



**India Meteorological Department  
(Ministry of Earth Sciences)**

**HOURLY UPDATE ON SEVERE CYCLONIC STORM “DANA”**

**BULLETIN NO. 2**

DATE: 24-10-2024

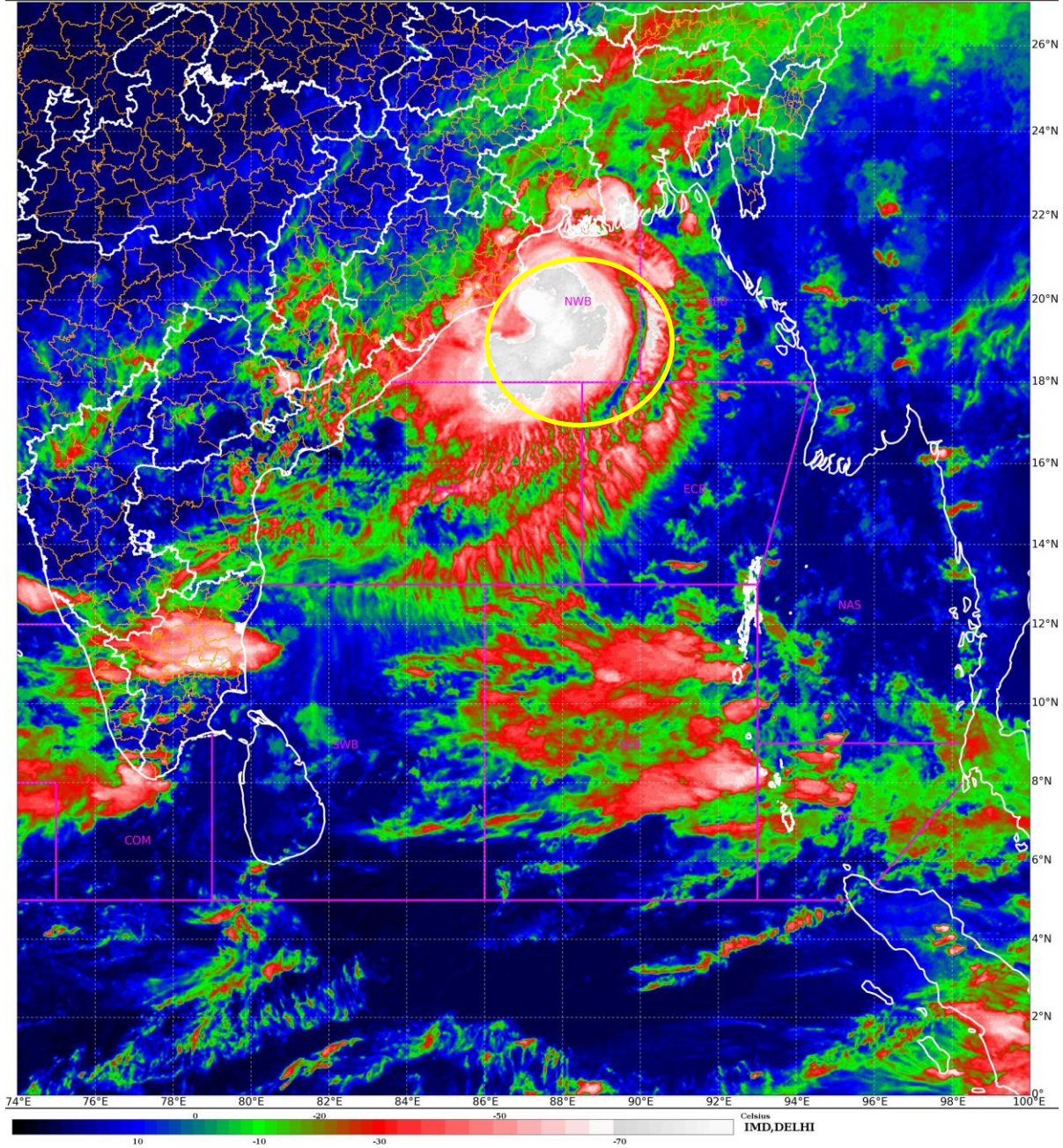
TIME OF ISSUE 2030 HRS IST

| <b>DATE/TIME (IST) OF OBSERVATION</b>   | <b>BASED ON 24-10-2024 (1830 HRS IST)</b>  |
|---|--|
| LOCATION<br>LATITUDE/LONGITUDE  | THE SEVERE CYCLONIC STORM “DANA” (PRONOUNCED AS DANA) OVER NORTHWEST BAY OF BENGAL MOVED NORTH-NORTHWESTWARDS WITH A SPEED OF 13 KMPH DURING PAST 6 HOURS AND LAY CENTRED AT 1830 HRS IST OF TODAY, THE 24TH OCTOBER, OVER THE SAME REGION, NEAR LATITUDE 19.9° N AND LONGITUDE 87.4°E, ABOUT 90 KM EAST-SOUTHEAST OF PARADIP (ODISHA), 110 KM SOUTH-SOUTHEAST OF DHAMARA (ODISHA) AND 210 KM SOUTH-SOUTHWEST OF SAGAR ISLAND (WEST BENGAL). |
