



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI  
TROPICAL CYCLONE ADVISORY NO. 20**

**DEMS-RSMCSPECIAL TROPICAL CYCLONES NEW DELHI DATED 25.10.2024**

**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.20 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1200 UTC OF 25.10.2024 BASED ON 0900 UTC OF 25.10.2024**

**SUB: CYCLONIC STORM “DANA” OVER NORTH COASTAL ODISHA WEAKENED INTO A DEEP DEPRESSION**

THE CYCLONIC STORM “DANA” (PRONOUNCED AS DANA) MOVED NORTHWESTWARDS WITH A SPEED OF 7 KMPH DURING PAST 6 HOURS, WEAKENED INTO A DEEP DEPRESSION AND LAY CENTRED NEAR LATITUDE 21.4°N AND LONGITUDE 86.4°E AT 0900 UTC OF TODAY, THE 25TH OCTOBER, ABOUT 40 KM NORTH-NORTHWEST OF BHADRAK (ODISHA). THE MAXIMUM SUSTAINED WIND SPEED AROUND THE CENTRE OF THE CYCLONE IS ABOUT 55-65 KMPH GUSTING TO 75 KMPH.

IT IS LIKELY TO MOVE NEARLY WESTWARDS ACROSS NORTH ODISHA AND WEAKEN GRADUALLY INTO A DEPRESSION DURING NEXT 12 HOURS.

THE SYSTEM IS UNDER CONTINUOUS SURVEILLANCE OF THE DOPPLER WEATHER RADAR AT PARADIP.

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

DATE/TIME (UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
25.10.24/0900	21.4/86.4	55-65 GUSTING TO 75	DEEP DEPRESSION
25.10.24/1200	21.4/86.2	50-60 GUSTING TO 70	DEEP DEPRESSION
25.10.24/1800	21.3/85.9	30-40 GUSTING TO 50	DEPRESSION

AS PER THE SATELLITE IMAGERY, THE ASSOCIATED SCATTERED TO BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTHEAST ODISHA. MINIMUM CTT IS MINUS 75-90°C. MODERATE TO INTENSE CONVECTION OVER GANGETIC WEST BENGAL, SOUTHEAST JHARKHAND AND NORTH BAY OF BENGAL.

ESTIMATED CENTRAL PRESSURE IS 996 HPA AND MAXIMUM SUSTAINED WIND SPEED IS 30 KNOTS GUSTING TO 40 KNOTS. SEA CONDITION IS HIGH OVER NORTHWEST BAY OF BENGAL.

**UNDER IT'S INFLUENCE:**

**(I) WIND WARNING:**

**NORTHWEST BAY OF BENGAL:** SQUALLY WIND SPEED REACHING 50-60 GUSTING TO 70 KMPH IS PREVAILING AND WOULD GRADUALLY DECREASE BECOMING 30-40 KMPH GUSTING TO 50 KMPH FROM 1200 UTC OF 25<sup>TH</sup> OCTOBER 2024.

**(II) SEA CONDITION:**

SEA CONDITION IS LIKELY TO BE **VERY ROUGH TO ROUGH OVER NORTHWEST BAY OF BENGAL AND ALONG & OFF ODISHA-WESTBENGAL COASTS** TILL 25<sup>TH</sup> EVENING AND IMPROVE GRADUALLY THEREAFTER.

**(III) FISHERMEN WARNING:**

FISHERMEN ARE ADVISED NOT TO VENTURE INTO NORTHWEST BAY OF BENGAL AND ALONG & OFF ODISHA AND WEST BENGAL COASTS ON 25<sup>TH</sup> OCTOBER.

