

Common Alerting Protocol in the Philippines

2018 Common Alerting Protocol (CAP) Implementation Workshop

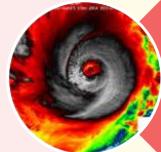
Arnel R. Manoos
WFSIII, METTSS-ETSD-ICT
Project Team

Lester Kim M. Lagrimas
WFSI, ETSD-ICT
Development and Programming

Hong Kong Observatory
31 October – 01 November 2018



OUTLINE



Introduction



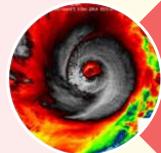
CAP in PAGASA



Experiences



Updates



Concerns

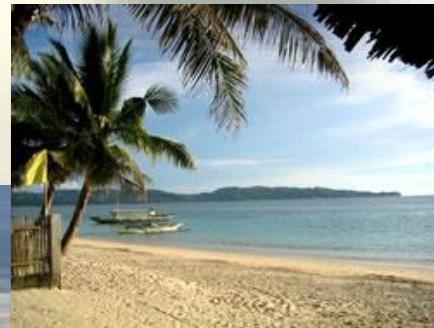


Republika ng Pilipinas

Republic of the Philippines



Capital : Manila
Area : 300,000 sq.km
Water : 61 %
No. of Islands : 7,107
Population : 105,000,000 est.
Density : 336 /sq. km
Currency : Peso
Per Capita : \$ 3,541.00

