



**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 2100 UTC OF 01.06.2020 BASED ON 1800 UTC OF 01.06.2020.

SUB: DEPRESSION OVER EASTCENTRAL ARABIAN SEA

THE DEPRESSION OVER EASTCENTRAL ARABIAN SEA MOVED NORTHWARDS WITH A SPEED OF 04 KMPH DURING PAST 06 HOURS AND LAY CENTRED AT 1800 UTC OF TODAY, THE 01ST JUNE, 2020 OVER EASTCENTRAL ARABIAN SEA NEAR LATITUDE 14.4°N AND LONGITUDE 71.2°E ABOUT 300 KM WEST-SOUTHWEST OF PANJIM (43192), 550 KM SOUTH-SOUTHWEST OF MUMBAI (43003) AND 770 KM SOUTH-SOUTHWEST OF SURAT (42840).

IT IS VERY LIKELY TO INTENSIFY INTO A DEEP DEPRESSION DURING NEXT 12 HOURS AND *INTENSIFY FURTHER INTO A CYCLONIC STORM OVER EASTCENTRAL ARABIAN SEA DURING SUBSEQUENT 12 HOURS*. IT IS VERY LIKELY TO MOVE NEARLY NORTHWARDS INITIALLY TILL 02ND JUNE 0600 UTC AND THEN RECURVE NORTH-NORTHEASTWARDS AND CROSS NORTH MAHARASHTRA AND SOUTH GUJARAT COASTS BETWEEN HARIHARESHWAR (RAIGAD, MAHARASHTRA) AND DAMAN (42916) DURING 0700 UTC TO 1200 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
01.06.20/1800	14.4/71.2	45-55 gusting to 65	Depression
02.06.20/0000	14.8/71.2	55-65 gusting to 75	Deep Depression
02.06.20/0600	15.3/71.3	65-75 gusting to 85	Cyclonic Storm
02.06.20/1200	15.9/71.5	80-90 gusting to 100	Cyclonic Storm
02.06.20/1800	16.7/71.7	95-105 gusting to 115	Severe Cyclonic Storm
03.06.20/0600	18.3/72.5	105-115 gusting to 125	Severe Cyclonic Storm
03.06.20/1800	20.1/73.9	60-70 gusting to 80	Cyclonic Storm
04.06.20/0600	21.9/75.8	35-45 gusting to 55	Depression

AS PER INSAT-3D SATELLITE IMAGERY BASED ON 1800 UTC OF 01ST JUNE, THE INTENSITY OF THE SYSTEM CI IS 1.5. ASSOCIATED SCATTERED TO BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OBSERVED OVER EASTCENTRAL ARABIAN SEA BETWEEN LATITUDE 12.5N TO 17.0N AND LONGITUDE 68.0E TO 74.5E. MINIMUM CLOUD TOP TEMPERATURE (CTT) IS MINUS 93°C.

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

AT 1800 UTC OF 01ST JUNE, A BOUY (23452) LOCATED AT 12.0°N/68.7°E REPORTED A

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

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

MEAN SEA LEVEL PRESSURE OF 1008.9 HPA AND MEAN SURFACE WIND SPEED OF 340°/12 KNOTS. ANOTHER BOUY (23451) LOCATED AT 14.9°N/69.0°E REPORTED A MEAN SEA LEVEL PRESSURE OF 1006.8 HPA AND MEAN SURFACE WIND SPEED OF 350°/14 KNOTS. A SHIP LOCATED AT 15.5°N/68.8°E REPORTED A MEAN SEA LEVEL PRESSURE OF 1004.7 HPA AND MEAN SURFACE WIND SPEED OF 080°/19 KNOTS.

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/CM² OVER EASTCENTRAL ARABIAN SEA AND BECOMING 80-100 KJ/CM² NEAR KARNATAKA, MAHARASHTRA AND GUJARAT COAST.