**REMARKS:**

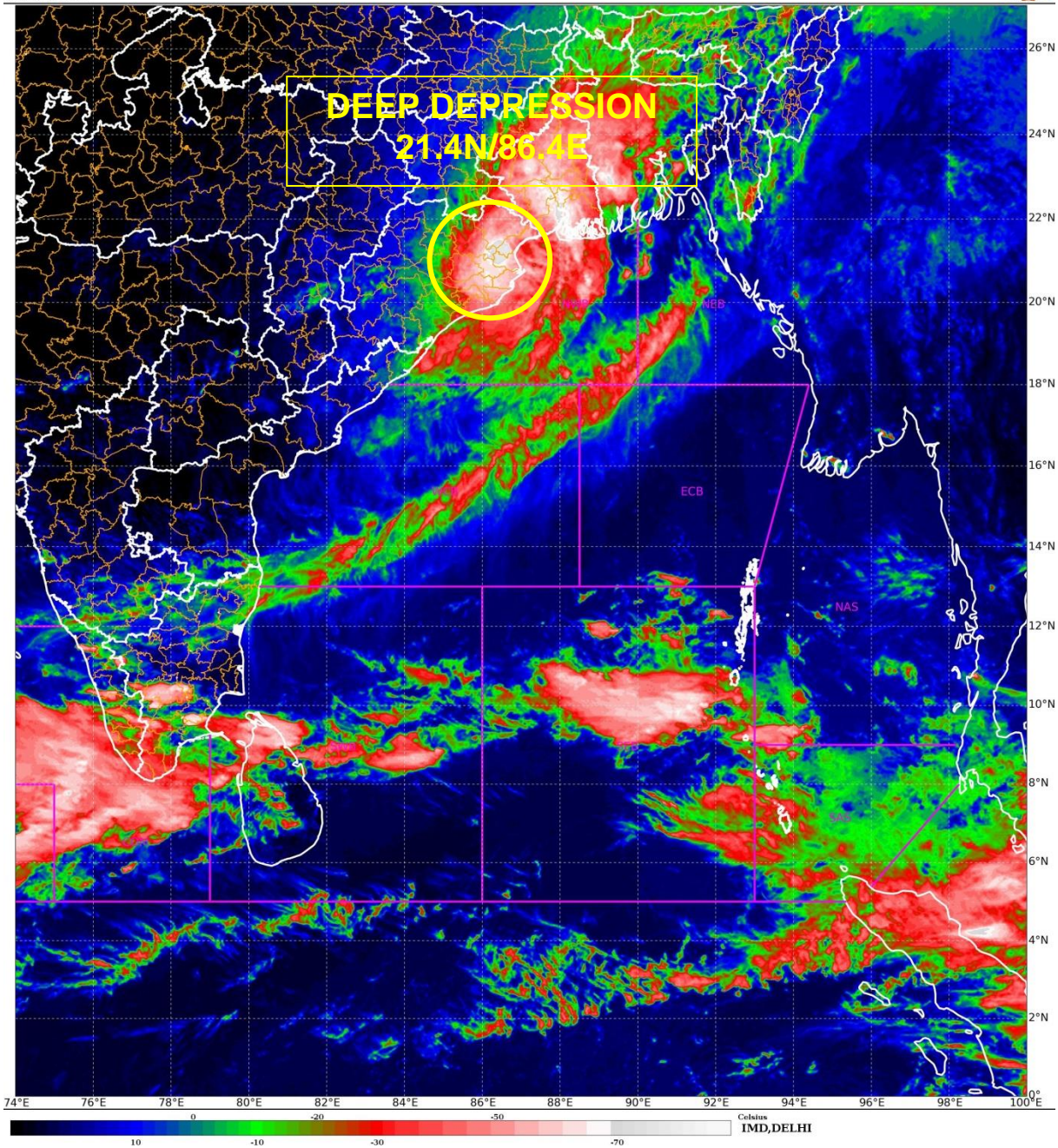
THE SEA SURFACE TEMPERATURE (SST) IS 29-30°C OVER CENTRAL & NORTH BOB. THE TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS >100 KJ/CM<sup>2</sup> OVER WESTCENTRAL BOB, AROUND 70-80 KJ/CM<sup>2</sup> OVER NORTHWEST BOB. VORTICITY AT LOW LEVEL IS  $200 \times 10^{-6} \text{S}^{-1}$  AROUND SYSTEM AREA WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. LOW-LEVEL CONVERGENCE IS AROUND  $20 \times 10^{-6} \text{S}^{-1}$  TO THE SYSTEM AREA. POSITIVE UPPER-LEVEL DIVERGENCE IS ALSO SAME AND IS  $30 \times 10^{-6} \text{S}^{-1}$  TO THE SYSTEM AREA AND EXTENDING WESTWARDS UPTO EASTCENTRAL BAY OF BENGAL. VERTICAL WIND SHEAR (VWS) IS LOW (05-10 KT) OVER SYSTEM AREA AND TO ITS WEST. THE UPPER TROPOSPHERIC RIDGE IS AROUND 20N AND AN ANTICYCLONIC CIRCULATION LAY OVER CHHATTISGARH (INDIA). EAST-SOUTHEASTWRLY WINDS PREVAILING IN UPPER TROPOSPHERIC LEVELS AE STEERING THE SYSTEM NEARLY WESTWARDS.

