



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 29.05.2020

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1200 UTC OF 29.05.2020 BASED ON 0900 UTC OF 29.05.2020.

SUBJECT: (1) DEPRESSION OVER SOUTH COASTAL OMAN & ADJOINING YEMEN & (2) LIKELY FORMATION OF A LOW PRESSURE AREA OVER SOUTHEAST AND ADJOINING EASTCENTRAL ARABIAN SEA AROUND 31ST MAY 2020

1. LATEST SATELLITE IMAGERIES INDICATE THAT THE WELL MARKED LOW PRESSURE AREA OVER WESTCENTRAL ARABIAN SEA OFF SOUTH OMAN-EAST YEMEN COAST HAS CONCENTRATED INTO A DEPRESSION OVER SOUTH COASTAL OMAN & ADJOINING YEMEN AND LAY CENTRED AT 0900 UTC OF TODAY, THE 29TH MAY, 2020 NEAR LATITUDE 17.5°N AND LONGITUDE 54.0°E, ABOUT 50 KM NORTH OF SALALAH (42316) AND 240 KM NORTHEAST OF AL GHAYDAH (YEMEN). IT IS VERY LIKELY TO INTENSIFY FURTHER INTO A DEEP DEPRESSION DURING NEXT 12 HOURS. IT IS VERY LIKELY TO MOVE NORTH-NORTHWESTWARDS DURING NEXT 24 HOURS AND WEST-SOUTHWESTWARDS THEREAFTER.

AS PER SATELLITE IMAGERY BASED ON 0900 UTC OF TODAY, THE 29TH MAY, ASSOCAITED BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WESTCENTRAL ARABIAN SEA BETWEEN LATITUDE 14.0°N TO 17.5°N LONGITUDE 51.0°E TO 56.0°E & SOUTH OMAN ADJOINING NORTH YEMAN. MINIMUM CTT MINUS 93° C.

THE MAXIMUM SUSTAINED WIND SPEED AROUND THE SYSTEM IS ABOUT 25 KTS GUSTING TO 35 KTS. THE ESTIMATED CENTRAL PRESSURE IS 1002 HPA. SEA CONDITION IS ROUGH TO VERY ROUGH OVER WESTCENTRAL ARABIAN SEA ALONG & OFF SOUTH OMAN-EAST YEMEN COASTS.

RAINFALL FORECAST IS AVAILABLE AT http://nwp.imd.gov.in/gfsproducts00_all.php

2. ANOTHER LOW PRESSURE AREA IS LIKELY TO FORM OVER SOUTHEAST & ADJOINING EASTCENTRAL AS AROUND 31ST MAY. IT IS VERY LIKELY TO MOVE NORTH-NORTHWESTWARDS AND CONCENTRATE INTO A DEPRESSION OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA DURING SUBSEQUENT 72 HOURS.

REMARKS:

MJO CONDITION: THE MADDEN JULIAN OSCILLATION (MJO) INDEX LIES CURRENTLY IN PHASE 8 WITH AMPLITUDE MORE THAN 1. IT WILL MOVE TO PHASE 1 DURING NEXT 24 HOURS WITH AMPLITUDE REMAINING MORE THAN 1. THEREAFTER, IT WILL CONTINUE IN SAME PHASE FOR SUBSEQUENT 7 DAYS. THUS FROM 30TH MAY ONWARDS, MJO WILL SUPPORT ENHANCEMENT OF

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

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

CONVECTIVE ACTIVITY OVER THE WEST AS AND GRADUALLY WILL SUPPORT CONVECTIVE ACTIVITY OVER EASTERN PARTS OF AS FROM 1ST JUNE ONWARDS.

SEA CONDITIONS: CONSIDERING THE 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/CM² NEAR THE SYSTEM CENTRE AND OVER MAJOR PARTS OF SOUTH & WESTCENTRAL AS. IT IS ABOUT 60-80 KJ/CM² OVER CENTRAL AS AND IS BECOMING NEGATIVE OVER EXTREME NORTH AS & OFF OMAN COAST.

