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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 25.12.2022

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0900 UTC OF 25.12.2022 BASED ON 0600 UTC OF 24.12.2022.

BAY OF BENGAL:

SUB: DEPRESSION OVER SOUTHWEST BAY OF BENGAL CLOSE TO SRI LANKA COAST

THE DEPRESSION OVER SOUTHWEST BAY OF BENGAL AND ADJOINING SRI LANKA COAST MOVED WEST-SOUTHWESTWARDS WITH A SPEED OF 14 KMPH DURING PAST 06 HOURS AND LAY CENTERED AT 0600 UTC OF 25TH DECEMBER OVER SOUTHWEST BAY OF BENGAL CLOSE TO SRI LANKA COAST NEAR LATITUDE 8.5°N AND LONGITUDE 81.6°E ABOUT 40 KM EAST-SOUTHEAST OF TRINCOMALEE (SRI LANKA, 43418), 90 KM NORTH-NORTHEAST OF BATTICALOA (SRI LANKA, 43436), 140 KM SOUTH-SOUTHEAST OF JAFFNA (SRI LANKA, 43404) AND 310 KM SOUTH-SOUTHEAST OF NAGAPPATTINAM (TAMIL NADU, 43347).

IT IS LIKELY TO CONTINUE TO MOVE WEST-SOUTHWESTWARDS AND CROSS SRI LANKA COAST TO THE SOUTH OF TRINCOMALEE NEAR ABOUT LATITUDE 8.3°N AND LONGITUDE 81.4°E WITHIN A FEW HOURS. THEREAFTER, IT WOULD MOVE WEST-SOUTHWESTWARDS, WEAKEN GRADUALLY AND EMERGE INTO COMORIN AREA & NEIGHBOURHOOD BY TOMORROW, THE 26TH DECEMBER MORNING (0000 UTC).

AS PER INSAT-3D IMAGERY, INTENSITY OF THE SYSTEM IS T1.0/1.0. ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTHWEST BAY OF BENGAL & ADJOINING SRI LANKA COAST BETWEEN LAT 5.0°N TO 11.0°N LONG 80.0°E TO 86.0°E. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93°C.

THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 25 KNOTS GUSTING TO 35 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 1004 HPA. SEA CONDITION IS ROUGH TO VERY ROUGH OVER SOUTHWEST BAY OF BENGAL AND ALONG & OFF TAMILNADU & SRILANKA COASTS.

AT 0600 UTC, TRINCOMALEE (43418) REPORTED MAXIMUM PRESSURE FALL OF 0.7 HPA.

ARABIAN SEA:

THE EXISTING DEPRESSION IS LIKELY TO WEAKEN GRADUALLY EMERGE INTO COMORIN AREA AROUND 26TH DECEMBER AND MOVE WEST-NORTHWESTWARDS THEREAFTER TOWARDS SOUTHEAST ARABIAN SEA.

SCATTERED LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER EAST PARTS OF COMORIN AREA AND ISOLATED WEAK TO MODERATE CONVECTION OVER NORTHWEST & EXTREME SOUTHWEST ARABIAN SEA.

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION) DURING NEXT 120 HRS:

24 HOURS	24-48 HOURS	48-72 HOURS	72-96 HOURS	96-120 HOURS
LOW	LOW	NIL	NIL	NIL

REMARKS:

SEA SURFACE TEMPERATURE IS ABOUT 26-27°C OVER SOUTHWEST BOB. MADDEN JULIAN OSCILLATION INDEX IS IN PHASE 5 WITH AMPLITUDE MORE THAN 1. IT WOULD MOVE TO PHASE 6 FROM 26TH ONWARDS. MJO WOULD SUPPORT CONVECTIVE ACTIVITY OVER THE BAY OF BENGAL DURING NEXT 2 DAYS. THE EQUATORIAL WAVES PREDICTION INDICATES, STRONG EASTERLY WINDS (5-7 MPS) OVER EQUATORIAL INDIAN OCEAN & ADJOINING SOUTH BOB, WEAK EASTERLY WINDS (1-3 MPS) OVER CENTRAL BOB, LOW FREQUENCY BACKGROUND WAVES OVER SOUTH BOB AND EQUATORIAL ROSSBY WAVES OVER SOUTH ANDAMAN SEA DURING NEXT 3-4 DAYS. THEREAFTER, GRADUAL WEAKENING OF WESTERLY WINDS OVER SOUTH BOB & ADJOINING EAST EQUATORIAL INDIAN OCEAN AND EASTERLY WINDS OVER CENTRAL BOB IS PREDICTED. THUS, EQUATORIAL WAVES ARE LIKELY TO SUPPORT ENHANCEMENT OF CONVECTIVE ACTIVITY OVER THE BOB DURING NEXT 2-3 DAYS.

LOW LEVEL RELATIVE VORTICITY IS AROUND (100)X10^{-6} S^{-1} AROUND THE SYSTEM CENTRE. LOW LEVEL CONVERGENCE HAS DECREASED AND IS ABOUT 10X10^{-5} S^{-1} TO THE SOUTHEAST OF THE SYSTEM CENTRE. UPPER LEVEL DIVERGENCE HAS INCREASED AND IS ABOUT 30X10^{-5} S^{-1} TO THE SOUTHEAST OF SYSTEM CENTRE. VERTICAL WIND SHEAR OF 10-20 KNOTS AROUND THE SYSTEM CENTRE AND MODERATE (~ 15-20 KNOTS) WIND SHEAR IS PREVAILING TO THE WEST OF THE SYSTEM AREA OVER COMORIN AND LAKSHADWEEP.

