



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

**DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 01.06.2020**

**TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0300 UTC OF 02.06.2020 BASED ON 0000 UTC OF 02.06.2020.**

**SUB: DEEP DEPRESSION OVER EASTCENTRAL ARABIAN SEA**

THE **DEPRESSION** OVER EASTCENTRAL ARABIAN SEA MOVED NORTHWARDS WITH A SPEED OF 11 KMPH DURING PAST 06 HOURS INTENSIFIED INTO A **DEEP DEPRESSION** AND LAY CENTRED AT 0000 UTC OF TODAY, THE 02<sup>ND</sup> JUNE, 2020 OVER EASTCENTRAL ARABIAN SEA NEAR LATITUDE 15.0°N AND LONGITUDE 71.2°E ABOUT 280 KM WEST-SOUTHWEST OF PANJIM (43192), 490 KM SOUTH-SOUTHWEST OF MUMBAI (43003) AND 710 KM SOUTH-SOUTHWEST OF SURAT (42840).

IT IS VERY LIKELY TO INTENSIFY INTO A CYCLONIC STORM DURING NEXT 12 HOURS AND FURTHER INTO A SEVERE CYCLONIC STORM DURING SUBSEQUENT 12 HOURS. IT IS VERY LIKELY TO MOVE NEARLY NORTHWARDS DURING NEXT 06 HOURS AND RECURVE NORTH-NORTHEASTWARDS THEREAFTER AND CROSS NORTH MAHARASHTRA AND ADJOINING SOUTH GUJARAT COAST BETWEEN HARIHARESHWAR (RAIGAD, MAHARASHTRA) AND DAMAN (42916) AROUND 0900 UTC OF 03RD JUNE.

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
02.06.20/0000	15.0/71.2	55-65 gusting to 75	Deep Depression
02.06.20/0600	15.5/71.3	60-70 gusting to 80	Cyclonic Storm
02.06.20/1200	16.0/71.5	80-90 gusting to 100	Cyclonic Storm
02.06.20/1800	16.6/71.7	90-100 gusting to 110	Severe Cyclonic Storm
03.06.20/0000	17.4/72.1	100-110 gusting to 120	Severe Cyclonic Storm
03.06.20/1200	19.2/73.3	90-100 gusting to 110	Severe Cyclonic Storm
04.06.20/0000	20.6/74.6	50-60 gusting to 70	Deep Depression
04.06.20/1200	22.2/76.3	35-45 gusting to 55	Depression

AS PER INSAT-3D SATELLITE IMAGERY BASED ON 0000 UTC OF 02<sup>ND</sup> JUNE, THE INTENSITY OF THE SYSTEM INTENSITY IS 2.0. ASSOCIATED SCATTERED TO BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OBSERVED OVER EASTCENTRAL ARABIAN SEA BETWEEN LATITUDE 12.5N TO 18.0N AND LONGITUDE 67.0E TO 74.5E. MINIMUM CLOUD TOP TEMPERATURE (CTT) IS MINUS 93°C.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 30 KNOTS GUSTING TO 40 KNOTS. THE SEA CONDITION IS ROUGH TO VERY ROUGH AROUND THE SYSTEM CENTER. THE ESTIMATED CENTRAL PRESSURE IS 1000 HPA.

**PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)**

**NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%**

AT 0000 UTC OF 02<sup>nd</sup> JUNE, A BOUY (23451) LOCATED AT 14.8°N/69.0°E REPORTED A MEAN SEA LEVEL PRESSURE OF 1003.5 HPA AND MEAN SURFACE WIND SPEED OF 020°/5.8 KNOTS. THE COASTAL STATION HONAVAR (43226) REPORTED A MEAN SEA LEVEL PRESSURE OF 1006.3 HPA AND MEAN SURFACE WIND SPEED OF 140°/1.9 KNOTS.

