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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 12.08.2022

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 12.08.2022 BASED ON 1200 UTC OF 12.08.2022.

(A) DEPRESSION OVER NORTHEAST AND ADJOINING NORTHWEST ARABIAN SEA

THE DEPRESSION OVER NORTHEAST ARABIAN SEA MOVED NEARLY WESTWARDS WITH A SPEED OF 14 KMPH DURING PAST 6 HOURS AND LAY CENTERED AT 1200 UTC OF TODAY, THE 12TH AUGUST, 2022 OVER NORTHEAST AND ADJOINING NORTHWEST ARABIAN SEA NEAR LATITUDE 22.4°N AND LONGITUDE 65.2°E, ABOUT 390 KM WEST OF NALIYA (42631), 470 KM WEST OF PORBANDAR (42830), 340 KM SOUTHWEST OF KARACHI (41780) AND 550 KM EAST-SOUTHEAST OF CHAHBAHAR (40898).

IT IS VERY LIKELY TO INTENSIFY INTO A DEEP DEPRESSION DURING NEXT 12 HOURS. IT IS VERY LIKELY TO MOVE NEARLY WESTWARDS FOR SOME MORE TIME AND THEN MOVE NORTHWESTWARDS TILL 1200 UTC OF 13TH AUGUST. THEN IT IS LIKELY TO RECURVE GRADUALLY NORTH-NORTHEASTWARDS.

.

AS PER INSAT 3D IMAGERY AT 0300 UTC, INTENSITY OF THE SYSTEM IS CHARACTERISED AS T 1.5. THE CLOUD MASS IS SHEARED TO THE WEST OF SYSTEM CENTRE. BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTH AND ADJOINING CENTRAL ARABIAN SEA. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93^{0}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 AND ALONG & OFF GUJARAT AND PAKISTAN COASTS. THE ESTIMATED CENTRAL PRESSURE IS 992 HPA.

(B) LIKELY FORMATION OF DEPRESSION OVER NORTHWEST BAY OF BENGAL AROUND 14TH AUGUST

A CYCLONIC CIRCULATION LIES OVER WEST MYANMAR AND NEIGHBOURHOOD. UNDER IT'S INFLUENCE, A LOW PRESSURE AREA IS LIKELY TO FORM OVER NORTH BAY OF BENGAL AROUND 13TH AUGUST, 2022. IT IS LIKELY TO BECOME MORE MARKED DURING SUBSEQUENT 24 HOURS AND MOVE WEST-NORTHWESTWARDS THEREAFTER.

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTH & CENTRAL BAY OF BENGAL, ARAKAN COAST, GULF OF MARTABAN. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LAY OVER REST PARTS OF BAY OF BENGAL AND ANDAMAN 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
NIL	LOW	MOD	NIL	NIL

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

REMARKS:

ARABIAN SEA:

SEA SURFACE TEMPERATURE IS AROUND 28-29°C OVER NORTH ARABIAN SEA. THE MADDEN JULIAN OSCILLATION (MJO) INDEX CURRENTLY LIES IN PHASE 3 WITH AMPLITUDE LESS THAN 1 AND WOULD CONTINUE IN SAME PHASE DURING NEXT 3-4 DAYS. TOTAL PRECIPITABLE WATER IMAGERY INDICATE WARM MOIST AIR INCURSION INTO THE CORE OF SYSTEM OVER NORTHEAST ARABIAN SEA. LOW LEVEL VORTICITY IS THE SAME DURING PAST 6 HOURS IS AROUND 150 $X10^{-6}$ S^{-1} TO THE SOUTH OF SYSTEM CENTRE. LOW LEVEL CONVERGENCE HAS DECREASED AND IS AROUND 20 $X10^{-5}$ S^{-1} TO THE SOUTHWEST AND ANOTHER TO THE NORTHWEST OF SYSTEM CENTRE. CONVERGENCE ZONE IS NORTH-SOUTH ORIENTED. UPPER LEVEL DIVERGENCE IS AROUND $20X10^{-5}$ S^{-1} TO THE SOUTHWEST OF SYSTEM CENTRE. WIND SHEAR IS HIGH (20-30 KNOTS) OVER THE SYSTEM AREA AND IS LIKELY TO REMAIN HIGH OVER NORTH ARABIAN SEA. THE CFS BASED FORECAST INDICATE PERSISTENCE OF MJO WAVES AND ROSSBY WAVES OVER NORTH ARABIAN SEA DURING NEXT 2 DAYS ALONGWITH 5-7 MPS EASTERLIES OVER NORTH ARABIAN SEA AND 5-7 MPS WESTERLIES OVER CENTRAL ARABIAN SEA. THUS, THE SYSTEM IS CURRENTLY TRACKING IN A FAVOURABLE ENVIRONMENT.

MOST OF THE MODELS ARE INDICATING SLOW WEST-NORTHWESTWARDS MOVEMENT OF THE SYSTEM. HOWEVER, THERE IS LACK OF CONSENSUS AMONG VARIOUS MODELS WRT INTENSIFICATION OF THE SYSTEM WITH GFS GROUP INDICATING NO FURTHER INTENSIFICATION, WHILE ECMWF IS INDICATING FURTHER INTENSIFICATION OF THE SYSTEM UPTO CYCLONIC STORM STAGE.