| CURRENT INTENSITY<br>WIND SPEED   | SEVERE CYCLONIC STORM<br>105-115 KMPH GUSTING TO 125 KMPH  |
| FORECAST  | IT IS VERY LIKELY TO MOVE NORTH-NORTHWESTWARDS AND CROSS NORTH ODISHA AND WEST BENGAL COASTS BETWEEN PURI AND SAGAR ISLAND CLOSE TO BHITARKANIKA AND DHAMARA (ODISHA) DURING MID-NIGHT OF 24TH TO MORNING OF 25TH OCTOBER, 2024 AS A SEVERE CYCLONIC STORM WITH A WIND SPEED OF 100-110 KMPH GUSTING 120 KMPH.   |
| OBSERVED RAINFALL FROM 0830 HRS IST TO 1830 HRS IST (0300-1300 UTC) OF 24 <sup>TH</sup> OCT. (mm) | BHUBANESWAR-15.0, BALASORE-13.6, CHANDBALI-27.6, PARADIP-28.2<br>HALDIA-23.0, DIGHA-22.0   |
| OBSERVED WINDSPEED AT 1730 HRS IST (1200 UTC) OF 05 <sup>TH</sup> DEC. (KNOTS)                    | PARADIP- 14KT/ NNWLY, BHUBANESWAR-10 KT/ NNWLY, BALASORE-08 KT/NNELY, CANNING & DUMDUM 08 & 10 KT/NELY   |

