



REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI

TROPICAL CYCLONE ADVISORY NO. 21

FROM: RSMC TROPICAL CYCLONES NEW DELHI DATED 05.12.2023

FROM: RSMC –TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, NAYPYI TAW (MYANMAR)
STORM WARNING CENTRE, BANGKOK (THAILAND)
STORM WARNING CENTRE, COLOMBO (SRILANKA)
STORM WARNING CENTRE, DHAKA (BANGLADESH)
STORM WARNING CENTRE, KARACHI (PAKISTAN)
METEOROLOGICAL OFFICE, MALE (MALDIVES)
OMAN METEOROLOGICAL DEPARTMENT, MUSCAT (THROUGH RTH JEDDAH)
YEMEN METEOROLOGICAL SERVICES, REPUBLIC OF YEMEN (THROUGH RTH JEDDAH)
NATIONAL CENTRE FOR METEOROLOGY, UAE (THROUGH RTH JEDDAH)
PRESIDENCY OF METEOROLOGY AND ENVIRONMENT, SAUDI ARABIA (THROUGH RTH JEDDAH)
IRAN METEOROLOGICAL ORGANISATION, (THROUGH RTH JEDDAH)
QATAR METEOROLOGICAL DEPARTMENT (THROUGH RTH JEDDAH)

TROPICAL CYCLONE ADVISORY NO. 21 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1530 UTC OF 05.12.2023 BASED ON 1200 UTC OF 05.12.2023

SUB: SEVERE CYCLONIC STORM “MICHAUNG” (PRONOUNCED AS MIGJAUM) WEAKENED INTO A CYCLONIC STORM OVER SOUTH COASTAL ANDHRA PRADESH (CYCLONE WARNING FOR ANDHRA PRADESH COAST: **RED MESSAGE**)

THE SEVERE CYCLONIC STORM “MICHAUNG” (PRONOUNCED AS MIGJAUM) OVER SOUTH COASTAL ANDHRA PRADESH MOVED NEARLY NORTHWARDS WITH A SPEED OF 10 KMPH DURING PAST 06 HOURS, WEAKENED INTO A CYCLONIC STORM AT 1000 UTC OF TODAY, THE 05 TH DECEMBER 2023.

IT LAY CENTERED AT 1200 UTC OF TODAY, THE 5TH DECEMBER, 2023 OVER SOUTH COASTAL ANDHRA PRADESH NEAR LATITUDE 16.0°N AND LONGITUDE 80.3°E, ABOUT 25 KM WEST-NORTHWEST OF BAPATLA AND 60 KM NORTH-NORTHEAST OF ONGOLE.

THE SYSTEM LIKELY TO MOVE NEARLY NORTHWARD AND FURTHER WEAKEN INTO A DEEP DEPRESSION IN NEXT 06 HOURS.

TRACK AND INTENSITY FORECASTS:

DATE/TIME (UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
05.12.23/1200	16.0/80.3	65-75 KMPH GUSTING TO 85 KMP	CYCLONIC STORM
05.12.23/1800	16.5/80.4	50-60 KMPH GUSTING TO 70 KMP	DEEP DEPRESSION
06.12.23/0000	17.0/80.5	35-45 KMPH GUSTING TO 55 KMP	DEPRESSION

Cloud distribution: (a) Isolated: <25%, Scattered:25-50%, Broken: 51-75%, Solid:>75%, Convection Intensity: (a) Weak: Cloud Top Temperature (CTT) >-25°C, (b) Moderate: CTT: - 25°C to -40°C, (c) Intense: CTT: - 41°C to -70°C and (d) Very Intense: : Less than -70°C
PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION):NIL: 0%, LOW: 1-33%, , MODERATE: 34-66% AND HIGH: 67-100%
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INSAT-3D IMAGERY AT 1200 UTC OF 5TH DECEMBER, INDICATES ASSOCIATED WITH THE SYSTEM BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WESTCENTRAL BAY OF BENGAL BETWEEN LATITUDE 13.5°N TO 18.5°N LONGITUDE 78.0E TO 83.0E. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 84 DEGREE CELSIUS.

