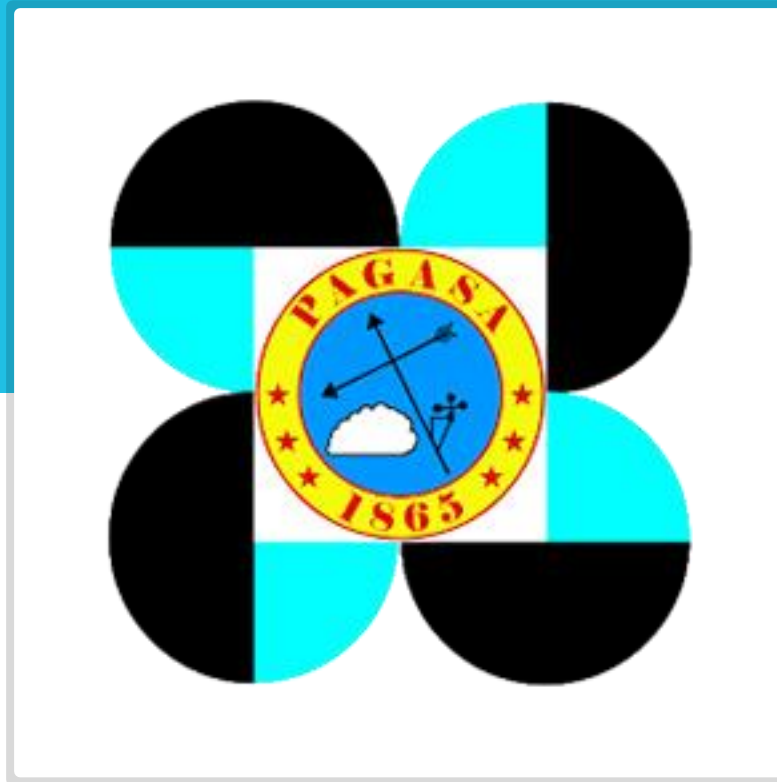# CAP in the Philippines

Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA),
Department of Science and Technology

Lester Kim M. Lagrimas

Rome, Italy | September 19-21, 2017

PAGASA

Philippine Atmospheric Geophysical and Astronomical Services Administration

PAGASA as the National Meteorological and Hydrological Services (NMHS) of the Philippines shall be the **"authoritative"** voice in providing warnings to the public.

Mandated to provide protection against natural calamities and utilize scientific knowledge as an effective instrument.
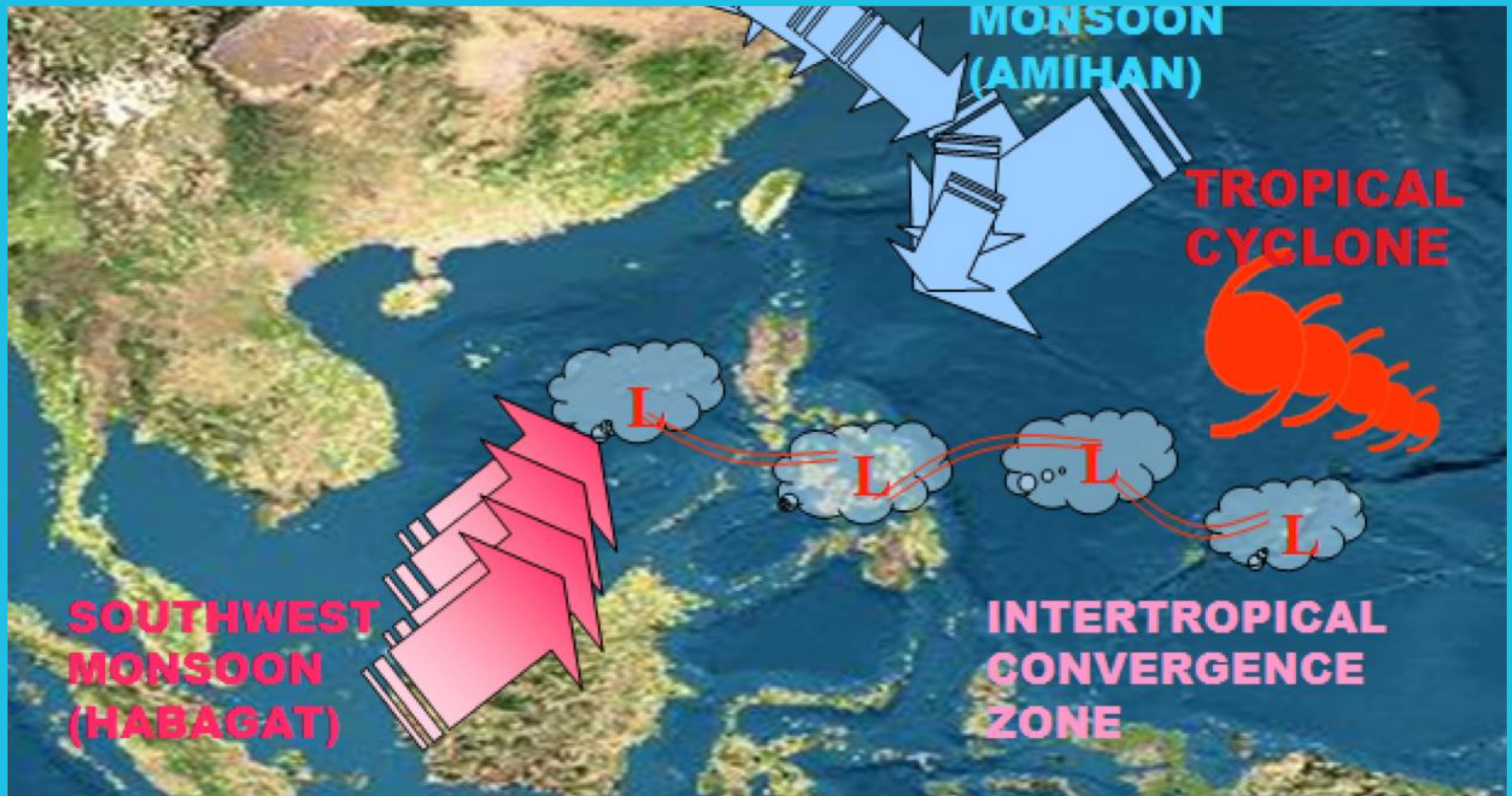
facebook
facebook.com/PAGASA.DOST.GOV.PH
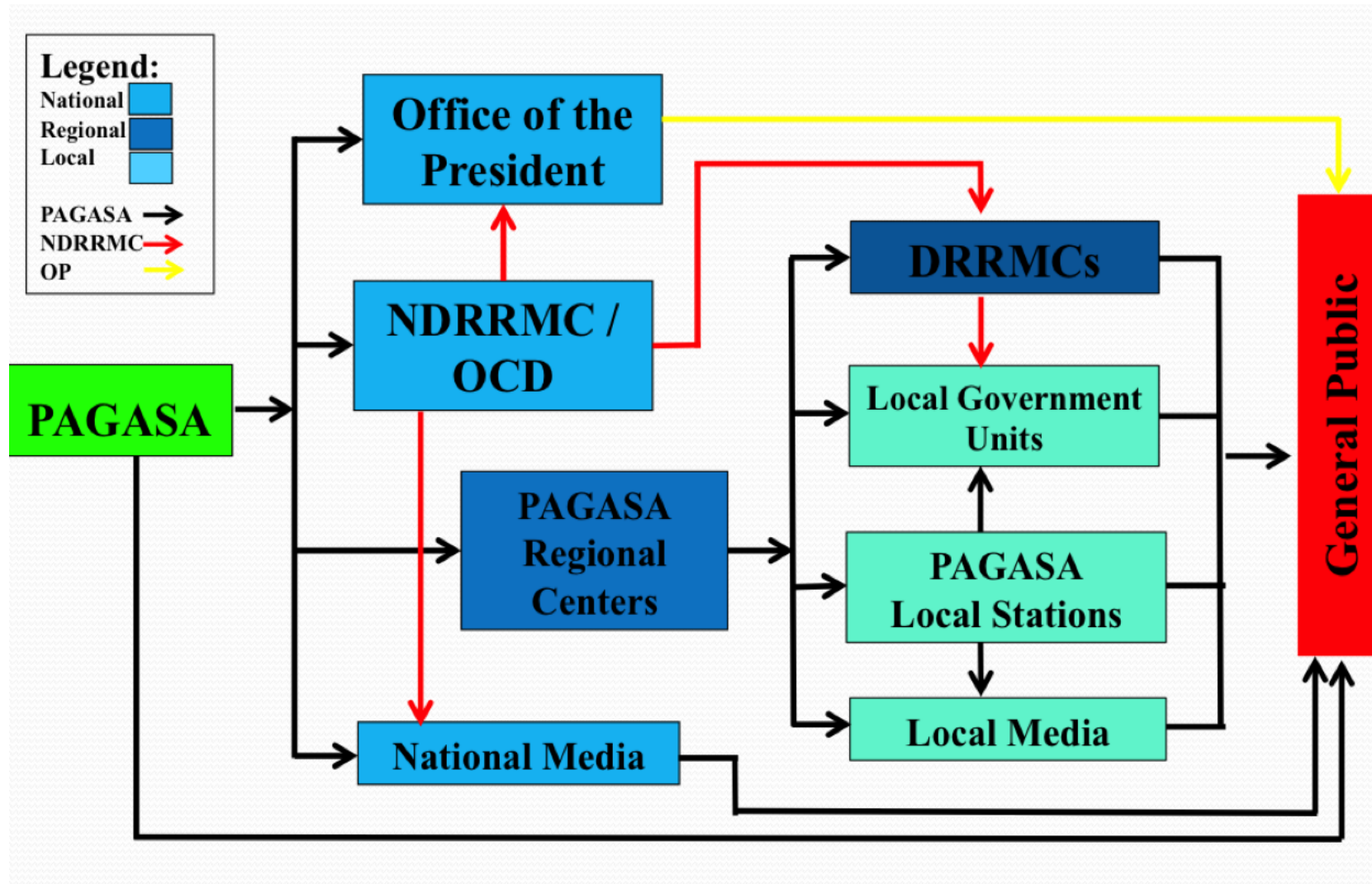
twitter
twitter.com/dost_pagasa

website
www.pagasa.dost.gov.ph

MONSOON (AMIHAN)

