



Empowering Climate-Smart Businesses and Communities



DISCUSSION POINTS

- Weather
 - Weather and Climate
 - Weather Systems
- Tropical Cyclone
 - Climatology
 - Movement
 - Naming
 - Impact
- Komunidad Systems
 - Daily Weather Update
 - SMS/Viber Alerts
 - 6 Hour Rain Forecast
 - Lightning
 - Thunderstorm

WEATHER & CLIMATE

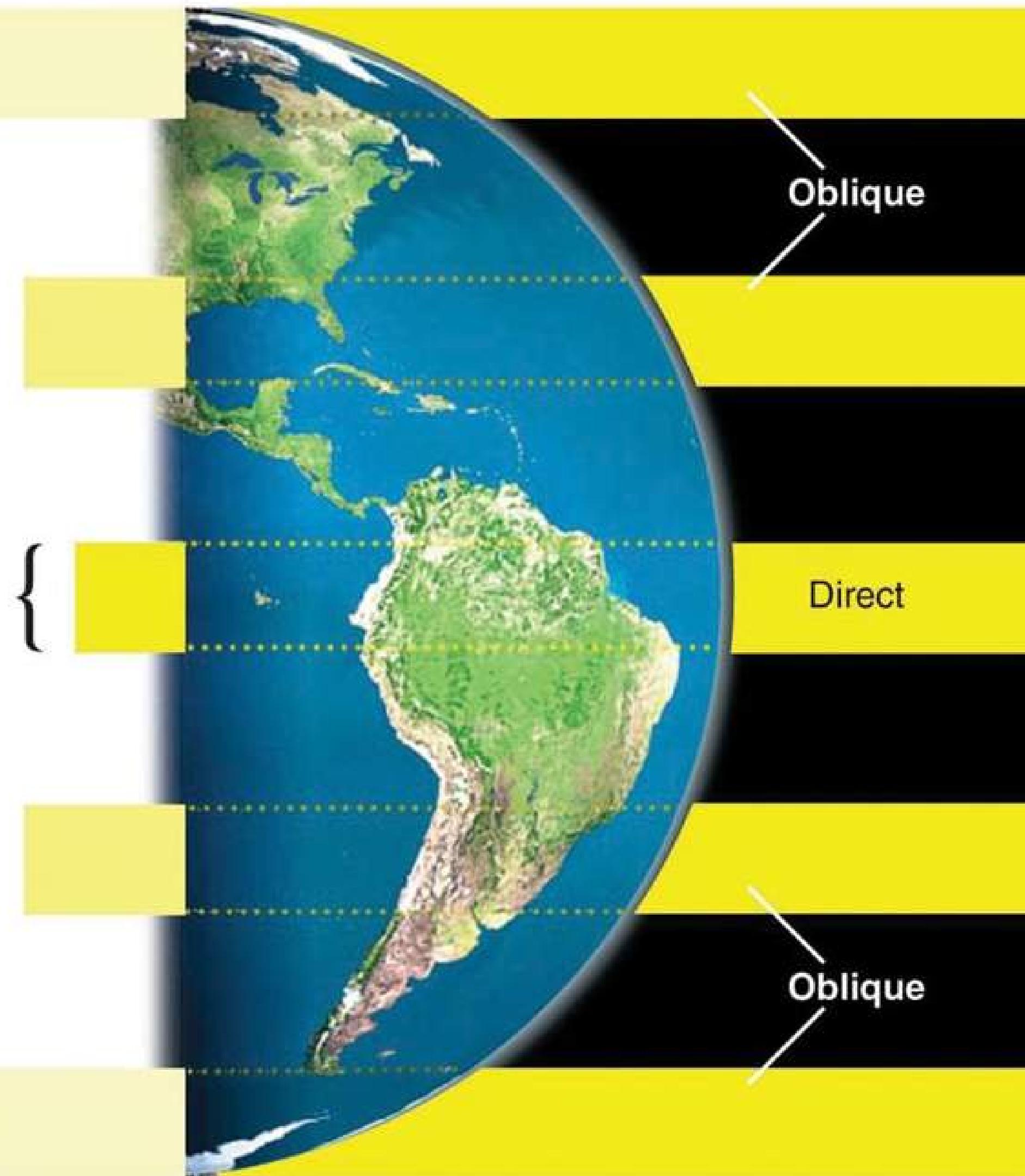
**WHY DO WE HAVE
WEATHER & CLIMATE?**

More
diffuse,
larger area
covered

Annually
2.5 times
more energy
than poles

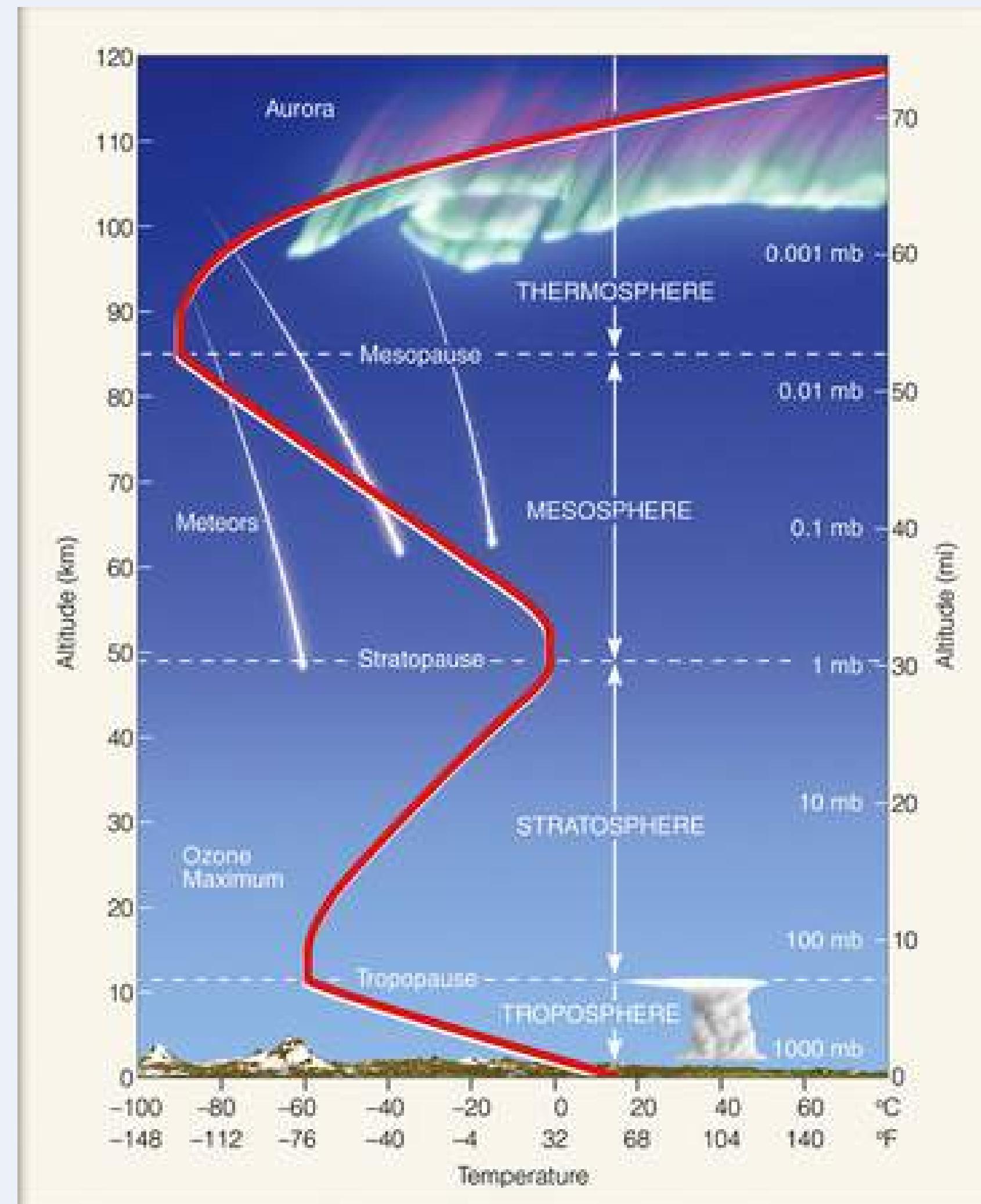
More
concentrated,
smaller area
covered

More
diffuse

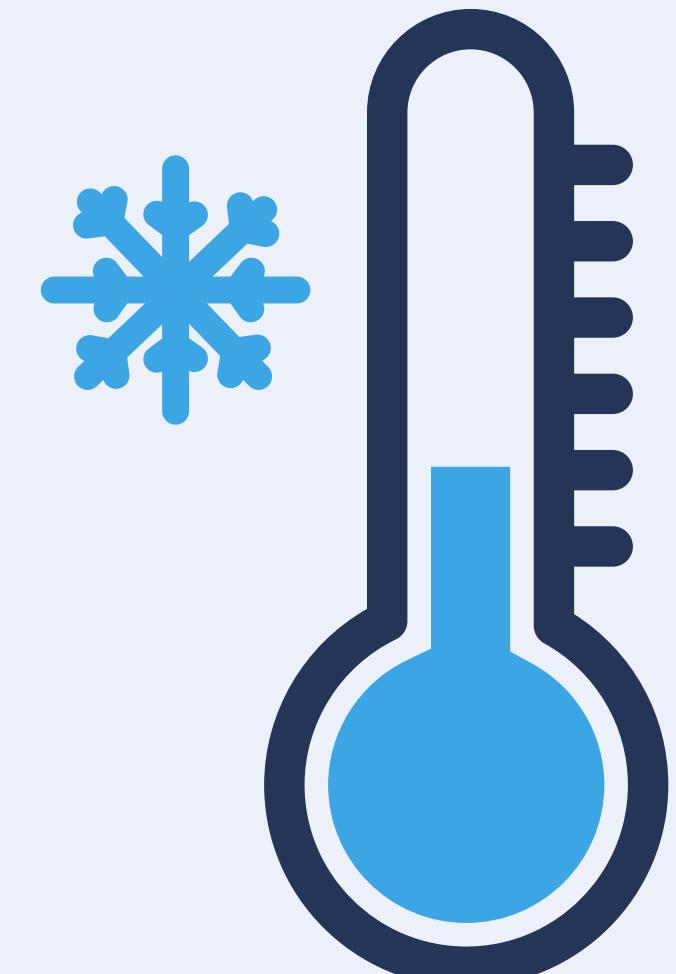
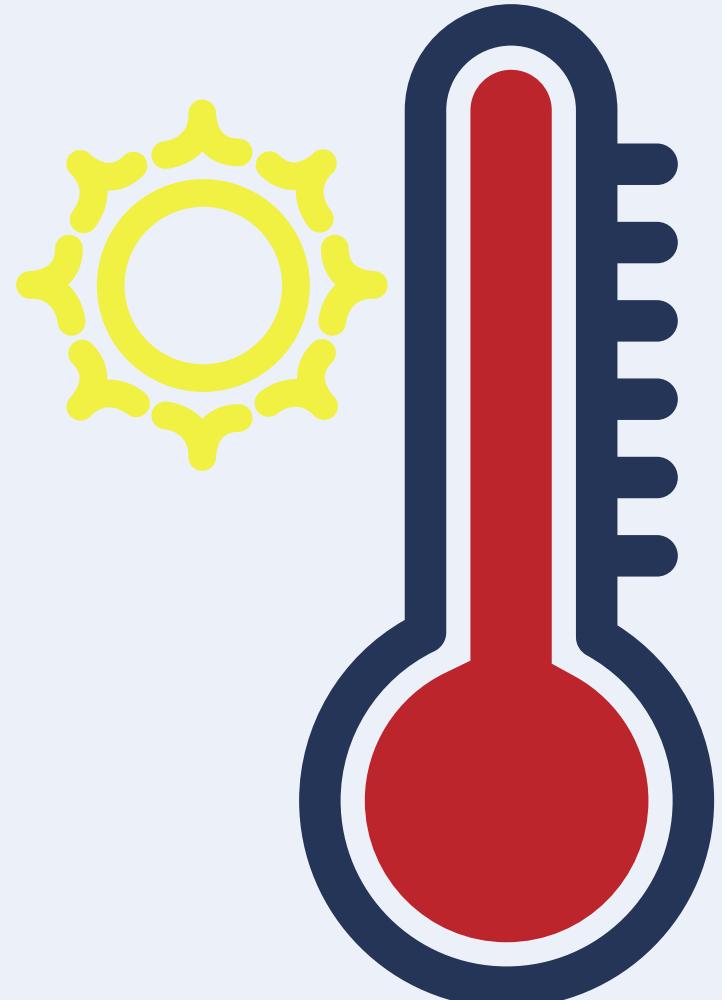


The primary cause of different weather and climate throughout the globe is the difference in amount of incoming solar radiation (insolation) it receives.

Why do we care so much about the Troposphere?



TEMPERATURE(C)



- Ideas of “hot” and “cold” based on our sense of touch.
- Measured through method of the use of alcohol or mercury thermometer.
- Decreases at a rate of $6.5^{\circ}\text{C}/\text{km}$ (ELR) (troposphere).

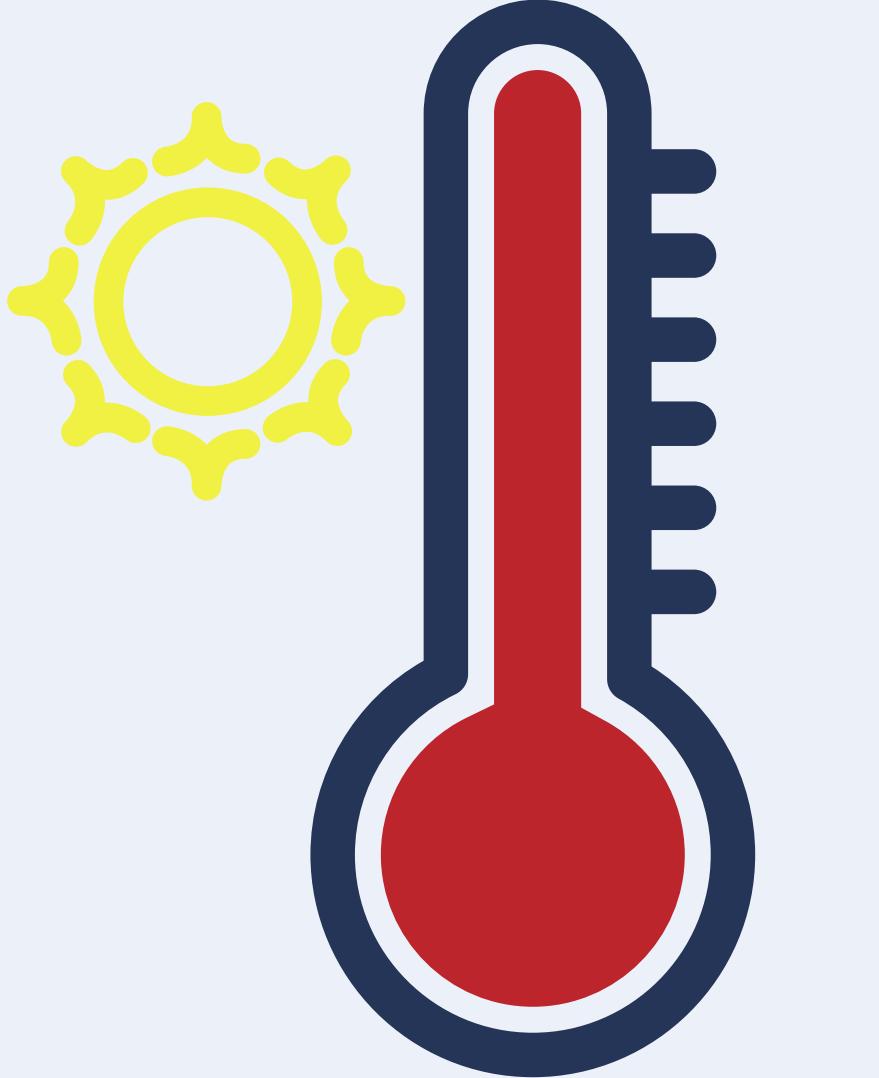
RELATIVE HUMIDITY(%)

- Percentage of moisture in the air.
- Smaller the difference from the dew point and temperature will yield to high RH.
- Uncomfortable feeling ($\geq 85\%$)



HEAT INDEX(C)

- Combination of temperature and relative humidity.
- Actual temperature experienced by a human body.
- Unit is same with temperature.
- Also known in the PH as "init factor" or "real feel".



		temperature (°C)																	
		27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	
Relative Humidity (%)	40	27	28	29	30	31	32	34	35	37	39	41	43	46	48	51	54	57	
	45	27	28	29	30	32	33	35	37	39	41	43	46	49	51	54	57		
	50	27	28	30	31	33	34	36	38	41	43	46	49	52	55	58			
	55	28	29	30	32	34	36	38	40	43	46	48	52	55	59				
	60	28	29	31	33	35	37	40	42	45	48	51	55	59					
	65	28	30	32	34	36	39	41	44	48	51	55	59						
	70	29	31	33	35	38	40	43	47	50	54	58							
	75	29	31	34	36	39	42	46	49	53	58								
	80	30	32	35	38	41	44	48	52	57									
	85	30	33	36	39	43	47	51	55										
	90	31	34	37	41	45	49	54											
	95	31	35	38	42	47	51	57											
	100	32	36	40	44	49	54												

**With Prolonged Exposure
and/or Physical Activity**

Extreme Danger

Heat stroke or sunstroke
highly likely

Danger

Sunstroke, muscle cramps,
and/or heat exhaustion likely

Extreme Caution

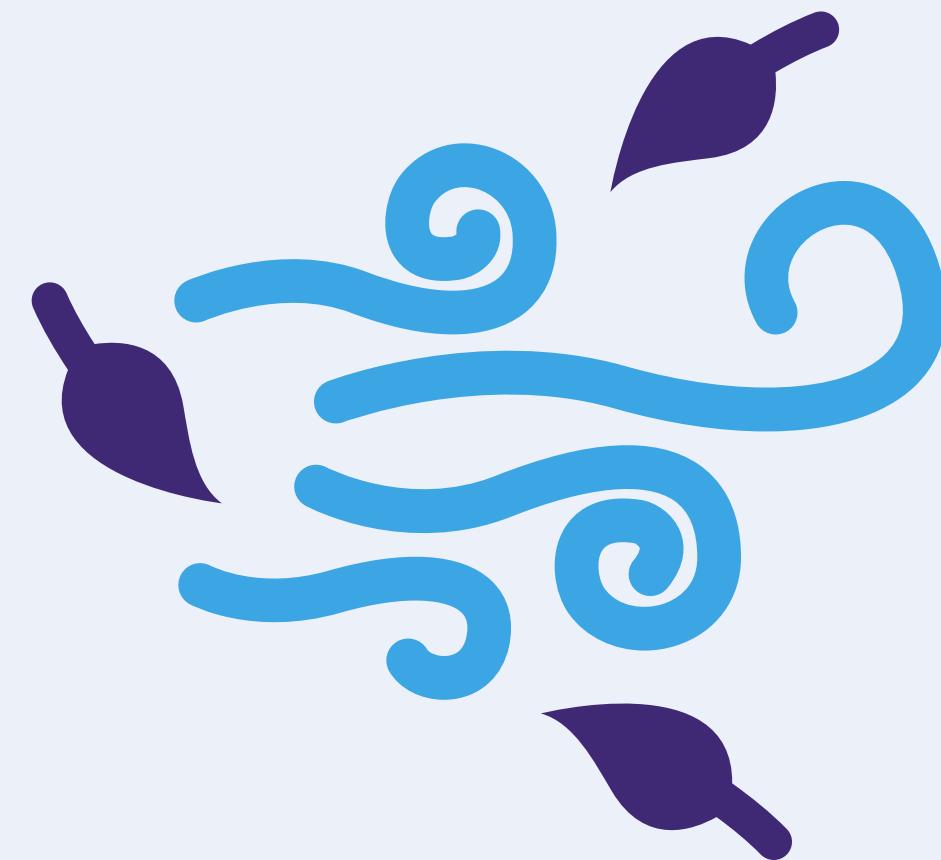
Sunstroke, muscle cramps,
and/or heat exhaustion possible

Caution

Fatigue possible

WIND SPEED & DIRECTION

- Indicates the location and speed to which the **wind is coming from**.
- Used for indicating the destructive force of TCs, height of waves, and strength of storm surges.
- Northeasterly and Northeastward winds
- The stronger the winds, the stronger the rain, and higher waves.



Example Wind Barb

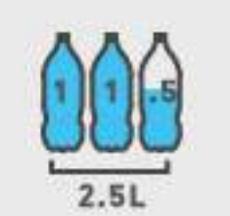


RAINFALL/PRECIPITATION

- Amount of precipitated water over a certain location.
- In rain gauges < 0.5 mm/hr rainfall is trace yet > or equal to 0.5 mm is rain.
- In tipping bucket, < 0.5 mm no rain/trace.

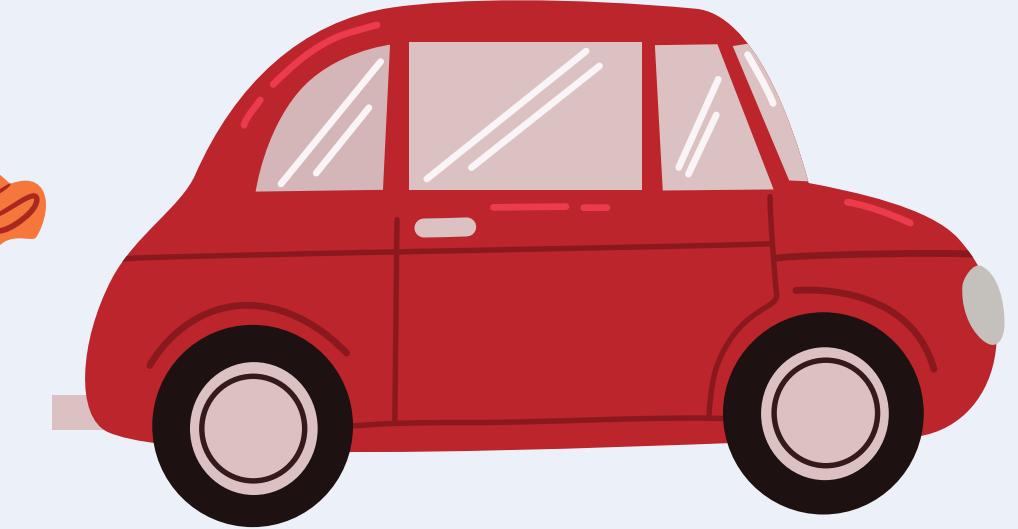
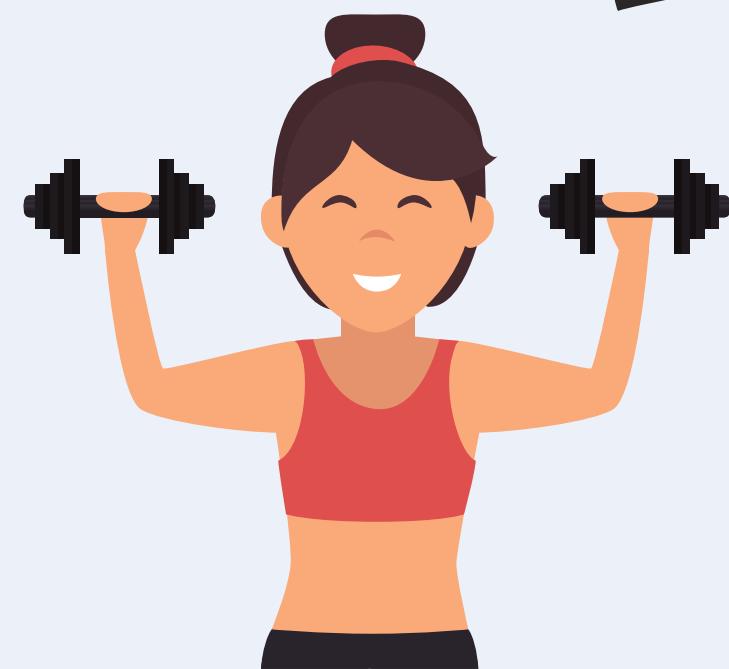


RAINFALL ADVISORIES, CLASSIFICATION, AND MEASUREMENT

COLOR-CODED RAINFALL ADVISORIES AND CLASSIFICATION	RAIN MEASUREMENT	FLOOD POSSIBILITY	RESPONSE
RED RAINFALL ADVISORY 	TORRENTIAL  MORE THAN 30mm RAIN observed in 1 hour and expected to continue in the next 2 hours =  5GL + 3GL 8 gallons per square meter/hour	Serious Flooding expected in low lying areas	EVACUATION
ORANGE RAINFALL ADVISORY 	INTENSE  15-30mm RAIN observed in 1 hour and expected to continue in the next 2 hours =  4GL 4 to 8 gallons per square meter/hour	Flooding is threatening	ALERT for possible evacuation
YELLOW RAINFALL ADVISORY 	HEAVY  7.5-15mm RAIN observed in 1 hour and expected to continue in the next 2 hours =  2GL 2 gallons per square meter/hour	Flooding is possible	MONITOR the weather condition
MODERATE 	2.5 - 7.5mm RAIN observed in 1 hour and expected to continue in the next 2 hours =  1L + 1L + .5L 2.5 liters per square meter/hour to 7.5 liters per square meter/hour	(Flooding still possible in certain areas)	
LIGHT 	LESS THAN 2.5 mm RAIN observed in 1 hour and expected to continue in the next 2 hours =  up to 1L + 1L + .5L 2.5 liters per square meter/hour		

EFFECTS OF WEATHER

- Laundry
- Style
- Fitness
- Transportation
- Travel
- Risk Assessment



CLIMATE

- The condition of the atmosphere at a particular place over a long period of time (> 10 years).
- The country has only two defined seasons; (i) wet season & (ii) dry season.
- Dry season is divided into; (i) cool dry season (December to February & (ii) hot dry season (March to May) (Not summer!!)



