



**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 1500 UTC OF 02.02.2023 BASED ON 1200 UTC OF 02.02.2023.

SUB: DEPRESSION OVER SOUTH SRI LANKA

THE DEPRESSION OVER SOUTH SRI LANKA MOVED SOUTHWESTWARDS WITH A SPEED OF 13 KMPH AND LAY CENTERED AT 1200 UTC OF TODAY, THE 2ND FEBRUARY OVER THE SAME REGION NEAR LATITUDE 6.3°N AND LONGITUDE 80.3°E, ABOUT 30 KM NORTH-NORTHEAST OF GALLE (SRI LANKA, 43495), 80 KM –SOUTH-SOUTHEAST OF COLOMBO (SRI LANKA, 43466).

IT IS VERY LIKELY TO CONTINUE TO MOVE SOUTHWESTWARDS ACROSS SOUTH SRI LANKA, WEAKEN GRADUALLY AND EMERGE INTO COMORIN AND ADJOINING GULF OF MANNAR OFF WEST COAST OF SRI LANKA AS A WELL MARKED LOW PRESSURE AREA AROUND 1800 UTC OF TODAY, THE 02ND FEBRUARY 2023.

FORECAST TRACK AND INTENSITY ARE GIVEN BELOW:

DATE/TIME(UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
02.02.23/1200	6.3/80.3	35-45 GUSTING TO 55	DEPRESSION
02.02.23/1800	5.8/79.8	30-40 GUSTING TO 50	WELL MARKED LOW PRESSURE AREA

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH TAMILNADU, PALK STRAIT, GULF OF MANNAR AND WEST OF SRI LANKA. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 75°C. SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER NORTH SRI LANKA, KERALA AND COMORIN AREA.

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 6 DAYS. MJO INDEX IS THUS CONDUCIVE FOR ENHANCEMENT OF CONVECTIVE ACTIVITY OVER BAY OF BENGAL (BOB) AND MAINTENANCE OF INTENSITY OF THE SYSTEM. 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

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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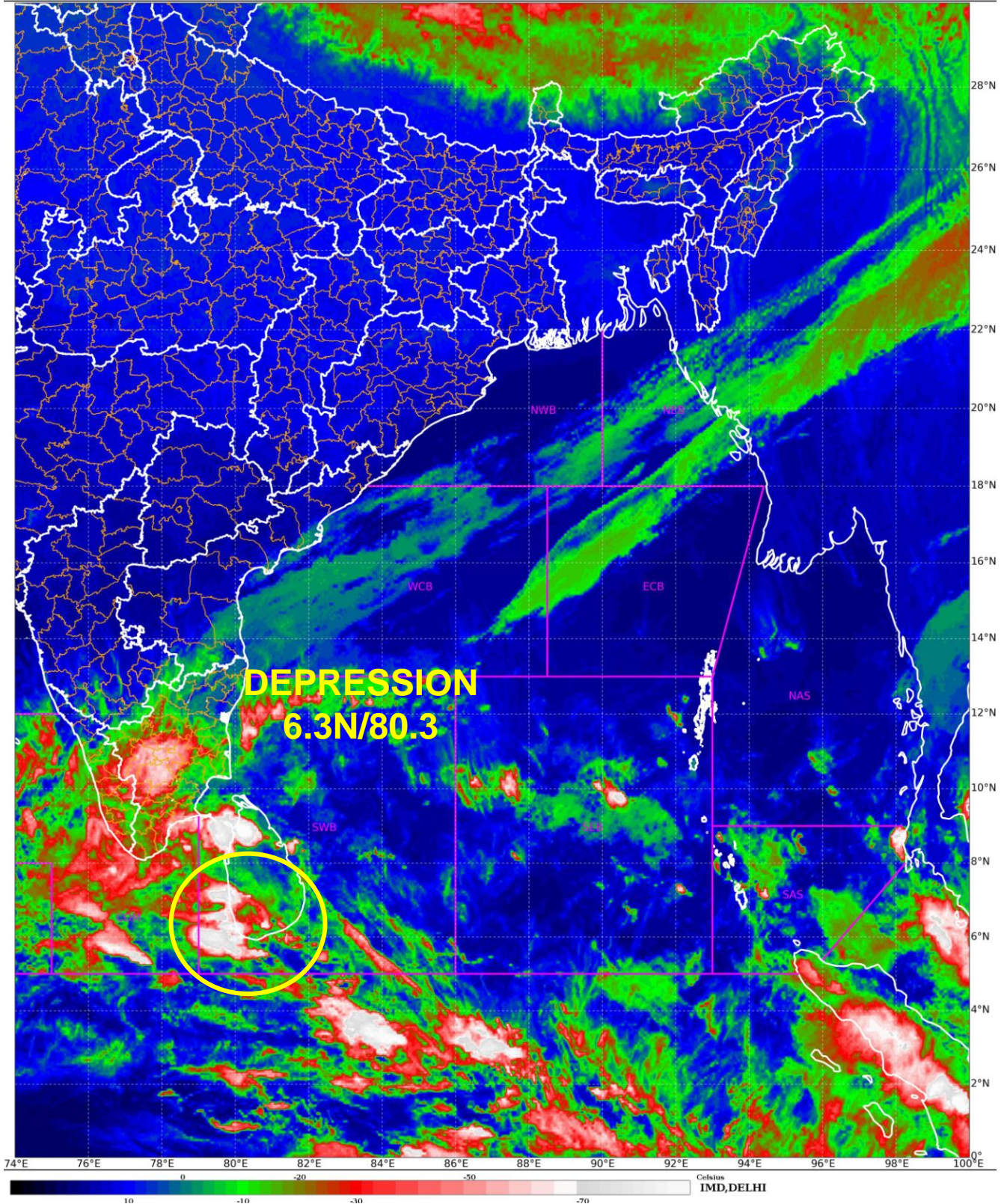
EQUATORIAL ROSSBY WAVES OVER EAST EQUATORIAL INDIAN OCEAN AND ADJOINING SOUTH BOB ON 2ND FEBRUARY. ALL THESE EQUATORIAL WAVES CONTRIBUTED TOWARDS MAINTENANCE OF INTENSITY OF THE SYSTEM AND SLOW WEAKENING AFTER LANDFALL.