POSITIVE LOWER LEVEL VORTICITY IS ABOUT 100 X10⁻⁶ SEC⁻¹ OVER EASTCENTRAL ARABIAN SEA. IT IS EXTENDING UPTO 200 HPA LEVEL TILTING SOUTHWARDS WITH HEIGHT. THE LOWER LEVEL CONVERGENCE IS AROUND 20X10⁻⁵ SEC⁻¹ OVER THE SYSTEM CENTER. THE UPPER LEVEL DIVERGENCE IS 30X10⁻⁵ SEC⁻¹ TO THE SOUTHWEST OF THE SYSTEM CENTER. VERTICAL WIND SHEAR (VWS) IS LOW (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 DEEP DEPRESSION OVER EASTCENTRAL ARABIAN SEA DURING NEXT 12 HOURS AND **INTENSIFY FURTHER INTO A CYCLONIC STORM DURING THE SUBSEQUENT 12 HOURS**. IT IS VERY LIKELY TO MOVE NEARLY NORTHWARDS INITIALLY TILL 00UTC OF 02ND JUNE AND THEN RECURVE NORTH-NORTHEASTWARDS AND CROSS NORTH MAHARASHTRA AND SOUTH GUJARAT COASTS BETWEEN HARIHARESHWAR (RAIGAD, MAHARASHTRA) AND DAMAN (42916) DURING 0700 TO 1200 UTC OF 3RD JUNE .

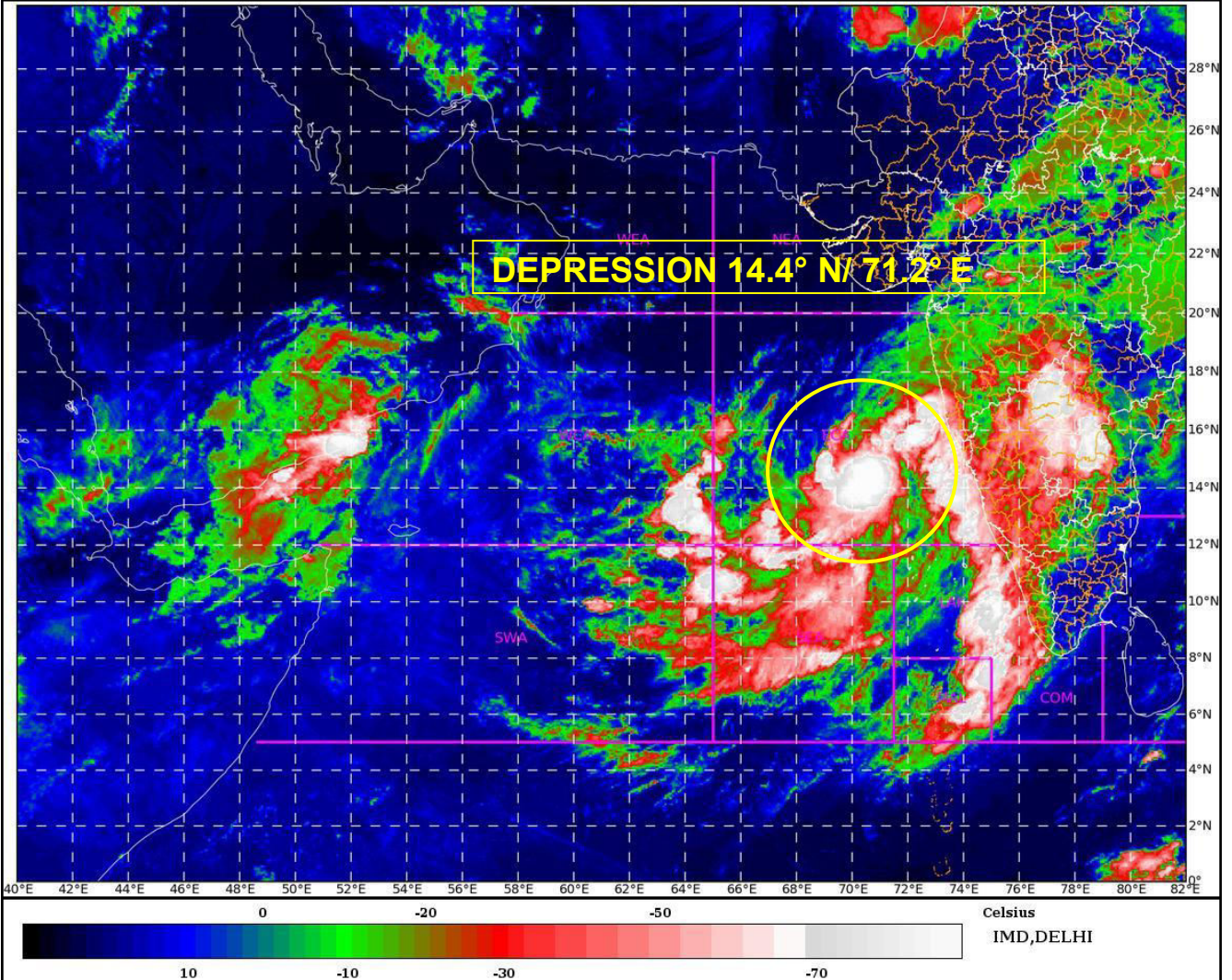
(DR Pattanaik)
SCIENTIST- F, RSMC,
NEW DELHI