## STORM SURGE GUIDANCE

STORM SURGE OF ABOUT 1-2 METERS HEIGHT ABOVE THE ASTRONOMICAL TIDE IS VERY LIKELY TO INUNDATE LOW LYING AREAS OF MUMBAI, THANE AND RAIGARD DISTRICTS AND 0.5-1 METER HEIGHT ABOVE THE ASTRONOMICAL TIDE IS LIKELY TO INUNDATE LOW LYING AREAS OF RATNAGIRI DISTRICT DURING THE TIME OF LANDFALL.

## REMARKS:

THE MADDEN JULIAN OSCILLATION (MJO) INDEX LIES CURRENTLY IN PHASE 1 WITH AMPLITUDE MORE THAN 1. IT WILL CONTINUE TO BE IN SAME PHASE DURING NEXT 7 DAYS WITH AMPLITUDE REMAINING MORE THAN 1.

THE SEA SURFACE TEMPERATURE (SST) IS 30-31°C OVER EASTCENTRAL ARABIAN SEA. THE TROPICAL CYCLONE HEAT POTENTIAL IS 100-120 KJ/CM<sup>2</sup> OVER EASTCENTRAL ARABIAN SEA AND BECOMING 80-100 KJ/CM<sup>2</sup> NEAR KARNATAKA, MAHARASHTRA AND GUJARAT COAST.

POSITIVE LOWER LEVEL VORTICITY IS ABOUT 100 X10<sup>-5</sup> SEC<sup>-1</sup> OVER EASTCENTRAL ARABIAN SEA. THE LOWER LEVEL CONVERGENCE IS AROUND 10X10<sup>-5</sup> SEC<sup>-1</sup> OVER THE SYSTEM CENTER. THE UPPER LEVEL DIVERGENCE IS 20X10<sup>-5</sup> SEC<sup>-1</sup> TO THE SOUTHWEST OF THE SYSTEM CENTER. VERTICAL WIND SHEAR (VWS) IS LOW TO MODERATE (05-10 KTS) AROUND THE SYSTEM CENTRE AND IS MODERATE (15-20 KTS) ALONG THE FORECAST TRACK.

MOST OF THE NUMERICAL MODELS INCLUDING ECMWF, IMD GFS, NCEP GFS, GEFS, NEPS, NCUM ETC. ARE INDICATING FURTHER INTENSIFICATION OF THE SYSTEM, INITIAL NORTHWARD MOVEMENT AND NORTH-NORTHEASTWARD RE-CURVATURE THEREAFTER. UNDER FAVOURABLE ENVIRONMENTAL CONDITIONS LIKE LOW VERTICAL WIND SHEAR AND HIGH OCEAN HEAT CONTENT, ALONG WITH THE WIND SURGE ASSOCIATED WITH THE SOUTHWEST MONSOON FLOW OVER THE REGION, THE SYSTEM IS VERY LIKELY TO INTENSIFY INTO A CYCLONIC STORM OVER EASTCENTRAL ARABIAN SEA DURING NEXT 12 HOURS AND **INTENSIFY FURTHER INTO A SEVERE CYCLONIC STORM DURING THE SUBSEQUENT 12 HOURS**. IT IS VERY LIKELY TO MOVE NEARLY NORTHWARDS INITIALLY TILL 06UTC OF 02<sup>ND</sup> JUNE AND THEN RECURVE NORTH-NORTHEASTWARDS AND CROSS NORTH MAHARASHTRA AND SOUTH GUJARAT COASTS BETWEEN HARIHARESHWAR (RAIGAD, MAHARASHTRA) AND DAMAN (42916) AROUND 0900 UTC OF 3<sup>RD</sup> JUNE.

(DR Pattanaik)  
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NEW DELHI

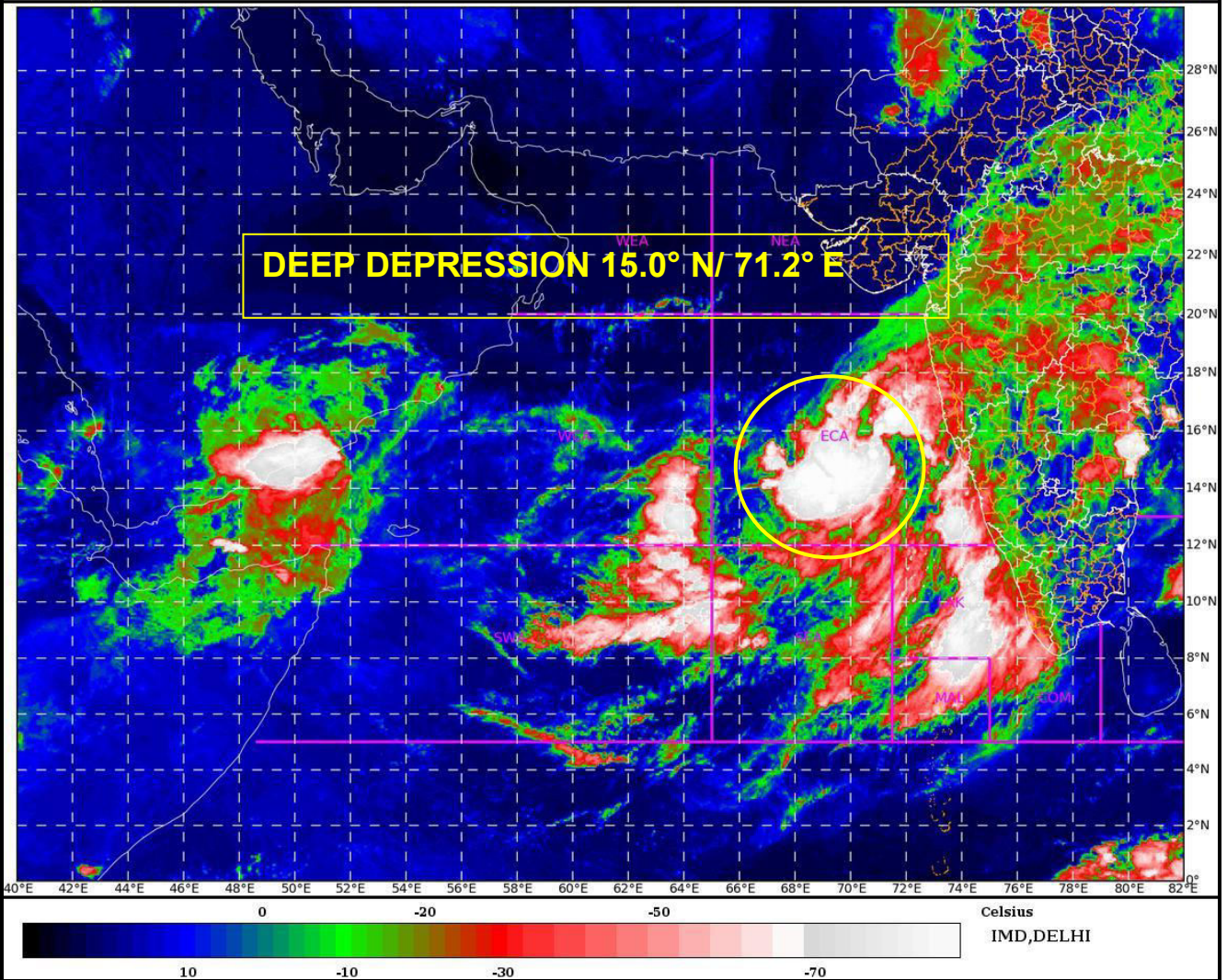