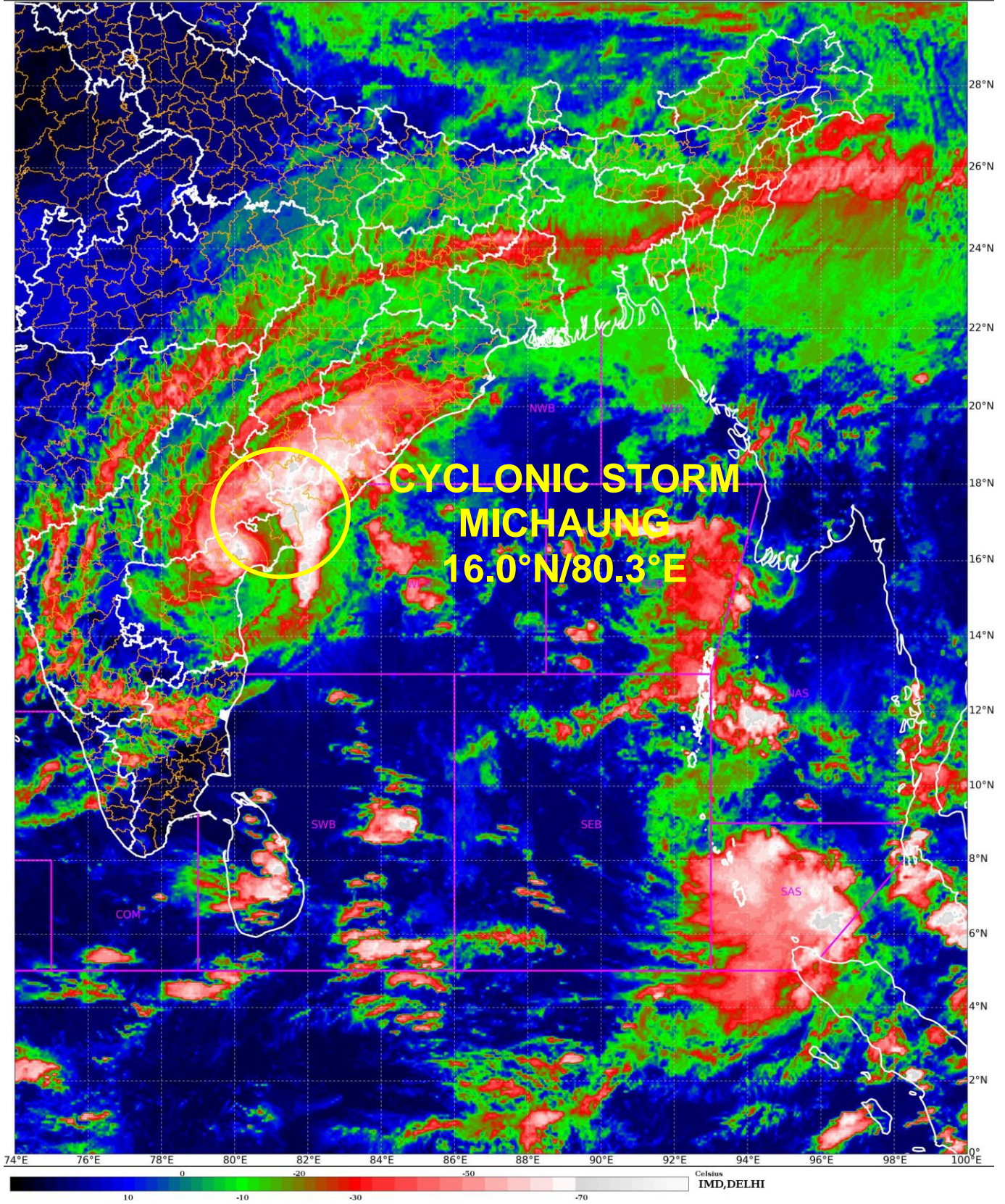
ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 40 KNOTS GUSTING TO 50 KNOTS. IT IS LIKELY TO DECREASE AND BECOME 30 KNOTS GUSTING TO 40 KNOTS DURING NEXT 6 HOURS. ESTIMATED CENTRAL PRESSURE IS 996 HPA. SEA CONDITION IS HIGH OVER WESTCENTRAL BAY OF BENGAL AND ALONG & OFF SOUTH ANDHRA PRADESH COAST.

RADAR PICTURE OF MACHILIPATNAM(43185) AT 1400 UTC SHOWS THE SYSTEM IS OVER LAND AND CROSSED COASTAL ANDHRA PRADESH.

