



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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 17.12.2022

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0330 UTC OF 17.12.2022 BASED ON 0000 UTC OF 17.12.2022.

ARABIAN SEA:

(A) DEPRESSION OVER WESTCENTRAL ARABIAN SEA

THE DEPRESSION OVER WESTCENTRAL & ADJOINING EASTCENTRAL ARABIAN SEA MOVED WESTWARDS WITH A SPEED OF 14 KMPH DURING PAST 06 HOURS AND LAY CENTERED AT 0000UTC OF TODAY, THE 17TH DECEMBER 2022 OVER WESTCENTRAL ARABIAN SEA NEAR LATITUDE 14.1°N AND LONGITUDE 62.2°E ABOUT 1190 KM WEST-NORTHWEST OF AMINIDIVI (43311), 1260 KM WEST-SOUTHWEST OF PANJIM (43192) AND 930 KM EAST-SOUTHEAST OF SALALAH (41316).

IT IS VERY LIKELY TO MOVE NEARLY WESTWARDS AND WEAKEN INTO A WELL MARKED LOW PRESSURE AREA BY TODAY EVENING(1200UTC OF 17TH).

AS PER INSAT 3D IMAGERY, INTENSITY OF THE SYSTEM IS T1.5/1.5. THE ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WEST CENTRAL PARTS OF ARABIAN SEA. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 82°CELCIUS.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS GUSTING TO 35KTS. THE ESTIMATED CENTRAL PRESSURE IS 1002 HPA. SEA CONDITION IS LIKELY TO BE ROUGH OVER WESTCENTRAL & SOUTHWEST ARABIAN SEA.

BAY OF BENGAL:

(B) LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL AND ADJOINING AREAS OF EAST EQUATORIAL INDIAN OCEAN

THE **LOW PRESSURE AREA** OVER SOUTHEAST BAY OF BENGAL & ADJOINING EAST EQUATORIAL INDIAN OCEAN PERSISTS OVER THE SAME REGION AT 0000UTC OF TODAY, THE 17TH DECEMBER. IT IS LIKELY TO MOVE WESTWARDS SLOWLY OVER SOUTH BAY OF BENGAL DURING NEXT 48 HOURS (TILL 0000UTC OF 19TH DEC).

SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTHEAST BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN BETWEEN LATITUDE 4.0°N & 11.0°N AND LONG 86.5°E & 94.0°E. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93°C.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 10-15 KNOTS GUSTING TO 25 KNOTS AROUND SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS 1007 HPA. SEA CONDITION IS LIKELY TO BE ROUGH OVER SOUTHEAST BAY OF BENGAL AND ADJOINING AREAS OF EQUATORIAL INDIAN OCEAN.

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

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	NIL	NIL	NIL	NIL

REMARKS:

ARABIAN SEA:

SEA SURFACE TEMPERATURE IS ABOUT 26-27°C OVER WESTCENTRAL ARABIAN SEA. LOW LEVEL RELATIVE VORTICITY IS AROUND $100 \times 10^{-6} \text{ S}^{-1}$ AROUND THE SYSTEM CENTRE. LOW LEVEL CONVERGENCE IS ABOUT $05 \times 10^{-5} \text{ S}^{-1}$ TO THE SOUTH OF SYSTEM CENTRE. SIMILARLY, UPPER LEVEL DIVERGENCE IS ABOUT $5 \times 10^{-5} \text{ S}^{-1}$ TO THE EAST OF THE SYSTEM CENTRE. HIGH VERTICAL WIND SHEAR OF ABOUT 25-30 KNOTS IS PREVAILING AROUND THE SYSTEM CENTRE. TOTAL PRECIPITABLE WATER IMAGERY IS INDICATING WEAKENING IN WARM MOIST AIR AROUND THE SYSTEM AREA. DRY COLD AIR INTRUSION IS REACHING THE OUTER CORE UPTO NORTHEAST SECTOR. MULTI-SATELLITE WINDS ARE INDICATING STRONGER WINDS IN THE NORTHEAST SECTOR AND THUS, THE SHEARING OF CONVECTIVE CLOUD MASS TO THE NORTHEAST PERSISTING FROM LAST 12-HOURS.