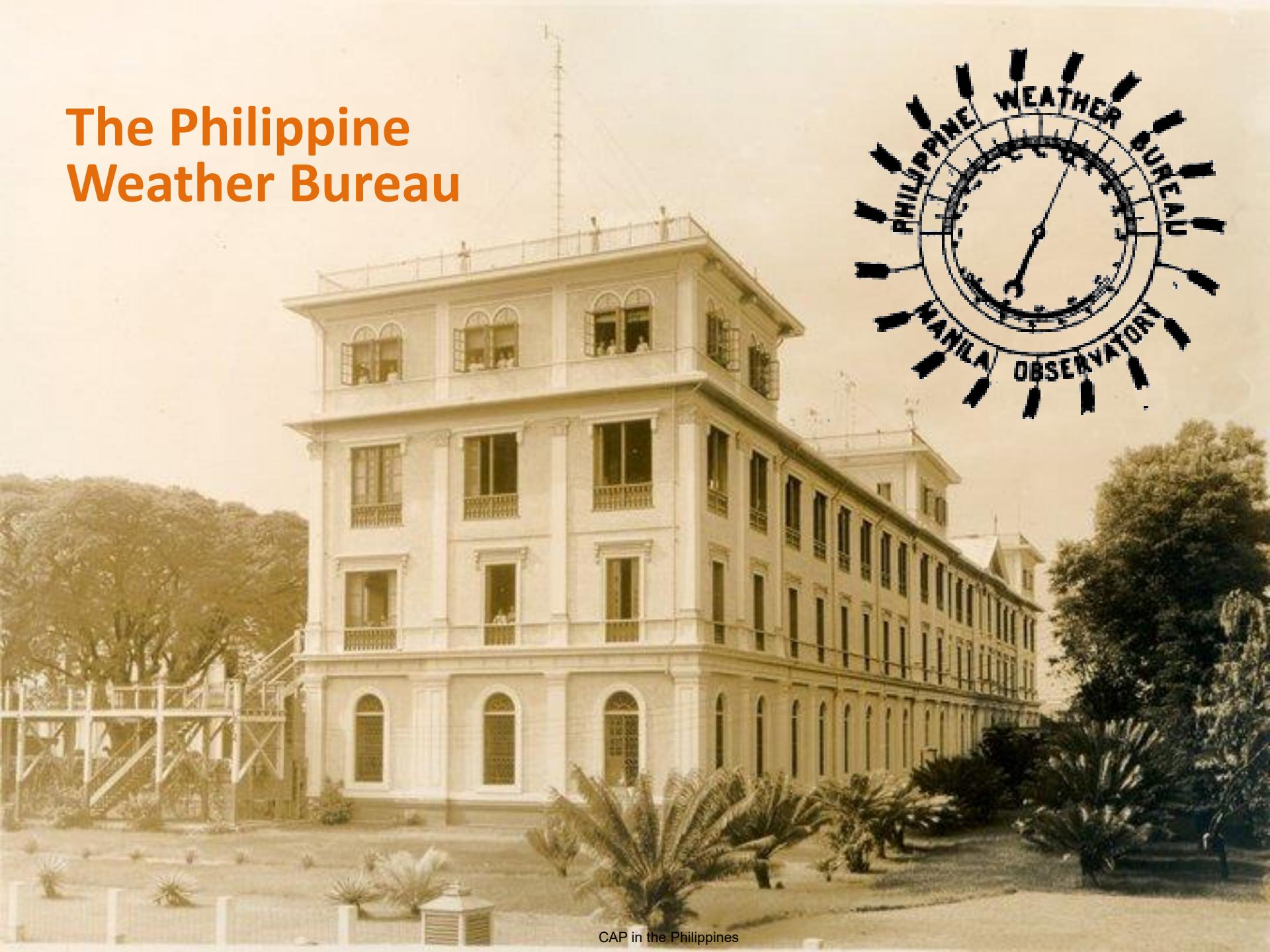




January 1, 1865
The Jesuits
founded the
Ateneo-Manila
Observatory



The Philippine Weather Bureau



Philippine Atmospheric, Geophysical & Astronomical Services Administration

Legal Mandate

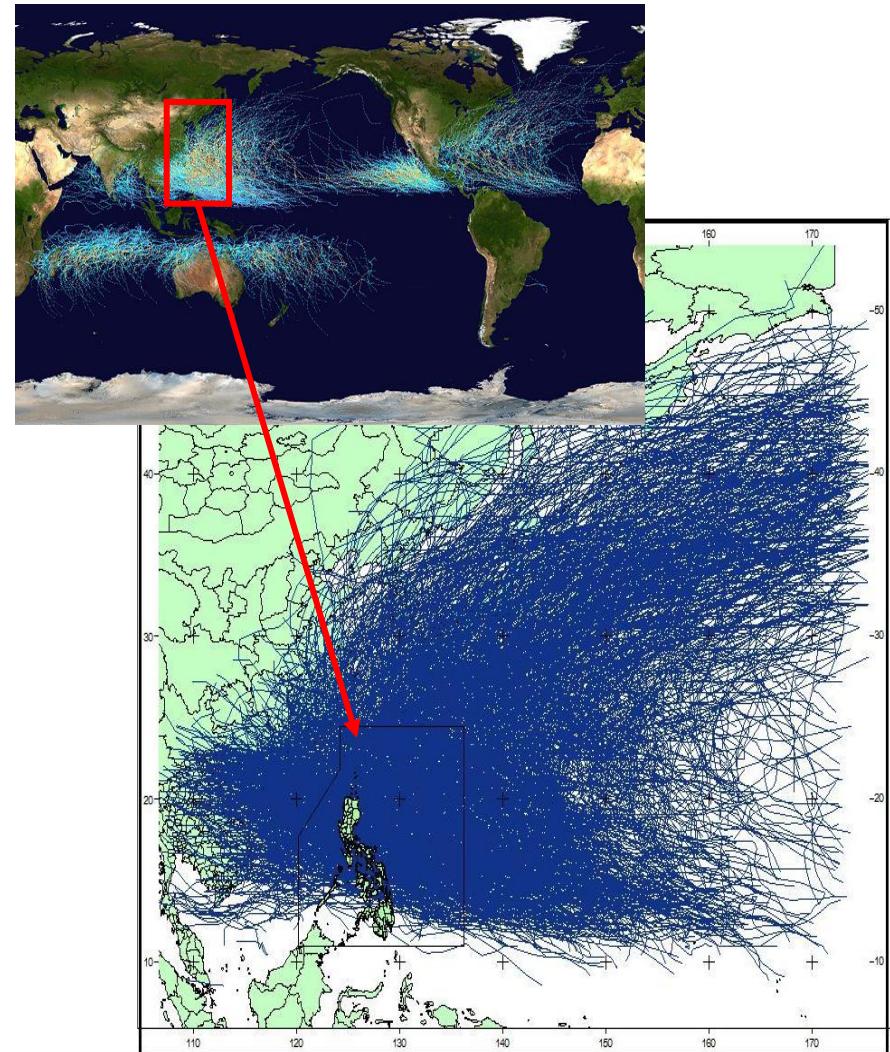
To provide protection against natural calamities and utilize scientific knowledge as an effective instrument to insure the safety, well being and economic security of all the people, and for the promotion of national progress.



The Philippines, through the PAGASA, is a Member of the World Meteorological Organization (WMO), a specialized body of the United Nations.



- **Philippines is 4th in the world as the country's most exposed and at risk to natural hazards (World Risk Report 2017).**
- **20 Tropical Cyclones in a year with the following associated hazards**
 - Strong Winds
 - Excessive Rainfall & Thunderstorms
 - Floods
 - Landslides/Mudflows
 - Storm Surges
 - Tornado
- **Affected by ITCZ and monsoons that result to floods and landslides**



*Tracks of tropical cyclones that formed in the Western North Pacific (WNW) during the period 1948-2010 (data used : JMA Data set)
(Source : Cinco, et. al., 2011)*