CURRENT ENVIRONMENTAL FEATURES INDICATE, THE LOW LEVEL VORTICITY OF ABOUT $150 \times 10^{-6} \text{S}^{-1}$ AROUND SYSTEM CENTRE. POSITIVE LOW LEVEL CONVERGENCE HAS IS ABOUT $20 \times 10^{-5} \text{S}^{-1}$ TO THE EAST OF SYSTEM CENTRE. POSITIVE UPPER LEVEL DIVERGENCE IS ABOUT $20 \times 10^{-5} \text{S}^{-1}$ TO THE NORTH OF THE SYSTEM.

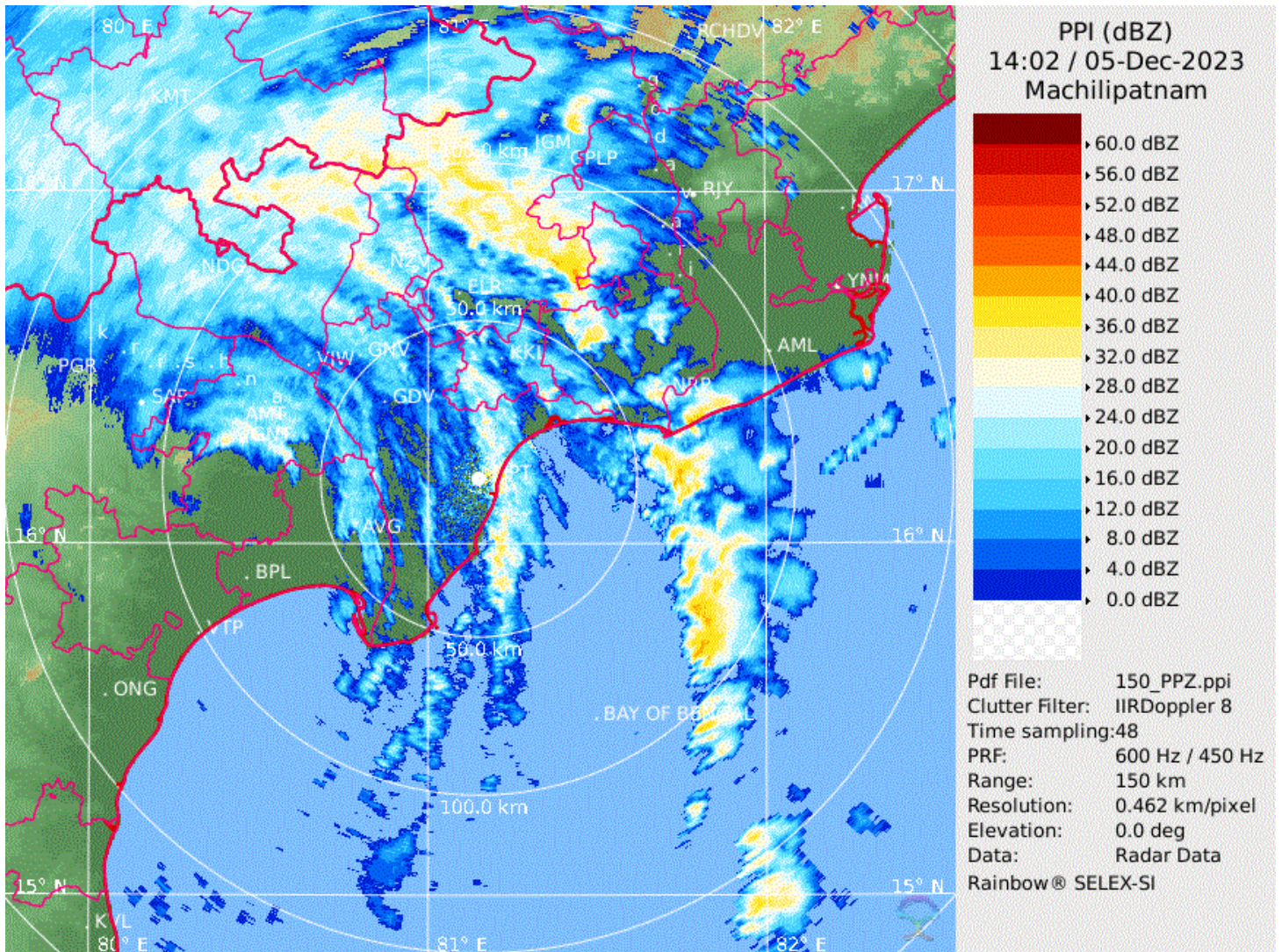
THE SYSTEM CROSSED SOUTH ANDHRA PRADESH COAST CLOSE TO SOUTH OF BAPTLA (43220), DURING 0700 TO 0900 UTC OF TODAY, THE 5TH DECEMBER 2023 AS A SEVERE CYCLONIC STORM WITH MAXIMUM SUSTAINED WIND SPEED OF 90-100 KMPH. THE CURRENT MAXIMUM SUSTAINED WIND SPEED IS 65-75 KMPH GUSTING TO 85 KMPH. AS THE SYSTEM IS COMPLETELY OVER THE LAND, DUE TO THE LAND INTERACTION THE INTENSITY WILL GRADUALLY DECREASE.