TROPICAL CYCLONE

SOUTHWEST MONSOON (HABAGAT)

INTERTROPICAL CONVERGENCE ZONE

Information Dissemination

01 **Office of the President**
General Public

02 **NDRRMC/OCD**
DRRMC, National Media Office of the President

03 **PAGASA Regional Centers**
PAGASA Local stations, LGU

04 **National Media**
General Public.

CAP development and implementation

PAGASA on WMO Alert Hub

About 3 years ago…

PAGASA registered it's first CAP Feed URL containing Tropical Cyclone Alert and Tropical Cyclone Warning initiated by Google Partnership

RSS Feed URL: http://publicalert.pagasa.dost.gov.ph/feeds/
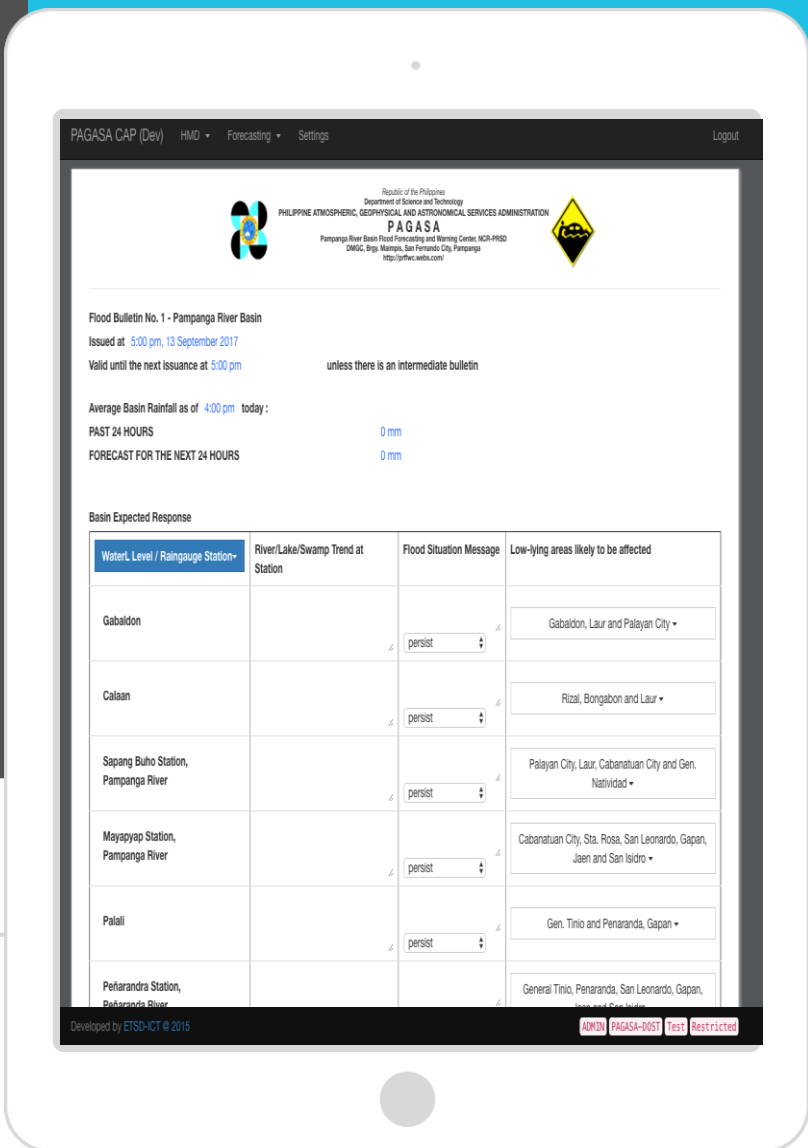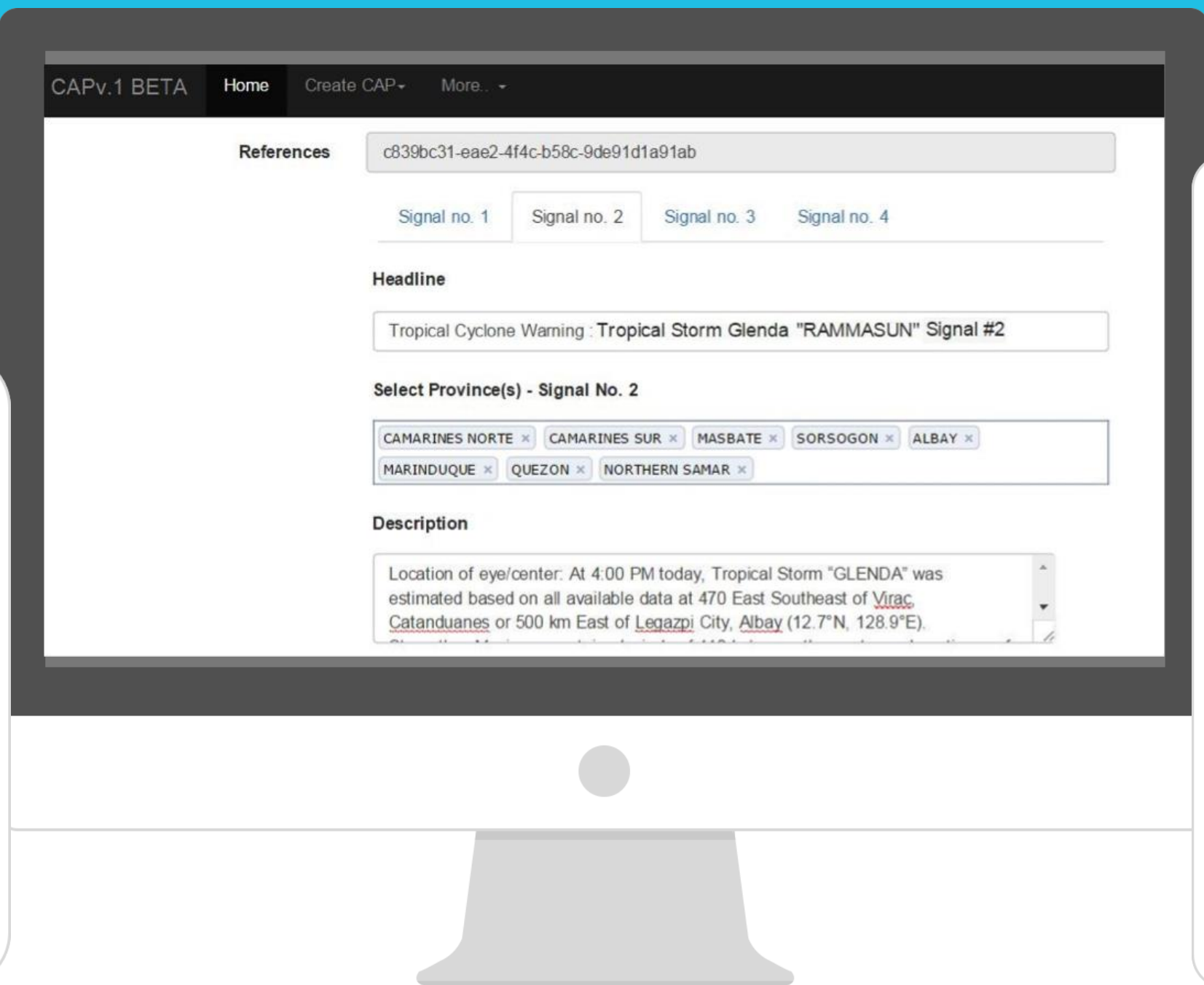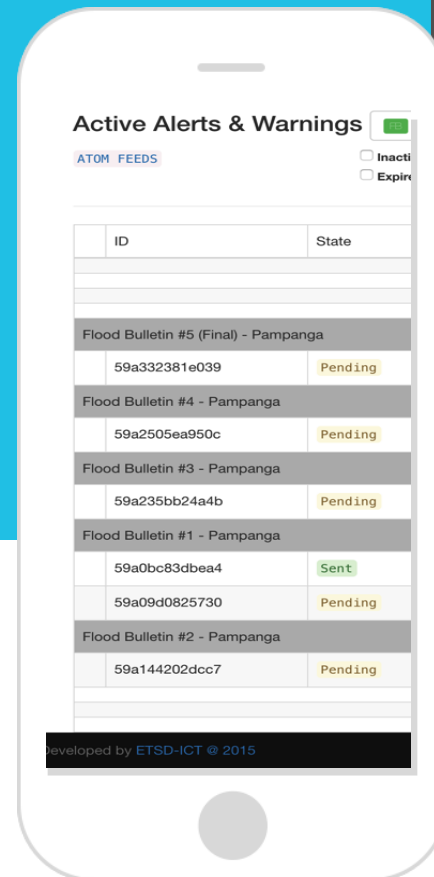
In-House development

ICT developed a web application to generate CAP alerts using the ff. software libraries, validator and documentation.

