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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 20.11.2022

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1500 UTC OF 20.11.2022 BASED ON 1200 UTC OF 20.11.2022.

SUB: DEPRESSION OVER SOUTHWEST BAY OF BENGAL

THE DEPRESSION OVER SOUTHWEST AND ADJOINING SOUTHEAST BAY OF BENGAL MOVED NORTH-NORTHWESTWARDS WITH A SPEED OF 12 KMPH DURING PAST 06 HOURS AND LAY CENTRED AT 1200 UTC OF TODAY, THE 20TH NOVEMBER, 2022 OVER THE SOUTHWEST BAY OF BENGAL, NEAR LATITUDE 10.9 N AND LONGITUDE 85.0O E, ABOUT 560 KM EAST-NORTHEAST OF JAFFNA (43404), 560 KM EAST OF KARAIKAL (43346) AND 570 KM EAST-SOUTHEAST OF CHENNAI (43279).

IT IS VERY LIKELY TO MAINTAIN ITS INTENSITY OF DEPRESSION AND MOVE SLOWLY NORTHWESTWARDS TILL 0000 UTC OF 22ND NOVEMBER. THEREAFTER, IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND WEAKEN GRADUALLY INTO A WELL MARKED LOW PRESSURE AREA WHILE MOVING TOWARDS SOUTH ANDHRA PRADESH AND NORTH TAMILNADU-PUDUCHERRY COASTS DURING SUBSEQUENT 24 HOURS.

AS PER INSAT 3D IMAGERY, THE INTENSITY OF THE SYSTEM IS CHARACTERISED AS T.1.5. THE SYSTEM SHOWS SHEAR PATTERN WITH CONVECTIVE CLOUD SHEARED TO THE NORTHWEST OF SYSTEM CENTRE. IN ASSSOCIATION WITH THE SYSTEM, ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL. 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 OVER SOUTHWEST AND ADJOINING WEST CENTRAL & SOUTHEAST BAY OF BENGAL . THE ESTIMATED CENTRAL PRESSURE IS 1003 HPA.

REMARKS:

THE MADDEN JULIAN OSCILLATION INDEX (MJO) CURRENTLY LIES IN PHASE 6 WITH AMPLITUDE GREATER THAN 1.
THERE IS NO SUPPORT OF EQUATORIAL WAVES OVER THE REGION FOR FURTHER INTENSIFICATION OF THE SYSTEM. SEA SURFACE TEMPERATURE (SST) IS AROUND 28-290C OVER SOUTHWEST BOB.
THE LOW LEVEL RELATIVE VORTICITY IS SOUTHEAST TO NORTHWEST ORIENTED. IT IS ABOUT 110 X10-6 S-1 TO THE SOUTHEAST OF THE SYSTEM CENTER. VERTICALLY IT IS EXTENDING UPTO 300 HPA LEVEL, TILTING SOUTHWESTWARDS WITH HEIGHT. LOW LEVEL CONVERGENCE HAS INCREASED AND IS AROUND 30 X10-5 S-1 TO THE NORTHWEST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS AROUND 30 X10-5 S-1 TO THE NORTHWEST OF SYSTEM CENTRE. BOTH LOW LEVEL CONVERGENCE AND UPPER LEVEL DIVERGENCE ARE MOSTLY ALLINGED OVER THE REGION. WIND SHEAR IS LOW (5-10

KNOTS) AROUND THE SYSTEM CENTER AND IS MODERATE TO HIGH OF 15-20 KTS TOWARDS SOUTH ANDHRA PRADESH AND TAMILNADU-PUDUCHERRY COASTS. THERE IS WARM AIR ADVECTION TOWARDS THE SYSTEM CENTER AS EVIDENT FROM TOTAL PRECIPITABLE WATER IMAGERY. IT WOULD CONTINUE TILL 0000 UTC OF 22ND NOVEMBER AND DECREASE THEREAFTER. CONSIDERING ALL THIS THE SYSTEM WOULD MAINTAIN ITS INTENSITY OF DEPRESSION TILL 0000 UTC OF 22ND NOVEMBER. THEERAFTER IT IS LIKELY TO WEAKEN GRADUALLY WHILE MOVING TOWARDS THE COAST DUE TO LAND INETRACTION AND COLD & DRY AIR IINCURSION FROM SOUTH PENINSULAR INDIA.

UPPER TROPOSPHERIC RIDGE ROUGHLY RUNS ALONG 17°N OVER BAY OF BENGAL AND THE SYSTEM IS UNDER MID-TRPOSPHERIC SOUTHEASTERLY WINDS WHICH WOULD STEER THE SYSTEM TOWARDS NORTHWEST TILL 0000 UTC OF 22ND NOVEMBER. THEREAFTER THE SOUTHEASTERLY STREEING WINDS ARE LIKELY TO CHANGE TO EASTERLY/EAST-SOUTHEASTERLY LEADING TO WESTWARD TO WEST-NORTHWESTWARD MOVEMENT OF THE SYSTEM.

