

How does the Government of Canada issue extreme weather alerts and watches?

1. Aggregation of current public weather alerts for Canada:

https://weather.gc.ca/warnings/index_e.html

Summary of the current weather alerts in effect throughout Canada. Alerts are at the city scale.

2. Event names and codes (Canadian Profile of the Common Alerting Protocol):

<https://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/capcp-vnt-rfrncs/index5-en.aspx#a12>

CAP-CP events are identified as belonging to one of two tiers of event types: Tier I or Tier II. Tier I events typically refer to a class of events; Tier II events refer to specific events. As an example, “heat wave” and “cold wave” are Tier II events, within the Tier I class of events titled “temperature”. Similarly, Tier II “dangerous person” and “home crime” are within the Tier I class of “criminal activity”. We note that Tier I and Tier II events may be associated with one or more CAP categories. As an example, “air quality” may be associated with CAP categories “Met”, “Env”, “Geo”, “Health” and “Transport”. The associations found herein are suggested, but not definitive. Originators are encouraged to use Tier II selections whenever applicable. Tier I references are better suited to events which do not have a specific Tier II selection.

3. Pelmorex National Alert Aggregation and Dissemination System: <https://alerts.pelmorex.com/>

Pelmorex’s NAAD System collects public safety messages from authorized government authorities and distributes those messages by satellite and through the internet to broadcasting undertakings such as radio and television stations, cable and satellite TV companies and other last mile distributors (LMDs). There is no charge by Pelmorex for these services.

4. Government of Canada: National Public Alerting System:

<https://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/mrgnc-prprdnss/ntnl-pblc-lrtng-sstm-en.aspx>

Canada has a National Public Alerting System (NPAS) which provides emergency management organizations across the country with the capability to rapidly warn the public of imminent or unfolding hazards to life. Public alerts are issued through radio, cable and satellite television, email, text services and on compatible wireless devices.

Alert issuers (GoC) → Alert Aggregator (Pelmorex NAAD) → Alert distributors (mass media) → Public consumption

5. Example public safety alert (CAP-CP/XML format) archived by Pelmorex:

https://alertsarchive.pelmorex.com/archive/2019-01-17/2019-01-17T08_01_33_25lurn&3oid&32.49.0.1.124.1628598747.2019_001.xml

6. Documentation for CAP format from ECCC:

https://dd.meteo.gc.ca/alerts/doc/README_CAP.txt

This document explains warnings in CAP-XML format available on the Meteorological Service of Canada's HTTP data server under following directory:

<http://dd.weather.gc.ca/alerts/cap/>

7. Directory for CAP Alerts: <http://dd.weather.gc.ca/alerts/cap/>

Alerts from the past month are archived.

8. Background info on the Common Alerting Protocol (CAP):

https://en.wikipedia.org/wiki/Common_Alerting_Protocol

The Common Alerting Protocol (CAP) is an XML-based data format for exchanging public warnings and emergencies between alerting technologies. CAP allows a warning message to be consistently disseminated simultaneously over many warning systems to many applications, such as Google Public Alerts. CAP increases warning effectiveness and simplifies the task of activating a warning for responsible officials.

9. FAQ from the Weather Network:

<https://www.theweathernetwork.com/about-us/naads/frequently-asked-questions>

10. Data services from ECCC: https://weather.gc.ca/business/index_e.html#rss

How does the Government of Canada publish official weather information on Twitter?

1. Documentation on Twitter weather alerts from Government of Canada:

<https://www.canada.ca/en/environment-climate-change/services/weather-general-tools-resources/subscribe-to-twitter-alerts.html>

The Government of Canada has 840 official Twitter accounts, each associated with a city, to communicate weather alerts. Each tweet published by one of these accounts has a standard format that includes the time, indication that the alert is from Environment Canada, status of the alert, alert description (including a hashtag of the event), details, a hashtag of the city name, and a standardized hashtag to report severe weather.

2. Guidance on Twitter storm reporting from Government of Canada:

<https://www.canada.ca/en/environment-climate-change/services/report-severe-weather/twitter-storm-guidance.html>

These guidelines are for the public to submit significant weather observations to the MSC via Twitter. The following hashtag conventions are outlined:

#[location]storm → to indicate significant or dangerous weather tweets → “location” refers to provinces or territories eg. #bcstorm

#[location]wx → to indicate interesting but sub-severe weather tweets

eg . #yul → add the nearest ICAO airport indicator as a geographical reference marker

How can we identify alert Tweets?

- The Weather Network: contains “warning”
- All ECAAlert accounts
- Match with terms used in:

<https://www.publicsafety.gc.ca/cnt/rsrcs/pblctns/capcp-vnt-rfrncs/index5-en.aspx#a12>

(MET Category)