IMPORTANCE OF CLIMATE



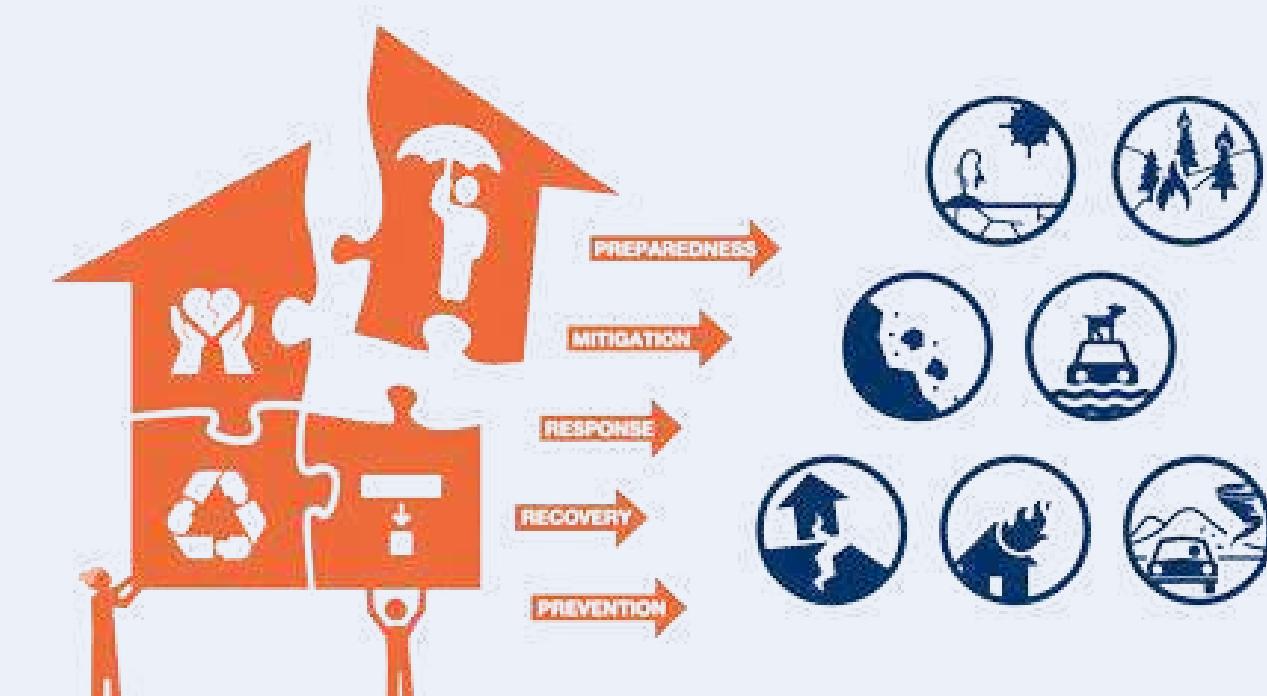
Finite Resource Planning



Business Development



Crop Planting

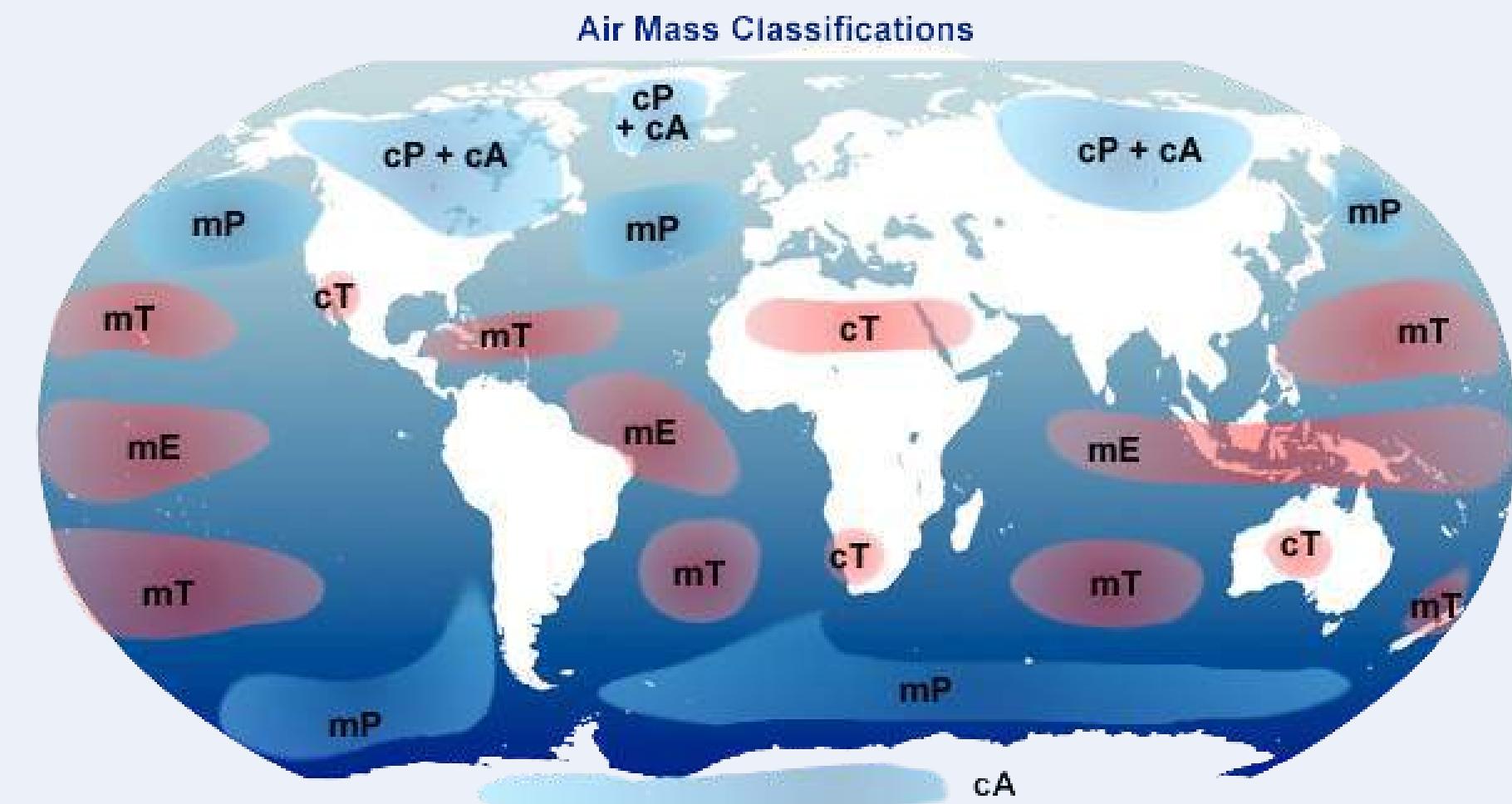
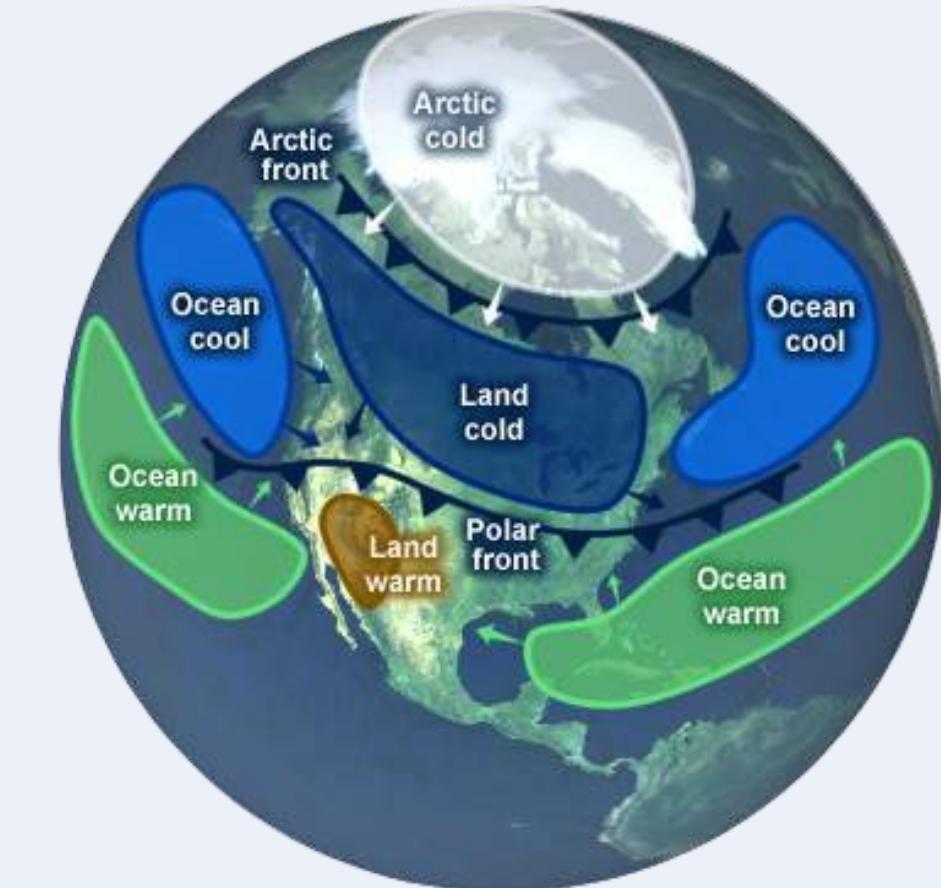


Risk Reduction

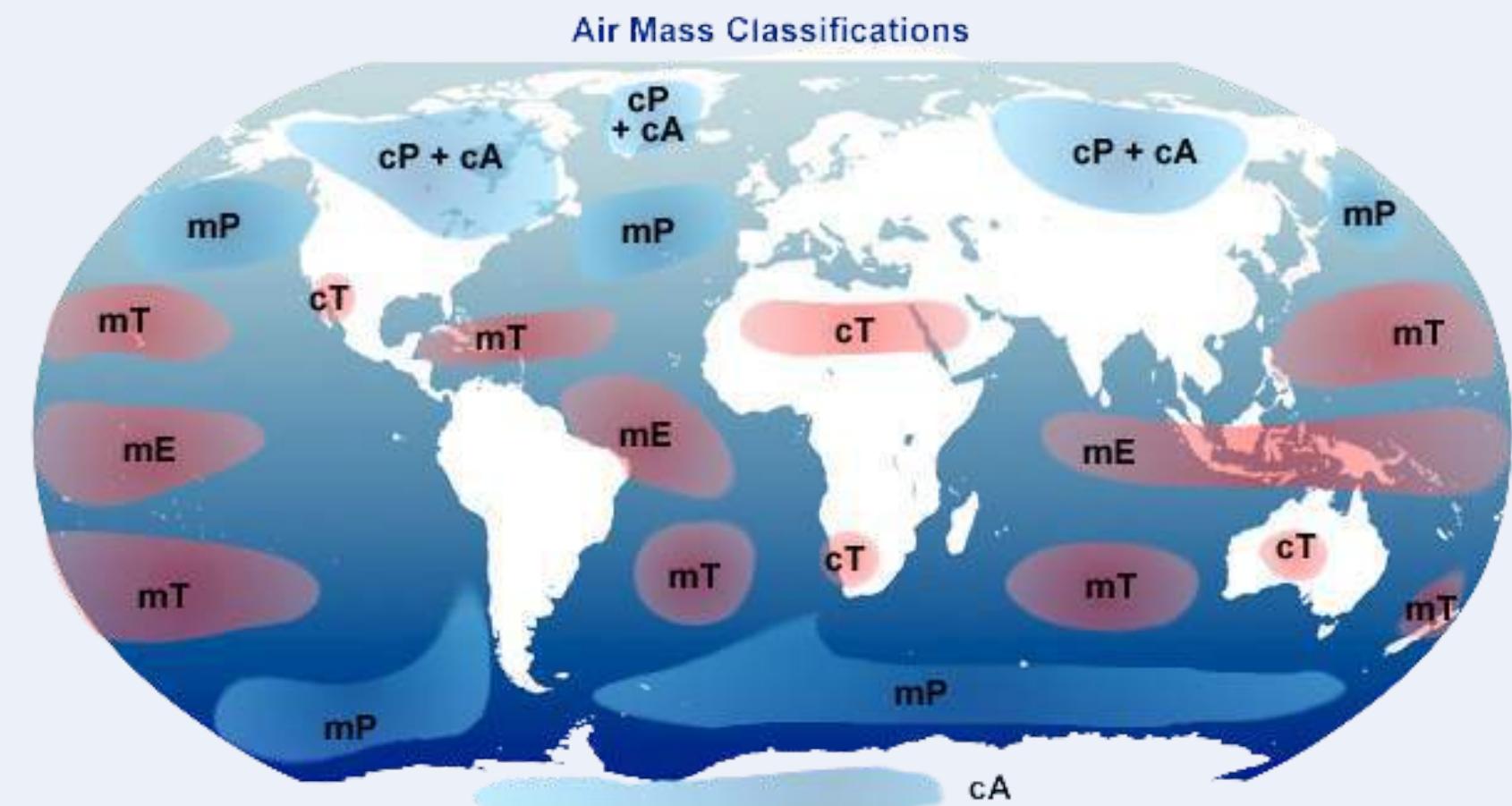
WEATHER SYSTEMS

AIR MASSES

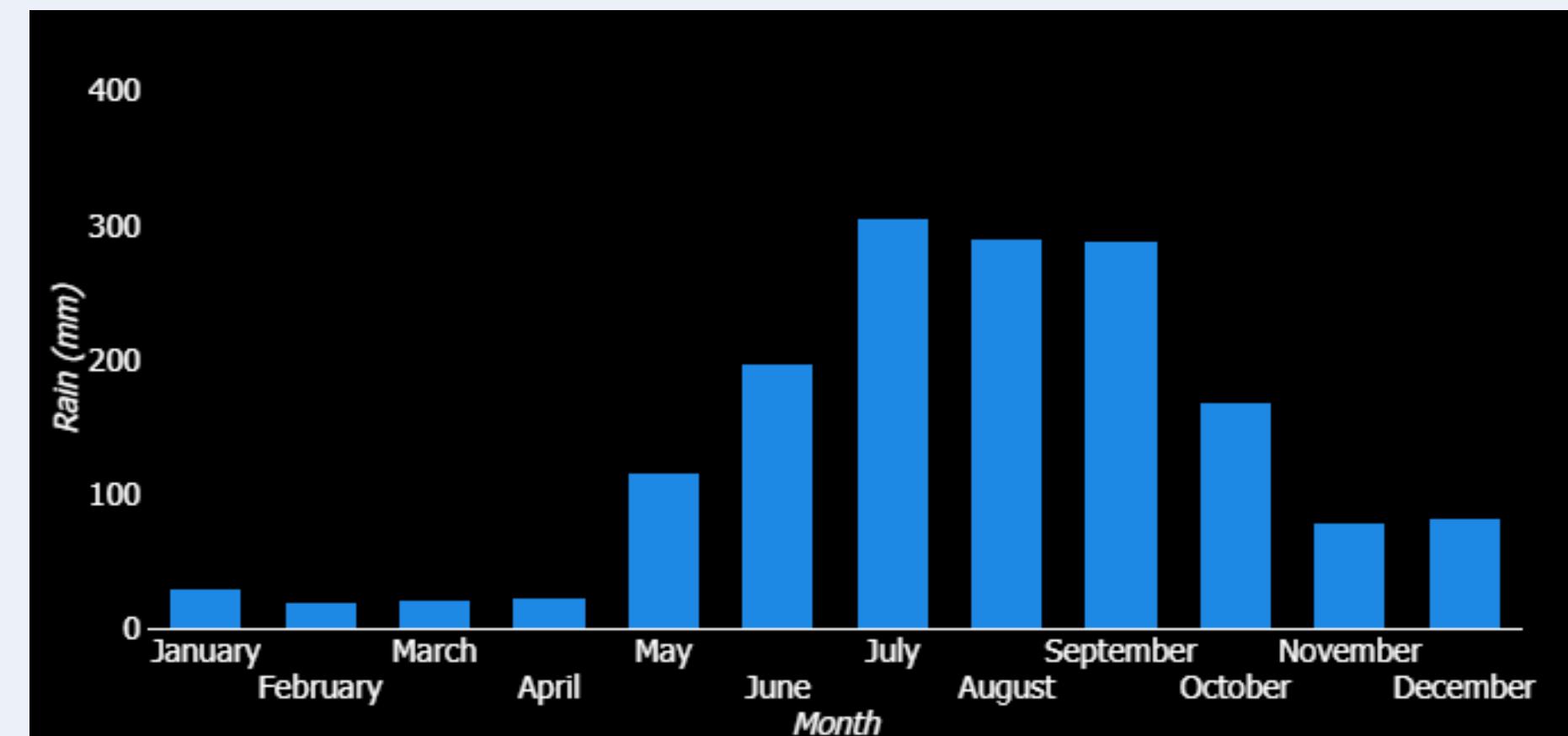
- Possesses different combinations of humidity and temperature.
- Can be classified based on humidity (maritime & continental) or based on temperature (equatorial, tropical, polar, & arctic)



- During Habagat, a maritime Equatorial (mE) air mass brings warm and moist conditions to the country.
- On the other hand, during Amihan, a continental Polar air mass (cP) brings cold and dry conditions to the country.

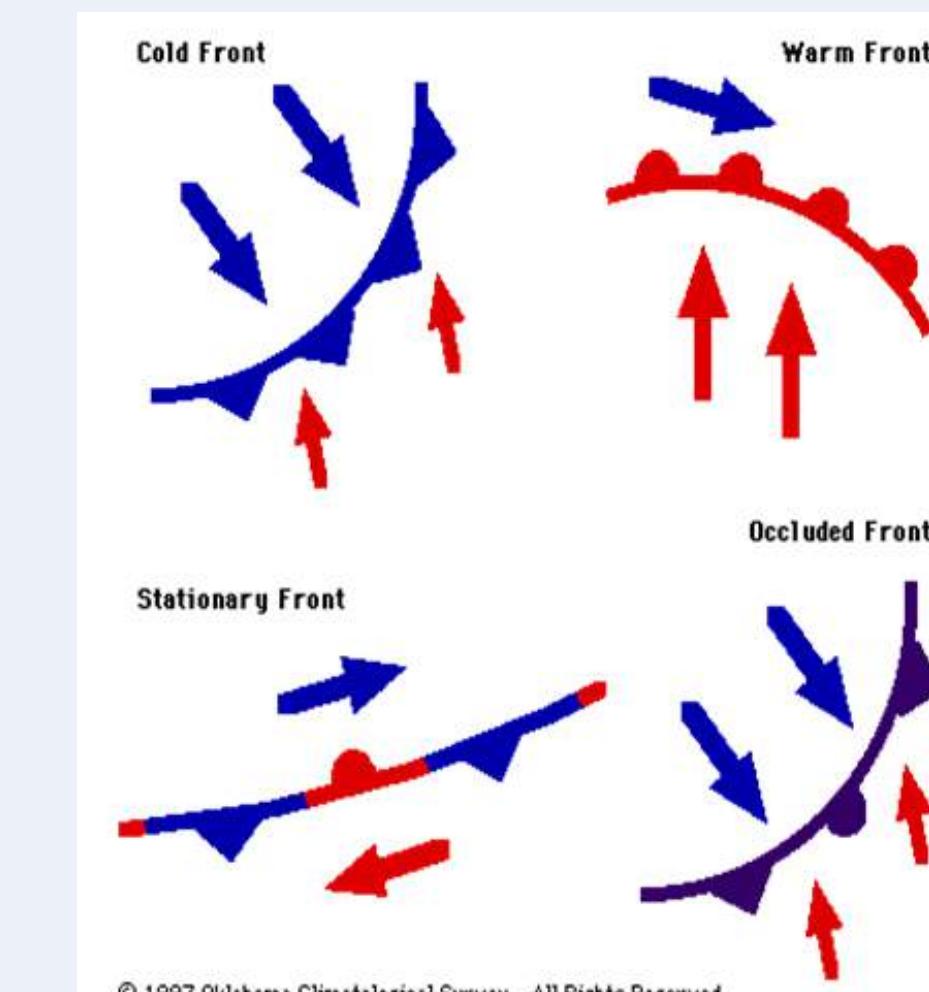
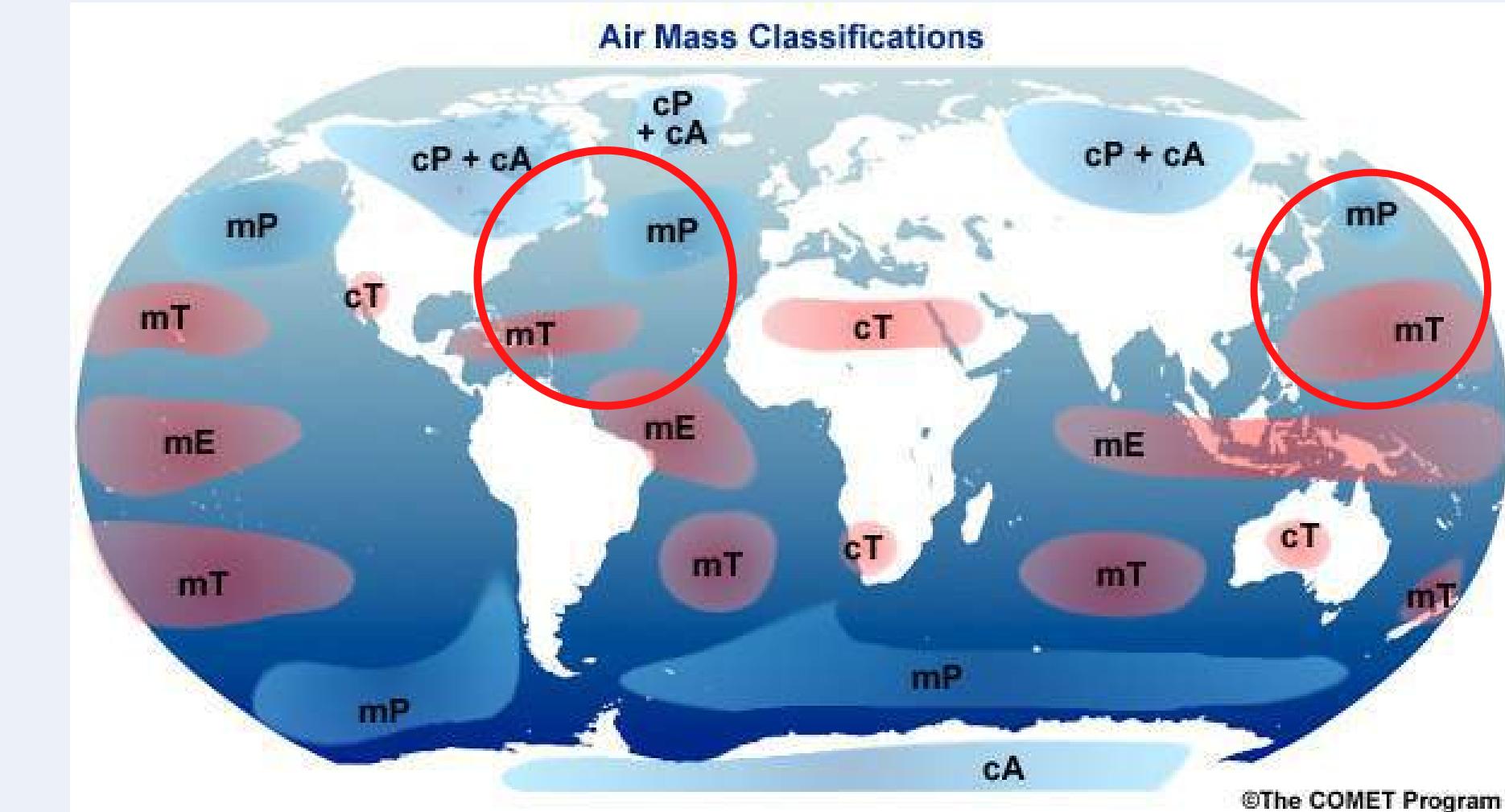


©The COMET P



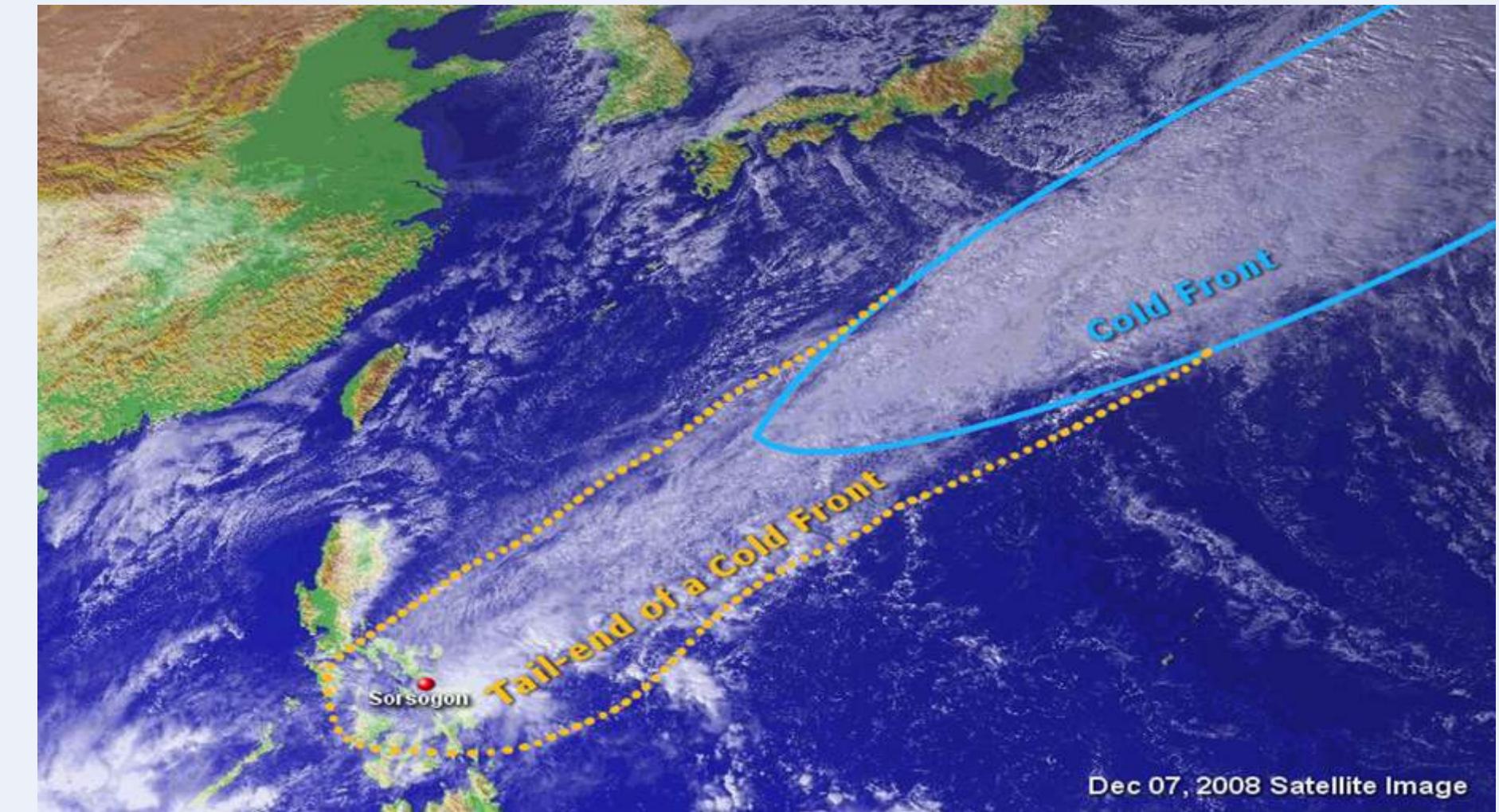
FRONTS

- Boundary between two air masses that has different characteristics.
- There are different types of fronts
 - Cold Front
 - Warm Front
 - Stationary Front
 - Occluded Front