(M. SHARMA)  
SCIENTIST-D  
RSMC NEW DELHI

# SATELLITE IMAGERY

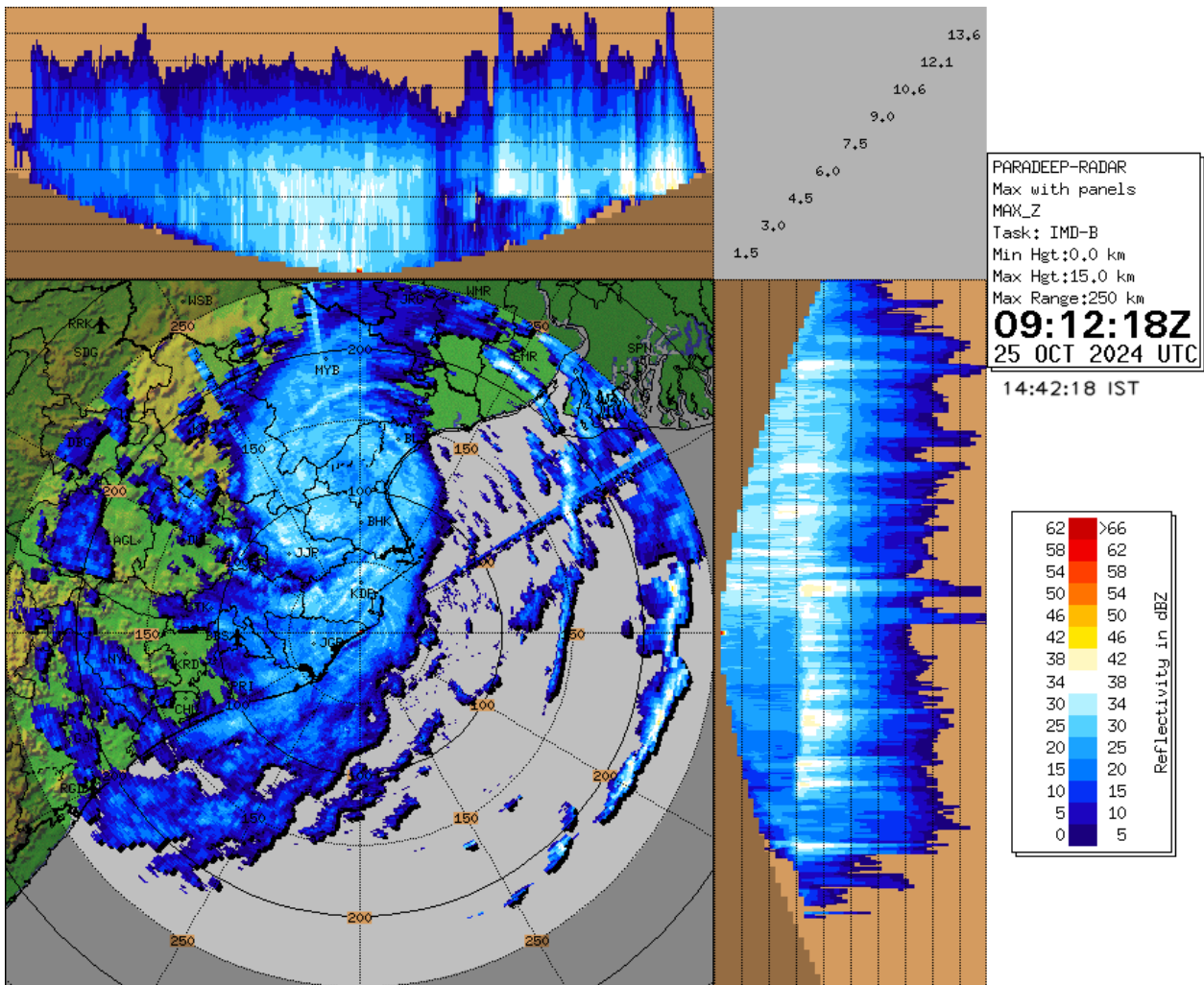
SAT : INSAT-3DR IMG  
IMG\_TIR1\_TEMP 10.8 um  
LIC Mercator

