



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 0600UTC OF 07.11.2021 BASED ON 0300UTC 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**

LATEST SATELLITE AND SHIPS & BUOY OBSERVATIONS INDICATE THAT A DEPRESSION HAS FORMED OVER EASTCENTRAL ARABIAN SEA AND LAY CENTRED AT 0300 UTC OF TODAY, THE 7<sup>TH</sup> NOVEMBER, 2021, NEAR LATITUDE 14.0°N AND LONGITUDE 67.5°E, ABOUT 800 KM SOUTHWEST OF MUMBAI (43003) & 700 KM WEST-SOUTHWEST OF PANJIM (43192). IT IS LIKELY TO MOVE WEST-NORTHWESTWARDS AND MAINTAIN THE INTENSITY OF A DEPRESSION DURING NEXT 48 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
07.11.21/0300	14.0/67.5	40-50 GUSTING TO 60	DEPRESSION
07.11.21/1200	14.3/66.8	45-55 GUSTING TO 65	DEPRESSION
08.11.21/0000	14.5/66.3	45-55 GUSTING TO 65	DEPRESSION
08.11.21/1200	14.7/65.0	40-50 GUSTING TO 60	DEPRESSION

AS PER INSAT 3D IMAGERY AT 0300 UTC, ASSOCIATED MINIMUM CLOUD TOP TEMPERATURE IS -93°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 12.0N & 19.0N AND LONGITUDE 67.0E & 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. 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 0300 UTC, SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WESTCENTRAL BAY OF BENGAL (BOB) OFF ANDHRA PRADESH COAST AND SOUTHERN PARTS OF SOUTH BOB. SCATTERED LOW AND MEDIUM CLOUDS WITH EMBDDDED MODERATE TO INTENSE CONVECTION LAY OVER REST PARTS OF CENTRAL BOB & SOUTH ANDAMAN SEA

**REMARKS:**

**(A) DEPRESSION OVER EAST-CENTRAL ARABIAN SEA**

SEA SURFACE TEMPERATURE (SST) IS ABOUT 28-29°C OVER NORTHEAST AND EASTCENTRAL ARABIAN SEA WITH DECREASING TREND TOWARDS WEST. SIMILARLY, TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS ABOUT 80-90 KJ/CM<sup>2</sup> OVER NORTHEAST ARABIAN SEA WITH DECREASING TREND TOWARDS THE NORTHWEST & WESTCENTRAL ARABIAN SEA. POSITIVE VORTICITY OF  $100 \times 10^{-6} \text{S}^{-1}$  LAY AROUND SYSTEM CENTRE AT 850 HPA WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. A ZONE OF POSITIVE LOWER LEVEL CONVERGENCE OF  $10 \times 10^{-5} \text{S}^{-1}$  LAY TO THE EAST OF SYSTEM CENTER. POSITIVE UPPER LEVEL DIVERGENCE OF  $20 \times 10^{-5} \text{S}^{-1}$  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.

SATELLITE DERIVED TOTAL PRECIPITABLE WATER VAPOUR IMAGERY INDICATES THAT THE SYSTEM IS UNDER FAVOURABLE ENVIRONMENT OF WARM MOIST AIR. ALSO OTHER DYNAMIC & THERMODYNAMIC PARAMETERS INCLUDING THE OCEAN THERMAL ENERGY ARE FAVOURABLE FOR MAINTENANCE OF THE INTENSITY OF THIS SYSTEM DURING NEXT 48 HOURS. THE UPPER TROPOSPHERIC RIDGE LAY NEAR 16°N. THE SYSTEM IS LYING TO THE SOUTH OF RIDGE AND THE EASTERLY WINDS IN THE MID & UPPER TROPOSPHERIC LEVELS ARE STEERING 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 48 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 MAY BE CONCLUDED THAT THE SYSTEM IS LIKELY TO MOVE WEST-NORTHWESTWARDS, MAINTAIN THE INTENSITY OF A DEPRESSION DURING NEXT 48 HOURS AND WEAKEN GRADUALLY THEREAFTER.**

