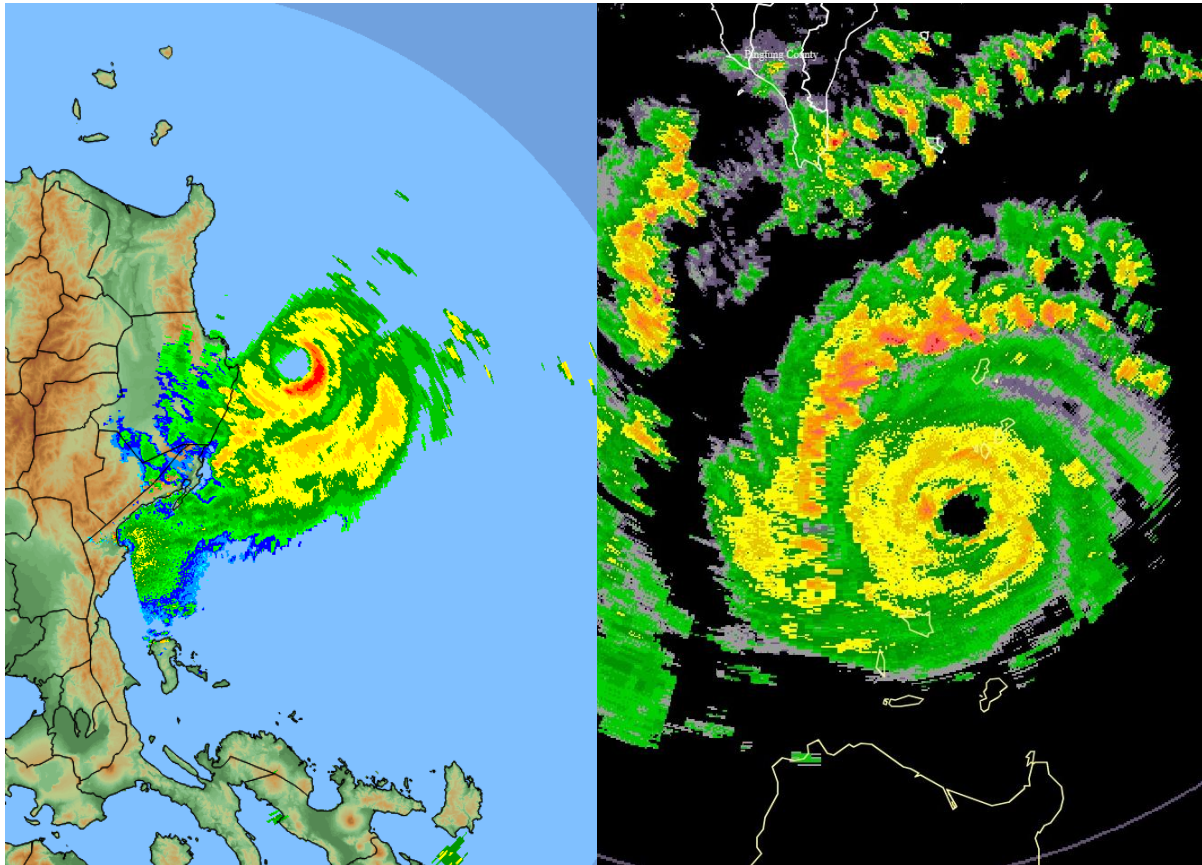




## TROPICAL CYCLONE PRELIMINARY REPORT Super Typhoon GORING (SAOLA)



**Fig. 1.** Weather radar image of Super Typhoon GORING at 1800 UTC on 26 August 2023 (left) and 1900 UTC on 29 August 2023 (right) during its closest point of approach to Palanan, Isabela and Sabtang, Batanes, respectively. Images from the PAGASA Baler Doppler Weather Surveillance Radar and the Central Weather Administration (Taiwan).

