



**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 2100 UTC OF 12.09.2021 BASED ON 1800 UTC OF 12.09.2021.

BAY OF BENGAL:

THE DEPRESSION OVER NORTHWEST BAY OF BENGAL & ADJOINING ODISHA COAST MOVED WEST-NORTHWESTWARDS DURING PAST 6 HOURS WITH A SPEED OF 5 KMPH AND LAY CENTRED AT 2330 HRS IST OF 12TH SEPTEMBER, 2021, NEAR LATITUDE 20.4°N AND LONGITUDE 87.1°E, ABOUT 60 KM SOUTHEAST OF CHANDBALI (42973), 40 KM EAST-NORTHEAST OF PARADIP (42976)

IT IS VERY LIKELY TO MOVE WEST-NORTHWESTWARDS AND CROSS NORTH ODISHA COAST CLOSE TO SOUTH OF CHANDBALI BY EARLY MORNING OF TODAY, 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 1800 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 ADJOINING CHHATISHGARH, EXTREME NORTH COASTAL ANDHRA PRADESH SOUTH GANGETIC WEST BENGAL AND 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.

AT 1800UTC OF 12 SEP, COASTAL STATIONS CHANDBALI, PARADIP AND BALASORE REPORTED MEAN SEA LEVEL PRESSURE(MSLP) OF 993.3, 993.8 AND 995.3

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 SHEAR AND FAVOURABLE UPPER LEVEL DIVERGENCE HELPED IN THE GENESIS A ZONE OF POSITIVE VORTICITY ($100 \times 10^{-6} S^{-1}$) 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 $10 \times 10^{-5} S^{-1}$ 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 22DEG 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 0300 UTC of 13th September, 2021.

(SHASHI KANT)
SCIENTIST-C, RSMC, NEW DELHI



OBSERVED AND FORECAST TRACK OF DEPRESSION OVER NORTHWEST BAY OF BENGAL BASED ON 1800 UTC OF 12TH 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
- CONE OF UNCERTAINTY

SAT : INSAT-3D IMG

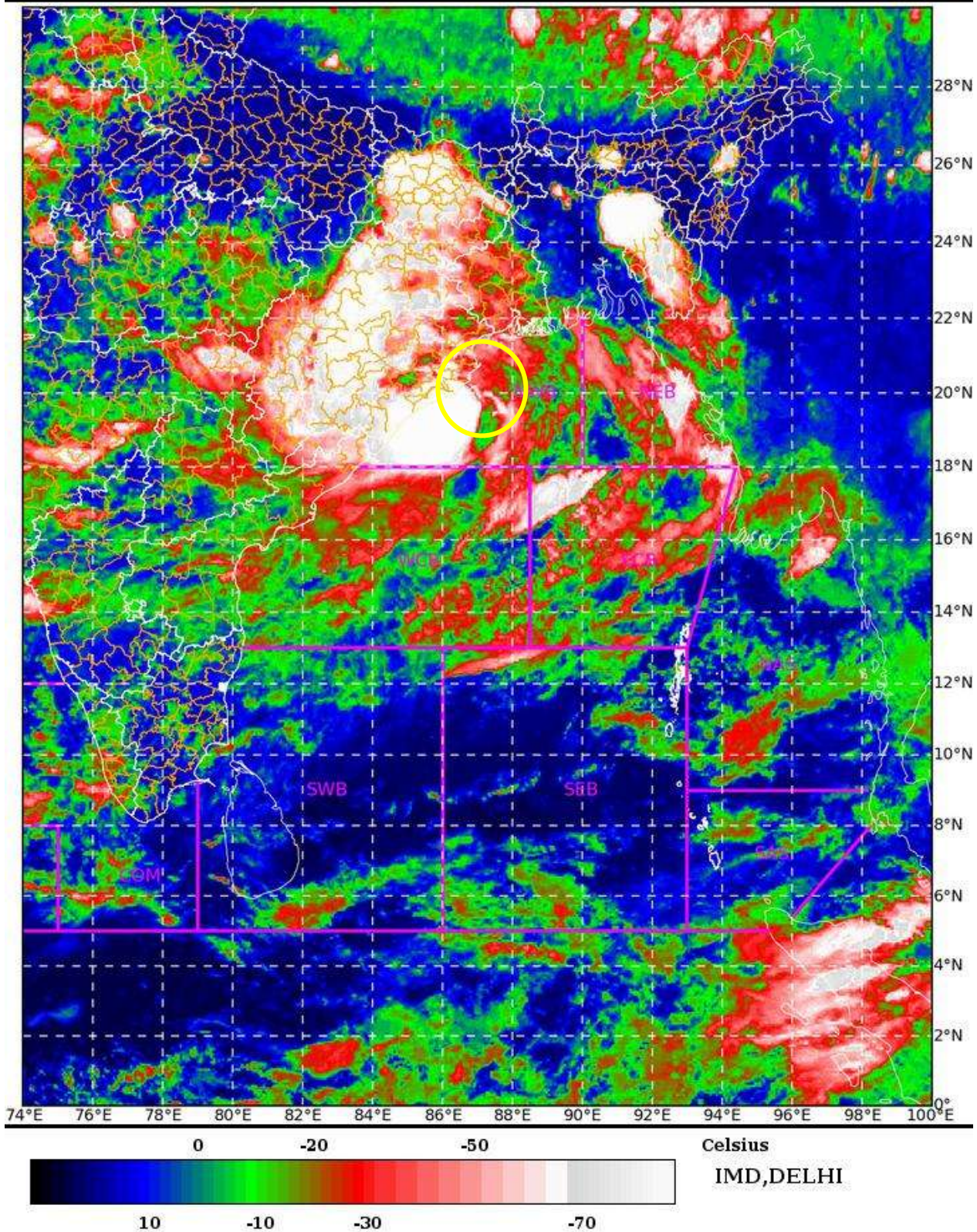
12-09-2021/(1630 to 1656) GMT

IMG_TIR1_TEMP 10.8 um

12-09-2021/(2200 to 2226) IST

L1C Mercator

DEPRESSION 20.4N/87.1E



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