



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 0600 UTC OF 01.06.2020 BASED ON 0300 UTC OF 01.06.2020.**

**SUB: DEPRESSION OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA: PRE CYCLONE WATCH FOR NORTH MAHARASHTRA-SOUTH GUJARAT COASTS**

THE **DEPRESSION** OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA MOVED NEARLY NORTHWARD WITH A SPEED OF 07 KMPH DURING PAST 3 HOURS AND LAY CENTRED AT 0300 UTC OF TODAY THE 1<sup>ST</sup> JUNE, 2020 NEAR LATITUDE 13.2°N AND LONGITUDE 71.4°E ABOUT 360 KM SOUTHWEST OF PANJIM (43192), 670KM SOUTH-SOUTHWEST OF MUMBAI (43003) AND 900 KM SOUTH-SOUTHWEST OF SURAT (42840). IT IS VERY LIKELY TO INTENSIFY INTO A DEEP DEPRESSION OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA DURING NEXT 12 HOURS AND ***INTENSIFY FURTHER INTO A CYCLONIC STORM OVER EASTCENTRAL ARABIAN SEA DURING THE SUBSEQUENT 24 HOURS***. IT IS VERY LIKELY TO MOVE NEARLY NORTHWARDS INITIALLY TILL 02<sup>ND</sup> JUNE MORNING AND THEN RECURVE NORTH-NORTHEASTWARDS AND CROSS NORTH MAHARASHTRA AND SOUTH GUJARAT COASTS BETWEEN HARIHARESHWAR (RAIGAD, MAHARASHTRA) AND DAMAN (42916) DURING EVENING/ NIGHT OF 3<sup>RD</sup> JUNE .

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

Date/Time(UTC)	POSITION (LAT. 0N/ LONG. 0E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
01.06.20/0300	13.2/71.4	40-50 GUSTING TO 60	DEPRESSION
01.06.20/0600	13.3/71.2	45-55 GUSTING TO 65	DEPRESSION
01.06.20/1200	13.7/71.0	50-60 GUSTING TO 70	DEEP DEPRESSION
01.06.20/1800	14.2/70.9	55-65 GUSTING TO 75	DEEP DEPRESSION
02.06.20/0000	14.9/70.8	60-70 GUSTING TO 80	CYCLONIC STORM
02.06.20/1200	15.7/70.9	80-90 GUSTING TO 100	CYCLONIC STORM
03.06.20/0000	17.0/71.4	90-100 GUSTING TO 110	SEVERE CYCLONIC STORM
03.06.20/1200	18.4/72.2	105-115 GUSTING TO 125	SEVERE CYCLONIC STORM
04.06.20/0000	19.6/72.9	95-105 GUSTING TO 115	SEVERE CYCLONIC STORM
04.06.20/1200	20.8/73.5	60-70 GUSTING TO 80	CYCLONIC STORM

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

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

**REMARKS:**

AS PER INSAT-3D SATELLITE IMAGERY BASED ON 0300 UTC OF 01ST JUNE, THE INTENSITY OF THE SYSTEM IS 1.5. ASSOCIATED SCATTERED TO BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OBSERVED OVER SOUTHEAST AND ADJOINING EASTCENTRAL ARABIAN SEA BETWEEN LATITUDE 7.5N TO 17.0N AND LONGITUDE 65.0E 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 1003 HPA.

AT 0300 UTC OF 01ST JUNE, A BOUY LOCATED AT 12.0°N/68.60°E REPORTED A MEAN SEA LEVEL PRESSURE OF 1008.9 HPA AND MEAN SURFACE WIND SPEED OF 330°/15.6 KNOTS AND. A SHIP (9v6386) LOCATED AT 13.5°N/70.6°E REPORTED A MEAN SEA LEVEL PRESSURE OF 1006.3 HPA AND MEAN SURFACE WIND SPEED OF 40°/22.0 KNOTS.

**MJO CONDITION:** 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. THUS MJO WILL SUPPORT ENHANCEMENT OF CONVECTIVE ACTIVITY OVER THE ARABIAN SEA AND GRADUALLY WILL SUPPORT CONVECTIVE ACTIVITY OVER THE AS FROM 1<sup>ST</sup> JUNE ONWARDS.

**SEA CONDITIONS:** THE SEA SURFACE TEMPERATURE (SST) IS 30-32°C OVER THE ENTIRE AS. THE TROPICAL CYCLONE HEAT POTENTIAL IS MORE THAN 100 KJ/CM<sup>2</sup> OVER MAJOR PARTS OF SOUTH, SOUTHEAST & EASTCENTRAL AS. IT IS ABOUT 110-120 KJ/CM<sup>2</sup> OVER SOUTHEAST & ADJOINING EASTCENTRAL AS AND BECOMING LESS THAN 100 KJ/CM<sup>2</sup> OVER KARNATAKA, MAHARASHTRA AND GUJARAT COAST.

