CAP Implementation Workshop
2018
Hong Kong, China

Indigenous Language CAP Alerts

Presented by
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Background

Commercial broadcaster in northern Canada since 1997

Great Grandfather was the first International member of SMPTE standards in 1918

Manufacturer of CAP equipment for Canada's radio and television industry

Champion of open source with CAP client for broadcast

History

Community Radio
CFET
106.7 FM
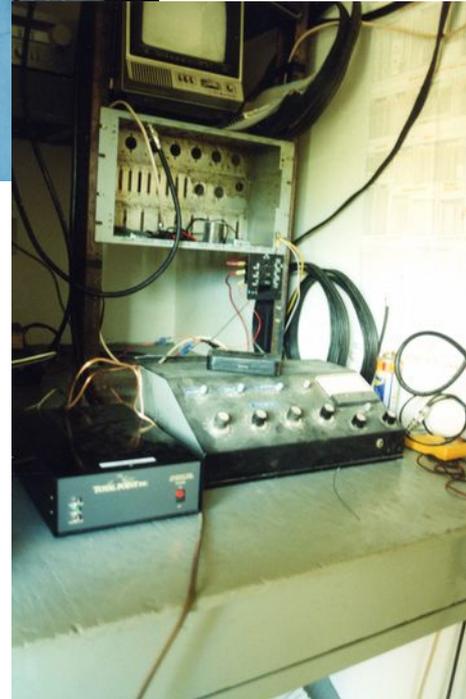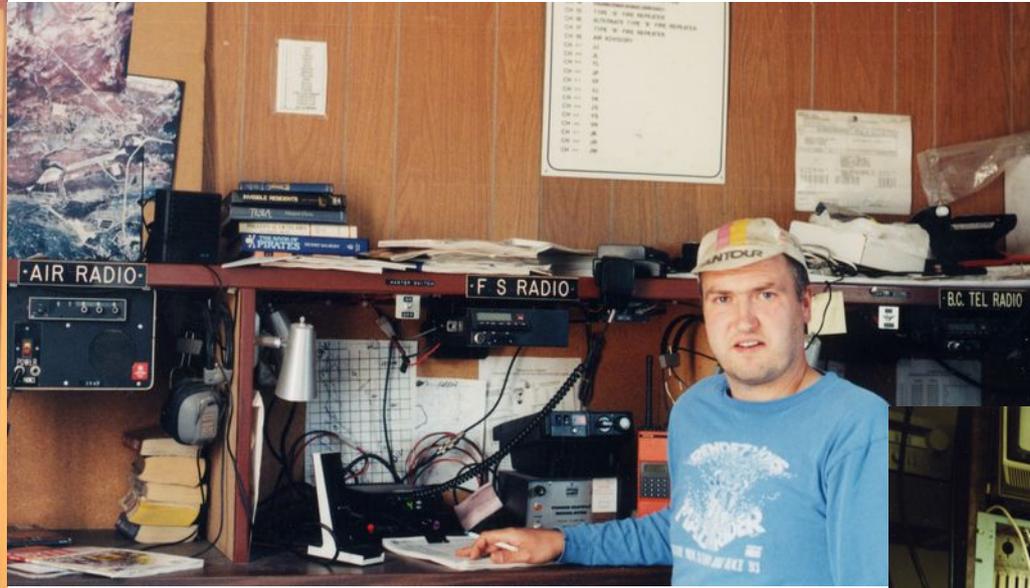
CJUC Radio Whitehorse YT
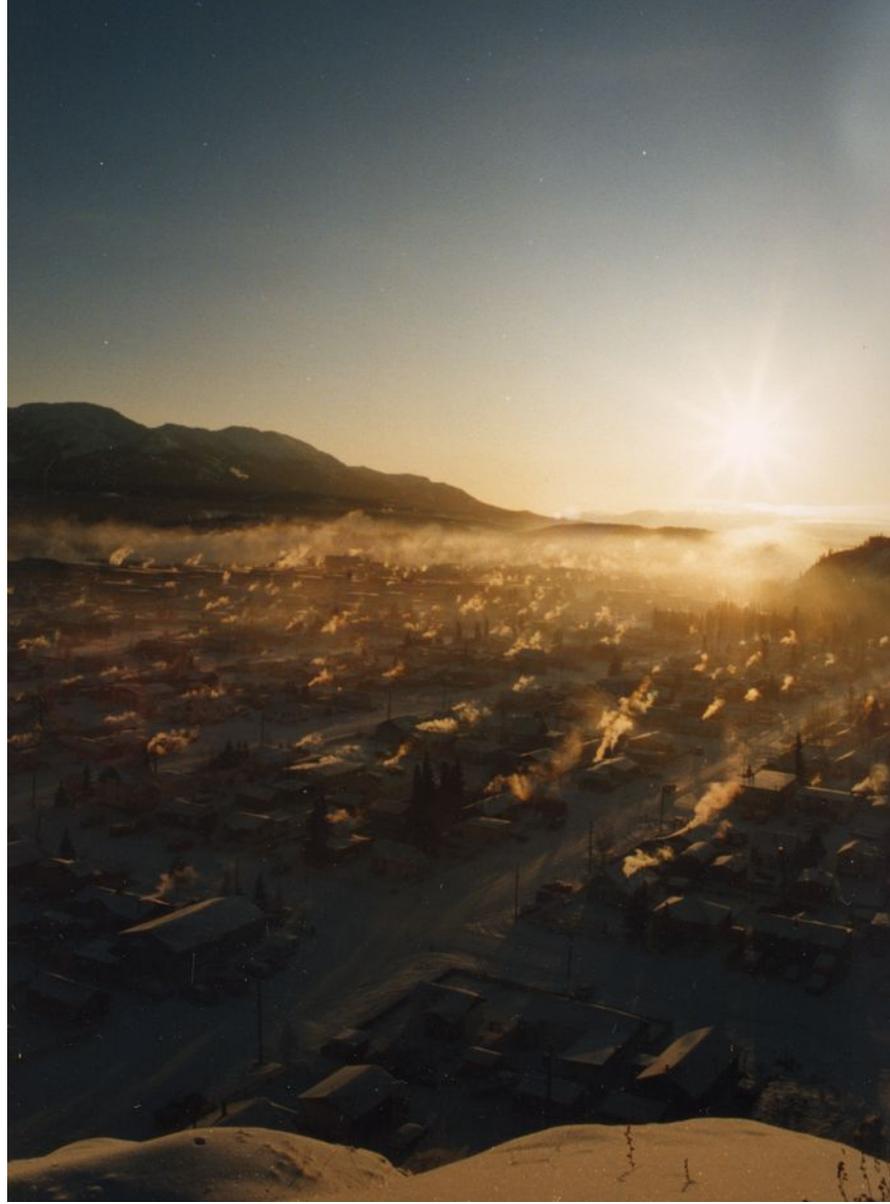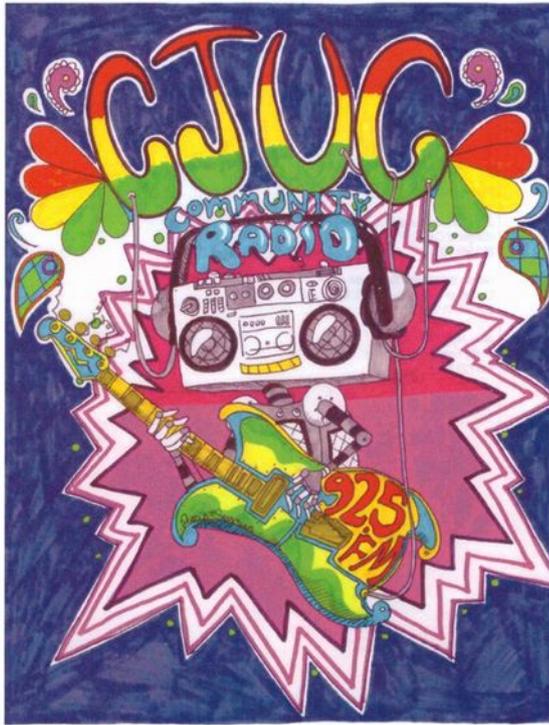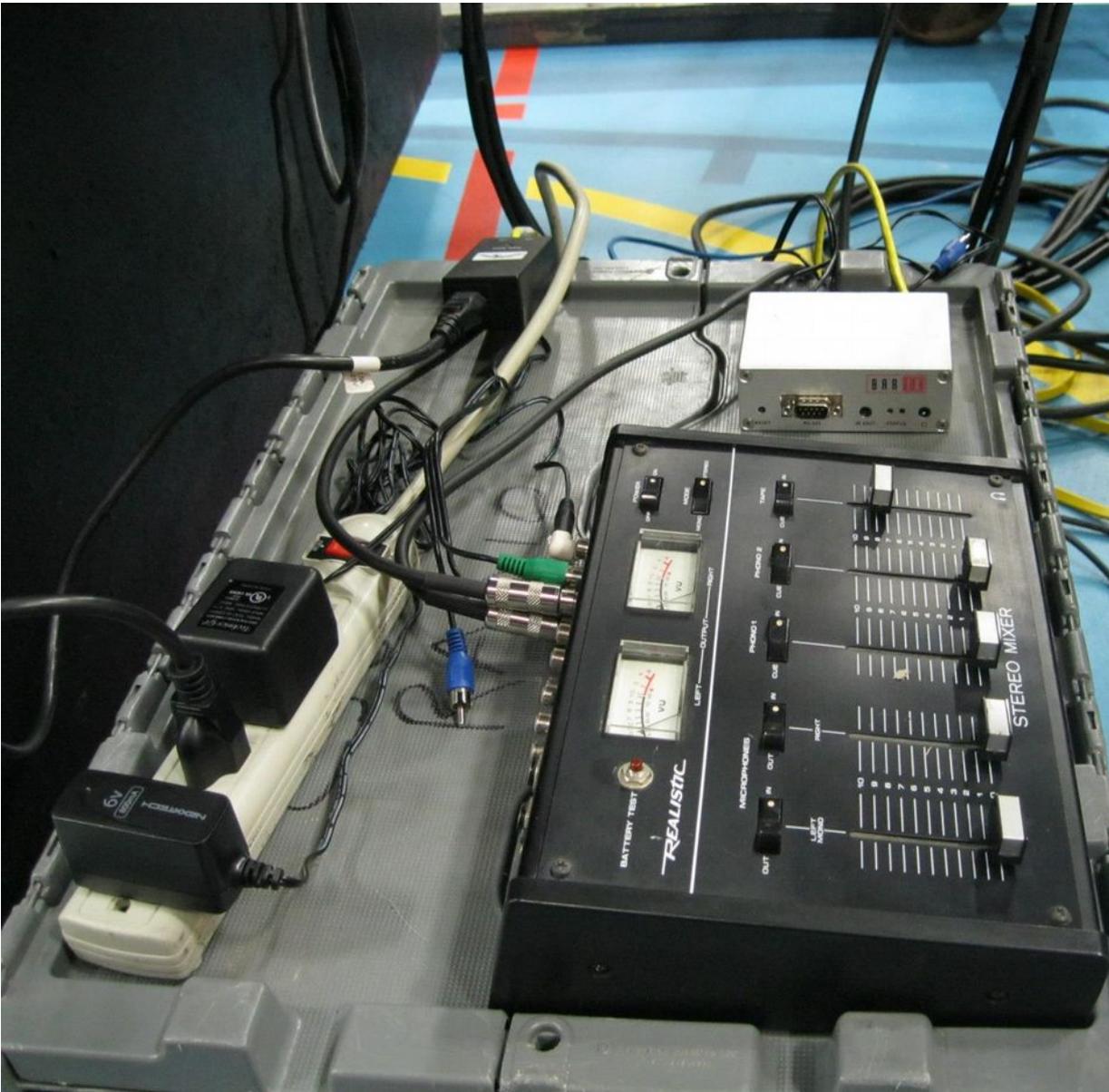
CAP in Canada