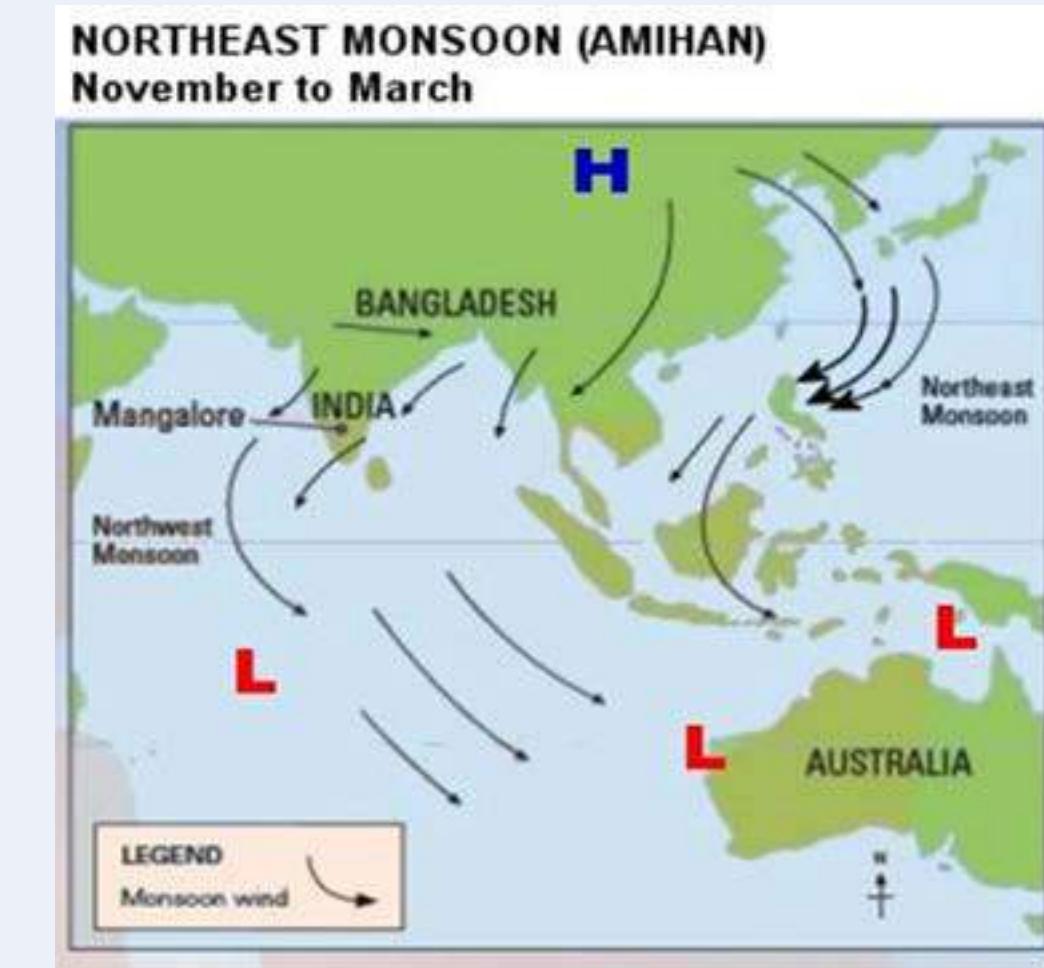
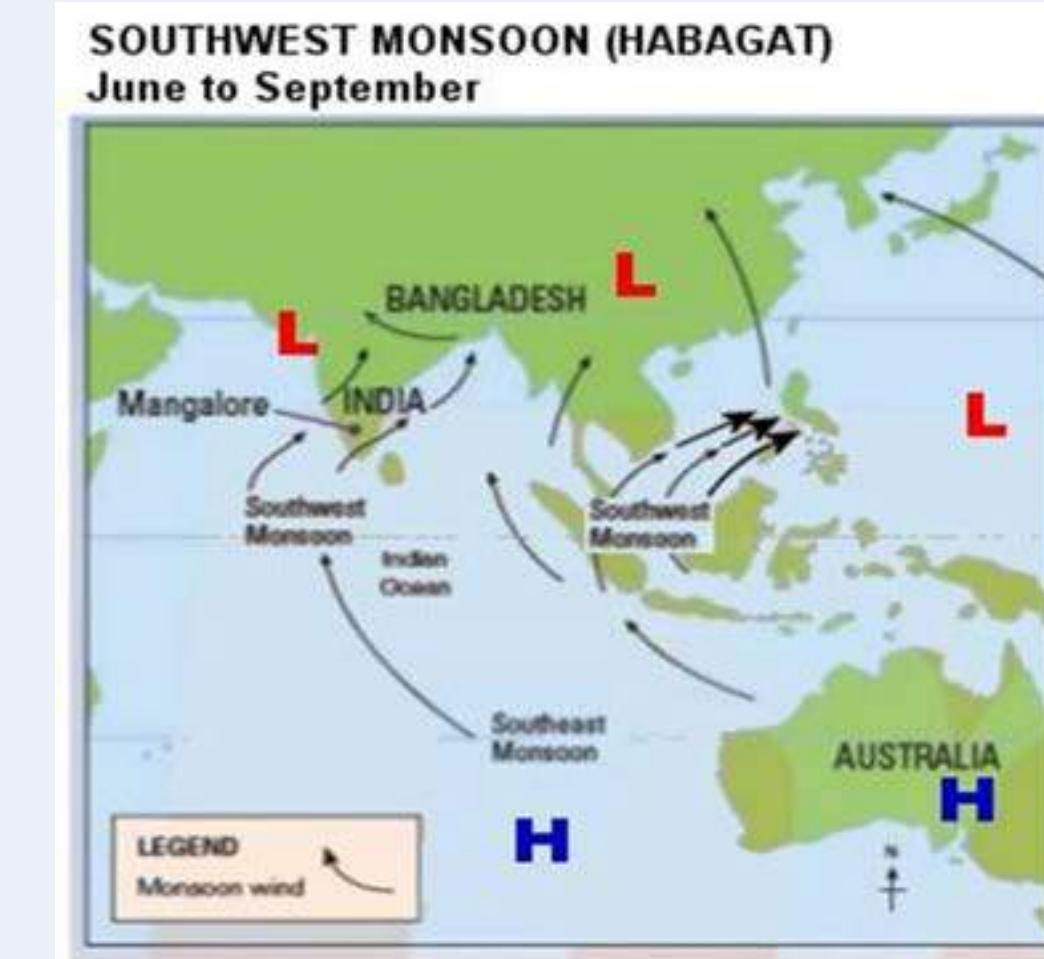
EFFECT OF FRONTAL SYSTEM

- The country is only affected by the tail-end of a cold front.
- A southern extent of a passing cold front over Taiwan or Japan
- Brings cool northeasterly winds with precipitation across eastern Philippines



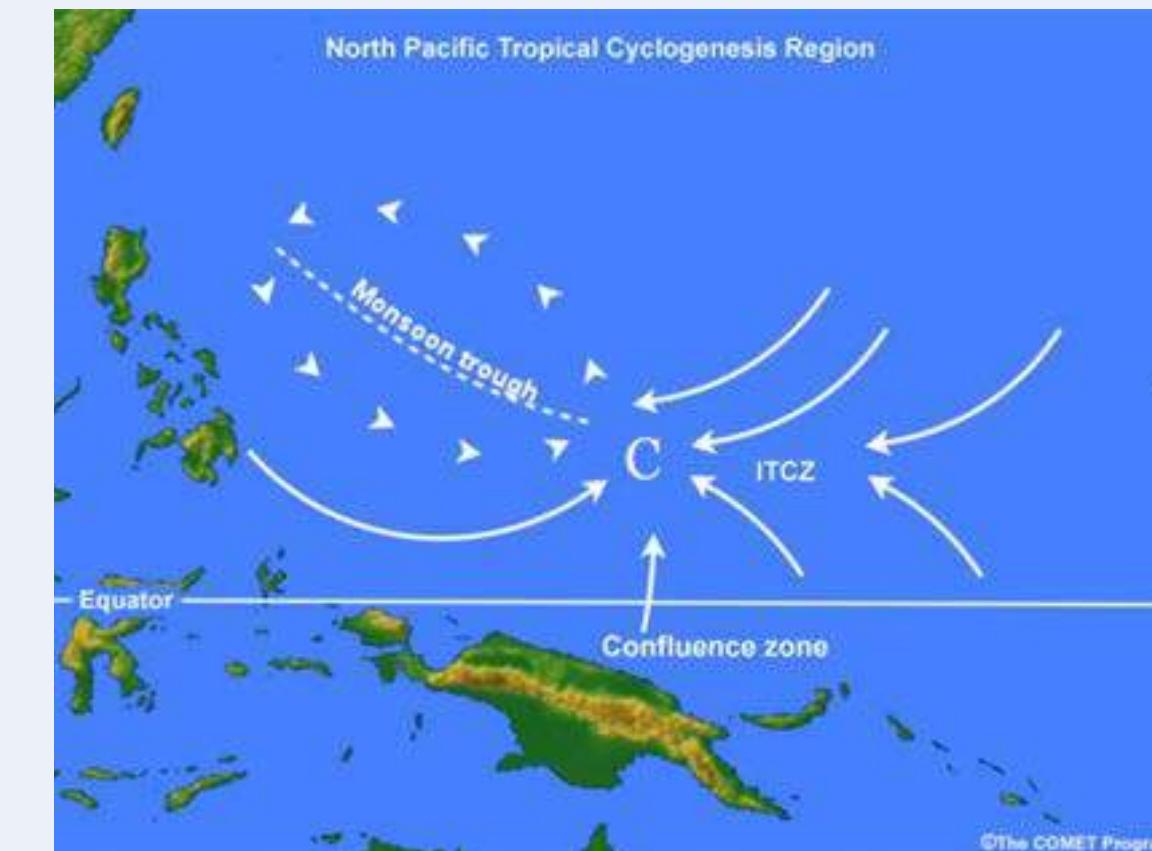
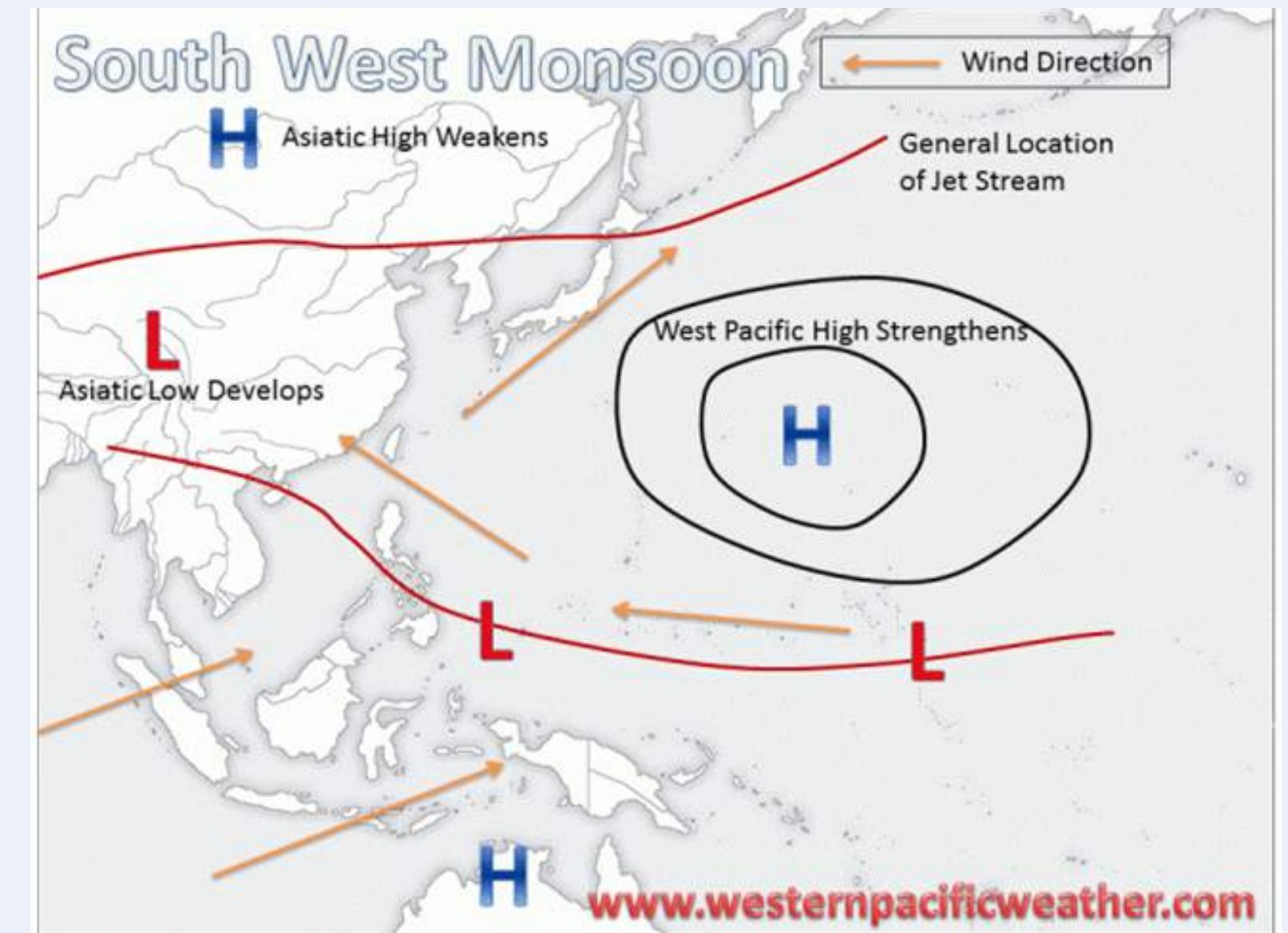
MONSOONS

- Monssoen (Dutch) which means ‘time of year’.
- Refers to prevailing wind shifts of about 120° between January and July.
- Important because most of the worlds population relies on monsoon as irrigation for their crops.



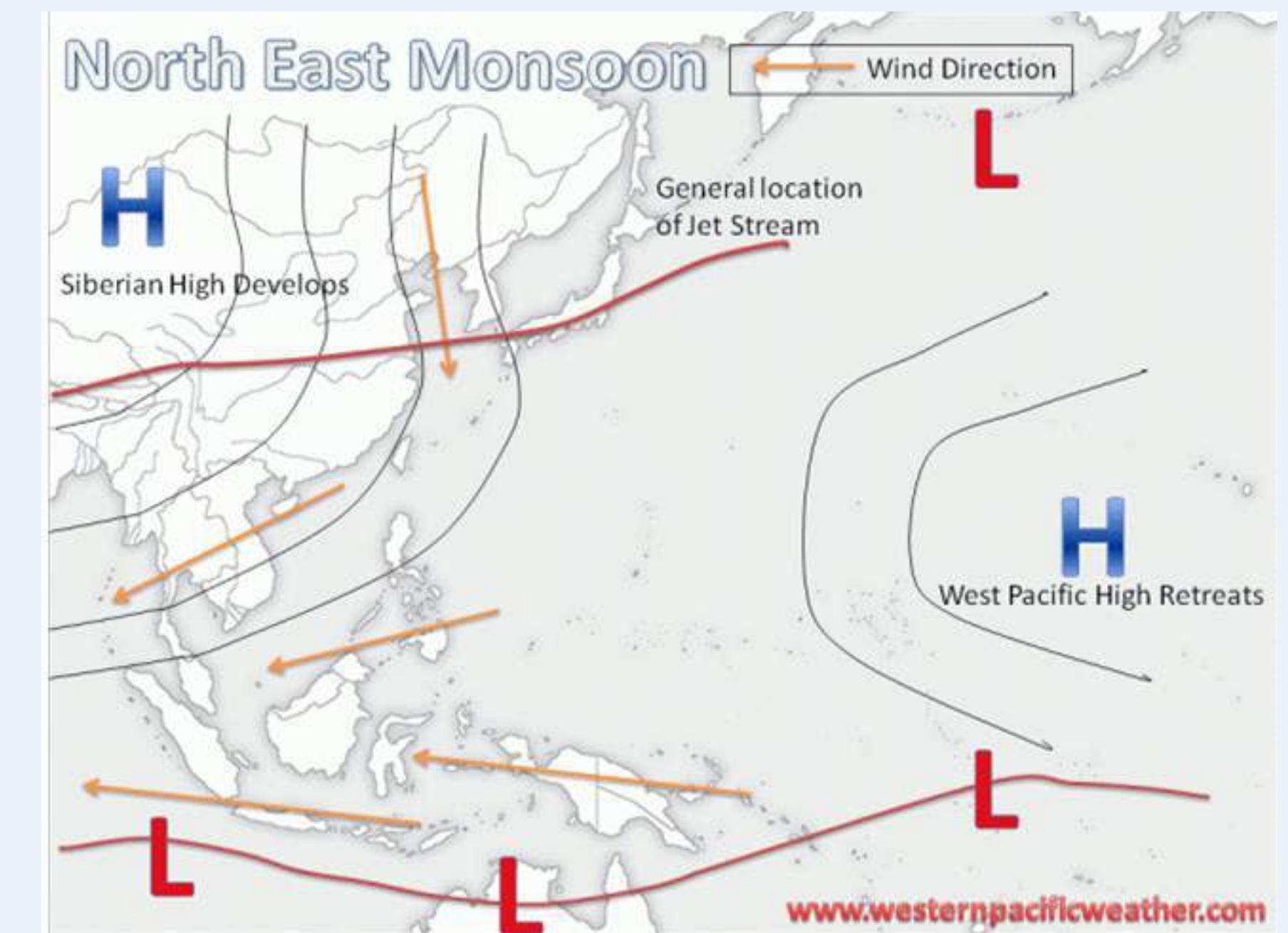
SW MONSOON

- Locally known as "HABAGAT"
- Wind is coming from the SW.
- Occurs during June to September.
- Brings warm and moist air from maritime Equatorial (mE) air mass.
- Perfect ingredient to produce thunderstorms and tropical cyclones (TCs).



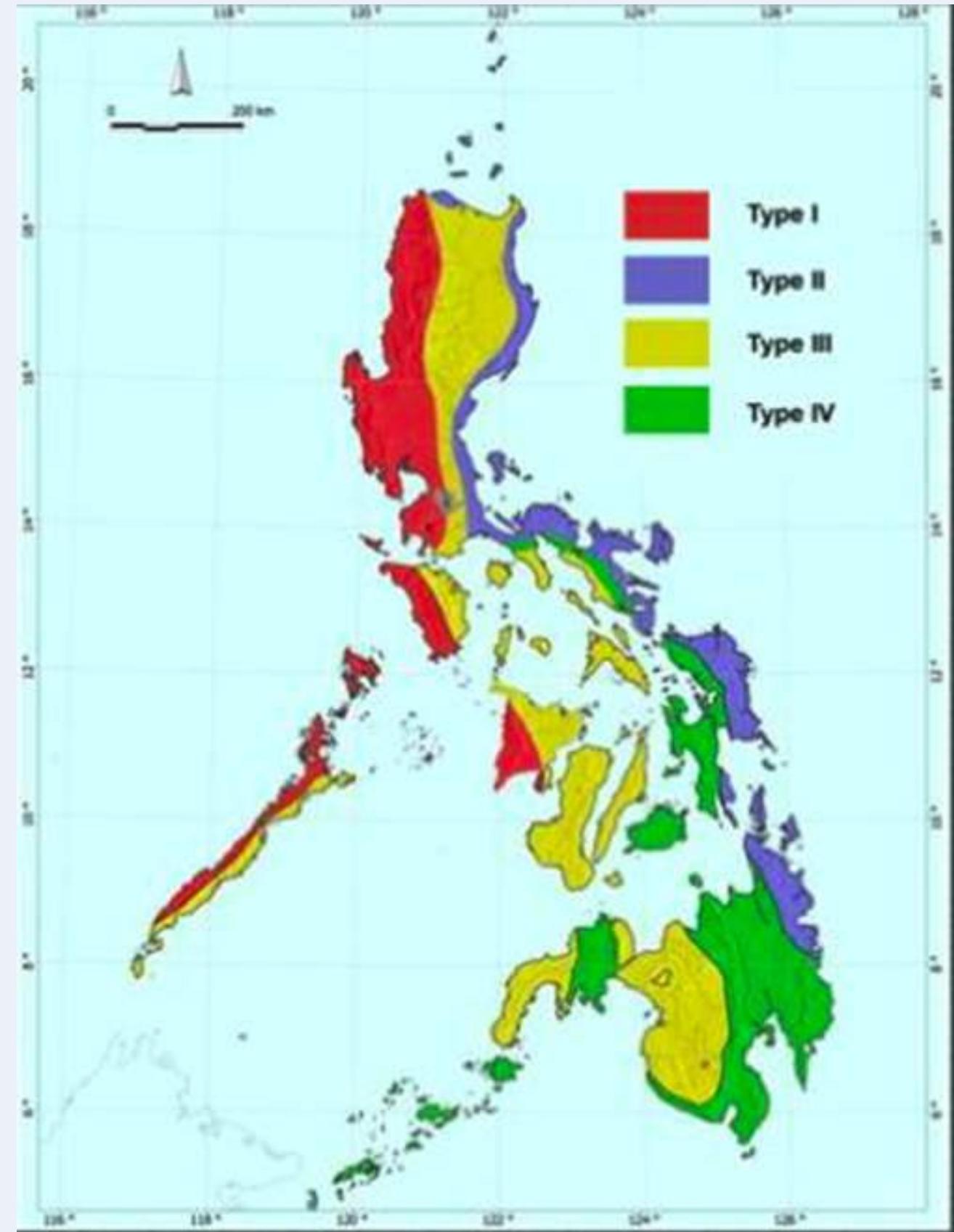
NE MONSOON

- Locally known as "AMIHAN"
- Wind is coming from the NE.
- Occurs during November to March.
- Brings cold and dry air from continental Polar (cP) air mass.
- brings rain over the eastern part of the country.



MODIFIED CORONA CLASIFICATION

- Created by Father J. Corona in 1921.
- Based on the average monthly rainfall of a certain area.
- Has four climate types:
 - Type 1: Maximum rain during Jun to Sep
 - Type 2: Maximum rain during Dec to Feb
 - Type 3: No pronounced maximum rain period
 - Type 4: Rainfall is distributed evenly throughout the year.

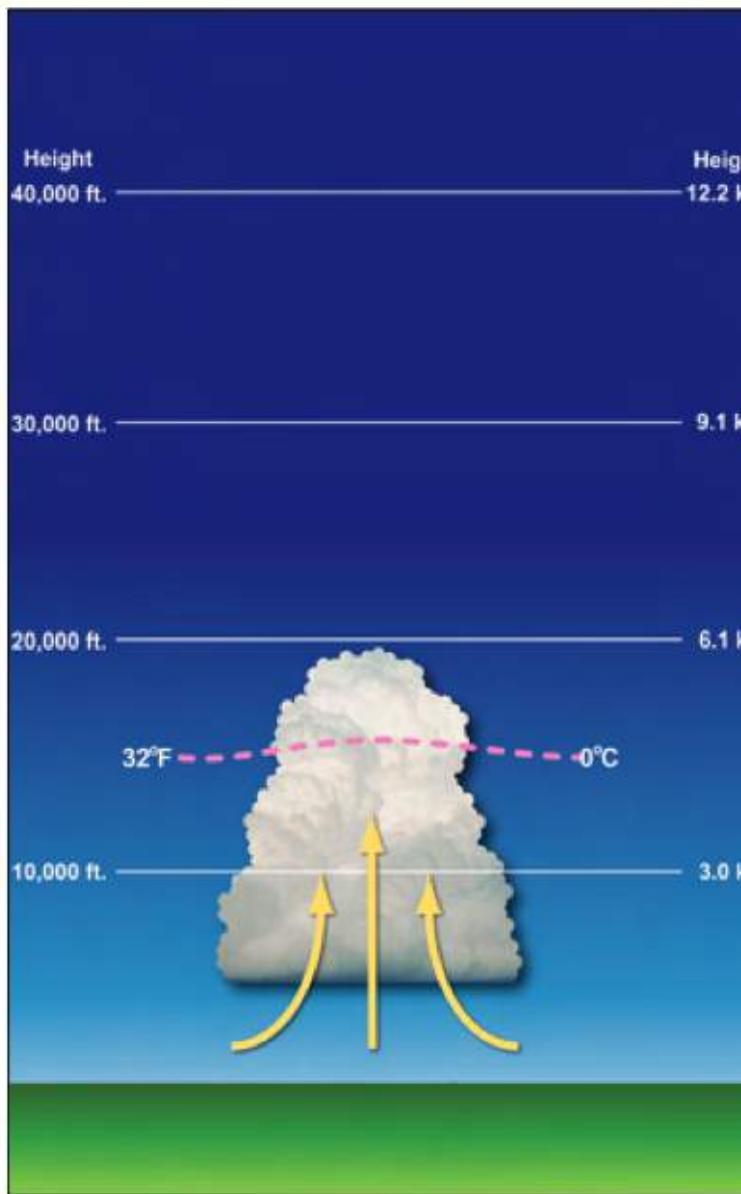


THUNDERSTORMS

- Type of weather condition derived from a matured vertical cloud known as **cumulonimbus**.
- Can be formed and dissipate in ≤ 30 minutes.
- Deadly since it is unpredictable.

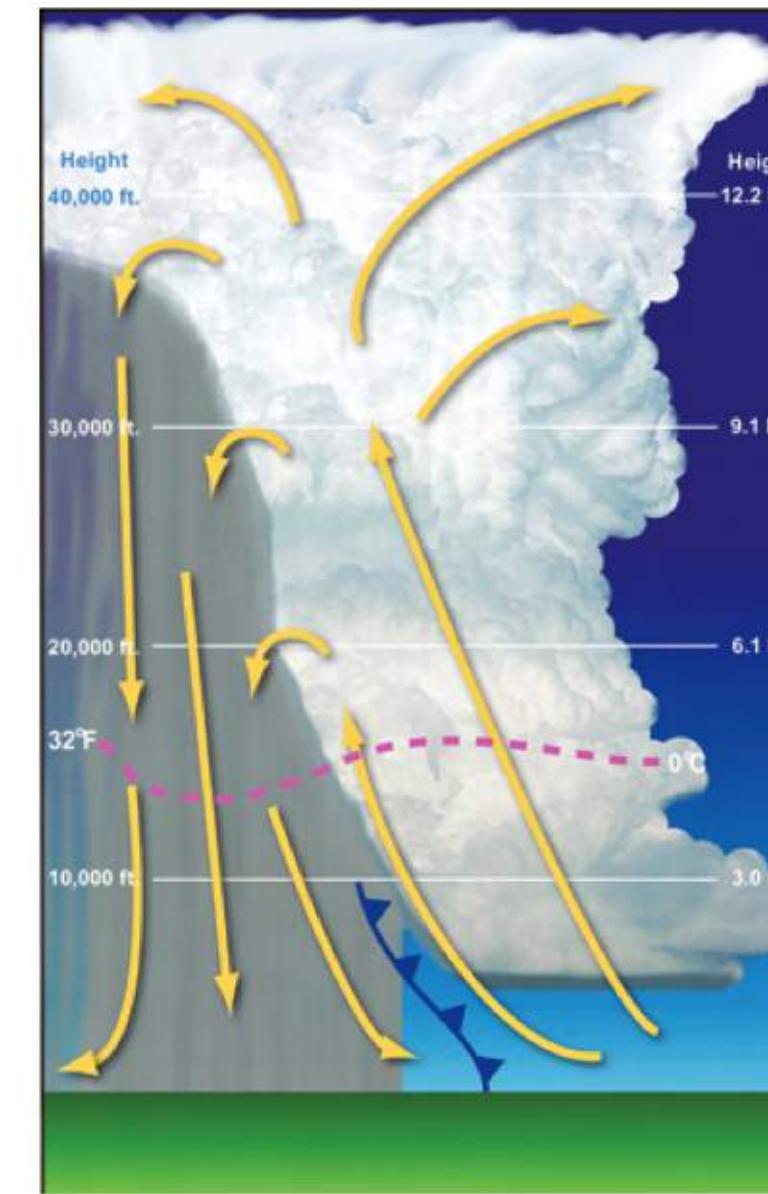


The Thunderstorm Life Cycle



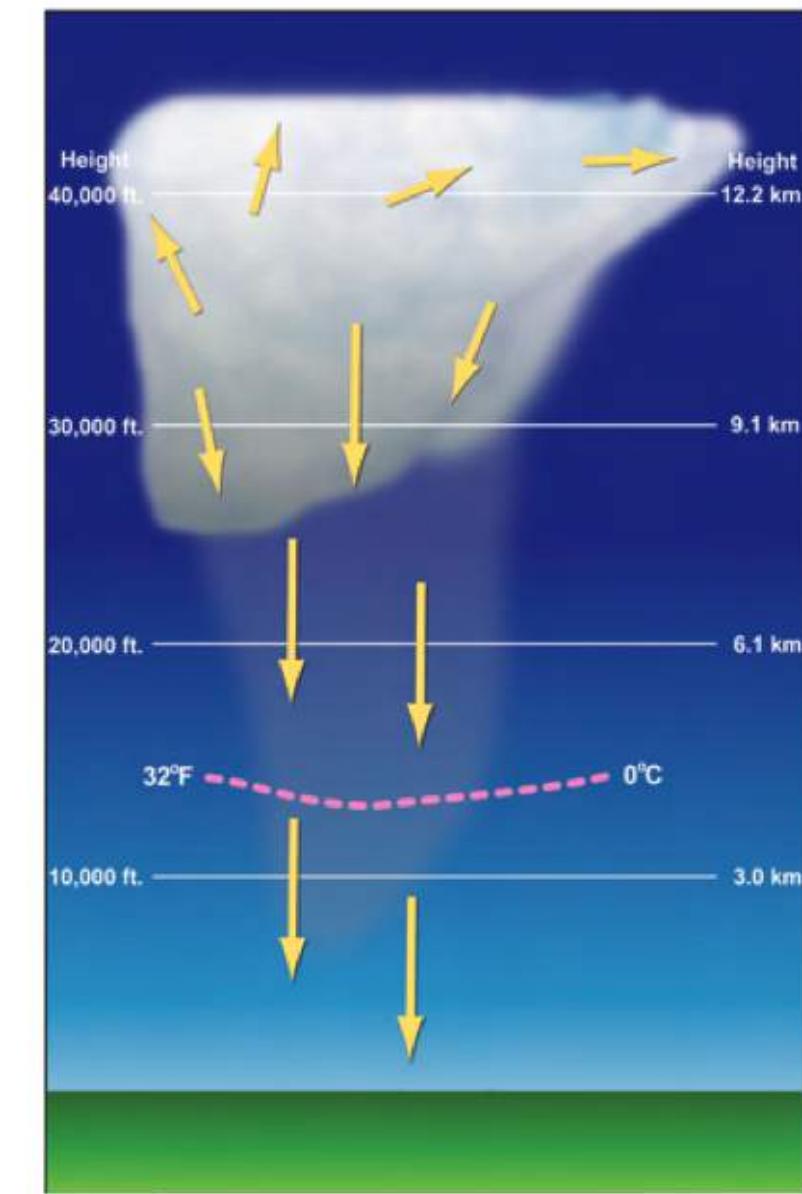
Developing Stage

- Towering cumulus cloud indicates rising air
- Usually little if any rain during this stage
- Lasts about 10 minutes
- Occasional lightning