(ARULALAN T)
RSMC NEW DELHI



INSAT 3D Image based on 0900 UTC (1430 hrs IST) of 05th Dec 2023

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MAXIMUM REFLECTIVITY FROM DWR MACHILIPATNAM BASED ON 1402 UTC OF 05TH DECEMBER 2023

Cloud distribution: (a) Isolated: <25%, Scattered: 25-50%, Broken: 51-75%, Solid: >75%, Convection Intensity: (a) Weak: Cloud Top Temperature (CTT) >-25°C, (b) Moderate: CTT: - 25°C to -40°C, (c) Intense: CTT: - 41°C to -70°C and (d) Very Intense: : Less than -70°C
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OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY IN ASSOCIATION WITH CYCLONIC STORM "MICHAUNG" OVER SOUTH COASTAL ANDHRA PRADESH BASED ON 1200 UTC (1730 IST) OF 5TH DECEMBER 2023.



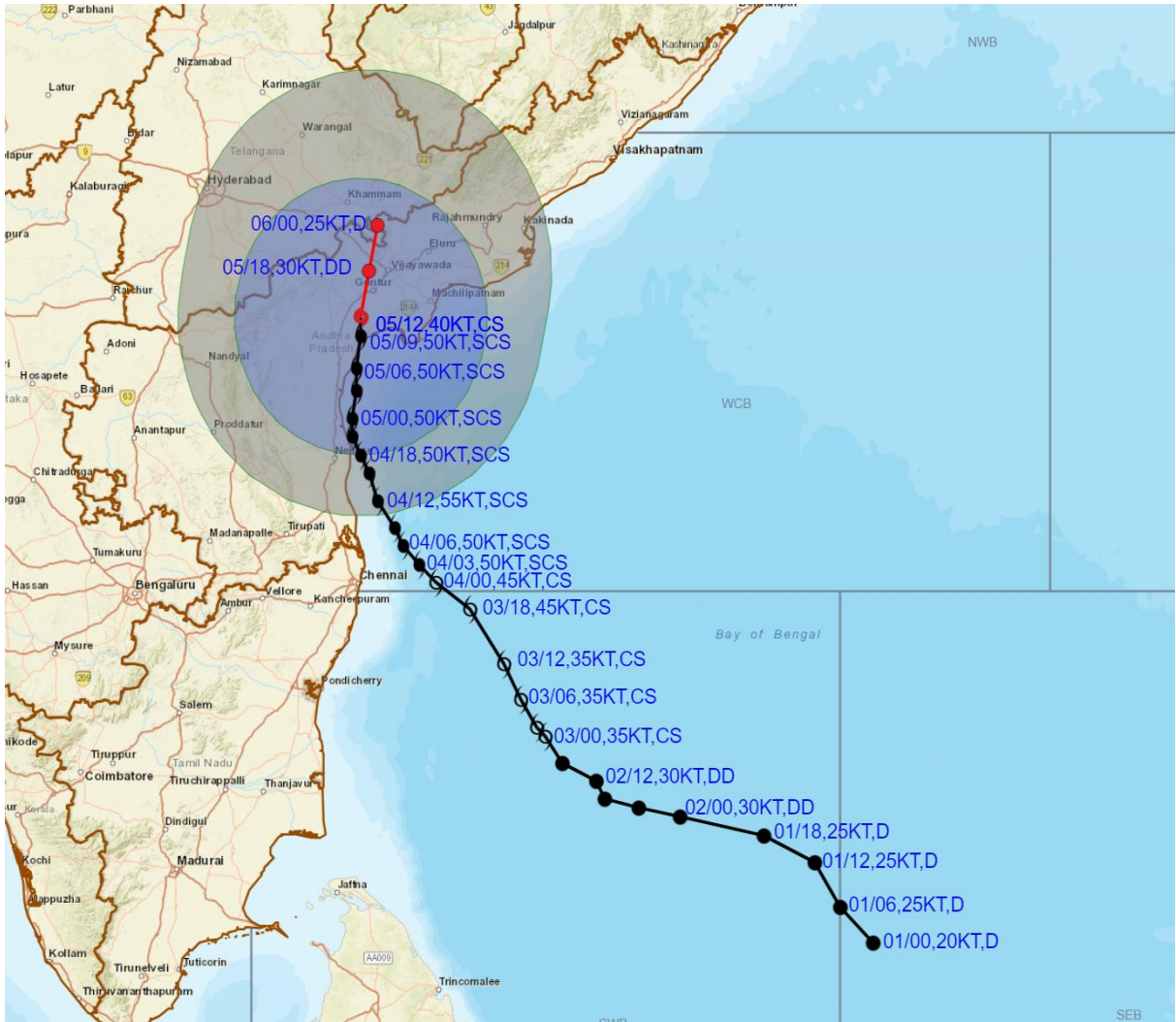
DATE/TIME IN UTC
IST=UTC + 0530
L: LOW PRESSURE AREA
WML: WELL MARKED LOW PRESSURE AREA
D: DEPRESSION (17-27 KT)
DD: DEEP DEPRESSION (28-33 KT)
CS: CYCLONIC STORM (34-47 KT)
SCS: SEVERE CYCLONIC STORM (48-63KT)
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
SuCS: SUPER CYCLONIC STORM (\geq 120 KT)

