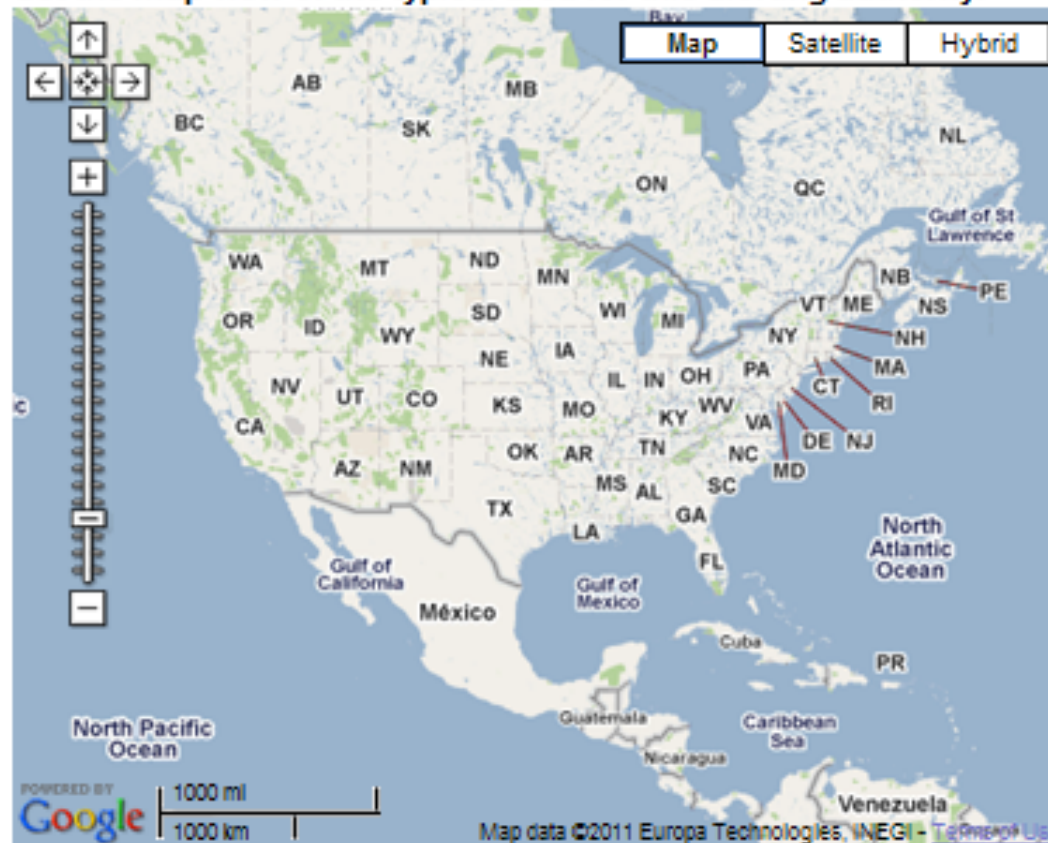
Authorization Basis:

CAP Feed URL:

Forecasts URL:

Editor: echristian@wmo.int

Set the map view of the typical area for this alerting authority.



Hazard Categories

Geo: Geophysical (earthquakes, volcanoes, etc., includes landslide)

Met: Meteorological (weather, storms, etc. includes flood)

Safety: General emergency and public safety

Security: Law enforcement, military, homeland and local/private security

Rescue: Rescue and recovery

Fire: Fire suppression and rescue

Health: Medical and public health

Env: Pollution and other environmental

Transport: Public and private transportation

Infra: Utility, telecommunication, other non-transport infrastructure

CBRNE: Chemical, Biological, Radiological, Nuclear or High-Yield Explosive threat or attack

Other: Other events

RSS Feed for Changes in Registered Authorities

```
<rss version="2.0" xmlns:georss="http://www.georss.org/georss"
  xmlns:cap="urn:oasis:names:tc:emergency:cap:1.1">
- <channel>
  <title>World Meteorological Organization (WMO) Register of Alerting Authorities</title>
  <link>http://www-db.wmo.int/alerting/rss.xml</link>
  <description>WMO maintains this register of statements by WMO Members concerning
    the scope of official alerting authorities and locations of online sources.</description>
  <language>en-us</language>
  <pubDate>Fri, 11 Mar 2011 13:14:14+01:00 GMT</pubDate>
  <lastBuildDate>Fri, 11 Mar 2011 13:14:14+01:00 GMT</lastBuildDate>
  <docs>http://blogs.law.harvard.edu/tech/rss</docs>
  <managingEditor>echristian@usgs.gov</managingEditor>
  <webMaster>echristian@usgs.gov</webMaster>
- <item>
  <title>United States of America: National Oceanic and Atmospheric
    Administration</title>
  <link>http://www-db.wmo.int/alerting/authorities.asp?recId=177</link>
  <description>A WMO Member [United States of America] identifies National Oceanic
    and Atmospheric Administration as an alerting authority for hazard threats of
    these CAP categories: Geo Met Fire Health Env CBRNE.</description>
  <pubDate>Fri, 11 Mar 2011 13:14:14+01:00 GMT</pubDate>
  <guid>urn:oid:2.49.0.0.840.0</guid>
  <author>echristian@wmo.int</author>
  <category domain="http://www.itu.int/rec/T-REC-X.1303/en">Geo</category>
  <category domain="http://www.itu.int/rec/T-REC-X.1303/en">Met</category>
  <category domain="http://www.itu.int/rec/T-REC-X.1303/en">Fire</category>
  <category domain="http://www.itu.int/rec/T-REC-X.1303/en">Health</category>
  <category domain="http://www.itu.int/rec/T-REC-X.1303/en">Env</category>
  <category domain="http://www.itu.int/rec/T-REC-X.1303/en">CBRNE</category>
  <cap:category>Geo</cap:category>
  <cap:category>Met</cap:category>
  <cap:category>Fire</cap:category>
  <cap:category>Health</cap:category>
  <cap:category>Env</cap:category>
  <cap:category>CBRNE</cap:category>
</item>
```


Review of Key Points

1. Rationale for standards-based, all-hazards, all-media alerting
2. Key worldwide standard is ITU-T Recommendation X.1303, Common Alerting Protocol (CAP)
3. Importance of structure and coded values in contrast to free-text
4. Typical roles of WMO Members in all-hazards alerting
5. WMO register of Alerting Authorities

Questions?

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World Meteorological Organization

- WMO Congress (2007) requested the Secretary-General to improve the exchange of high priority data and products in support of a virtual all hazards network
- WMO Executive Council (2008) requested Commission for Basic Systems to follow up on CAP implementation as a matter of urgency
- WMO Executive Council (2009) asked the Secretariat, and invited all Members and Regional Associations, to spare no efforts in ensuring that the implementation of CAP benefits all user communities

ITU Resolution 136

"The Plenipotentiary Conference [...] resolves [...] to promote implementation by appropriate alerting authorities of the international content standard for all-media public warning, in concert with ongoing development of guidelines by all ITU Sectors for application to all disaster and emergency situations"

U.S. Federal Communications Commission

"Washington, D.C. - The Federal Communications Commission today adopted [an Order that] requires [Emergency Alert System (EAS)] participants to accept messages using Common Alerting Protocol (CAP) [...] The use of CAP will help to ensure the efficient and rapid transmission of EAS alerts [...] in a variety of formats (including text, audio and video) and via different means (broadcast, cable, satellite, and other networks) [...] In addition, the Order expands the EAS system by requiring participation by wireline video providers."