OASIS

GitHub

google.org Common Alerting Protocol Validator

php

laravel

CAP Tool Objective

The main objective of our CAP system is to address our existing process and new CAP alerts with one application at the same time.

Tropical Cyclone Alert

TCA is generated when a typhoon is already inside the Philippine Area of Responsibility (PAR) but no signal yet was given on any city or region.

Tropical Cyclone Warning
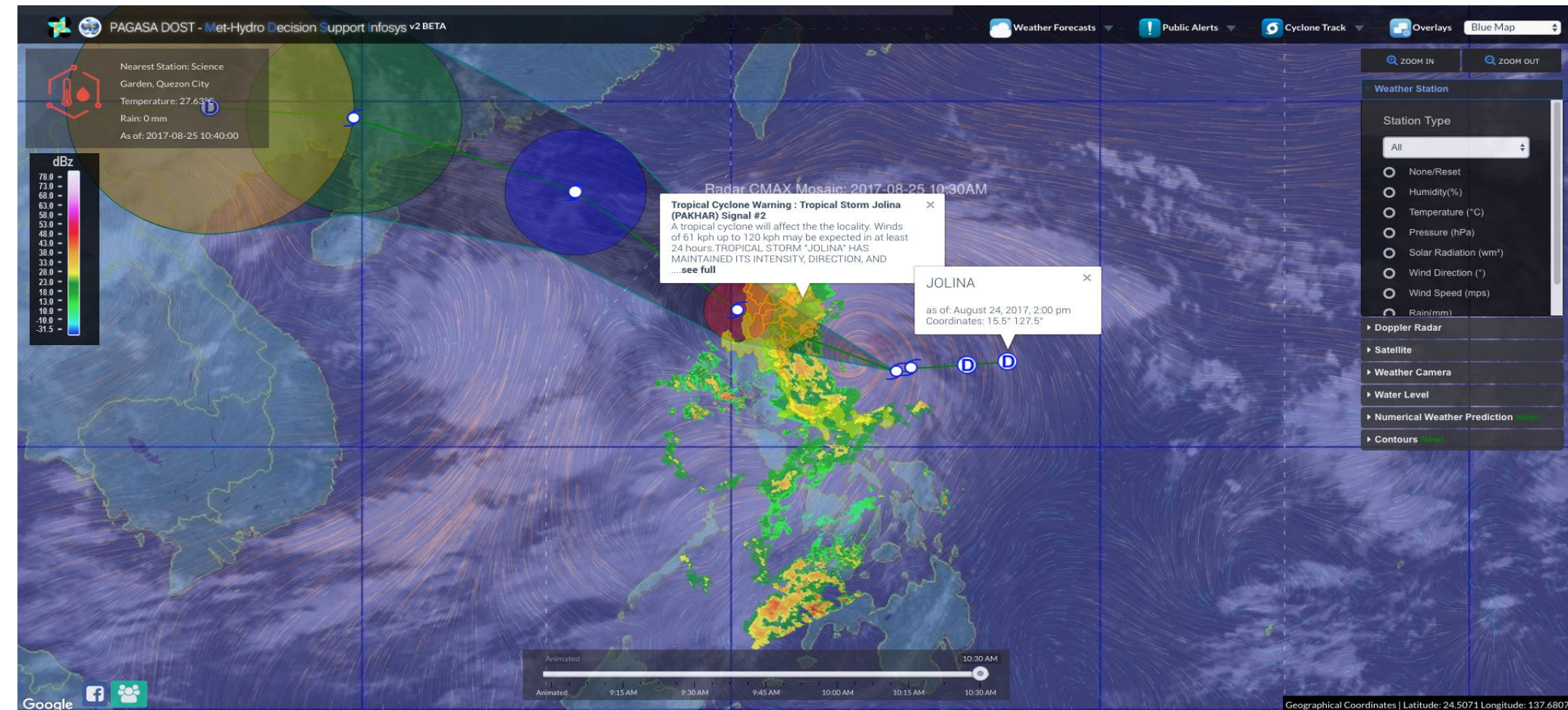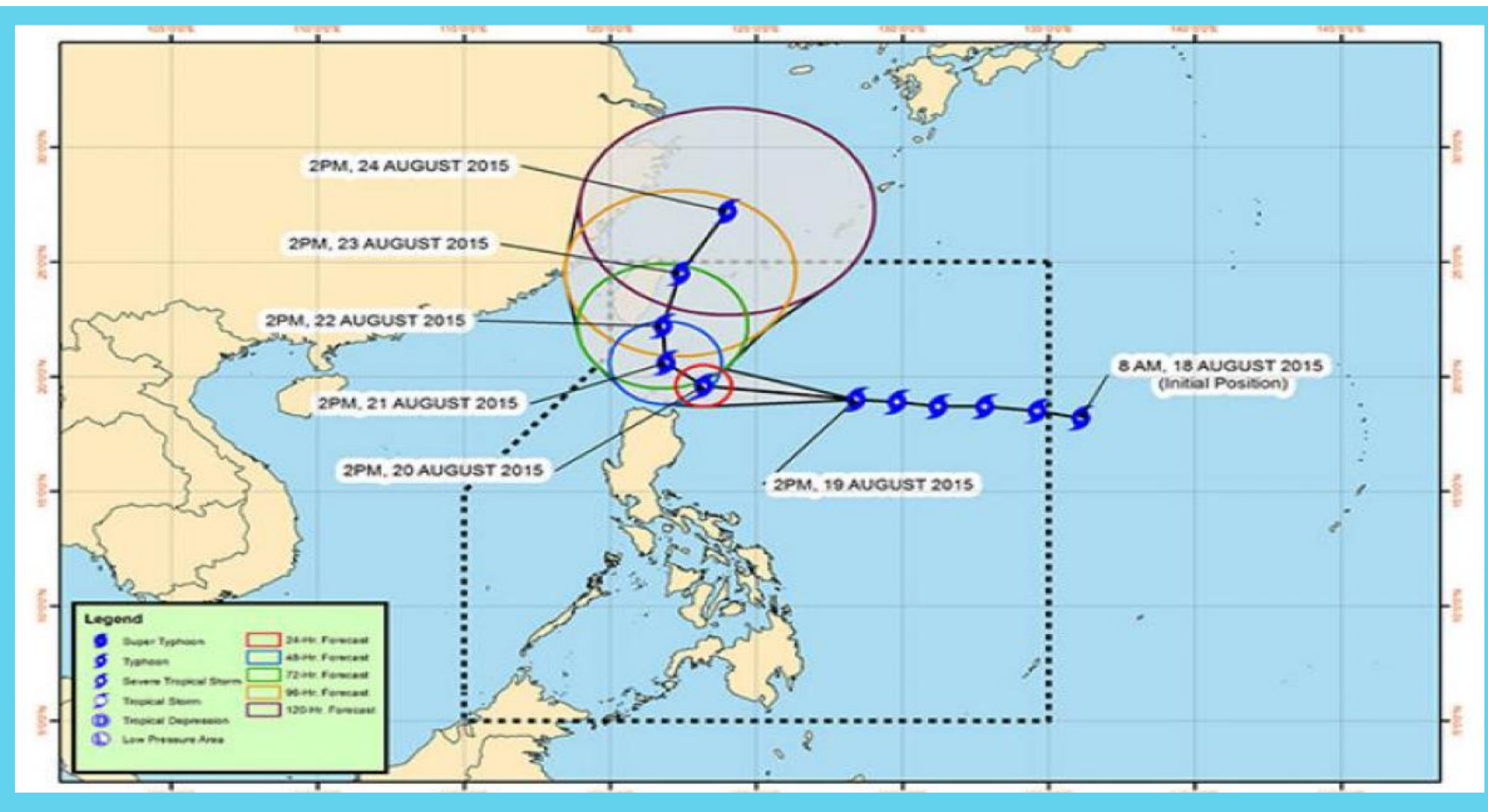
TCW is generated when a typhoon is already affecting land part of the Philippines and an active signal or warning level is in effect. Currently, Philippines have 5 categories of typhoon signals.

General Flood Advisory
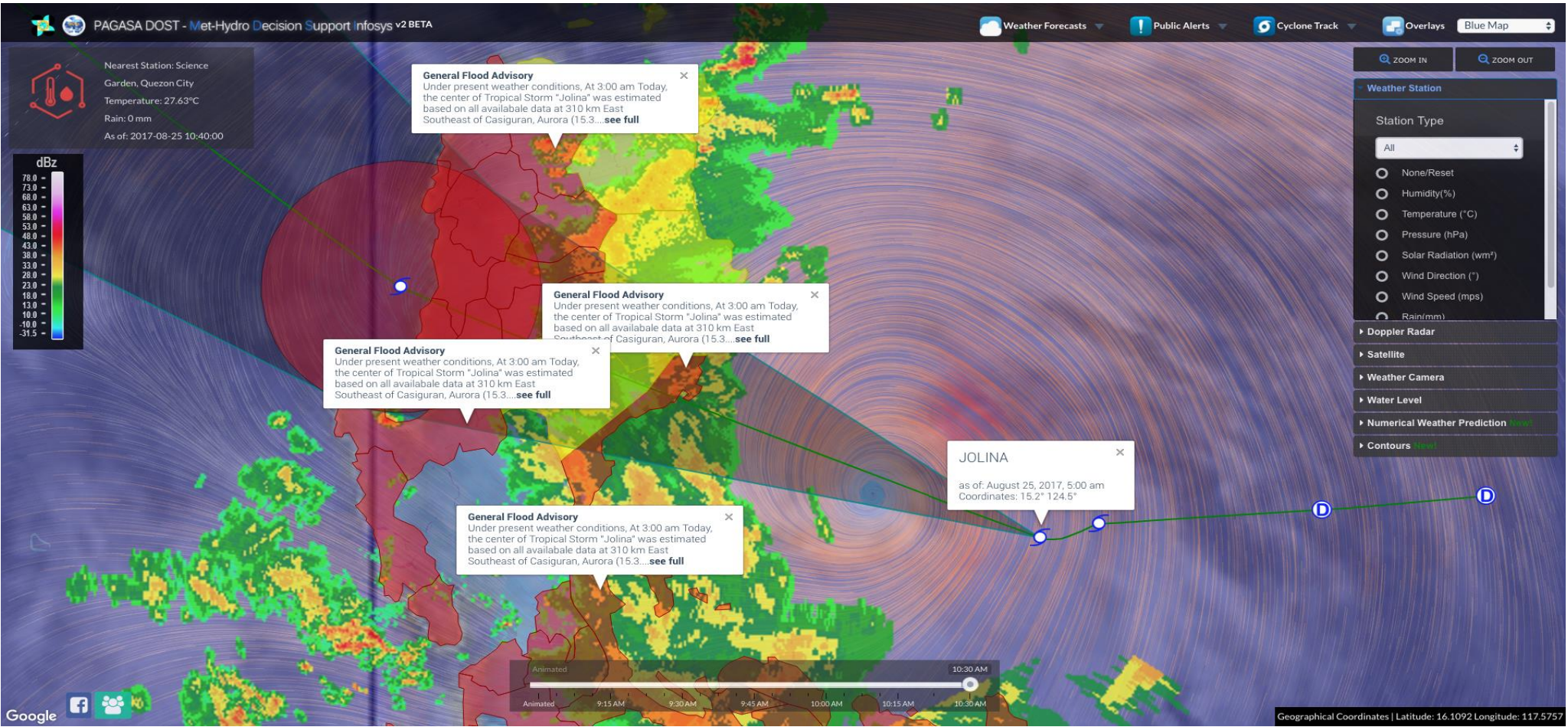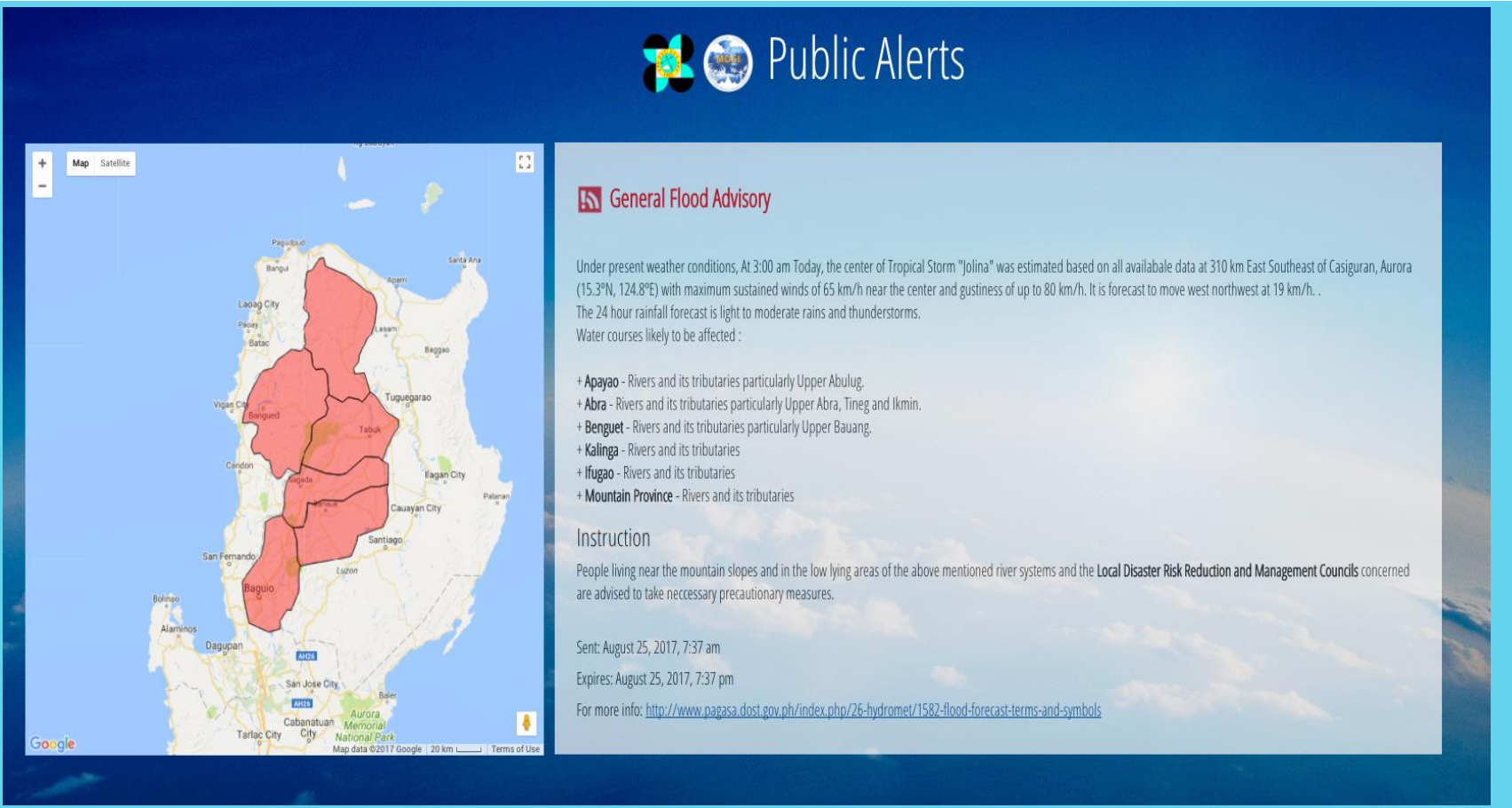
GFA is a non-metered advisory issued by the Hydrologist.

Flood Bulletin

FB is metered alert and issued by the local river basin center of PAGASA.

CAP Integrations

Google Public Alerts

SAHANA

Red Cross

PAGASA MDSI

CAP Integrations

Google Public Alerts

PAGASA and Google partnership started May 2014, and since then PAGASA created a team for Common Alerting Protocol.