IN VIEW OF CURRENT ENVIRONMENTAL CONDITIONS, IT IS INFERRED THAT THE DEPRESSION OVER NORTHEAST & ADJOINING NORTHWEST ARABIAN SEA IS VERY LIKELY TO IT IS VERY LIKELY TO INTENSIFY INTO A DEEP DEPRESSION DURING NEXT 12 HOURS. IT IS VERY LIKELY TO MOVE NEARLY WESTWARDS FOR SOME MORE TIME AND THEN MOVE NORTHWESTWARDS TILL 1200 UTC OF 13TH AUGUST. THEN IT IS LIKELY TO RECURVE GRADUALLY NORTH-NORTHEASTWARDS.

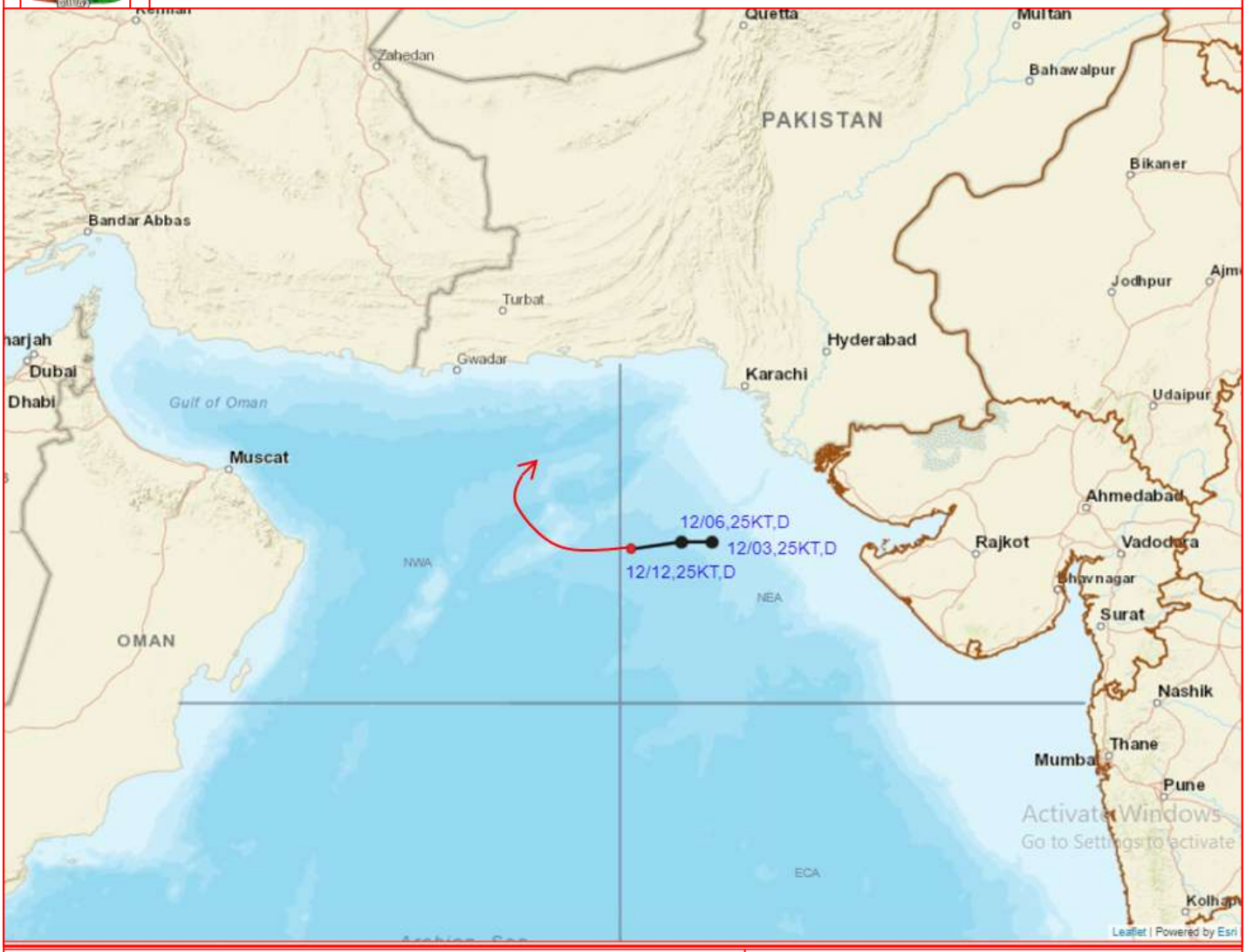
BAY OF BENGAL:

MOST OF THE MODELS ARE INDICATING LIKELY FORMATION OF A LOW PRESSURE AREA OVER NORTH BAY OF BENGAL AROUND 13^{TH} AUGUST. IT IS LIKELY TO INTENSIFY FURTHER DURING NEXT 24 HOURS AND MOVE WEST-NORTHWESTWARDS THEREAFTER.