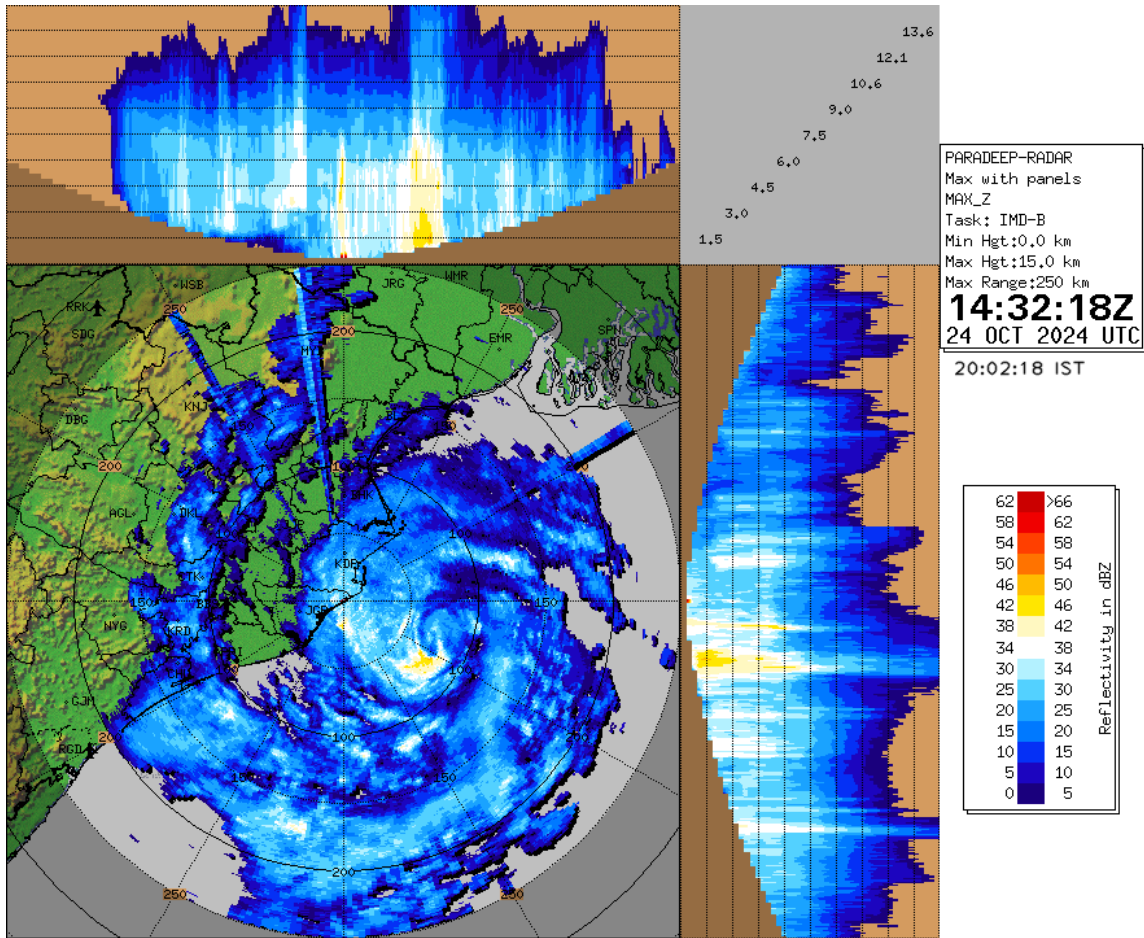
# SATELLITE IMAGERY

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

24-10-2024/(1345 to 1412) GMT  
24-10-2024/(1915 to 1942) IST



# RADAR OBSERVATIONS (MAX\_Z) OF DWR PARADIP



# RADAR OBSERVATIONS (MAX\_Z) OF DWR GOPALPUR

gopalpur\_weather\_2024\_10\_24\_14\_16\_55\_dsflmdb.dwr