Typhoon Alert on Google Search

PAGASA Attribution
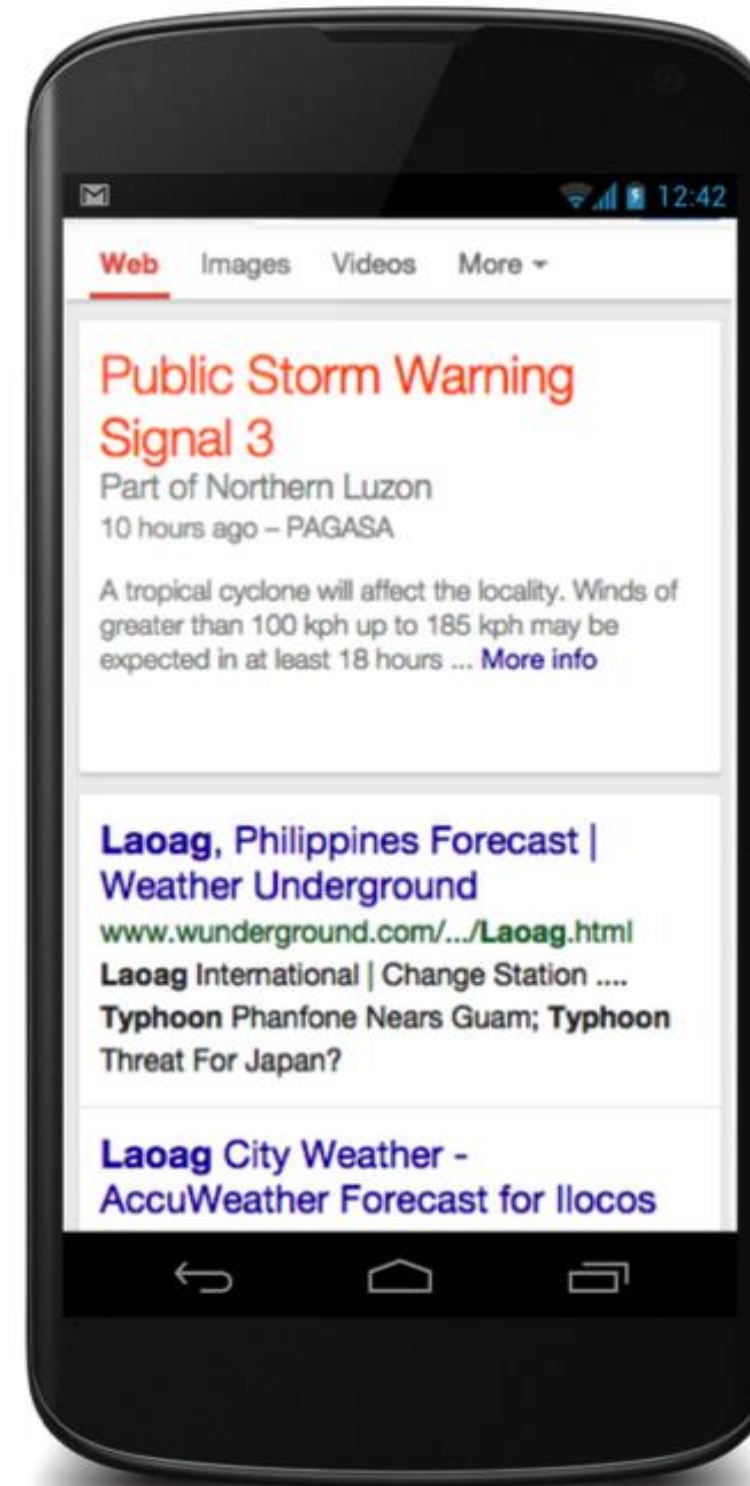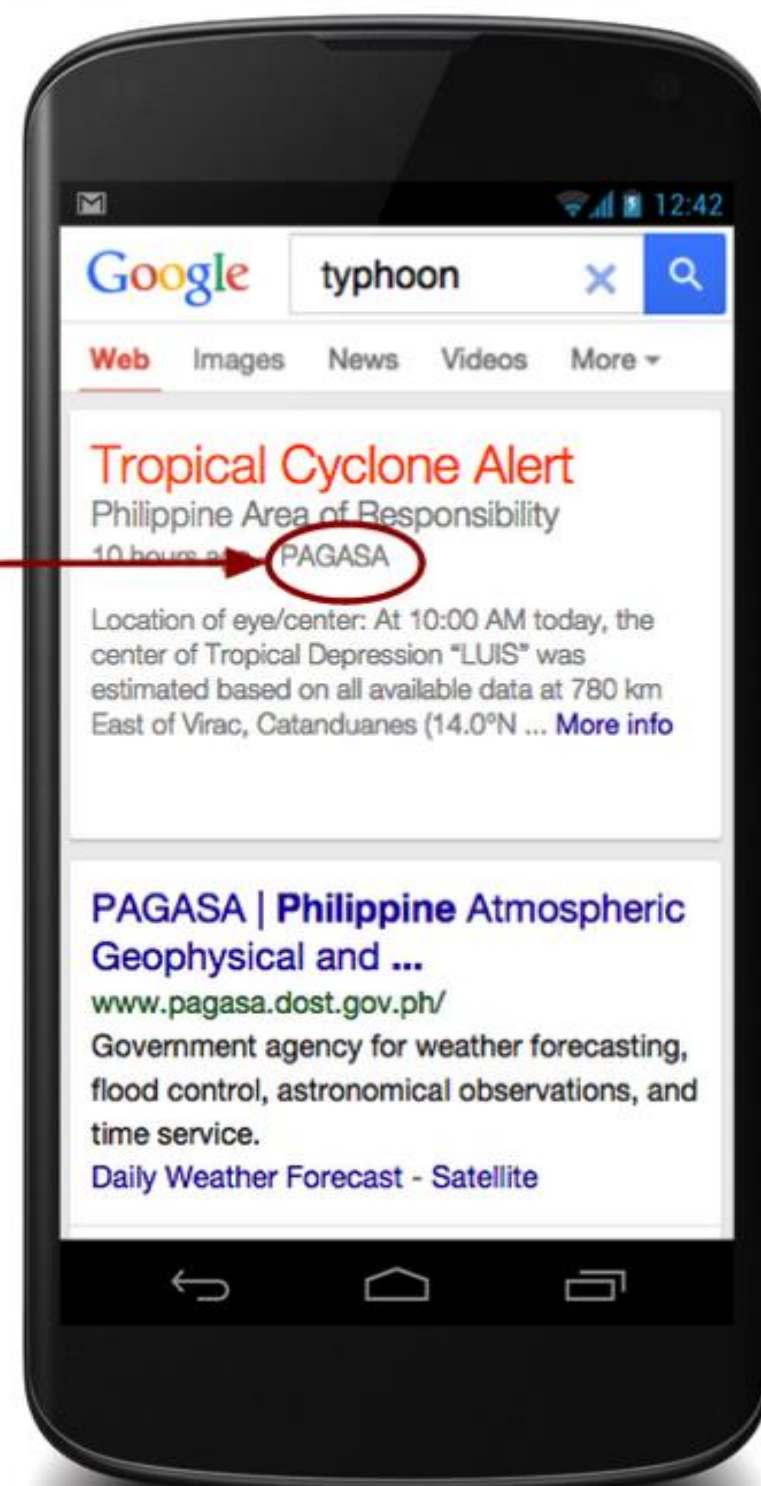
CAP Integrations

SAMBRO (CAP on a Map Project)

"CAP on Map" project starts a workshop in Philippines May 2015 under Sahana Software Foundation, AIT and United Nations ESCAP, and held a training in Thailand for Implementers training. PAGASA's SAMBRO is now accessible in http://sambro.meteopilipinas.gov.ph

PAGASA Alert Hub Common Alerting Picture

View Datalist

Filter Options   Pakita

Search location in Geoname

General Flood Advisory
Actual alert for Iloilo, Antique, Capiz, Negros Occidental, Aklan, Guimaras.
General Flood Advisory (Moderate) Update
Issued by: PAGASA-DOST
Issued on: 2017-09-20 07:33:12
Full Alert

General Flood Advisory
Actual alert for Oriental Mindoro, Palawan, Occidental Mindoro, Romblon, Marinduque.
General Flood Advisory (Moderate) Update
Issued by: PAGASA-DOST
Issued on: 2017-09-20 07:32:14
Full Alert

General
Actual a
Del Sur
Genera
Issued
Issued
Full Ale

Genera

Tiles Courtesy of Humanitarian OpenStreetMap Team
Permalink
117.25085, 15.97946

100 km
100 mi

Carrier 🛜   2:38 PM

< HOME   SAMBRO   NEXT >

Event Types (1/15)

🌙 TSUNAMI

🏚 Earthquake

🌀 Tropical Cyclone

⚠ Extreme Winter Conditions

🌋 Volcano

Flood

🌀 HEAVY RAIN

PINANGGALINGAN :: None@http://sambro.meteopilipinas.gov.ph

🌐 AREA :: Iloilo, Antique, Capiz, Negros Occidental, Aklan, Guimaras

ting Southern
ns and
utaries
an, Jaro-
y Sibalom,
d its tributaries
Occidental** -
Upper
y Ibajay, Aklan