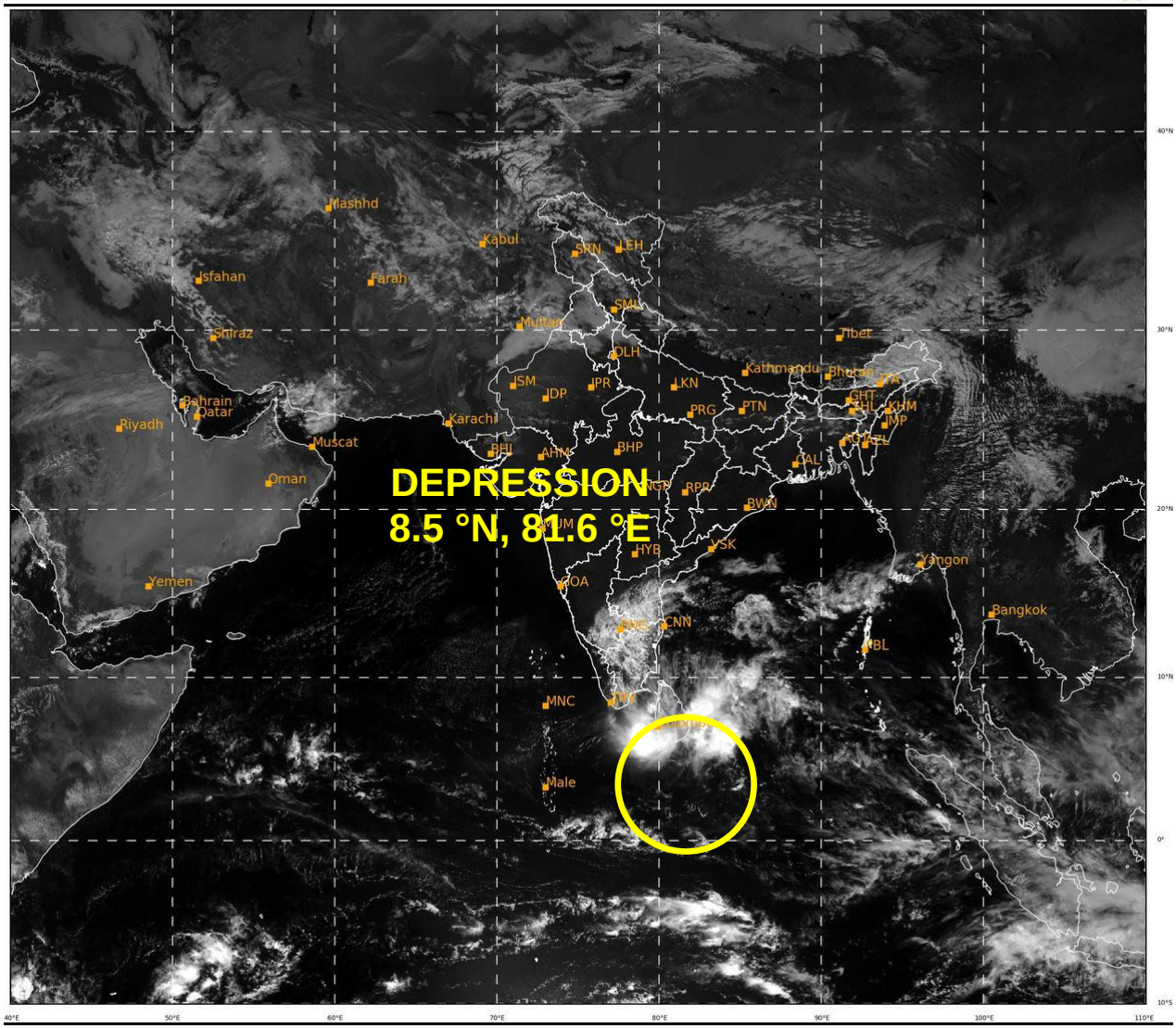
MOST OF THE MODELS (IMD GFS & NCUM GROUP, IMD MME AND ECMWF) ARE INDICATING EXISTING DEPRESSION OVER SOUTHWEST BAY OF BENGAL TO MOVE GRADUALLY SOUTHWESTWARDS REACHING COMORIN AREA BY 26TH/0000 UTC ACROSS SRI LANKA. MODELS ARE NOT INDICATING FURTHER INTENSIFICATION OF THE SYSTEM. THE MODELS ARE ALSO PREDICTING POSSIBLE EMERGENCE OF THE SYSTEM OVER THE ARABIAN SEA AND INDICATING THE WEST-NORTHWESTWARDS MOVEMENT WITH GRADUAL WEAKENING.

IN VIEW OF ALL THE ABOVE, THE DEPRESSION OVER SOUTHWEST BAY OF BENGAL CLOSE TO SRI LANKA COAST IS LIKELY TO CONTINUE TO MOVE WEST-SOUTHWESTWARDS AND CROSS SRI LANKA COAST TO THE SOUTH OF TRINCOMALEE NEAR ABOUT LATITUDE 8.3°N AND LONGITUDE 81.4°E WITHIN A FEW HOURS. THEREAFTER, IT WOULD MOVE WEST-SOUTHWESTWARDS, WEAKEN GRADUALLY AND EMERGE INTO COMORIN AREA & NEIGHBOURHOOD BY TOMORROW, THE 26TH DECEMBER MORNING (0000 UTC).

M. SHARMA
SCIENTIST-D
RSMC, NEW DELHI

SAT : INSAT-3D IMG
Visible Count 0.65 um
L1C Mercator

25-12-2022/(0730 to 0756) GMT
25-12-2022/(1300 to 1326) IST



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%
This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins

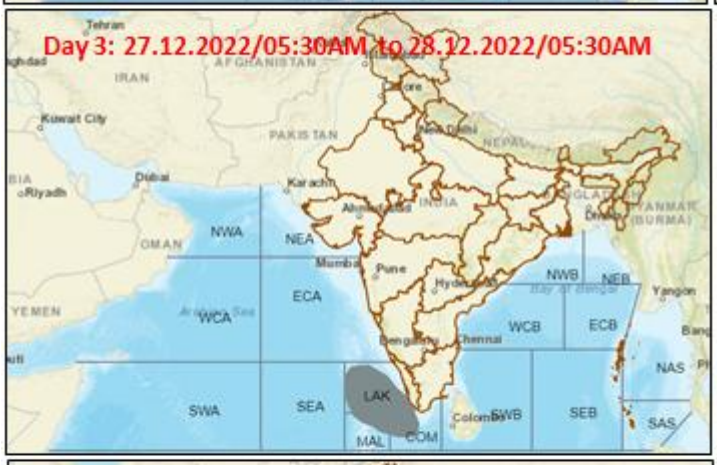
OBSERVED AND FORECAST TRACK OF DEPRESSION OVER SOUTHWEST BAY OF BENGAL CLOSE TO SRI LANKA COAST BASED ON 0600 UTC OF 25th DECEMBER, 2022

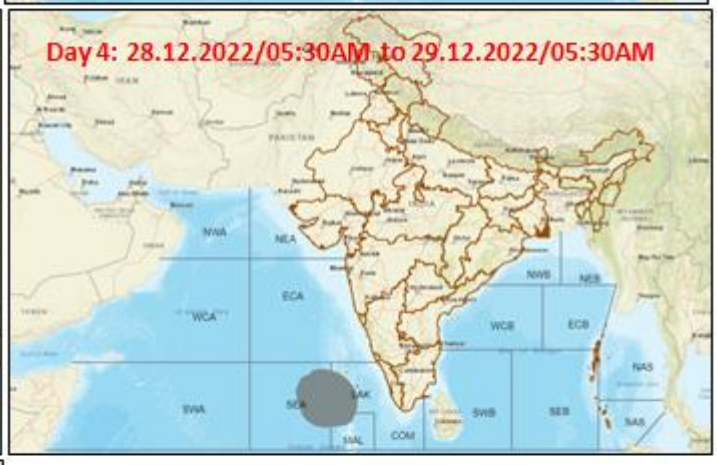
DATE/TIME IN UTC
IST=UTC + 0530
L: LOW PRESSURE AREA
WML: WELL MARKED LOW PRESSURE AREA
D: DEPRESSION (17-27 KT)
DD: DEEP DEPRESSION (28-33 KT)
CS: CYCLONIC STORM (34-47 KT)
SCS: SEVERE CYCLONIC STORM (48-63KT)
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
SuCS: SUPER CYCLONIC STORM (≥20 KT)

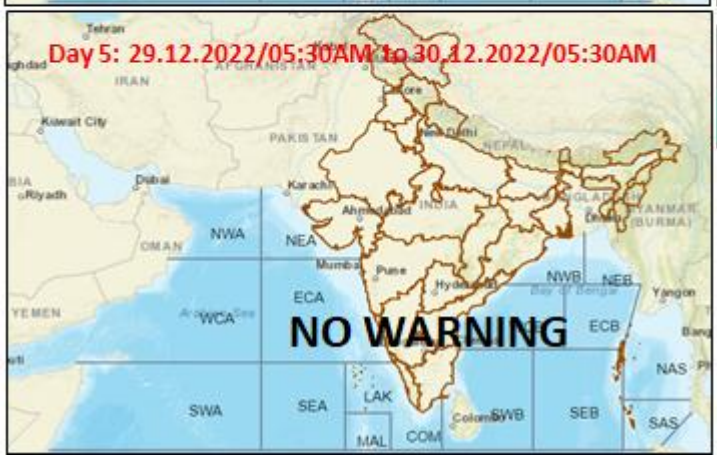
LESS THAN 34 KT
34-47 KT
≥ 48 KT
OBSERVED TRACK
FORECAST TRACK
CONE OF UNCERTAINTY

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%
This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins

Fishermen warning graphics







Squally WX with wind speed 40-50 kmph gusting to 60 kmph

Squally wind speed 45-55 kmph gusting to 65 kmph

Fishermen are advised not to venture into the marked areas.

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%
This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins