



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

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**DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 13.09.2021**

**SPECIAL 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 0900 UTC OF 13.09.2021 BASED ON 0600 UTC OF 13.09.2021.**

**BAY OF BENGAL:**

THE DEEP DEPRESSION OVER NORTH COASTAL ODISHA MOVED FURTHER WEST-NORTHWESTWARDS DURING PAST 6 HOURS WITH A SPEED OF 16 KMPH, AND LAY CENTRED AT 0600 UTC OF TODAY, THE 13<sup>TH</sup> SEPTEMBER, 2021, OVER NORTH ODISHA, NEAR LATITUDE 21.1°N AND LONGITUDE 86.2°E, ABOUT 70 KM WEST-NORTHWEST OF CHANDBALI (42973) AND ABOUT 90 KM EAST- SOUTHEAST OF KEONJHARGARH (42891).

IT IS VERY LIKELY TO CONTINUE TO MOVE WEST-NORTHWESTWARDS ACROSS NORTH INTERIOR ODISHA, NORTH CHHATTISGARH & MADHYA PRADESH DURING NEXT 48 HOURS. IT IS VERY LIKELY TO WEAKEN INTO A DEPRESSION DURING THE NEXT 24 HOURS.

AS PER INSAT 3D IMAGERY AT 0600 UTC, THE SYSTEM IS LYING OVER LAND. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTHWEST & ADJOINING WESTCENTRAL BAY OF BENGAL, ODISHA AND AND GANGETIC WEST BENGAL. MINIMUM CLOUD TOP TEMPERATURE IS - 93°C.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 30 KNOTS GUSTING TO 35 KNOTS. THE SEA CONDITION IS ROUGH TO VERY ROUGH OVER NORTH & ADJOINING WESTCENTRAL BAY OF BENGAL AND ALONG & OFF ODISHA, WEST BENGAL & NORTH ANDHRA PRADESH COASTS DURING NEXT 12 HOURS. THE ESTIMATED CENTRAL PRESSURE IS 990 HPA.

AT 0600UTC OF 13<sup>TH</sup> SEP, COASTAL STATIONS OF ODISHA HAVE REPORTED RISE IN MEAN SEA LEVEL PRESSURE (MSLP). MSLP RECORDED AT 0600 UTC BY CHANDBALI, PARADIP AND BALASORE IS 994.3, 996.0 AND 994.2 HPA WITH 24 HOURS PRESSURE CHANGE OF -1.7 HPA, +0.3 AND -1.9 HPA RESPECTIVELY. KEONJHARGH (INTERIOR ODISHA STATION) REPORTED MSLP OF 994.2 HPA AND 24 HOURS PRESSURE CHANGE OF -6.0 HPA.

A BUOY LOCATED NEAR LAT 17.4DEG N/LONG 89.2 DEG E MSLP OF 1001.5 HPA AND WINDS OF 160 DEG/23 KTS. ANOTHER BUOY NEAR LAT 16.3DEG N/LONG 88.1 DEG E REPORTED 1002.1HPA AND WINDS OF 190 DEG/21.4 KT. ANOTHER BUOY NEAR LAT 14.0 DEG N/LONG 86.9 DEG E REPORTED 1004.2HPA AND WINDS OF 210 DEG/19.4 KT.

**REMARKS:**

THE FAVOURABLE CONDITIONS LIKE 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/CM<sup>2</sup> OVER THE SAME AREA, FAVOURABLE PHASE OF MADDEN JULIAN OSCILLATION (MJO) INDEX LYING IN PHASE 3 WITH AMPLITUDE MORE THAN 1, HIGH POSITIVE VORTICITY, LOW VERTICAL WIND SHEAR AND FAVOURABLE UPPER LEVEL DIVERGENCE WILL SUPPORT SYSTEM IN MAINTAINING ITS INTENSITY DURING NEXT 12 HOURS. A ZONE OF POSITIVE VORTICITY ( $150 \times 10^{-6} \text{S}^{-1}$ ) AT LOWER LEVEL LIES TO THE SOUTH OF SYSTEM CENTRE OVER COASTAL ODISHA & ADJOINING NORTHWEST BOB. THE POSITIVE VORTICITY ZONE IS EXTENDING UPTO 200 HPA LEVEL. A ZONE OF POSITIVE LOWER LEVEL CONVERGENCE  $20 \times 10^{-5} \text{S}^{-1}$  IS SEEN TO THE SOUTHWEST OF SYSTEM CENTRE. THE VERTICAL WIND SHEAR (VWS) IS MODERATE (10-15 KTS) OVER THE COASTAL ODISHA AND IS EXTENDING WEST-NORTHWESTWARDS UPTO GUJARAT .

