



## TROPICAL CYCLONE BULLETIN NO. 9

### Typhoon BETTY (MAWAR)

Issued at 5:00 AM, 29 May 2023

Valid for broadcast until the next bulletin at 11:00 AM today.

#### TYPHOON BETTY SLIGHTLY ACCELERATES NORTHWESTWARD OVER THE WATERS EAST OF CAGAYAN.

##### Location of Center (4:00 AM)

The center of the eye of Typhoon BETTY was estimated based on all available data at **525 km East of Aparri, Cagayan (18.8°N, 126.6°E)**

##### Intensity

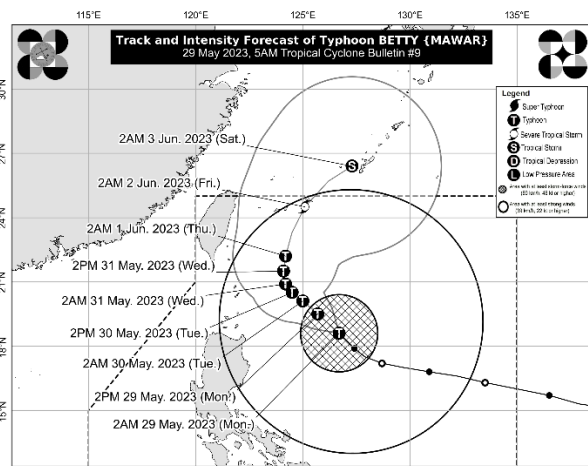
Maximum sustained winds of **155 km/h** near the center, gustiness of up to **190 km/h**, and central pressure of **950 hPa**

##### Present Movement

**Northwestward at 20 km/h**

##### Extent of Tropical Cyclone Winds

**Strong to typhoon-force winds** extend outwards up to **770 km** from the center



#### TRACK AND INTENSITY FORECAST

Date and Time	Center Position			Intensity		Movement dir. and speed (km/h)
	Lat. (°N)	Lon. (°E)	Location	MSW (km/h)	Cat.	
<b>12-Hour Forecast</b> 2:00 PM 29 May 2023	19.5	125.7	445 km East of Calayan, Cagayan	150	TY	NW 10
<b>24-Hour Forecast</b> 2:00 AM 30 May 2023	20.1	125.0	320 km East of Basco, Batanes	150	TY	NW 10
<b>36-Hour Forecast</b> 2:00 PM 30 May 2023	20.5	124.5	265 km East of Basco, Batanes	140	TY	NW Slowly
<b>48-Hour Forecast</b> 2:00 AM 31 May 2023	20.9	124.2	245 km East of Itbayat, Batanes	140	TY	NW Slowly
<b>60-Hour Forecast</b> 2:00 PM 31 May 2023	21.5	124.1	250 km East Northeast of Itbayat, Batanes	130	TY	N Slowly
<b>72-Hour Forecast</b> 2:00 AM 01 June 2023	22.2	124.2	290 km East Northeast of Itbayat, Batanes	130	TY	N Slowly
<b>96-Hour Forecast</b> 2:00 AM 02 June 2023	24.5	125.1	530 km Northeast of Itbayat, Batanes	110	STS	NNE 10
<b>120-Hour Forecast</b> 2:00 AM 03 June 2023	26.4	127.3	835 km Northeast of Extreme Northern Luzon (OUTSIDE PAR)	85	TS	NE 15



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TROPICAL CYCLONE WIND SIGNALS (TCWS) IN EFFECT			
TCWS No.	Luzon	Visayas	Mindanao
<b>2</b> Wind threat: <b>Gale-force winds</b>	<b>Batanes, the eastern portion of Babuyan Islands</b> (Babuyan Is., Camiguin Is., Didicas Is., Pamuktan Is.), and <b>the northeastern portion of mainland Cagayan</b> (Santa Ana)	-	-
	Warning lead time: <b>24 hours</b> Range of wind speeds: <b>62 to 88 km/h (Beaufort 8 to 9)</b> Potential impacts of winds: <b>Minor to moderate threat to life and property</b>		
<b>1</b> Wind threat: <b>Strong winds</b>	<b>The rest of Babuyan Islands, the rest of mainland Cagayan, Isabela, Quirino, the northeastern portion of Nueva Vizcaya</b> (Kasibu, Quezon, Solano, Bagabag, Diadi, Villaverde, Bayombong, Ambaguio), <b>Apayao, Abra, Kalinga, Mountain Province, Ifugao, Ilocos Norte, the northern and central portions of Aurora</b> (Dilasag, Casiguran, Dinalungan, Dipaculao, Baler), <b>Polillo Islands, the northern portion of Catanduanes</b> (Caramoran, Viga, Gigmoto, Panganiban, Bagamanoc, Pandan), <b>the northeastern portion of Camarines Sur</b> (Caramoan, Garchitorena, Lagonoy, Tinambac, Siruma), and <b>the northern portion of Camarines Norte</b> (Vinzons, Paracale, Jose Panganiban, Capalonga, Talisay, Daet, Mercedes, Basud)	-	-
	Warning lead time: <b>36 hours</b> Range of wind speeds: <b>39 to 61 km/h (Beaufort 6 to 7)</b> Potential impacts of winds: <b>Minimal to minor threat to life and property</b>		