RESPONSE TYPE :: Monitor

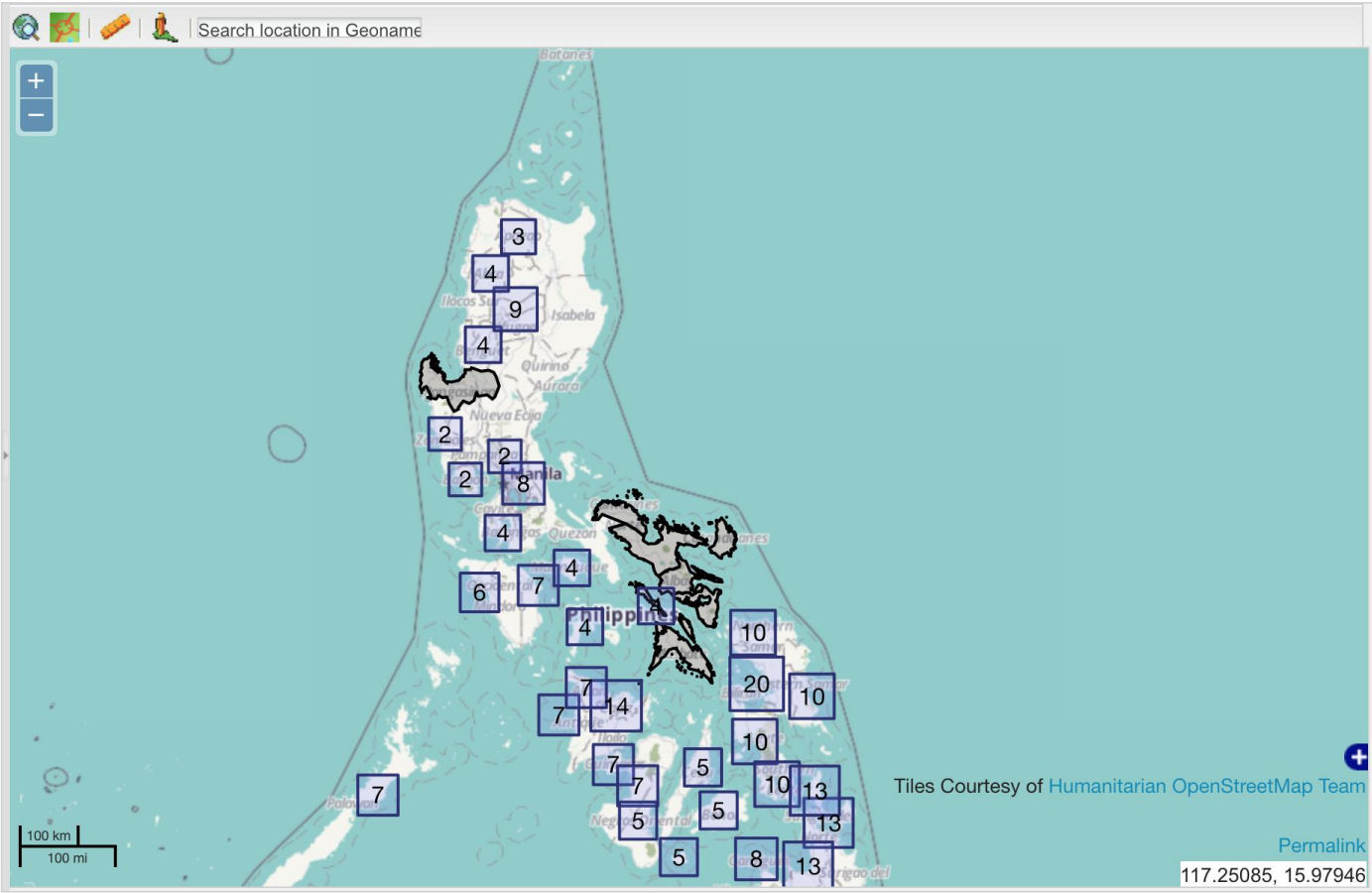INSTRUCTIONS :: People living near the mountain slopes and in the low lying areas of the above mentioned river systems and the **Local Disaster Risk Reduction and Management Councils** concerned are still advised to take neccessary precautionary measures.

INFORMATION KAGANAPAN :: General Flood Advisory (Moderate)

Kategorya :: Met - Meotrolohiko (inc. baha)

Urgency :: Future - Responsive action should be taken in the near future

Severity :: Moderate - Possible threat to life or property

Certainty :: Possible but not likely (p <= ~50%)

Effective Date :: 2017-09-20 16:26:19

Onset Date :: 2017-09-20 16:26:19

Petsa ng Pagkapaso :: 2017-09-20 19:33:12

Information URL :: http://sambro.meteopilipinas.gov.ph/eden/cap/public/4804

Tagapagdala :: PAGASA-DOST

Contact Info :: PAGASA-DOST

Parameters :: layer:Google:Region:0.1: Region 6 (Western Visayas)

Tiles Courtesy of Humanitarian OpenStreetMap Team

Permalink
124.51151, 13.04521

100 km
50 mi
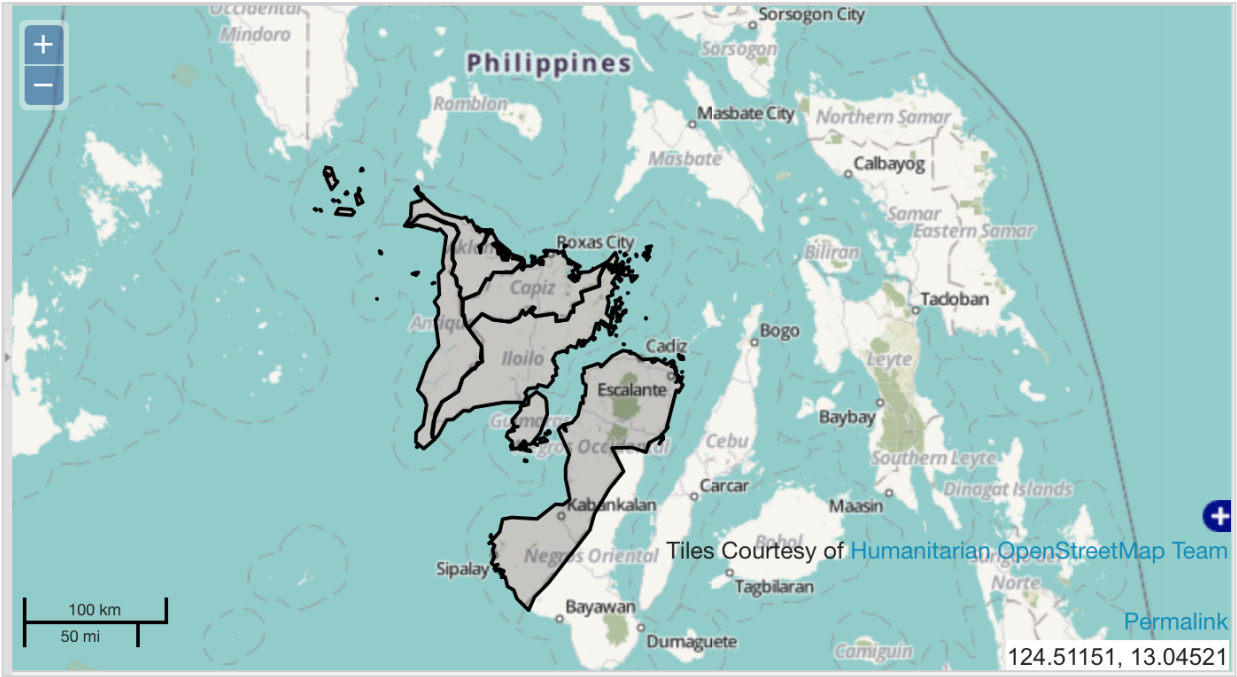
ALERT QUALIFIERS

Sender ID :: PAGASA-DOST

Sent Date/Time :: 2017-09-20 07:33:12

Message Status :: Actual - actionable by all targeted recipients

Uri ng Mensahe :: Update

Saklaw :: Public

CAP Integrations

Red Cross (Hazard App)

PAGASA acts as a information partner of Philippine Red Cross for disaster preparedness.

CAP Integrations
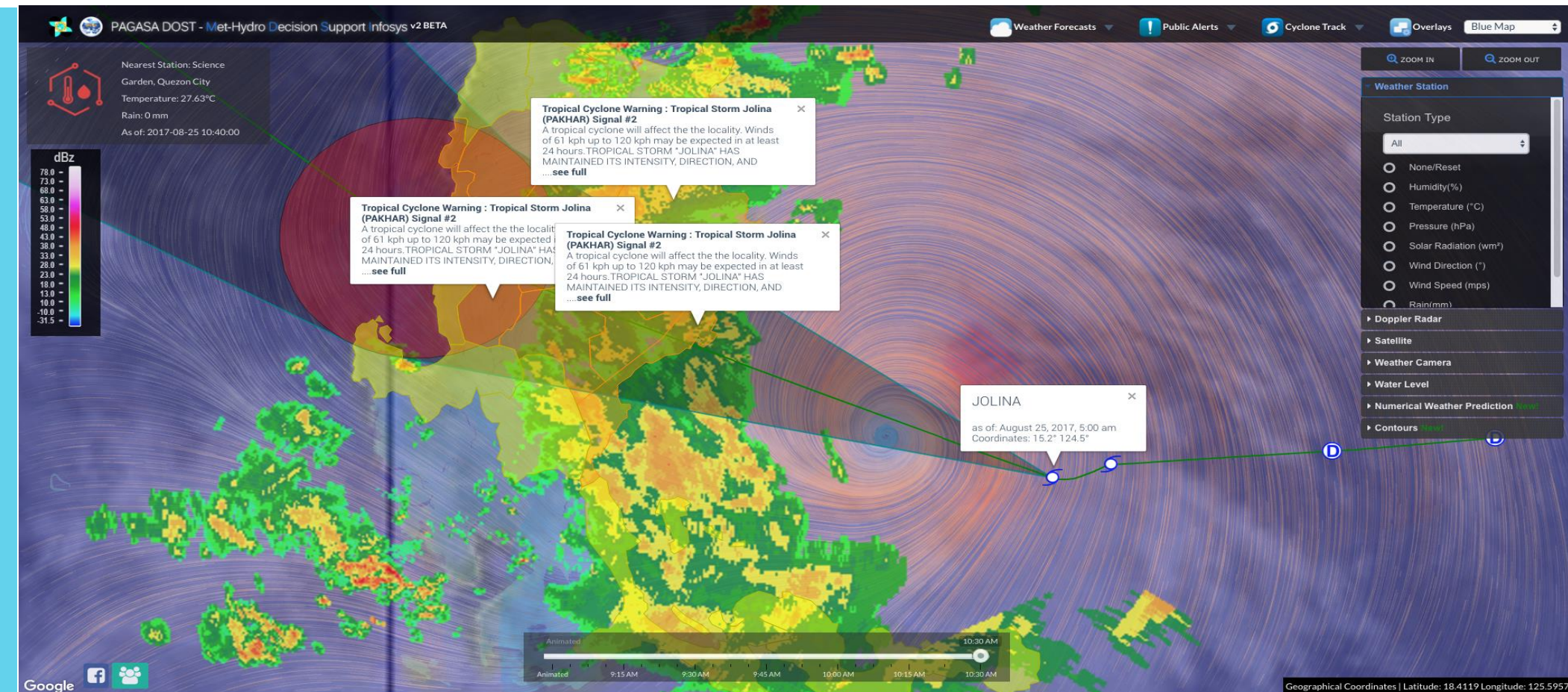

PAGASA Met-Hydro Decision Support Infosys (MDSI)

MDSI is a interactive web application developed by PAGASA for weather visualization from radar, satellite, numerical model, observed data, weather camera and CAP alerts.