Text, Audio and Image Support for Radio and Television recently including Cell Broadcast for mobile

CAP-CP Profile for English and French

Support for Indigenous Languages, although presently unused

Pelmorex NAAD distributes CAP feeds by TCP\IP socket, C Band or 2 KU band satellite.

Note. In Canada it is not permissible to receive broadcast intrusive alerts via RSS.

National Public Alerting System (NPAS)

Alert Issuers	Alert Aggregator	Alert Distributors	Public (recipients)
Government of Canada Federal Agencies	Pelmorex National Alert Aggregation and Dissemination (NAAD) System	Radio stations	
Provinces and Territories		Television stations	
Authorized Municipal Agencies		Cable distributors	
		Satellite distributors	
		Wireless/mobile distributors	
		Social media companies	
		Web-based applications	

Alert Timeline

1
An emergency management organization (**Issuer**) decides to issue an alert.

2
An authorized **Issuer** enters the alert into the **NAAD System**.

3
The **NAAD System** ensures quick and secure delivery of alerts to the **Distributors**, exactly as provided by the **Issuer**.

4
The **Public** receives alerts through various channels and responds appropriately to the emergency or situation.

Government of Canada   Gouvernement du Canada

Canada

Examples of Alerts

Aggressive Wild Animals

Extreme Cold and Blizzards

Extended Power and Telecommunications Outages

Evacuation notifications for Fire, Floods and Landslides

Open Souce CAP Client

Emergency Alerting is a cornerstone of Radio and Television automation

Used internationally on every continent, except for Antarctic

Runs on generic PC equipment including the 35.00 USD Raspberry PI
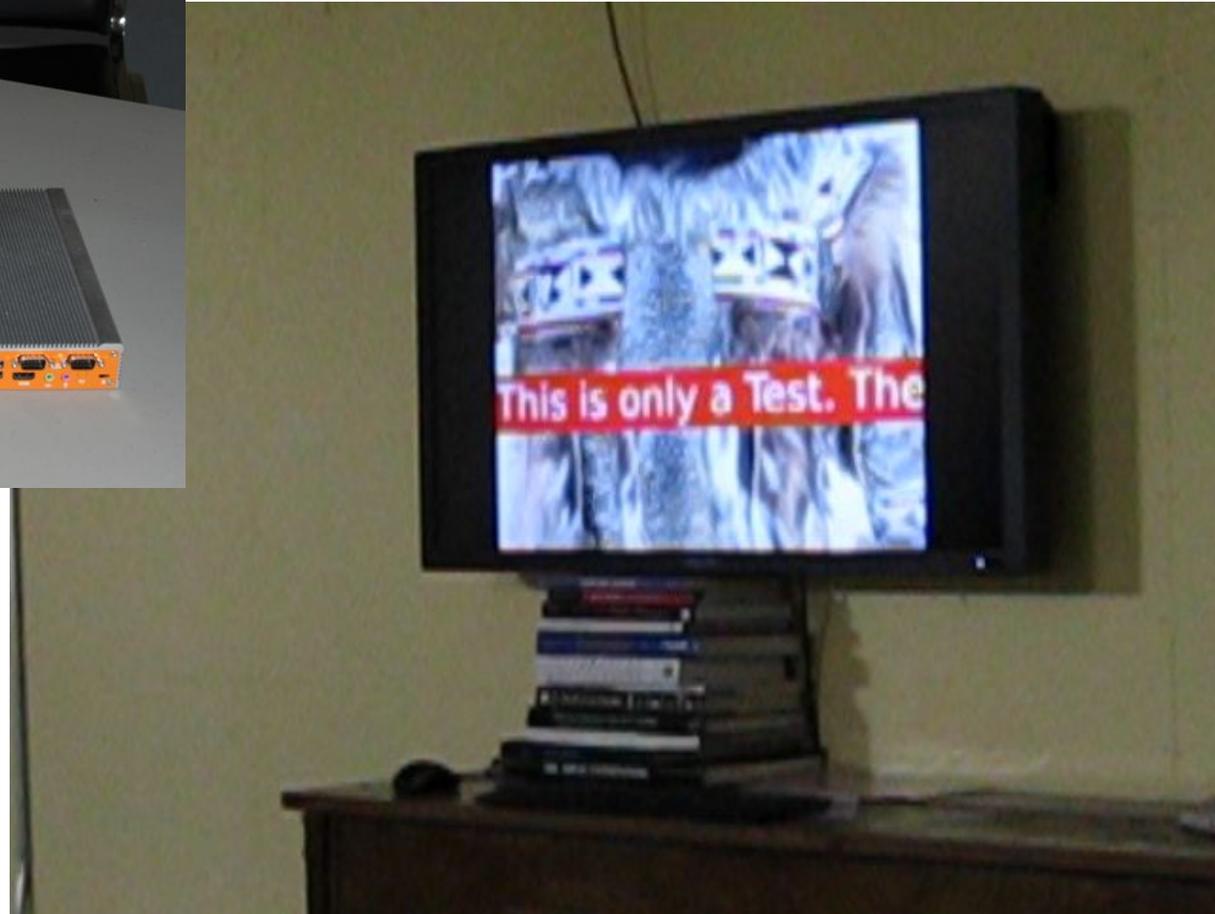
Raspberry PI
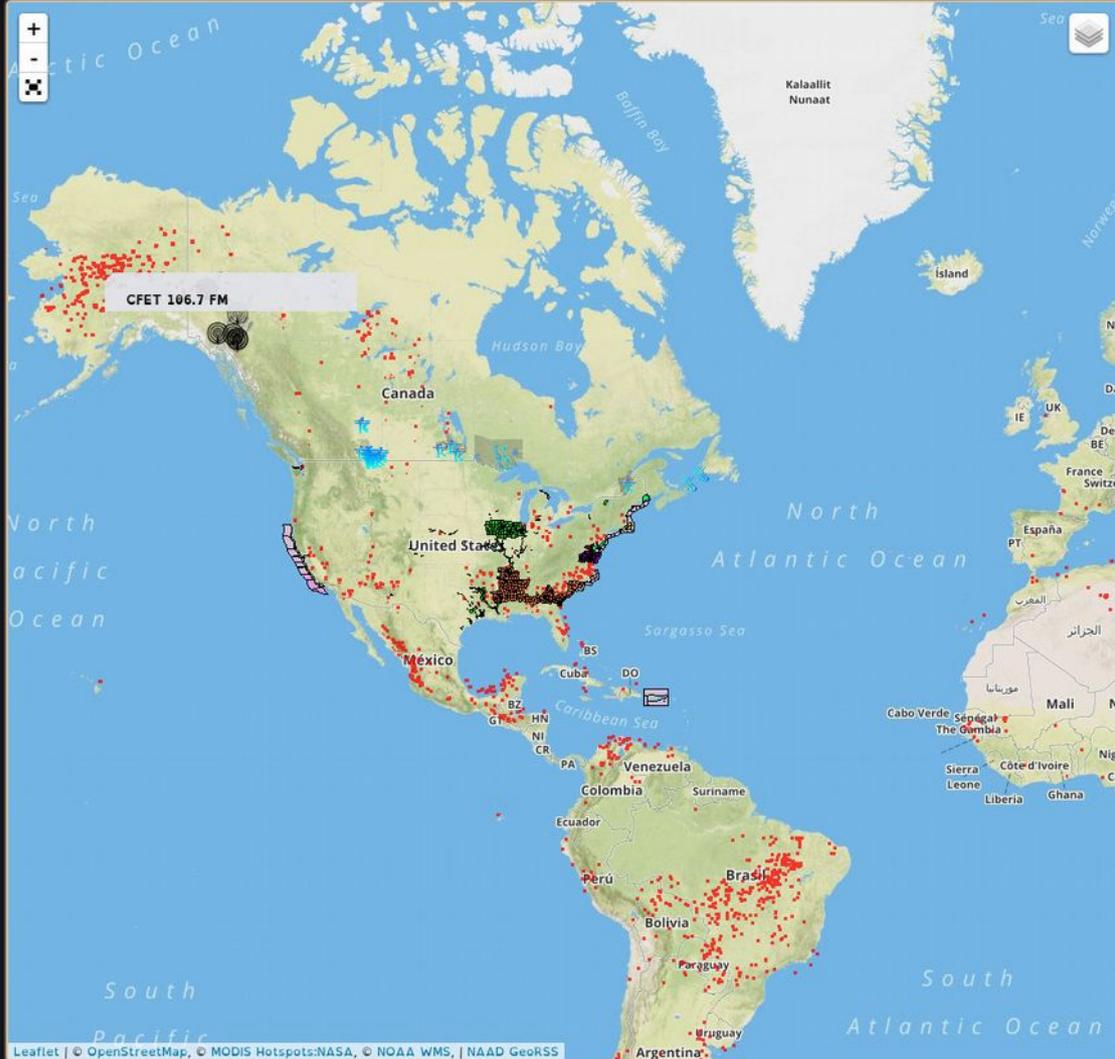
OB Player (Active)

