



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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 19.11.2021

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0700 UTC OF 19.11.2021 BASED ON 0300 UTC OF 19.11.2021.

BAY OF BENGAL:

SUB: DEPRESSION OVER NORTH TAMIL NADU AND NEIGHBOURHOOD

THE DEPRESSION OVER NORTH COASTAL TAMIL NADU MOVED WEST-NORTHWESTWARDS WITH A SPEED OF 12 KMPH DURING PAST 6 HOURS AND LAY CENTRED AT 0300 UTC OF TODAY, THE 19TH NOVEMBER 2021, OVER NORTH TAMIL NADU & NEIGHBOURHOOD, NEAR LAT. 12.7°N AND LONG. 79.7°E, ABOUT 60 KM EAST-SOUTHEAST OF VELLORE (43303). IT IS VERY LIKELY TO CONTINUE TO MOVE WEST-NORTHWESTWARDS AND WEAKEN GRADUALLY INTO A WELL MARKED LOW PRESSURE AREA DURING NEXT 06 HOURS.

AS PER SATELLITE IMAGERY AT 0300 UTC, BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER NORTHWEST TAMILNADU, RAYALSEEMA, ADJOINING SOUTH COASTAL ANDHRA PRADESH AND SOUTH INTERIOR KARNATAKA. MINIMUM CLOUD TOP TEMPERATURE (CTT) IS MINUS 70°C.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 20 KNOTS GUSTING TO 30 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 1002 HPA. SEA CONDITION WOULD BE ROUGH TO VERY ROUGH OVER SOUTHWEST & ADJOINING WESTCENTRAL BOB DURING NEXT 06 HOURS.

REMARKS:

POSITIVE LOW LEVEL VORTICITY IS ABOUT $100 \times 10^{-6} \text{ S}^{-1}$ OVER TAMILNADU TO THE SOUTH OF SYSTEM CENTRE. POSITIVE LOW LEVEL CONVERGENCE IS ABOUT $10 \times 10^{-5} \text{ S}^{-1}$ TO THE NORTHEAST OF SYSTEM CENTRE. DIVERGENCE IS $20 \times 10^{-5} \text{ S}^{-1}$ TO THE NORTHWEST OF SYSTEM CENTRE. WIND SHEAR IS LOW (05-10 KT) OVER SYSTEM AREA AND INCREASES GRADUALLY BECOMING 15 KT TO IT'S NORTHWEST, ALONG THE FORECAST TRACK. UPPER TROPOSPHERIC RIDGE RUNS ALONG 18°N. HENCE THE SYSTEM IS BEING STEERED WEST-NORTHWESTAWRDS.

MOST OF THE MODELS INDICATE WEAKENING OF THE SYSTEM AND ARE INDICATING THE SYSTEM TO MOVE WEST-NORTHWESTWARDS.

ARABIAN SEA:

SUB: WELL MARKED LOW PRESSURE AREA OVER EASTCENTRAL ARABIAN SEA

THE LOW PRESSURE AREA OVER EASTCENTRAL ARABIAN SEA LAY AS A WELL MARKED LOW PRESSURE AREA OVER THE SAME REGION AT 0300 UTC OF TODAY, THE 19TH NOVEMBER. IT IS LIKELY TO CONCENTRATE INTO A DEPRESSION OVER THE SAME REGION DURING NEXT 24 HOURS.

AS PER SATELLITE IMAGERY AT 0300 UTC, SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EASTCENTRAL AS BETWEEN LATITUDE 13.0N & 17.0N AND LONGITUDE 67.0E & 70.5E. MINIMUM CTT IS AROUND MINUS 93⁰C, INDICATING INCREASE IN DEPTH OF CONVECTION DURING PAST 3 HOURS. LATEST IMAGERY ALSO INDICATE SLIGHT ORGANISATION OF CLOUD MASS DURING LAST 6 HOURS.

SEA CONDITION WOULD BE ROUGH TO VERY ROUGH OVER EASTCENTRAL ARABIAN SEA DURING NEXT 48 HOURS.

REMARKS:

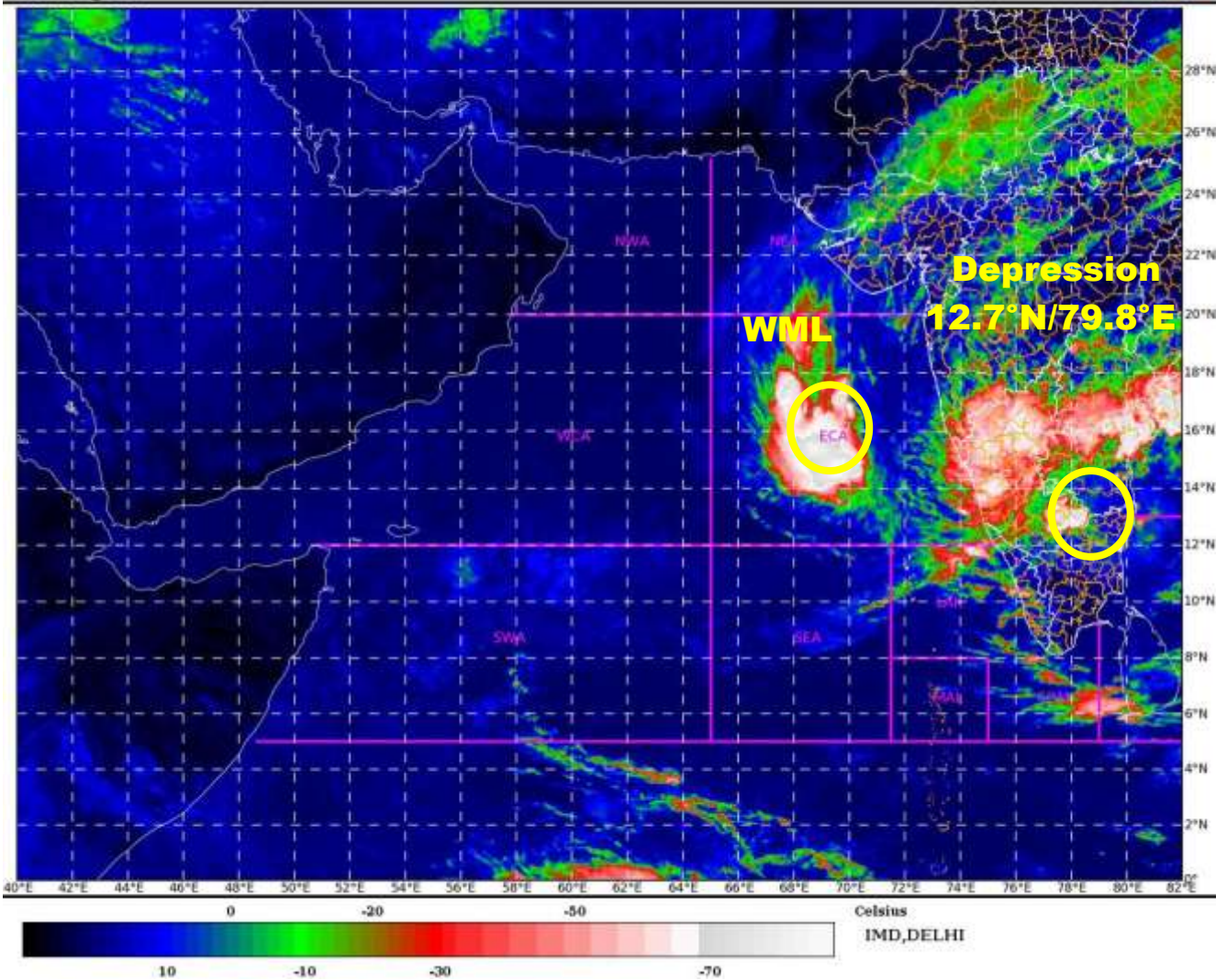
SEA SURFACE TEMPERATURE (SST) IS ABOUT 28-29°C OVER EASTCENTRAL ARABIAN SEA, BECOMING <28°C OVER WESTERN PARTS OF THE ARABIAN SEA. TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS ABOUT 60-80 KJ/CM² OVER EASTCENTRAL ARABIAN SEA AND IS DECREASING TOWARDS WESTERN PARTS OF ARABIAN SEA. POSITIVE LOW LEVEL VORTICITY IS ABOUT 100X10⁻⁶ S⁻¹ OVER EASTCENTRAL ARABIAN SEA TO THE SOUTH OF SYSTEM CENTRE WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. POSITIVE LOW LEVEL CONVERGENCE IS ABOUT 10 X10⁻⁵ S⁻¹ TO THE SOUTHEAST OF SYSTEM CENTRE. POSITIVE UPPER LEVEL DIVERGENCE IS ABOUT 05 X10⁻⁵ S⁻¹ OVER THE SYSTEM AREA. WIND SHEAR IS LOW TO MODERATE (15-20 KT) OVER EASTCENTRAL ARABIAN SEA OVER THE SYSTEM AREA. IT IS GRADUALLY INCREASING OVER AREAS TO THE WEST OF SYSTEM CENTRE.

SOME OF THE MODELS (IMD GFS & ECMWF) ARE INDICATING MARGINAL INTENSIFICATION OF SYSTEM OVER EASTCENTRAL AS WITH VERY SLOW WEST-SOUTHWESTWARD MOVEMENT DURING NEXT 3-4 DAYS TOWARDS SOUTHWEST ARABIAN SEA.

UNDER THESE CONDITIONS, THE WELL MARKED LOW PRESSURE AREA OVER EASTCENTRAL ARABIAN SEA IS LIKELY TO CONCENTRATE INTO A DEPRESSION OVER THE SAME REGION DURING NEXT 24 HOURS.

NEXT MESSAGE WILL BE ISSUED AT 0900 UTC OF 19TH NOVEMBER, 2021.

(R.K.JENAMANI)
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WML: WELL MARKED LOW PRESSURE AREA



OBSERVED AND FORECAST TRACK OF DEPRESSION OVER NORTH TAMILNADU AND NEIGHBOURHOOD BASED ON 0300 UTC OF 19TH NOVEMBER, 2021



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