



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI
SPECIAL TROPICAL WEATHER OUTLOOK**

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 12.09.2021

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL OF BENGAL OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1500 UTC OF 12.09.2021 BASED ON 1200 UTC OF 12.09.2021.

BAY OF BENGAL:

THE WELL MARKED LOW PRESSURE (WML) AREA OVER NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL CONCENTRATED INTO A DEPRESSION OVER NORTHWEST BAY OF BENGAL & ADJOINING ODISHA COAST AND LAY CENTRED AT 1730 HRS IST OF TODAY, THE 12TH SEPTEMBER, 2021, NEAR LATITUDE 20.3°N AND LONGITUDE 87.4°E, ABOUT 80 KM EAST-SOUTHEAST OF CHANDBALI(42973), 70 KM EAST OF PARADIP (42976) AND 140 KM SOUTH-SOUTHEAST OF BALASORE (42895).

IT IS VERY LIKELY TO MOVE WEST-NORTHWESTWARDS AND CROSS NORTH ODISHA COAST NEAR CHANDBALI BY EARLY MORNING OF TOMORROW, THE 13TH SEPTEMBER 2021. THEREAFTER, IT IS VERY LIKELY TO CONTINUE TO MOVE WEST-NORTHWESTWARDS ACROSS NORTH ODISHA, NORTH CHHATTISGARH & MADHYA PRADESH DURING THE SUBSEQUENT 48 HOURS.

AS PER INSAT 3D IMAGERY AT 1200 UTC, THE INTENSITY OF THE SYSTEM IS T1.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTHWEST & ADJOINING WESTCENTRAL BAY OF BENGAL, ODISHA, SOUTH GANGETIC WEST BENGAL AND SOUTH JHARKHAND . MINIMUM CLOUD TOP TEMPERATURE IS -93°C.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS GUSTING TO 35 KNOTS. THE SEA CONDITION IS ROUGH TO VERY ROUGH AROUND THE SYSTEM CENTER. THE ESTIMATED CENTRAL PRESSURE IS 992 HPA.

COASTAL STATIONS CHANDBALI, PARADIP AND BALASORE REPORTED MEAN SEA LEVEL PRESSURE(MSLP) OF 993.1, 993.6 AND 994.6 HPA RESPECTIVELY, AT 1200UTC OF 12 SEP WITH 24 HOURS PRESSURE CHANGE OF -5.8 HPA, -5.7 AND -4.6 HPA AND DEPARTURE FROM NORMAL OF -12.0, -11.3 AND -10.7 HPA RESPECTIVELY

BUOYS LOCATED NEAR LAT 17.8DEG N/LONG 89.3 DEG E MSLP OF 998.3 HPA AND WINDS OF 270DEG/15KTS AND NEAR LAT 16.4DEG N/LONG 88.1 DEG E REPORTED 998HPA AND WINDS OF 230/15.6 RESPECTIVELY.

REMARKS:

THE FAVOURABLE SEA SURFACE TEMPERATURE (SST) OF ABOUT 29-30°C OVER NORTHWEST BAY OF BENGAL (BOB), THE TROPICAL CYCLONE HEAT POTENTIAL (TCHP) OF ABOUT 80-100 KJ/CM² OVER THE SAME AREA AND FAVOURABLE. MADDEN JULIAN OSCILLATION (MJO) INDEX LYING IN PHASE 3 WITH AMPLITUDE MORE THAN 1 FAVOURED FORMATION OF DEPRESSION ALSO, THE HIGH POSITIVE VORTICITY, LOW VERTICAL WIND

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION):NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%

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SHEAR AND FAVOURABLE UPPER LEVEL DIVERGENCE HELPED IN THE GENESIS A ZONE OF POSITIVE VORTICITY ($100 \times 10^{-6} \text{S}^{-1}$) AT LOWER LEVEL LIES TO THE SOUTHEAST OF SYSTEM CENTRE OVER NORTHWEST BOB. THE POSITIVE VORTICITY ZONE IS EXTENDING UPTO 500 HPA LEVEL. A ZONE OF POSITIVE LOWER LEVEL CONVERGENCE $10 \times 10^{-5} \text{S}^{-1}$ IS SEEN OVER WEST CENTRAL BOB. THE VERTICAL WIND SHEAR (VWS) IS MODERATE (15-20 KTS) OVER THE NORTHWEST BOB.