Disaster Prone



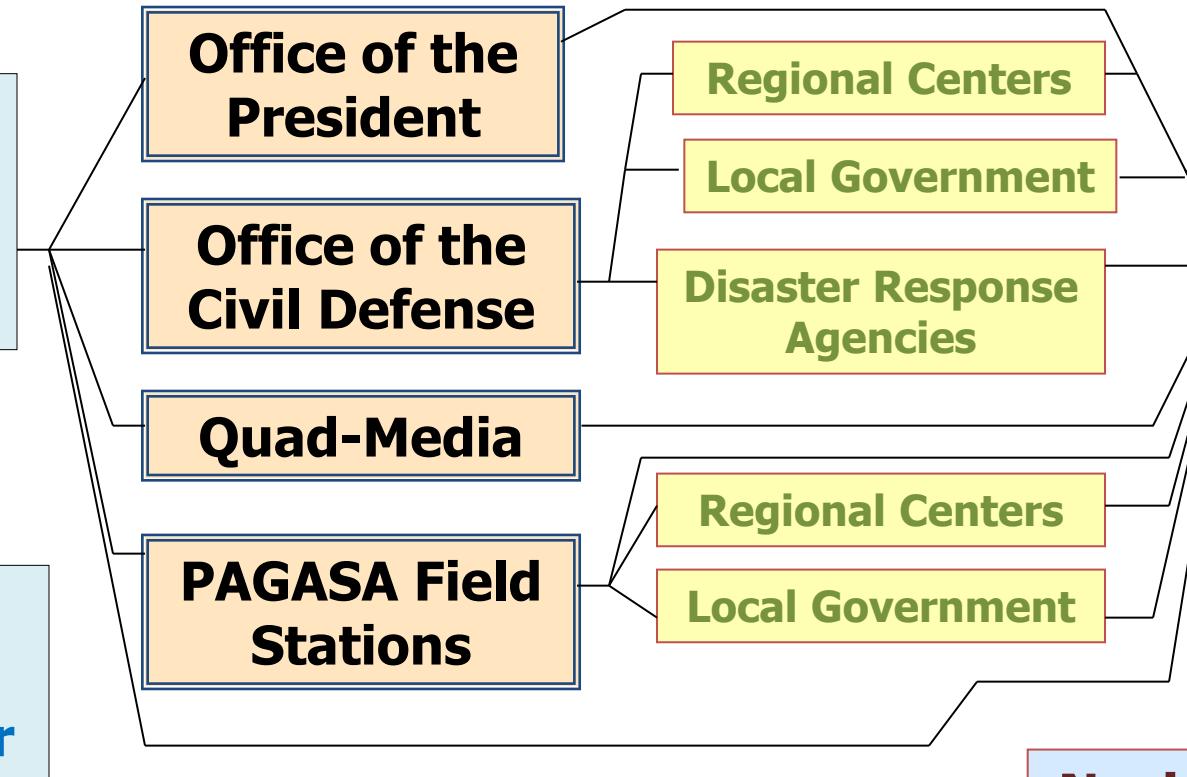
Information Packages

Tropical cyclone advisories & warnings

Tropical Cyclone Warnings for Shipping

Aviation Forecasts / warnings

Dissemination Channel



End Users/ Beneficiaries

Regional Centers

Local Government

Disaster Response Agencies

General Public

Regional Centers

Local Government

Navigators

Airline Pilots

Communication & Dissemination

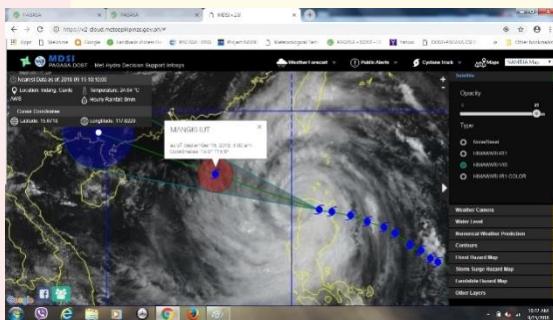
Payong
PAGASA



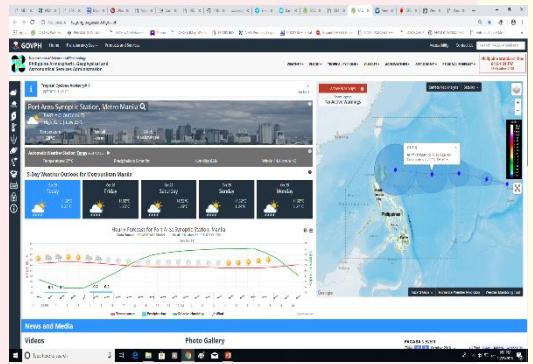
The Weather and Climate Authority

CAP in the Philippines

MEDIUM OF COMMUNICATION & DISSEMINATION



Met-hydro Decision Support Info System
<https://v2-cloud.meteopilipinas.gov.ph>



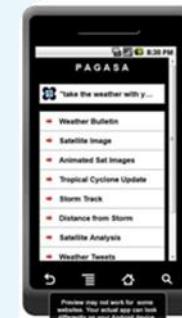
<http://www.pagasa.dost.gov.ph>



@dost_pagasa
Twitter

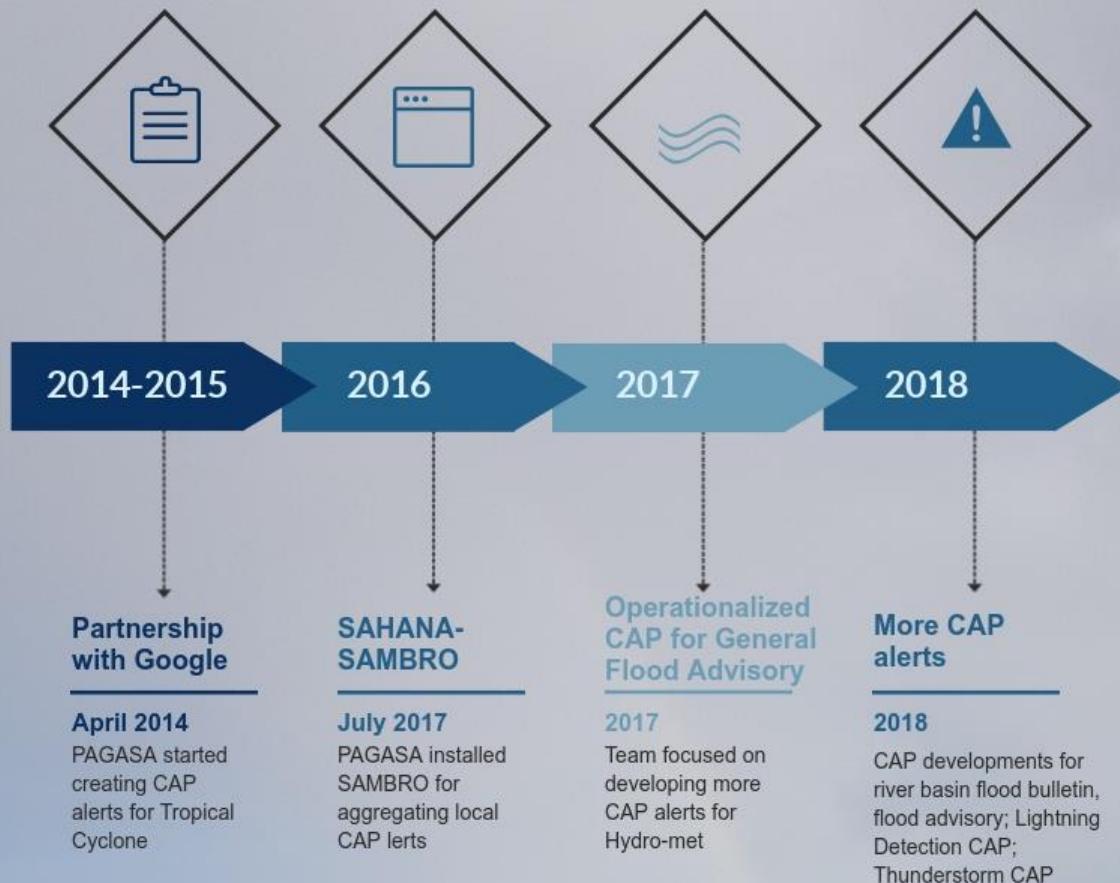


www.facebook.com/PAGASA.DOST.GOV.PH



Livestreaming

CAP PH | PAGASA



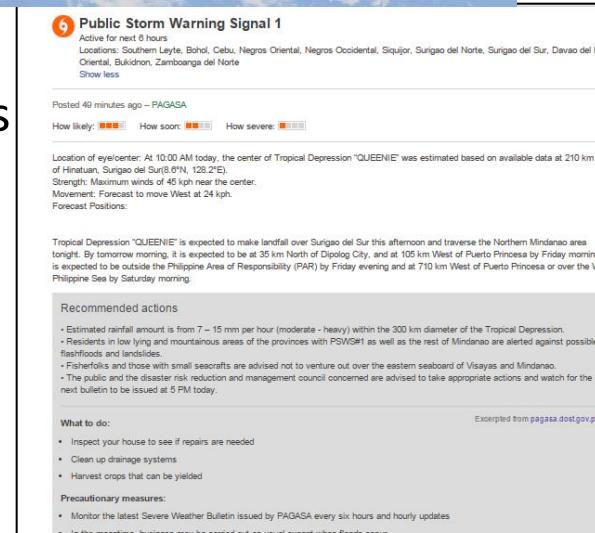
Google Public Alerts



<http://google.org/crisismap/philippines>

Next:

- Addition of information regarding River Flood Advisory



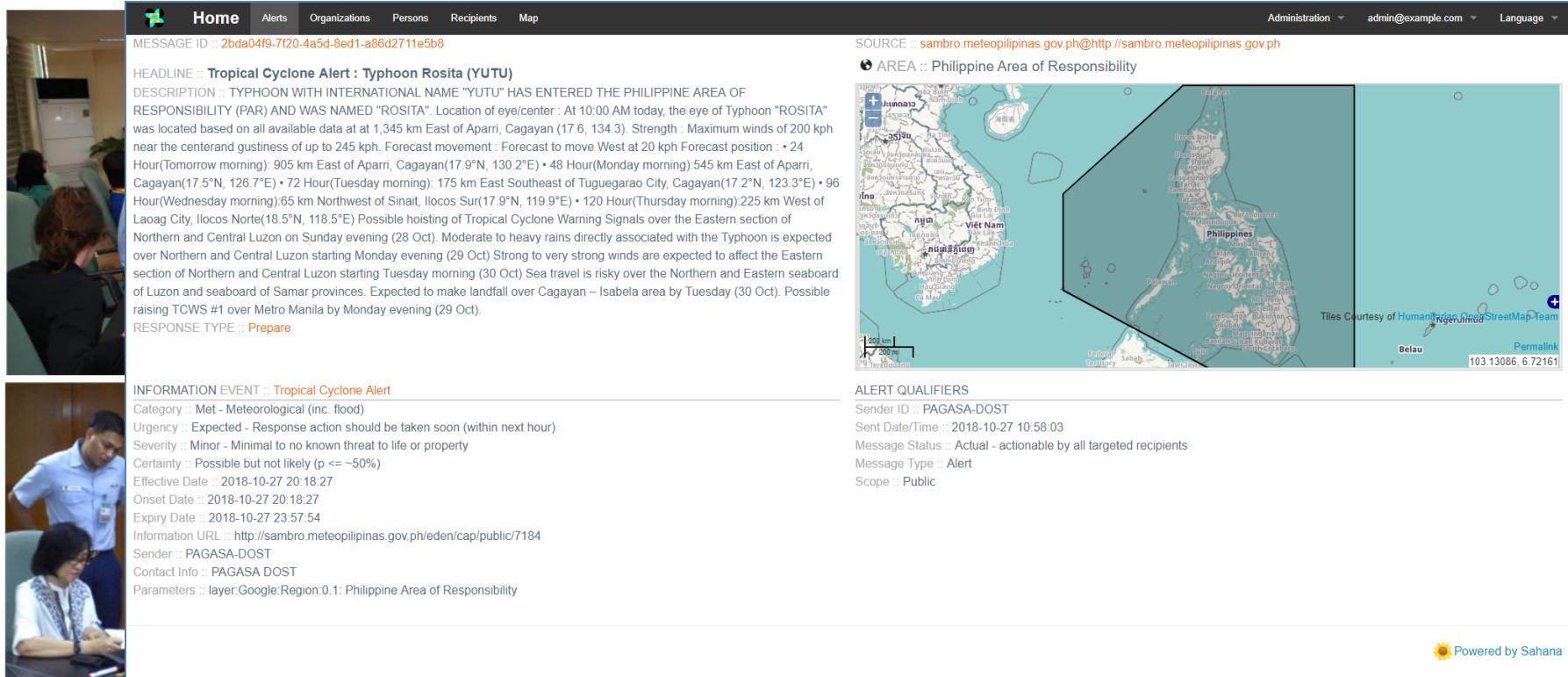
Other alerts in this area

Public Storm Warning Signal 1 for Visayas, Mindanao
PAGASA - updated 57 mins ago



SAMBRO - Sahana

Multi Agency Situational Awareness Application



MESSAGE ID :: 2bda04f9-7f20-4a5d-8ed1-a86d2711e5b8

HEADLINE :: Tropical Cyclone Alert : Typhoon Rosita (YUTU)

DESCRIPTION :: TYPHOON WITH INTERNATIONAL NAME "YUTU" HAS ENTERED THE PHILIPPINE AREA OF RESPONSIBILITY (PAR) AND WAS NAMED "ROSITA". Location of eye/center : At 10:00 AM today, the eye of Typhoon "ROSITA" was located based on all available data at at 1,345 km East of Aparri, Cagayan (17.6, 134.3). Strength : Maximum winds of 200 kph near the centerand gustiness of up to 245 kph. Forecast movement : Forecast to move West at 20 kph Forecast position : • 24 Hour(Tomorrow morning): 905 km East of Aparri, Cagayan(17.9°N, 130.2°E) • 48 Hour(Monday morning):545 km East of Aparri, Cagayan(17.5°N, 126.7°E) • 72 Hour(Tuesday morning): 175 km East Southeast of Tuguegarao City, Cagayan(17.2°N, 123.3°E) • 96 Hour(Wednesday morning):65 km Northwest of Sinait, Ilocos Sur(17.9°N, 119.9°E) • 120 Hour(Thursday morning):225 km West of Laaag City, Ilocos Norte(18.5°N, 118.5°E) Possible hoisting of Tropical Cyclone Warning Signals over the Eastern section of Northern and Central Luzon on Sunday evening (28 Oct). Moderate to heavy rains directly associated with the Typhoon is expected over Northern and Central Luzon starting Monday evening (29 Oct) Strong to very strong winds are expected to affect the Eastern section of Northern and Central Luzon starting Tuesday morning (30 Oct) Sea travel is risky over the Northern and Eastern seaboard of Luzon and seaboard of Samar provinces. Expected to make landfall over Cagayan – Isabela area by Tuesday (30 Oct). Possible raising TCWS #1 over Metro Manila by Monday evening (29 Oct).

RESPONSE TYPE :: Prepare

INFORMATION EVENT :: Tropical Cyclone Alert

Category :: Met - Meteorological (inc. flood)
Urgency :: Expected - Response action should be taken soon (within next hour)
Severity :: Minor - Minimal to no known threat to life or property
Certainty :: Possible but not likely (p <= ~50%)
Effective Date :: 2018-10-27 20:18:27
Onset Date :: 2018-10-27 20:18:27
Expiry Date :: 2018-10-27 23:57:54
Information URL :: <http://sambro.meteopilipinas.gov.ph/eden/cap/public/7184>
Sender :: PAGASA-DOST
Contact Info :: PAGASA DOST
Parameters :: layer:Google:Region:0:1: Philippine Area of Responsibility

SOURCE :: sambro.meteopilipinas.gov.ph@http://sambro.meteopilipinas.gov.ph

AREA :: Philippine Area of Responsibility

Map showing the Philippine Area of Responsibility (PAR) overlaid on a map of the Philippines and surrounding regions. The PAR is indicated by a large black polygon. The map also shows the coastlines, major cities, and some geographical features of the Philippines and surrounding islands.