25-10-2024/(0815 to 0842) GMT  
25-10-2024/(1345 to 1412) IST



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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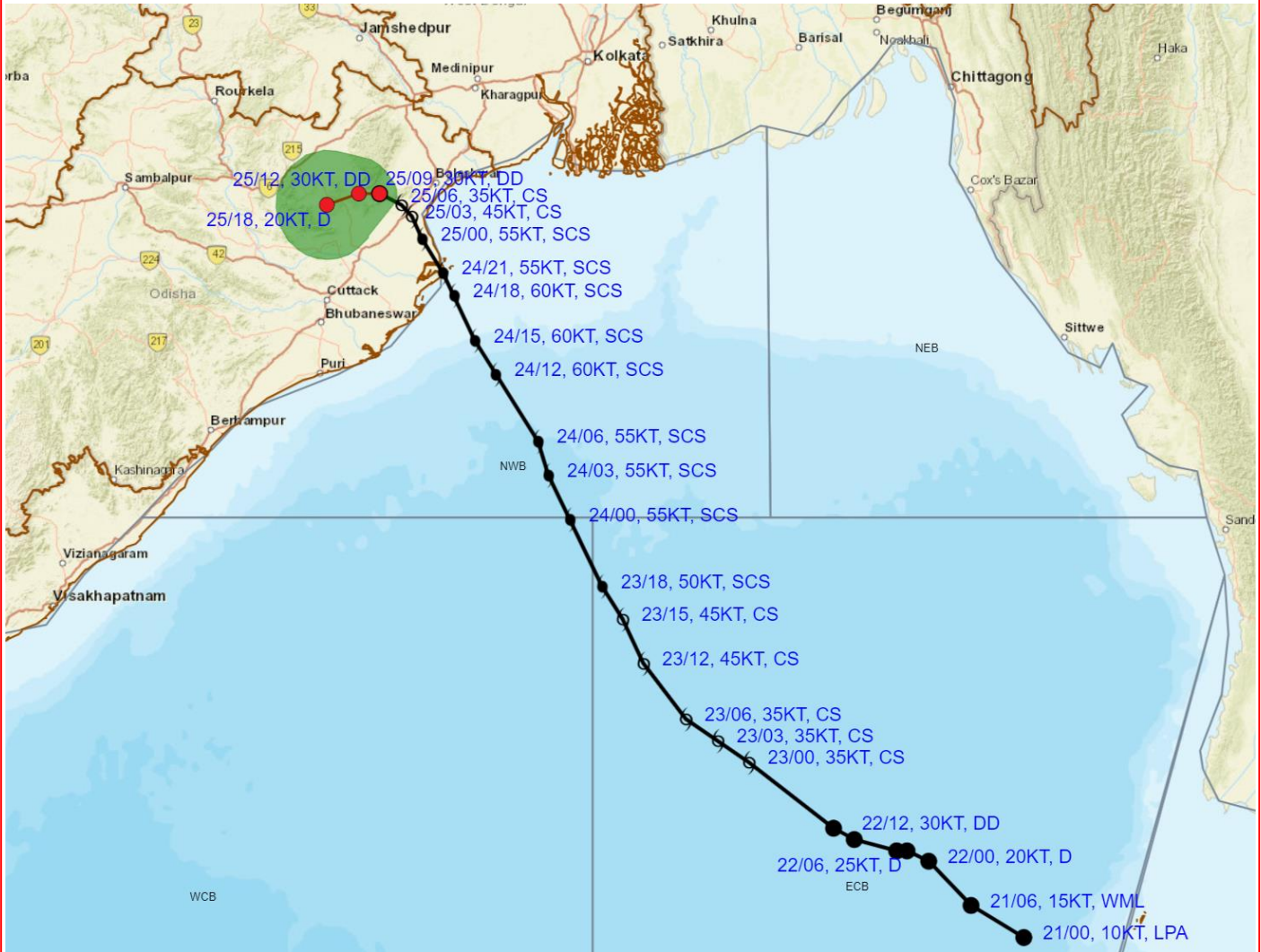
**RADAR OBSERVATIONS (MAX\_Z) OF DWR PARADIP**



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**OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEEP DEPRESSION (REMNANT OF CYCLONIC STORM 'DANA') OVER NORTH COASTAL ODISHA BASED ON 0900 UTC (1430 Hrs. IST) OF 25<sup>th</sup> OCTOBER 2024**



