

Canadian Profile of the Common Alerting Protocol (CAP-CP)

Location References

Title:	CAP-CP Location References
Description:	Identifies the specific location references to be used to identify the area that pertains to the alert message, when issuing an alert to the requirements of the Canadian Profile of the Common Alerting Protocol (CAP-CP)
Date:	May 6 2009
Version:	Beta 0.3
Replaces:	Public Draft #2 (May 8, 2008 Industry Canada)
CAP-CP Documents:	1. CAP-CP Introduction and Rule Set 2. CAP-CP Event References 3. CAP-CP Location References

Purpose of this Document

This document identifies the specific alert location references to be used, to satisfy the requirements of The Canadian Profile of the Common Alerting Protocol, which is referred to as the *Common Alerting Protocol - Canadian Profile (CAP-CP)*.

This document is versioned independently of CAP-CP rules included in the CAP-CP Introduction and Rule Set document, since it applies directly to the business of public alerting rather than the specifics of XML formatting and structure. The location list is expected to be updated more frequently than the rule set which addresses the CAP-CP position on CAP formatting and structure.

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IV. Revisions Summary

This is an original document. It has been developed with consideration of requirements found in the May 8, 2008 CAP-CP Public Draft #2.

V. Other CAP-CP Documents

The entire CAP-CP is defined in this document, and the following two additional documents:

1. CAP-CP Introduction and Rule Set. This document details the specific requirements, constraints, and recommendations associated with the Canadian Profile of the CAP. It is versioned independently of this document.
2. CAP-CP Event References. This document details a comprehensive list of recognized events associated with Public Alerting in Canada. .

To ensure access to CAP-CP by public alerting stakeholders as soon as possible, all three documents are available at the following web sites:

- Canadian Association for Public Alerting and Notification (CAPAN) - www.CAPAN.ca/CAP-CP
- Environment Canada - TBD
- Industry Canada - [TBD](#)
- Natural Resources Canada - TBD
- Public Safety Canada – TBD
- Alberta Emergency Management Agency - http://www.aema.alberta.ca/ps_emergency_public_warning_system.cfm

CAP-CP may also be available on other websites. Where there is a difference in versions, the version at www.CAPAN.ca/CAP-CP shall take precedence. New versions shall be created only with the express consent of the authors listed in this document.

VI. Associated Documents and Resources

1. The Common Alerting Protocol (CAP) version 1.1 is a standard administered by the Organization for the Advancement of Structured Information Standards (OASIS). The Standard is available at: <http://www.oasis-open.org/committees/download.php/14759/emergency-CAPv1.1.pdf>
2. www.CAPAN.ca/CAP-CP. The CAP-CP website identifies numerous CAP-CP related resources.

VII. Terminology

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in IETF RFC 2119, available at <http://www.ietf.org/rfc/rfc2119.txt>

Additional terminology is specified in the CAP-CP Introduction and Rule Set document.

VIII. Development of CAP-CP as a National Standard of Canada

The authors of CAP-CP Beta Version 0.3 are giving consideration to submitting the profile to a Canadian standards development organization (SDO) for development as a National Standard of Canada. This, they anticipate, will ensure a recognized process in the decision-making regarding elements of the standard on an initial and ongoing basis, and will also ensure clarity and access to the standard for all public alerting stakeholders. With the formal initiation of the standard development process, the SDO would become the custodian and manager of CAP-CP.

IX. CAP-CP Location Requirements

CAP-CP requires originators of alerts to identify location code(s) for which, or within which, the subject of the alert pertains.

The locations are identified using geocode(s) which come from the Standard Geographical Classification (SGC).

CAP-CP requirements are minimum requirements. More specific values, such as polygons specific to the alert area, are encouraged.

The textual description need not include the actual names associated with the geocodes, however, their inclusion is encouraged where the area otherwise described would not be familiar to visitors to the region.

The rest of this document describes the use of the geocodes.

X. Standard Geographical Classification (SGC)

SGC are defined and maintained in Canada by Statistics Canada. The Statistics Canada information page for SGC, at the time of writing, is located at the following URL: <http://www.statcan.gc.ca/subjects-sujets/standard-norme/sgc-cgt/2006/2006-intro-fin-eng.htm#a3>

Every five years Statistics Canada issues an updated SGC in step with the national census. Between these major issues changes do occur, and Statistics Canada shares these updates in the form of lists and updated geographic boundary files. References to the lists will be maintained at www.CAPAN.ca/CAP-CP and other websites previously referenced.

SGC values are available for free, and related geomatics data for a fee, on Statistics Canada's website.

The SGC codes to be used with CAP-CP are as follows:

1. National
2. Province / Territory
3. Census Division (CD), which pertains to provincial or territorial legislated locations typically referenced as a county or region. The combination of CDs for a province/territory equals the combined area of the province/territory.

4. Census Sub-Division (CSD), which pertains to municipalities and Indian reserves. CSDs are combined geographically to form a CD.

Where a higher level SGC code is applicable, CAP-CP recommends the use of it. For example, when the area pertains to an entire CD, the CD code should be used rather than listing each of the CSD codes.

Given that CAP-CP may be used by Canadian originators for alerts which pertain to areas outside of the country, CAP-CP also provides an add-on value for alerts which are issued for areas outside of the country. The value is “none”, and it is not case sensitive.

XI. English and French Location Names

At the time of writing, Statistics Canada publishes SGC codes with one place name value for each entry, as provided to them by the province or territory to which they pertain. Some SGC place names are in English, some are in French, and a few include both an English and a French value. It is therefore the issuing authority’s responsibility to ensure translation when necessary.

XII. SGC Reference Version

This CAP-CP Location References document includes the updates to the SGC 2006 found in the May 2008 SGC boundary files. The boundary files can be found at http://geodepot.statcan.ca/Diss2006/DataProducts/CSD_e.jsp. A table of SGC values which includes name, number and type is available at www.CAPAN.ca/CAP-CP, and other websites previously referenced, for the convenience of CAP-CP implementers.

In time, there may be more than one location reference version to be supported by CAP-CP. As an example, when a new version is introduced, systems would be expected to support prior versions for some time. We note that CAP has anticipated such an event in its design by allowing multi-use elements to exist within the same alert. Engineers are encouraged to build to this capability for the ongoing sustainability of their systems.

XIII. SGC Presentation in the CAP-CP <area> Block

SGC codes are to be presented using the CAP <geocode> element.

The <valueName> SHALL be formatted as specified in the CAP-CP rules set.

XIV. Location Reference <valueName>

CAP-CP has adopted a URN-like scheme for creating valueNames. Location reference valueNames use the following format:

profile:CAP-CP:Location:<version number>

As mentioned previously, the CAP-CP Location References document versioning is independent of the other CAP-CP documents, to allow them to be revised independently.

The following <valueName> is defined for this version of the Location References document,

profile:CAP-CP:Location:0.3

Appendix:

CAP-CP Location Values

The following values are CAP-CP custom additions, which may be used in addition to the SGC values. This table is expected to grow over time as other location related challenges are identified and addressed.

CAP-CP geocode Value	Description
none	Area of alert is undefined or outside Canada. The value "none" is not case sensitive.