ALERT QUALIFIERS

Sender ID :: PAGASA-DOST
Sent Date/Time :: 2018-10-27 10:58:03
Message Status :: Actual - actionable by all targeted recipients
Message Type :: Alert
Scope :: Public

Powered by Sahana

SAMBRO Workshop June 10, 2015

CAP on a Map Project

New PAGASA Website

GOVPH Home Transparency Seal ▾ Products and Services Accessibility Contact Us Search PAGASA Website

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

WEATHER ▾ FLOOD ▾ TROPICAL CYCLONE ▾ CLIMATE ▾ AGRI-WEATHER ▾ ASTRONOMY ▾ REGIONAL FORECAST ▾

Philippine Standard Time
11:40:31 AM
30 October 2018

Contact Us



Email address: piias@pagasa.dost.gov.ph

Address:
PAGASA Science Garden Complex,
BIR Road, Barangay Central, Quezon
City, Metro Manila 1100

Phone: (632) 4342696



[PAGASA CITIZEN CHARTER](#) [FREEDOM OF INFORMATION](#)

REPUBLIC OF THE PHILIPPINES

All content is in the public domain unless otherwise stated.

ABOUT GOVPH

Learn more about the Philippine government, its structure, how government works and the people behind it.

GOV.PH
Open Data Portal
Official Gazette

GOVERNMENT LINKS

Office of the President
Office of the Vice President
Senate of the Philippines
House of Representatives
Supreme Court
Court of Appeals
Sandiganbayan