MODIS Hotspots
Fire Hotspot

NAAD Alerts(CAN)

event type	symbol
Air Quality	
Rainfall	
Squall	
Freezing Drizzle	
Freezing Rain	
Snowfall	
Blowing Snow	
Winter Storm	
Blizzard	
Fog	
Wind	
Cold Temperature	

NOAA Alerts (USA)

notification	symbol
Air Stagnation Advisory	
Areal Flood Advisory	
Areal Flood Warning	
Areal Flood Watch	
Ashfall Advisory	
Blizzard Warning	
Blizzard Watch	
Blowing Dust Advisory	
Blowing Snow Advisory	
Brisk Wind Advisory	
Coastal Flood Advisory	
Coastal Flood Statement	
Coastal Flood Warning	
Coastal Flood Watch	
Dense Fog Advisory	
Dense Smoke Advisory	
Dust Storm Warning	
Excessive Heat Warning	
Excessive Heat Watch	
Extreme Cold Warning	
Extreme Cold Watch	
Extreme Wind Warning	
Fire Weather Warning	
Fire Weather Watch	
Flash Flood Statement	
Flash Flood Warning	

CFET 106.7 FM

Leaflet | © OpenStreetMap, © MODIS Hotspots:NASA, © NOAA WMS, | NAAD GeoRSS

media	playlists

my • AP un ar   [fire]

advanced • simple • my searches

	Artist	Title	Time
a	Jefferson Starship	Fire	04:47
a	Jimi Hendrix at Woodstock	Fire	03:42
a	The National	Fireproof	02:58
a	Arcade Fire	Neon Bible	02:17
a	Arcade Fire	Intervention	04:19
a	Arcade Fire	Black Wave-Bad Vibrations	03:58
a	Arcade Fire	Ocean of Noise	04:54
a	Arcade Fire	The Well And The Lighthouse	03:57
a	Arcade Fire	[Antichrist Television Blues]	05:10
a	Arcade Fire	Windowsill	04:16
a	Arcade Fire	No Cars Go	05:44
a	Arcade Fire	My Body Is A Cage	04:47
a	Arcade Fire	Black Mirror	04:13
a	Arcade Fire	Keep The Car Running	03:29
a	Groove Armada	Fireside Favourite	04:20
a	Capercaillie	The Price Of Fire	04:05
a	The Wilders	Settin' The Woods On Fire	02:22
a	Sleepy John Estes	Fire Department Blues	03:06

previous • next
< more   **472 media items found**

New

account   media   playlists   schedules   admin   help

Logged in as: radiorob

RAINFALL WARNING IN EFFE[...]
(LINK TO SOURCE)
Description: rainfall warning in e[...]
Expires: 2015-01-26T15:32:00-[...]
Originated from CAP Alert:
Environment Canada, 2015-01-
25T23:32:00-00:00,
2.49.0.1.124.6de6d887.2015
Area: Central Coast - inland sections

○ Contrast
○ Watercolor
● OpenStreetMap

☑ MODIS Fires - Past 24h
☑ MODIS Fires - Past 48h
☑ NOAA Alerts (USA)
☑ NAAD Alerts (CAN)
☐ Clouds
☐ Snow
☑ Precipitation

Openbroadcaster

OBS Player
(Active)

OBS Player
(Emergency)

MODIS Hotspots

Fire Hotspot

NAAD Alerts(CAN)

event type	symbol
Air Quality	
Rainfall	
Squall	
Freezing Drizzle	
Freezing Rain	
Snowfall	
Blowing Snow	
Winter Storm	
Blizzard	
Fog	
Wind	
Cold Temperature	

NOAA Alerts (USA)

Status | Summary | Basic | Sync/Media | Audio/Visualization | **Emergency Alerts** | HTTP(S) Admin | Live Assist

