



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

DEMS-RSMCTROPICAL CYCLONES NEW DELHI DATED 07.11.2021

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 2000UTC OF 07.11.2021 BASED ON 1800UTC OF 07.11.2021.

**SUB: (A) DEPRESSION OVER EAST-CENTRAL ARABIAN SEA
(B) LIKELY FORMATION OF A LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL, ITS INTENSIFICATION & MOVEMENT TOWARDS NORTH TAMIL NADU COAST DURING 9TH – 11TH NOVEMBER 2021.**

(A) DEPRESSION OVER EASTCENTRAL ARABIAN SEA

THE DEPRESSION OVER EASTCENTRAL ARABIAN SEA MOVED NORTHWESTWARDS WITH A SPEED OF 05 KMPH DURING PAST 6 HOURS AND LAY CENTRED AT 1800 UTC OF 7TH NOVEMBER, 2021, OVER EASTCENTRAL ARABIAN SEA NEAR LATITUDE 14.5°N AND LONGITUDE 66.8°E, ABOUT 820 KM SOUTHWEST OF MUMBAI (43003) & 760 KM WEST-SOUTHWEST OF PANJIM (43192). IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND MAINTAIN THE INTENSITY OF A DEPRESSION DURING NEXT 36 HOURS AND WEAKEN GRADUALLY THEREAFTER.

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

DATE/TIME (UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
07.11.21/1800	14.5/66.8	45-55 gusting to 65	Depression
08.11.21/0600	14.7/66.3	45-55 gusting to 65	Depression
08.11.21/1800	14.9/65.9	40-50 gusting to 60	Depression
09.11.21/0600	15.2/65.2	30-40 gusting to 50	Well Marked low Pressure Area

AS PER INSAT 3D LATEST IMAGERY, ASSOCIATED MINIMUM CLOUD TOP TEMPERATURE IS - 86°C. INTENSITY OF THE SYSTEM IS CATEGORISED AS T 1.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER EASTCENTRAL ARABIAN SEA BETWEEN LATITUDE 12.5N & 18.0N AND LONGITUDE 66.0E & 71.5E.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS GUSTING TO 35 KNOTS. THE SEA CONDITION IS ROUGH TO VERY ROUGH AROUND THE SYSTEM AREA. THE ESTIMATED CENTRAL PRESSURE IS 1002 HPA.

(B) LIKELY FORMATION OF A LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL

A CYCLONIC CIRCULATION LIES OVER SOUTHEAST BAY OF BENGAL AND ADJOINING EQUATORIAL INDIAN OCEAN EXTENDING UPTO 4.5 KM ABOVE MEAN SEA LEVEL AT 0300 UTC OF 7TH NOVEMBER, 2021.. UNDER ITS INFLUENCE, A LOW PRESSURE AREA IS LIKELY TO FORM OVER SOUTHEAST BAY OF BENGAL AND NEIGHBOURHOOD AROUND 09TH

NOVEMBER 2021. IT IS LIKELY TO BECOME MORE MARKED AND MOVE TOWARDS NORTH TAMIL NADU COAST DURING THE SUBSEQUENT 48 HRS.

AS PER LATEST INSAT 3D IMAGERY, SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER CENTRAL AND SOUTH BAY OF BENGAL (BOB) AND ANDAMAN SEA.

REMARKS:

(A) DEPRESSION OVER EAST-CENTRAL ARABIAN SEA

THE SEA SURFACE TEMPERATURE (SST) IS ABOUT 28-29°C OVER EASTCENTRAL ARABIAN SEA WITH DECREASING TREND TOWARDS WEST. SIMILARLY, TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS ABOUT 80-90 KJ/CM² OVER EASTCENTRAL ARABIAN SEA WITH DECREASING TREND TOWARDS WESTCENTRAL ARABIAN SEA. POSITIVE VORTICITY IS ABOUT 100 X10⁻⁶S⁻¹ LAY AROUND SYSTEM CENTRE AT 850 HPA WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. A ZONE OF POSITIVE LOWER LEVEL CONVERGENCE OF 10 X10⁻⁵S⁻¹ LAY TO THE EAST OF SYSTEM CENTER. POSITIVE UPPER LEVEL DIVERGENCE OF 20 X10⁻⁵S⁻¹ IS ALSO SEEN TO THE EAST OF SYSTEM CENTER. MODERATE VERTICAL WIND SHEAR (VWS) ABOUT (20-25 KTS) IS PREVAILING AROUND THE SYSTEM CENTER AND HIGH (>30 KNOTS) ALONG THE FORECAST TRACK. THESE THERMODYNAMIC PARAMETERS ARE FAVOURABLE FOR MAINTENANCE OF THE INTENSITY OF THE SYSTEM DURING NEXT 36 HOURS. THE SYSTEM IS EXPECTED TO WEAKEN THEREAFTER UNDER THE INFLUENCE OF INCREASED VERTICAL WIND SHEAR AND LOW OCEAN THERMAL ENERGY OVER WESTCENTRAL ARABIAN SEA. THE SYSTEM IS LYING TO THE SOUTH OF RIDGE NEAR 16°N. THE EASTERLY WINDS IN THE MID & UPPER TROPOSPHERIC LEVELS WOULD STEER THE SYSTEM WESTWARDS.

MODELS LIKE IMD GFS, NCEP GFS, ECMWF ARE INDICATING THAT THE SYSEYM WOULD NOT INTENSIFY FURTHER WHILE MOVING WEST-NORTHWESTWARDS ACROSS CENTRAL ARABIAN SEA AND WEAKEN DURING NEXT 36 HOURS. HOWEVER, NCUM GROUP OF MODELS IS INDICATING FURTHER INTENSIFICATION OF SYSTEM WHILE MOVING WEST-NORTHWESTWARDS TOWARDS WESTCENTRAL ARABIAN SEA.

IN VIEW OF ABOVE, IT IS CONCLUDED THAT THE SYSTEM IS LIKELY TO MOVE WEST-NORTHWESTWARDS, MAINTAIN THE INTENSITY OF A DEPRESSION DURING NEXT 36 HOURS AND WEAKEN GRADUALLY THEREAFTER.

(B) LIKELY FORMATION OF A LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL

SEA SURFACE TEMPERATURE (SST) IS ABOUT 29-30°C OVER ENTIRE BOB. TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS ABOUT 120-140 OVER SOME PARTS OF EASTERN EQUATORIAL INDIAN OCEAN ADJOINING SUMATRA COAST. IN ADDITION, THE PRESENCE OF NEAR EQUATORIAL CONVERGENCE ZONE, POSITIVE LOW LEVEL VORTICITY (50-60 X10⁻⁶ S⁻¹), POSITIVE LOW LEVEL CONVERGENCE (05-30 X10⁻⁵S⁻¹), POSITIVE UPPER LEVEL DIVERGENCE (05-30 X10⁻⁵S⁻¹) OVER EQUATORIAL INDIAN OCEAN AND ADJOINING SOUTHEAST BOB ARE FAVOURABLE TO SUPPORT CONVECTIVE ACTIVITY OVER THIS REGION.

A FEW OF THE MODELS (IMD GFS & NCEP GFS) ARE ALSO INDICATING FURTHER INTENSIFICATION OF THE LIKELY LOW PRESSURE AREA OVER SOUTHEAST BOB UPTO THE STAGE OF A CYCLONIC STORM OVER SOUTHWEST BOB AROUND 10TH NOVEMBER.