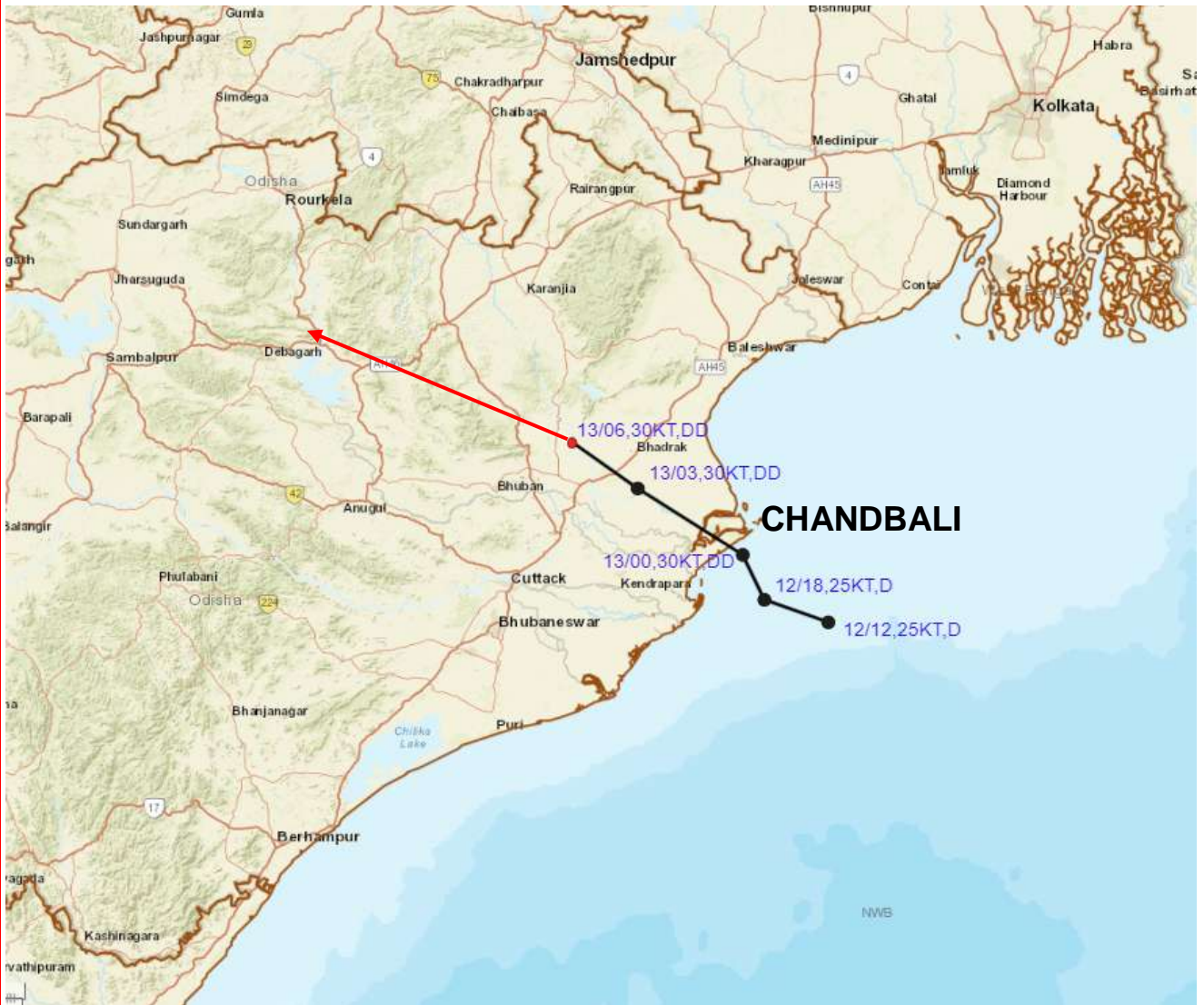
THOUGH THE SYSTEM IS LYING OVER LAND, THE PREVAILING ACTIVE MONSOON CONDITIONS, THE EXISTING ENVIRONMENTAL CONDITIONS, MOISTURE INCURSION FROM BAY OF BENGAL AND MODEL GUIDANCE ARE INDICATING THAT THE DEEP DEPRESSION WILL MAINTAIN ITS INTENSITY DURING NEXT 12 HOURS BEFORE WEAKENING INTO A DEPRESSION. THE UPPER TROPOSPHERIC RIDGE RUNS NEAR 22 DEG N, TO THE NORTH OF THE SYSTEM CENTRE. THE SYSTEM IS BEING STEERED BY THE MEAN WINDS IN MIDDLE AND UPPER TROPOSPHERE (500-850 HPA LEVELS) TOWARDS WESTNORTHWEST. IT WILL CONTINUE TO STEER SO DURING NEXT 2- 3-DAYS.