- LESS THAN 34 KT
- 34-47 KT
- \geq 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

Cloud distribution: (a) Isolated: <25%, Scattered:25-50%, Broken: 51-75%, Solid:>75%, Convection Intensity: (a) Weak: Cloud Top Temperature (CTT) >-25°C, (b) Moderate: CTT: - 25°C to -40°C, (c) Intense: CTT: - 41°C to -70°C and (d) Very Intense: : Less than -70°C
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OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND IN ASSOCIATION WITH SEVERE CYCLONIC STORM "MICHAUNG" OVER SOUTH COASTAL ANDHRA PRADESH BASED ON 1200 UTC (1730 IST) OF 5TH DECEMBER 2023.



DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
 SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

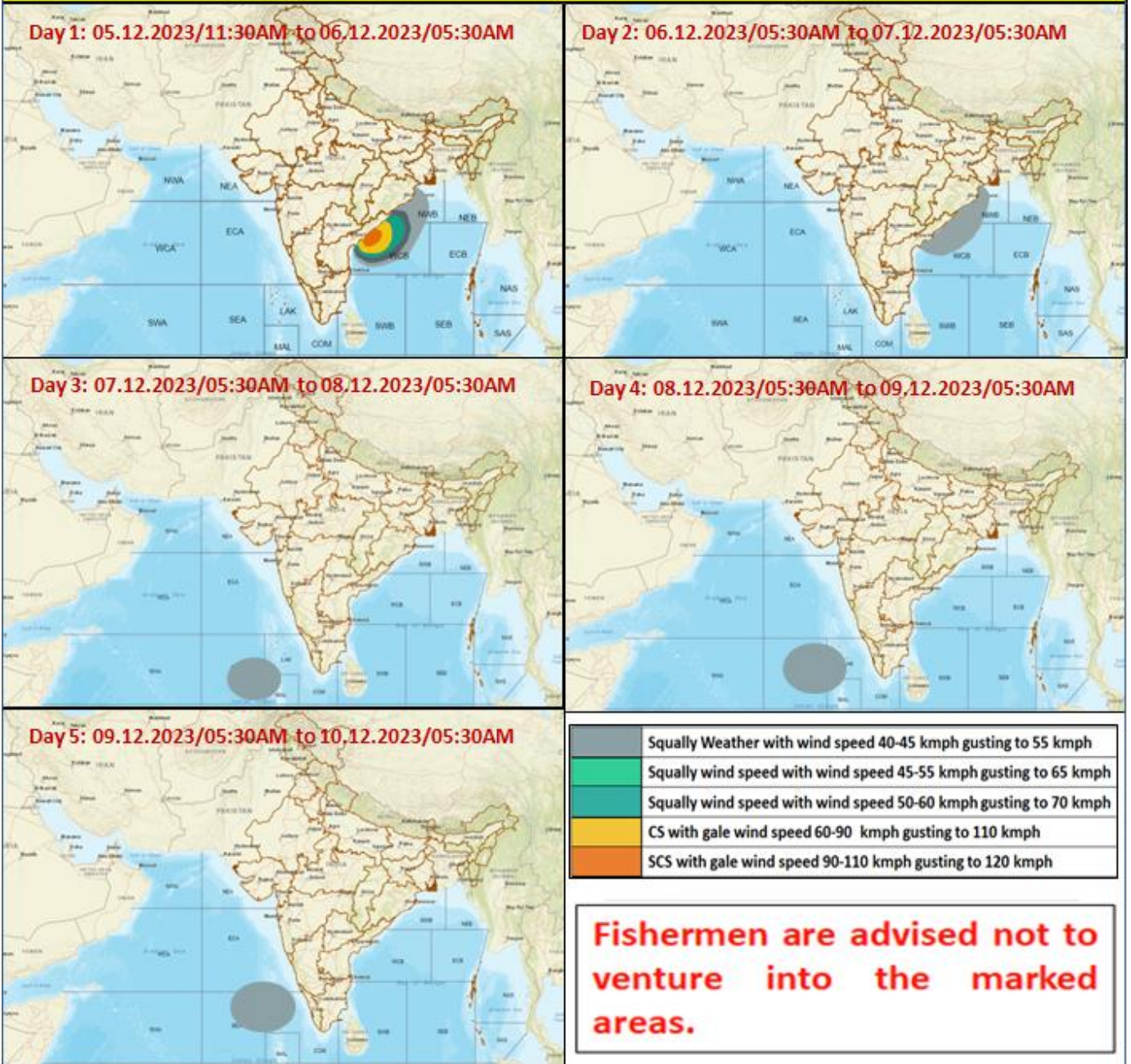
● LESS THAN 34 KT
 ○ 34-47 KT
 ● ≥ 48 KT
 — OBSERVED TRACK
 — FORECAST TRACK
 ○ CONE OF UNCERTAINTY
 AREA OF MAXIMUM SUSTAINED WIND SPEED:
 ■ 28-33 KT (52-61 KMPH)
 ■ 34-49 KT (62-91 KMPH)
 ■ 50-63 KT (92-117 KMPH)
 ■ ≥ 64 KT (≥ 118 KMPH)

IMPACT OVER THE SEA

MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥ 118)	Phenomenal	Total suspension of fishing operations

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Fishermen Warning Graphics



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Flash Flood Guidance

24 hours Outlook for the Flash Flood Risk (FFR) till 1130 IST of 06-12-2023 :

High flash flood risk likely over few watersheds & neighbourhoods of following coastal districts of **Andhra Pradesh**

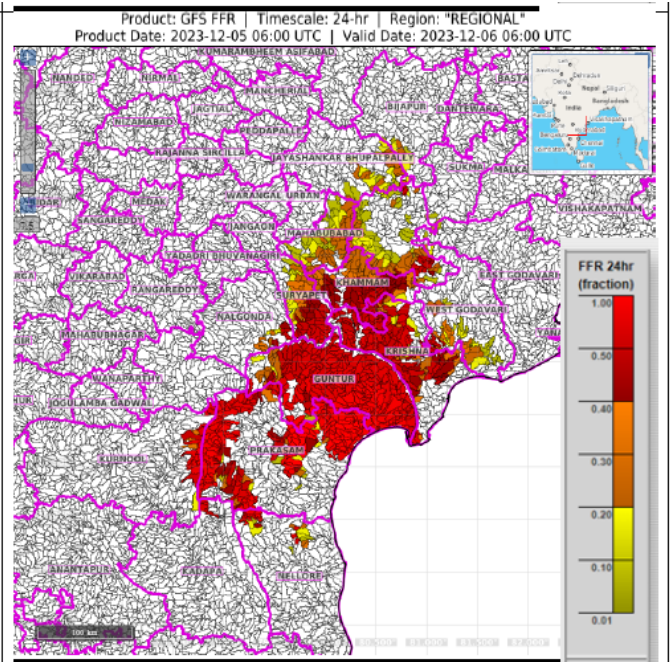
Guntur, Prakasam and Krishna (>50%) districts of **Andhra Pradesh**;

Moderate flash flood risk likely over few watersheds & neighbourhoods of following coastal districts (>20% - <50%) of **Andhra Pradesh and Telangana** during next 24 hours.