Quit/Restart | Fullscreen (N/A)
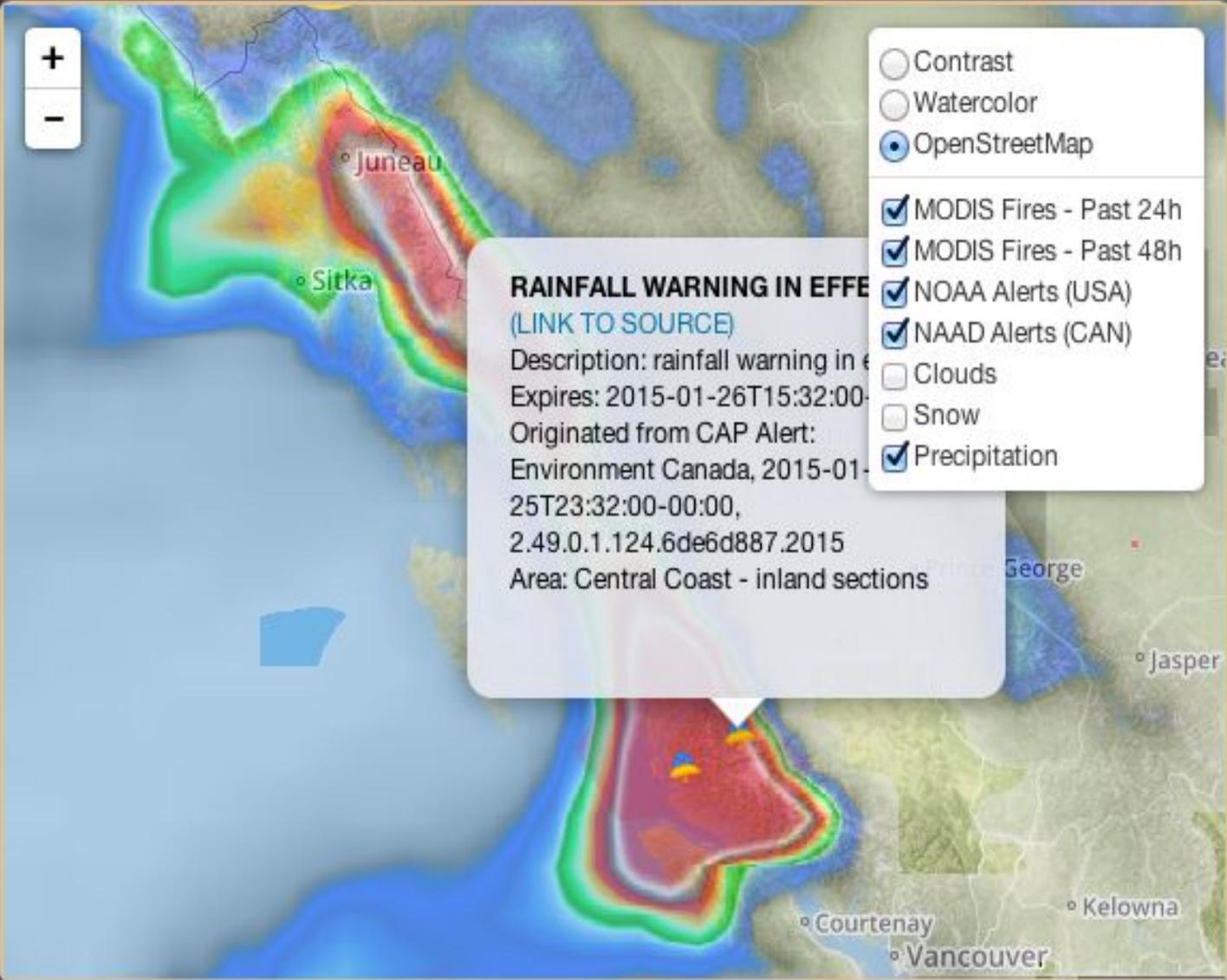
Enable Emergency Alerts ☑

Primary Language `English ⇕`

Primary Voice (for TTS) `mb-en1 ⇕`

Secondary Language `French ⇕`

Secondary Voice (for TTS) `mb-fr1 ⇕`

Location Geocode `6001036`

Alert Repeat Interval (in minutes) `20`

Plays Per Alert (0 = no limit) `2`

NAAD Stream #1 URL `http://streaming1.naad-adna`

NAAD Stream #2 URL `http://streaming2.naad-adna`

NAAD Archive #1 URL `http://capcp1.naad-adna.pel`

NAAD Archive #2 URL `http://capcp2.naad-adna.pel`

Truncate Long Alert Messages ☐

Play Moderately Severe Alerts ☑

Play Test Alerts ☐

[Save]

Alerting System Tests

Test Alerts `Simple Test ⇕`

[Inject Alert]

