



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 02.02.2023

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1930 UTC OF 02.02.2023 BASED ON 1800 UTC OF 02.02.2023.

SUB: WELL-MARKED LOW PRESSURE AREA OVER COMORIN AND ADJOINING GULF OF MANNAR & WEST COAST OF SRI LANKA

THE DEPRESSION OVER SOUTH SRI LANKA MOVED SOUTHWESTWARDS DURING PAST 06 HOURS AND WEAKENED INTO A WELL-MARKED LOW PRESSURE AREA OVER COMORIN AND ADJOINING GULF OF MANNAR & WEST COAST OF SRI LANKA AT 1800 UTC OF 02ND FEBRUARY. IT IS VERY LIKELY TO CONTINUE TO MOVE SOUTHWESTWARDS AND WEAKEN GRADUALLY INTO A LOW PRESSURE AREA DURING NEXT 12 HOURS.

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH TAMILNADU, PALK STRAIT, GULF OF MANNAR AND SRI LANKA AND COMORIN AREA. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 90°C. ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 20 KNOTS GUSTING TO 30 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 1005 HPA. SEA CONDITION IS ROUGH TO VERY ROUGH OVER SOUTHWEST BOB ALONG & OFF SRI LANKA COAST, COMORIN AND ADJOINING GULF OF MANNAR.

REMARKS:

THE MADDEN JULIAN OSCILLATION (MJO) INDEX CURRENTLY LIES IN PHASE 3 WITH AMPLITUDE AROUND 2. IT WILL CONTINUE IN SAME PHASE WITH SIMILAR INCREASED AMPLITUDE DURING NEXT 5 DAYS. THE CFS BASED FORECAST FOR EQUATORIAL WAVES INDICATE EASTERLY WINDS (5-7 MPS) OVER SOUTH BOB, WESTERLY WINDS (3-5 MPS) TO THE SOUTH SRI LANKA AND ADJOINING COMORIN AREA, ALONGWITH KELVIN WAVES, MJO AND EQUATORIAL ROSSBY WAVES OVER EAST EQUATORIAL INDIAN OCEAN AND ADJOINING SOUTH BOB ON 03RD FEB. ALL THESE EQUATORIAL WAVES CONTRIBUTED TOWARDS WEAKENING OF THE SYSTEM.

SEA SURFACE TEMPERATURE (SST) IS AROUND 27°C OVER SOUTHWEST BOB AND ADJOINING EQUATORIAL INDIAN OCEAN (EIO). LOW LEVEL VORTICITY HAS DECREASED AND IS ABOUT $50 \times 10^{-6} \text{ S}^{-1}$ AROUND THE SYSTEM CENTER. LOW LEVEL CONVERGENCE IS $30 \times 10^{-5} \text{ S}^{-1}$ AROUND THE SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS AROUND $10 \times 10^{-5} \text{ S}^{-1}$ AROUND THE SYSTEM CENTER. WIND SHEAR IS MODERATE (15-20 KNOTS) AROUND SYSTEM CENTRE AND IS INCREASING ALONG FORECAST TRACK (25-30 KNOTS). THE UPPER TROPOSPHERIC RIDGE IS SEEN ALONG 16.0°N OVER THE BOB.

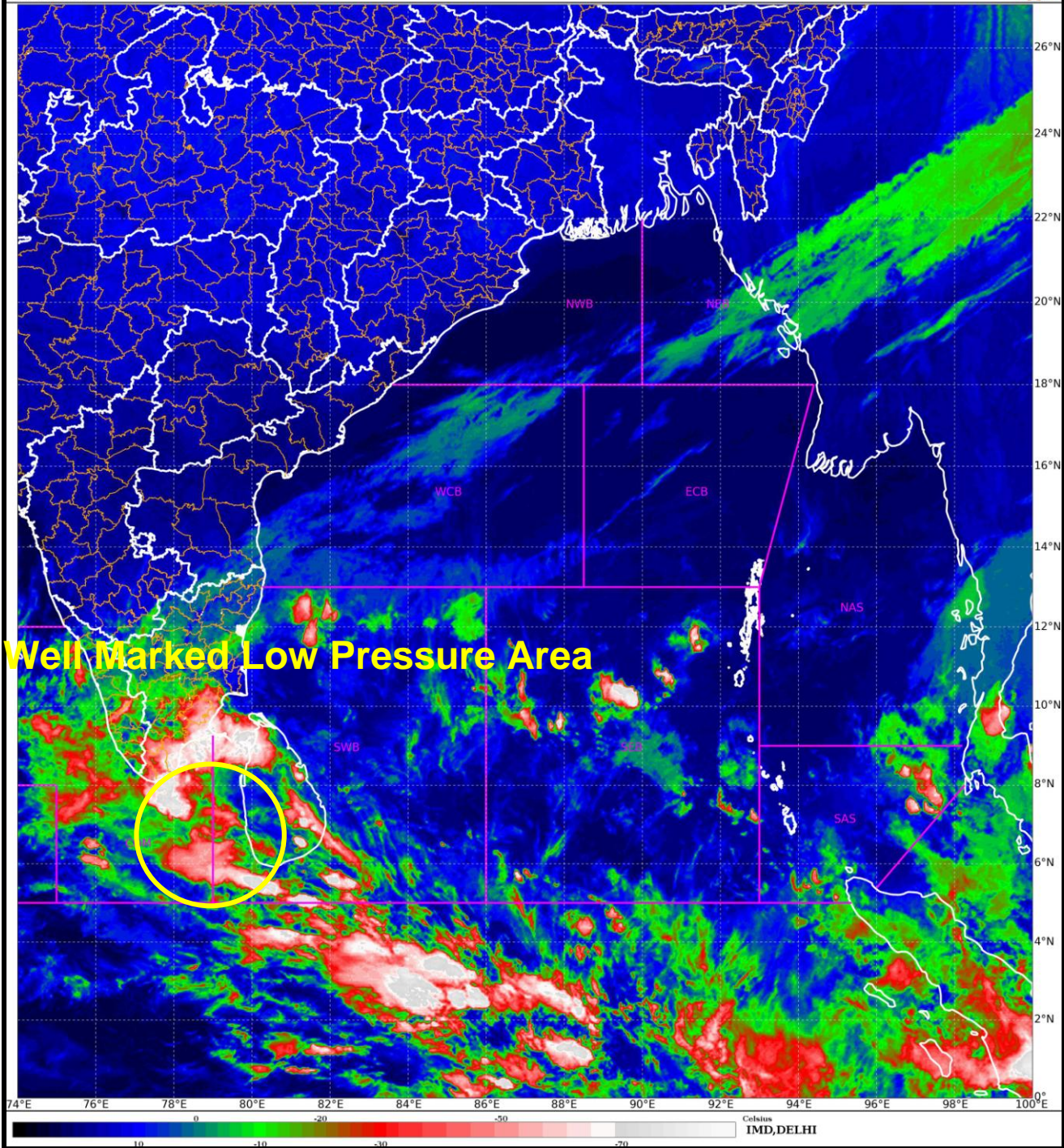
MOST OF THE MODELS INCLUDING IMD GFS, NCUM AND ECMWF ARE INDICATING, THAT THE SYSTEM WOULD FURTHER WEAKEN OVER COMORIN AREA AND ADJOINING GULF OF MANNAR AND WEST COAST OF SRI LANKA AS A LOW PRESSURE AREA DURING NEXT 12 HOURS.