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

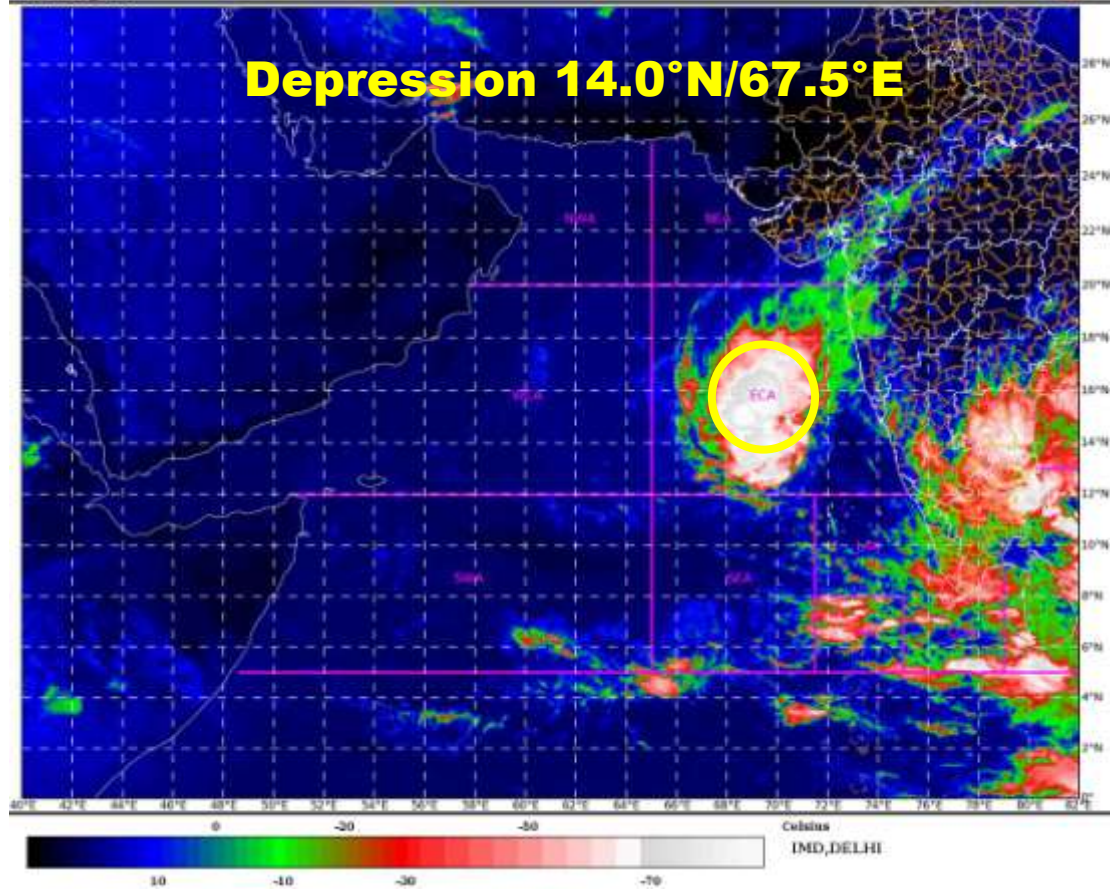
SEA SURFACE TEMPERATURE (SST) IS ABOUT 29-30°C OVER ENTIRE BOB. TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS ABOUT 120-140 OVER SOME PARTS OF EASTERN EQUATORIAL INDIAN OCEAN ADJOINING SUMATRA COAST. IN ADDITION, THE PRESENCE OF NEAR EQUATORIAL CONVERGECE ZONE, POSITIVE LOW LEVEL VORTICITY ( $40-50 \times 10^{-6} \text{S}^{-1}$ ), POSITIVE LOW LEVEL CONVERGENCE ( $20 \times 10^{-5} \text{S}^{-1}$ ), POSITIVE UPPER LEVEL DIVERGENCE ( $20 \times 10^{-5} \text{S}^{-1}$ ) OVER EQUATORIAL INDIAN OCEAN AND ADJOINING SOUTHEAST BOB ARE FAVOURABLE TO SUPPORT CONVECTION 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.**