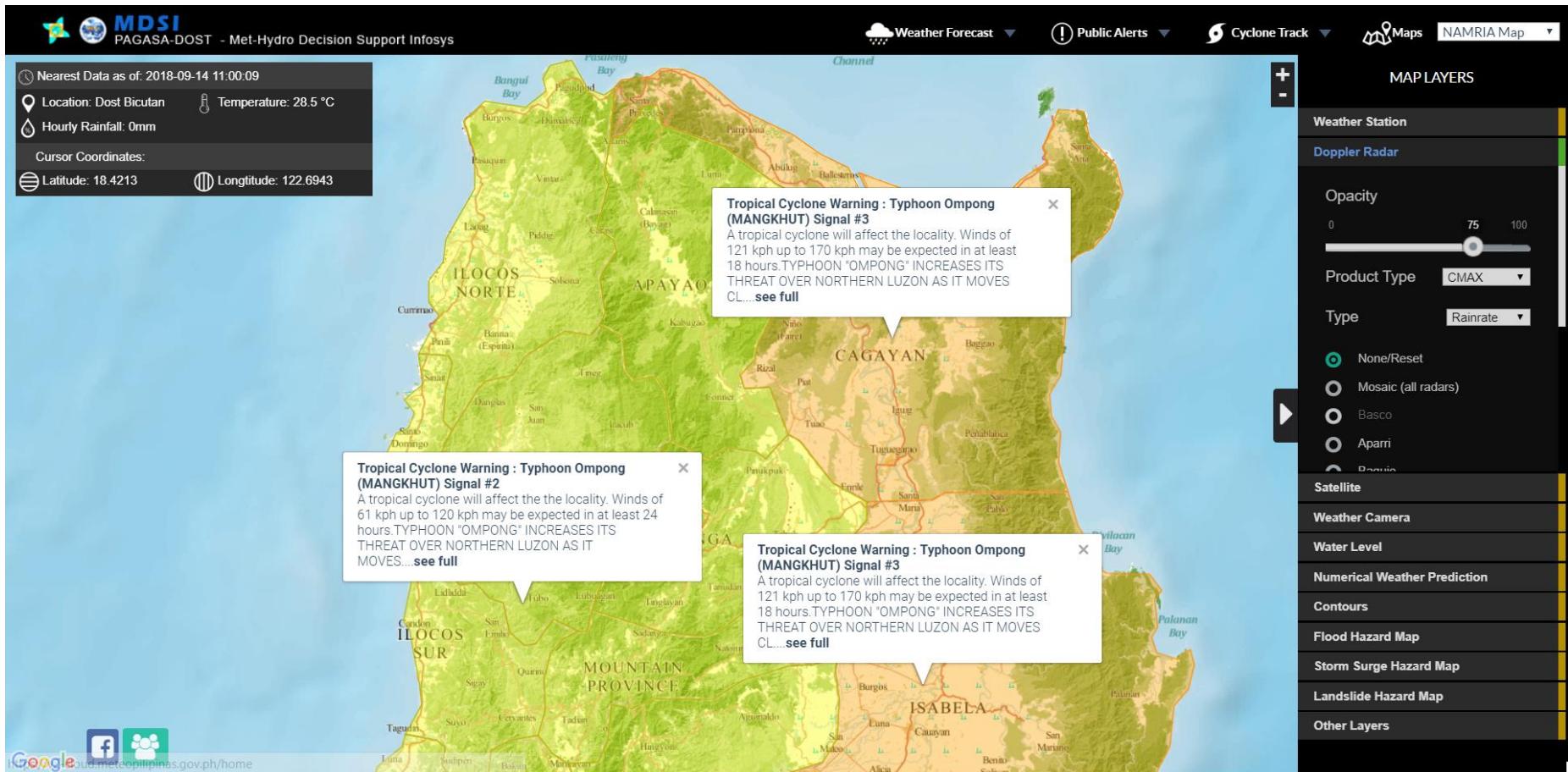
DOST

PAGASA
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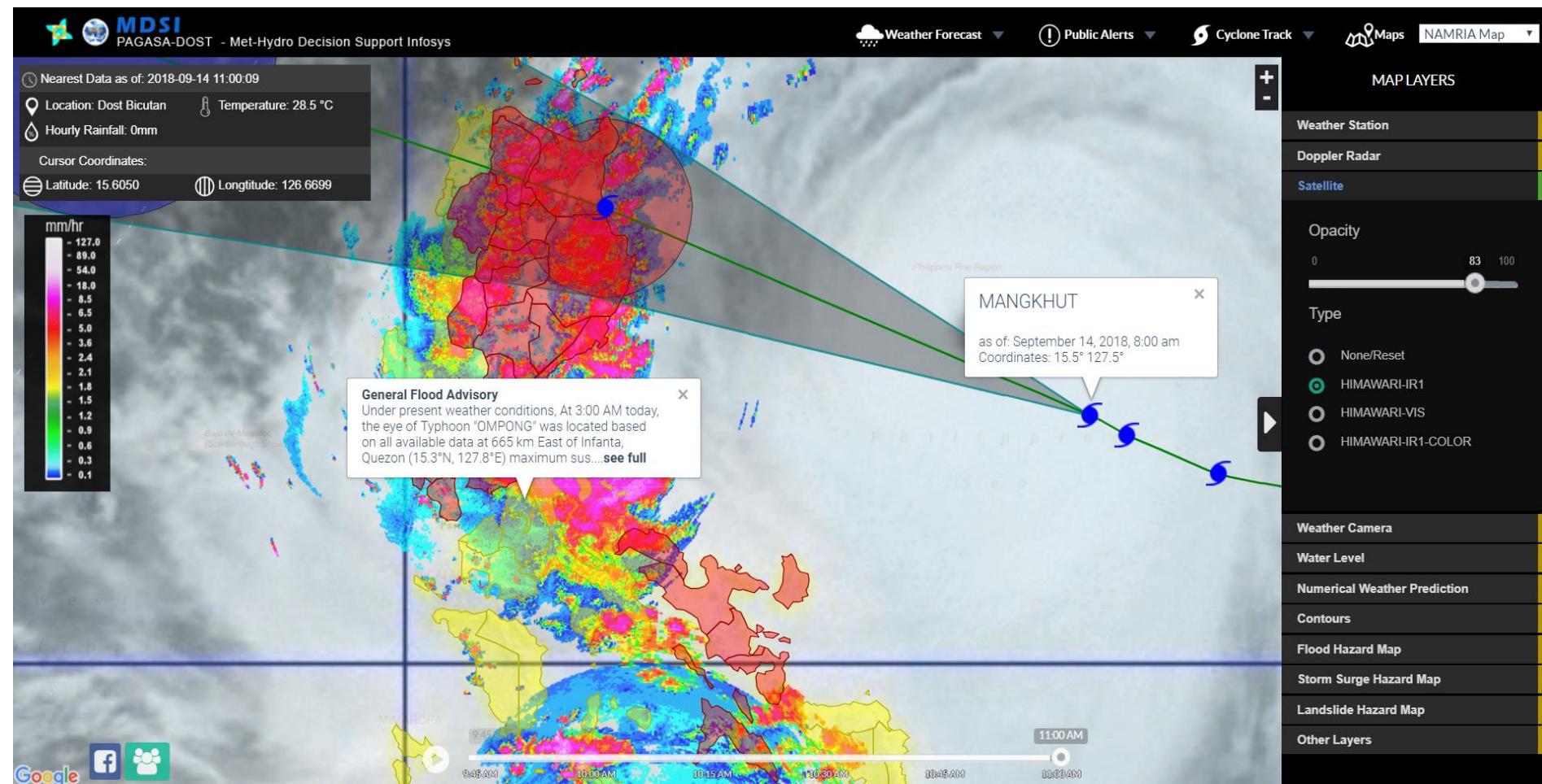
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PAGASA

CAP in the Philippines

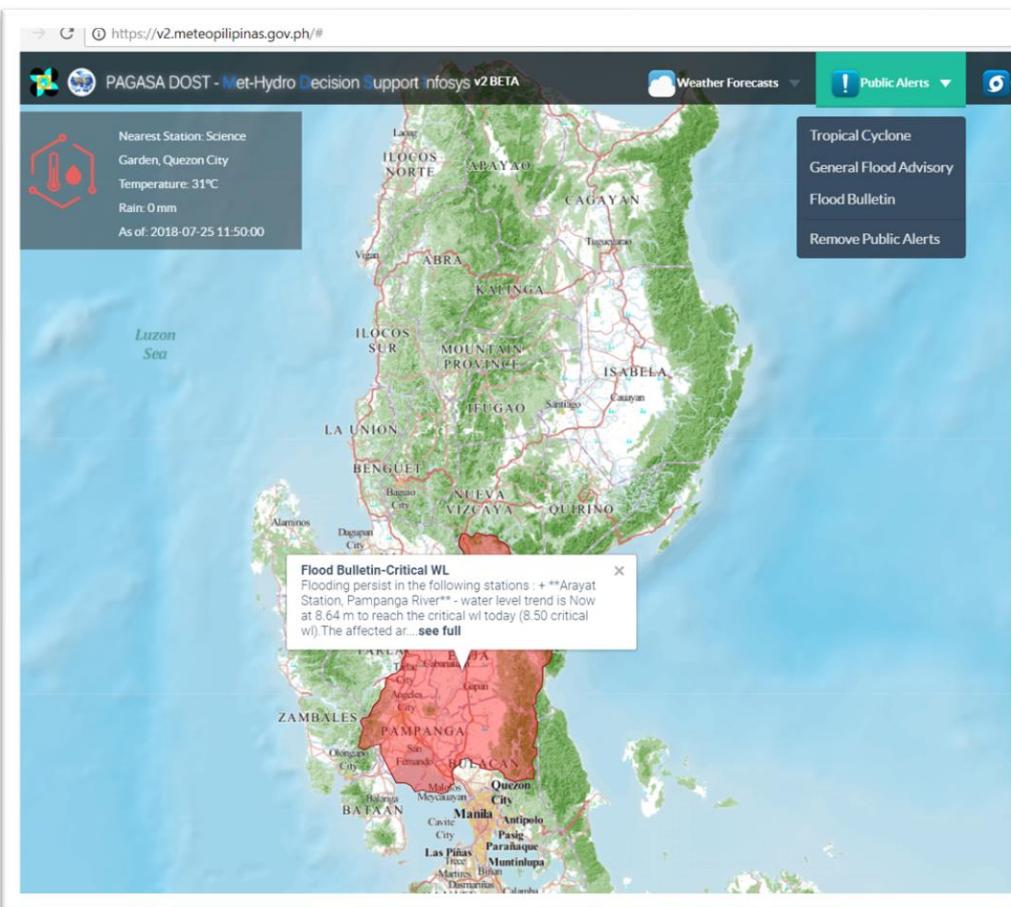
Tropical Cyclone Warning: MANGKHUT (OMPONG)



General Flood Advisory: MANGKHUT (OMPONG)



Flood Bulletin: First CAP issued from Pampanga River Basin



Flood Bulletin-Critical WL

Flooding persist in the following stations :

- Arayat Station, Pampanga River - water level trend is Now at 8.64 m to reach the critical wl today (8.50 critical wl). The affected areas is/are Cabiao, Arayat, Candaba, San Luis, San Simon and Apalit
- + Candaba Station, Candaba Swamp - water level trend is Now at 5.67 m/ very slow filling up above 5.0 m critical; a very slow recession to continue. The affected areas is/are Candaba, San Luis, San Simon, Apalit, Calumpit and Pulilan
- + Zaragoza Station, Rio Chico River - water level trend is Now at 3.60 m / very slow recession ; to remain above 2.5 m alarm wl. The affected areas is/are La Paz, Concepcion, Zaragoza, San Antonio and Cabiao
- + Sulipan Station, Pampanga River - water level trend is Now at 3.10 m / slow fluctuating rise to remain below 3.6 m alert wl. The affected areas is/are Macabebe, Masantol, Apalit, Calumpit, Hagonoy and Paombong
- + **Coastal flooding to continue affected by Tides. Pounding of rainwater to remain in low-lying areas Macabebe, Masantol, Sasmuan, Lubao, Apalit, Calumpit, Hagonoy (Pampanga-Bulacan Delta Areas)