THESE ENVIRONMENTAL FEATURES (COLDER SEA, DRY COLD AIR INTRUSION, HIGH VERTICAL WIND SHEAR, DECREASE IN MOISTURE IN MIDDLE LEVELS) INDICATE THAT THE SYSTEM IS GRADUALLY ENTERING INTO UNFAVOURABLE ENVIRONMENT LEADING TO FURTHER WEAKENING OF THE SYSTEM INTO A WELL MARKED LOW PRESSURE AREA BY 1200 UTC OF 17TH DECEMBER.

VARIOUS MODELS INDICATE THAT IS VERY LIKELY TO MOVE NEARLY WESTWARDS AND WEAKEN GRADUALLY INTO A WELL MARKED LOW PRESSURE AREA BY 17TH DECEMBER EVENING(1200UTC OF 17TH).

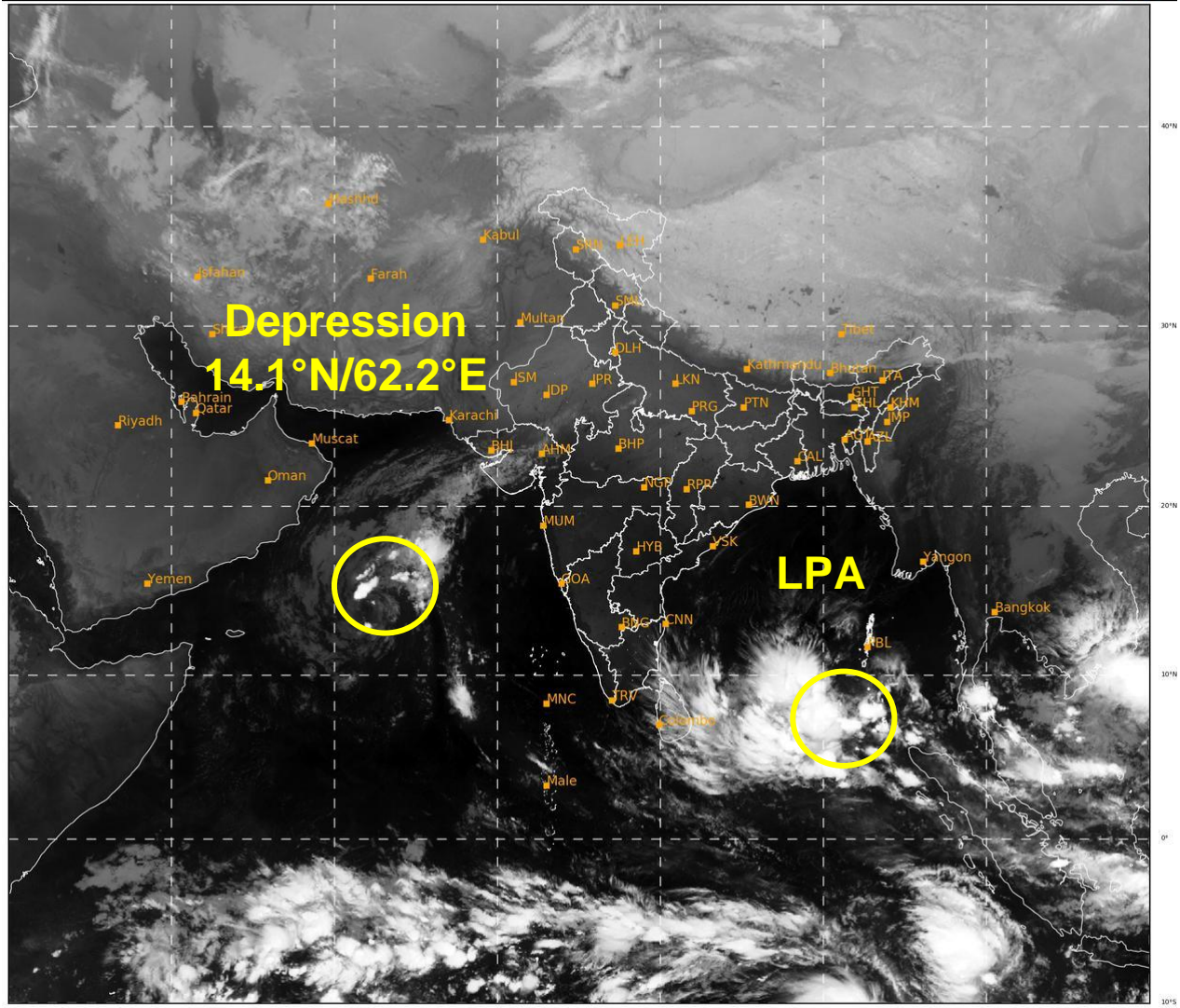
BAY OF BENGAL:

SEA SURFACE TEMPERATURE IS ABOUT 28-29°C OVER SOUTH BOB AND ADJOINING EQUATORIAL INDIAN OCEAN. LOW LEVEL RELATIVE VORTICITY IS AROUND $50 \times 10^{-6} \text{ S}^{-1}$ OVER SOUTH EAST BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN. LOW LEVEL CONVERGENCE IS ABOUT $20 \times 10^{-5} \text{ S}^{-1}$ OVER SOUTHEAST BOB AND ADJOINING AREAS. UPPER LEVEL DIVERGENCE HAS INCREASED TO $40 \times 10^{-5} \text{ S}^{-1}$ OVER SOUTHEAST BOB AND ADJOINING EQUATORIAL INDIAN OCEAN. MODERATE VERTICAL WIND SHEAR OF ABOUT 15-20 KNOTS IS PREVAILING AROUND SYSTEM AREA OVER SOUTHEAST BOB & ADJOINING AREAS. THE EASTERLY WINDS IN THE LOWER TROPOSPHERIC LEVELS ARE STEERING THE SYSTEM NEARLY WESTWARDS.

MOST OF THE MODELS ARE INDICATING EXISTING LOW PRESSURE AREA LIKELY TO MOVE WESTWARDS SLOWLY OVER SOUTH BAY OF BENGAL DURING NEXT 48 HOURS.

IN VIEW OF ABOVE, THE LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL & ADJOINING AREAS OF EAST EQUATORIAL INDIAN OCEAN IS LIKELY TO MOVE SLOWLY WESTWARDS OVER SOUTH BAY OF BENGAL DURING NEXT 48-HOURS (TILL 0000UTC OF 19TH DEC).