Cloud distribution: (a) Isolated: <25%, Scattered:25-50%, Broken: 51-75%, Solid:>75%, Convection Intensity: (a) Weak: Cloud Top Temperature (CTT) >-25°C, (b) Moderate: CTT: - 25°C to -40°C, (c) Intense: CTT: - 41°C to -70°C and (d) Very Intense: : Less than -70°C
PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION): NIL: 0%, LOW: 1-33%, , MODERATE: 34-66% AND HIGH: 67-100%
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IN VIEW OF ALL THE ABOVE, THE WELL MARKED LOW PRESSURE AREA CONTINUE TO MOVE SOUTHWESTWARDS AND WEAKEN FURTHER GRADUALLY INTO A LOW PRESSURE AREA DURING NEXT 12 HOURS.

THIS IS THE LAST BULLETIN IN ASSOCIATION WITH THE SYSTEM. HOWEVER REGULAR WEATHER BULLETINS SHALL CONTINUE FROM THE RESPECTIVE METEOROLOGICAL CENTRES AND NATIONAL WEATHER FORECASTING CENTRE (NWFC), NEW DELHI IN ASSOCIATION WITH THE REMNANT WELL MARKED LOW PRESSURE SYSTEM.

**(SHOBHIT KATIYAR)
SCIENTIST-C
RSMC, NEW DELHI**



Well Marked Low Pressure Area

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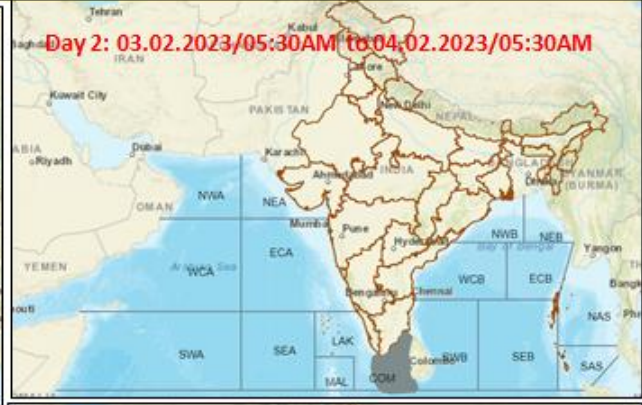
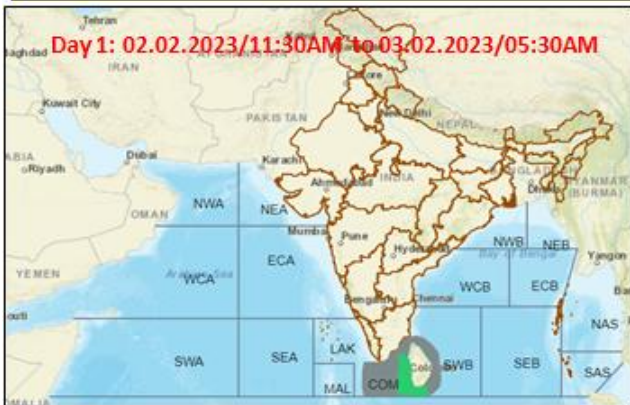
OBSERVED TRACK OF DEPRESSION OVER SOUTHWEST BAY OF BENGAL (30TH JANUARY TO 2ND FEBRUARY, 2023)



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

Fishermen warning graphics



Squally WX with wind speed 40-45 kmph gusting to 55 kmph

Squally wind speed 40-50 kmph gusting to 65 kmph

Fishermen are advised not to venture into the marked areas.

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