



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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 16.07.2022

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0830 UTC OF 16.07.2022 BASED ON 0600 UTC OF 16.07.2022.

SUB: DEPRESSION OVER NORTHEAST ARABIAN SEA OFF SAURASHTRA COAST

THE DEPRESSION OVER NORTHEAST ARABIAN SEA OFF SAURASHTRA COAST MOVED NORTH-NORTHWESTWARDS DURING LAST 3 HOURS WITH A SPEED OF 12 KMPH AND LAY CENTERED AT 0600 UTC OF TODAY, THE 16TH JULY, 2022 OVER THE SAME REGION NEAR LATITUDE 21.9°N AND LONGITUDE 68.9°E, ABOUT 90 KM WEST-NORTHWEST OF PORBANDAR (42830), 70 KM SOUTH-SOUTHWEST OF OKHA (42730), 150 KM SOUTH OF NALIYA (42631) AND 380 KM SOUTH-SOUTHEAST OF KARACHI (40898).

IT IS VERY LIKELY TO MOVE GRADUALLY FURTHER NORTH-NORTHWESTWARDS ALONG & OFF SAURASHTRA & KUTCH COASTS AND ADJOINING NORTHEAST ARABIAN SEA DURING NEXT 24 HOURS. THEREAFTER, IT IS LIKELY TO MOVE NEARLY WESTWARDS TOWARDS OMAN COAST ACROSS NORTHWEST ARABIAN SEA DURING SUBSEQUENT 48 HOURS.

AS PER INSAT 3D IMAGERY, THE INTENSITY OF THE SYSTEM IS CHARACTERISED AS T.1.5. THE CLOUD MASS INDICATES SHEAR PATTERN WITH CONVECTIVE CLOUD SHEARED TO THE WEST OF SYSTEM CENTRE. CENTRE IS CLEARLY DEFINED IN VISIBLE IMAGERY. ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTH AND ADJOINING CENTRAL ARABIAN SEA. 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 NORTHEAST AND ADJOINING CENTRAL ARABIAN SEA ALONG & OFF GUJARAT AND PAKISTAN COASTS. THE ESTIMATED CENTRAL PRESSURE IS 992 HPA.

REMARKS:

SEA SURFACE TEMPERATURE IS AROUND 28-29°C OVER NORTH ARABIAN SEA. TROPICAL CYCLONE HEAT POTENTIAL IS AROUND 60-80 KJ/CM² OVER NORTHEAST AND ADJOINING NORTHWEST ARABIAN SEA BECOMING LESS THAN 50 KJ/CM² OVER GULF OF OMAN AND WESTWARDS. THE MADDEN JULIAN OSCILLATION (MJO) INDEX CURRENTLY LIES IN PHASE 4 WITH AMPLITUDE LESS THAN 1 AND WOULD CONTINUE IN SAME PHASE DURING NEXT 2 DAYS.