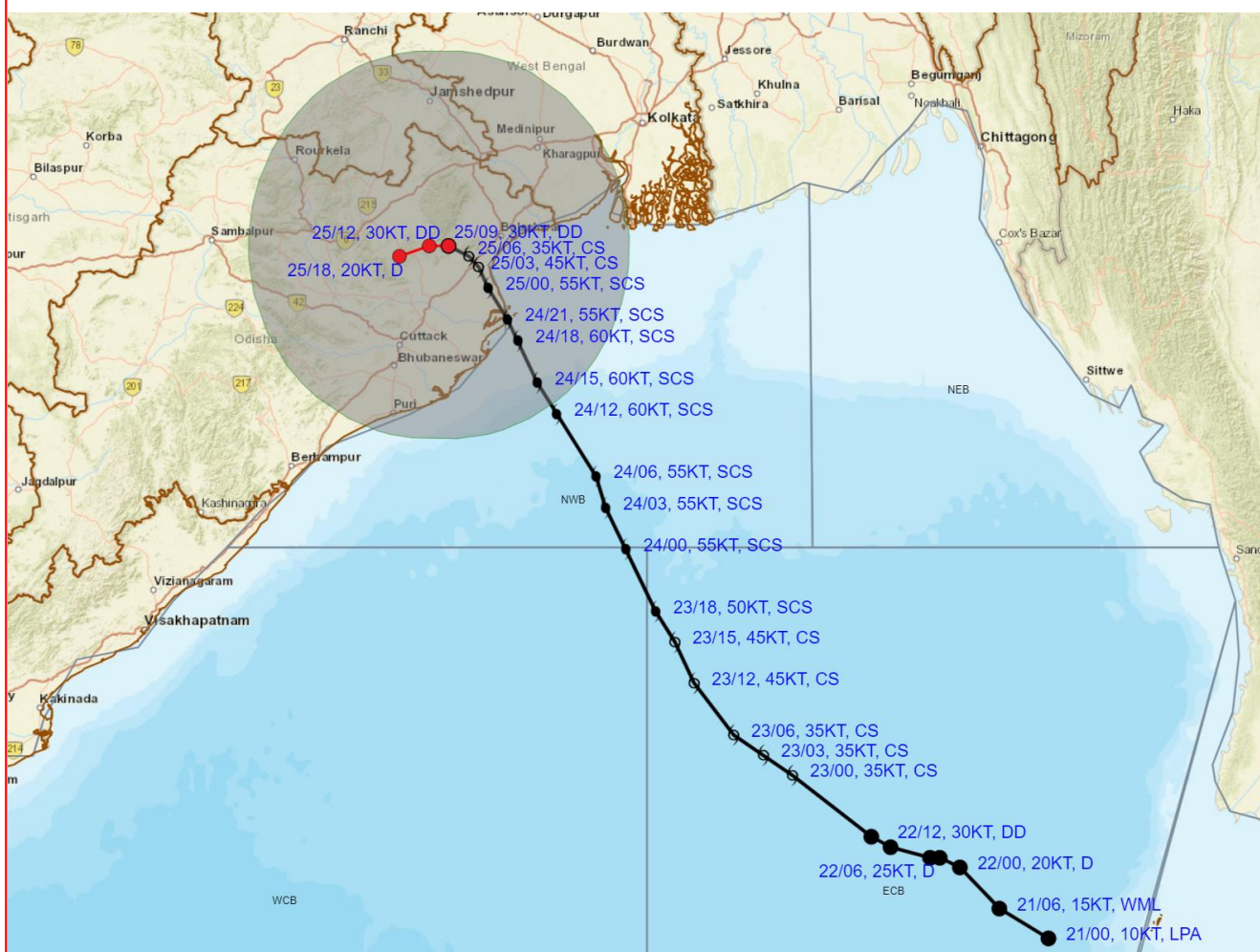
**DATE/TIME** : IN UTC  
**IST** : UTC + 0530  
**KT** : NAUTICAL MILE S/HOUR = 1.85 KM/HOUR  
**LPA** : LOW PRESSURE AREA  
**WML** : WELL MARKED LOW PRESSURE AREA  
**D** : DEPRESSION (17-27 KT)  
**DD** : DEEP DEPRESSION (28-33 KT)  
**CS** : CYCLONIC STORM (34-47 KT)  
**SCS** : SEVERE CYCLONIC STORM (48-63 KT)  
**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

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## OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION (REMNANT OF CYCLONIC STORM 'DANA') OVER NORTH COASTAL ODISHA BASED ON 0900 UTC (1430 Hrs. IST) OF 25<sup>th</sup> OCTOBER 2024



**DATE/TIME** : IN UTC  
**IST** : UTC + 0530  
**KT** : NAUTICAL MILE S/HOUR = 1.85 KM/HOUR  
**LPA** : LOW PRESSURE AREA  
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**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  
**AREA OF MAXIMUM SUSTAINED WIND SPEED:**  
 ■ 28-33 KT (52-61 KMPH)  
 ■ 34-49 KT (62-91 KMPH)  
 ■ 50-63 KT (92-117 KMPH)  
 ■  $\geq 64$  KT ( $\geq 118$  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
$\geq 64$ ( $\geq 118$ )	Phenomenal	Total suspension of fishing operations

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## Fishermen Warning Graphics



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