Instruction

Residents and Local Disaster Risk Reduction and Management Councils (LDRRMCs) are still advise to maintain precautionary measures

Sent: July 25, 2018, 5:00 am
Expires: July 25, 2018, 5:00 pm

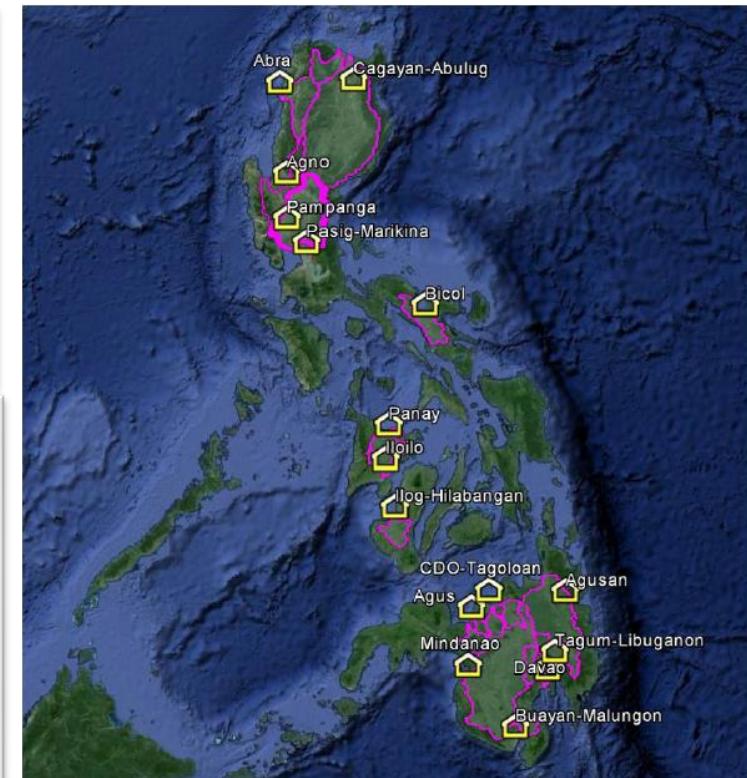
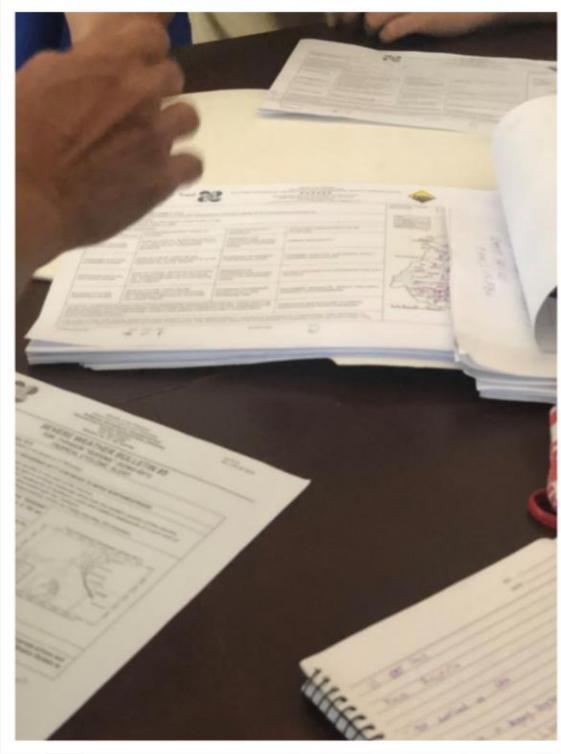
For more info: <http://www.pagasa.dost.gov.ph/weather-forecast-symbols-and-terms>

First issuance on August 13, 2018, 5 AM due to enhanced southwest monsoon (HABAGAT)

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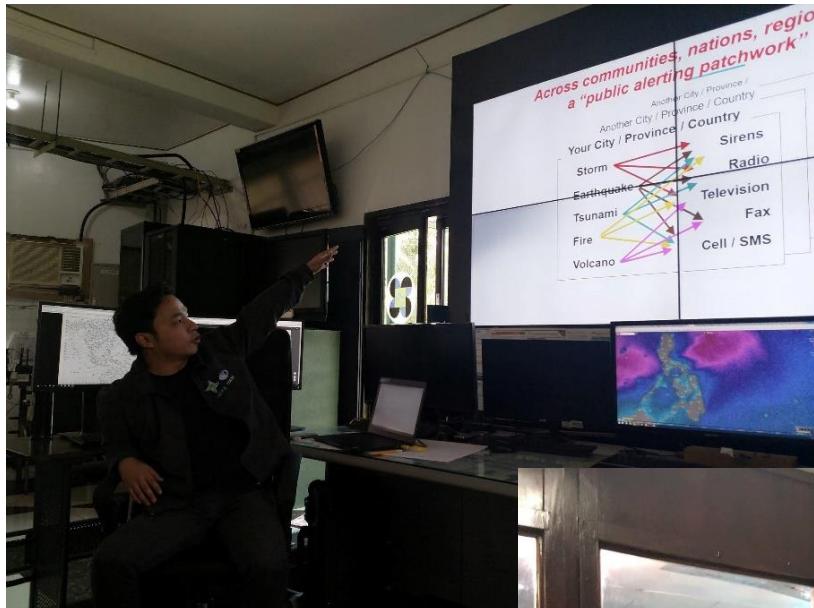
Flood Advisory for River Basin (New CAP)



Meeting conducted on October 3, 2018 for additional
Flood Advisory CAP in Pampanga river basin.