MDSI is accessible to www.meteopilipinas.gov.ph

What's coming?

■ Restructured CAP alert with polygon, geocode and area description per area element

■ Implementation of CAP-enabled Flood Bulletin to River Basins in Philippines

■ New CAP product for Rainfall Warning and Inter-agency collaboration

CAP with geocode and polygons

```xml
<area>
  <areaDesc>
    Iloilo, Antique, Capiz, Negros Occidental, Aklan, Guimaras
  </areaDesc>
  <geocode>
    <valueName>SAME</valueName>
    <value>063000000</value>
  </geocode>
  <geocode>
    <valueName>SAME</valueName>
    <value>060600000</value>
  </geocode>
  <geocode>
    <valueName>SAME</valueName>
    <value>061900000</value>
  </geocode>
  <geocode>
    <valueName>SAME</valueName>
    <value>064500000</value>
  </geocode>
  <geocode>
    <valueName>SAME</valueName>
    <value>060400000</value>
  </geocode>
  <geocode>
    <valueName>SAME</valueName>
    <value>067900000</value>
  </geocode>
</area>
```
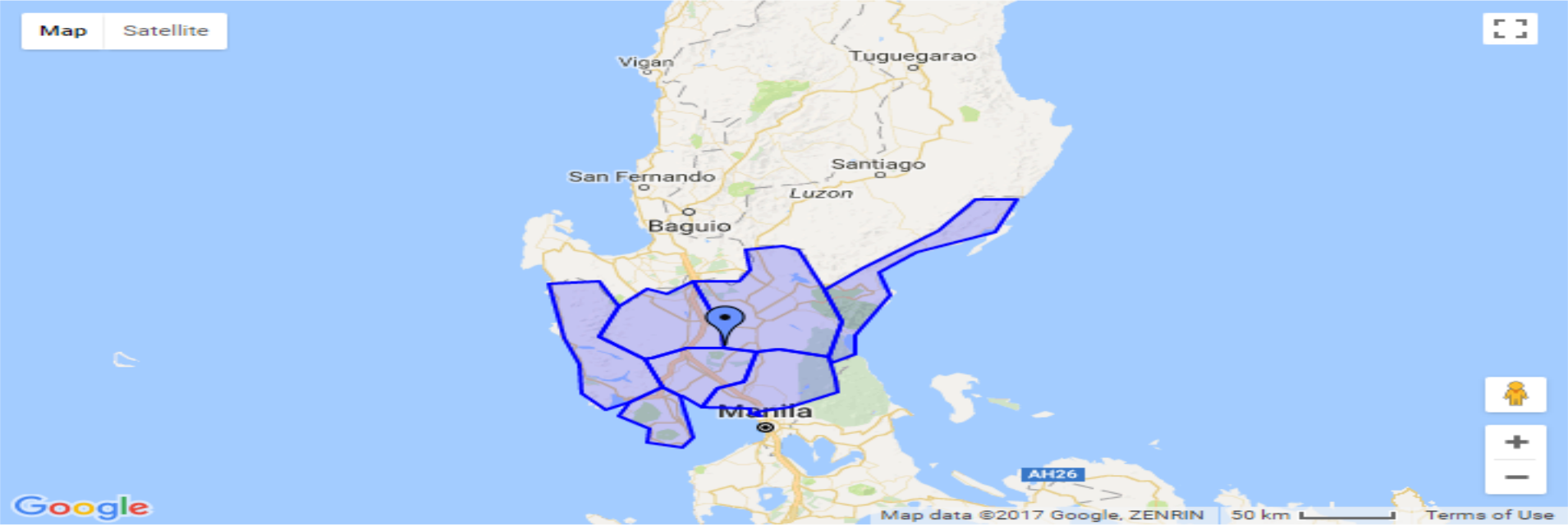
```xml
<area>
  <areaDesc>Iloilo</areaDesc>
  <polygon>
    13.570244001313,121.86623744119 13.461210113732,122.124282663
    13.213517460881,122.04181300569 13.284474451431,121.8670487052
    13.461336977395,121.81351637037 13.570244001313,121.86623744119
