



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 1400UTC OF 07.11.2021 BASED ON 1200UTC 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 9<sup>TH</sup> – 11<sup>TH</sup> 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 1200 UTC OF TODAY, THE 7<sup>TH</sup> NOVEMBER, 2021, OVER EASTCENTRAL ARABIAN SEA NEAR LATITUDE 14.3°N AND LONGITUDE 67.0°E, ABOUT 810 KM SOUTHWEST OF MUMBAI (43003) & 740 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
07.11.21/1200	14.3/67.0	45-55 gusting to 65	Depression
08.11.21/0000	14.6/66.5	45-55 gusting to 65	Depression
08.11.21/1200	14.8/66.1	40-50 gusting to 60	Depression
09.11.21/0000	15.0/65.6	30-40 gusting to 50	Well Marked low Pressure Area

AS PER INSAT 3D IMAGERY AT 1200 UTC, ASSOCIATED MINIMUM CLOUD TOP TEMPERATURE IS -93°C. INTENSITY OF THE SYSTEM IS CATEGORISED AS T 1.5. THE CLOUD MASS HAS FURTHER MOVED SLIGHTLY NORTHWESTWARDS. 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 TODAY, THE 7<sup>TH</sup> NOVEMBER, 2021. IT PERSISTED OVER SAME REGION AT 1200 UTC. 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 INSAT 3D IMAGERY AT 0900 UTC, 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/CM<sup>2</sup> OVER EASTCENTRAL ARABIAN SEA WITH DECREASING TREND TOWARDS WESTCENTRAL ARABIAN SEA. POSITIVE VORTICITY IS ABOUT 100 X10<sup>-6</sup>S<sup>-1</sup> LAY AROUND SYSTEM CENTRE AT 850 HPA WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. A ZONE OF POSITIVE LOWER LEVEL CONVERGENCE OF 10 X10<sup>-5</sup>S<sup>-1</sup> LAY TO THE EAST OF SYSTEM CENTER. POSITIVE UPPER LEVEL DIVERGENCE OF 20 X10<sup>-5</sup>S<sup>-1</sup> 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 SYSEM 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**

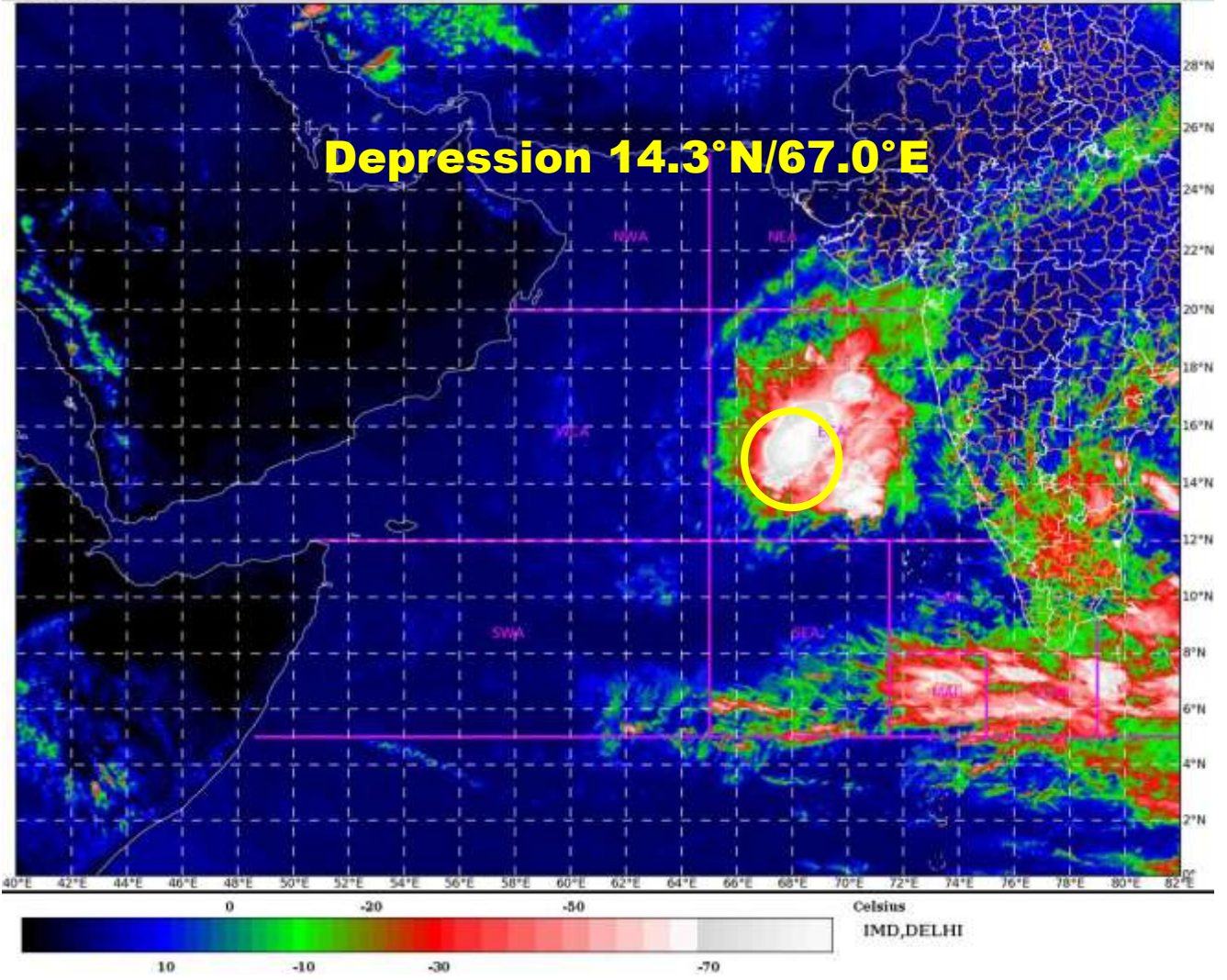
SEA SURFACE TEMPERATURE (SST) IS ABOUT 29-30°C OVER ENTIRE BOB. TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS ABOUT 120-140 OVER SOME PARTS OF EASTERN EQUATORIAL INDIAN OCEAN ADJOINING SUMATRA COAST. IN ADDITION, THE PRESENCE OF NEAR EQUATORIAL CONVERGENCE ZONE, POSITIVE LOW LEVEL VORTICITY (50-60 X10<sup>-6</sup> S<sup>-1</sup>), POSITIVE LOW LEVEL CONVERGENCE (05-30 X10<sup>-5</sup>S<sup>-1</sup>), POSITIVE UPPER LEVEL DIVERGENCE (05-30 X10<sup>-5</sup>S<sup>-1</sup>) 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 10<sup>TH</sup> NOVEMBER.