POSITIVE LOWER LEVEL VORTICITY IS ABOUT 100 X10<sup>-6</sup>SEC<sup>-1</sup> OVER EASTCENTRAL ARABIAN SEA AREA. IT IS EXTENDING UPTO 500 HPA LEVEL TILTING SOUTHWARDS. THE LOWER LEVEL CONVERGENCE IS AROUND 20X10<sup>-5</sup>SEC<sup>-1</sup> OVER THE NORTHWEST OF SYSTEMM CENTER. THE UPPER LEVEL DIVERGENCE OVER SOUTHWEST IS 20X10<sup>-5</sup> SEC<sup>-1</sup> AROUND THE SYSTEM CENTER. VERTICAL WIND SHEAR (VWS) IS LOW TO MODERATE (10-15 KTS) AROUND THE SYSTEM CENTRE.

**MODEL GUIDANCE FOR THE DEPRESSION:** MOST OF THE NUMERICAL MODELS INCLUDING ECMWF, IMD GFS, NCEP GFS, GEFS, NEPS, NCM ETC. ARE INDICATING FURTHER INTENSIFICATION OF THE SYSTEM, INITIAL NORTHWARD MOVEMENT AND NORTH-NORTHEASTWARD RE-CURVATURE THEREAFTER.

**CONCLUSION:** 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 AND ADJOINING SOUTHEAST ARABIAN SEA DURING NEXT 12 HOURS AND **INTENSIFY FURTHER INTO A CYCLONIC STORM OVER EASTCENTRAL ARABIAN SEA DURING THE SUBSEQUENT 24 HOURS**. IT IS VERY LIKELY TO MOVE NEARLY NORTHWARDS INITIALLY TILL 02<sup>ND</sup> JUNE MORNING AND THEN RECURVE NORTH-NORTHEASTWARDS AND CROSS NORTH MAHARASHTRA AND SOUTH GUJARAT COASTS BETWEEN HARIHARESHWAR (RAIGAD, MAHARASHTRA) AND DAMAN (42916) DURING EVENING/ NIGHT OF 3<sup>RD</sup> JUNE .

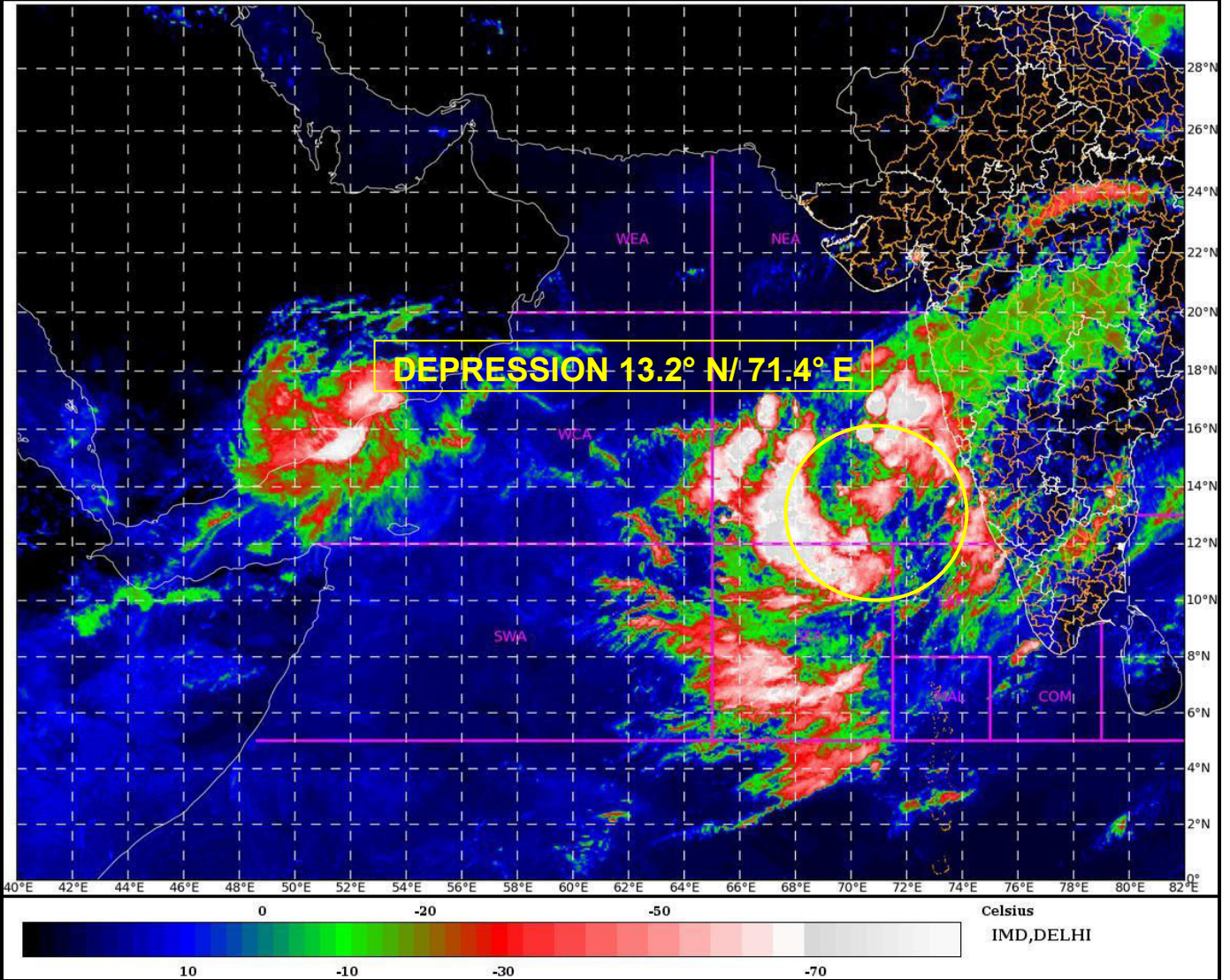
(SUNITHA DEVI)