Mature Stage

- Most likely time for hail, heavy rain, frequent lightning, strong winds, and tornadoes
- Storm occasionally has a black or dark green appearance
- Lasts an average of 10 to 20 minutes but some storms may last much longer



Dissipating Stage

- Downdrafts, downward flowing air, dominate the storm
- Rainfall decreases in intensity
- Can still produce a burst of strong winds
- Lightning remains a danger

EFFECTS OF A THUNDERSTORM



SQUALL



WATERSPOUTS



HEAVY RAINS



POOR
VISIBILITY



LIGHTNING



TORNADO



FLOOD

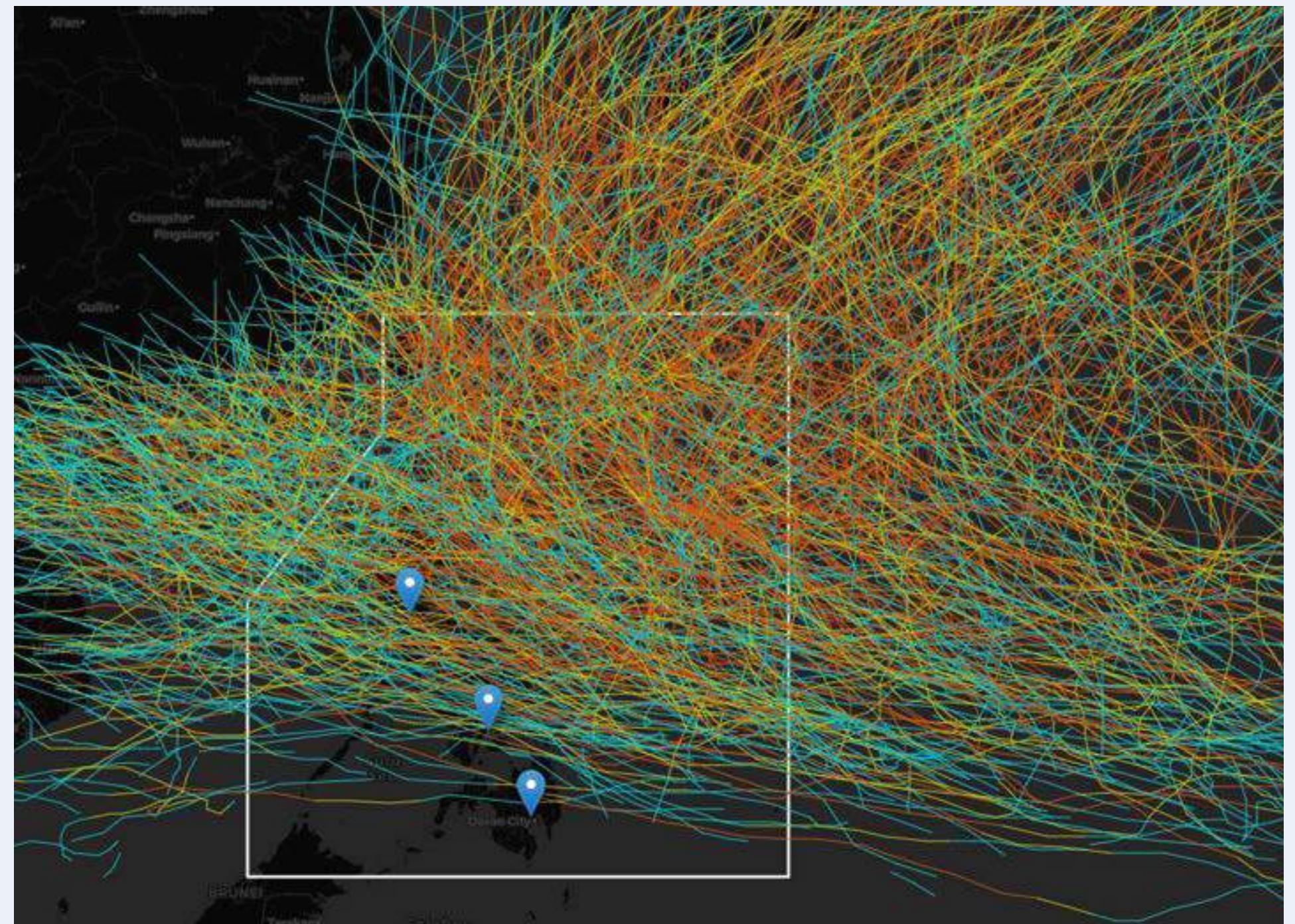


HEAVY TRAFFIC

TROPICAL CYCLONES

TROPICAL CYCLONES

- Global generic term for an intense circulating weather system over tropical seas and oceans.
- Has low atmospheric pressure, strong winds, & heavy rains.
- Rotates counterclockwise (clockwise) in the Northern (Southern) Hemisphere

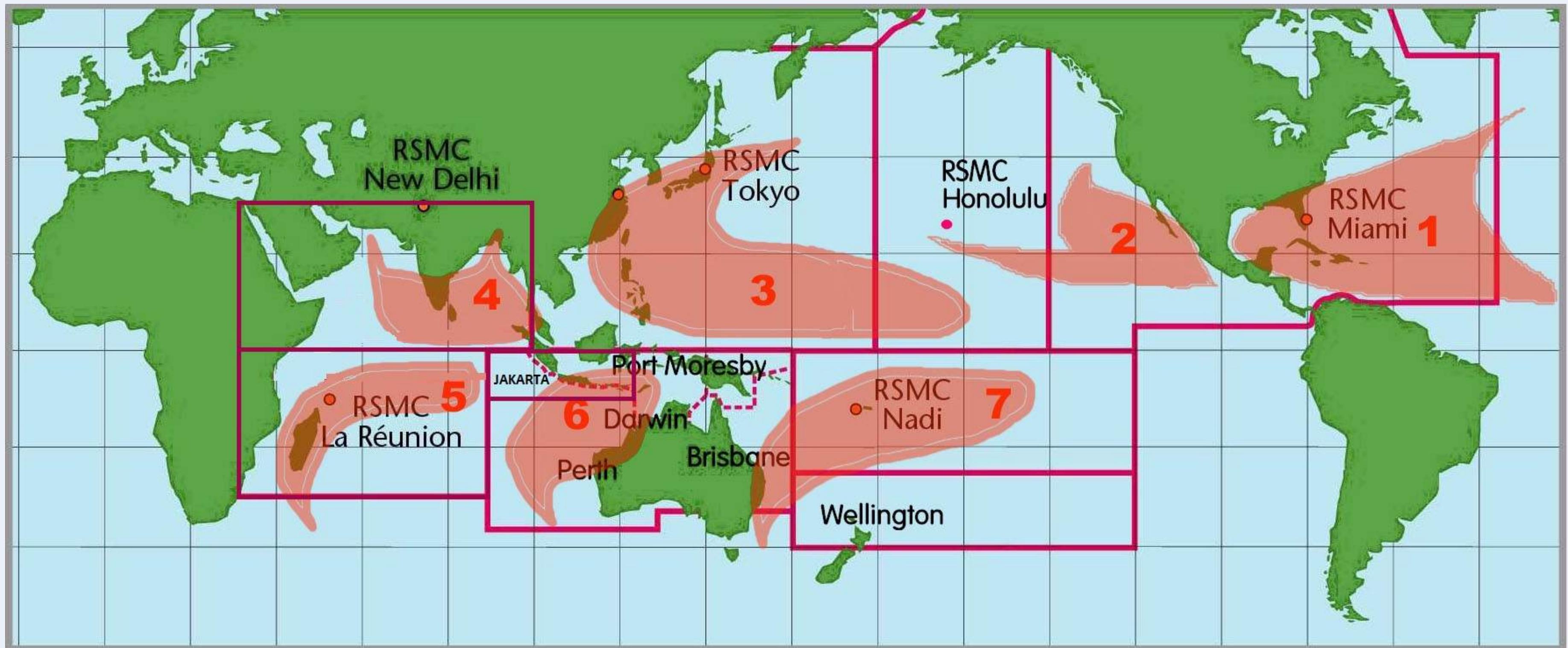


Tropical cyclone basins

Almost all tropical cyclones form and travel toward land in the seven ocean “basins” shown on the map. The number in each basin is the yearly average of tropical storms with 39 mph or faster winds. The words “hurricane,” “typhoon,” or “cyclone” are the names used for storms with 74 mph or faster winds. City names are locations of major tropical cyclone forecasting centers.

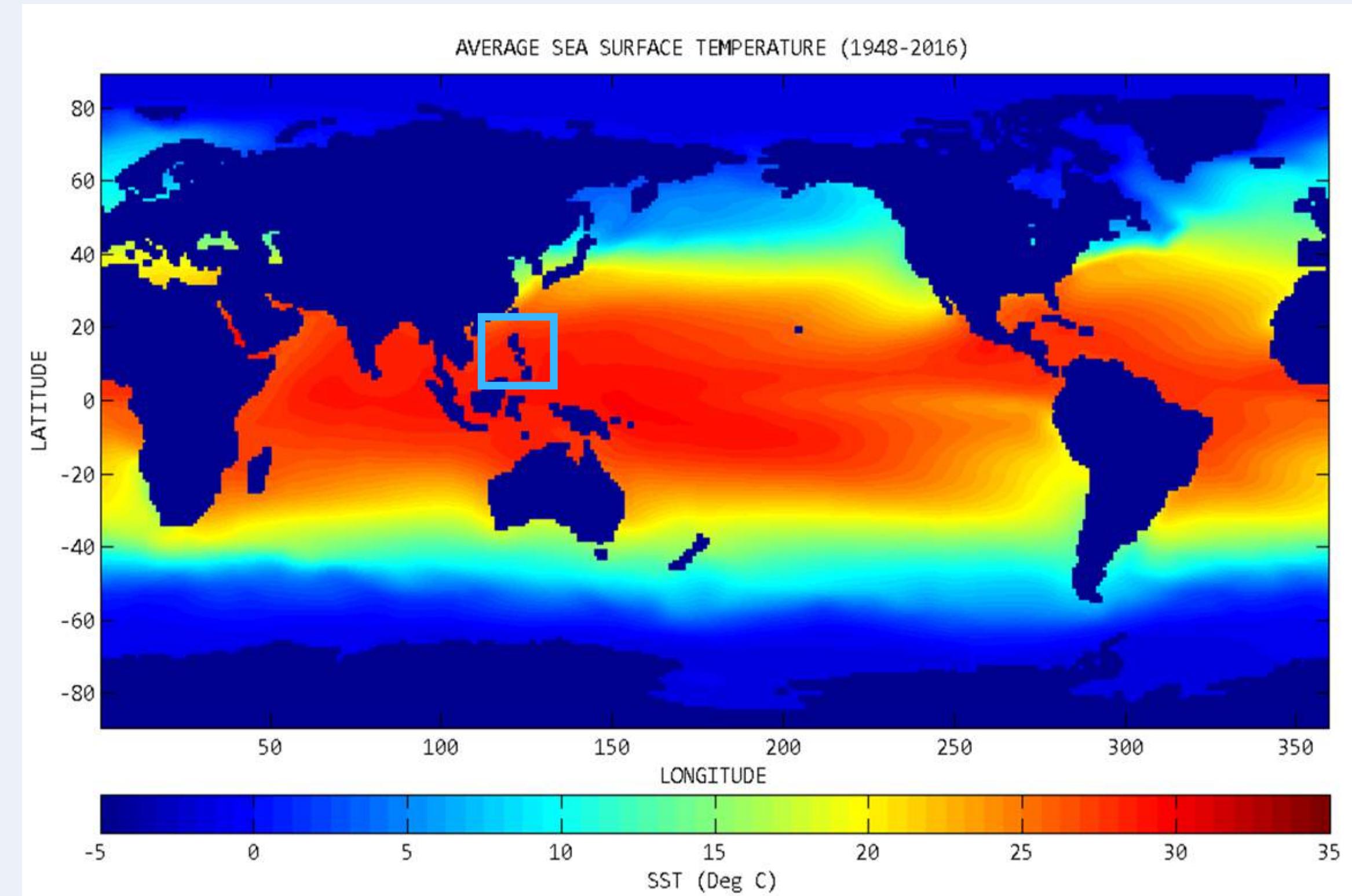


TROPICAL CYCLONE BASIN

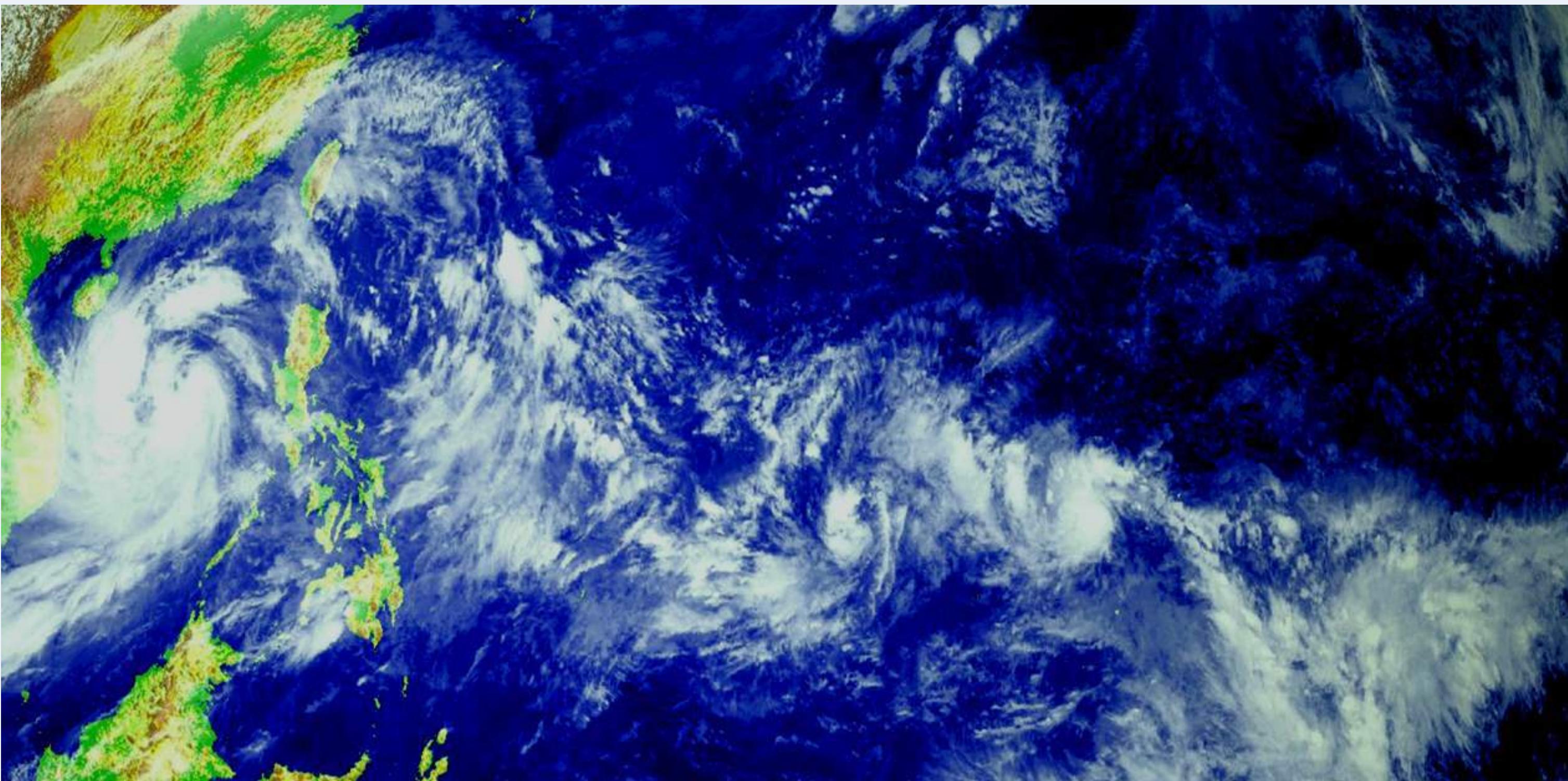


FAVORABLE CONDITIONS FOR TC FORMATION

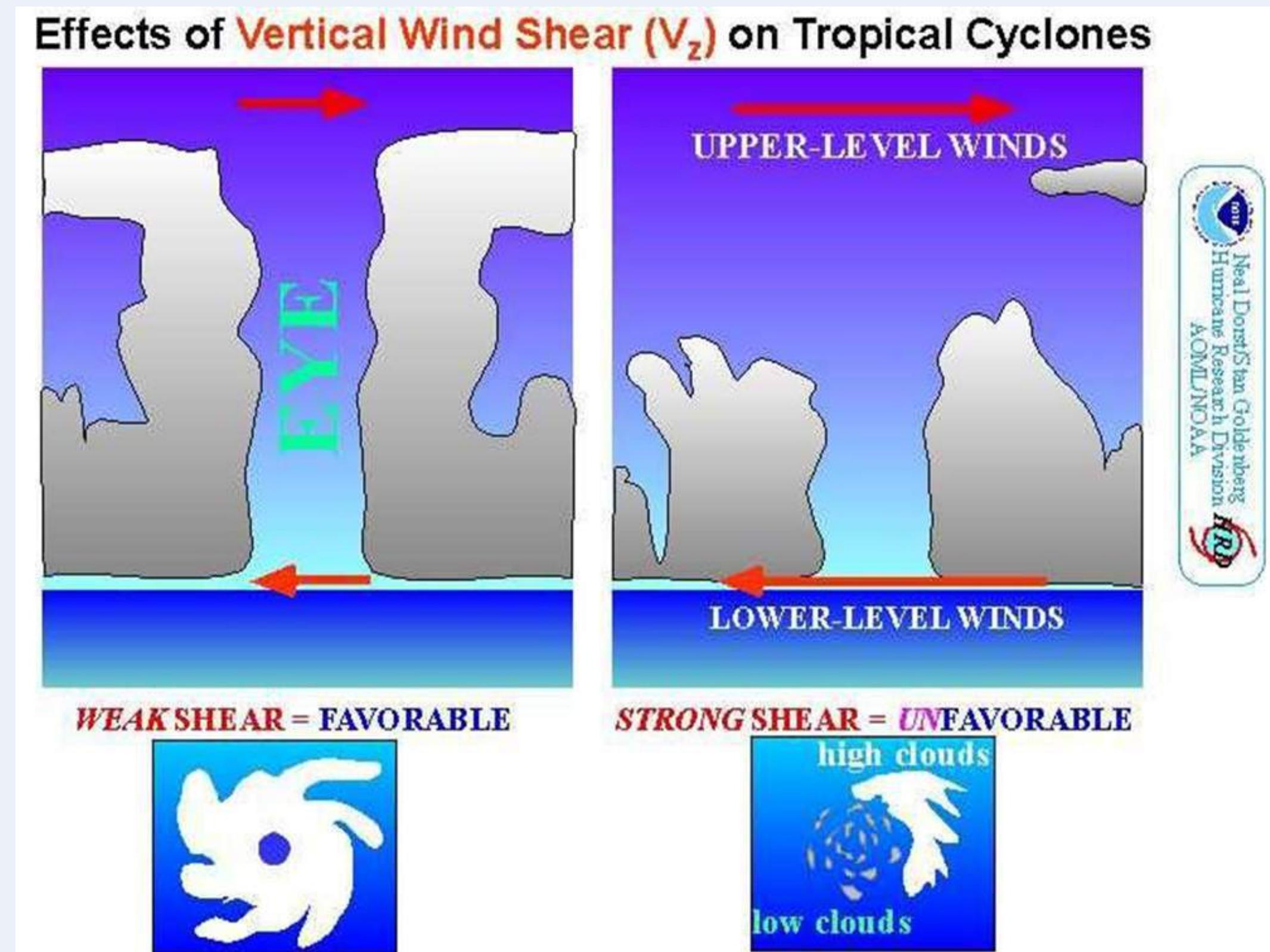
- Warm sea surface temperatures (SSTs) of at least 26.5°C with a depth of 45 meters. The heat from the sea is the main energy source for TCs.



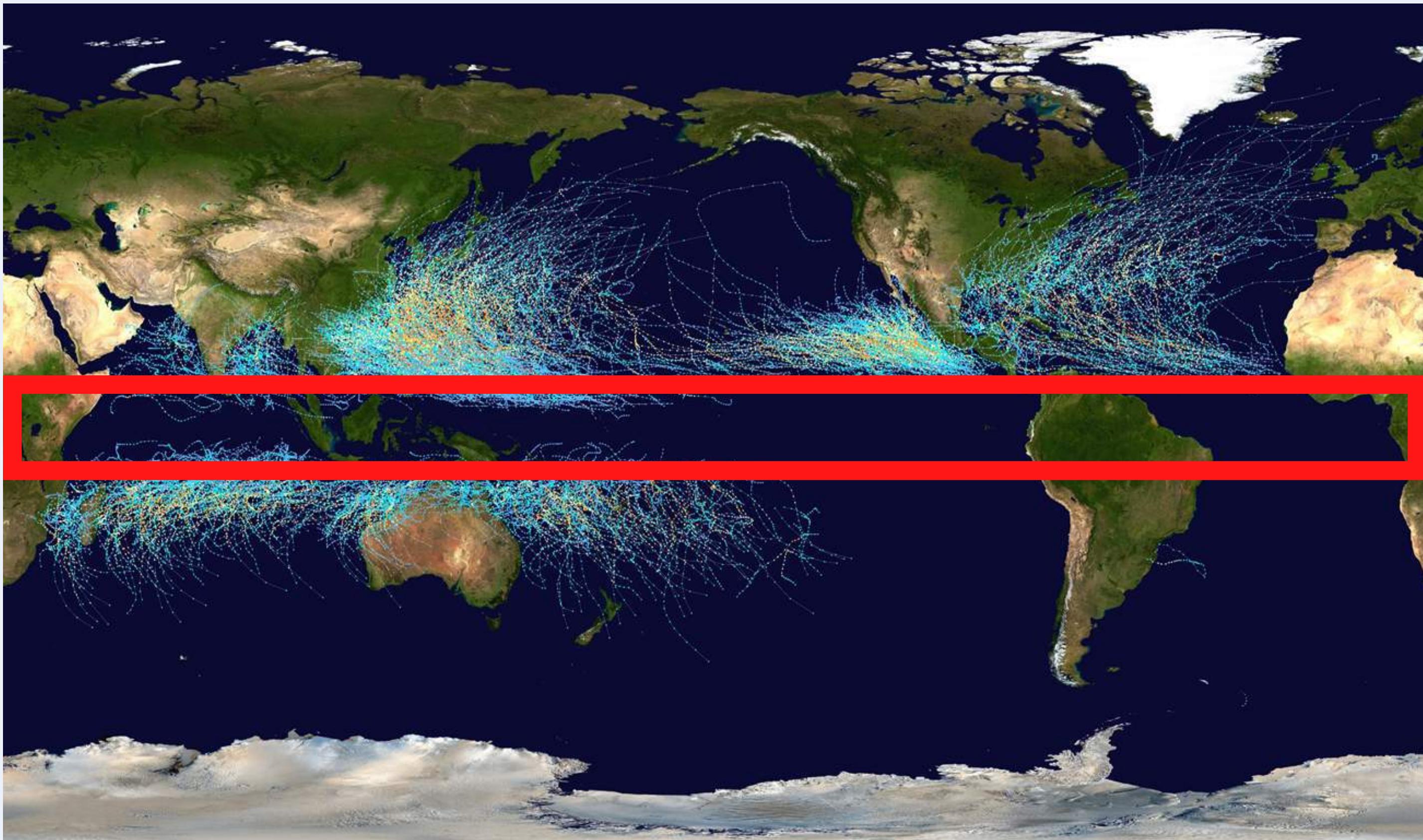
ACTIVITY OF INTERTROPICAL CONVERGENCE ZONE



WEAK WIND SHEAR IN THE UPPER TROPOSPHERE

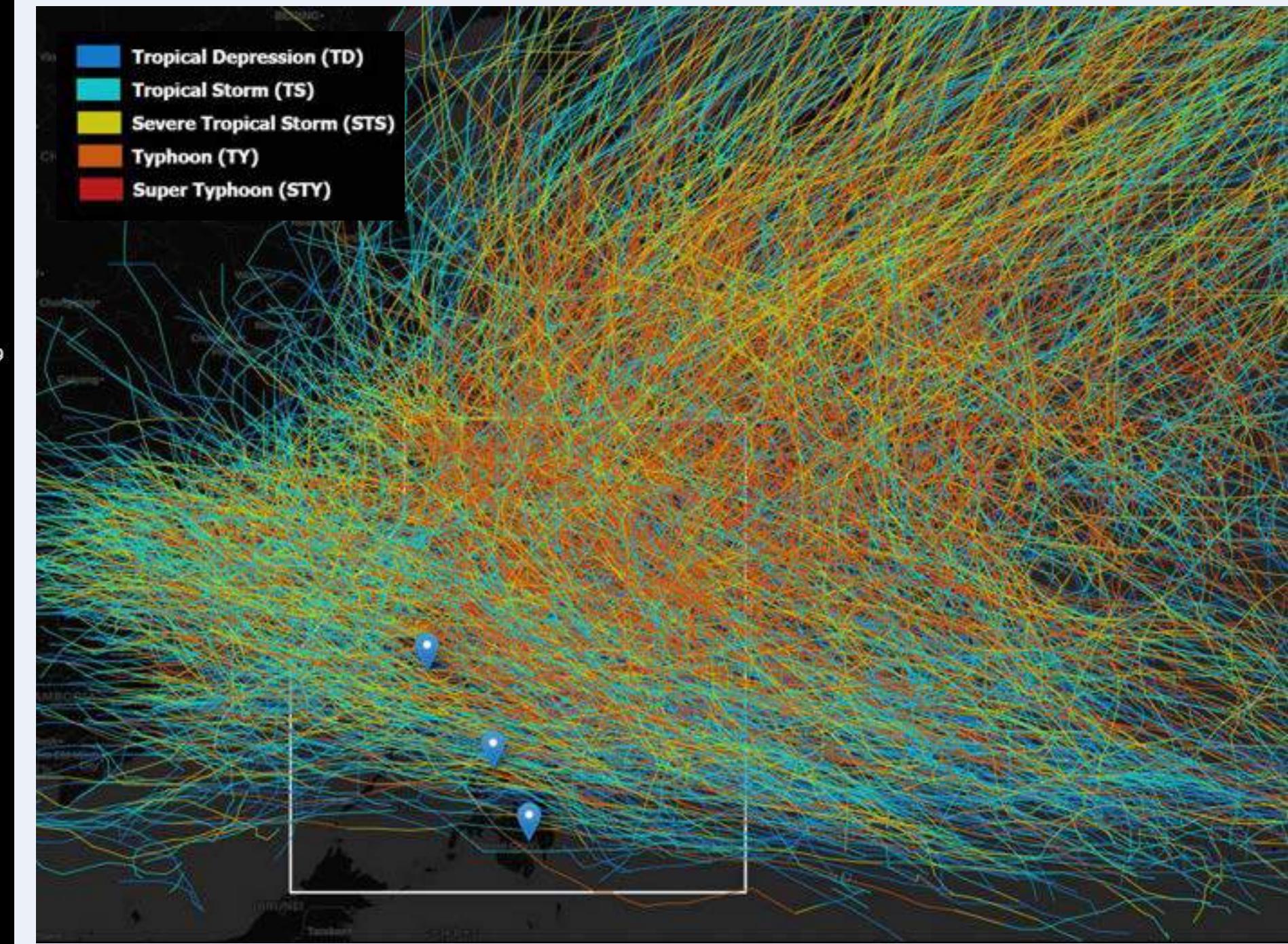
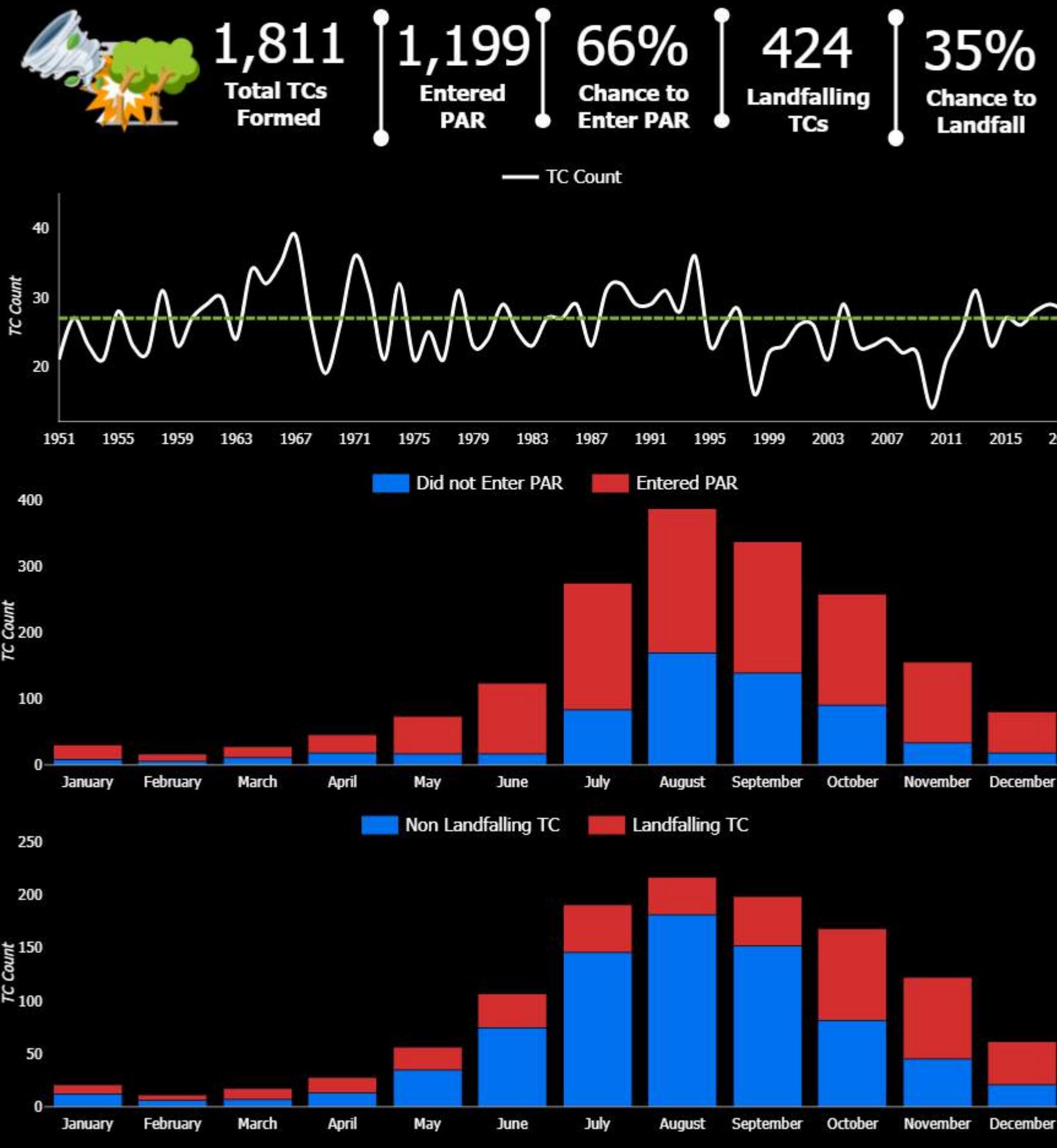