HAZARDS AFFECTING LAND AREAS
<b><u>Heavy Rainfall Outlook</u></b> <b>Forecast accumulated rainfall from today to tomorrow early morning</b> <ul style="list-style-type: none"> <li><b>50-100 mm:</b> The eastern portion of Babuyan Islands and the northeastern portion of mainland Cagayan</li> </ul> <b>Forecast accumulated rainfall from tomorrow early morning to Wednesday early morning</b> <ul style="list-style-type: none"> <li><b>100-200 mm:</b> Batanes and the eastern portion of Babuyan Islands</li> <li><b>50-100 mm:</b> The rest of Babuyan Islands, the northern portion of mainland Cagayan, Ilocos Norte, Ilocos Sur, La Union, Abra, and Benguet.</li> </ul> <b>Forecast accumulated rainfall from Wednesday early morning to Thursday early morning</b> <ul style="list-style-type: none"> <li><b>100-200 mm:</b> Batanes, the southern portion of Ilocos Sur, La Union, and the western portion of Benguet</li> <li><b>50-100 mm:</b> Babuyan Islands, the rest of Ilocos Region, Abra, and the rest of Benguet</li> </ul> <b>Forecast accumulated rainfall from Thursday early morning to Friday early morning</b> <ul style="list-style-type: none"> <li><b>50-100 mm:</b> Batanes, Ilocos Region, Abra, and the western portion of Benguet</li> </ul> <p>In addition, Typhoon BETTY may <b>enhance the Southwest Monsoon</b> this week:</p> <ul style="list-style-type: none"> <li><b>Tomorrow:</b> Monsoon rains likely over the western portions of MIMAROPA and Western Visayas</li> <li><b>Wednesday:</b> Monsoon rains likely over the western portions of MIMAROPA and Western Visayas; possible over the western portion of CALABARZON and Central Luzon</li> <li><b>Thursday:</b> Monsoon rains likely over the western portions of MIMAROPA; possible over the Ilocos Region and the western portions of Central Luzon, CALABARZON and Western Visayas.</li> </ul>



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#### HAZARDS AFFECTING LAND AREAS

##### Heavy Rainfall Outlook (continued...)

Under these conditions, **flooding and rain-induced landslides are likely**, especially in areas that are highly or very highly susceptible to these hazard as identified in hazard maps and in localities that experienced considerable amounts of rainfall for the past several days.

##### Severe Winds

- Minor to moderate impacts caused by gale-force winds are likely within the areas where Wind Signal No. 2 is hoisted. Minimal to minor impacts from strong winds (i.e., strong breeze to near gale strength) are possible within any of the areas where Wind Signal No.1 is currently in effect.
- Typhoon BETTY is starting to enhance the Southwest Monsoon. Occasional gusts are possible in the next 24 hours over localities in the eastern portion of Central Luzon, eastern and southern portions of Southern Luzon that are not under any Wind Signal, and most of Visayas. Such conditions are more likely in coastal and exposed upland/mountainous areas. The western portion of Luzon may experience similar conditions beginning tomorrow or Wednesday.

#### HAZARDS AFFECTING COASTAL WATERS

Under the influence of BETTY, a **marine gale warning remains in effect** over the northern and eastern seaboard of Northern Luzon, eastern seaboard of Central Luzon, the eastern and southern seaboard of Southern Luzon, the eastern and western seaboard of Visayas, and the eastern seaboard of Mindanao. For more information, refer to **Gale Warning #4** issued at 5:00 AM today.

#### TRACK AND INTENSITY OUTLOOK

- On the track forecast, BETTY will move generally northwestward slowly today and may become slow-moving or almost stationary from tomorrow to mid-Wednesday while over the waters east of Batanes. Afterwards, the typhoon will turn north northeastward or northeastward on late Wednesday or Thursday and gradually accelerate towards the waters east of Taiwan and the southern portion of Ryukyu Islands. BETTY may exit the Philippine Area of Responsibility (PAR) on Friday.
- This typhoon is forecast to steadily weaken over the next five days due to cooler ocean waters (caused by upwelling of cooler waters in its wake) and dry air intrusion. BETTY may be downgraded into a severe tropical storm on late Thursday or early Friday and into a tropical storm on late Friday or early Saturday.

Considering these developments, the public and disaster risk reduction and management offices concerned are advised to take all necessary measures to protect life and property. Persons living in areas identified to be highly or very highly susceptible to these hazards are advised to follow evacuation and other instructions from local officials. **For heavy rainfall warnings, thunderstorm/rainfall advisories, and other severe weather information specific to your area, please monitor products issued by your local PAGASA Regional Services Division.**

The next tropical cyclone bulletin will be issued at 11:00 AM today.

**DOST-PAGASA**

Prepared by:  RPG

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