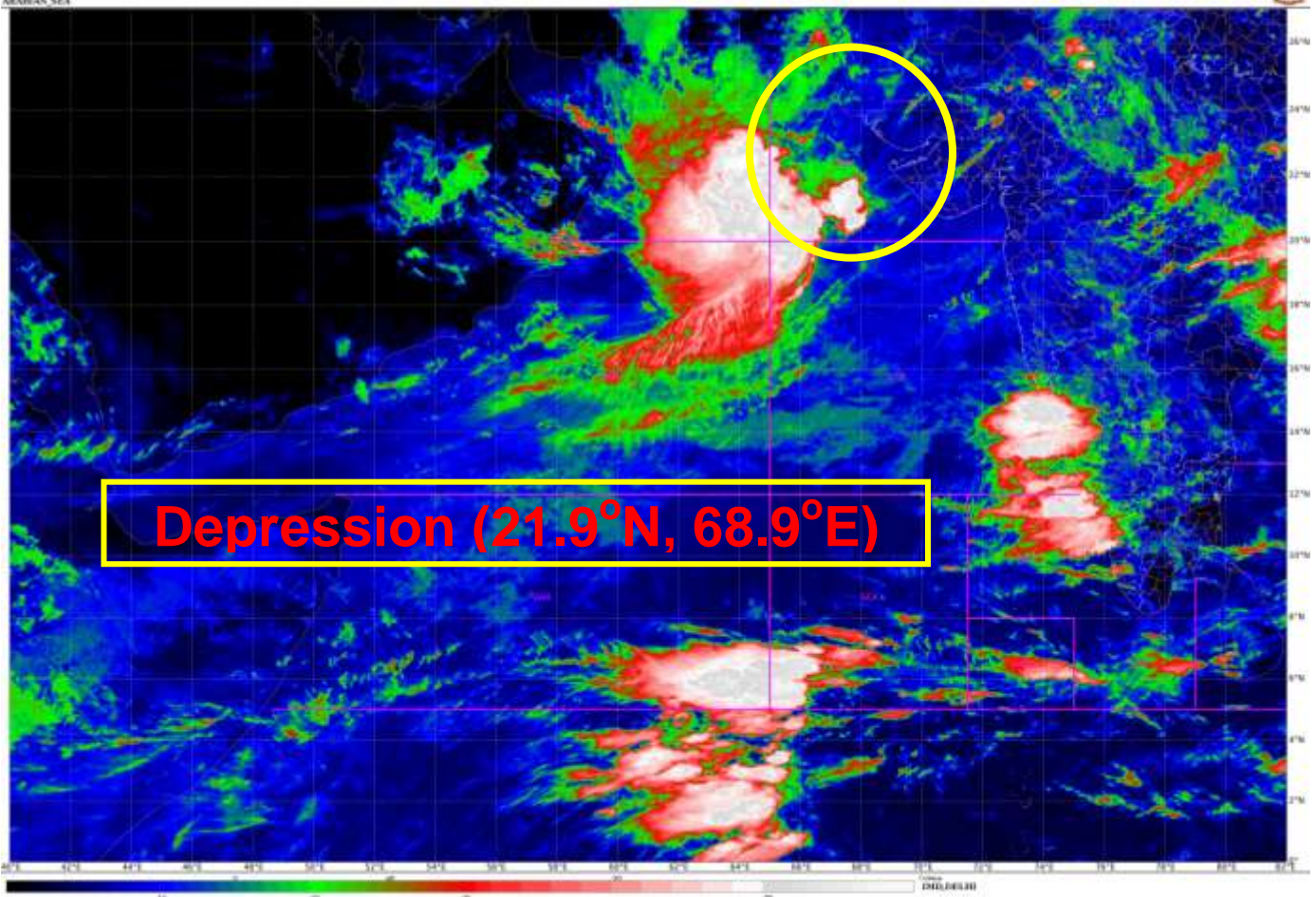
LOW LEVEL VORTICITY HAS INCREASED DURING PAST 24 HOURS AND IS AROUND $150 \times 10^{-6} \text{ S}^{-1}$ TO THE SOUTHWEST OF SYSTEM CENTRE WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. LOW LEVEL CONVERGENCE IS THE SAME AND IS AROUND $20 \times 10^{-5} \text{ S}^{-1}$ TO THE WEST OF THE SYSTEM CENTRE. UPPER LEVEL DIVERGENCE HAS DECREASED AND IS AROUND $20 \times 10^{-5} \text{ S}^{-1}$ TO THE WEST OF THE SYSTEM CENTRE. VERTICAL WIND SHEAR IS LOW TO MODERATE (10-15 KNOTS) AROUND THE SYSTEM CENTRE WITH GRADUAL INCREASING TREND OVER NORTHWEST ARABIAN SEA. UNDER THESE FAVOURABLE CONDITIONS, THE

SYSTEM MAINTAINED IT'S INTENSITY OF DEPRESSION AT 0600 UTC. HOWEVER, AS THE SYSTEM WOULD MOVE WESTWARDS, IT WOULD ENCOUNTER HIGHER VERTICAL WIND SHEAR AND THUS, WOULD NOT INTENSIFY FURTHER.

MOST OF THE NUMERICAL MODELS INDICATE THAT THE SYSTEM WOULD MAINTAIN THE INTENSITY OF DEPRESSION FOR NEXT 48 HOURS AND WEAKEN GRADUALLY THEREAFTER. IT WOULD MOVE INITIALLY NORTH-NORTHWESTWARDS DURING NEXT 24 HOURS AND THEN NEARLY WESTWARDS TOWARDS OMAN COAST.

IN VIEW OF ABOVE, THE SYSTEM IS LIKELY TO MOVE GRADUALLY NORTH-NORTHWESTWARDS ALONG & OFF SAURASHTRA & KUTCH COASTS AND ADJOINING NORTHEAST ARABIAN SEA DURING NEXT 24 HOURS. THEREAFTER, IT IS LIKELY TO MOVE NEARLY WESTWARDS TOWARDS OMAN COAST ACROSS NORTHWEST ARABIAN SEA DURING SUBSEQUENT 48 HOURS.

(M. SHARMA)
SCIENTIST-D
RSMC NEW DELHI





FORECAST TRACK OF DEPRESSION OVER NORTHEAST ARABIAN SEA OFF SAURASHTRA COAST BASED ON 0600 UTC OF 16th JULY 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 (\geq 120 KT)

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

INDIA METEOROLOGICAL DEPARTMENT FISHERMAN WARNING FOR BAY OF BENGAL AND ARABIAN SEA