  </polygon>
  <geocode>
    <valueName>SAME</valueName>
    <value>174000000</value>
  </geocode>
</area>
<area>
  <areaDesc>Antique</areaDesc>
  <polygon>
    13.49,120.88 13.254,120.77 13.043,121.24 12.201,121.24 12.237,121.13
    12.725,120.79 13.0,120.76 13.191,120.64 13.294,120.48 13.526,120.41
    13.467,120.75 13.49,120.88
  </polygon>
  <geocode>
    <valueName>SAME</valueName>
    <value>175100000</value>
  </geocode>
</area>
<area>
  <areaDesc>Capiz</areaDesc>
  <polygon>
    11.856,121.32 11.856,121.31 11.857,121.3111 11.859,121.31 11.852,121.31
    11.858,121.31 11.854,121.31 11.854,121.31 11.851,121.31 11.856,121.31
    11.85,121.3111 11.856,121.3211 11.855,121.32 11.856,121.32
  </polygon>
  <geocode>
    <valueName>SAME</valueName>
    <value>175200000</value>
  </geocode>
</area>
```
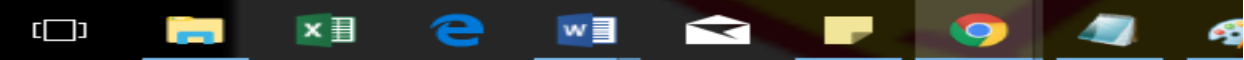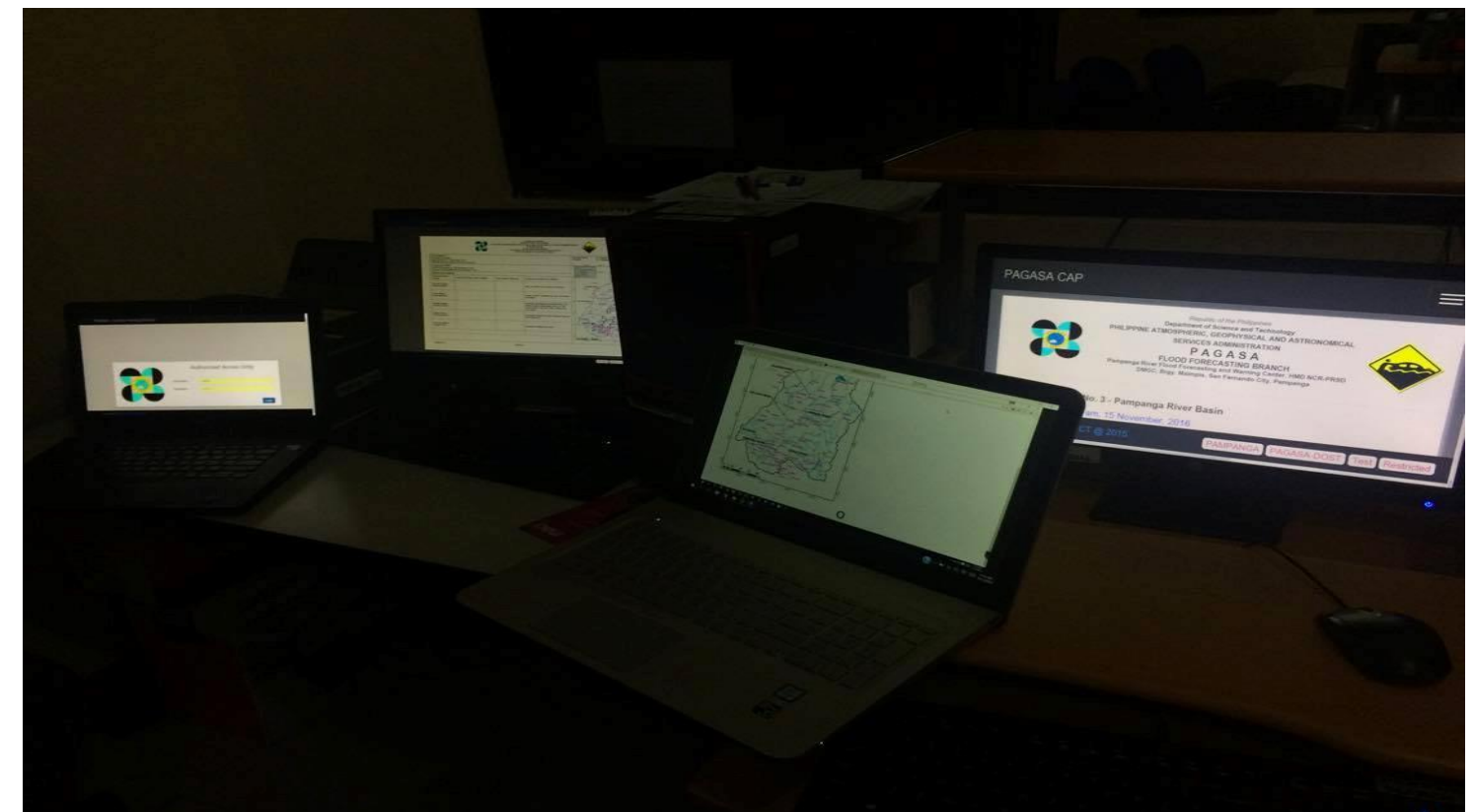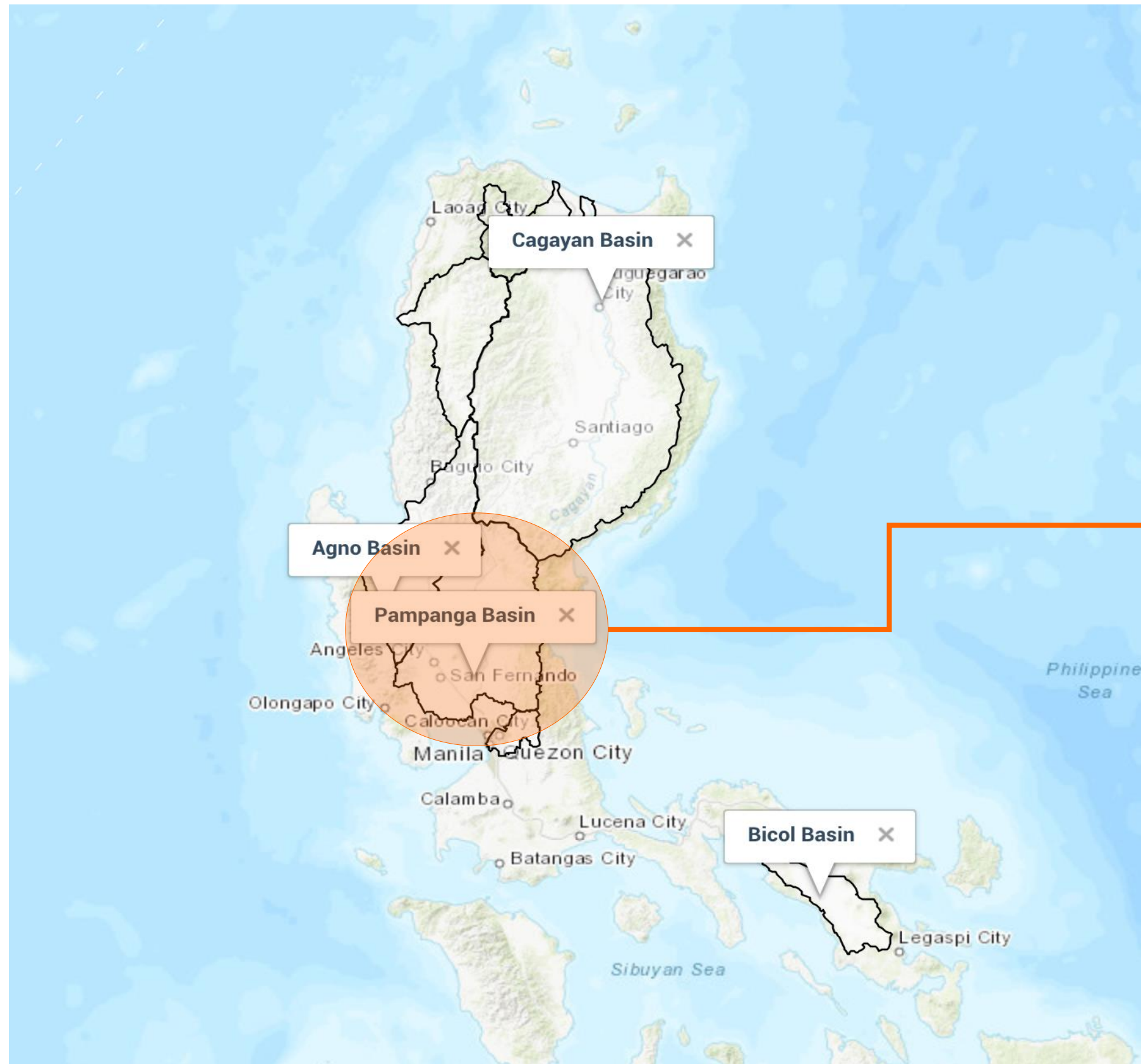
CAP with geocode and polygons
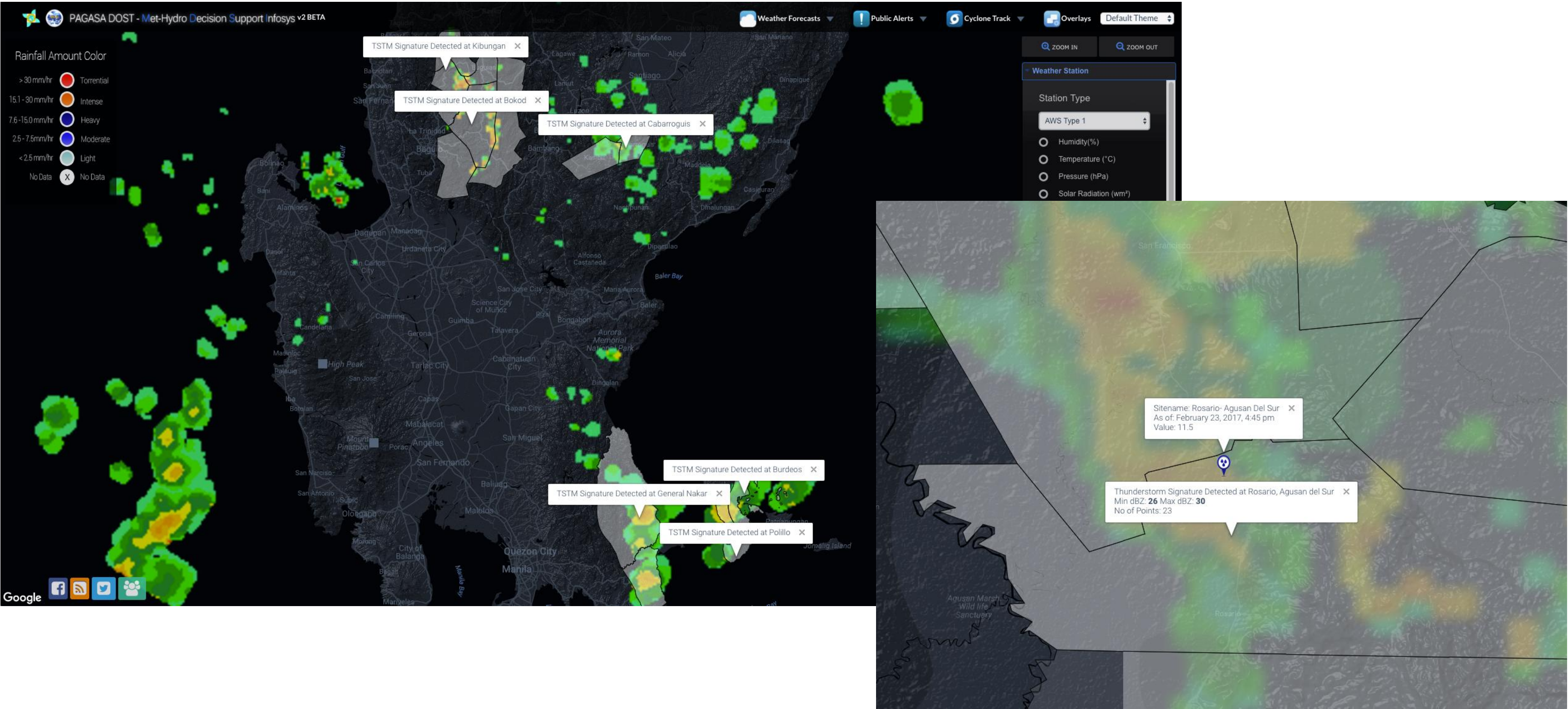
Flood Bulletin Implementation

Research: Automatic CAP from Radar

Inter-agency collaboration

Get in touch!

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- lester.lagrimas@pagasa.dost.gov.ph
- kim.lagrimas@meteopilipinas.gov.ph

Thank you!

Any questions?