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 $50 \times 10^{-6} \text{ S}^{-1}$ TO THE SOUTH OF THE SYSTEM CENTER. LOW LEVEL CONVERGENCE IS $20 \times 10^{-5} \text{ S}^{-1}$ TO THE WEST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS AROUND $05 \times 10^{-5} \text{ S}^{-1}$ TO NORTHWEST OF 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 12.0°N OVER THE BOB.

MOST OF THE MODELS INCLUDING IMD GFS, NCUM AND ECMWF ARE INDICATING, THAT THE SYSTEM WOULD EMERGE INTO COMORIN AND ADJOINING GULF OF MANNAR OFF WEST COAST OF SRI LANKA AROUND 0000 UTC OF 3RD FEBRUARY AS A LOW PRESSURE AREA.

IN VIEW OF ALL THE ABOVE, THE DEPRESSION OVER SOUTH SRI LANKA IS VERY LIKELY TO CONTINUE TO MOVE SOUTHWESTWARDS ACROSS SOUTH SRI LANKA, WEAKEN GRADUALLY AND EMERGE INTO COMORIN AND ADJOINING GULF OF MANNAR OFF WEST COAST OF SRI LANKA AS A WELL MARKED LOW PRESSURE AREA AROUND 1800 UTC OF TODAY, THE 02ND FEBRUARY 2023.

(M. SHARMA)
SCIENTIST-D
RSMC, NEW DELHI



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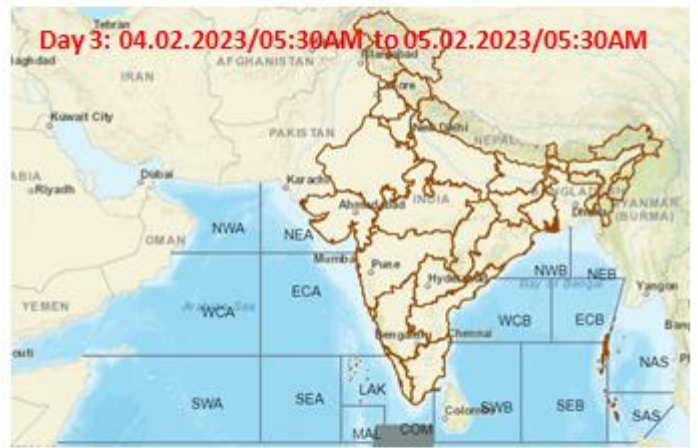
OBSERVED AND FORECAST TRACK OF DEPRESSION OVER SOUTH SRI LANKA BASED ON 1200 UTC OF 2ND FEBRUARY, 2023.



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 (≥ 120 KT)

- LESS THAN 34 KT
- 34-47 KT
- ≥ 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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