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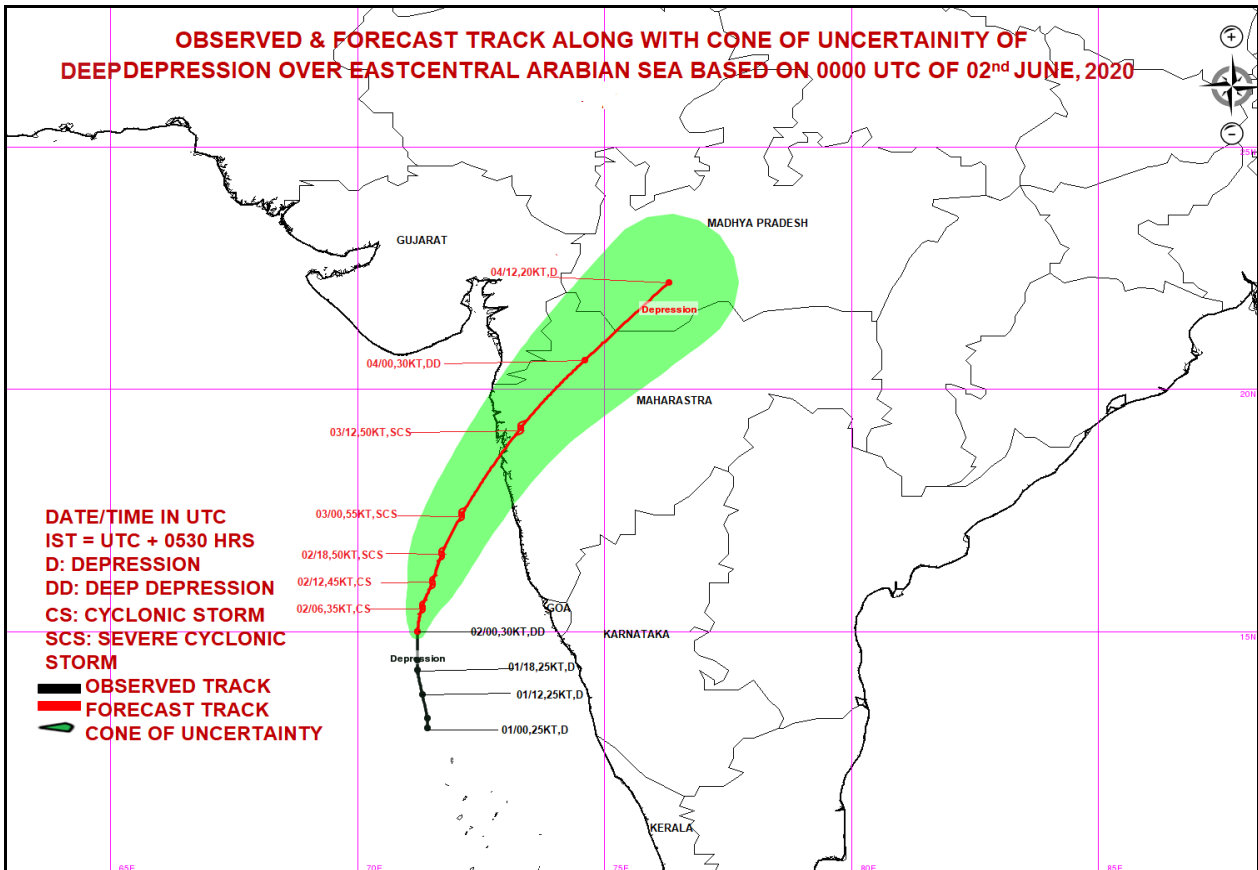
SAT : INSAT-3D IMG  
IMG\_TIR1\_TEMP 10.8 um  
ARABIAN\_SEA