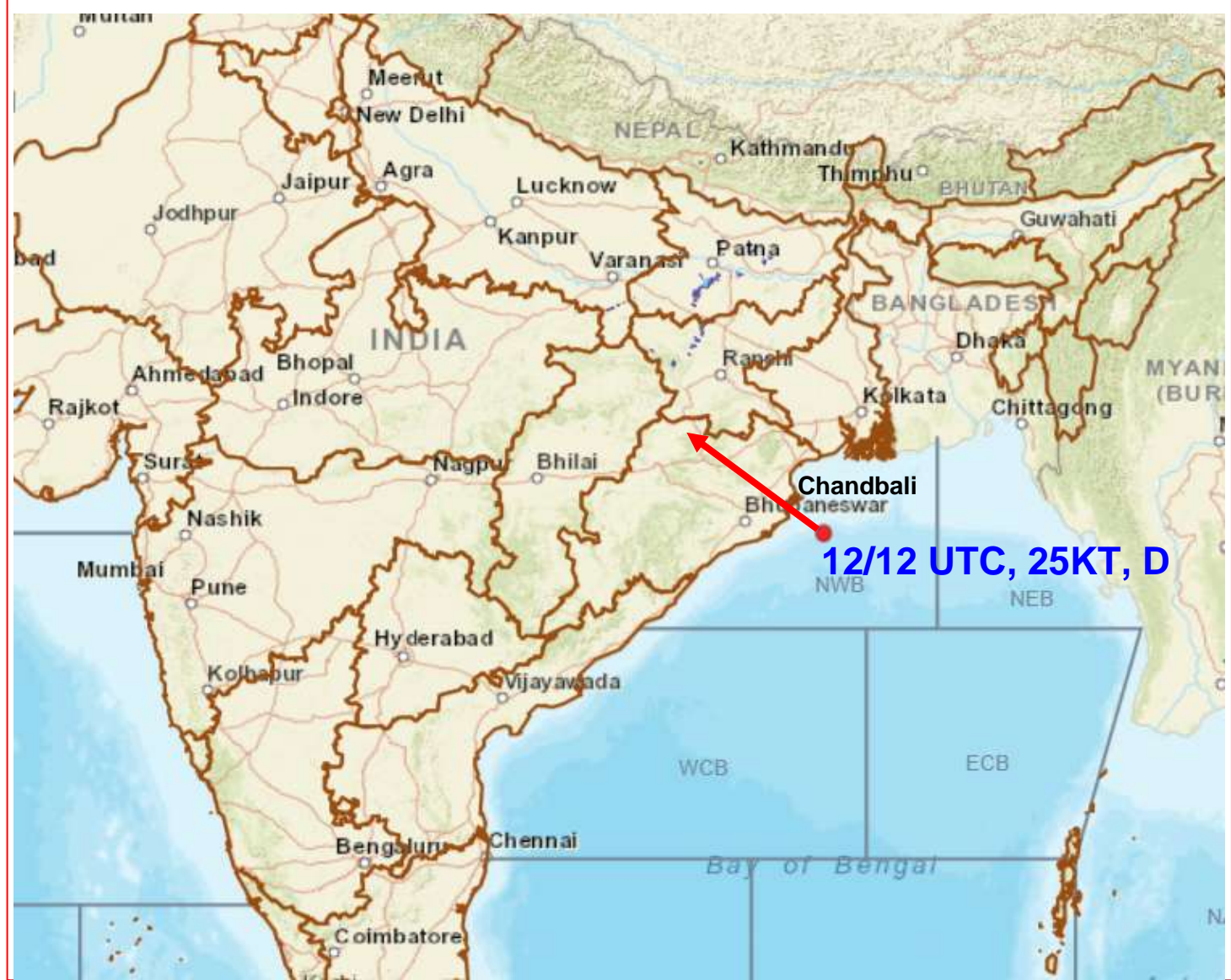
THUS, THE EXISTING ENVIRONMENTAL CONDITIONS AND MODEL GUIDANCE ARE INDICATING THAT THE DEPRESSION WILL MAINTAIN ITS INTENSITY. THE UPPER TROPOSPHERIC RIDGE RUNS NEAR 22 DEG N, TO THE NORTH OF THE SYSTEM. SYSTEM IS BEING STEERED BY THE WINDS IN MIDDLE AND UPPER TROPOSPHERE TOWARD TOWARDS WESTNORTHWEST. IT WILL CONTINUE TO STEER SO DURING NEXT 3-DAYS.

The next bulletin will be issued at 1800 UTC of 13th September, 2021.