SCIENTIST- E, RSMC, NEW DELHI

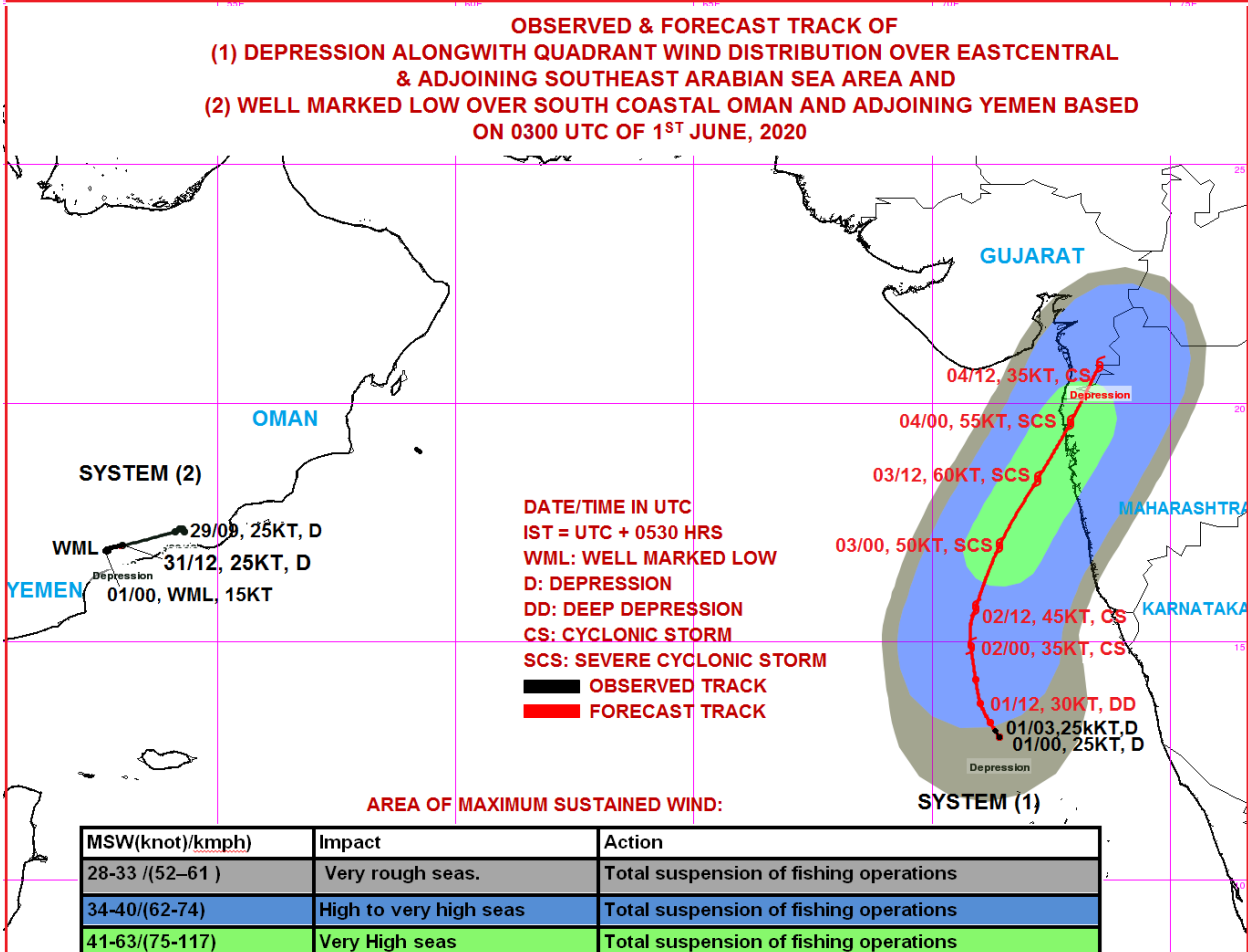
