

Republic of the Philippines DEPARTMENT OF SCIENCE AND TECHNOLOGY Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) Marine Meteorological Services Section, Weather Division



TROPICAL CYCLONE PRELIMINARY REPORT Tropical Storm INENG (YUN-YEUNG)



Fig. 1. Himawari-9 AHI visible image of Tropical Storm INENG at 00 UTC on 06 September 2023. Imagery courtesy of National Institute of Information and Communications Technology (NICT), Japan.

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Date Published: 18 September 2023

Disclaimer: The information herein is based on publicly-issued bulletins, advisories, and warnings and the result of the near-real time (initial) best track analysis. As such, the information provided herein are considered preliminary only and will be replaced by the information that will become available once the Annual Report on Philippine Tropical Cyclones (2023 Edition) is published.

"The Weather and Climate Authority"

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Summary of Meteorological History

Based on PAGASA preliminary best track position and intensities

First tracked as a disturbance	0000 UTC, 04 September 2023 Over the Philippine Sea in the northeast region of the Philippine Area of Responsibility
Developed into a tropical cyclone	1200 UTC, 04 September 2023 Over the Philippine Sea in the northeast region of the Philippine Area of Responsibility
Weakened into a remnant low	0000 UTC, 09 September 2023 Over Suruga Bay near Shizuoka, Japan.
Peak intensity (lifetime ¹)	45 kt (85 km/h), 994 hPa, Tropical Storm 1200 UTC, 07 September 2023
Period of occurrence (lifetime)	4 days and 12 hours
Entered the PAR region	Not applicable
Exited the PAR region	2000 UTC, 05 September 2023
Peak intensity (within the PAR)	30 kt (55 km/h), 1000 hPa, Tropical Depression 0600 UTC, 05 September 2023
Period of occurrence (within the PAR)	1 day and 8 hours
Observed landfalls in the Philippines	None
Significant hydrometeorological hazard observed over the country	Heavy Rainfall
	Monsoon total rainfall > 100 mm over Zambales and Bataan.

Extremes of Surface Weather Observations during Tropical Cyclone Days²

Based on reports from PAGASA manned surface weather stations

Highest storm duration (04 September to 05 September 2023) rainfall over land:

- Iba, Zambales: 232.4 mm •
- Subic Bay International Airport, Subic Bay: 106.5 mm
- Calayan, Cagayan: 83.1 mm •

Highest 24-hour rainfall over land:

- Iba, Zambales: 139.4 mm, 04 September 2023
- Calayan, Cagayan: 83.1 mm, 05 September 2023
- Subic Bay International Airport, Subic Bay: 72.5 mm, 04 September 2023 •

¹ 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.

² Also called "storm duration", it refers to the meteorological days of occurrence of the tropical cyclone within the PAR region.

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Summary of Tropical Cyclone Product Issuances

Public and Marine Tropical Cyclone Products

- **Tropical Cyclone Updates:**
 - First issuance: 4:00 AM, 05 September 2023 0
 - Last issuance: 4:00 PM, 06 September 2023 0
 - Total issued: 4 0
- Tropical Cyclone Advisories: None
- **Tropical Cyclone Bulletins:**
 - First issuance: 5:00 AM, 05 September 2023 0
 - Last issuance: 5:00 AM, 06 September 2023 0
 - 0 Total issued: 5
 - Tropical Cyclone Warnings for Shipping:
 - First issuance: 5:00 AM, 05 September 2023 0
 - Last issuance: 5:00 AM, 06 September 2023 0
 - 0 Total issued: 5

Tropical Cyclone Wind Signals: None hoisted

Other Pertinent Information

- The Southwest Monsoon was on a weakening trend during the occurrence of INENG (despite it slightly enhancing the monsoon) following the weakening and degeneration of Typhoon HANNA over mainland China. Occasional rains due to the monsoon during the period of occurrence of INENG was fairly limited to the Zambales-Bataan area.
- No direct impacts were attributed to INENG due to its sheer distance from the country and the Southwest Monsoon was already in its weakening phase for INENG to have an indirect impact during its period of occurrence within the PAR region.
- The international name "YUN-YEUNG" (meaning: duck species Aix galericulata, also the vernacular name of a popular drink in Hong Kong prepared by mixing tea with coffee) was contributed by the Hong Kong Observatory.

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Fig. 2. Preliminary best track positions and intensities (as categories) of Tropical Storm INENG. 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 04 September to 05 September 2023. The preliminary best track of the tropical cyclone is outside the geographic extent of this figure.

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