ENVIRONMENTAL CONDITIONS FOR

SYSTEM 1 OVER WESTCENTRAL AS: LOW LEVEL POSITIVE VORTICITY IS ABOUT $100 \times 10^{-6} \text{SEC}^{-1}$ OVER WESTCENTRAL ARBIAN SEA TO THE SOUTHWEST OF THE SYSTEM CENTRE. IT IS EXTENDING UPTO 200 HPA LEVEL. THE LOW LEVEL CONVERGENCE HAS INCREASED AND OF THE ORDER $30 \times 10^{-5} \text{SEC}^{-1}$ IN SOUTHWEST OF THE SYSTEM CENTRE OVER WESTCENTRAL ARBIAN SEA. POSITIVE UPPER LEVEL DIVERGENCE IS ALSO INCREASED AND IS OF THE ORDER $30 \times 10^{-5} \text{SEC}^{-1}$ IN SOUTHWEST OF THE SYSTEM CENTRE OVER WESTCENTRAL ARBIAN SEA.. VERTICAL WIND SHEAR (VWS) IS LOW TO MODERATE (5-20 KTS) OVER WESTCENTRAL ARABIAN SEA ALONG OVER THE SYSTEM CENTRE . THE UPPER TROPOSPHERIC RIDGE LIES NEAR 18.0⁰N OVER THE ARABIAN SEA.

MODEL GUIDANCE: MOST OF THE NUMERICAL MODELS INCLUDING ECMWF, IMD GFS, NCEP GFS, GEFS, NEPS, NCUM ETC. ARE INDICATING FURTHER INTENSIFICATION OF THE SYSTEM AND NORTH-NORTHWESTWARDS MOVEMENT FOLLOWED BY WEST-SOUTHWEST MOVEMENT. SOME MODELS LIKE ECMWF, NEPS, NCEP GFS, IMD GFS ARE ALSO INDICATING DEVELOPMENT OF LOW PRESSURE AREA OVER SOUTHEAST AS AROUND 31ST MAY WITH FURTHER INTENSIFICATION INTO DEPRESSION DURING SUBSEQUENT 3 DAYS.

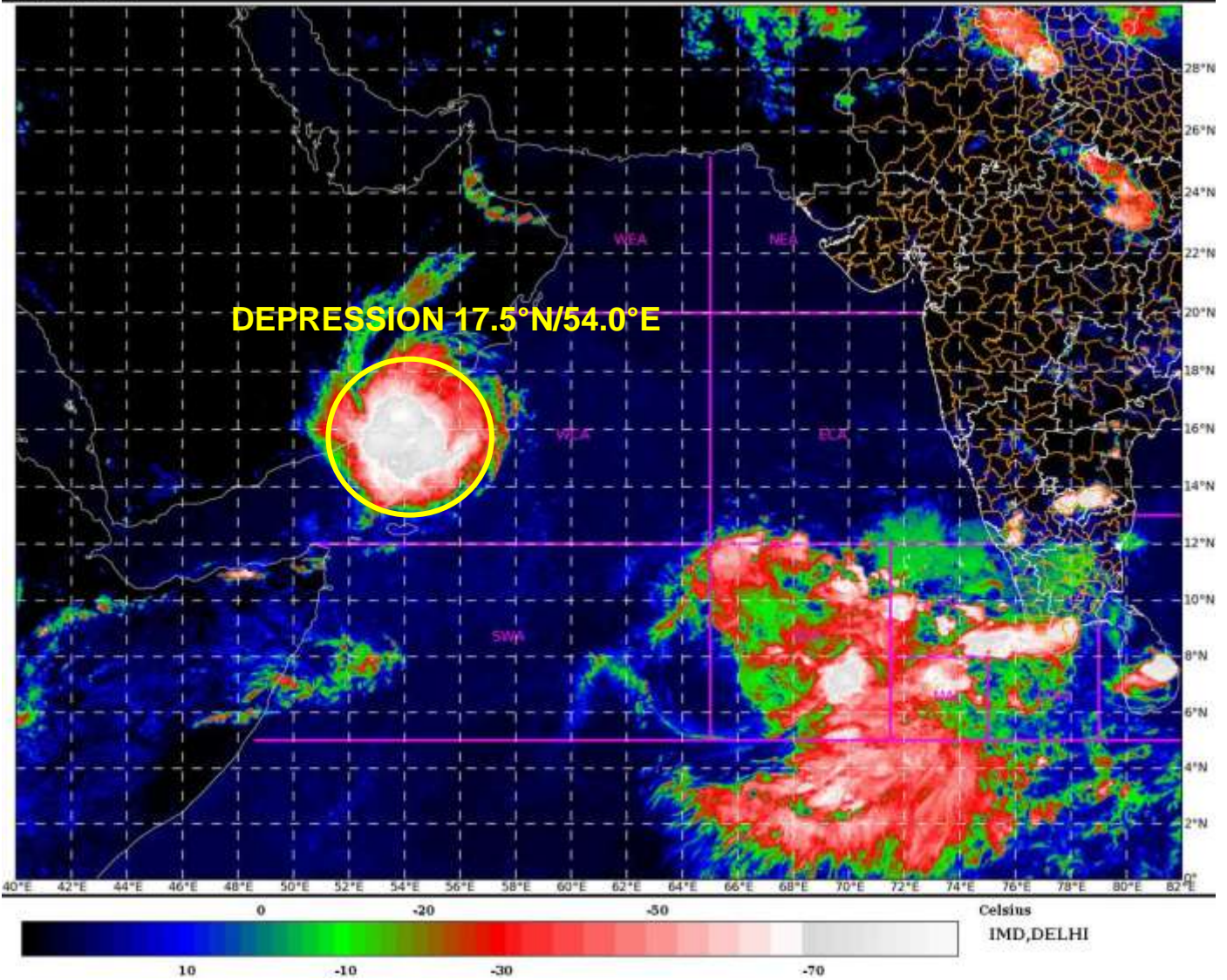
CONCLUSION: CONSIDERING ALL THE ABOVE, IT IS VERY LIKELY TO INTENSIFY FURTHER INTO A DEEP DEPRESSION DURING NEXT 12 HOURS. IT IS VERY LIKELY TO MOVE NORTH-NORTHWESTWARDS DURING NEXT 24 HOURS AND WEST-SOUTHWESTWARDS THEREAFTER.