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

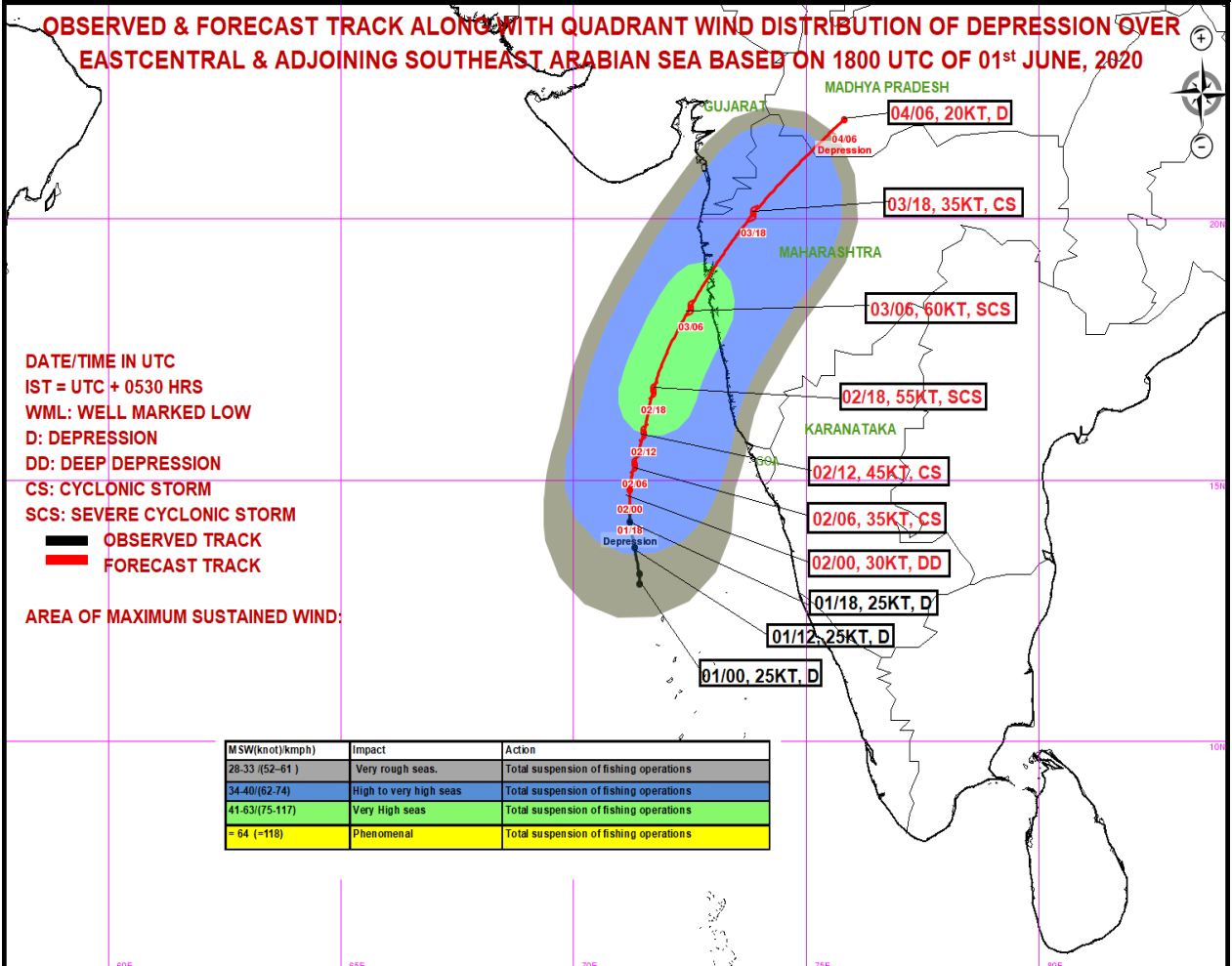
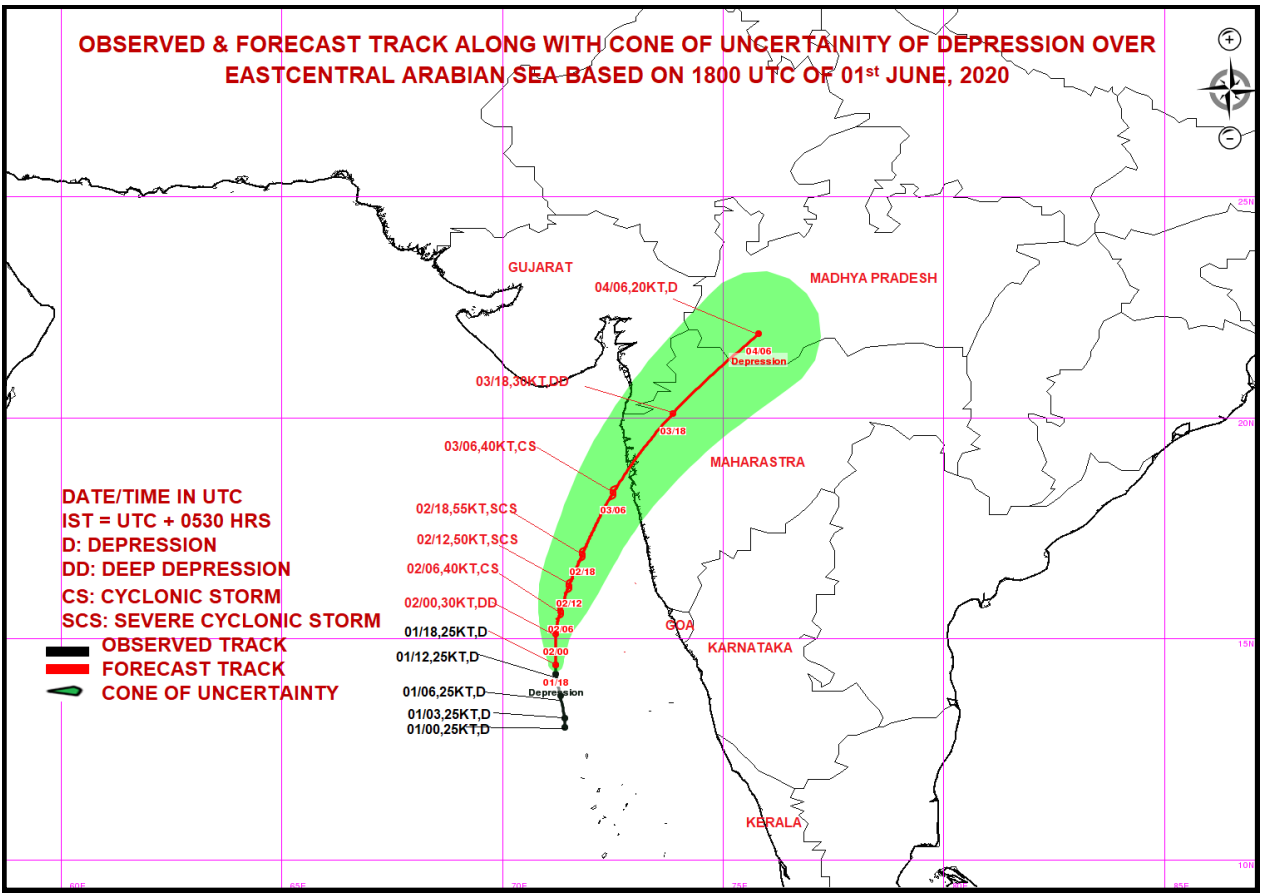
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SAT : INSAT-3D IMG
IMG_TIR1_TEMP 10.8 um
ARABIAN_SEA

01-06-2020/(1930 to 1956) GMT
02-06-2020/(0100 to 0126) IST



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