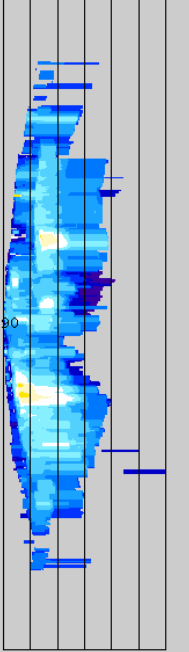
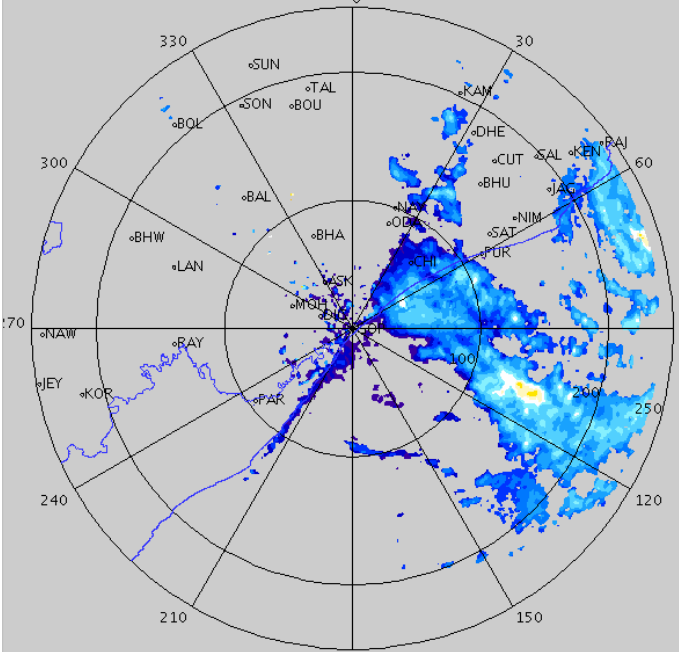
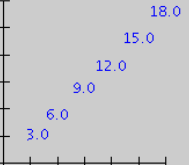
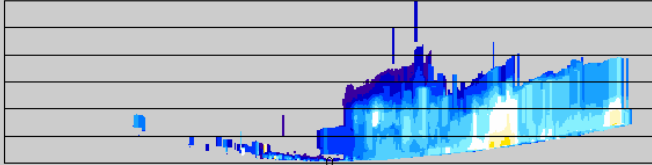
2024/10/24

14:16:55 (UTC)

19:46:55 IST

MAX(Z)

DWR GOPALPUR  
( 19.2743N , 84.8819E , 26.0000 mts )

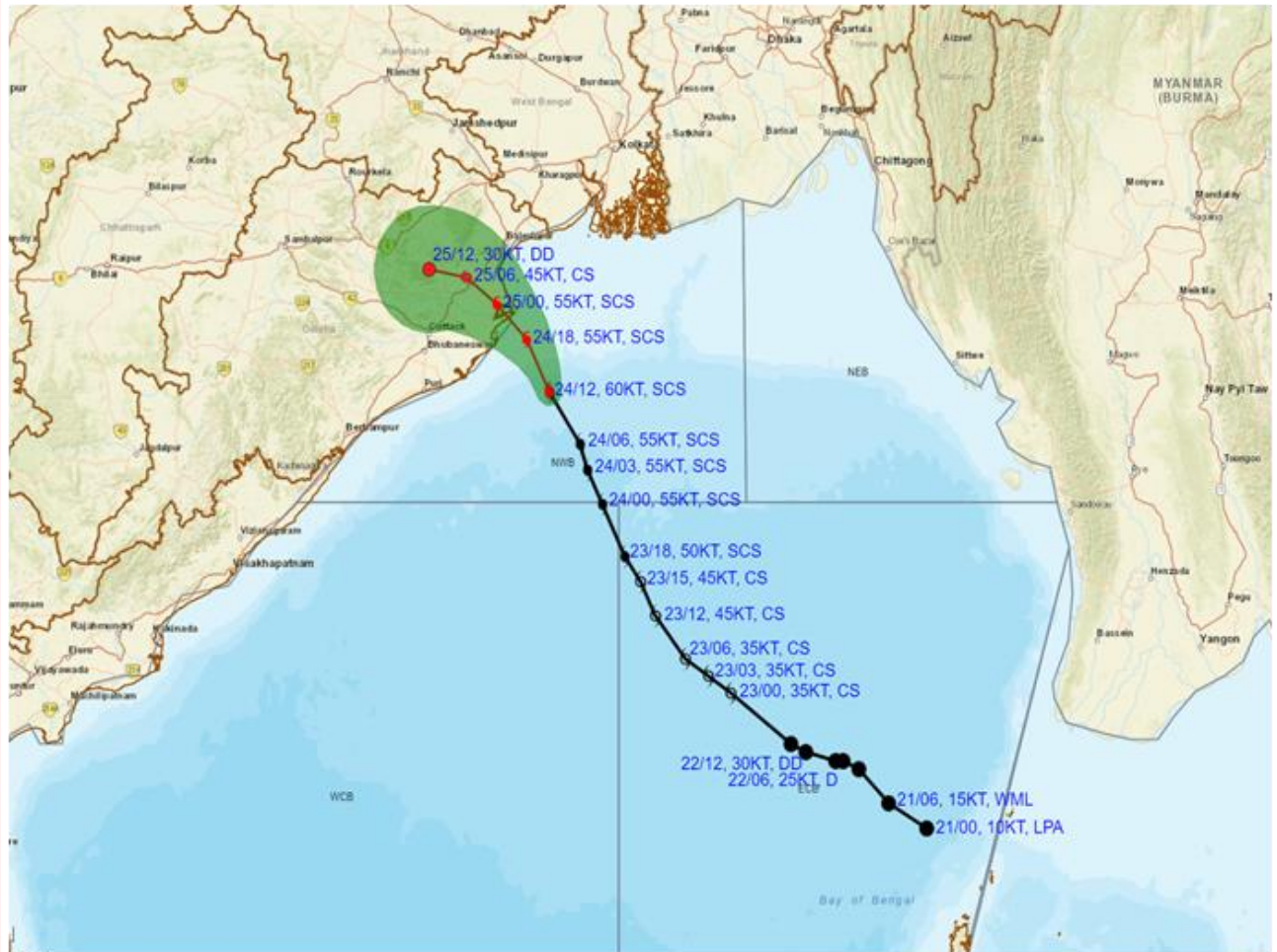


|                    |                   |
|--------------------|-------------------|
| Height             | : 18.0 Km         |
| Layer Spacing      | : 0.1 Km          |
| Z (Lo, Hi)         | : -31.5, 90.0 dBZ |
| Grid size          | : 1 Km            |
| Display Range      | : 250 Km          |
| Display Res        | : 0.9 Km/Pix      |
| DDR Enable         | : Yes             |
| Scan Elev (Lo, Hi) | : 0.2, 21.0 Deg   |
| PRF (Lo, Hi)       | : 450, 600 Hz     |
| Scan Res           | : 150 mts         |
| Scan RPM           | : 2.0             |
| Log Threshold      | : 3 dB            |
| DTP                | : 42              |
| Pulse Width        | : 1.0 micro sec   |
| Clutter Filter     | : IIR-HP(54.0 Hz) |
| SQI                | : 0.0             |
| CSR                | : 20 dB           |
| Scan Range         | : 240 Km          |
| Preprocessings     | : NONE            |
| Filters            | : NONE            |

| dBZ           |                |
|---------------|----------------|
| No Data       |                |
| 51.67: >55.00 | Red            |
| 48.33: 51.67  | Dark Red       |
| 45.00: 48.33  | Red-Orange     |
| 41.67: 45.00  | Orange         |
| 38.33: 41.67  | Dark Orange    |
| 35.00: 38.33  | Yellow-Orange  |
| 31.67: 35.00  | Yellow         |
| 28.33: 31.67  | Light Yellow   |
| 25.00: 28.33  | Light Green    |
| 21.67: 25.00  | Green          |
| 18.33: 21.67  | Light Blue     |
| 15.00: 18.33  | Blue           |
| 11.67: 15.00  | Dark Blue      |
| 8.33: 11.67   | Very Dark Blue |
| 5.00: 8.33    | Black          |



**OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF SEVERE CYCLONIC STORM 'DANA' OVER NORTHWEST BAY OF BENGAL BASED ON 1200 UTC (1730 Hrs. IST) OF 24<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 ( $\geq 120$  KT)

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

| Forecast            | DISTANCE (KM) AND DIRECTION FROM STATIONS |          |              |
|---------------------|---|----------|--------------|
| Date and Time (UTC) | PARADIP (CWR)                             | DHAMARA  | SAGAR ISLAND |
| 24.10.24/1200       | 100, ESE                                  | 130, SSE | 210, SSW     |
| 25.10.24/1200       | 130, NW                                   | 110, WNW | 230, WSW     |