THE NEXT BULLETIN WILL BE ISSUED AT 1500 UTC OF 13<sup>TH</sup> SEPTEMBER, 2021.

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# OBSERVED AND FORECAST TRACK OF DEEP DEPRESSION OVER NORTH ODISHA BASED ON 0600 UTC OF 13<sup>TH</sup> SEPTEMBER, 2021



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

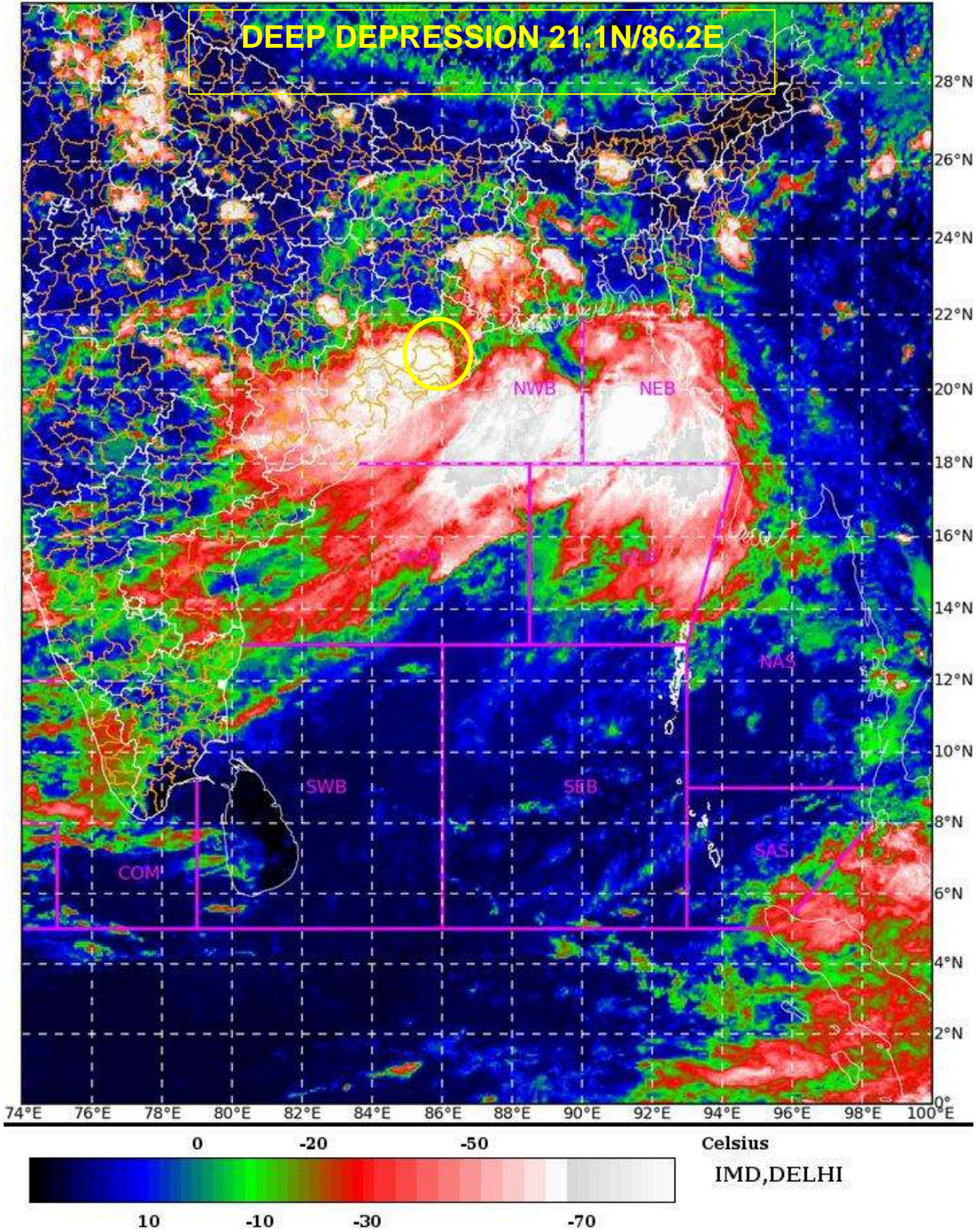
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SAT : INSAT-3D IMG 13-09-2021/(0730 to 0756) GMT

IMG\_TIR1\_TEMP 10.8 um 13-09-2021/(1300 to 1326) IST

L1C Mercator



PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION):NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%  
This is a guidance Bulletin for the WMO/ESCAP Panel Member countries., Please visit respective National websites for Country specific Bulletins