

## CURRENT CYCLONE INFORMATION

## As of 11:00 AM PhT today, Jan 17... 0300 GMT.

Classification/Name: TY Mekkhala (Amang)
Location: Over the western part of the Philippine Sea (near 11.6N 126.3E)
About: 100 km east of Borongan City, Eastern Samar...or 145 km east-northeast of Tacloban City, Leyte
Maximum Sustained Winds (10-min avg): 120 kph near the center...Gustiness: 150 kph
24 hr . Rain Accumulation (near and north of the center): $\mathbf{5 0}$ to $\mathbf{5 0 0} \mathbf{~ m m}$ [Moderate to Extreme] Minimum Central Pressure: 970 millibars (hPa)
Size of Circulation [Convective Cloud-Based, in diameter]: 900 km (Medium)
Area of Damaging Winds ( 95 kph or more): 55 km from the center
Past Movement: Northwest @ 20 kph
Forecast Movement: Northwest to West-Northwest @ 17 kph
Towards: Eastern Samar

TC NAME:


## TROPICAL CYCLONE 101

EXERCISE
GIVEN:

## TYPHOON "A"

Initial Position at 8:00 AM (0000 UTC): $9.0^{\circ} \mathrm{N} 138.0^{\circ} \mathrm{E}$
Forecast 24-hr Movement: Northwestward @ 26 kph
Maximum Sustained Winds near the center: 180 kph
Radius of Damaging Winds ( 95 kph or more): 150 km
FORMULA:


Distance $=$ Speed $\times$ Time
Speed = Distance $\div$ Time
Time = Distance $\div$ Speed
Round off values of distance and time to the nearest ten.
1.) Plot Typhoon A's position at 8:00 AM on the chart. Determine: a.) Typhoon A's position (coordinates) after 24 hours (day 1); b.) the time it enters the Philippine Area of Responsibility (PAR @ $135^{\circ} \mathrm{E}$ longitude). Use the scale at the upper right of the chart.
2.) What is its speed and direction if it is located at $15.0^{\circ} \mathrm{N} 127.0^{\circ} \mathrm{E}$ after the next 24 hours (day 2 )?
3.) Find its location after the succeeding 24 hours (day 3 ) if it changes its course to the west with the same speed.
4.) Determine the time that strong winds of 95 kph start to affect Manila.
5.) Determine the Closest Point of Approach (CPA) (distance, bearing and time) of the typhoon to Manila. CPA can be determined by taking the typhoon's nearest (perpendicular) distance from its path to a reference place.

TC NAME:
ANSWERS:

1.) a.) $13.0^{\circ} \mathrm{N} 134.0^{\circ} \mathrm{E}$; b.) $2: 00 \mathrm{AM}$ of day 1
2.) 33 kph ; WNW
3.) $15.0^{\circ} \mathrm{N} \quad 119.8^{\circ} \mathrm{E}$
4.) $12: 00$ midnight on day $3\left(15.0^{\circ} \mathrm{N} \quad 122.3^{\circ} \mathrm{E}\right)$
5.) $\mathrm{CPA}=50 \mathrm{~km}$ North of Manila @ 5:00 AM of