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*"The Weather and Climate Authority"*



### Summary of Meteorological History

Based on PAGASA preliminary best track position and intensities

First tracked as a disturbance	1800 UTC, 19 August 2023 (as a surface trough) Over the Philippine Sea, in the northeastern region of the Philippine Area of Responsibility
Developed into a tropical cyclone	0000 UTC, 22 August 2023 Over the Philippine Sea east of Extreme Northern Luzon
Weakened into a remnant low	1200 UTC, 03 September 2023 Over the Gulf of Tonkin west of Leizhou Peninsula, China
Peak intensity (lifetime <sup>1</sup> )	105 kt (195 km/h), 920 hPa, Super Typhoon 1500 UTC, 29 August 2023
Period of occurrence (lifetime)	12 days and 12 hours
Entered the PAR region	Not applicable
Exited the PAR region	1150 UTC, 30 August 2023
Peak intensity (within the PAR)	105 kt (195 km/h), 920 hPa, Super Typhoon 1500 UTC, 29 August 2023
Period of occurrence (within the PAR)	8 days and 11.8 hours
Observed landfalls in the Philippines	None
Significant hydrometeorological hazard observed over the country	<p><b>Severe Winds</b></p> <ul style="list-style-type: none"> <li>• <b>Destructive typhoon-force wind gusts</b> over the northern portion of Babuyan Islands and the southern portion of Batanes.</li> <li>• <b>Damaging storm-force wind gusts</b> over the rest of Babuyan Islands and the extreme eastern portion of Isabela</li> <li>• <b>Strong to gale-force wind gusts</b> over Aurora, the northern and eastern portions of Cagayan, the eastern portion of Isabela, Apayao, Abra, Ilocos Norte</li> </ul> <p><b>Heavy Rainfall</b></p> <p><b>Combined<sup>2</sup> total rainfall &gt; 100 mm</b> over Extreme Northern Luzon, Ilocos Region, Cordillera Administrative Region mainland Cagayan, the northern and eastern portions of Isabela, Zambales, Bataan, the western portion of Bulacan, Metro Manila, most of CALABARZON, Occidental Mindoro, portions of Oriental Mindoro, the northern portion of Palawan including Calamian and Cuyo Islands, and the western portion of Western Visayas. <b>Peak rainfall reaching 300+ mm</b> over Babuyan Islands, the northern portion of mainland Cagayan, the extreme eastern portion of Isabela, Abra, Benguet, Ilocos Provinces, Zambales, most of Bataan, the extreme northern portion of mainland Palawan, and Calamian Islands.</p>

<sup>1</sup> Lifetime is the period from the development into a tropical depression to its weakening into a remnant low or its transitioning into a post-tropical low.

<sup>2</sup> Combined total rainfall refers to total rainfall brought about by the combined influences of the tropical cyclone and the prevailing monsoon.

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## Extremes of Surface Weather Observations during Tropical Cyclone Days<sup>3</sup>

Based on reports from PAGASA manned surface weather stations

### Highest storm duration (22 August to 30 August 2023) rainfall over land:

- Sinait, Ilocos Sur: 670.7 mm
- Subic Bay International Airport, Subic Bay: 596.5 mm
- Laoag City, Ilocos Norte: 576.6 mm

### Highest 24-hour rainfall over land:

- Laoag City, Ilocos Norte: 254.2 mm, 29 August 2023
- Coron, Palawan: 223.7 mm, 28 August 2023
- Sinait, Ilocos Sur: 215.6 mm, 29 August 2023

### Lowest sea level pressure over land:

- Basco, Batanes: 984.9 hPa, 2000 UTC, 29 August 2023
- Calayan, Cagayan: 990.8, 1900 UTC, 29 August 2023
- Casiguran, Aurora: 995.2 hPa, 0600 UTC, 27 August 2023

### Highest peak gust over land:

- Basco, Batanes: E (090°) at 87.5 kt (45 m/s), 1924 UTC, 29 August 2023
- Calayan, Cagayan: WSW (250°) at 66.1 kt (34 m/s), 2200 UTC, 29 August 2023
- Itbayat, Batanes: E (090°) at 50.5 kt (26 m/s), 2114 UTC, 29 August 2023

## Summary of Tropical Cyclone Product Issuances

### Public and Marine Tropical Cyclone Products

- Tropical Cyclone Updates:
  - First issuance: 4:00 PM, 22 August 2023
  - Last issuance: 4:00 AM, 03 August 2023
  - Total issued: 25
- Tropical Cyclone Advisories: None issued
- Tropical Cyclone Bulletins:
  - First issuance: 5:00 AM, 24 August 2023
  - Last issuance: 11:00 PM, 30 August 2023
  - Total issued: 33
- Tropical Cyclone Warnings for Shipping:
  - First issuance: 5:00 AM, 24 August 2023
  - Last issuance: 11:00 PM, 30 August 2023
  - Total issued: 28

### Tropical Cyclone Wind Signals:

- Highest wind signal level hoisted: Wind Signal No. 5
- Number of localities under wind signal: 19
- Timeline of hoisting and lifting of wind signals:
  - Initial hoisting of Wind Signal No. 1: 11:00 PM, 24 August 2023
  - Initial hoisting of Wind Signal No. 2: 11:00 PM, 25 August 2023
  - Initial hoisting of Wind Signal No. 3: 11:00 AM, 26 August 2023
  - Initial hoisting of Wind Signal No. 4: 5:00 PM, 29 August 2023
  - Initial hoisting of Wind Signal No. 5: 11:00 PM, 29 August 2023

<sup>3</sup> Also called "storm duration", it refers to the meteorological days of occurrence of the tropical cyclone within the PAR region.

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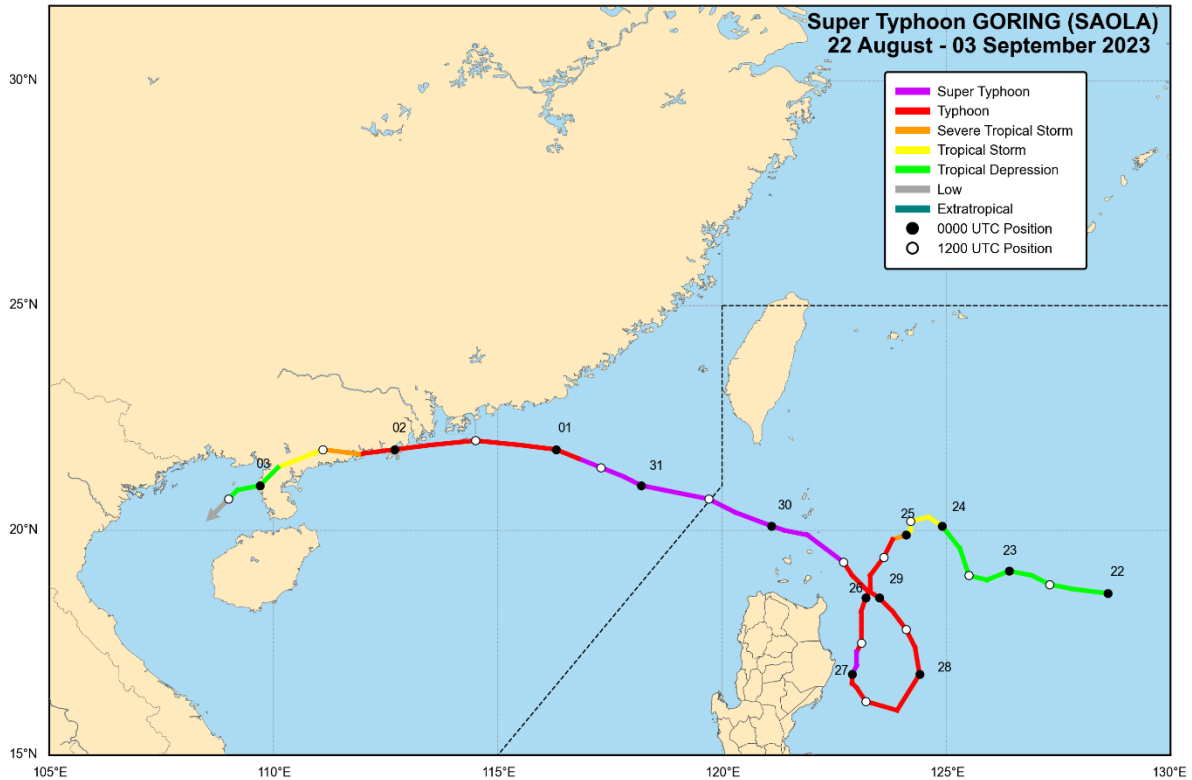


- Final lifting of Wind Signal No. 5: 5:00 AM, 30 August 2023
- Final lifting of Wind Signal No. 4: 8:00 AM, 30 August 2023
- Final lifting of Wind Signal No. 3: 11:00 AM, 30 August 2023
- Final lifting of Wind Signal No. 2: 5:00 PM, 30 August 2023
- Final lifting of Wind Signal No. 1: 11:00 PM, 30 August 2023

#### Other Pertinent Information

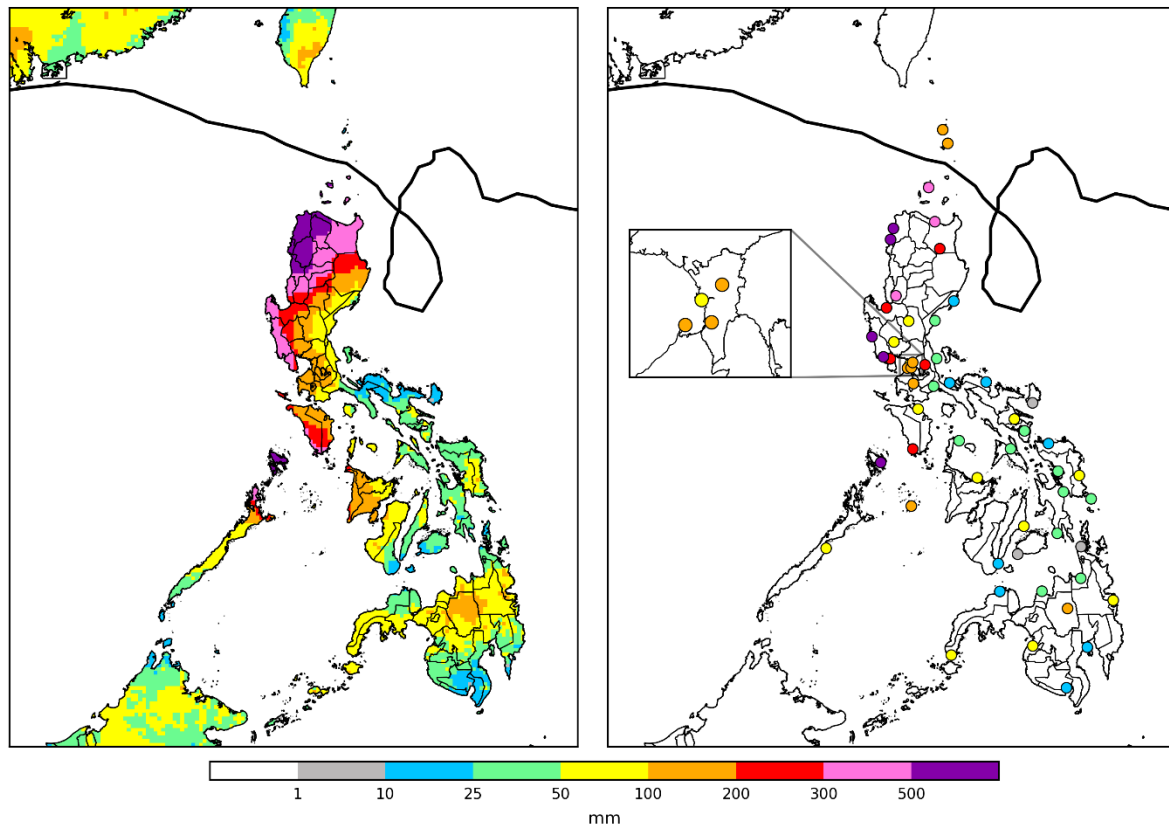
- The Southwest Monsoon was strongly enhanced during the occurrence of STY Goring, resulting in widespread rains over the western portions of Central Luzon, Southern Luzon, and Western Visayas.
- In its Situational Report No. 16, the National Disaster Risk Reduction and Management Council reported that GORING and the Southwest Monsoon enhanced by it, HANNA, and INENG, resulted in 7 casualties (2 dead, 3 injured, and 2 missing persons) and combined cost of damage to housing, infrastructure, and agriculture amounting to PHP 2,421,157,164.28
- The international name “SAOLA” (an animal recently found in Viet Nam) was contributed by the Vietnam Meteorological and Hydrological Administration.

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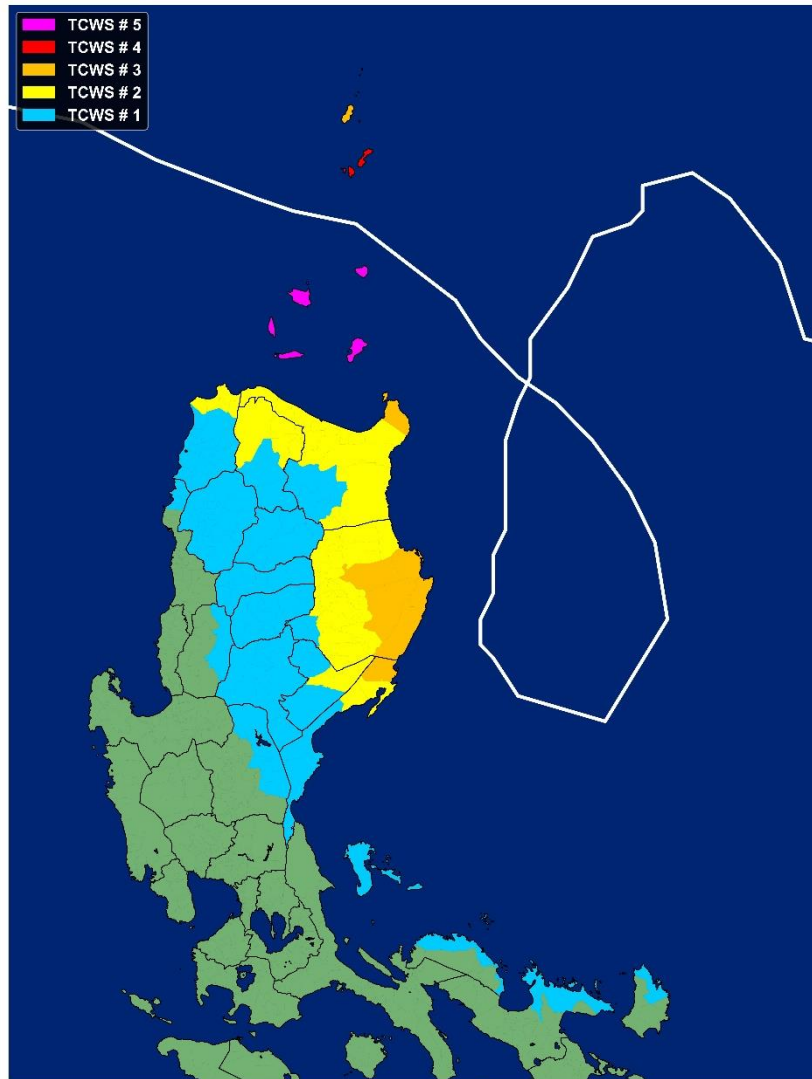
**Fig. 2.** Preliminary best track positions and intensities (as categories) of Super Typhoon GORING. Line color indicates the category of tropical cyclone. Shaded circles with date labels indicated 00 UTC positions while open circles indicate 12 UTC positions.

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**Fig. 3.** Nationwide satellite-derived estimates and corresponding gauge observations from PAGASA manned surface weather stations of accumulated rainfall for the period of 22 August to 30 August 2023.

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**Fig. 4.** Highest level and maximum extent of hoisted wind signals during the occurrence of Super Typhoon Goring. The preliminary best track of the tropical cyclone is shown as thick white line.

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