Active Alerts

Last Heartbeat Received: 00:45 min
Alerts Will Play In: 20:57 min

Terminal - cfet@cfet: /opt/obplayer

File   Edit   View   Terminal   Tabs   Help

6_33_05_00IBCBB4B8B_9BC8_65A2_2ACB_675DD7D2B1AF.xml
[Sep 16 2015 22:44:28 UTC] [debug] fetching alert 0895C969-3D67-6704-78BD-9404E6
EE1EFB using url http://capcp1.naad-adna.pelmorex.com/2015-09-16/2015_09_16T13_5
8_00_07_00I0895C969_3D67_6704_78BD_9404E6EE1EFB.xml
[Sep 16 2015 22:44:32 UTC] [debug] fetching alert 2.49.0.1.124.c88ab03e.2015 usi
ng url http://capcp1.naad-adna.pelmorex.com/2015-09-16/2015_09_16T21_04_00_00_00
I2.49.0.1.124.c88ab03e.2015.xml
[Sep 16 2015 22:44:38 UTC] [debug] fetching alert 2.49.0.1.124.a3248aeb.2015 usi
ng url http://capcp1.naad-adna.pelmorex.com/2015-09-16/2015_09_16T21_04_00_00_00
I2.49.0.1.124.a3248aeb.2015.xml
[Sep 16 2015 22:44:43 UTC] [debug] fetching alert 2.49.0.1.124.d468c527.2015 usi
ng url http://capcp1.naad-adna.pelmorex.com/2015-09-16/2015_09_16T21_04_00_00_00
I2.49.0.1.124.d468c527.2015.xml
[Sep 16 2015 22:44:47 UTC] [debug] fetching alert 2.49.0.1.124.faf767e3.2015 usi
ng url http://capcp1.naad-adna.pelmorex.com/2015-09-16/2015_09_16T21_04_00_00_00
I2.49.0.1.124.faf767e3.2015.xml
[Sep 16 2015 22:44:52 UTC] [debug] fetching alert 0C60F61D-3AE4-9810-5275-84EDD1
5607A9 using url http://capcp1.naad-adna.pelmorex.com/2015-09-16/2015_09_16T19_2
8_02_03_00I0C60F61D_3AE4_9810_5275_84EDD15607A9.xml
[Sep 16 2015 22:44:57 UTC] [debug] fetching alert 2D2E0E21-B7C7-7777-FF29-F38E83
6F98A4 using url http://capcp1.naad-adna.pelmorex.com/2015-09-16/2015_09_16T19_3
1_18_03_00I2D2E0E21_B7C7_7777_FF29_F38E836F98A4.xml
[Sep 16 2015 22:45:17 UTC] [debug] received alert B89309D3E37F46CEAEFAD26D33EEB7
A9 (2015-09-16T22:45:15-00:00)
[Sep 16 2015 22:45:27 UTC] [debug] received alert B04BEF53-A633-A158-C39F-FE9512
69FAF1 (2015-09-16T15:45:15-07:00)
[Sep 16 2015 22:45:47 UTC] [alerts] playing active alerts (1 alert(s) to play)
[Sep 16 2015 22:45:47 UTC] [player] now playing track ?: Emergency Alert - B04BE
F53-A633-A158-C39F-FE951269FAF1 (id: 0 file: canadian-attention-signal.mp3 durat
ion: 8s type: 'audio' source: alerts)
[Sep 16 2015 22:45:47 UTC] [player] resuming track at 0.134216070175 seconds.
[Sep 16 2015 22:45:55 UTC] [player] now playing track ?: Emergency Alert - B04BE
F53-A633-A158-C39F-FE951269FAF1 (id: 0 file: 2015_09_16T15_45_15_07_00IB04BEF53_
A633_A158_C39F_FE951269FAF1-english.wav duration: 34.656s type: 'audio' source:
alerts)
[Sep 16 2015 22:45:55 UTC] [player] resuming track at 0.141160964966 seconds.

Cancel	Sender	Times Played	Headline
☐	YukonEmergencyMeasuresOrganization B04BEF53-A633-A158-C39F-FE951269FAF1 2015-09-16T15:45:15-07:00	1	Test -this is a scheduled test of the yukon emergency measures organization's emergency public alerting system no action is required this is a test only This is a scheduled Test of the Yukon Emergency Measures Organization's emergency public alerting system No Action is required This is only a Test. There is No threat of an emergency or disaster in progress at this time. If this had been an actual emergency or threat. You would hear instructions that would assist you to protect you and your family. No Action is required. This is only a Test.

[Cancel Alerts]

UNESCO Year of the Indigenous Languages

- 7 thousand Languages spoken worldwide
- 370 million Indigenous people in the world
- 90 countries with Indigenous communities
- 5 thousand different Indigenous cultures
- 2680 languages in danger

Source UNESCO https://en.iyil2019.org/

Indigenous Nations in Canada

- 634 groups; First Nations, Inuit and Metis

- 60 Regional Dialects with 20 spoken

- Handful will survive Cree, Ojibway and Inuktitut

- Inuktitut\Inuinnaqtun in remote arctic communities spoken by 30% of house holds

Nuxalk First Nation

CKNN 91.1 FM
Bella Coola, British Columbia

LOADING ZONE
NO
PARKING

QUIET

QUIET

91.1 FM Bella Coola

nuxalk
RADIO.COM

Lhulhamktulhs ala
ts'ktaliwalh alh ti
s-kulhulmcilh t'ayc
n wa sulutilh ats.

