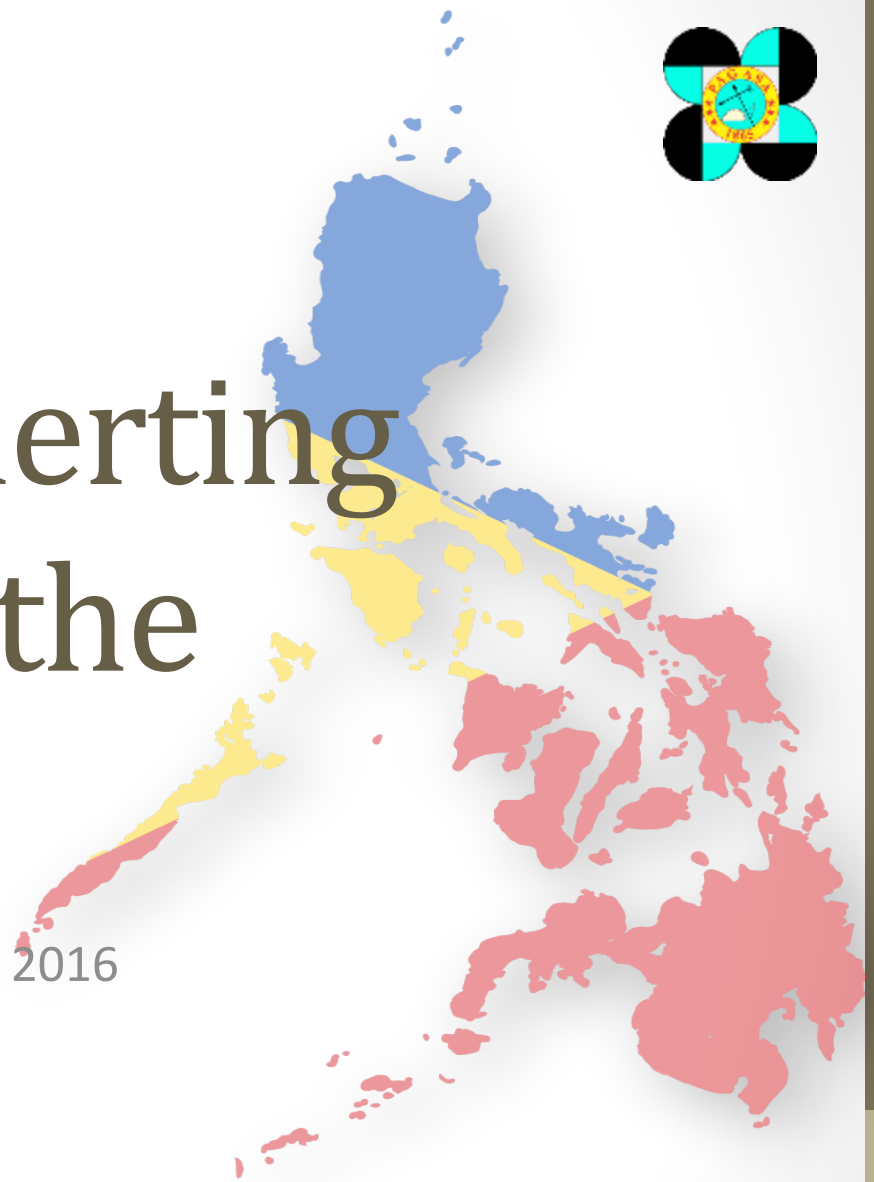




Common Alerting Protocol in the Philippines

Bangkok , Thailand– August 23-24, 2016



What is PAGASA?

- **PAGASA** stands for **Philippine Atmospheric Geophysical 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.
- The Philippines, through the PAGASA is a member of the World Meteorological Organization (WMO), a specialized body of the United Nations

PAGASA on WMO Alert Hub

WMO Register of Alerting Authorities [[home](#)]

OID: 2.49.0.0.608.0 WMO Member: Philippines ISO 3166: PH PHL 608

Issuing Organization: Philippine Atmospheric Geophysical and Astronomical Services Administration

Hazard Categories: **Met**

Authorization Basis: As a matter of policy, the agency provides typhoon alerts and warnings which is provided to Disaster Risk Reduction Offices and the public through media and web portals and related warning institution.

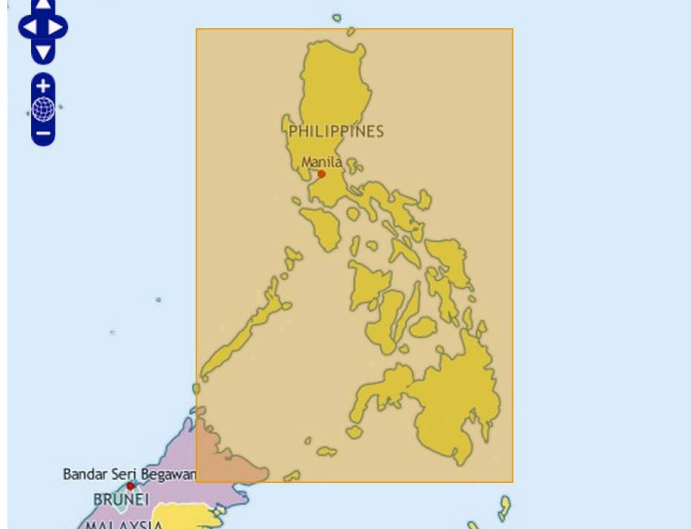
CAP Feed URL: <http://publicalert.pagasa.dost.gov.ph/feeds/>

Forecasts URL: <http://www.worldweather.org/021/m021.htm>

Alerting Area (NWSE): 19 117 5 127

Map view of the typical area for this alerting authority.

125.19336, 17.90405



Hazard Categories

Geo: Geophysical (earthquakes, volcanoes, tsunami, etc., includes landslide)

Met: Meteorological (weather, storms, etc. includes flood)

Safety: General emergency and public safety

Security: Law enforcement, military, homeland and local/private security

Rescue: Rescue and recovery

Fire: Fire suppression and rescue

Health: Medical and public health

Env: Pollution and other environmental

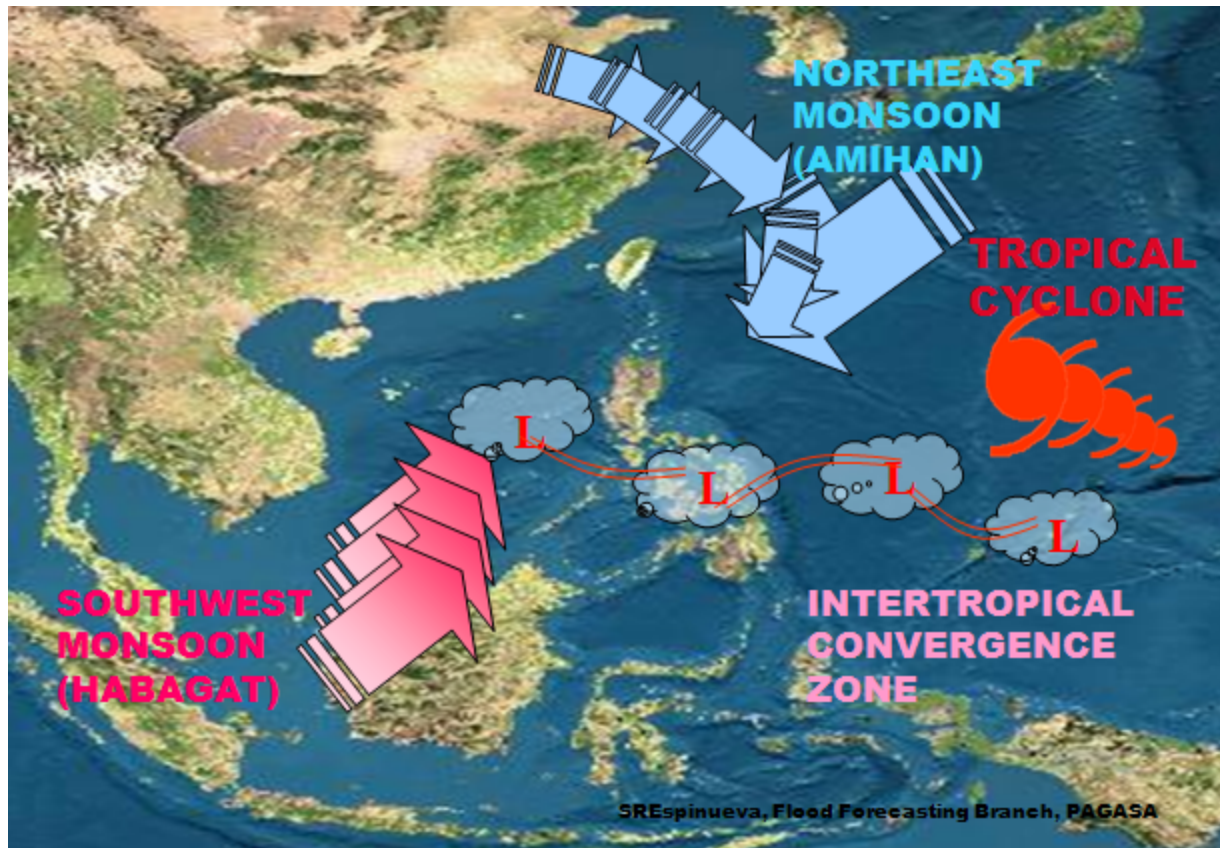
Transport: Public and private transportation

Infra: Utility, telecommunication, other non-transport infrastructure

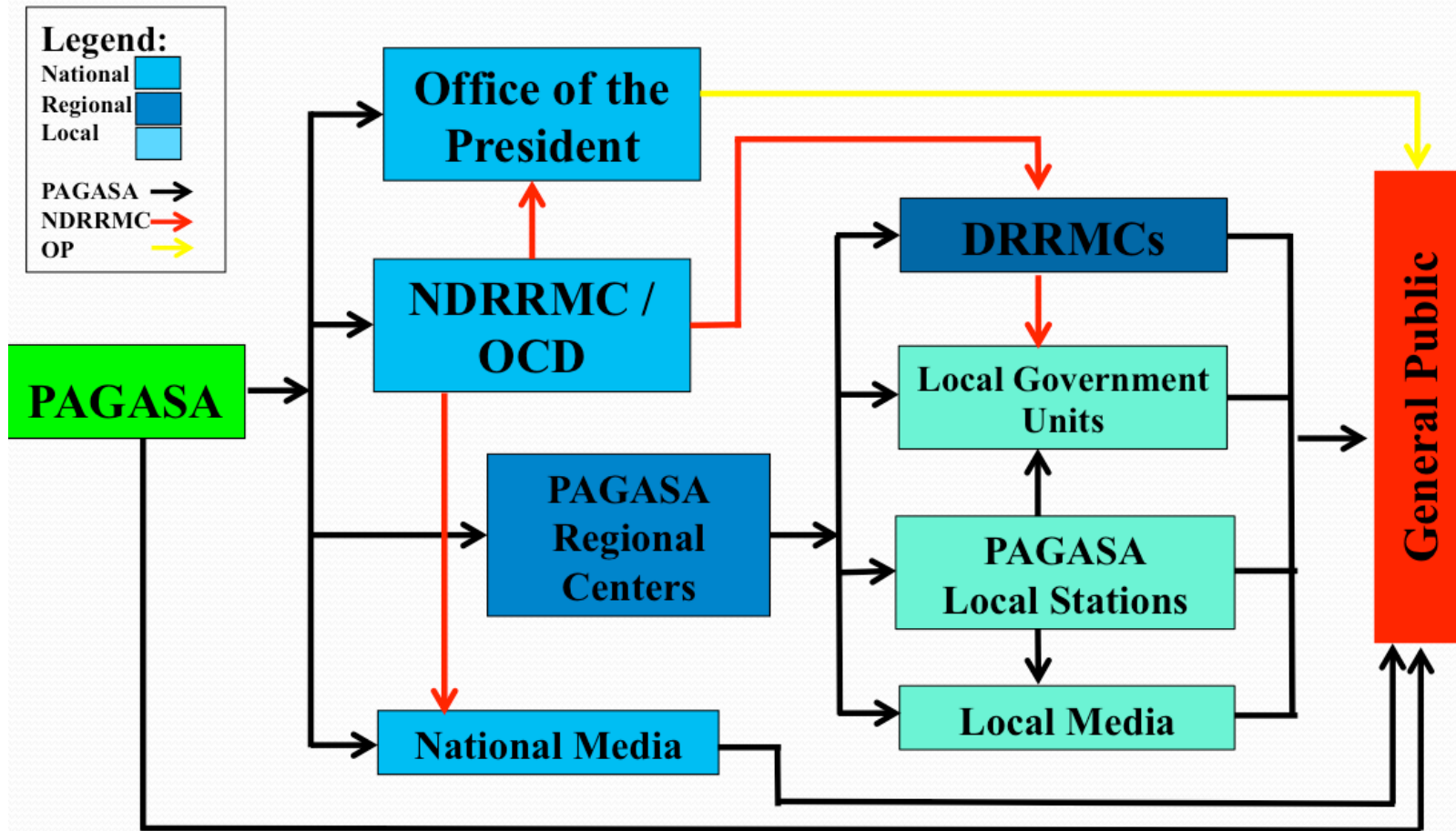
CBRNE: Chemical, Biological, Radiological, Nuclear or High-Yield Explosive threat or attack

Other: Other events

Weather Systems Affecting the Philippines



Information Dissemination Flow



PAGASA CAP Development

- Initiated by Google on May 2014
- PAGASA Created a Team for CAP



Development of Tool (version 1)

CAPv.1 BETA Home Create CAP- More.. ▾

References

Signal no. 1 Signal no. 2 Signal no. 3 Signal no. 4

Headline

Select Province(s) - Signal No. 2

CAMARINES NORTE x CAMARINES SUR x MASBATE x SORSOGON x ALBAY x
MARINDUQUE x QUEZON x NORTHERN SAMAR x

Description Virac, Catanduanes or 500 km East of [Legazpi City, Albay](#) (12.7°N, 128.9°E)."/>

Outputs:

1. CAP Alert

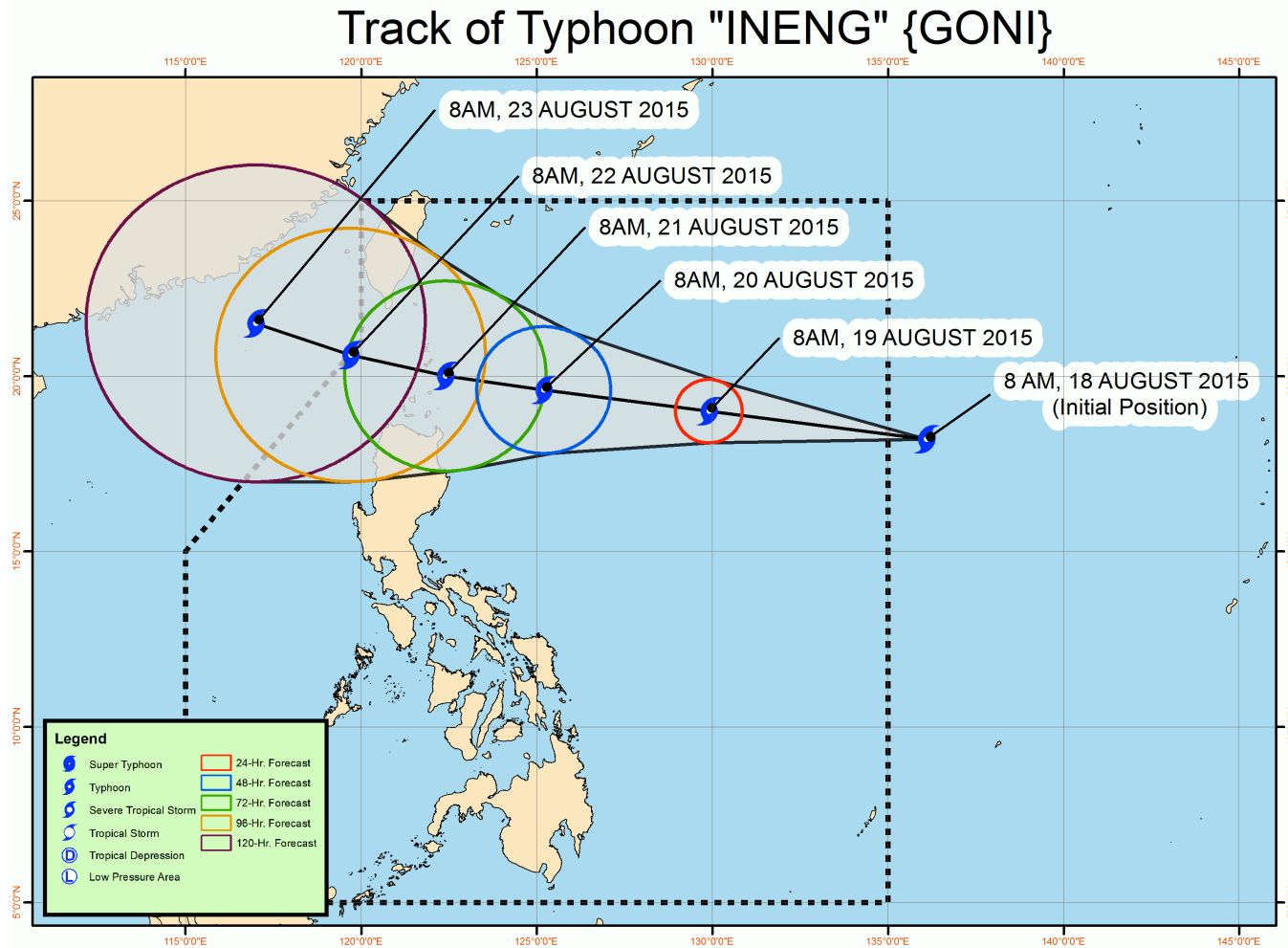
Using the ff:



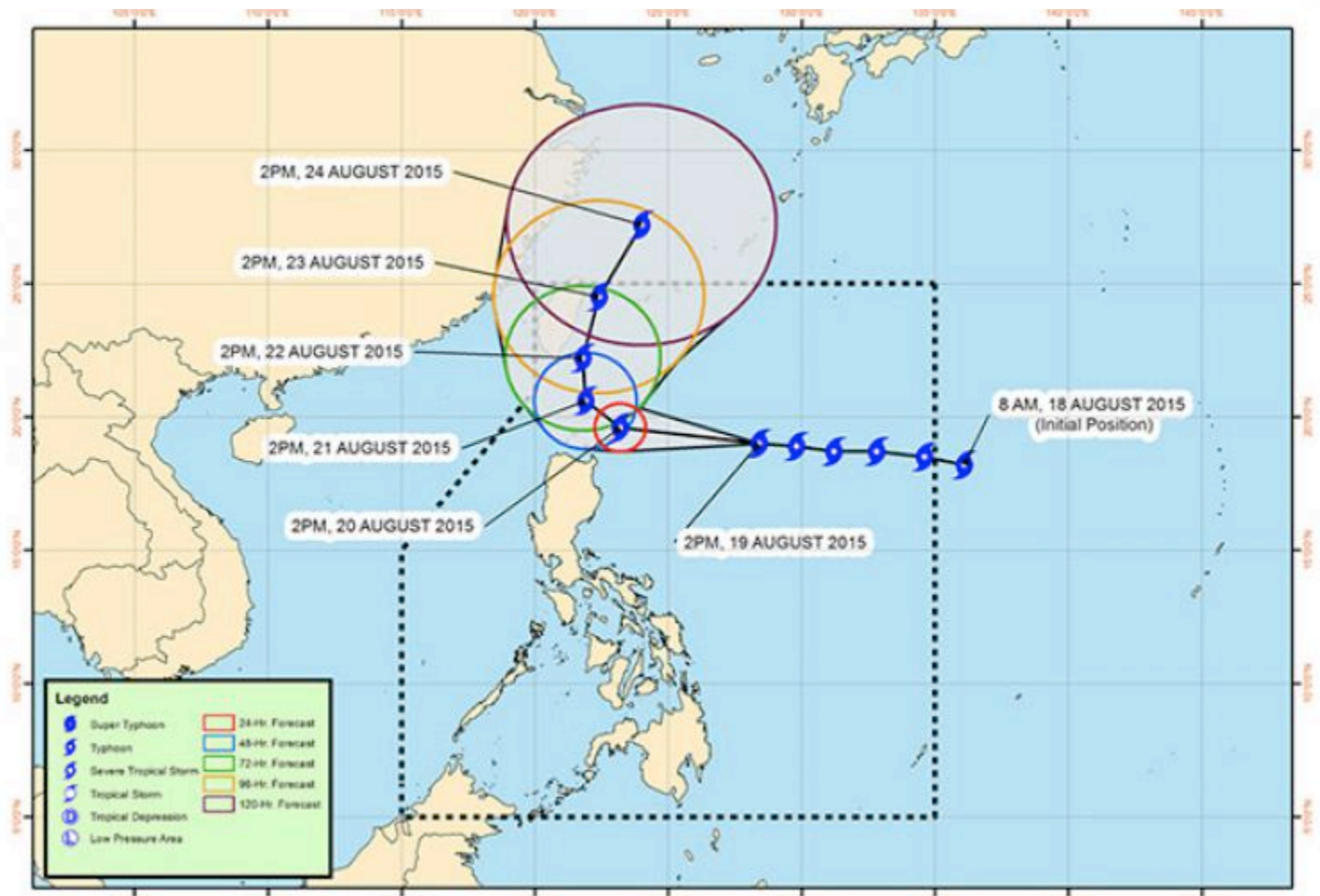
google.org Common Alerting Protocol Validator



CAP: Tropical Cyclone Alert



CAP: Tropical Cyclone Warning

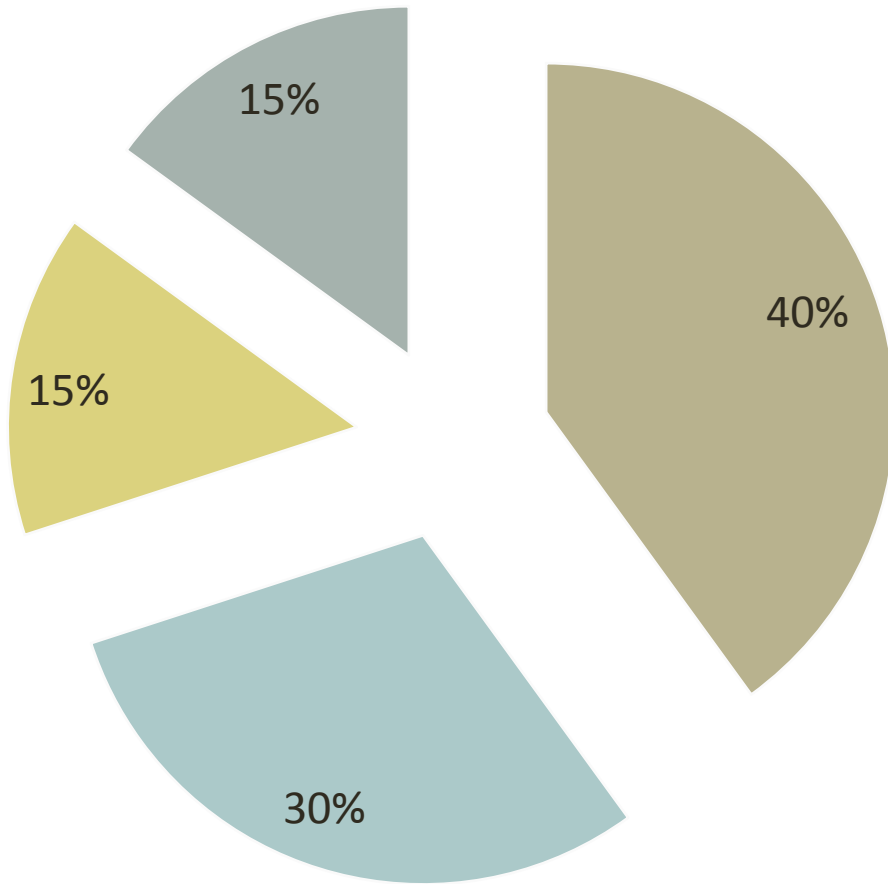


Next Steps..

- Defining Static and Dynamic Content
- Testing CAP Alerts with Google
- Implementation
- Launching of PAGASA CAP with Google in the Philippines on November 12, 2014

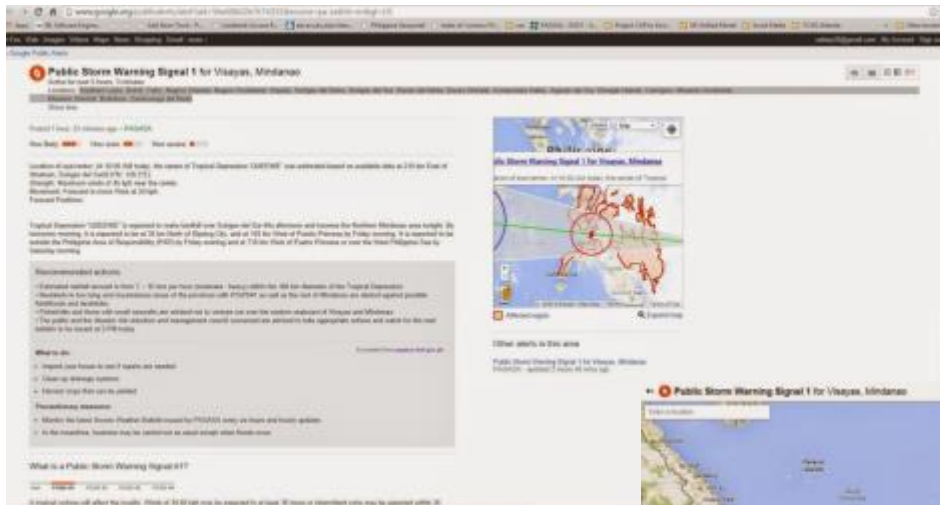


Challenges!



- Experience
- Support
- Human Resources
- Infrastructure

Birth of CAP in the Philippines



Tropical Storm Queenie
November 26, 2014 – November 28, 2014




CAP alert on HAGUPIT(Ruby)

A screenshot of a Google search for "pagasa weather". The search results show a link to "Philippine Weather" from www.rappler.com. Below that, a "Public Storm Warning Signal 3" alert for Southern Luzon is displayed, posted 3 hours ago by PAGASA. The alert text states: "A tropical cyclone will affect the locality. Winds of greater than 100 kph up to 150 kph may be expected in at least 18 hours. Location of eyecenter At 10:00 PM today, the... More info". Below the alert, there are links for "In the news", "Weather Bulletin Update", and "Daily Weather Forecast". At the bottom, there are links for "PAGASA | Philippine Atmospheric Geophysical and ...", "Weather Bulletin Update", and "Forecast Symbols and Terms".

A screenshot of a "Public Alerts" page. The main alert is titled "Public Storm Warning Signal 3 for Southern Luzon" and is active for 2 hours, 21 minutes. It was posted 4 hours, 22 minutes ago. The alert text includes: "A tropical cyclone will affect the locality. Winds of greater than 100 kph up to 150 kph may be expected in at least 18 hours. Location of eyecenter At 4:06 PM today, the eye of Typhoon 'RUBY' was located based on all available data at 20 km West of Masbate City, Masbate or in the vicinity of Arroy, Masbate (12 47N, 123 47E). Strength Maximum sustained winds of 140 kph near the center and gustiness of up to 170 kph. Forecast Movement: Forecast to move West-Northwest at 15 kph. Forecast Positions: • 24 hour (tomorrow afternoon): 66 km East of Calapan City, Oriental Mindoro or at 180 km South of Science Garden, Quezon City. • 48 hour (Tuesday afternoon): 176 km Southwest of Science Garden, Quezon City. • 72 hour (Wednesday afternoon): 480 km West of Science Garden, Quezon City. Recommended actions: These areas will have stormy weather. Residents in low-lying and mountainous areas are alerted against flashfloods and landslides. Likewise, those living along the coast are warned on the occurrence of big waves associated with Storm Surge which may reach up to 3 meters. • Expected flood level: Sibuyan Island between 2-4 M tomorrow and it will be associated with strong winds, storm surge and heavy to torrential rainfall. • Estimated rainfall amount is from 10 - >30 mm per hour (heavy - torrential) within the 500 km diameter of the typhoon. • 'RUBY' and the Northeast Monsoon will cause rough to very rough sea conditions over the seaboard of Luzon and Visayas and over the northern seaboard of Mindanao. Fishermen and those using small sea craft are advised not to venture out over the said seaboard. • Expected to Exit FAR, Thursday morning. Tweets related to this alert: The WorldPost (@TheWorldPost) 1 million evacuated as typhoon chases across Philippines. Official Gazette PH (@govpub) The Official Gazette has made available a map of evacuation centers in #Philippines areas. Fox News (@FoxNews) 2 dead, 800,000 evacuate as typhoon starts Philippines. Other alerts in this area: PAGASA

CAP: General Flood Advisory (2015)

Public Alerts



General Flood Advisory (Severe) for Region 4-A (CALABARZON)

Active for next 3 hours - PAGASA

Posted 9 hours ago

Under present weather conditions, At 4:00 AM Today, the Low Pressure Area (LPA) was estimated based on all available data at 6:05 km Northwest of Ibaay, Batanes (24.9°N, 126.2°E). Southwest Monsoon affecting the western section of the country.
The 24 hour rainfall forecast is moderate to occasionally heavy rains.
Water courses likely to be affected:


- **Quezon** - Rivers and its tributaries particularly Upper Umiray, Lower Bobok (Lawaya), Malaking-Ilog, Iyam, Macalelon, Catarauan, Silongin Lagda, Pagsanjan, Yabahuan, Iligot, Guinhalinan, Vinac, Calasag, Pandanan, Sta. Lucia, Lugan Malaybalay, Maapon, Bucal (Lalangan), Lakeyat, Tignoon, Agos, Anibawan (Polillo Island) and Upper Kilbay - Catabangan.
- **Cavite** - Rivers and its tributaries particularly Laboc (Balsahan), Cafes, Pang-ling and Imus.
- **Laguna** - Rivers and its tributaries particularly Pagsanjan, Pila-Sta. Cruz, San Juan and San Cristobal.
- **Rizal** - Rivers and its tributaries particularly Upper Marikina and Itakwa.
- **Batangas** - Rivers and its tributaries particularly Lian, Banabang-Molino, Panopit, Kapumpang, Rosario-Lobo and Upper Bobok (Lawaya).

