

# The Common Alerting Protocol for Early Warning Systems



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Thursday, 13 October 2022

**WSIS&SDG TalkX - ICTs for Disaster Risk Reduction**





# Breaking News: A Flood is Coming



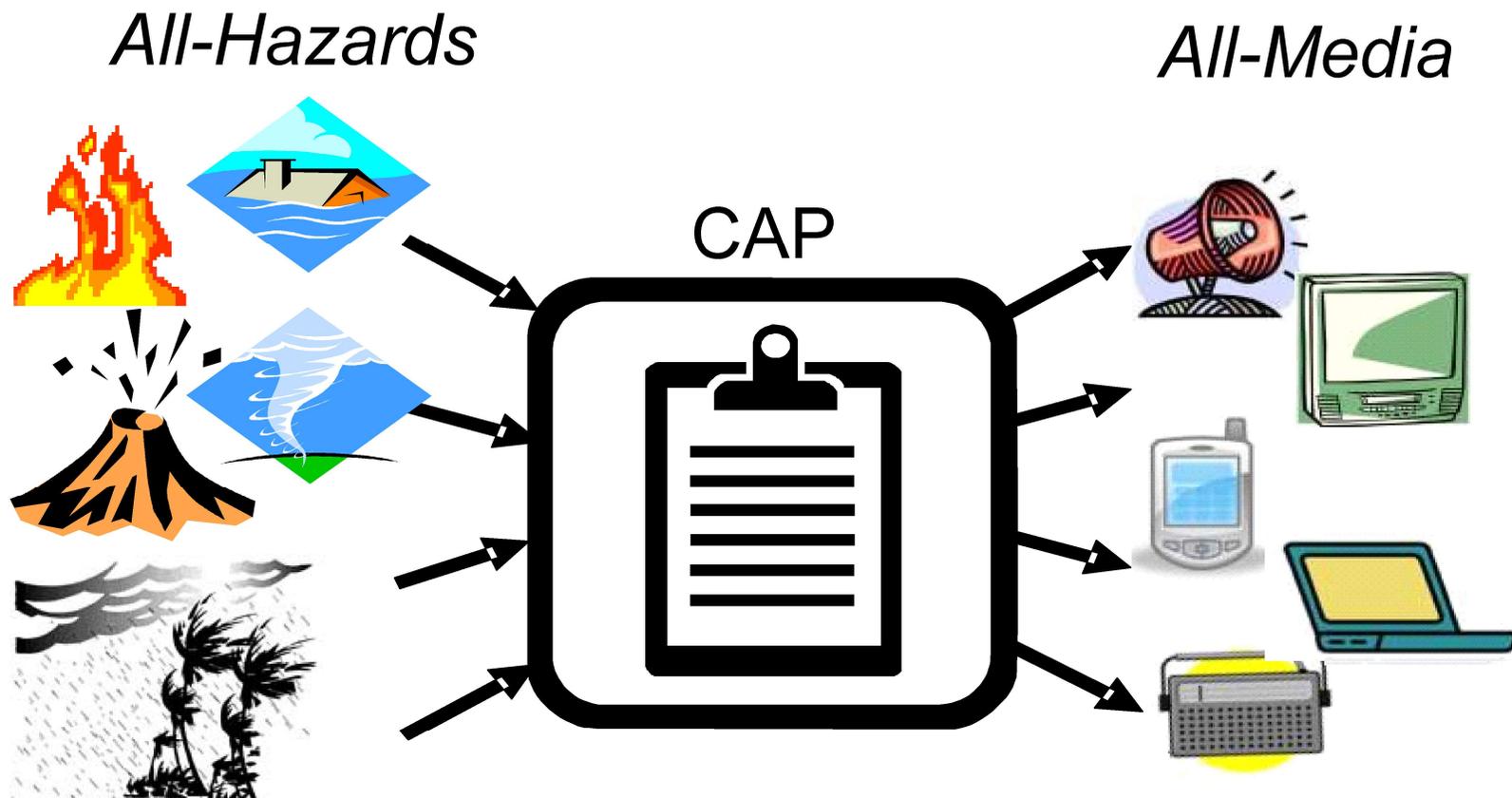


## The Key Facts

- **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





## A CAP Alert is like a News Article

### News Article

Headline

Dateline

Byline

Body of the Article

### CAP Alert

Headline

Sent Onset Expires

Sender Contact

Category Description  
Instruction

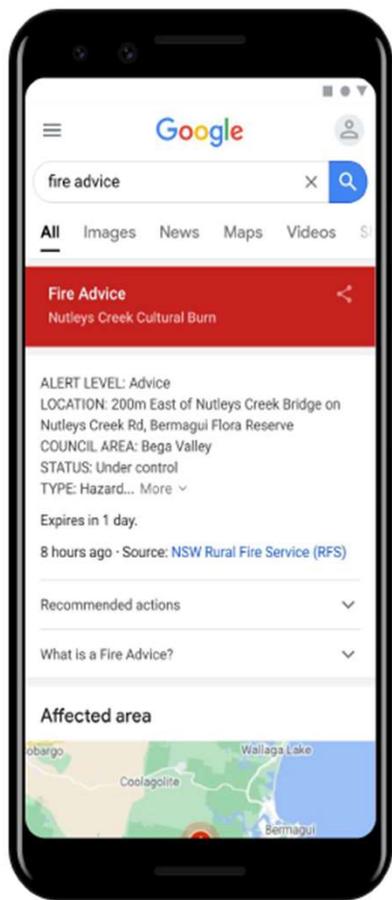
Urgency Severity Certainty

AreaDescription AreaPolygon

...



# Google Crisis Response



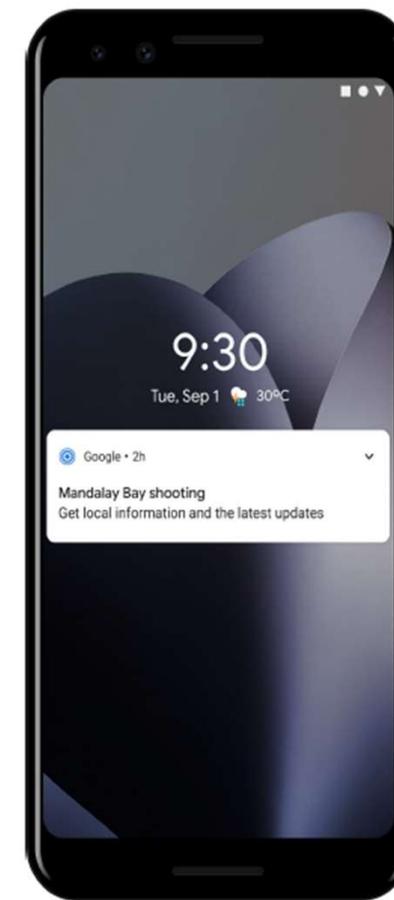
Search



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 \(Sep 2021\)](#)



weather.gov

NOAA

**Watches, Warnings or Advisories for Los Angeles (CAC037) California**

NATIONAL WEATHER SERVICE

Site Map News Organization Search  NWS

Local forecast by "City, St"  
 City, St

Sign-up for Email Alerts

Warnings  
 Current  
 By State/County...  
 UV Alerts

Observations  
 Radar  
 Satellite  
 Snow Cover  
 Surface Weather...  
 Observed Precip

Forecasts  
 Local  
 Graphical  
 Aviation  
 Marine  
 Hurricanes

Home > Alerts > Los Angeles (CAC037) California

**Watches, Warnings or Advisories for Los Angeles (CAC037) California**

This page shows alerts *currently* in effect for Los Angeles (CAC037) California and is normally updated every two-three minutes. Please see [here](#) for other state and listing by county.

Last updated: 01:14 PDT on 07-19-2022

<p><b>High Surf Advisory</b>                  Issued: July 19 at 1:14AM PDT                  Expiring: July 21 at 11:00AM PDT  <b>Areas affected:</b>Catalina and Santa Barbara Islands; Los Angeles County Beaches; Malibu Coast</p>	<p><b>Urgency:</b> Expected  <b>Status:</b> Actual</p>
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US Dept of Commerce  
 National Oceanic and Atmospheric Administration  
 National Weather Service  
 1325 East West Highway  
 Silver Spring, MD 20910  
 Page Author: NWS Internet Services Team

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<https://alerts.weather.gov/cap/wwaatmget.php?x=CAC037&y=1>

# National CAP News Feed

weather.gov

National Oceanic and Atmospheric Administration's  
**National Weather Service**

Site Map NewsOrganization Search  NWS All NOAA Go

Local forecast by "City, St"  
City, St  Go

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

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.