MUST BE AT LEAST 5°N OR 5°S OF THE EQUATOR

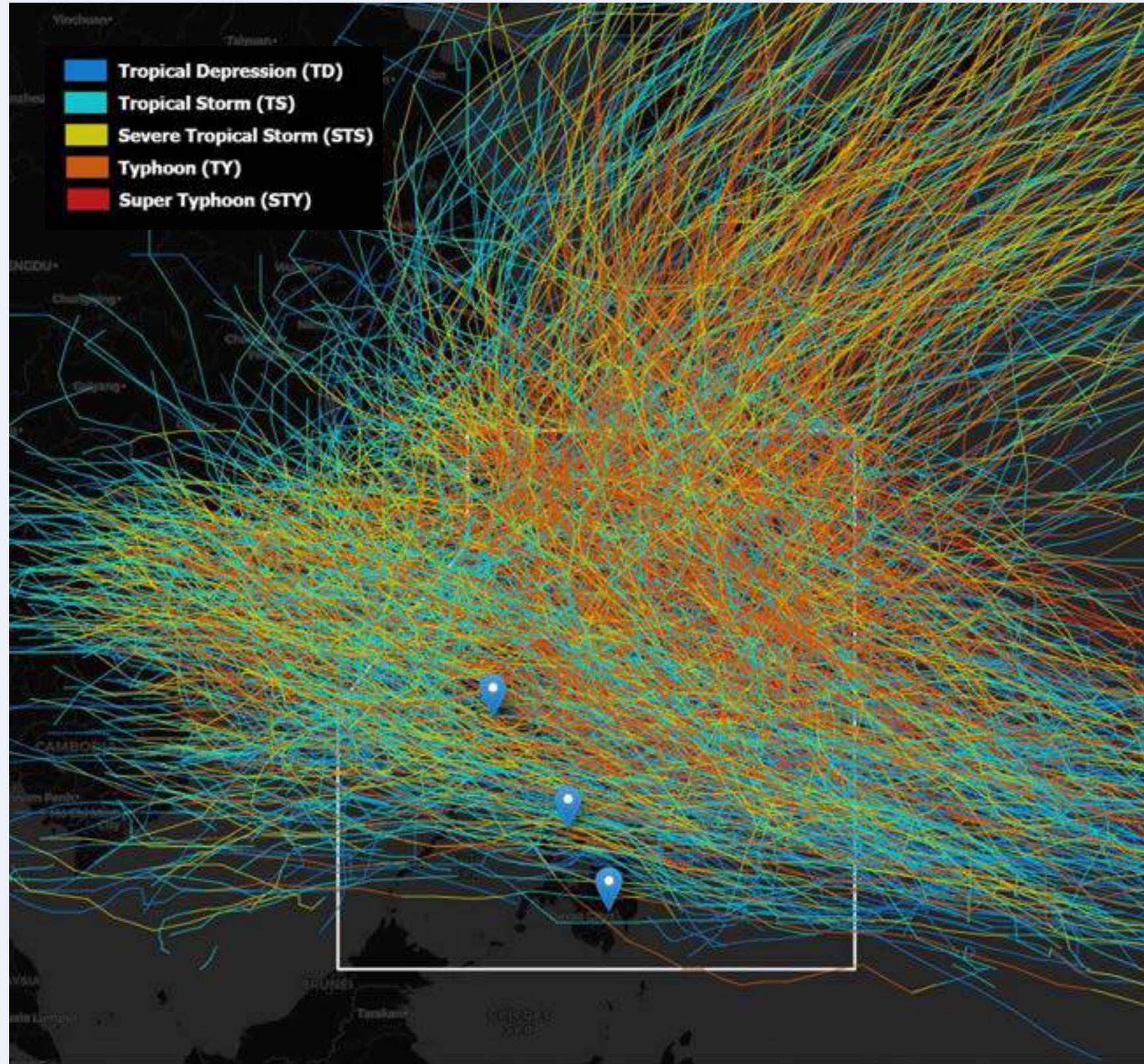


TROPICAL CYCLONE CLIMATOLOGY

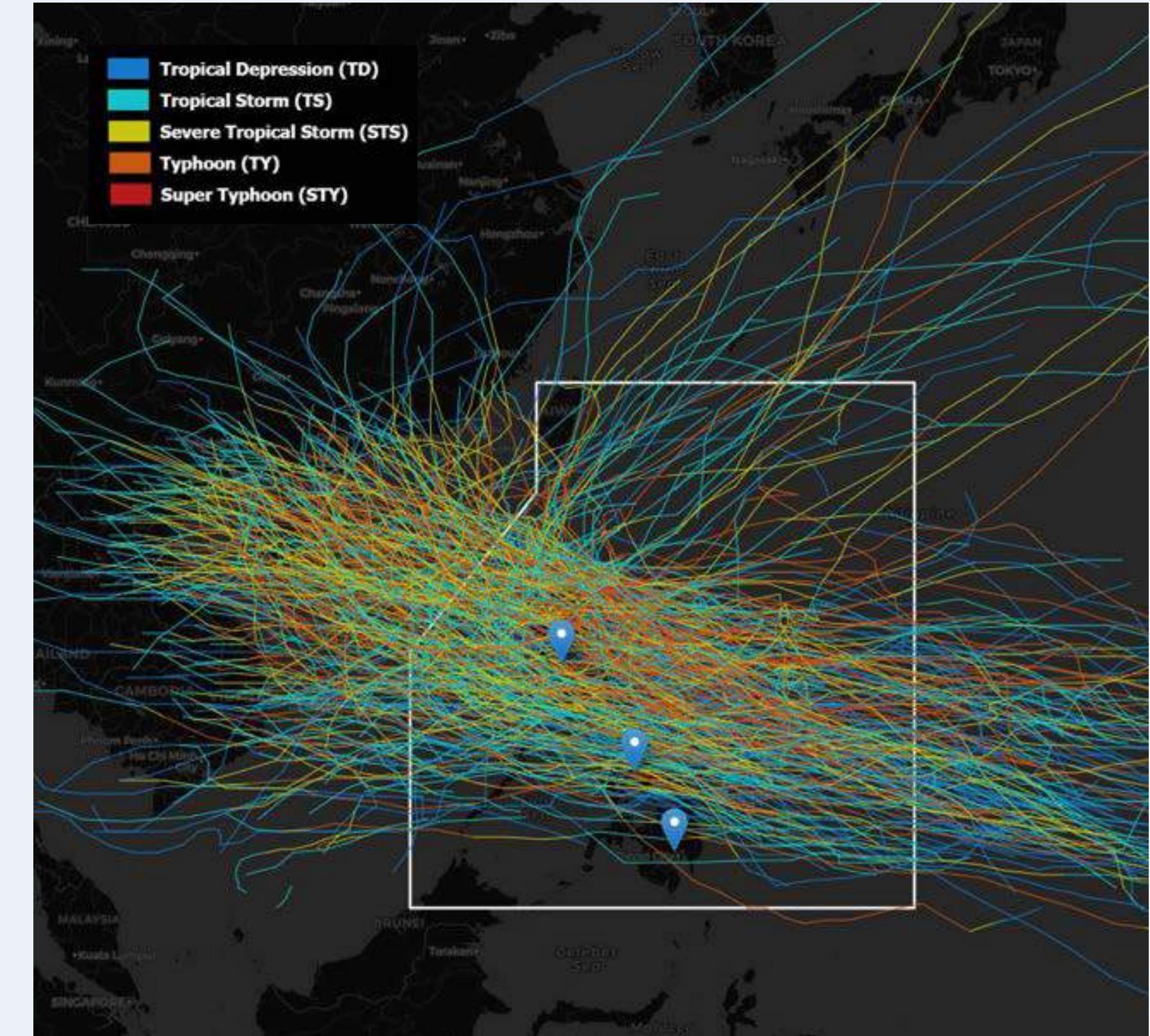
WEST PACIFIC TROPICAL CYCLONE CLIMATOLOGY (1951 - 2019)



ENTERED PAR TCs



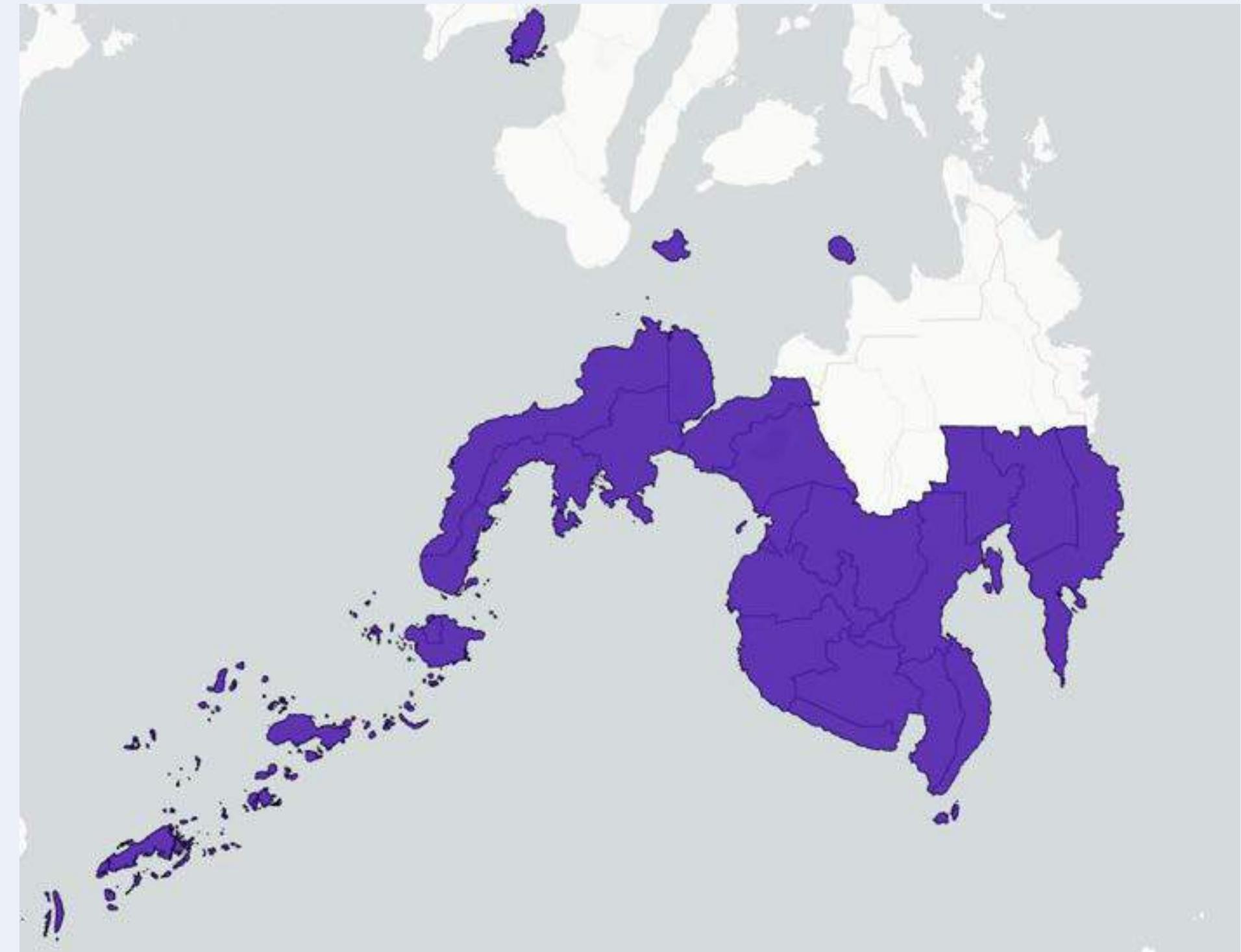
LANDFALLING TCs



HIGH TC PH REGIONS



LOW TC PH REGIONS



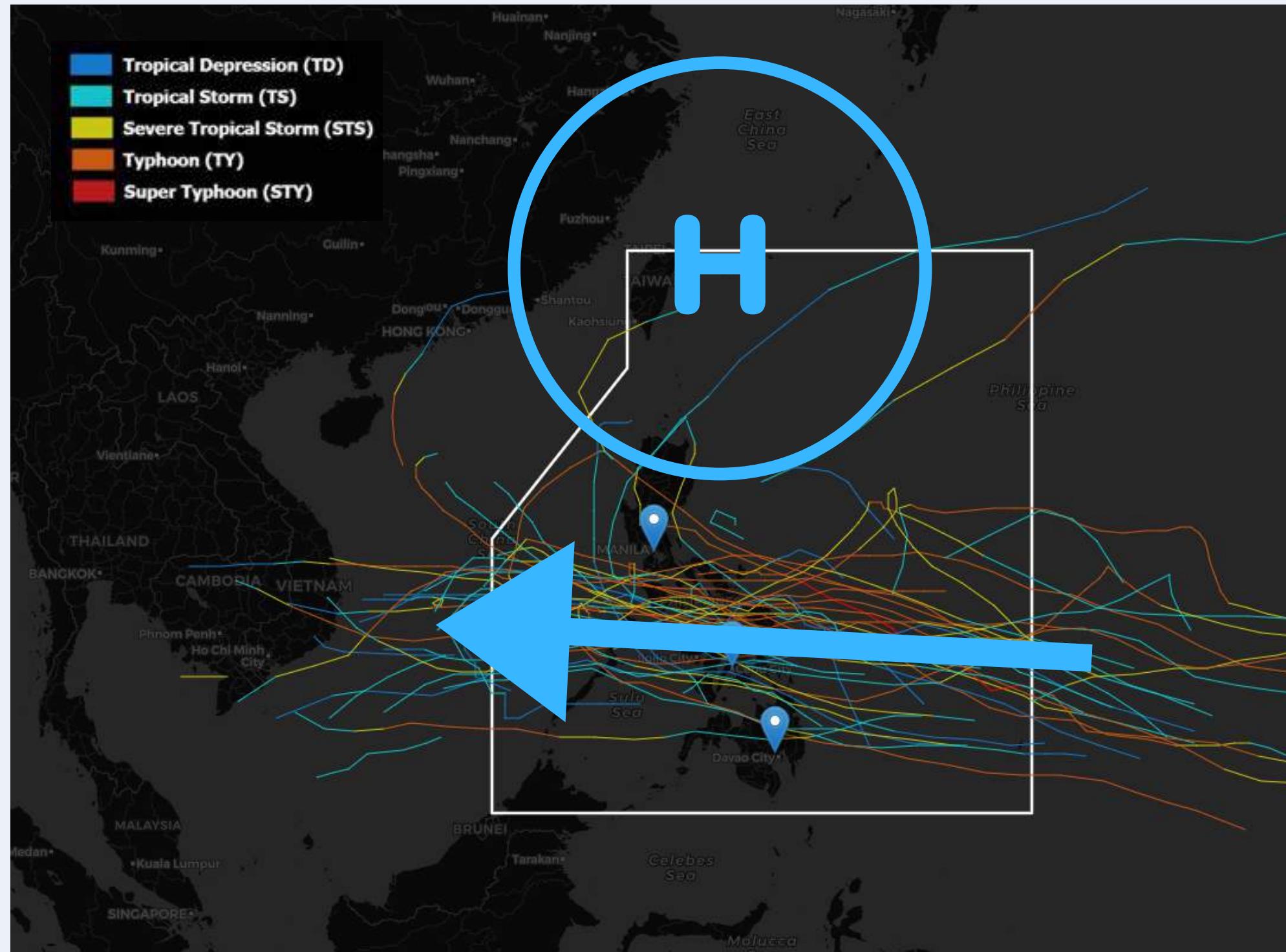
LEGEND
(1977 to 2019)

> 50 TCs < 5 TCs

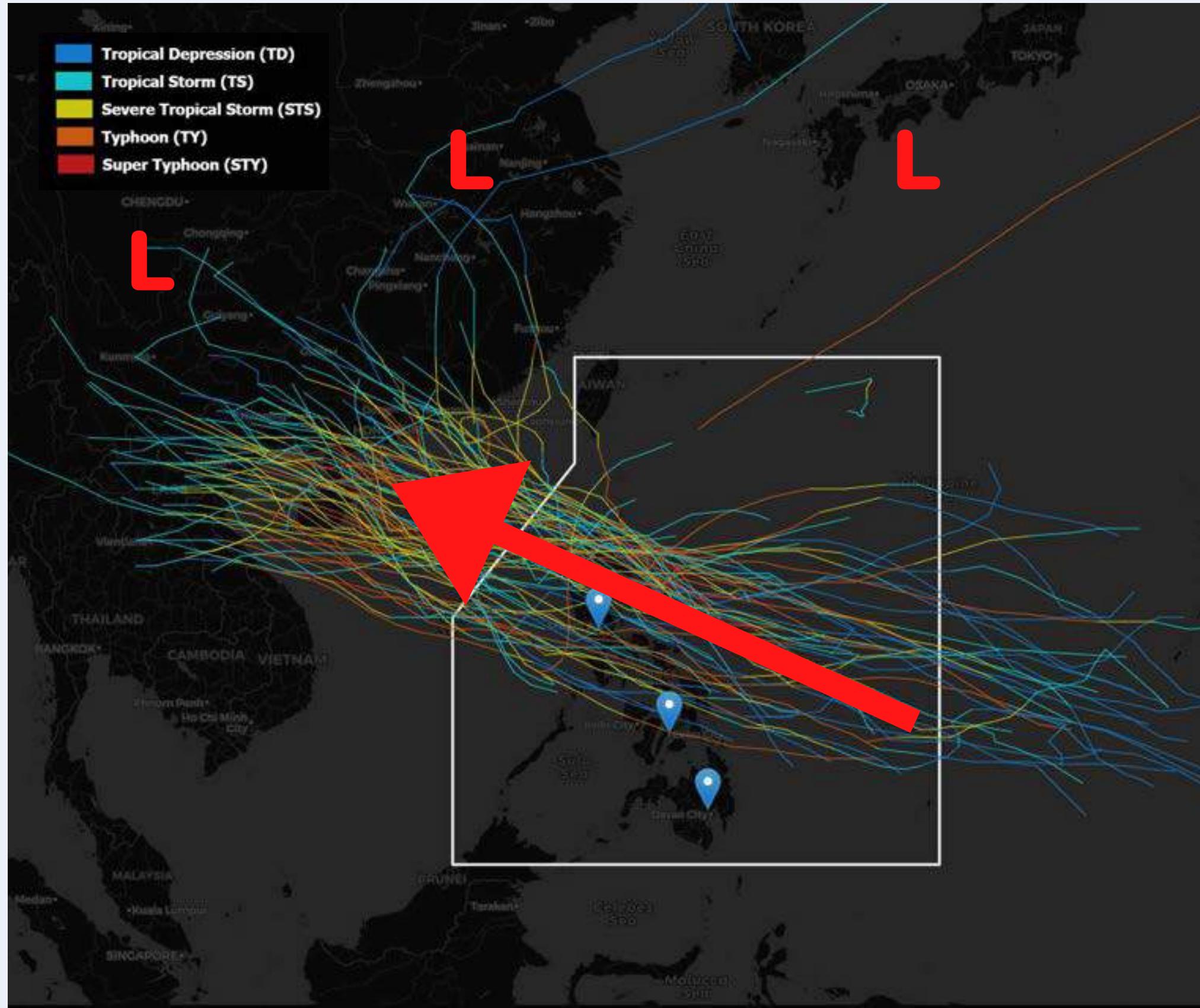
TROPICAL CYCLONE MOVEMENT

TROPICAL CYCLONE MOVEMENT

- TCs are like a cork in a stream.
- 80% of its movement is dependent on the prevailing environmental winds.
- In addition, forecasters also account the location of pressure systems.

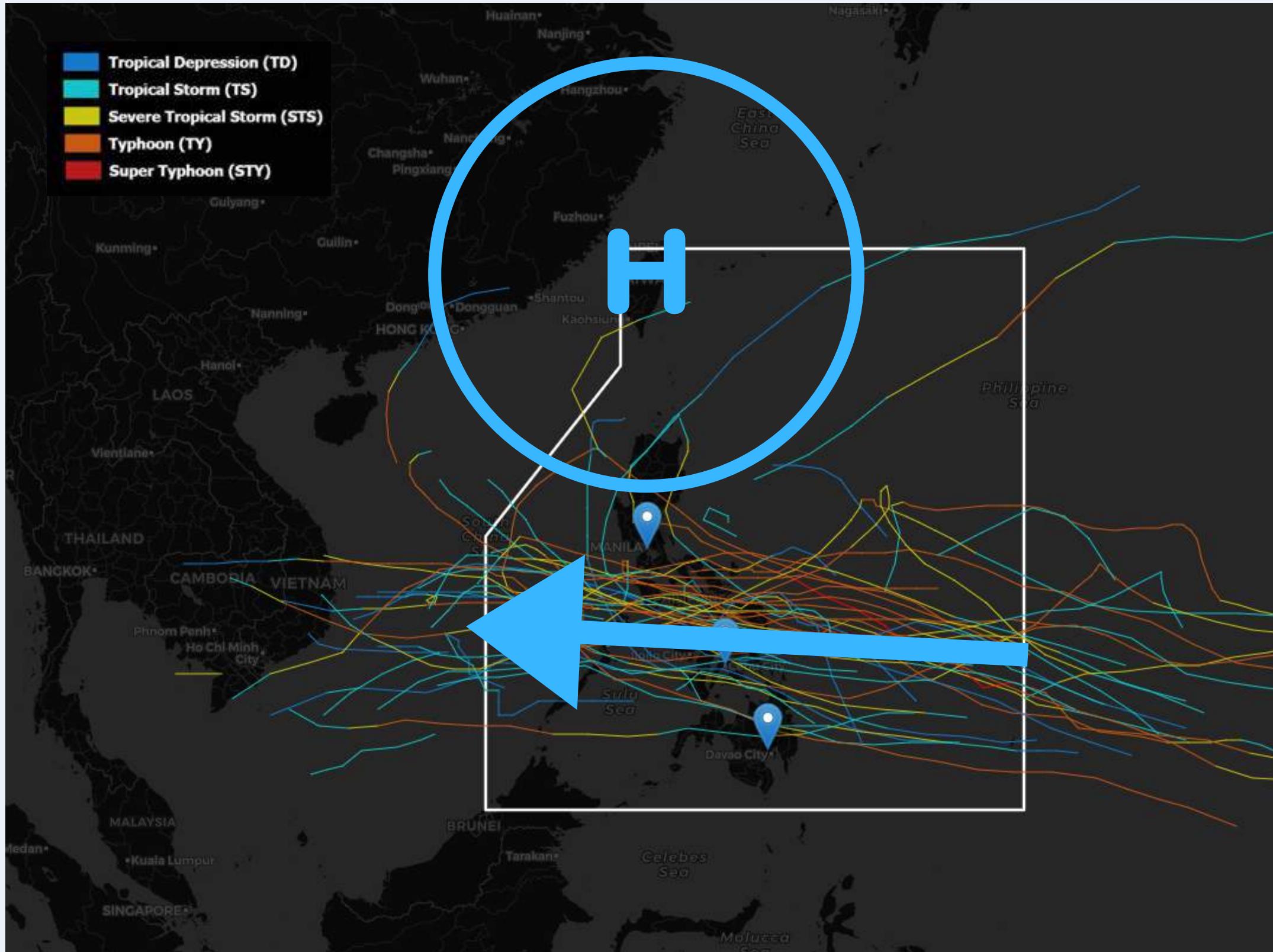


TC TRACK CLIMATOLOGY (HABAGAT)



- It follows a WNW track since there is LPAs in the northern hemisphere.
- LPAs can only move towards another LPA.
- Northern part of the country is heavily affected.