Recommended actions

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 advised to be alert for possible flashfloods

Is this information useful to you? [NOT USEFUL](#) [USEFUL](#)

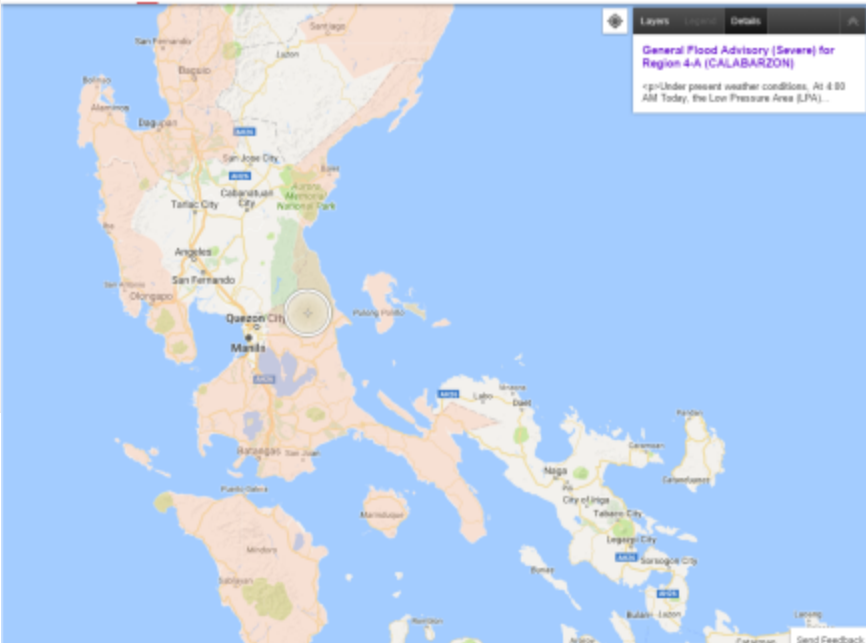
How to prepare and stay safe [PR045A](#)



Philippines

Alert area: Quezon, Cavite, Laguna, R...

DETAILS **MAP**



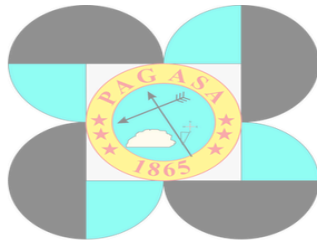
Layers [Layers](#) [Details](#)

General Flood Advisory (Severe) for Region 4-A (CALABARZON)

Under present weather conditions, At 4:00 AM Today, the Low Pressure Area (LPA).

Send Feedback

Development of Tool (version 2)



Republic of the Philippines
Department of Science and Technology
Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)
Weather Division
WFFC Bldg., BIR Road, Diliman, Quezon City 1100

MMSS-07
Rev.0/05-11-2015

SEVERE WEATHER BULLETIN #

Final Amend

FOR:

TROPICAL CYCLONE: ALERT

Outputs:

1. CAP Alert
2. PDF (Existing)

ISSUED AT **23 AUGUST 2016**

(Valid for broadcast until the next bulletin to be issued at)

IMPACT STATEMENT

• Estimated rainfall amount is moderate to heavy within the 700 km diameter of the Typhoon.

Location of eye/center:

At 12:15 PM today, the center of Severe Tropical Storm "" was estimated based on all available data at

Forecast Track

Using the ff:



length:



Common Alerting Protocol Validator

ovement:

st Posit

Forecast



... public and the disaster risk reduction and management council concerned are advised to take appropriate actions and watch for the next weather bulletin to be issued at 5 AM today.

CAP on a MAP: Kickoff Workshop



CAP on a MAP: Implementers Training



2015 CAP Implementation Workshop



Report of the 2015 CAP Implementation Workshop



CAP on a MAP: Training on SAMBRO (May 2016)



CAP on a MAP: Training on SAMBRO

Home Alerting Alert Hub Mapping Manage Recipients Persons Organizations Event Types Administration admin@example.com Language

RSS Feeds Philippines Warning and Situational-Awareness System

Filter Options Show

HEADLINE
Test alert for -
General Flood Advisory (Final) Flood
Issued by: admin_example.com
Issued on: 2016-08-17 11:53:01
Full Alert

Search location in Geonames

News Feeds

2016-07-16 10:34:52
THE NATIONAL WEATHER SERVICE IN NORMAN HAS ISSUED A SEVERE THUNDERSTORM WARNING FOR... WESTERN ALFALFA COUNTY IN NORTHWESTERN OKLAHOMA... WOODS COUNTY IN NORTHWESTERN OKLAHOMA... WOODWARD COUNTY IN NORTHWESTERN OKLAHOMA... EASTERN HARPER COUNTY IN NORTHWESTERN OKLAHOMA.

2016-07-16 10:34:52
...A SEVERE THUNDERSTORM WARNING REMAINS IN EFFECT UNTIL 930 PM CDT FOR WHEELER... SOUTHEASTERN ROBERTS... GRAY AND HEMPHILL COUNTIES... AT 915 PM CDT... SEVERE THUNDERSTORMS WERE LOCATED ALONG A LINE EXTENDING FROM 5 MILES EAST OF VICI TO 6 MILES EAST OF REYDON TO 3 MILES WEST OF NEW MOBEETIE... MOVING SOUTHEAST AT 35 MPH. HAZARD... 60 MPH WIND GUSTS.

2016-07-16 10:34:52
...The flood warning continues for the following rivers in Minnesota... Mississippi River At Atkin affecting Atkin and Crow Wing Counties Mississippi River Near Fort Ripley affecting Morrison and Crow Wing Counties Snake River Near Pine City affecting Pine County

2016-07-16 10:34:52
...THE NATIONAL WEATHER SERVICE IN MEMPHIS HAS ISSUED A SIGNIFICANT WEATHER ADVISORY UNTIL 1000 PM CDT FOR... BENTON COUNTY IN NORTHEASTERN MISSISSIPPI... NORTHEASTERN MARSHALL COUNTY IN NORTHWESTERN MISSISSIPPI... AT 520 PM CDT... A STRONG THUNDERSTORM PRODUCING PEA SIZE HAIL OR LARGER AND WINDS AT LEAST 40 MPH WAS LOCATED NEAR LAMAR... OR NEAR

2016-07-16 10:34:52
...A SEVERE THUNDERSTORM WARNING REMAINS IN EFFECT UNTIL 930 PM CDT FOR NORTHWESTERN ROGER MILLS... WOODS... ELLIS... WOODWARD AND HARPER COUNTIES...

<http://sambro.meteopilipinas.gov.ph/>

CAP on a MAP: Training on SAMBRO

The screenshot displays the SAMBRO Alerts Hub interface. The top navigation bar includes 'Home', 'Alerting', 'Alert Hub', 'Mapping', 'Manage Recipients', 'Persons', 'Organizations', 'Event Types', 'Administration', 'admin@example.com', and 'Language'. The left sidebar contains sections for 'ALERTS', 'TEMPLATES', 'WARNING PRIORITIES', and 'PREDEFINED ALERT AREA', each with 'Create' and 'Import from CSV' options. The main content area is titled 'Alerts Hub' and features a search filter with 'Sender' and 'Event Type' dropdowns, and 'Clear filter' and 'Saved Filters' links. Below the filter is a table of alerts with columns for 'Event Type', 'Message Type', 'Sent', 'Headline', and 'Sender's name'. The table shows 25 entries, with the first few rows detailing various weather-related alerts such as heavy rain, storm surges, and flood advisories.

