



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 24.09.2021

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1530 UTC OF 24.09.2021 BASED ON 1200 UTC OF 24.09.2021.

SUB: DEPRESSION OVER EASTCENTRAL & ADJOINING NORTHEAST BAY OF BENGAL

THE WELL MARKED LOW PRESSURE AREA OVER EASTCENTRAL & ADJOINING NORTHEAST BAY OF BENGAL CONCENTRATED INTO A DEPRESSION AND LAY CENTERED AT 1200 UTC OF TODAY, THE 24TH SEPTEMBER 2021, OVER EAST-CENTRAL AND ADJOINING NORTHEAST BAY OF BENGAL NEAR LAT. 18.3°N AND LONG. 91.2°E, ABOUT 670 KM EAST-SOUTHEAST OF GOPALPUR (43049) & 740 KM EAST OF KALINGAPATNAM (43105).

IT IS LIKELY TO INTENSIFY INTO A DEEP DEPRESSION DURING NEXT 12 HOURS AND INTENSIFY FURTHER THEREAFTER. IT IS LIKELY TO MOVE INITIALLY WEST-NORTHWESTWARDS DURING NEXT 24 HOURS AND WEST-SOUTHWESTWARDS THEREAFTER AND CROSS SOUTH ODISHA-NORTH ANDHRA PRADESH COASTS BETWEEN VISHAKHAPATNAM(43150) & GOPALPUR(43049) AROUND KALINGAPATNAM BY 1200 UTC OF 26TH SEPTEMBER, 2021.

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
24.09.21/1200	18.3/91.2	40-50 GUSTING TO 60	DEPRESSION
25.09.21/0000	18.5/89.4	50-60 GUSTING TO 70	DEEP DEPRESSION
25.09.21/1200	18.7/87.6	60-70 GUSTING TO 80	CYCLONIC STORM
26.09.21/0000	18.6/85.8	70-80 GUSTING TO 90	CYCLONIC STORM
26.09.21/1200	18.4/84.1	70-80 GUSTING TO 90	CYCLONIC STORM
27.09.21/0000	18.6/82.4	45-55 GUSTING TO 65	DEPRESSION
27.09.21/1200	19.4/80.7	35-45 GUSTING TO 55	DEPRESSION

REMARKS:

AS PER INSAT 3D IMAGERY AT 1200 UTC, CONVECTION OVER EAST-CENTRAL & ADJOINING NORTHEAST BOB HAS FURTHER ORGANISED AND CLOUDS ARE ORGANISED IN CURVED BAND PATTERN. ASSOCIATED MINIMUM CLOUD TOP TEMPERATURE IS -93°C. INTENSITY OF THE SYSTEM IS CATEGORISED AS T 1.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EAST-CENTRAL & ADJOINING NORTHEAST BOB AND ARAKAN COAST

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS GUSTING TO 30 KNOTS. THE SEA CONDITION IS ROUGH TO VERY ROUGH OVER EAST-CENTRAL & ADJOINING NORTHEAST BOB. THE ESTIMATED CENTRAL PRESSURE IS 1000 HPA.

A BUOY LOCATED NEAR LAT 17.5DEG N/LONG 89.1 DEG E MSLP OF 1004.8 HPA AND WINDS OF 320 DEG/06 KTS.

THE FAVOURABLE CONDITIONS LIKE SEA SURFACE TEMPERATURE (SST) OF ABOUT 28-29°C OVER CENTRAL & ADJOINING NORTH BAY OF BENGAL (BOB), TROPICAL CYCLONE HEAT POTENTIAL (TCHP) OF ABOUT 80-100 KJ/CM² OVER THE SAME AREA, FAVOURABLE PHASE OF MADDEN JULIAN OSCILLATION (MJO) INDEX LYING IN PHASE 4 WITH AMPLITUDE CLOSE TO 1, HIGH POSITIVE VORTICITY, LOW VERTICAL WIND SHEAR AND FAVOURABLE UPPER LEVEL DIVERGENCE WILL SUPPORT SYSTEM TO INTENSIFY INTO A DEEP DEPRESSION DURING NEXT 12 HOURS. A ZONE OF POSITIVE LOW LEVEL VORTICITY ($80 \times 10^{-6} \text{S}^{-1}$) LIES TO THE SOUTH OF THE SYSTEM CENTRE. THE POSITIVE VORTICITY ZONE IS EXTENDING UPTO 200 HPA LEVEL. A ZONE OF POSITIVE LOWER LEVEL CONVERGENCE OF $10 \times 10^{-5} \text{S}^{-1}$ IS SEEN TO THE SOUTH OF THE SYSTEM CENTRE. POSITIVE UPPER LEVEL DIVERGENCE OF $10 \times 10^{-5} \text{S}^{-1}$ IS ALSO SEEN OVER THE SOUTH OF THE SYSTEM CENTRE. THE VERTICAL WIND SHEAR (VWS) IS ABOUT (05-10 KTS) OVER NORTH AND ADJOINING CENTRAL BOB. UNDER THESE ENVIRONMENTAL CONDITIONS, THE SYSTEM IS LIKELY TO INTENSIFY INTO A DEEP DEPRESSION DURING NEXT 12 HOURS.