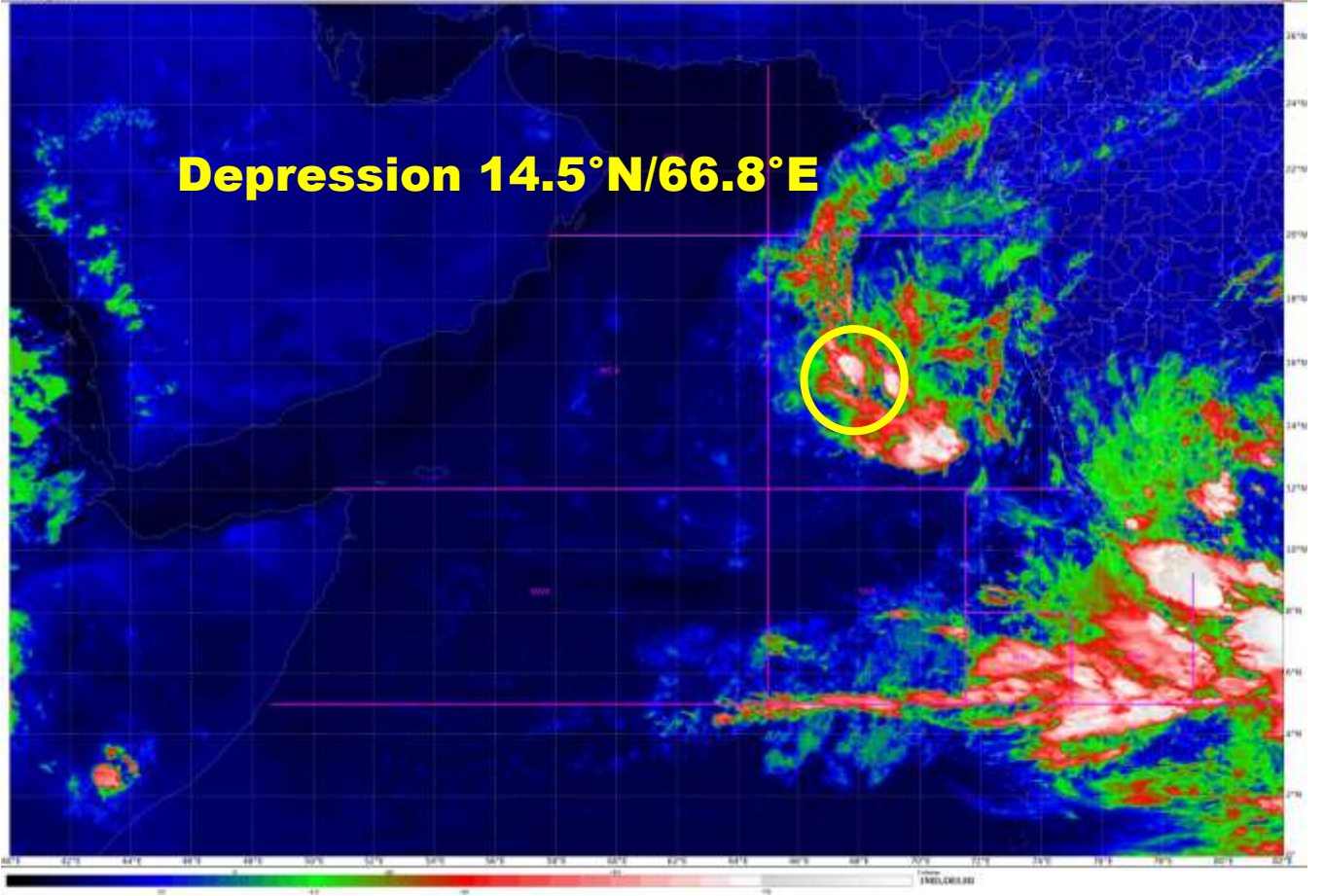
IN VIEW OF ABOVE, THE SYSTEM OVER BOB IS BEING CONTINUOUSLY MONITORED FOR FURTHER DEVELOPMENT AND MOVEMENT.

THE NEXT BULLETIN WILL BE ISSUED AT 0300 UTC OF 8TH NOVEMBER, 2021.