West Godavari, Guntur, Kumool, Prakasam and Nellore (>20% - <50%) districts of **Andhra Pradesh**;

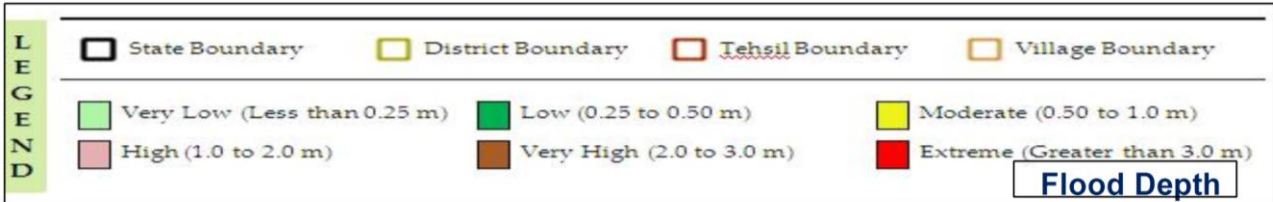
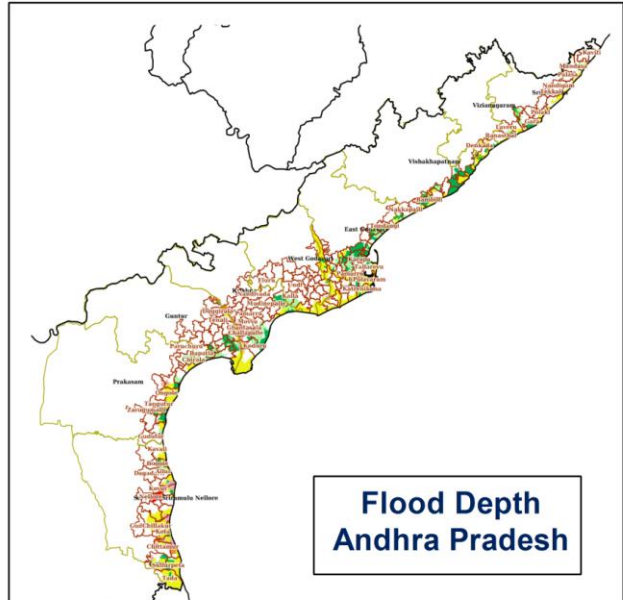
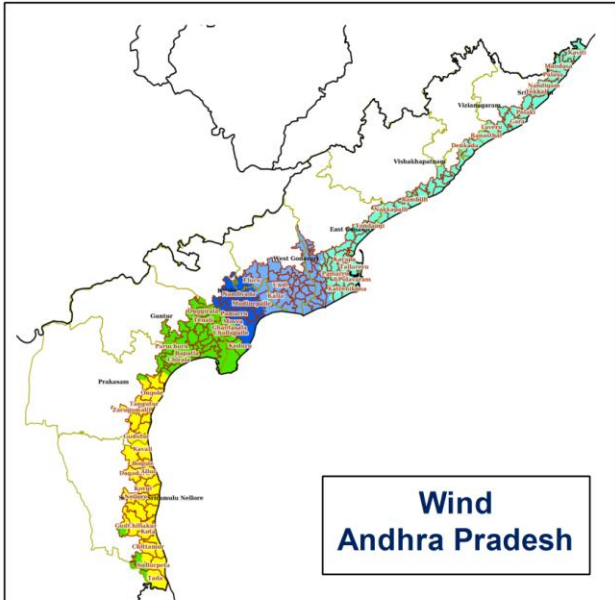
Nalgonda, Suryapet, Khammam, Bharadri kothagudem and Mahabubabad (>20% - <50%) districts of **Telangana**.

Surface runoff/ Inundation may occur at some fully saturated watersheds & low-lying areas over AoC as depicted in map due to Severe Cyclonic Storm 'Michaung' during next 24 hours.



Flash Flood Risk	
	High Risk (Take Action)
	Moderate Risk (Be Prepared)
	Low Risk (Be Updated)

Hazard Map with Severe Cyclonic Storm MICHAUNG over Westcentral & adjoining off south Andhra Pradesh coast



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