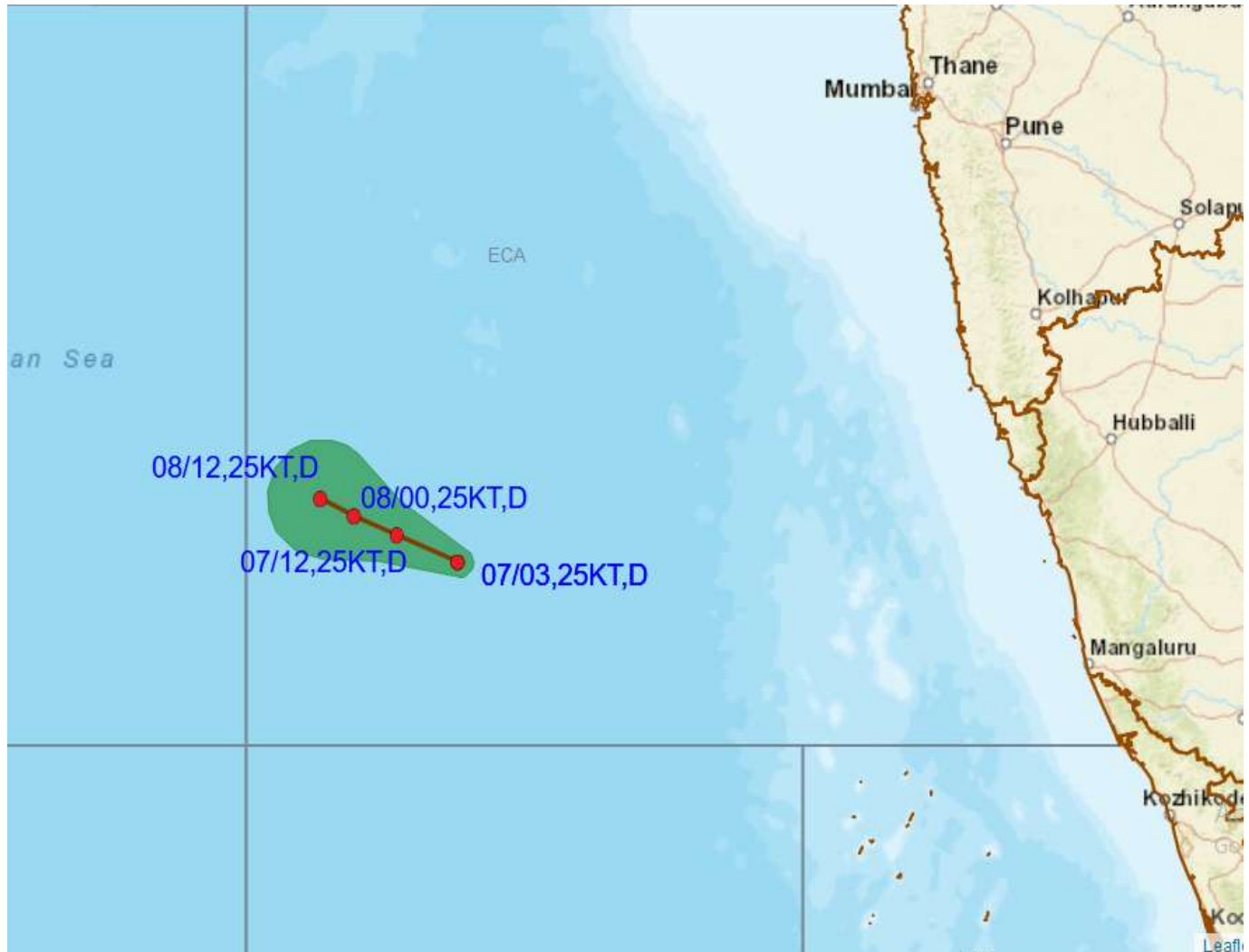
THE NEXT BULLETIN WILL BE ISSUED AT 0900 UTC OF 7TH NOVEMBER, 2021.

**(SUNITHA DEVI)**  
SCIENTIST-F, RSMC, NEW DELHI





# OBSERVED AND FORECAST TRACK OF DEPRESSION OVER EAST -CENTRAL ARABIAN SEA ALONGWITH CONE OF UNCERTAINTY BASED ON 0300 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 ( $\geq$  120 KT)

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