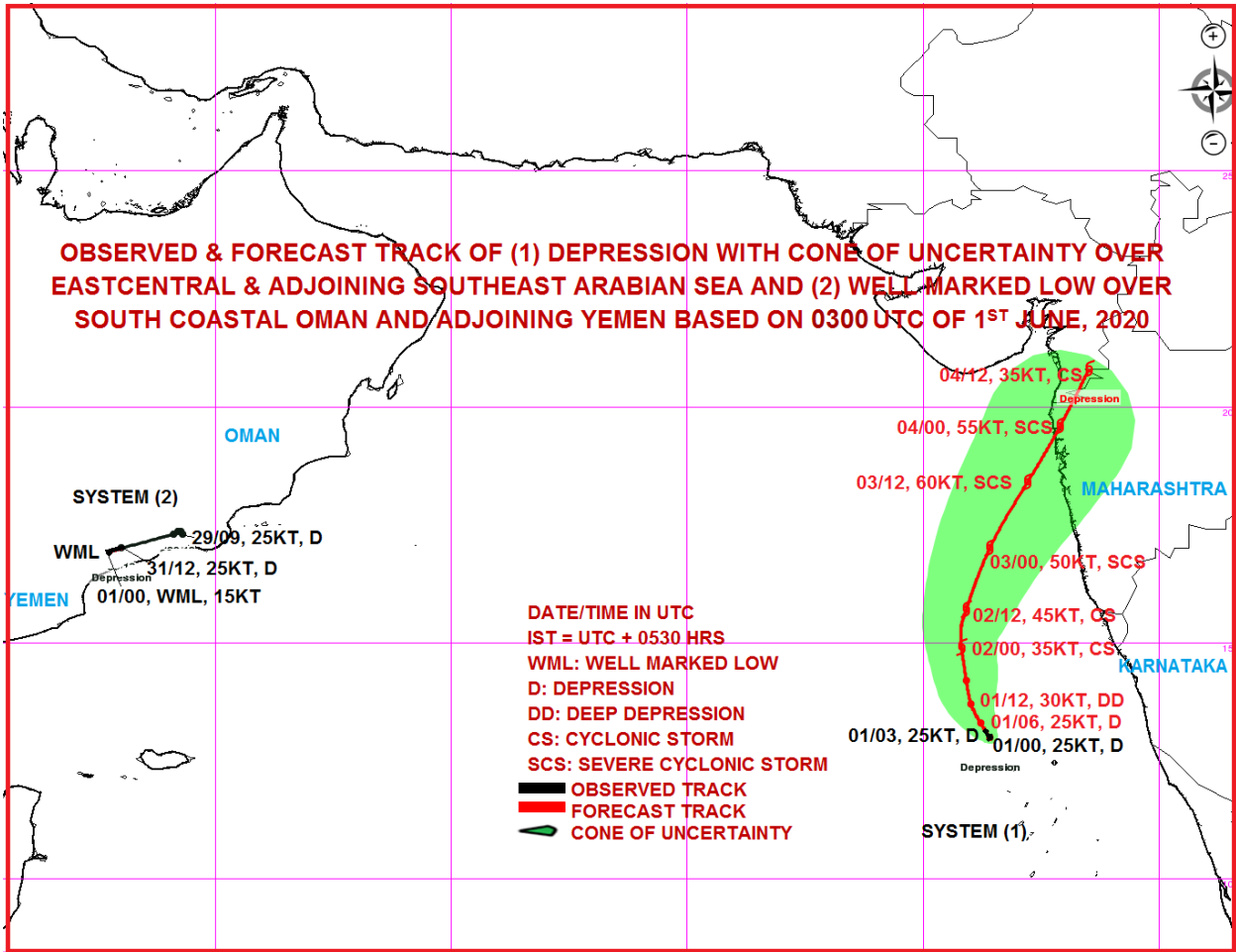
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