TC TRACK CLIMATOLOGY (AMIHAN)

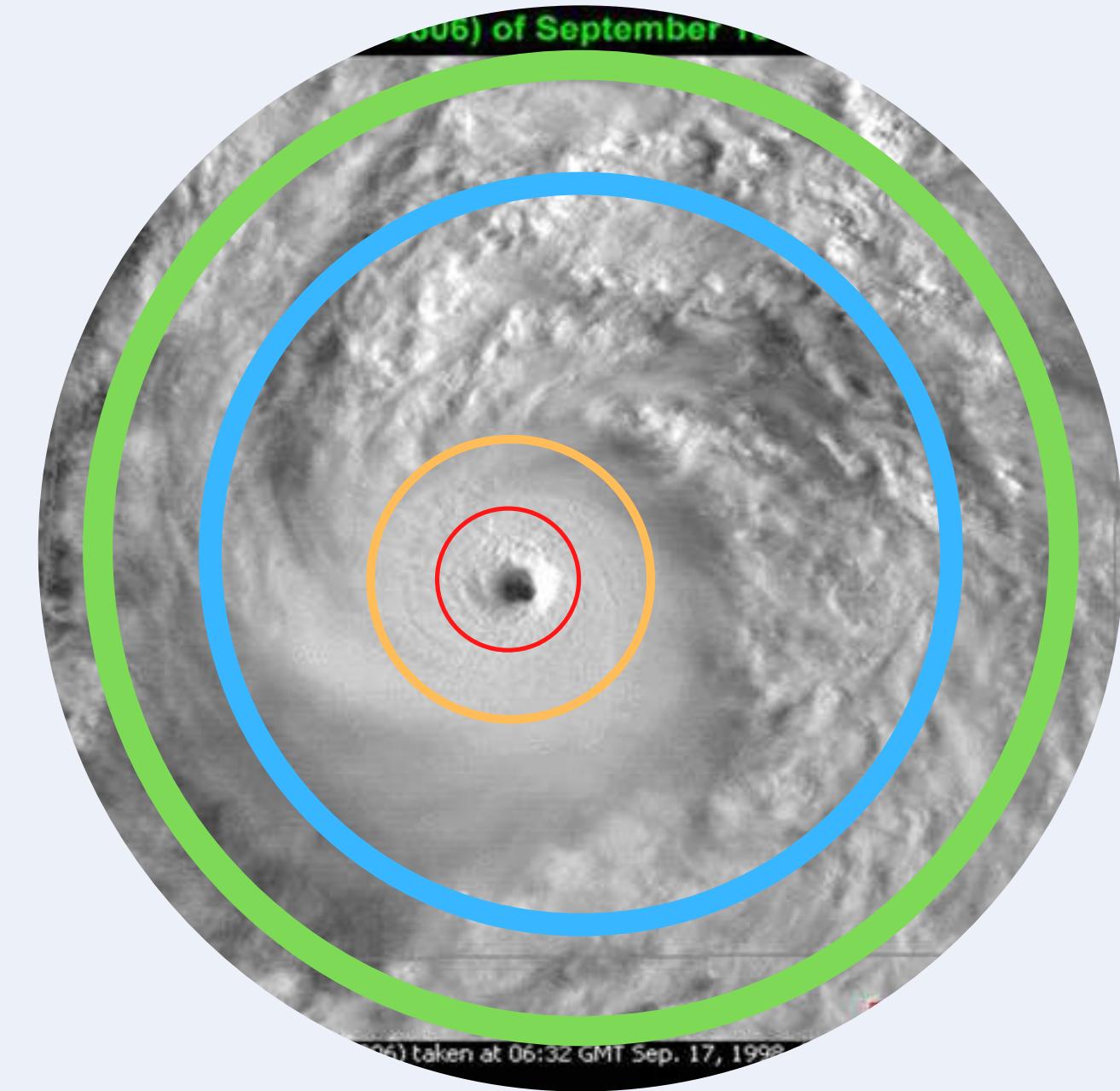


- It follows a more Westward track since there is a HPA (Siberian High).
- This explains why during Amihan season the areas of Visayas and Mindanao are affected.

TROPICAL CYCLONE PARTS AND EXTENT

PARTS OF A TROPICAL CYCLONE

- Eye (Red)
- Eye Wall(Orange)
- Inner Rainbands (Blue)
- Outer Rainbands (Green)



TC VERTICAL EXTENT (40,000 to 50,000 feet)

Approx 47x of
Hyatt BGC



Approx 18x of
Burj Khalifa

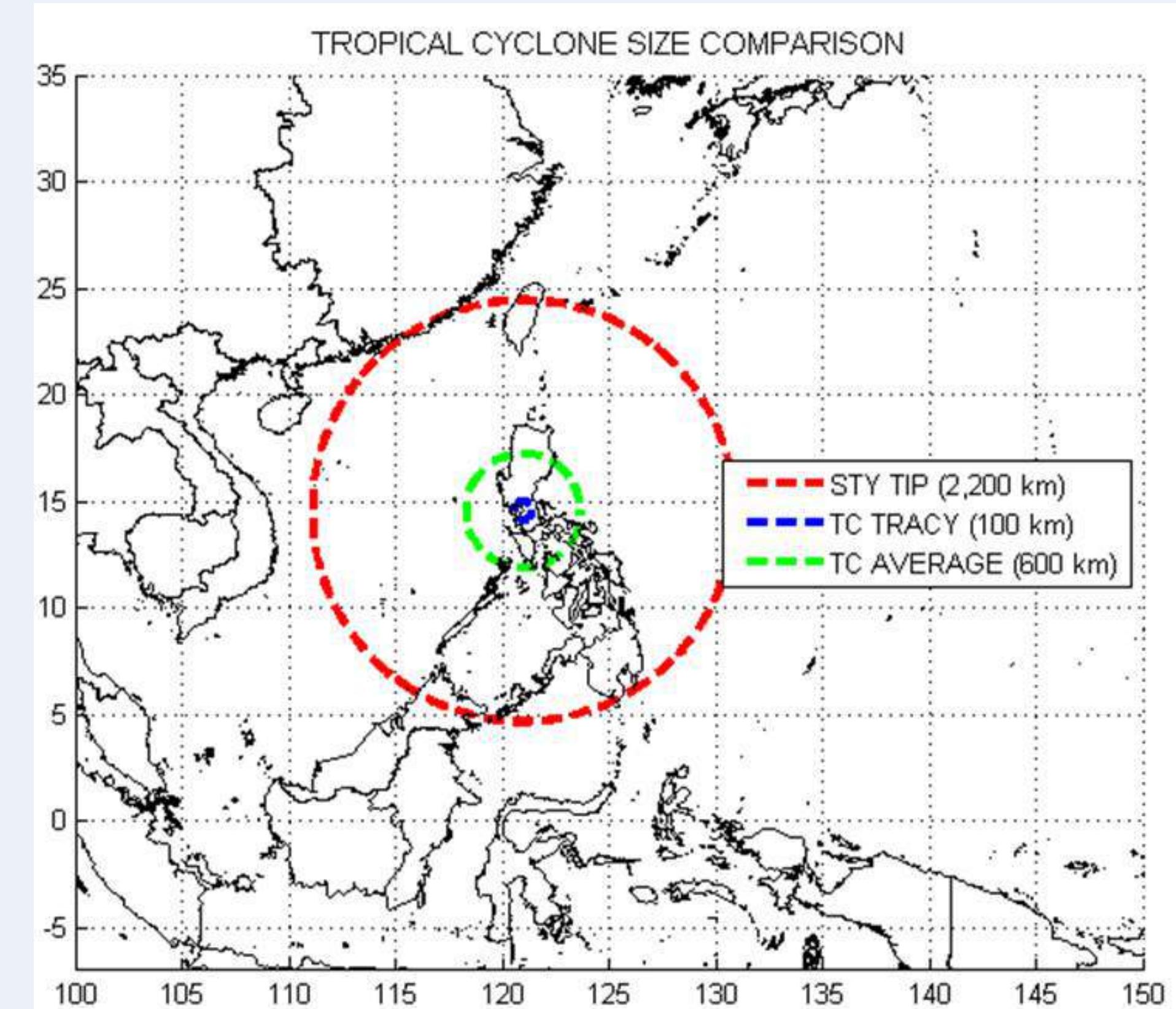


Approx 1.7x
of Mt. Everest

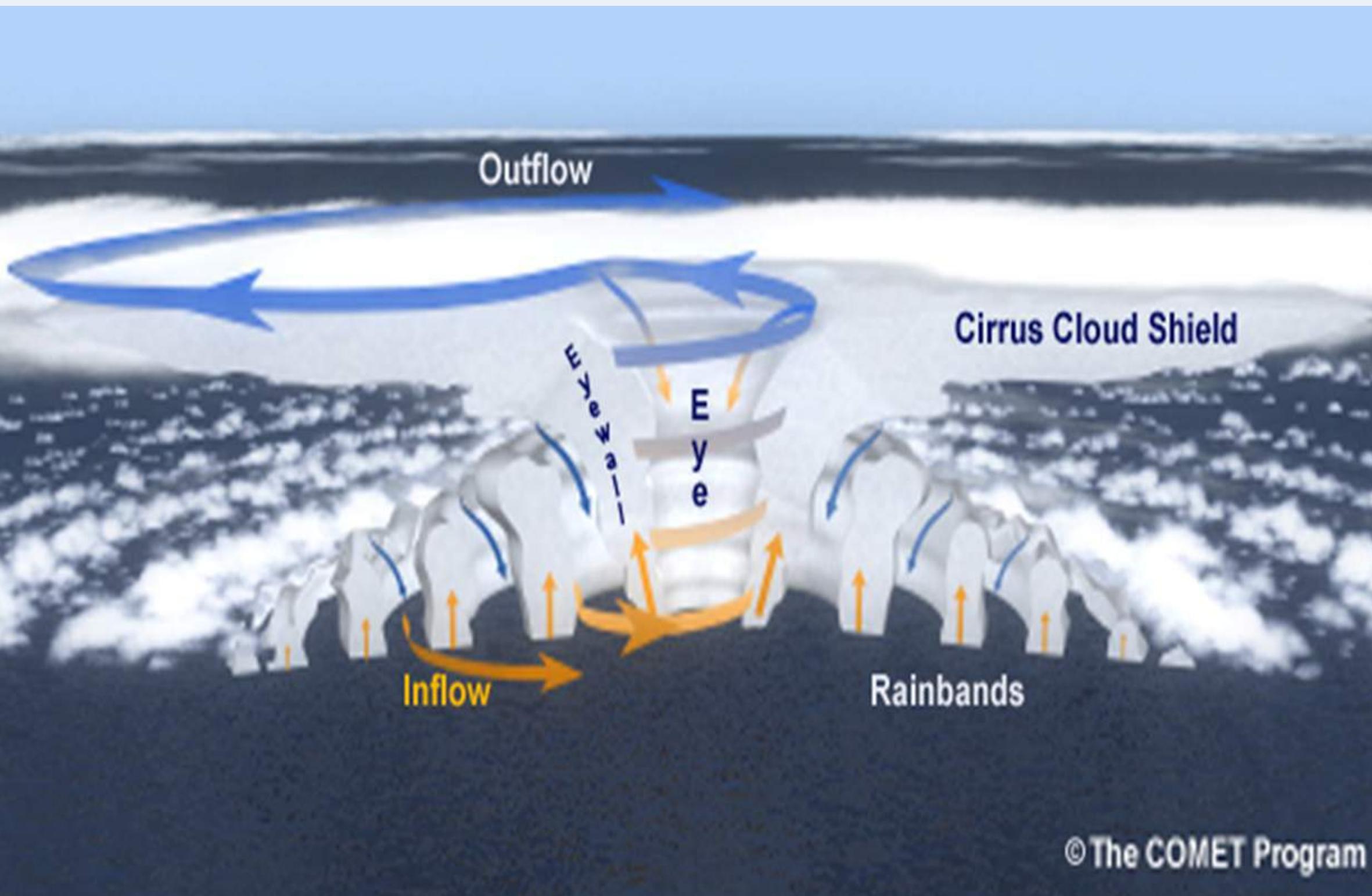


HORIZONTAL EXTENT

- The image only shows that even though a certain location is far away from the "eye" or "center" of a tropical cyclone, it can still experience its effects.



CROSS-SECTIONAL VIEW OF A TC



TROPICAL CYCLONE CATEGORIES & NAMING

PHILIPPINE TC CLASSIFICATION

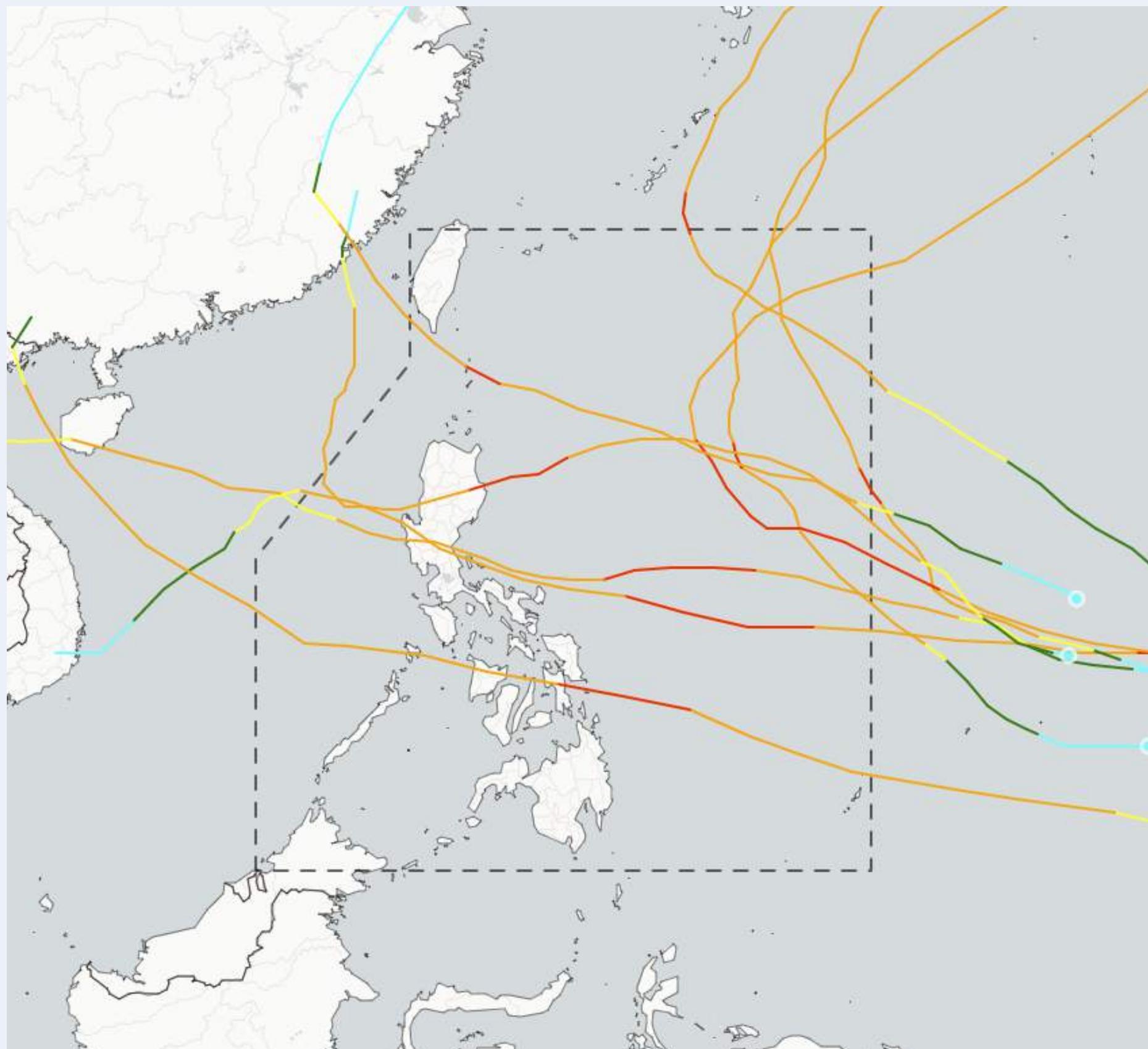
- The TC Classification in our country is provided by PAGASA.
- Even though the STY category was introduced last 2013, the country already experienced occurrence of 85 landfalling STYs from 1951 to 2019.
- Majority of STYs are formed during the last quarters of the year (Oct - Dec).

CATEGORY	OLD	NEW
TROPICAL DEPRESSION (TD)	61 kph	61 kph
TROPICAL STORM (TS)	62-88 kph	62-88 kph
SEVERE TROPICAL STORM (STS)	89-117 kph	89-117 kph
TYPHOON (TY)	118-220 kph	118-184 kph
SUPER TYPHOON (STY)	>220 kph	>184 kph

PHILIPPINE WIND SIGNALS

SIGNAL NO	LEAD TIME	OLD	NEW
1	24 HOURS	30-60 kph	39-61 kph
2	24 HOURS	61-120 kph	62-88 kph
3	18 HOURS	121-170 kph	89-117 kph
4	12 HOURS	171-220 kph	118-184 kph
5	12 HOURS	>220 kph	>184 kph

PHILIPPINE TC CLASSIFICATION



- STYs tend to form at the last quarter of the year.
- Based on climatology of past landfalling STYs, majority of it forms during the months of October to November.
- On the other hand, non-landfalling STYs forms during the months of August to September.

TC NAMING CONVENTION



- Clement Wragge is a Australian Meteorologist who pioneered in naming tropical cyclones.
- He started it by giving names of senators who declined his request on increasing the Australian Meteorology Bureau budget.

TC NAMING CONVENTION (JMA)

Contributed by	column I	column II	column III	column IV	column V
Cambodia	Damrey	Kong-rey	Nakri	Krovanh	Trases
China	Haikui	Yutu	Fengshen	Dujuan	Mulan
DPR Korea	Kirogi	Toraji	Kalmaegi	Surigae	Meari
Hong Kong, China	Yun-yeung	Man-yi	Fung-wong	Choi-wan	Ma-on
Japan	Koinu	Usagi	Kammuri	Koguma	Tokage
Lao PDR	Bolaven	Pabuk	Phanfone	Champi	Hinnamnor
Macao, China	Sanba	Wutip	Vongfong	In-fa	Muifa
Malaysia	Jelawat	Sepat	Nuri	Cempaka	Merbok
Micronesia	Ewiniar	Mun	Sinlaku	Nepartak	Nanmadol
Philippines	Maliksi	Danas	Hagupit	Lupit	Talas
RO Korea	Gaemi	Nari	Jangmi	Mirinae	Noru
Thailand	Prapiroon	Wipha	Mekkhala	Nida	Kulap
U.S.A.	Maria	Francisco	Higos	Omais	Roke
Viet Nam	Son-Tinh	Lekima	Bavi	Conson	Sonca
Cambodia	Ampil	Krosa	Maysak	Chanthu	Nesat
China	Wukong	Bailu	Haishen	Dianmu	Haitang
DPR Korea	Jongdari	Podul	Noul	Mindulle	Nalgae
Hong Kong, China	Shanshan	Lingling	Dolphin	Lionrock	Banyan
Japan	Yagi	Kajiki	Kujira	Kompasu	Yamaneko
Lao PDR	Leepi	Faxai	Chan-hom	Namtheun	Pakhar
Macao, China	Bebinca	Peipah	Linfa	Malou	Sanvu
Malaysia	Pulasan	Tapah	Nangka	Nyatoh	Mawar
Micronesia	Soulik	Mitag	Saudel	Rai	Guchol
Philippines	Cimaron	Hagibis	Molave	Malakas	Talim
RO Korea	Jebi	Neoguri	Goni	Megi	Doksuri
Thailand	Krathon	Bualoi	Atsani	Chaba	Khanun
U.S.A.	Barijat	Matmo	Etaw	Aere	Lan
Viet Nam	Trami	Halong	Vamco	Songda	Saola

column IV	Meaning	Contributed by
Krovanh	A kind of tree	Cambodia
Dujuan	Azalea	China
Surigae	A kind of eagles	DPR Korea
Choi-wan	Colorful cloud	Hong Kong, China
Koguma	Ursa Minor; little bear	Japan
Champi	Red jasmine flower	Lao PDR
In-fa	Fireworks	Macao, China
Cempaka	Plant that known for its fragrant flowers	Malaysia
Nepartak	Famous Kosrae warrior	Micronesia
Lupit	Cruel; viciousness	Philippines
Mirinae	Milky way	RO Korea
Nida	Name of woman	Thailand
Omais	Palauan word for "wandering around"	U.S.A.
Conson	A historical place	Viet Nam
Chanthu	A kind of flower	Cambodia
Dianmu	Mother of lightning	China
Mindulle	Dandelion	DPR Korea
Lionrock	Name of a peak in Hong Kong, which overlooks Kowloon Peninsula	Hong Kong, China
Kompasu	Circinus; V-shaped device for describing circles or circular arcs	Japan
Namtheun	River, which is one of the tributaries of Mekong River	Lao PDR
Malou	Agate	Macao, China
Nyatoh	A type of tree	Malaysia
Rai	Stone money of Yap	Micronesia
Malakas	Strong; powerful	Philippines
Megi	Catfish	RO Korea
Chaba	Tropical flower (the shoeflower, genus hibiscus)	Thailand
Aere	A storm	U.S.A.
Songda	A river in northwestern Viet Nam	Viet Nam

TC NAMING CONVENTION (PAGASA)



- In case there are more TCs that entered PAR, there is an auxiliary list of names.
- TC Name will be retired if the total damage reaches 1 Billion Pesos and at least 300 deaths.
- It can also be retired due to other circumstances just like "KANOR". It was replaced with "KARDING" in 2014.

TROPICAL CYCLONE IMPACT

TC HAZARDS (STORM SURGE)



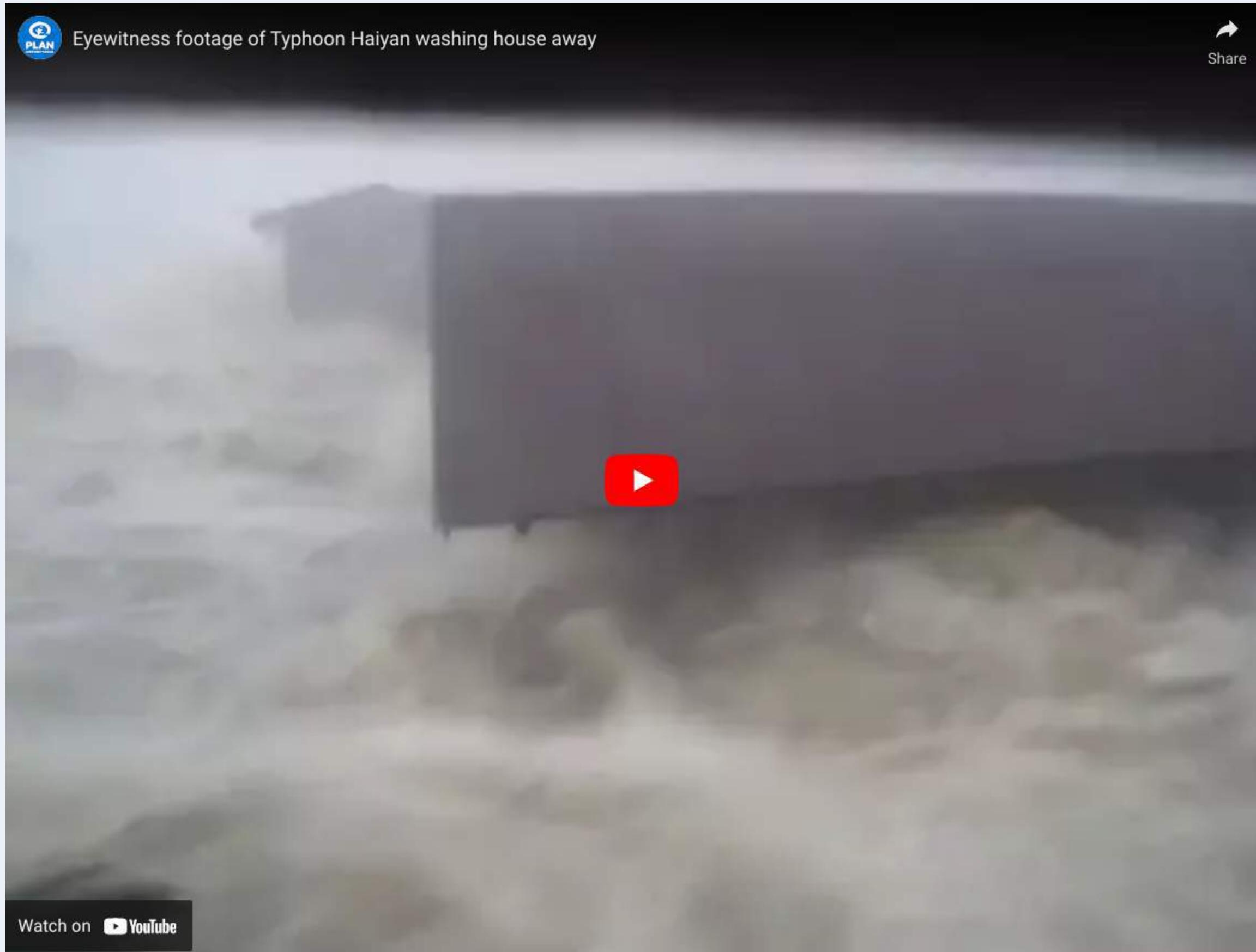
<https://youtu.be/an5uDI2ftb8>

TC HAZARDS (STORM SURGE)



<https://youtu.be/TbHO1mWHKq4>

TC HAZARDS (METEOTSUNAMIS)



<https://youtu.be/rS0gv4Xbw7w>

TC HAZARDS (STRONG & HIGH WINDS)

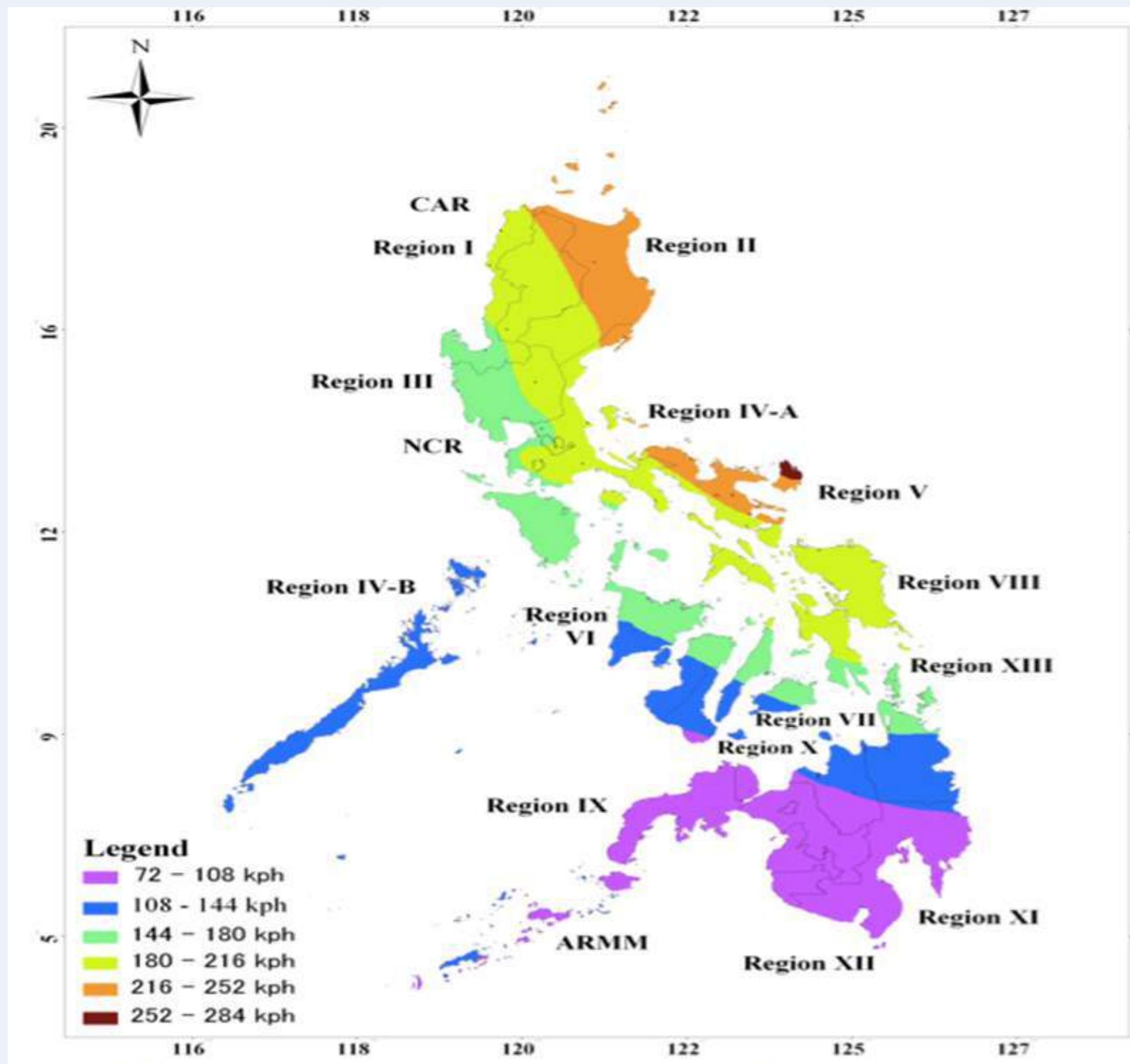


Figure 10. Regional Map of Extreme Wind Speeds in the Philippines proposed by Garciano, et al (2005)