Flood Forecasting & Warning Centers
For 18 Major River Basins

Flood Bulletin for Bicol River Basin

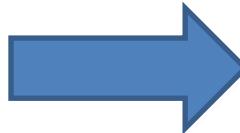


Meeting conducted
last July 2018

Local CAP System



CAP on CLOUD



CLOUD CAP GENERATOR



DOST



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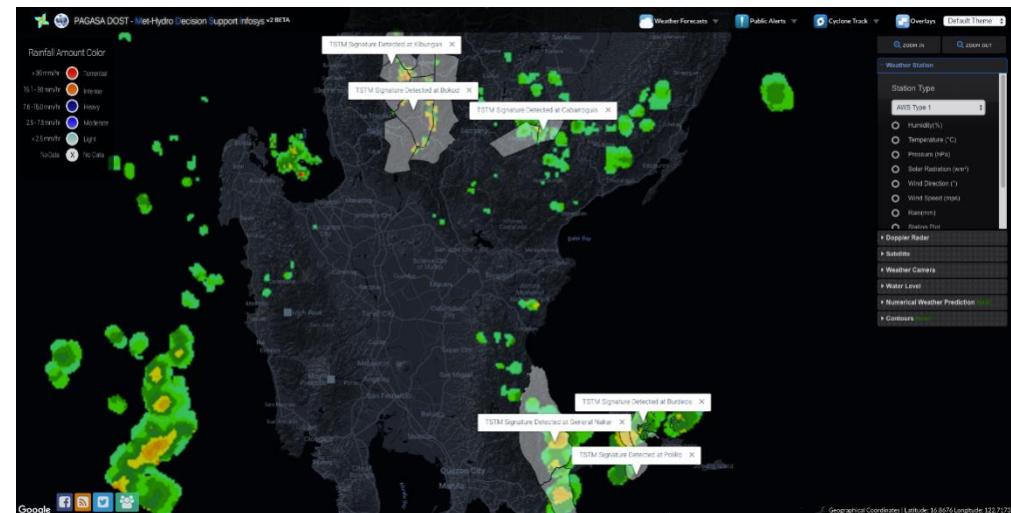


Updates . . .



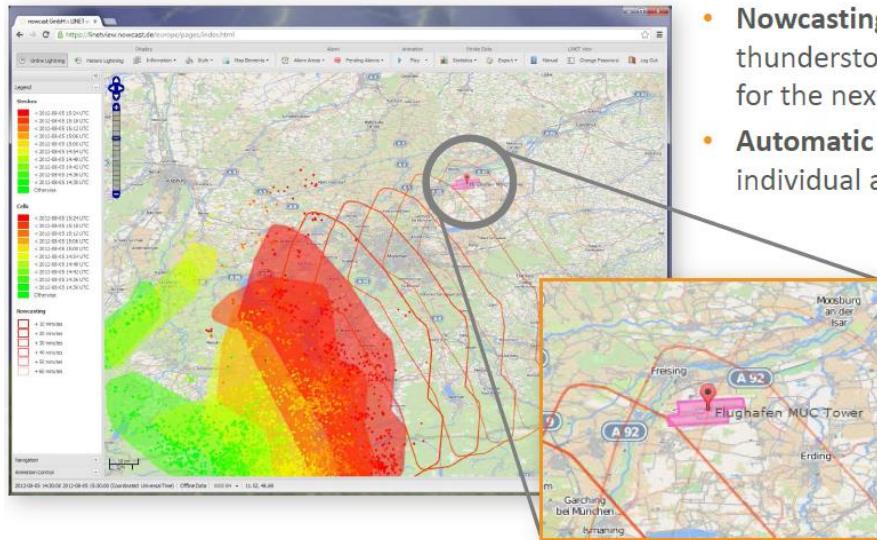
Automatic CAP Generation
From Radar Observations

PAGASA – Philippine Red Cross
Collaboration on information sharing



Updates . . .

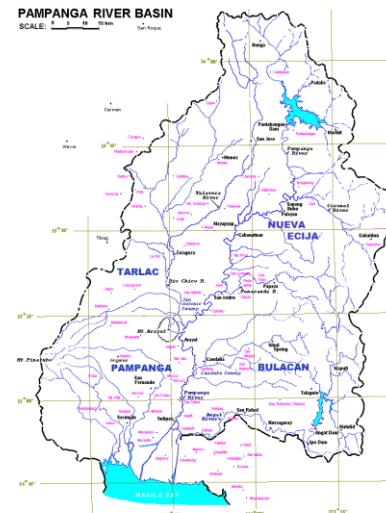
Nowcasting



- **Nowcasting** of thunderstorm development for the next 60 minutes
- **Automatic warning** for individual alarm areas

Automatic CAP for Severe Weather particularly thunderstorm warnings

CAP Flood Bulleting Issuance for other major River Basins. Bicol River Basin is in progress.



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Updates . . .



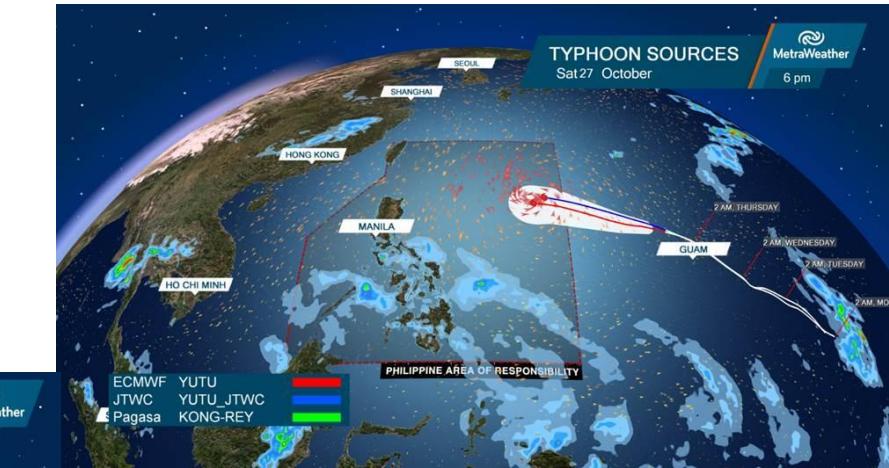
Requested for information sharing through Twitter or RSS



Weather warnings / advisories to be scrolled on screen on digital broadcast television



Updates . . .



- Typhoon tracks
- Forecasts
- Observations

CAP Integration on “Weather Scape XT”



Concerns . . .

- Endorsement of national CAP early warning system to the Office of Civil Defense
- Adoption of CAP as a platform for information sharing
- Additional ICT personnel needed to respond to the growing demand
- Establish ICT organizational structure in PAGASA



THANK YOU!

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pagasa.dost.gov.ph](http://www.facebook.com/pagasa.dost.gov.ph)

Twitter: 
[@dost_pagasa](https://twitter.com/dost_pagasa)

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+632-9271335	+632-9204052
Climate +632-4351675	IEC +632-4342696
+632-4340955	+632-9279308