02-06-2020/(0030 to 0056) GMT  
02-06-2020/(0600 to 0626) IST

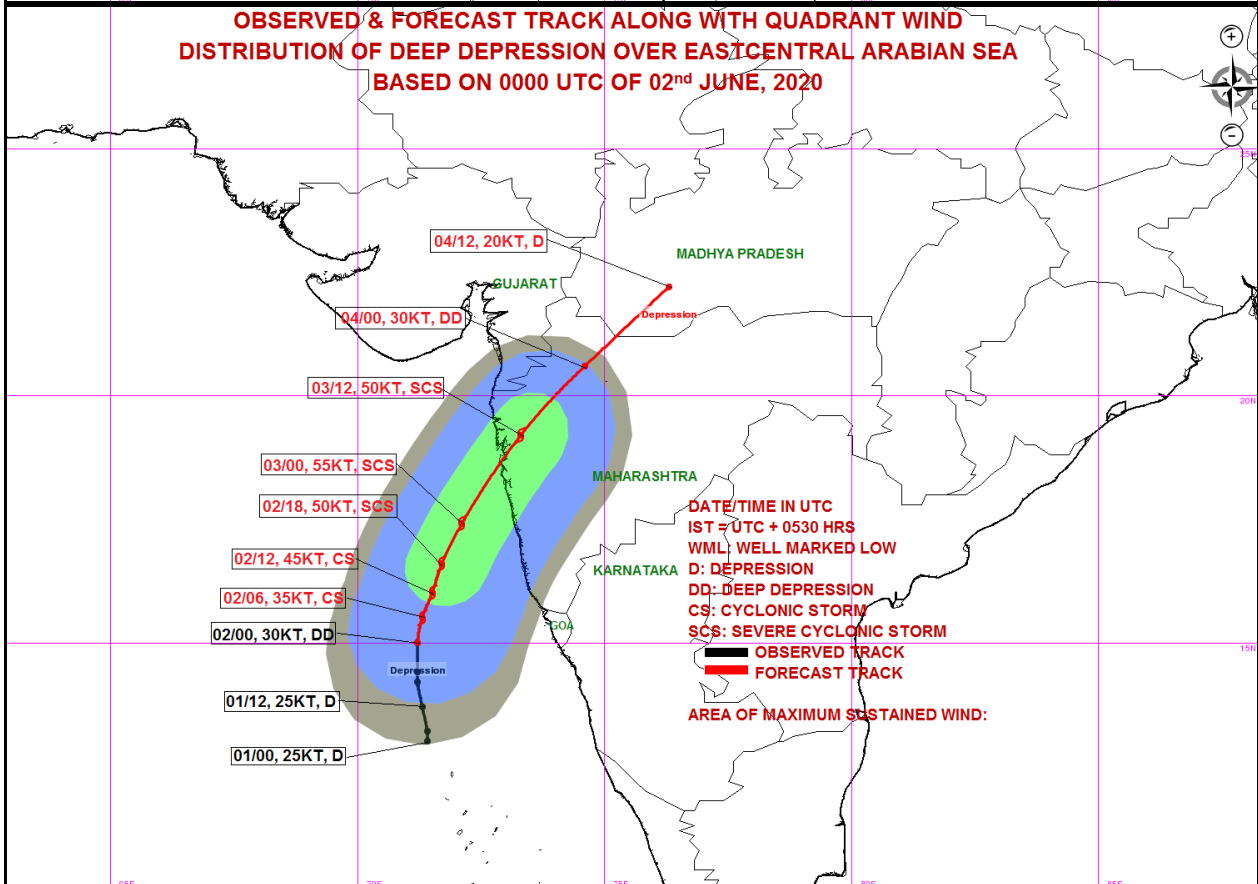


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**OBSERVED & FORECAST TRACK ALONG WITH CONE OF UNCERTAINTY OF DEEP DEPRESSION OVER EASTCENTRAL ARABIAN SEA BASED ON 0000 UTC OF 02<sup>nd</sup> JUNE, 2020**



**OBSERVED & FORECAST TRACK ALONG WITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER EASTCENTRAL ARABIAN SEA BASED ON 0000 UTC OF 02<sup>nd</sup> JUNE, 2020**



MSW(knot)/kmph)	Impact	Action
28-33 ((52-61 )	Very rough seas.	Total suspension of fishing operations
34-40((62-74)	High to very high seas	Total suspension of fishing operations
41-63((75-117)	Very High seas	Total suspension of fishing operations

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