Challenge

- Not everyone is located near a cell base station or has a smartphone phone
- Equipment manufacturers do not support indigenous dialects
- Alerts understood by indigenous people in remote communities
- TTS engines do not presently support indigenous languages

Kitikmeot Radio Network

Cambridge Bay, Nunavut
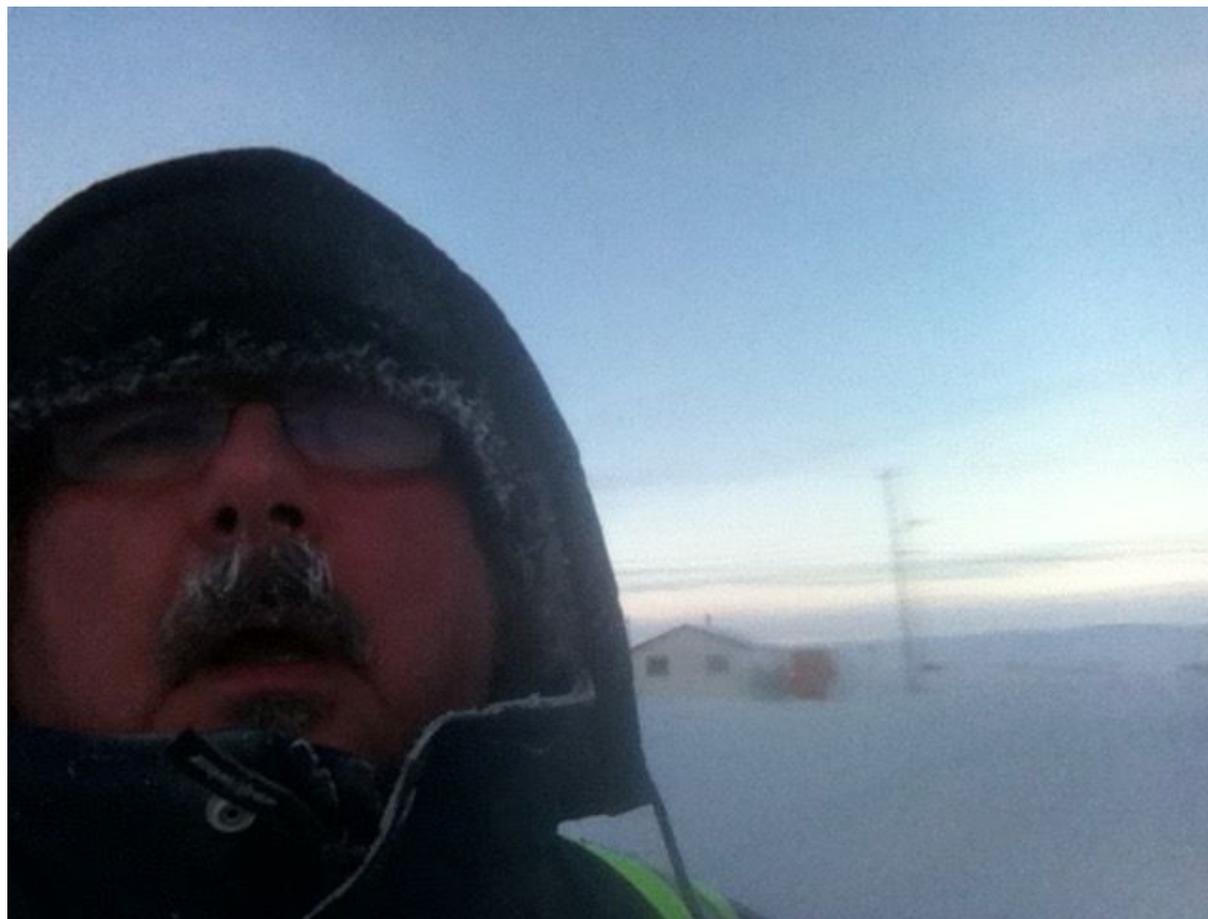
Solution

- 20 phrases recorded by community members

- Framework for other countries and languages

- Available as open source for communities to utilize

Workflow Example

1) Equipment is configured to associate available languages with alerting area. IE Tlingit with Tagish Area, Nuxalk in Bella Coola.

2) Valid CAP message is received matching alerting area polygon

3) Starts with standard alerting tones

4) Artificial Intelligence associates the message in CAP alert with available recorded phrases

5) Canned message plays in regional dialect "A severe blizzard is happening in your area, stay tuned for more details"

6) Regular detailed message follows in English\French.

Resources

observer on GitHub

obplayer on GitHub

Support Site

DIY Maker Space Instructions

Get Involved

Do you have an idea to make open source CAP emergency alerting better?

Have some coding skills? Want to learn?

We want to hear from you!

Contact us

www.openbroadcaster.com