MOST OF THE MODELS ARE INDICATING, NO FURTHER INTENSIFICATION OF THE SYSTEM. THE MODELS ARE ALSO INDICATING GRADUAL NORTHWESTWARD MOVEMENT TILL 0000 UTC OF 22^{ND} NOVEMBER. IN VIEW OF ALL THE ABOVE, IT IS INFERRED THAT IT IS VERY LIKELY TO MAINTAIN ITS INTENSITY OF DEPRESSION AND MOVE SLOWLY NORTHWESTWARDS TILL 0000 UTC OF 22ND NOVEMBER. THEREAFTER, IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND WEAKEN GRADUALLY INTO A WELL MARKED LOW PRESSURE AREA WHILE MOVING TOWARDS SOUTH ANDHRA PRADESH AND NORTH TAMILNADU-PUDUCHERRY COASTS DURING SUBSEQUENT 24 HOURS.

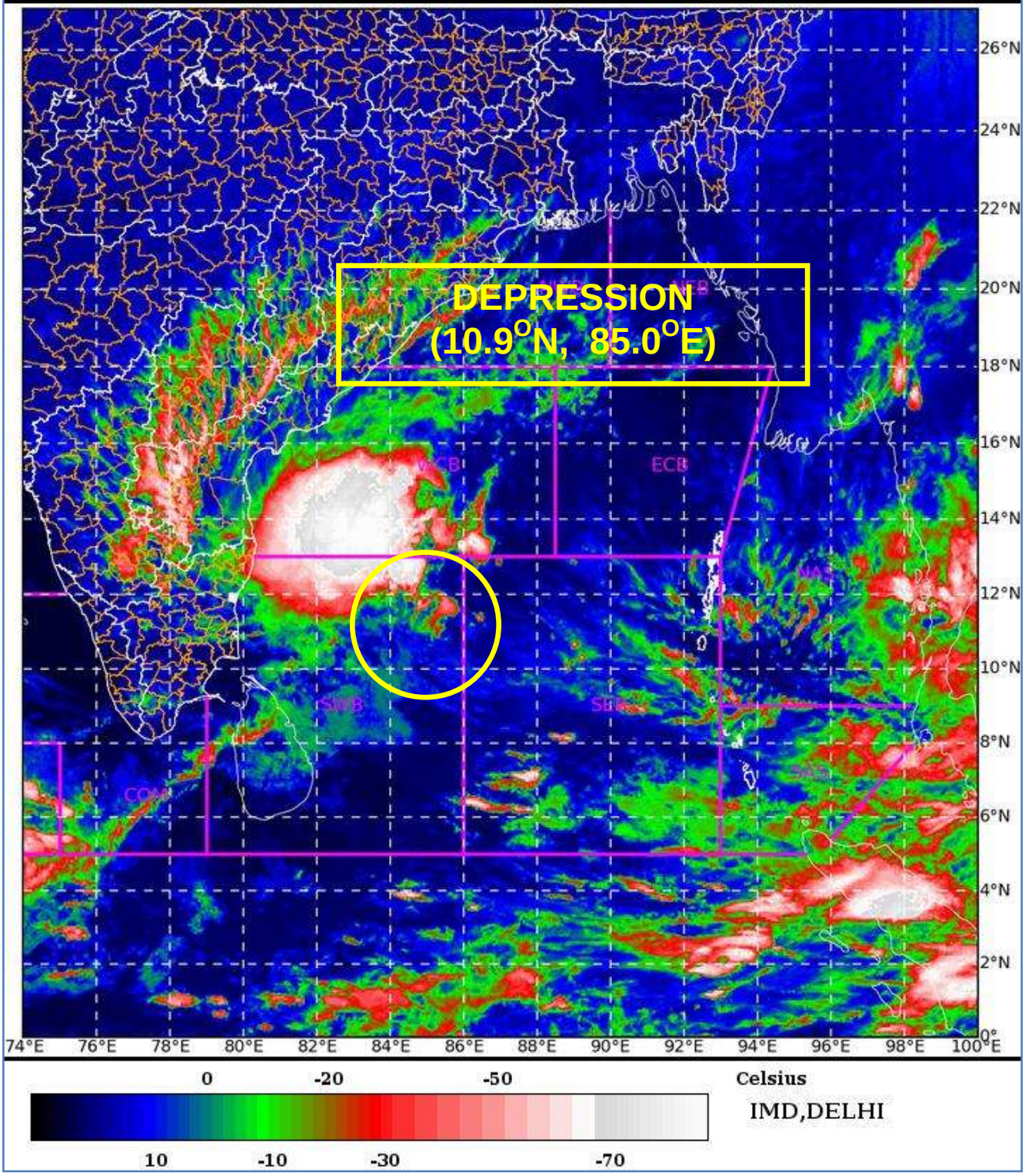
(SHOBHIT KATIYAR)
RSMC NEW DELHI

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

SAT : INSAT-3DR IMG 20-11-2022/(1345 to 1412) GMT

IMG_TIR1_TEMP 10.8 um 20-11-2022/(1915 to 1942) IST

L1C Mercator



Celsius

IMD,DELHI

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OBSERVED AND FORECAST TRACK OF DEPRESSION OVER SOUTHWEST BAY OF BENGAL BASED ON 1200 UTC OF 20TH NOVEMBER, 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

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Fishermen warning graphics

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

Squally wind speed with wind speed 45-55 kmph gusting to 65 kmph

Fishermen are advised not to venture into the marked areas.

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