	Event Type	Message Type	Sent	Headline	Sender's name
Open View Profile	HEAVY RAIN	Alert	2016-07-14 11:27:33	Red Heavy Rainfall at Otagiapo	DOST-PAGASA
Open View Profile	Storm Surge	Alert	2016-07-13 11:00:15	Storm Surge of 3-4 meters is expected to hit Manila Bay	DOST-PAGASA
Open View Profile	Storm Surge	Alert	2016-07-13 10:21:19	Storm Surge of 150 kmph hits Manila	PAGASA-DOST
Open View Profile	General Flood Advisory (Moderate)	Alert	2016-07-12 18:16:09	General Flood Advisory	PAGASA-DOST
Open View Profile	General Flood Advisory (Moderate)	Alert	2016-07-12 18:13:35	General Flood Advisory	PAGASA-DOST
Open View Profile	General Flood Advisory (Moderate)	Alert	2016-07-12 18:11:50	General Flood Advisory	PAGASA-DOST
Open View Profile	General Flood Advisory (Moderate)	Update	2016-07-12 18:09:14	General Flood Advisory	PAGASA-DOST
Open View Profile	General Flood Advisory (Moderate)	Update	2016-07-12 18:05:45	General Flood Advisory	PAGASA-DOST
Open View Profile	Tropical Cyclone Warning	Alert	2016-07-12 16:29:30	Tropical Cyclone Warning : Signal #1 Bplov	PAGASA-DOST
Open View Profile	Tropical Cyclone Warning	Alert	2016-07-12 15:05:13	Tropical Cyclone Warning : Signal #1	PAGASA-DOST
Open View Profile	Tsunami	Alert	2016-07-12 12:49:21	Tsunami Advisory PH	Philippines Institute of Volcanology and Seismology (PHIVOLCS)
Open View Profile	Volcano	Alert	2016-07-12 12:47:11	Volcanic Activity	Philippines Institute of Volcanology and Seismology (PHIVOLCS)
Open View Profile	Volcano	Alert	2016-07-12	Volcanic Activity	Philippines Institute of Volcanology and Seismology

<http://sambro.meteopilipinas.gov.ph/>

CAP on a MAP: Training on SAMBRO (May 2016)



CAP on a MAP: Simulation and Testing on SAMBRO (July 2016)



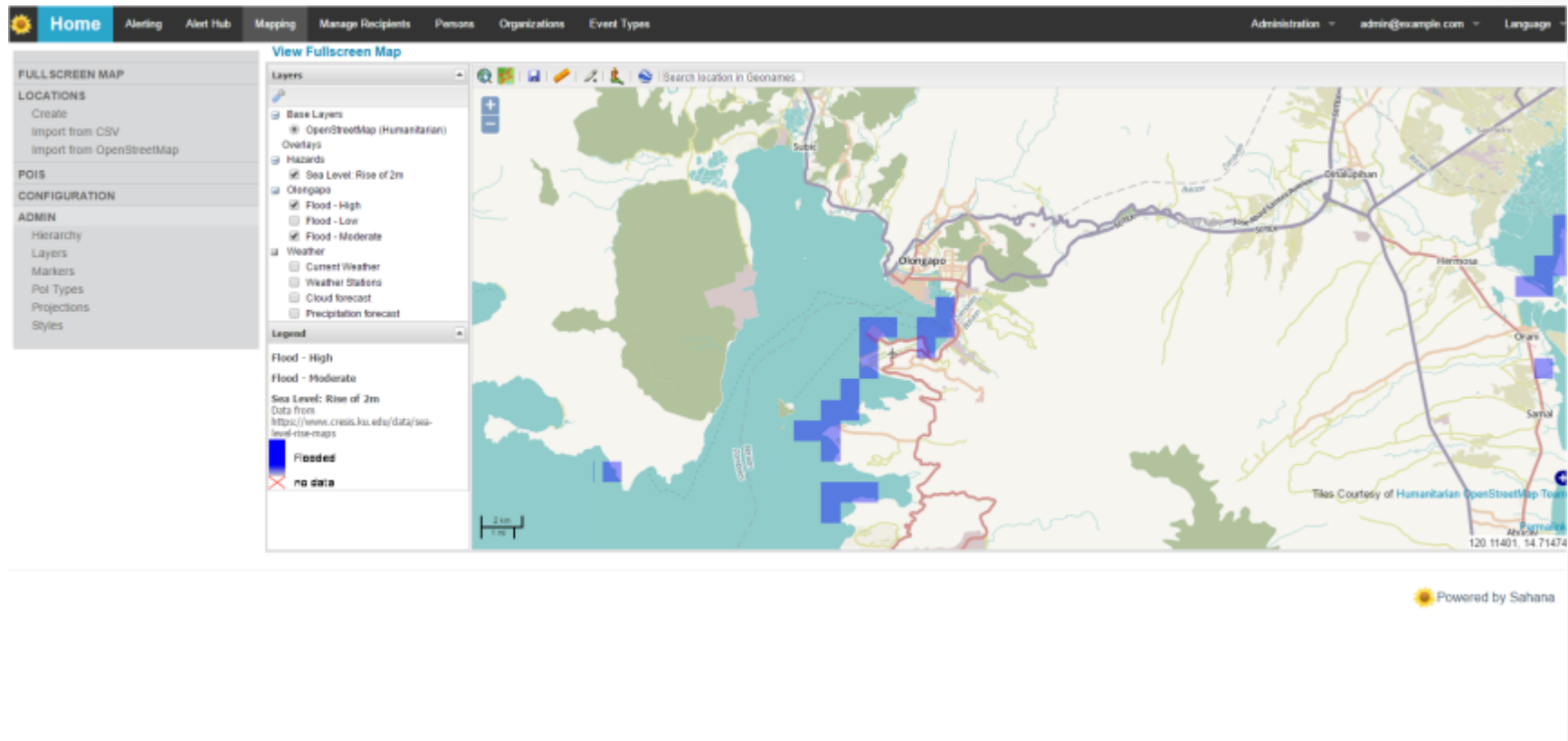
CAP on a MAP: Simulation and Testing on SAMBRO (July 2016)



CAP on a MAP: Simulation and Testing on SAMBRO (July 2016)



CAP on a MAP: Simulation and Testing on SAMBRO (July 2016)



<http://sambro.meteopilipinas.gov.ph/>

On-Going Activities within PAGASA

- Flood Bulletin
- Thunderstorms Advisory
- Heavy Rainfall Warning

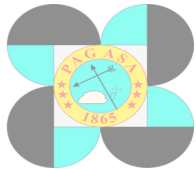


Philippine Atmospheric, Geophysical and Astronomical Services Administration

HEAVY RAINFALL WARNING LEVELS		
RAINFALL VALUES (mm) FOR METRO MANILA	MEANING	LEVELS
<p>YELLOW RAINFALL ADVISORY Rainfall of 7.5 to 15 mm per hour has fallen or expected to fall and most likely to continue for the next 3 hours.</p>	Community AWARENESS FLOODING is POSSIBLE in low-lying areas and near river channels	Advisory 
<p>ORANGE RAINFALL ADVISORY Rainfall of more than 15mm up to 30mm within 1 hour has fallen or expected to fall or if continuous rainfall for the past 3 hours is more than 45mm to 65mm and most likely to continue for the next 3 hours.</p>	Community PREPAREDNESS FLOODING is THREATENING in low-lying areas and near river channels	Alert 
<p>RED RAINFALL WARNING Rainfall of more than 30mm within 1 hour has fallen or expected to fall or if continuous rainfall for the past 3 hours is more than 65mm and most likely to continue for the next 3 hours.</p>	Community RESPONSE SEVERE FLOODING is EXPECTED Take necessary precautionary measures	Emergency 

Disclaimer: Rainfall threshold values are arbitrary and may vary depending on the area of concern. These will be refined as soon as more data become available.

Severe Weather (Tropical Cyclone)



SEVERE WEATHER BULLETIN #

FOR:

TROPICAL CYCLONE: ALERT

ISSUED AT 1:15 AM 23 AUGUST 2016
(Valid for broadcast until the next bulletin to be issued at 5 AM today)

IMPACT STATEMENT

• Estimated rainfall amount is moderate to heavy within the 700 km diameter of the Typhoon.

Location of eye/center: At 12:15 PM today, the center of Severe Tropical Storm "" was estimated based on all available data at
20.1 118.8 Laoag City, Ilocos Nor
285 km Northwest of Laoag City, Ilocos Norte (OUTSIDE PAR)

Strength: Max wind 105 Gustiness 135

Movement: West Northwest 22

Forecast Position: 24 hour (Tomorrow morning): 910 km West Northwest of Itbayat, Batanes (OUTSIDE PAR)

Forecast Track

The public and the disaster risk reduction and management council concerned are advised to take appropriate actions and watch for the next weather bulletin to be issued at 5 AM today.

PREPARED BY: Prepared by

CHECKED BY: Checked by

SEVERE WEATHER BULLETIN #6 FOR: TYPHOON "BUTCHOY" (NEPARTAK) TROPICAL CYCLONE: WARNING

ISSUED AT 5:00 AM 7 JULY 2016
(Valid for broadcast until the next bulletin to be issued at 11 AM today)

TYPHOON "BUTCHOY" HAS MAINTAINED ITS INTENSITY AS IT MOVES CLOSER TO TAIWAN.

- Estimated rainfall amount is from moderate to heavy within the 600 km diameter of the typhoon.
- Fisherfolk are advised not to venture out over the northern and eastern seaboard of Luzon.

Location of eye/center At 4:00 AM today, the eye of Typhoon "BUTCHOY" was located based on all available data at 330 km East of Basco, Batanes (20.9°N, 125.1°E).

Strength Maximum sustained winds of 220 kph near the center and gustiness of up to 255 kph.

Forecast Movement Forecast to move Northwest at 25 kph.

Forecast Positions

- 24 hr (Today morning): 330 km North East of Basco, Batanes (OUTSIDE PAR)
- 72 hour (Sunday morning): 1,070 km North of Itbayat, Batanes (OUTSIDE PAR)
- 96 hour (Monday morning): 1,320 km North Northeast of Itbayat, Batanes (OUTSIDE PAR)
- 120 hour (Tuesday morning): 1,570 km North Northeast of Itbayat, Batanes (OUTSIDE PAR)

Forecast Track

IMPACT STATEMENT

WARNING SIGNAL

TCWS	Luzon	Impacts of the wind
1 (30-60kph Expected in 36 hrs.)	Batanes, Calayan and Babuyan group of Islands	<ul style="list-style-type: none"> Very light or no damage to low risk structures. Light damage to medium to high risk structures Slight damage to some houses of very light materials or makeshift structures in exposed communities. Some banana plants are tilted, a few downed and leaves are generally damaged Twigs of small trees may be broken. Rice crops, however, may suffer significant damage when it is in its flowering stage.
Wave Height (Open Sea): 1.25-4.0 meters		

The public and the disaster risk reduction and management council concerned are advised to take appropriate actions and watch for the next weather bulletin to be issued at 11 AM today.




Prepared by:

Checked by:

Flood Bulletin

PHAGASA CAP | Flood Forecasting | Settings



Republic of the Philippines
Department of Science and Technology
PHILIPPINE ATMOSPHERIC, GEOPHYSICAL AND ASTRONOMICAL SERVICES ADMINISTRATION
PAGASA
FLOOD FORECASTING BRANCH
Pampanga River Flood Forecasting and Warning Center, HMD NCR-PRSD
DMGC, Brgy. Maimpis, San Fernando City, Pampanga

Flood Bulletin No. 1 | Pampanga River Basin

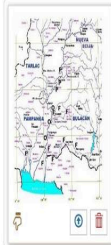
Issued at 5:00 am, 20 September 2014

Valid until the next issuance at 5:00 am today

Average Basin Rainfall as of 5:00 am today:

PAST 24 HOURS 0 mm


FORECAST FOR THE NEXT 24 HOURS 0 mm



Basin Expected Response

Pampanga_River_Basin.png

Water Level Station / Location	River/Lake/Swamp Trend at Station	Flood Situation Message	Low-lying areas likely to be affected
San Isidro Station, Pampanga River	Now at 2.69m / slow increase to peak before noon today (3.20m Alert WL)	Flooding is possible	Jaen, San Isidro and Cabaio
Candaba Station, Candaba Swamp	Now at 5.87m still above 5.0m critical level / slow filling-up of swamp area but to level-off this afternoon	Flooding to persist and remain	Candaba(Pampanga); Portions of San Miguel & San Ildefonso (Bulacan) within the swamp area.
Arayat Station, Pampanga River	Now at 7.94m (Above 6.0m alarm WL) / to increase further (8.5m Critical WL)	Flooding to occur	Riverside areas of arayat, San Luis and San Simon
Sasmuan Station,	Now at 2.10m / to fluctuate (tide influenced)	Flooding is possible	Sasmuan, Lubao and Guagua




Department of Science and Technology
PHILIPPINE ATMOSPHERIC, GEOPHYSICAL AND ASTRONOMICAL SERVICES ADMINISTRATION (PHAGASA)
Pampanga River Flood Forecasting and Warning Center, Hydro-Meteorology Division(NCR-PRSD)
Brgy.Maimpis, San Fernando, Pampanga (Government Center) | <http://www.prfwc.webs.com>

FLOOD BULLETIN NO SEVEN (7) – PAMPANGA RIVER BASIN AND ALLIED RIVERS
ISSUED AT: 5:00 AM, 14 OCTOBER 2013
VALID UNTIL THE NEXT ISSUANCE AT 5:00 PM TODAY UNLESS THERE IS AN INTERMEDIATE BULLETIN

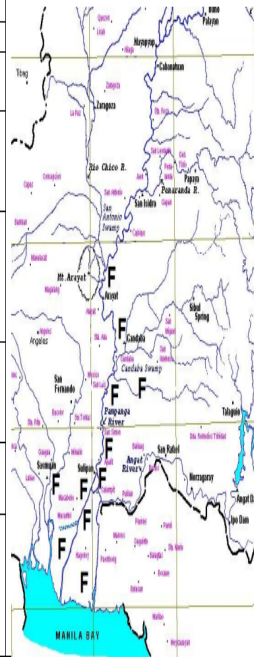
BASIN RAINFALL AS OF 5:00 AM TODAY:
PAST 24-HR = 4.3 MM FORECAST 24-HR = < 10 MM

BASIN EXPECTED RESPONSE:

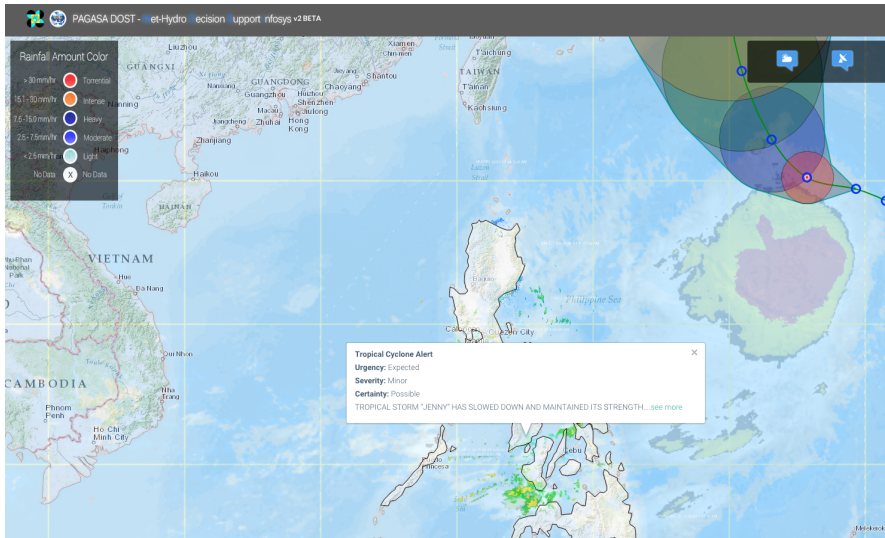
WATER LEVEL STATION (STN)	RIVER/ SWAMP WATER LEVEL (WL) TREND AT STATION	FLOOD SITUATION MESSAGE	PARTICULAR LOW-LYING AREAS
ARAYAT STN., PAMPANGA RIVER	N R B I		REAS OF IDABA, SAN LUIS
CANDABA STN., CANDABA	NOW AT 6.46 M / HAD LEVELED-OFF LAST NIGHT; A VERY SLOW RECESSON IS IN PROGRESS (CRITICAL WL IS 5.0 M)	FLOODING TO PERSIST	CANDABA SWAMP AREA; PORTIONS OF SAN MIGUEL AND SAN ILDEFONSO (BULACAN), SAN LUIS, SAN SIMON, AND APALIT (PAMPANGA)
SULIPAN STN., PAMPANGA RIVER	NOW AT 3.07 M / SLIGHTLY BUT TO WAY BELOW THE 3.60 M WL		RIVERSIDE AREAS OF APALIT, MACABEBE, MASANTOL, CALUMPIT, HAGONVOY
COASTAL FLOODING IN THE LOW-LYING AREAS (TIDE INFLUENCED AREAS) BY TOMORROW MORNING			HAGONVOY, PAOMBONG, MACABEBE, MASANTOL

THE RESIDENTS AND THE LOCAL DISASTER RISK REDUCTION & MANAGEMENT COUNCILS (LDRRMCs) CONCERNED ARE ADVISED TO CONTINUE TO TAKE APPROPRIATE ACTIONS.

PRFFWC - HTH / JRD



On-Going Activities within PAGASA



Public Alerts

General Flood Advisory

Urgency: Future
Severity: Moderate
Certainty: Possible

Under present weather conditions, At 4:00 AM today, the eye of Typhoon "BUTCHOY" was located based on all available data at 1,010 km East of Apariti, Cagayan (18.27°N, 131.27°E) with maximum sustained winds of 185 kph near the center and gustiness of up to 220 kph. It is forecast to move Northwest at 30 kph. Southwest Monsoon affecting Southern Luzon and Visayas.

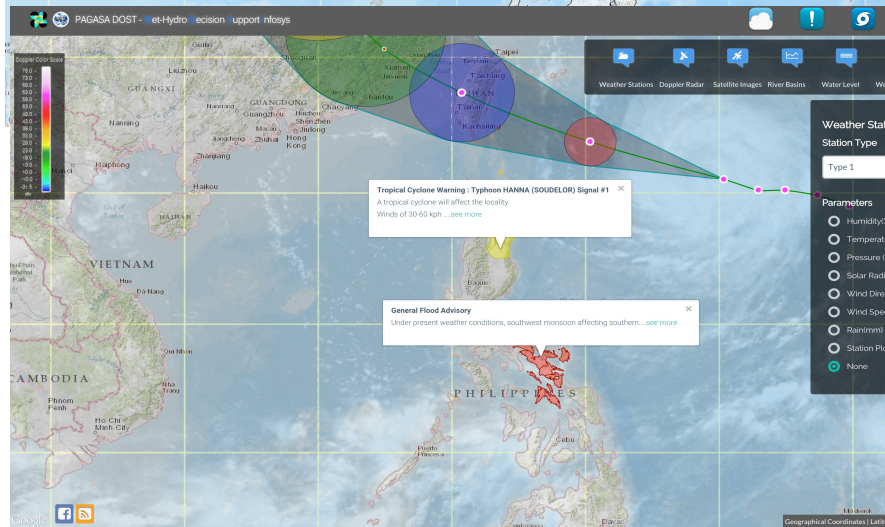
The 24 hour rainfall forecast is Occasional light to moderate rains.

Water courses likely to be affected:

- + **Camarines Sur** - Rivers and its tributaries particularly Lower Kilbay Catabangan, Ragay, Tinalud, Tambang and Lagayon.
- + **Camarines Norte** - Rivers and its tributaries particularly Labo and Daet Basud.
- + **Catanduanes** - Rivers and its tributaries particularly Cabuyan, Bato and Pajo.
- + **Albay** - Rivers and its tributaries particularly Guinale and Upper Donsol.
- + **Masbate** - Rivers and its tributaries particularly Lanang, Mapayawan, Mandaog, Asid, Malbag, Guiom, Nainday, Daraga, Nauru (Aguada) and Beleno.
- + **Sorsogon** - Rivers and its tributaries particularly Lower Donsol, Ogod, Putao, Cadacan, Bamuang-Duan, Fabrica (Tugugan) and Mahog.

Instruction

People living near the mountain slopes and in the low lying areas of the above mentioned river systems and the Local



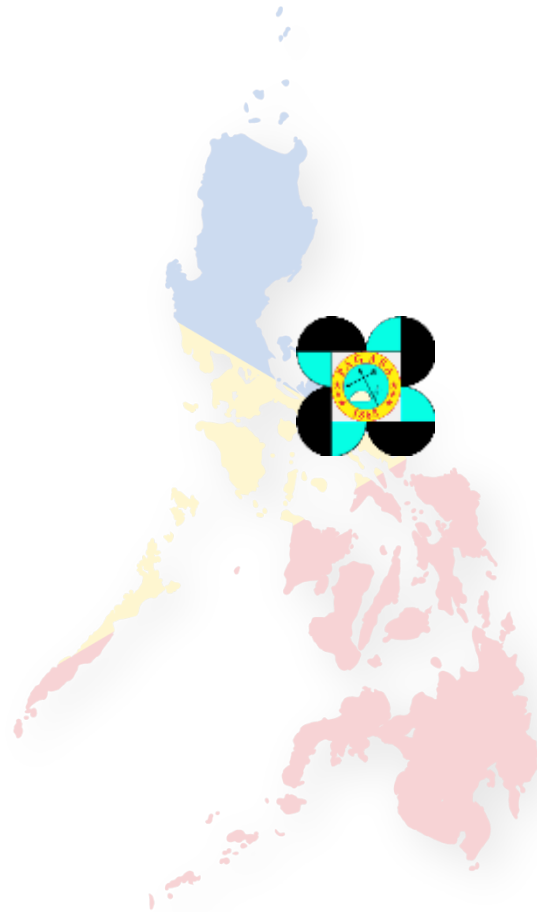
Future Development

- Additional CAP alerts
 - Thunderstorms Warning
 - Rainfall Warning
- Improving existing alerts
- Inter-agency collaboration
 - Office of Civil Defense, Phil. Red Cross,
 - PhiVolcs, DSWD

CAP Development Team in Philippines



Thank you!



Tracking the sky...Helping the Country