ANOTHER LOW PRESSURE AREA IS LIKELY TO FORM OVER SOUTHEAST & ADJOINING EASTCENTRAL AS AROUND 31ST MAY WITH DEVELOPMENT OF DEPRESSION AROUND 3RD JUNE. THUS, THE AREA OVER WESTCENTRAL AS AND SOUTHEAST AS IS MAINTAINED UNDER CONTINUOUS WATCH FOR NEXT 7 DAYS.

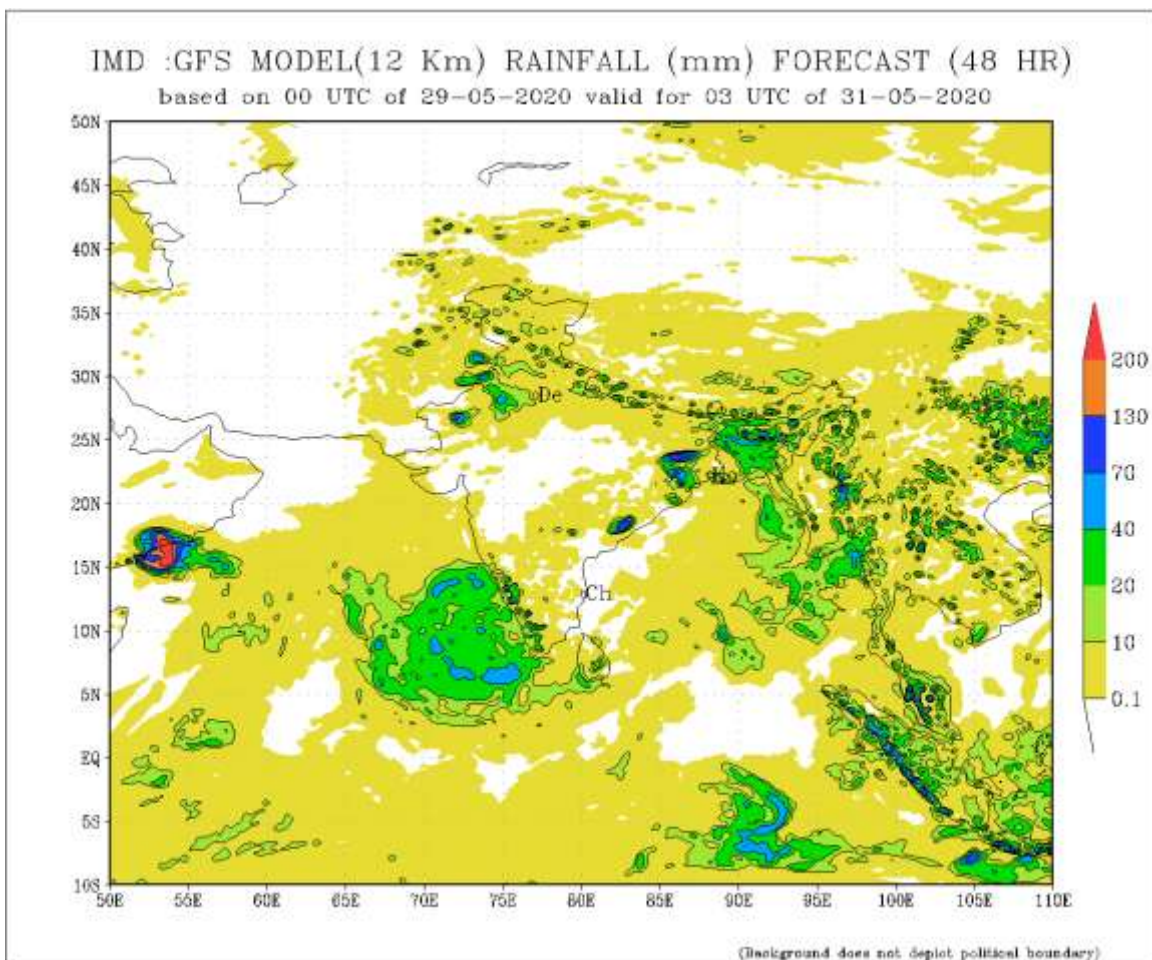
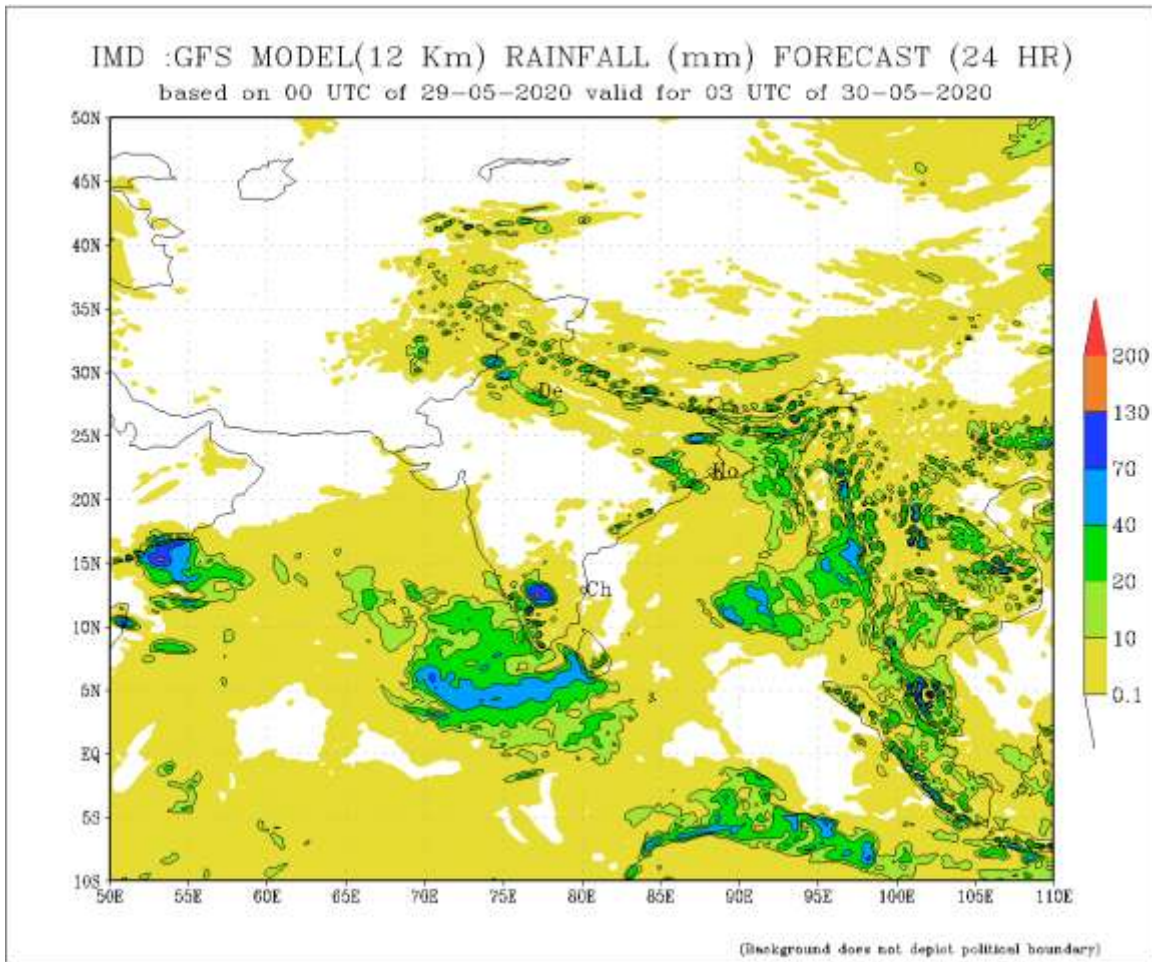
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