(M. SHARMA)
SCIENTIST D,
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

OBSERVED AND FORECAST TRACK OF DEPRESSION OVER NORTHEAST AND ADJOINING NORTHWEST ARABIAN SEA BASED ON 1200 UTC OF 12th AUGUST, 2022



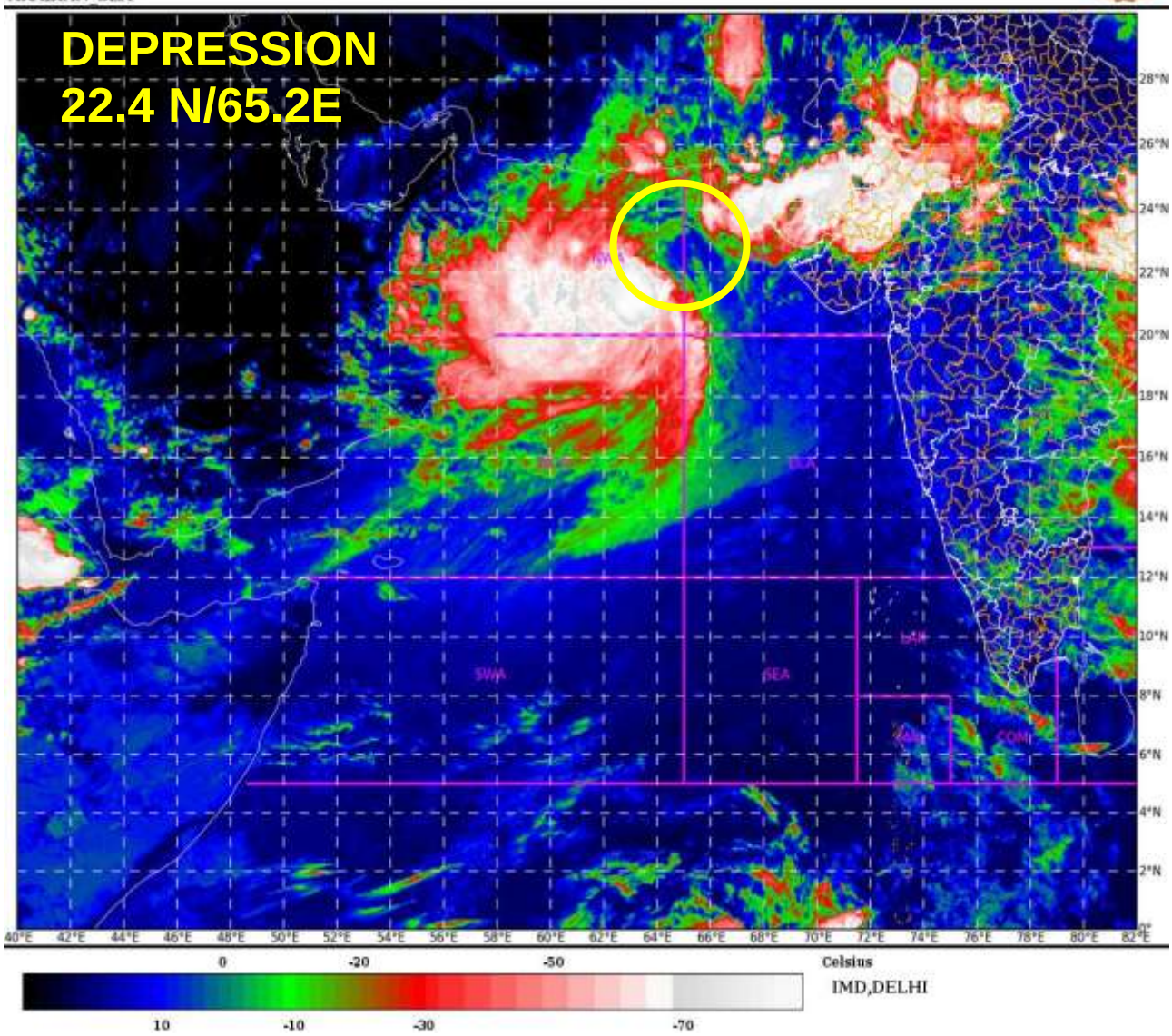
DATE/TIME IN UTC
IST=UTC + 0530
L: LOW PRESSURE AREA
WML: WELL MARKED LOW PRESSURE AREA
D: DEPRESSION (17-27 KT)
DD: DEEP DEPRESSION (28-33 KT)
CS: CYCLONIC STORM (34-47 KT)
SCS: SEVERE CYCLONIC STORM (48-63KT)
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
SuCS: SUPER CYCLONIC STORM (≥ 120 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

SAT : INSAT-3D IMG
IMG_TIR1_TEMP 10.8 um
ARABIAN_SEA

12-08-2022/(1330 to 1356) GMT
12-08-2022/(1900 to 1926) 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