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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](#).

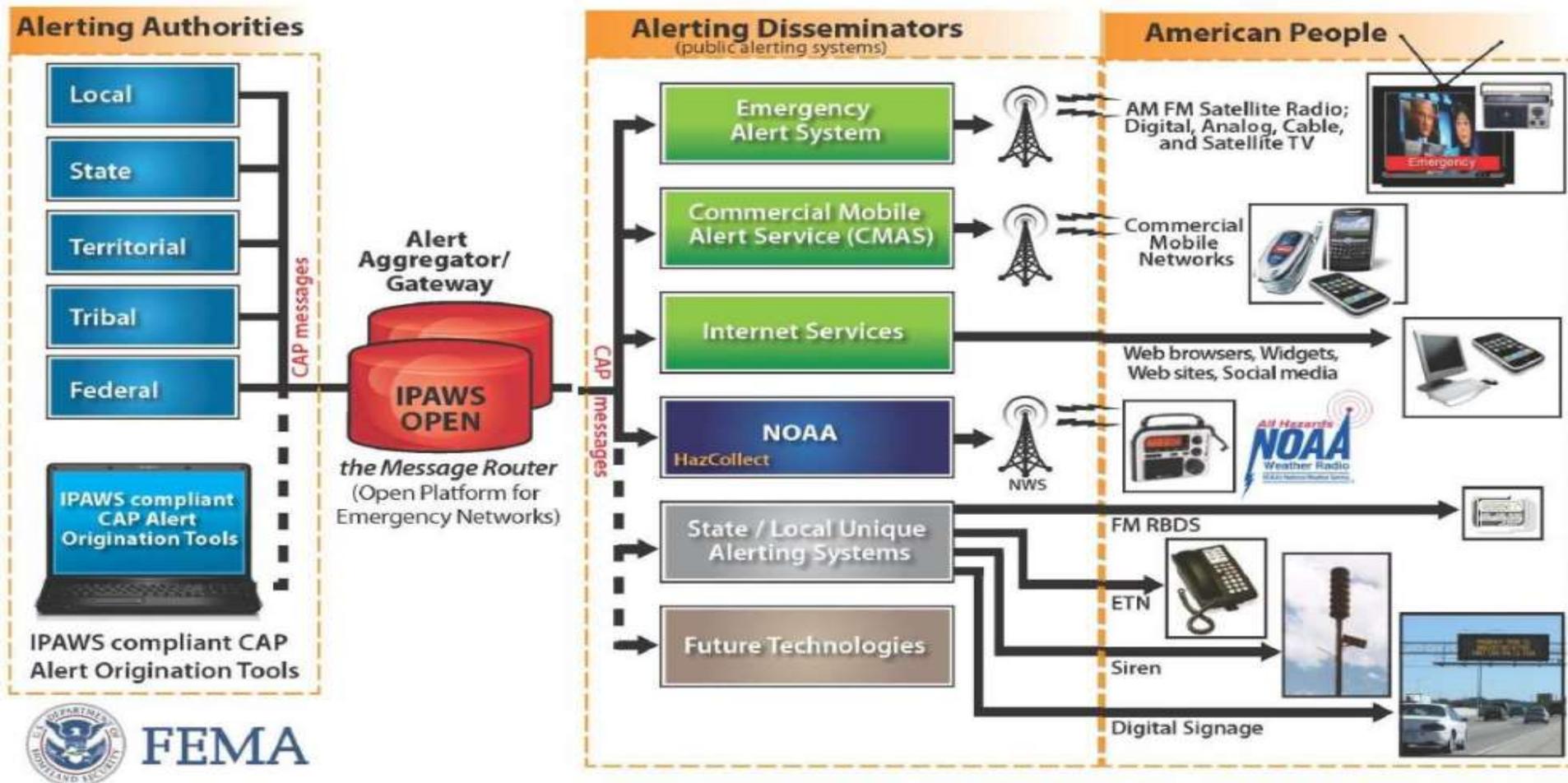
A | C | D | F | G | H | I | K | L | M | N | O | P | R | S | T | U | V | W | -U.S.-

State (Zone List   County List)	ATOM
National (all)	ATOM
Alabama -- (Zone List   County List)	ATOM
Alaska -- (Zone List   County List)	ATOM
America Samoa -- (Zone List   County List)	ATOM
Arizona -- (Zone List   County List)	ATOM
Arkansas -- (Zone List   County List)	ATOM
California -- (Zone List   County List)	ATOM
Colorado -- (Zone List   County List)	ATOM

<https://alerts.weather.gov/cap/us.php?x=0>



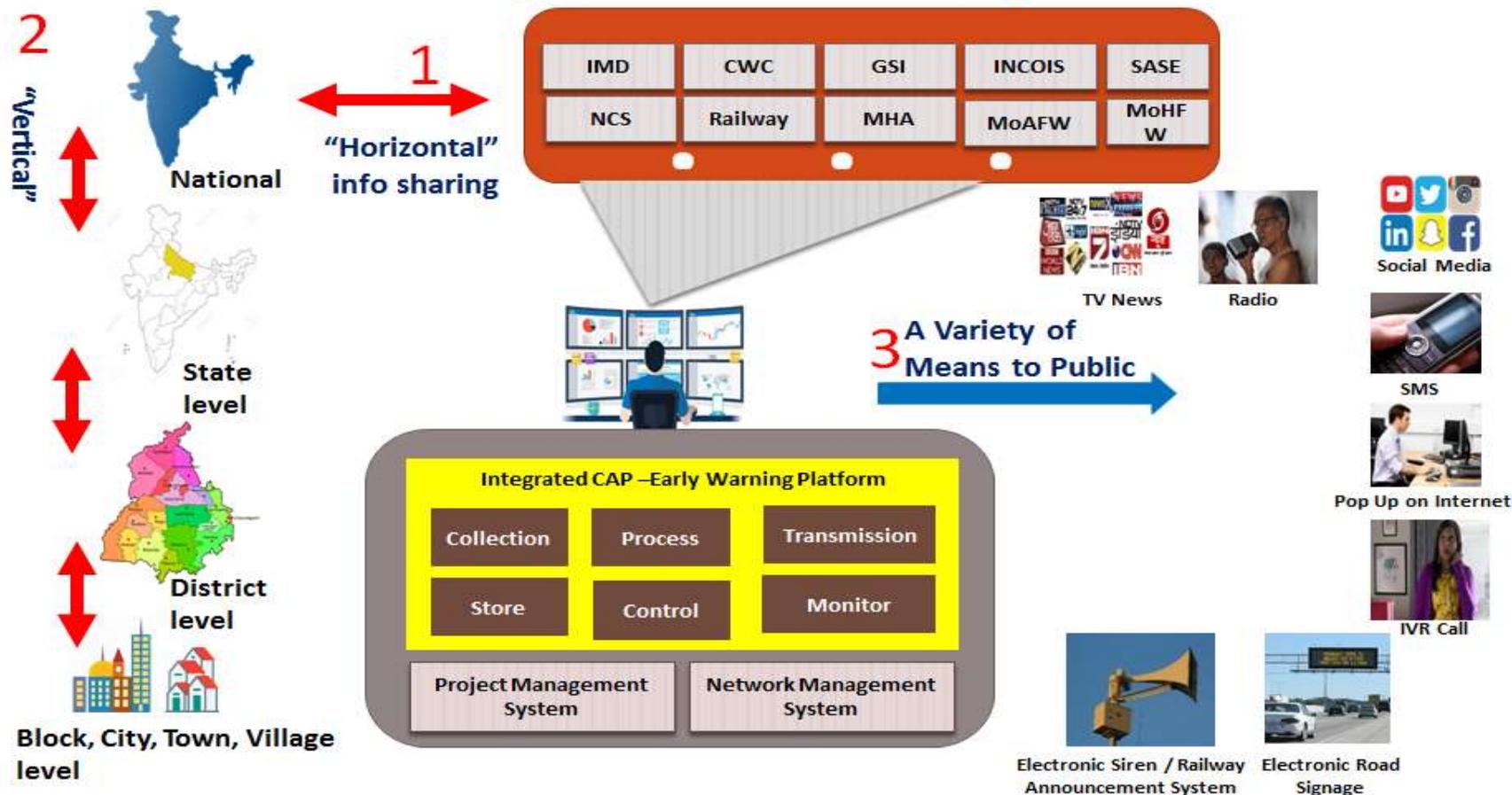
# U.S. Integrated Public Alert and Warning System (IPAWS)





# CAP in India

## Typical Vertical Horizontal Integration



# MeteoAlarm (Europe)

alerting europe for extreme weather

EUMETNET  
The Network of European Meteorological Services

Start | News | About Meteoalarm | Help | Terms and Conditions | Links | Display Options
english

» Europe:

Created: 05.09.2020 20:22 CET | Valid for: 05.09.2020

### Weather warnings: Europe

**Awareness Reports** - You can find detailed information about the warnings in the awareness reports issued for each country. Select the relevant country.

AT		
BA		
BE		
BG		
CH		
CY		
CZ		
DE		
DK		
EE		
ES		
FI		
FR		
GR		
HR		
HU		
IE		
IL		
IS		
IT		
LT		
LU		
LV		
MD		
ME		
MK		
MT		
NL		
NO		
PL		
PT		
RO		
RS		
SE		
SI		
SK		
UK		

awareness types: all awareness types

Display: today tomorrow

Caption:



## 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>

Print | Bookmark | RSS or ATOM | Zoom | Share | Recommend | GMap | Save page as PDF



**World Meteorological Organization**  
Working together in weather, climate and water

WMO Search

HOME CONTACT US TOPICS LINKS UN SYSTEM FAQs HELP

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 Republic of Congo	<input type="radio"/> Denmark	<input type="radio"/> Djibouti	<input type="radio"/> Dominica	<input type="radio"/> Dominican Republic





# 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>

**identifier** |urn:oid:2.49.0.1.368.1.2016.5.5.11.56.13 |

**sender** |power-outage@en.sig-ge.ch |Contact SIG Geneva (power outage)

**msgType** |Alert | **scope** |Public | **language** |en |

**status** |Test | **category** |Infra | **responseType** |

**event** |power failure |

**urgency** |Immediate | **severity** |Minor | **certainty** |Observed |

**sent** |2016-05-05T11:56:13-00:00 | **expires** |

[Text templates for headline, description, instruction.](#)

**headline**  
Electrical power failure at Geneva, airport to lake and river.

**description**  
Geneva, airport to lake and river, is experiencing power failure. All buildings and facilities are affected.

**instruction**  
Remain calm. There is no need for an evacuation. Drive carefully as traffic lights might be off. Turn off air conditioners and heavy machinery. Follow instructions from local authorities and listen to news media for further information.

**areaDesc**  
Geneva, airport to lake and river

**circle** | **polygon** |  
46.201,6.052 46.202,6.163 46.25,6.154 46.252,6.124  
lat,long<space>radius | SW SE NE NW SW (lat,lon points)

Draw polygon | Delete polygon | Draw circle | Delete circle



The map shows the Geneva region with a red polygon highlighting the area from the airport to the lake and river. The polygon vertices are at approximately (46.201, 6.052), (46.202, 6.163), (46.25, 6.154), and (46.252, 6.124). The map includes labels for various locations such as Ornex, Collex-Bossy, Bellevue, Pregny-Chambesey, Grand-Saconnex, Meyrin, Vernier, and Geneva. The Rhône river is also visible.



## Explore Further

*Some videos about CAP:*

Animation, created by IFRC [YouTube](#) (2 m 40 s)

Volcano alert [YouTube](#) (1 m 23 s)

Introduction to CAP [YouTube](#) (15 m)

CAP for Broadcasters [drnhub.org/learn-cap.php](http://drnhub.org/learn-cap.php) (40 m)

CAP Training and other matters – contact

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