(RK JENAMANI)
SCIENTIST-F
RSMC NEW DELHI



535

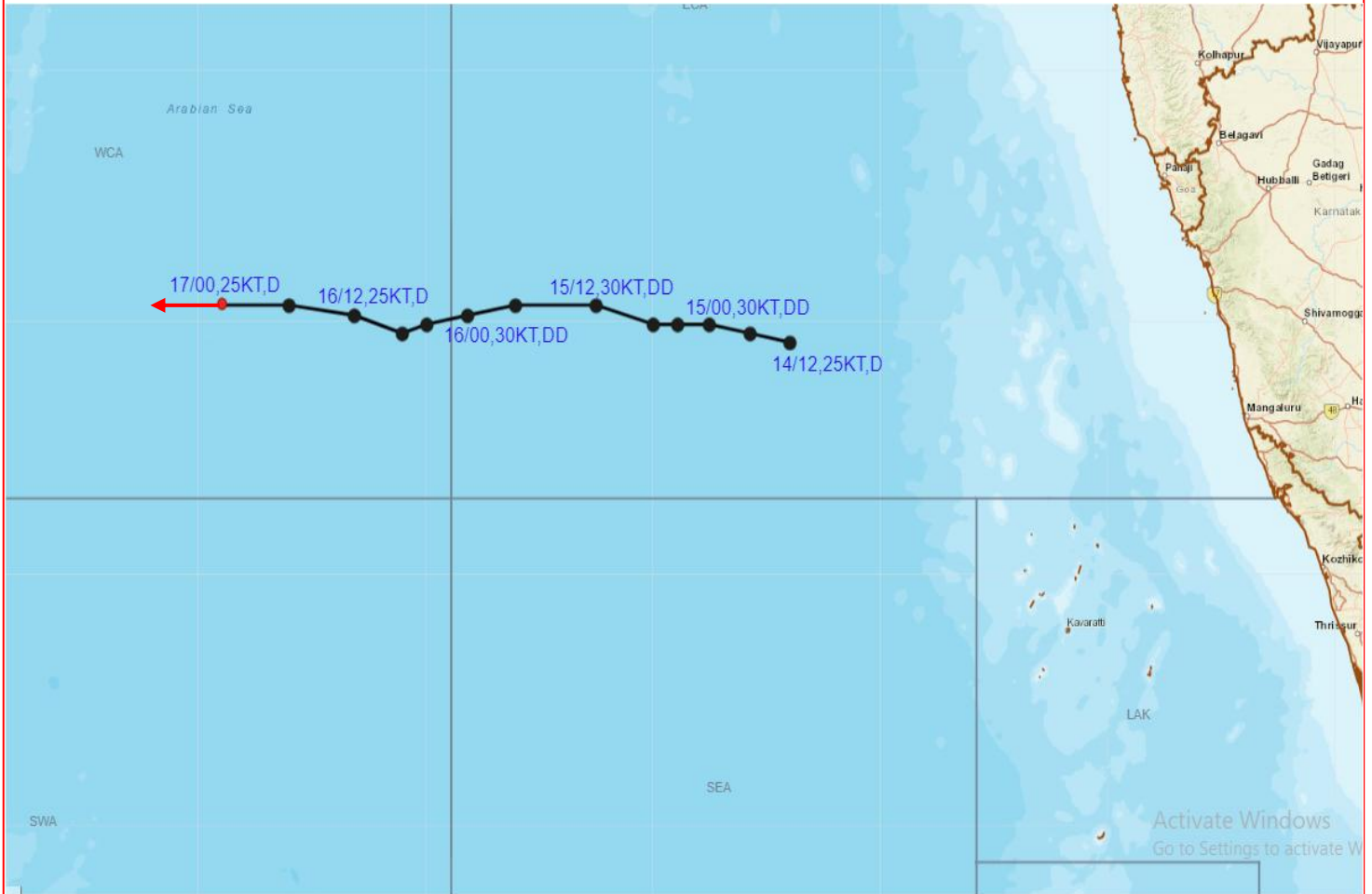
947

IMD, DELHI

LPA: Low Pressure Area



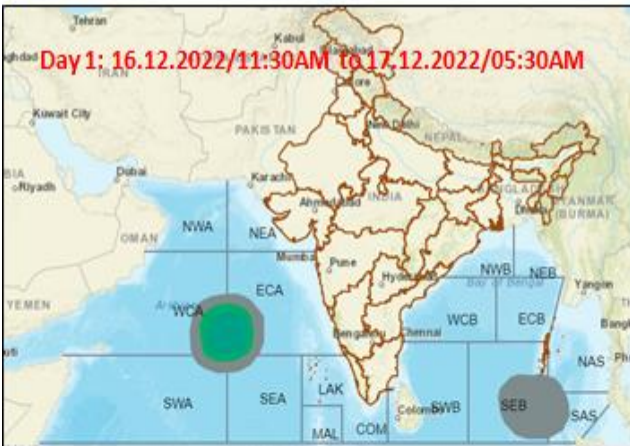
OBSERVED AND FORECAST TRACK OF DEPRESSION OVER WESTCENTRAL ARABIAN SEA BASED ON 0000 UTC OF 17TH DECEMBER, 2022



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 (≥ 120 KT)

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

Fishermen warning graphics



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

Squally wind speed 45-55 kmph gusting to 65 kmph

Squally wind speed 55-65 kmph gusting to 75 kmph

Fishermen are advised not to venture into the marked areas.