TC HAZARDS (RAINFALL/FLOODING)



TC HAZARDS (LAHAR/MUDFLOW/LANDSLIDE)



Photos from Congressman Fernando Tibor Cabredo @Facebook

TC POSITIVE IMPACT



POWER &
WATER SOURCE



STABILITY OF
SEA SURFACE
TEMPERATURE



NATURAL CROP
IRRIGATION



MINIMIZE AIR
POLLUTION

INSIDE A TROPICAL CYCLONE

VIDEO INSIDE A TROPICAL CYCLONE



<https://www.youtube.com/watch?v=a-SnxC-BkPo>

VIDEO INSIDE A TROPICAL CYCLONE



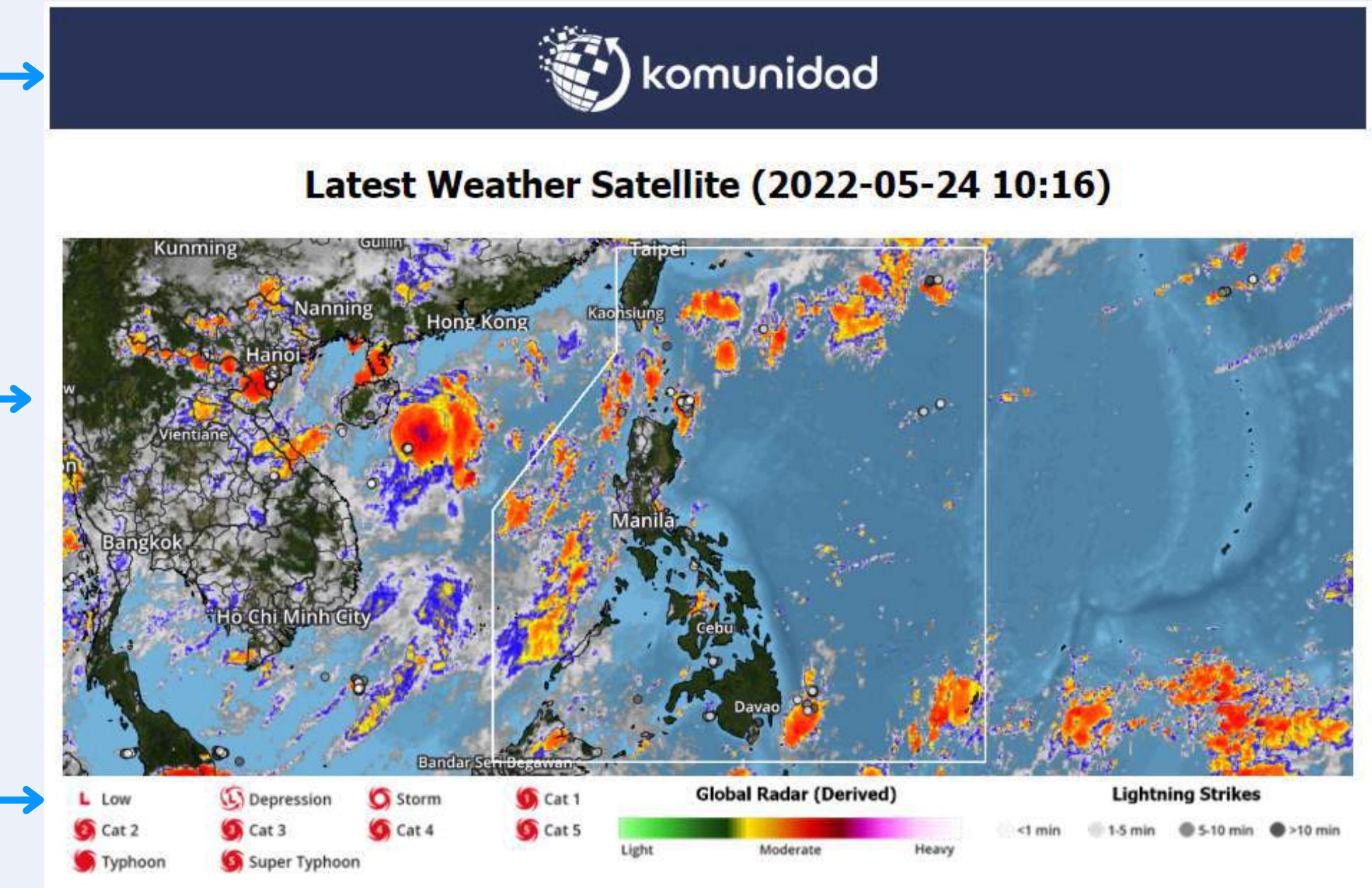
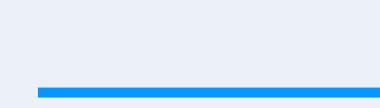
<https://youtu.be/u7UWWjkpd7o>

KOMUNIDAD EXISTING SYSTEM

Daily Weather Report

Komunidad Logo

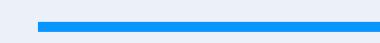
- Company's logo



Latest Weather Satellite Imagery →

- This satellite imagery will be in the report for the visualization of current weather condition

Legends



- This legend is for the Severe Weather that are appearing in the satellite imagery

Daily Weather Report

Daily Weather Report for LCP Head Office

24-hour Weather Forecast Summary

Mostly cloudy to cloudy conditions with low probability (17%) of drizzle (0.3 mm) is expected over the area of LCP Head Office in the next 24 hours. Temperatures will range from 27 to 34 Deg C with heat index values that ranges from 32 to 42 Deg C. Lastly, wind speeds of 3 to 11 kph will be experienced during the aforementioned time period.

24-hour Weather Forecast Summary

- In this section, the synopsis or the 24-hour weather forecast is the starting report for the specific LGUs
- Parameters such as **Cloud Chance**, **Cloud Type**, **Rain**, **Temperature**, **Heat Index**, and **Wind Speed** are in this report

Daily Weather Report

Short-Term Rain Assessment

Issue Date	Event Start	Event End	Event Type	Rain (mm)	Intensity	Severity	Characteristic
May 24, 2022 10:19 AM	May 24, 2022 10:15 AM	May 24, 2022 02:15 PM	None	0.0	None	1	None
May 24, 2022 10:19 AM	May 24, 2022 02:15 PM	May 24, 2022 04:00 PM	Thunder	0.43	Moderate	2	Intermittent
May 24, 2022 10:19 AM	May 24, 2022 04:00 PM	May 24, 2022 05:15 PM	None	0.0	None	1	None

Short-Term Rain Assessment

- In this section, it reports the possibility of rain in an area for the next 6 hours.
- Parameters such as **Issue Data**, **Event Start**, **Event End**, **Event Type**, **Rain**, **Intensity**, **Severity**, and **Characteristics** are in this report

Daily Weather Report

Short-Term Rain Assessment

Issue Date - This is the date and time issued for the report

Event Start - This is the date and time that the forecasted event will start

Event End - This is the date and time that the forecasted event will end

Event Type - This will portray on what event that the user will experience

Rain - This gives us insight on how many milimeters (mm) of rain will pour out in a certain location

Intensity - This gives us insight on how strong the event will be.

Severity - This gives us insight on how severe the weather we will be expecting.

Characteristics - This gives us insight of the event's characteristics if it is continuous or not.

Daily Weather Report

LPA / Tropical Cyclone Update

Name	Distance (km)	Bearing	Wind Speed (kph)	Wind Gust (kph)	Category	Alert Level	Date & Time
Invest 92W	1218	SE	19	None	LPA	NO WARNING	May 24, 2022 08 AM
Name	Distance (km)	Bearing	Wind Speed (kph)	Wind Gust (kph)	Category	Alert Level	Date & Time
AGATON	100	ESE	88	120	STS	WARNING	May 24, 2022 08 AM
AGATON	240	E	120	150	TY	WARNING	May 24, 2022 02 PM
AGATON	400	ENE	150	180	TY	WATCH	May 24, 2022 08 PM
AGATON	635	ENE	170	210	TY	MONITOR	May 25, 2022 02 AM
AGATON	850	NE	155	195	TY	NO WARNING	May 25, 2022 08 AM
AGATON	935	NE	130	150	TY	NO WARNING	May 25, 2022 02 PM
AGATON	1040	NE	125	145	TY	NO WARNING	May 25, 2022 08 PM

- In this section, the current and forecast updates of LPA and Tropical Cyclone will be seen here
- Parameters such as **Name, Distance, Bearing, Wind Speed, Wind Gust, Category, Alert Level, and Date & Time** are in this report

Daily Weather Report

LPA / Tropical Cyclone Update

Name - This will display the name of the Tropical Cyclone or LPA

Distance - This will display the distance of the Tropical Cyclone or LPA to the user location

Bearing - This will display the bearing or cardinal points of where the Tropical Cyclone is located relative to the user.

Wind Speed - This will display the maximum wind speed of the Tropical Cyclone or LPA

Wind Gust - This will display the possible sudden wind speed of a Tropical Cyclone

Category - This will display on what category, based on its maximum wind speed, of a Tropical Cyclone or LPA

Alert Level - This will display the **NO WARNING, WATCH, MONITOR, WARNING** levels based on the given threshold

Daily Weather Report

LPA / Tropical Cyclone Update

Thresholds for LPA / Tropical Cyclone

- If the distance of LPA / TC to the user is **less than or equal to 250 kilometers**, it will display **WARNING**
- If the distance of LPA / TC to the user is **greater than or equal to 251 kilometers and less than or equal to 500 kilometers**, it will display **ALERT**
- If the distance of LPA / TC to the user is **greater than or equal to 501 kilometers and less than or equal to 750 kilometers**, it will display **WATCH**
- If the distance of LPA / TC to the user is **greater than 750 kilometers**, it will display **NO WARNING**

Date & Time - This will display the date and time of the current and forecasted TC and LPA Positions.

Daily Weather Report

Mosquito Activity Update

Category	Date & Time
Limited Activity	May 24, 2022 7:00 AM
Moderate Activity	May 24, 2022 7:00 PM
Moderate Activity	May 25, 2022 7:00 AM
Moderate Activity	May 25, 2022 7:00 PM
Moderate Activity	May 26, 2022 7:00 AM
Moderate Activity	May 26, 2022 7:00 PM
Moderate Activity	May 27, 2022 7:00 AM
Limited Activity	May 27, 2022 7:00 PM

Mosquito Activity Update

- In this section, it reports the activity of mosquito for 7 AM and 7 PM
- Parameters such as **Category** and **Date & Time** are in this report
- Category is usually determined based on forecasted weather in a certain area that will trigger the activities of Mosquito.

Early Warning System

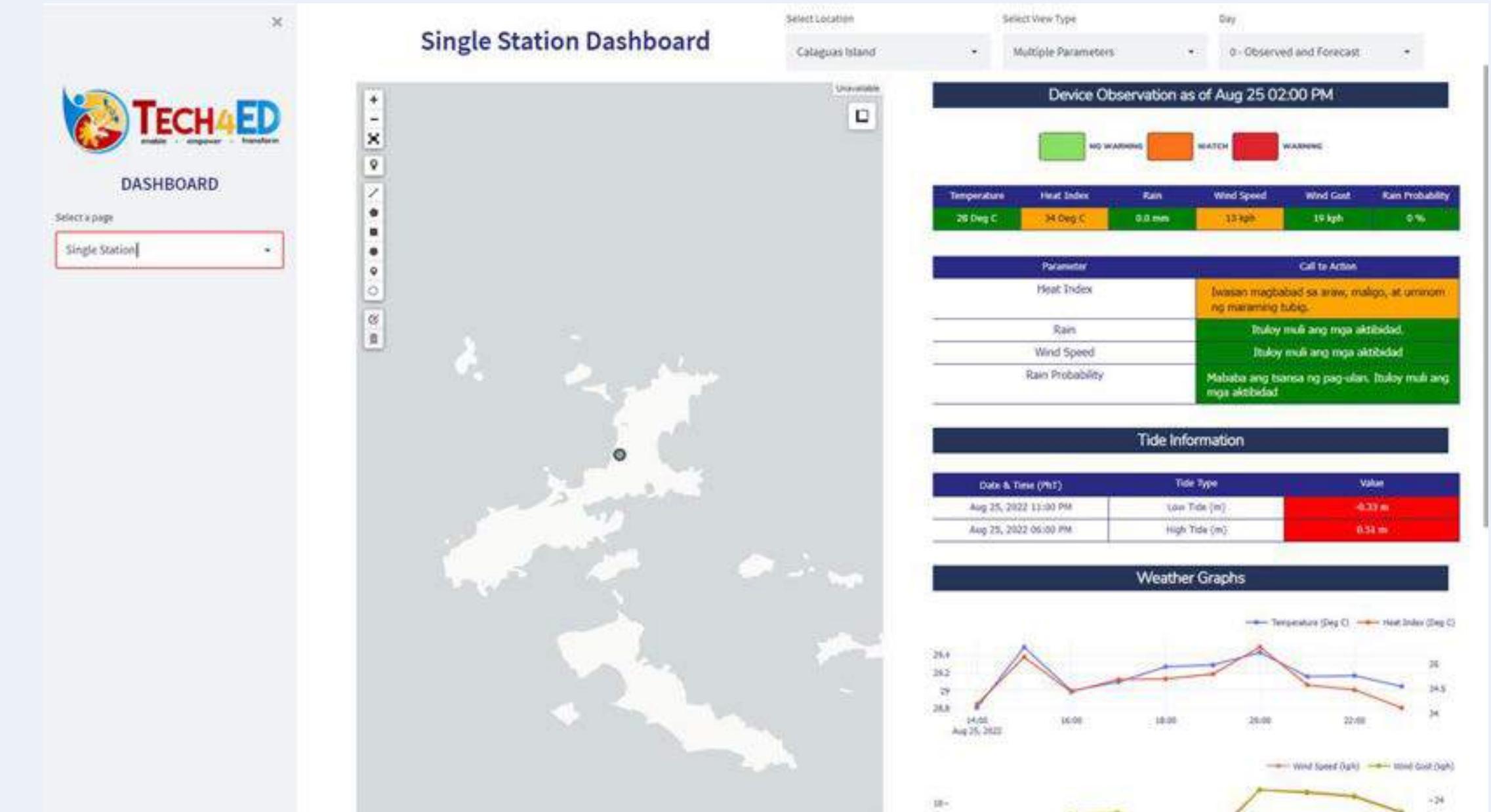
- Komunidad can also provide early warning system that can send alerts in a form of Email.
- The thresholds are customizable depending on the needs of user



KOMUNIDAD X TECH4ED DASHBOARD

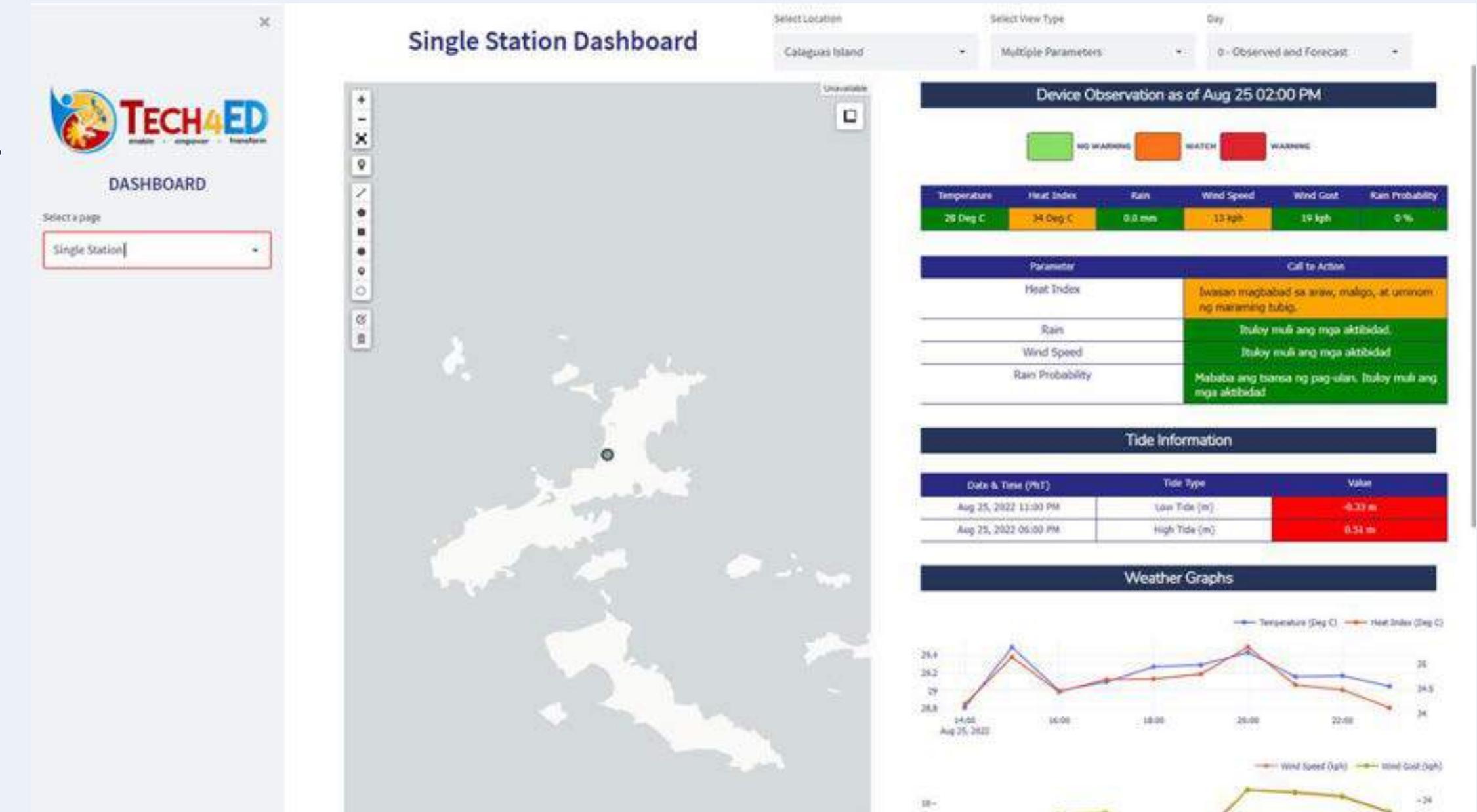
Komunidad x Tech4Ed Dashboard

- Komunidad provides dashboards based on the identified stations.
- Such weather and maritime parameters are included in this website.
- Site: www.komunidad-tech4ed.data-komunidad.co



Single Station Dashboard

- In this dashboard, maps and tables are provided.
- Call to actions are also given based on the values of weather and maritime parameters.
- It can be viewed as tabular (table) or by graphs.



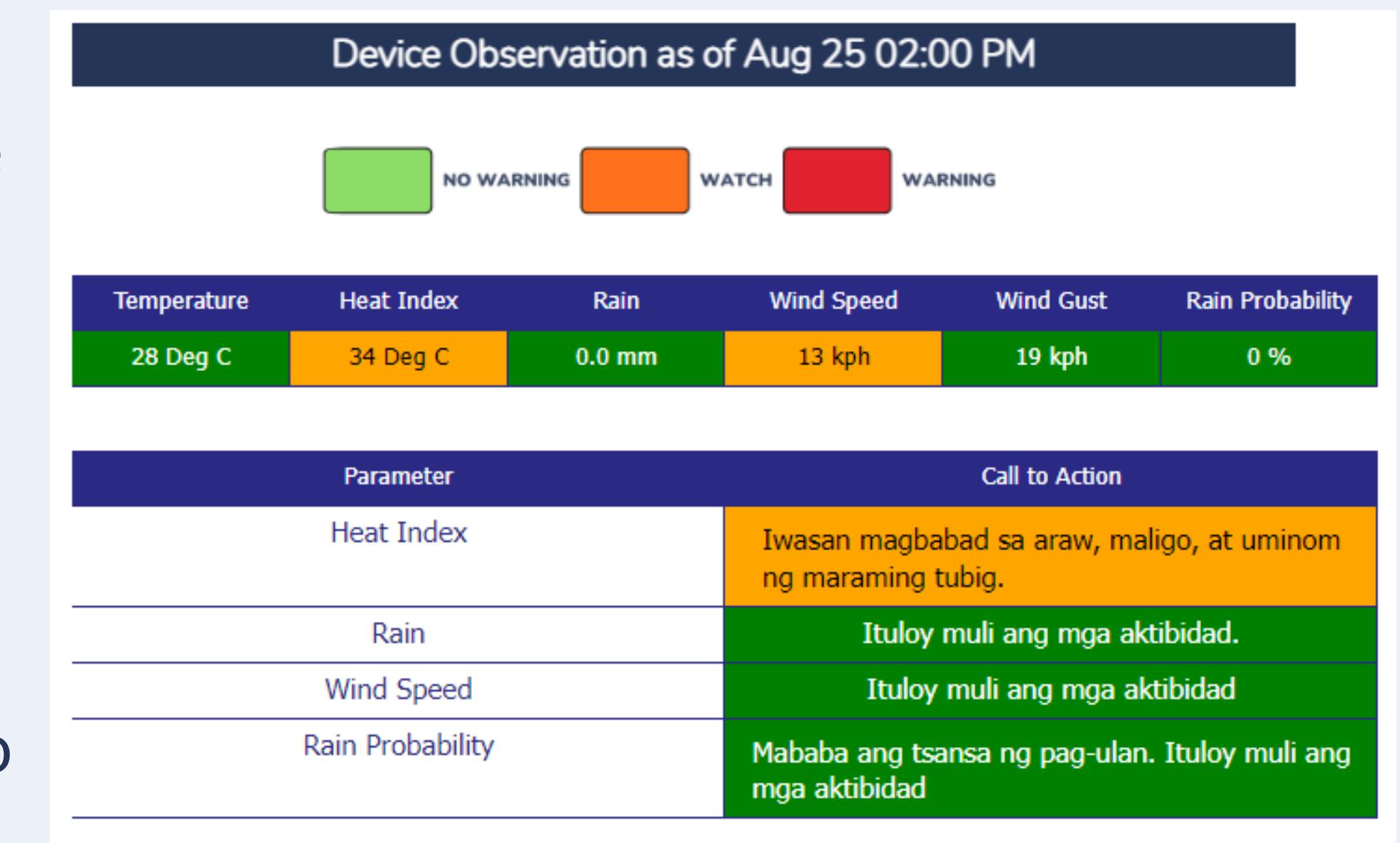
Single Station Dashboard

- Parameters included here are the following: Temperature, Dewpoint, Heat Index, Relative Humidity, Rain, Wind Speed, Wind Gust, Rain Probability, Wind Direction, Wave Height, Wave Direction, Wind Wave Significant Height, and the most important parameter, Tides.
- This dashboard is updating every thirty (30) minutes
- There are two (2) views for Single Station Dashboard: (i) Multiple Parameter and (ii) Single Parameter

Parts of Single Station Dashboard

Device Observation

- In this section, you can see the real-time weather update on the identified location and the call to actions on **how to respond when warnings are raised.**
- Warnings are translated to Tagalog for the community to better understand.



Parts of Single Station Dashboard

Tide Observation

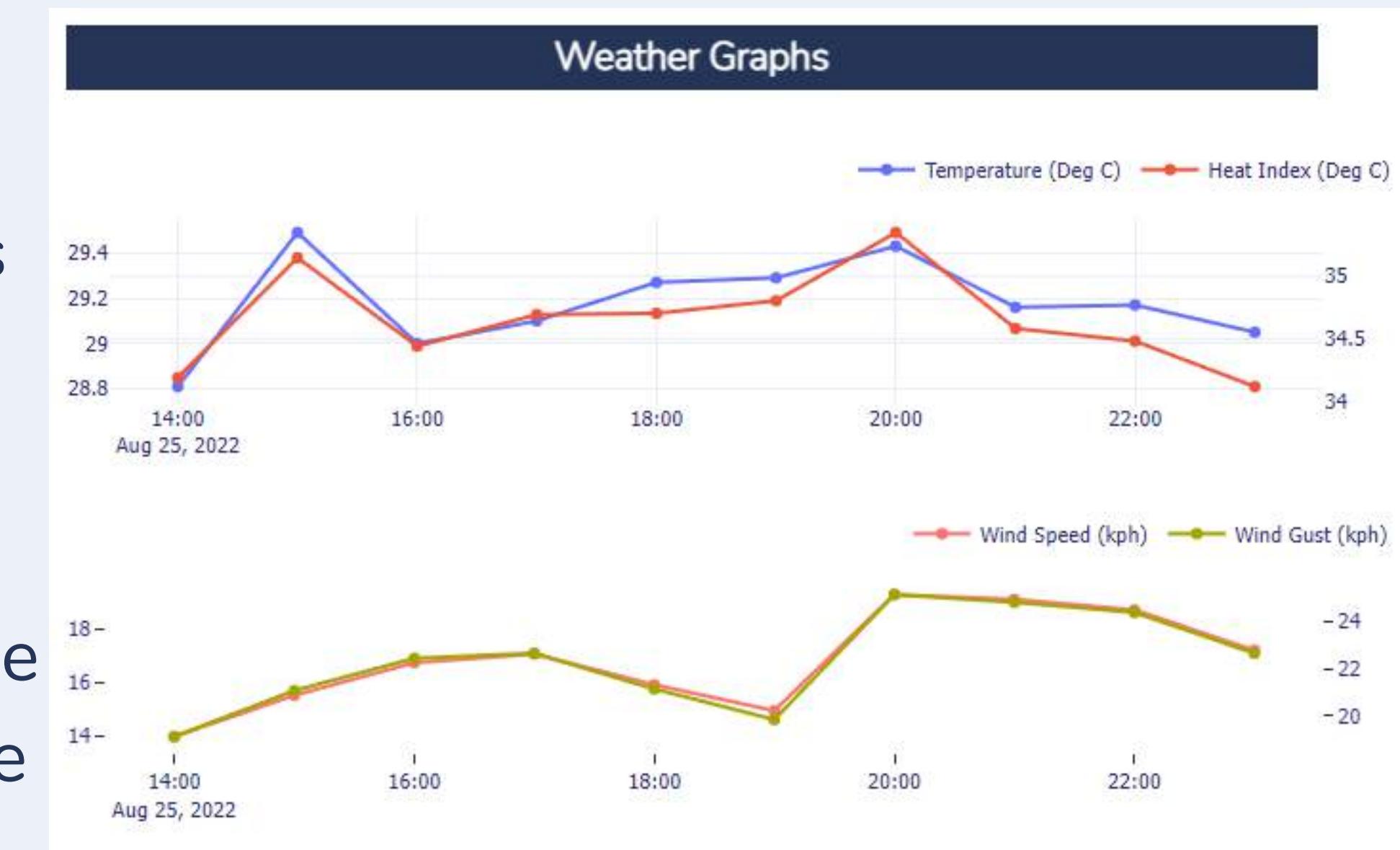
- In this section, you can see the date and time of the expected low tide and high tide, and the meters of level that will be decrease or increase.
- Important maritime parameter for Fishermans

Tide Information		
Date & Time (PhT)	Tide Type	Value
Aug 25, 2022 11:00 PM	Low Tide (m)	-0.33 m
Aug 25, 2022 06:00 PM	High Tide (m)	0.51 m

Parts of Single Station Dashboard

Weather Graphs - Multiple Weather Parameters

- In this section, you can see the graphs with several weather parameters such as temperature, heat index, wind speed, wind gust, etc..
- This is used for comparison and checking for what will be the expected weather for the next hours.



Parts of Single Station Dashboard

Map

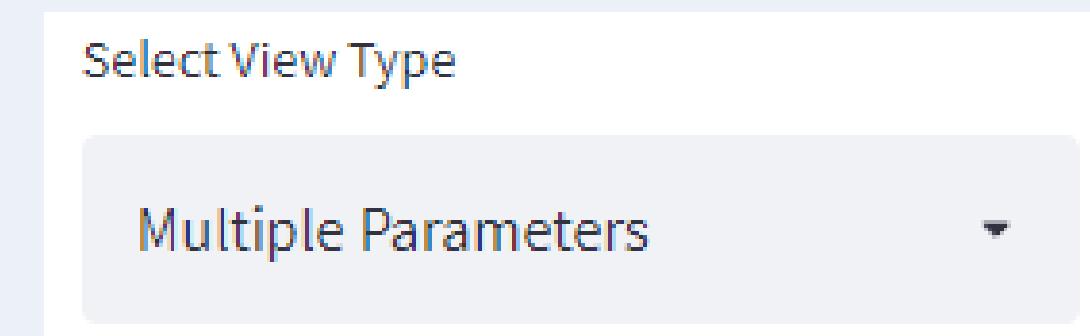
- In this section, you can see plotted identified location on the map and you can also see the current conditions of the location.
- This is the map version of the table version that was presented earlier.



Parts of Single Station Dashboard

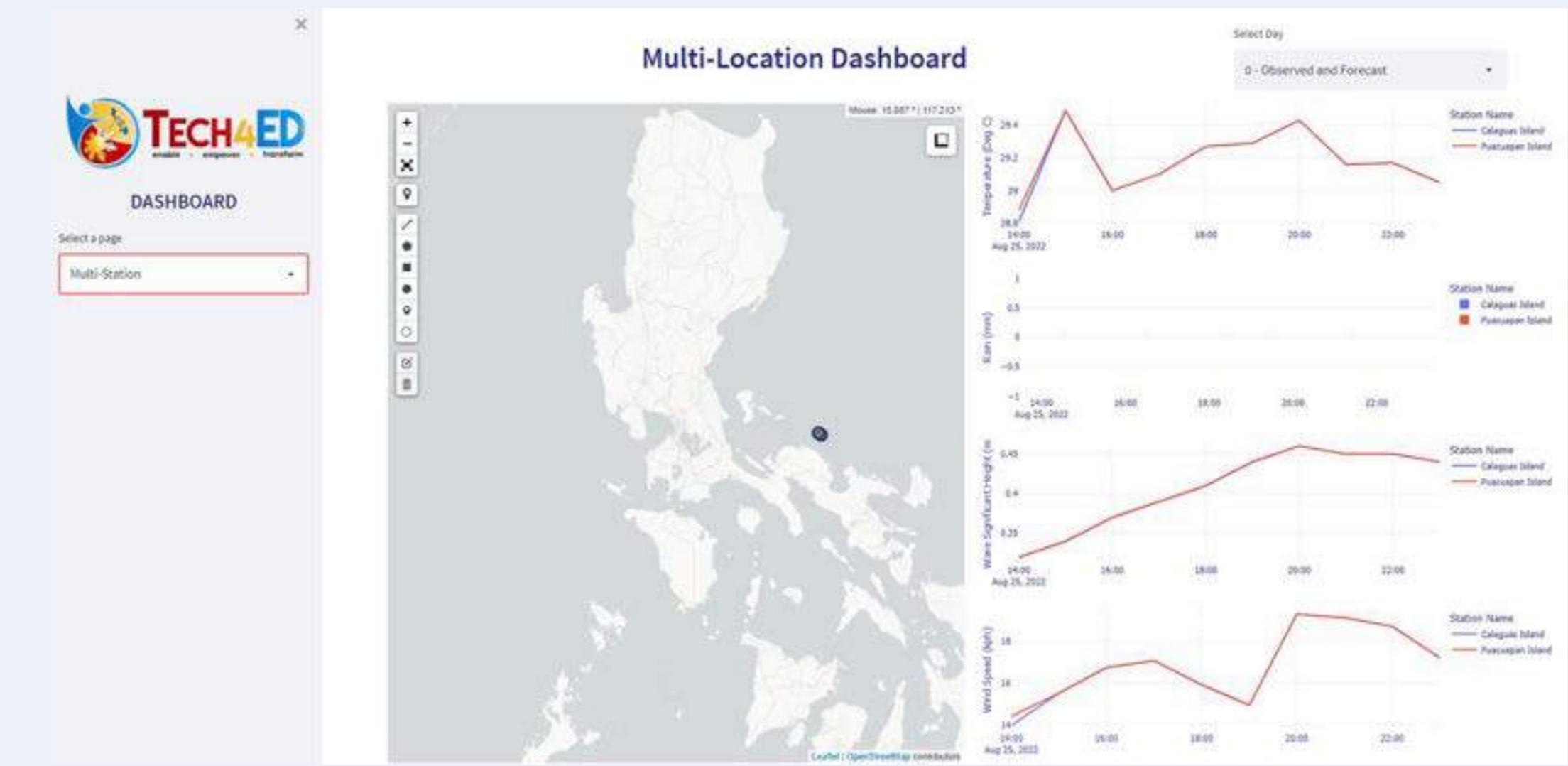
Controls

- In this section, you can choose what location you want, desired view type, and what day that will portray to the single station dashboard
- As of now, only one (1) location is currently integrated in the system



Multiple Station Dashboard

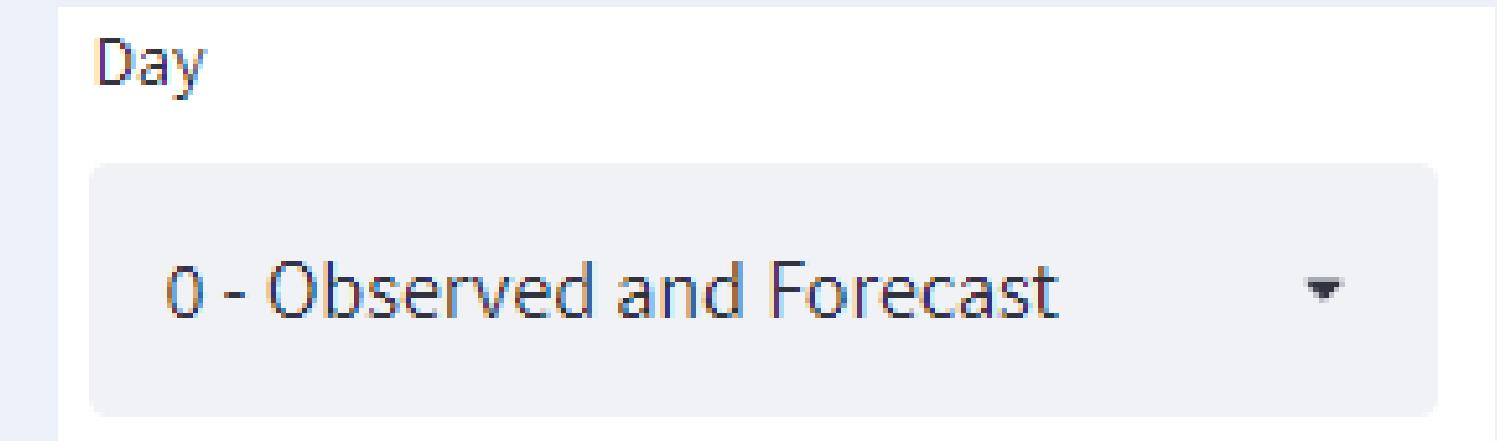
- In this dashboard, multiple locations are portrayed in this graph with the most important weather and maritime parameters such as: **Temperature, Rain, Wave Significant Height, Wind Speed, Tides**



Parts of Multiple Station Dashboard

Control

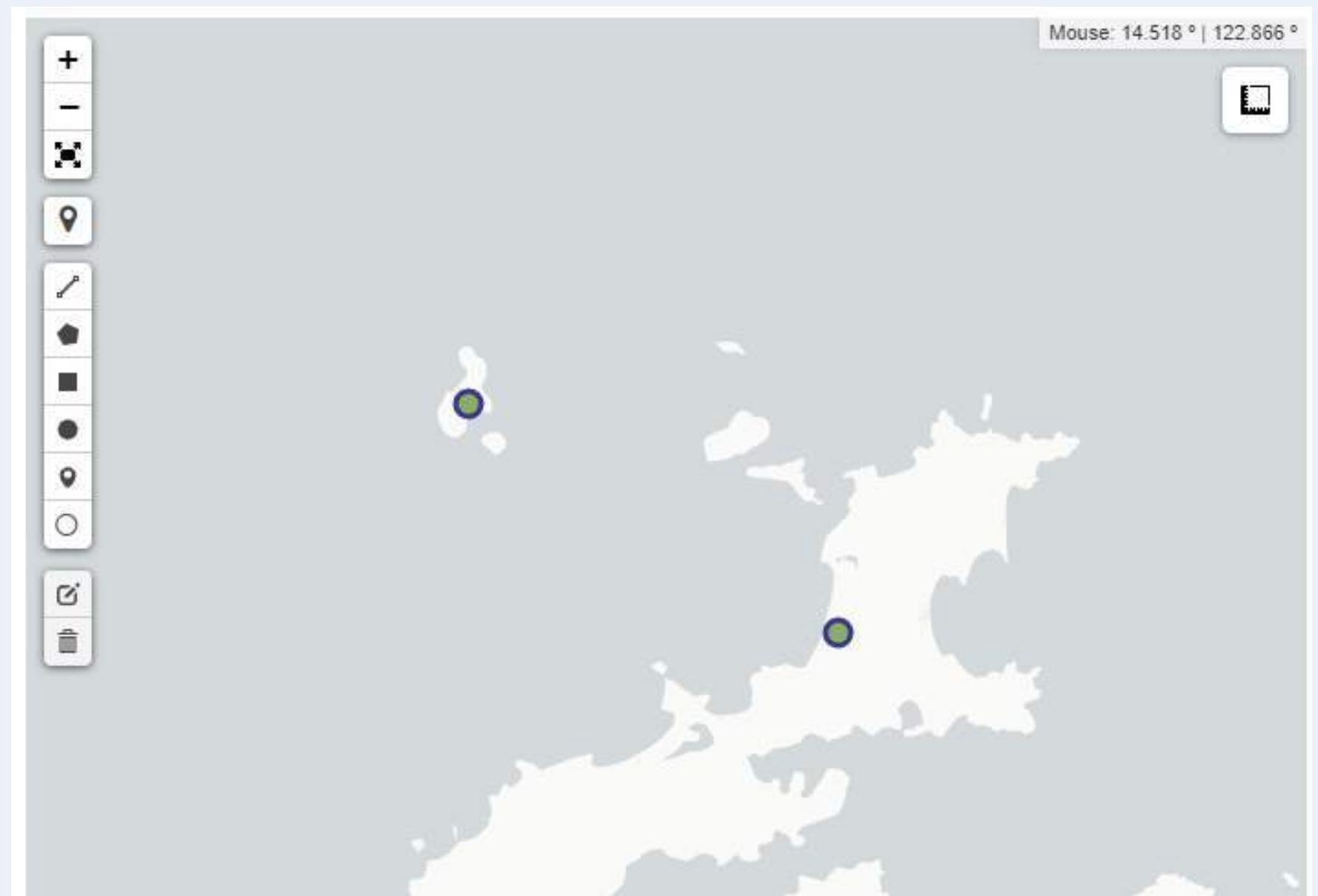
- In this section, the user can choose what day he/she will portray to the multiple station dashboard.
- As of now, only one (1) location is currently integrated in the system



Parts of Multiple Station Dashboard

Map

- In this section, you can see plotted identified locations on the map and you can also see the current conditions of the location (when hovered)



Tabular View Dashboard

- In this dashboard, you can see the projected weather condition during a specific day with all of the weather and maritime parameters included here.

Tabular View Dashboard

Select Location: Calaguas Island Day: 0 - Observed and Forecast

Synopsis:

Ang Calaguas Island ay makakaranas ng maaliwalas hanggang sa makulimlim na kalangitan na may mababang tsansa (0.0 - 0.0%) ng pag-ulan na may . Ang temperatura ay maglalalo sa 28.81 Degrees Celsius hanggang 29.49 Degrees Celsius at ang Heat Index o yung temperaturang na nadadama ng ating mga katawan ay maglalalo sa 34.12 Degrees Celsius hanggang 35.34 Degrees Celsius. Ibig sabihin nito, magiging mas mainit ang panahon ang inaasahan hangga't maaari iwasang magbilid sa araw upang maiwasan ang sakit na dulot ng init at uminom ng maraming tubig. Inaasahan din na magiging mahina ang lakas ng hangin (13.97 kph - 19.3 kph) mula hilaga hanggang hilaga na mararanasan sa Calaguas Island. Magiging kalmado ang kondisyon ng baybayin sa buong pagtaya ng panahon. Para sa Tide, inaasahan magkakaroon ng High Tide pagdating ng 06:00 PM na may pagtaas na aabot sa 0.51m. Inaasahan naman magkakaroon ng Low Tide pagsapit ng 11:00 PM na may pagbaba na aabot sa -0.33m.

Mga Dapat Gawin:

Parameter	Call to Action
Rain Probability	Mababa ang tsansa ng pag-ulan. Ituloy muli ang mga aktibidad.
Rain	Ituloy muli ang mga aktibidad.
Temperature and Heat Index	Iwasan magbilid sa araw at uminom ng maraming tubig upang maiwasan ang sakit.
Wind Speed	Ituloy muli ang mga aktibidad
Wave Height	Puwedeng pumalaot sa baybayin.
High Tide	Iwasang maligo sa dagat kapag malapit na ang oras ng high tide.
Low Tide	Hanoga't maaari, iwasang pumalaot sa dagat na maaaring ikasira ng mga corals.

Pagtataya ng panahon:

NO WARNING WATCH WARNING

Aug 25	Cloud Cover (%)	Dewpoint (Deg C)	Heat Index (Deg C)	Humidity (%)	Rain (mm)	Rain Probability (%)	Temperature (Deg C)	Tides (m)	Wave Direction (Deg)	Wave Significant Height (m)	Wind Direction (Deg)	Wind Gust (kph)	Wind Speed (kph)	Wind Wave Significant Height (m)
02:00 PM	58	25	34.19	80	0	0	28.81	-0.24	ENE	0.32	E	19.12	13.97	0.22
03:00 PM	28.13	24.77	35.14	75.81	0	0	29.49	0.07	ENE	0.34	ENE	21.06	15.52	0.22
04:00 PM	3.13	24.9	34.44	78.62	0	0	29	0.33	ENE	0.37	E	22.43	16.74	0.31

Tabular View Dashboard

- Along with Synopsis or projected weather for a day is the call to actions based on the warnings and values of every weather and maritime parameters.

Tabular View Dashboard

Select Location: Calaguas Island Day: 0 - Observed and Forecast

Synopsis:

Ang Calaguas Island ay makakaranas ng maaliwalas hanggang sa makulimlim na kalangitan na may mababang tsansa (0.0 - 0.0%) ng pag-ulan na may . Ang temperatura ay maglalalo sa 28.81 Degrees Celsius hanggang 29.49 Degrees Celsius at ang Heat Index o yung temperaturang na nadadama ng ating mga katawan ay maglalalo sa 34.12 Degrees Celsius hanggang 35.34 Degrees Celsius. Ibig sabihin nito, magiging mas mainit ang panahon ang inaasahan hangga't maaari iwasang magbilid sa araw upang maiwasan ang sakit na dulot ng init at uminom ng maraming tubig. Inaasahan din na magiging mahina ang lakas ng hangin (13.97 kph - 19.3 kph) mula hilaga hanggang hilaga na mararanasan sa Calaguas Island. Magiging kalmado ang kondisyon ng baybayin sa buong pagtaya ng panahon. Para sa Tide, inaasahan magkakaroon ng High Tide pagdating ng 06:00 PM na may pagtaas na aabot sa 0.51m. Inaasahan naman magkakaroon ng Low Tide pagsapit ng 11:00 PM na may pagbaba na aabot sa -0.33m.

Mga Dapat Gawin:

Parameter	Call to Action
Rain Probability	Mababa ang tsansa ng pag-ulan. Ituloy muli ang mga aktibidad.
Rain	Ituloy muli ang mga aktibidad.
Temperature and Heat Index	Iwasan magbilid sa araw at uminom ng maraming tubig upang maiwasan ang sakit.
Wind Speed	Ituloy muli ang mga aktibidad
Wave Height	Puwedeng pumalaot sa baybayin.
High Tide	Iwasang maligo sa dagat kapag malapit na ang oras ng high tide.
Low Tide	Hanoga't maaari, iwasang pumalaot sa dagat na maaaring ikasira ng mga corals.

Pagtataya ng panahon:

NO WARNING WATCH WARNING

Aug 25	Cloud Cover (%)	Dewpoint (Deg C)	Heat Index (Deg C)	Humidity (%)	Rain (mm)	Rain Probability (%)	Temperature (Deg C)	Tides (m)	Wave Direction (Deg)	Wave Significant Height (m)	Wind Direction (Deg)	Wind Gust (kph)	Wind Speed (kph)	Wind Wave Significant Height (m)
02:00 PM	58	25	34.19	80	0	0	28.81	-0.24	ENE	0.32	E	19.12	13.97	0.22
03:00 PM	28.13	24.77	35.14	75.81	0	0	29.49	0.07	ENE	0.34	ENE	21.06	15.52	0.22
04:00 PM	3.13	24.9	34.44	78.62	0	0	29	0.33	ENE	0.37	E	22.43	16.74	0.31

Tabular View Dashboard

- Lastly, the table portrayed below the call to action table is the forecast table.
- It portrays the projected weather and maritime condition for a day.

Tabular View Dashboard

Select Location: Calaguas Island Day: 0 - Observed and Forecast

Synopsis:

Ang Calaguas Island ay makakaranas ng maaliwalas hanggang sa makulimlim na kalangitan na may mababang tsansa (0.0 - 0.0%) ng pag-ulan na may . Ang temperatura ay maglalalo sa 28.81 Degrees Celsius hanggang 29.49 Degrees Celsius at ang Heat Index o yung temperaturang na nadadama ng ating mga katawan ay maglalalo sa 34.12 Degrees Celsius hanggang 35.34 Degrees Celsius. Ibig sabihin nito, magiging mas mainit ang panahon ang inaasahan hangga't maaari iwasang magbilid sa araw upang maiwasan ang sakit na dulot ng init at uminom ng maraming tubig. Inaasahan din na magiging mahina ang lakas ng hangin (13.97 kph - 19.3 kph) mula hilaga hanggang hilaga na mararanasan sa Calaguas Island. Magiging kalmado ang kondisyon ng baybayin sa buong pagtaya ng panahon. Para sa Tide, inaasahan magkakaroon ng High Tide pagdating ng 06:00 PM na may pagtaas na aabot sa 0.51m. Inaasahan naman magkakaroon ng Low Tide pagsapit ng 11:00 PM na may pagbaba na aabot sa -0.33m.

Mga Dapat Gawin:

Parameter	Call to Action
Rain Probability	Mababa ang tsansa ng pag-ulan. Ituloy muli ang mga aktibidad.
Rain	Ituloy muli ang mga aktibidad.
Temperature and Heat Index	Iwasan magbilid sa araw at uminom ng maraming tubig upang maiwasan ang sakit.
Wind Speed	Ituloy muli ang mga aktibidad
Wave Height	Puwedeng pumalaot sa baybayin.
High Tide	Iwasang maligo sa dagat kapag malapit na ang oras ng high tide.
Low Tide	Hanoga't maaari, iwasang pumalaot sa dagat na maaaring ikasira ng mga corals.

Pagtataya ng panahon:

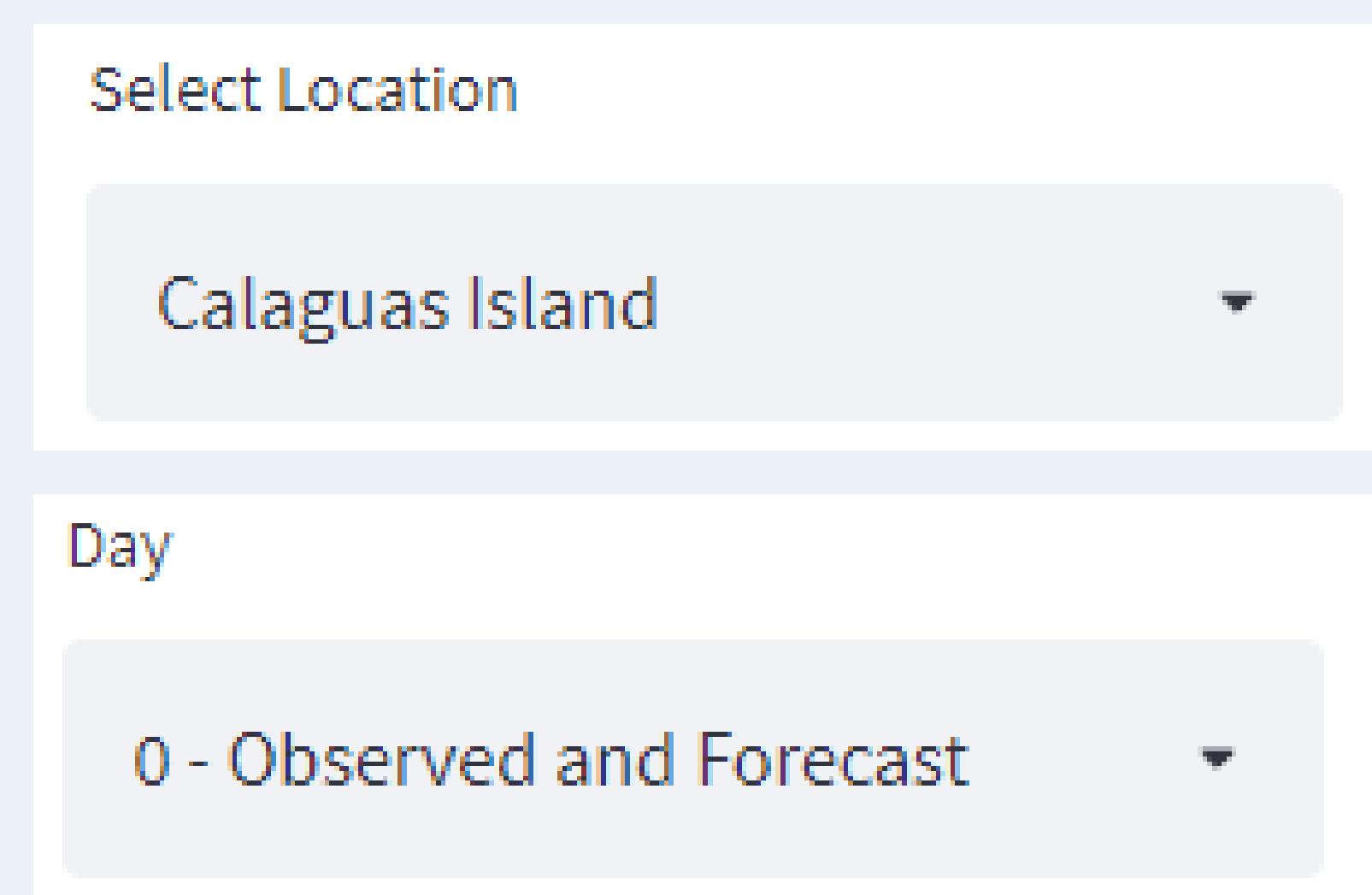
NO WARNING WATCH WARNING

Aug 25	Cloud Cover (%)	Dewpoint (Deg C)	Heat Index (Deg C)	Humidity (%)	Rain (mm)	Rain Probability (%)	Temperature (Deg C)	Tides (m)	Wave Direction (Deg)	Wave Significant Height (m)	Wind Direction (Deg)	Wind Gust (kph)	Wind Speed (kph)	Wind Wave Significant Height (m)
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03:00 PM	28.13	24.77	35.14	75.81	0	0	29.49	0.07	ENE	0.34	ENE	21.06	15.52	0.22
04:00 PM	3.13	24.9	34.44	78.62	0	0	29	0.33	ENE	0.37	E	22.43	16.74	0.31

Parts of Tabular View Dashboard

Controls

- In this section, you can choose what location you want, desired view type, and what day that will portray to the single station dashboard
- As of now, only one (1) location is currently integrated in the system



Parts of Tabular View Dashboard

Synopsis

Synopsis:

Ang Calaguas Island ay makakaranas ng maaliwalas hanggang sa makulimlim na kalangitan na may mababang tsansa (0.0 - 0.0%) ng pag-ulang na may . Ang temperatura ay maglalaro sa 28.81 Degrees Celsius hanggang 29.49 Degrees Celsius at ang Heat Index o yung temperaturang na nadadama ng ating mga katawan ay maglalaro sa 34.12 Degrees Celsius hanggang 35.34 Degrees Celsius. Ibig sabihin nito, magiging mas mainit ang panahon ang inaasahan hangga't maaari iwasang magbilad sa araw upang maiwasan ang sakit na dulot ng init at uminom ng maraming tubig. Inaasahan din na magiging mahina

ang lakas ng hangin (13.97 kph - 19.3 kph) mula hilaga hanggang hilaga na mararanasan sa Calaguas Island. Magiging kalmado ang kondisyon ng baybayin sa buong pagtaya ng panahon. Para sa Tide, inaasahan magkakaroon ng High Tide pagdating ng 06:00 PM na may pagtaas na aabot sa 0.51m.

Inaasahan naman magkakaroon ng Low Tide pagsapit ng 11:00 PM na may pagbaba na aabot sa -0.33m.

- In this section, you can see the projected weather for a day.
- Weather and Maritime Parameters are all included here
- Language used for this section is in Tagalog.

Parts of Tabular View Dashboard

Call to Action

Mga Dapat Gawin:	
Parameter	Call to Action
Rain Probability	Mababa ang tsansa ng pag-ulang. Ituloy muli ang mga aktibidad
Rain	Ituloy muli ang mga aktibidad.
Temperature and Heat Index	Iwasan magbilad sa araw at uminom ng maraming tubig upang maiwasan ang sakit.
Wind Speed	Ituloy muli ang mga aktibidad
Wave Height	Puwedeng pumalaot sa baybayin.
High Tide	Iwasang maligo sa dagat kapag malapit na ang oras ng high tide.
Low Tide	Hangga't maaari, iwasang pumalaot sa dagat na maaaring ikasira ng mga corals.

- In this section, selected parameters has call to actions as it is the most important parameters for decision-making
- Warnings are color-coded (**No Warning** - Green; **Watch** - Orange; **Red - Warning**) and it has an equivalent actions to do.
- Language used for Call to Action is in Tagalog

Parts of Tabular View Dashboard

Forecast Table

- In this section, all parameters are included and it is a table or tabular form of the graphs in Single and Multiple Station Page.
- Colors in the table are based on warnings.
- Explanation for the table is in Synopsis.

Pagtataya ng panahon:



Aug 25	Cloud Cover (%)	Dewpoint (Deg C)	Heat Index (Deg C)	Humidity (%)	Rain (mm)	Rain Probability (%)	Temperature (Deg C)	Tides (m)	Wave Direction (Deg)	Wave Significant Height (m)	Wind Direction (Deg)	Wind Gust (kph)	Wind Speed (kph)	Wind Wave Significant Height (m)
02:00 PM	98	25	34.19	80	0	0	28.81	-0.24	ENE	0.32	E	19.12	13.97	0.22
03:00 PM	28.13	24.77	35.14	75.81	0	0	29.49	0.07	ENE	0.34	ENE	21.06	15.52	0.22
04:00 PM	3.13	24.9	34.44	78.62	0	0	29	0.33	ENE	0.37	E	22.43	16.74	0.31
05:00 PM	20.31	24.98	34.69	78.49	0	0	29.1	0.49	ENE	0.39	ENE	22.64	17.06	0.31
06:00 PM	54.69	24.71	34.7	76.49	0	0	29.27	0.51	ENE	0.41	ENE	21.13	15.91	0.31
07:00 PM	7.03	24.79	34.8	76.78	0	0	29.29	0.4	ENE	0.44	ENE	19.84	14.94	0.38
08:00 PM	32.81	25.06	35.34	77.38	0	0	29.43	0.2	ENE	0.46	E	25.13	19.3	0.38
09:00 PM	6.25	24.76	34.58	77.19	0	0	29.16	-0.04	ENE	0.45	E	24.8	19.12	0.38
10:00 PM	10.94	24.67	34.48	76.76	0	0	29.17	-0.23	ENE	0.45	E	24.37	18.72	0.36
11:00 PM	12.5	24.49	34.12	76.46	0	0	29.05	-0.33	ENE	0.44	E	22.64	17.21	0.36

DEMO OF KOMUNIDAD X TECH4ED DASHBOARD