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

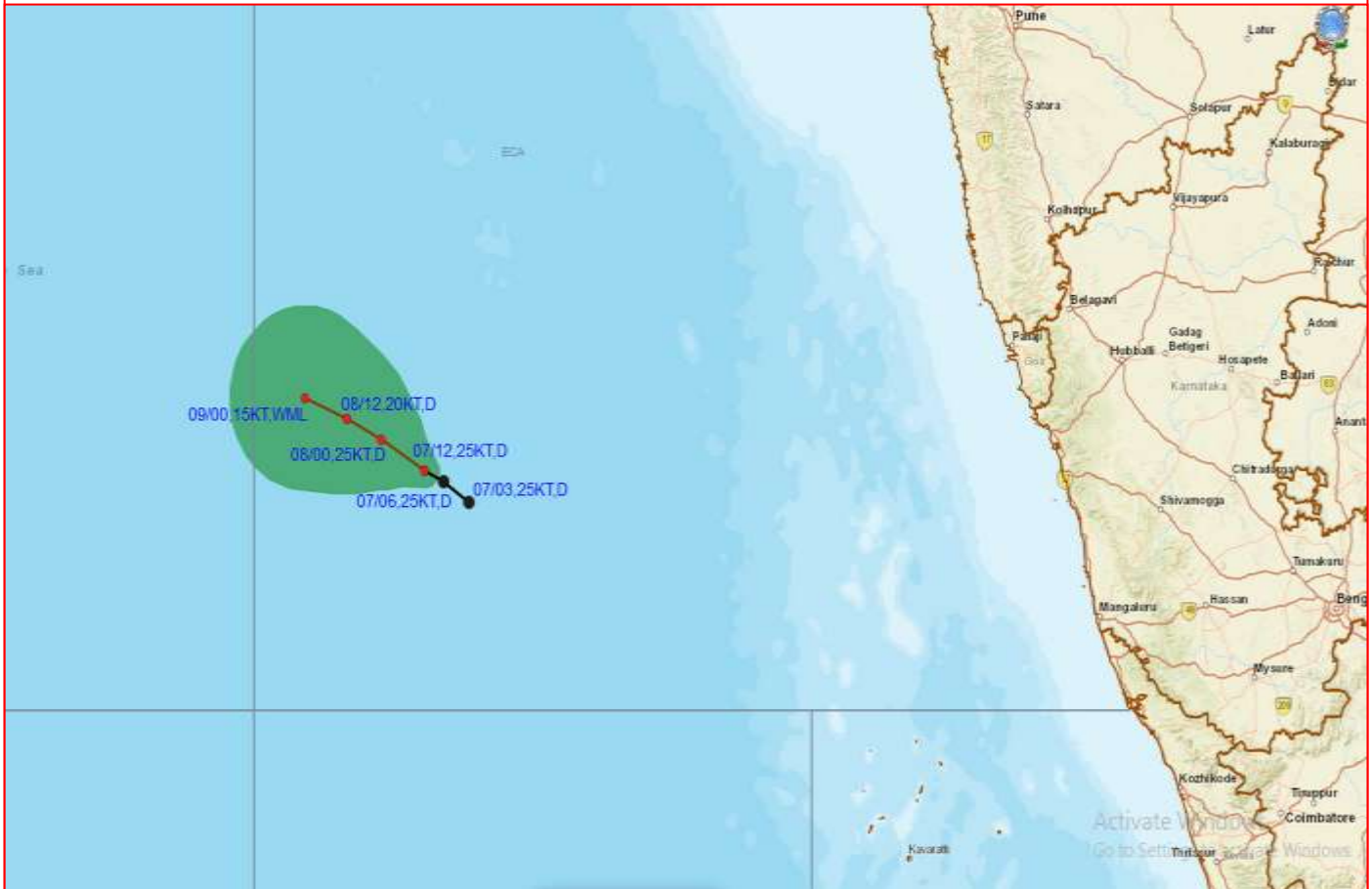
THE NEXT BULLETIN WILL BE ISSUED AT 2100 UTC OF 7TH NOVEMBER, 2021.

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# OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEPRESSION OVER EASTCENTRAL ARABIAN SEA BASED ON 1200 UTC OF 07<sup>TH</sup> 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 ( $\geq 20$  KT)

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