(R.K. JENAMANI)
SCIENTIST-F, RSMC, NEW DELHI



OBSERVED AND FORECAST TRACK OF DEPRESSION OVER NORTHWEST BAY OF BENGAL BASED ON 1200 UTC OF 12TH SEPTEMBER, 2021



12/12 UTC, 25KT, D

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

SAT : INSAT-3D IMG

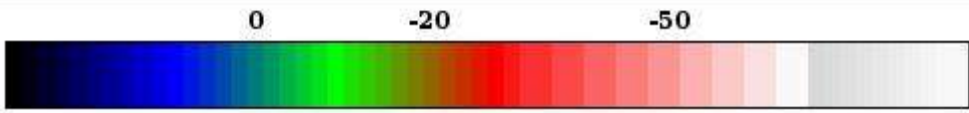
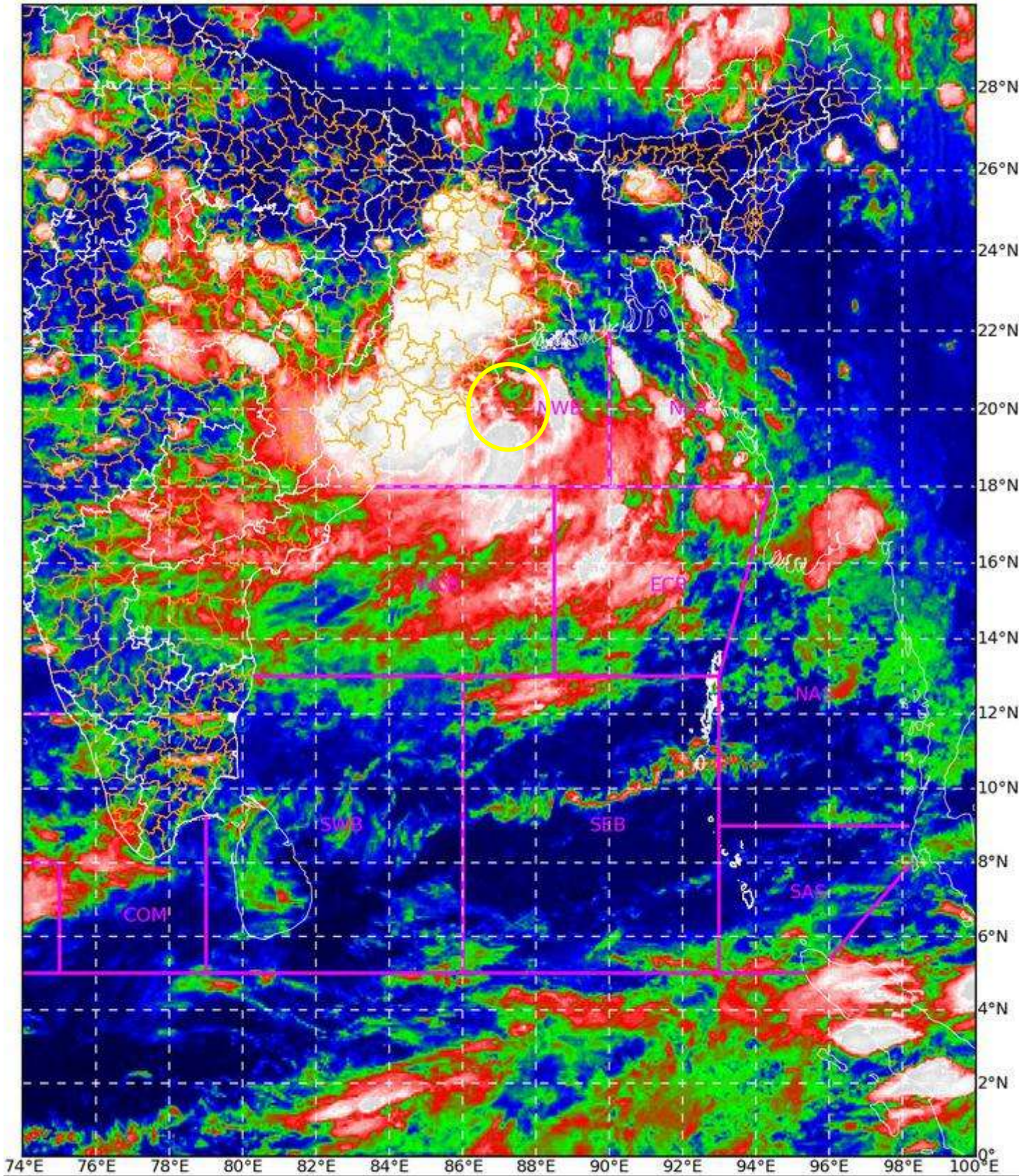
12-09-2021/(1300 to 1326) GMT

IMG_TIR1_TEMP 10.8 um

12-09-2021/(1830 to 1856) IST

L1C Mercator

DEPRESSION 20.3N/87.4E



Celsius
IMD, DELHI

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