(SHASHI KANT)
SCIENTIST-C, RSMC, NEW DELHI

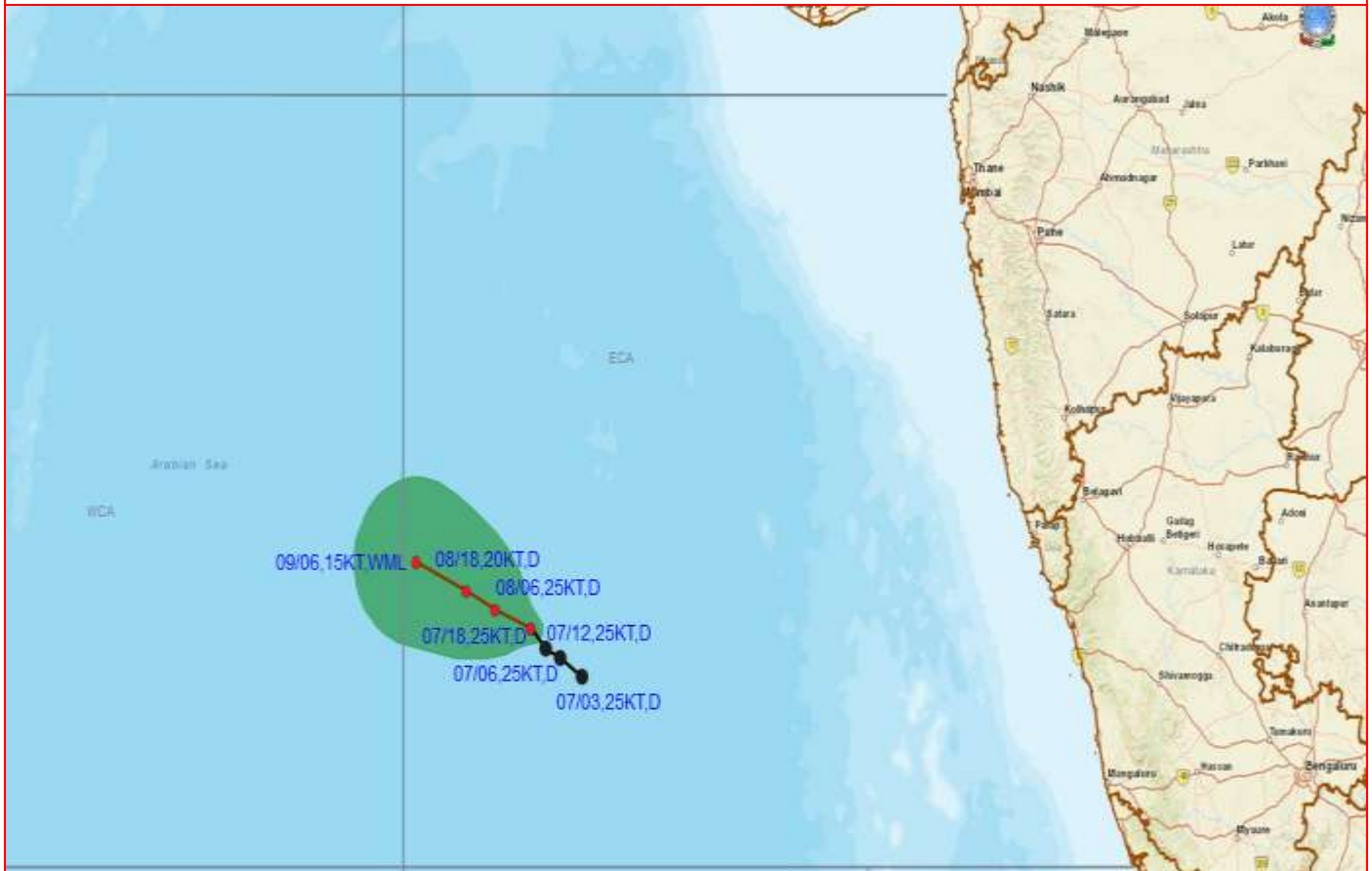


Depression 14.5°N/66.8°E











OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEPRESSION OVER EAST CENTRAL ARABIAN SEA BASED ON 1800 UTC OF 07TH 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 (≥ 20 KT)

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