THE SUB-TROPICAL RIDGE IS SEEN ALONG LAT. 20.5 DEG. N. EASTERLY TO EAST-SOUTHEASTERLY WINDS TO THE SOUTH OF THE RIDGE, WOULD STEER THE SYSTEM, WEST-NORTHWESTWARDS DURING NEXT 24 HOURS. NUMERICAL MODEL GUIDANCE IS DIVERGING INTERMS OF THE INTENSITY AS WELL AS FURTHER INTENSIFICATION OF THE SYSTEM.

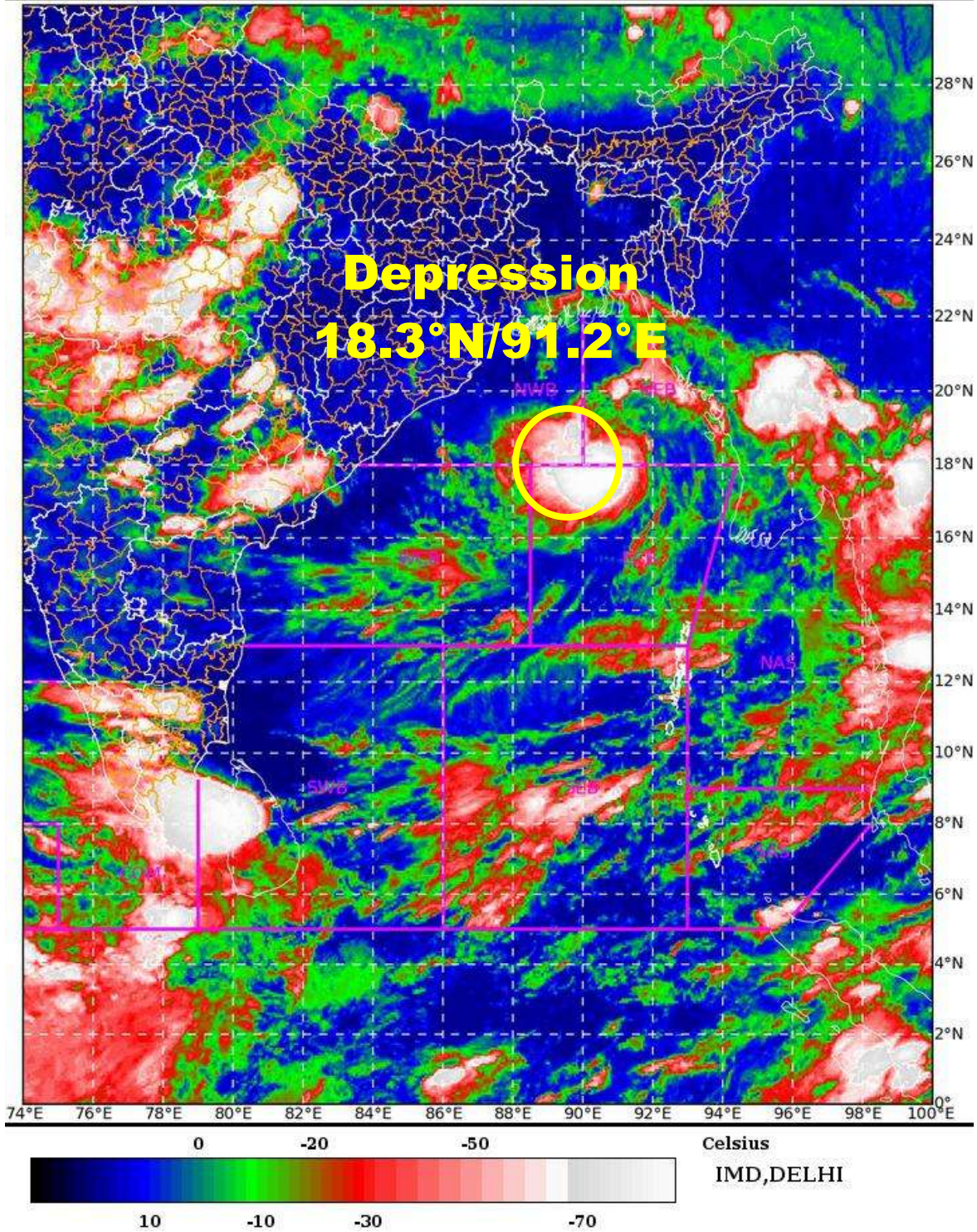
THE NEXT BULLETIN WILL BE ISSUED AT 1800 UTC OF 24TH SEPTEMBER, 2021.

(RK JENAMANI)
SCIENTIST-F, RSMC, NEW DELHI

SAT : INSAT-3D IMG 24-09-2021/(1430 to 1456) GMT

IMG_TIR1_TEMP 10.8 um 24-09-2021/(2000 to 2026) 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



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEPRESSION OVER EASTCENTRAL AND ADJOINING NORTHEAST BAY OF BENGAL BASED ON 1200 UTC OF 24TH SEPTEMBER, 2024



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 (≥ 120 KT)

- LESS THAN 34 KT
- ⊖ 34-47 KT
- ⊕ ≥ 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)
- ≥ 64 KT (≥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
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

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