



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI**  
**TROPICAL CYCLONE ADVISORY BULLETIN NO. 08**

**FROM: RSMC –TROPICAL CYCLONES, NEW DELHI**

**TO: STORM WARNING CENTRE, NAYPYI TAW (MYANMAR)**  
**STORM WARNING CENTRE, BANGKOK (THAILAND)**  
**STORM WARNING CENTRE, COLOMBO (SRILANKA)**  
**STORM WARNING CENTRE, DHAKA (BANGLADESH)**  
**STORM WARNING CENTRE, KARACHI (PAKISTAN)**  
**METEOROLOGICAL OFFICE, MALE (MALDIVES)**  
**OMAN METEOROLOGICAL DEPARTMENT, MUSCAT (THROUGH RTH JEDDAH)**  
**YEMEN METEOROLOGICAL SERVICES, REPUBLIC OF YEMEN (THROUGH RTH JEDDAH)**  
**NATIONAL CENTRE FOR METEOROLOGY, UAE (THROUGH RTH JEDDAH)**  
**PRESIDENCY OF METEOROLOGY AND ENVIRONMENT, SAUDI ARABIA (THROUGH RTH JEDDAH)**  
**IRAN METEOROLOGICAL ORGANISATION, (THROUGH RTH JEDDAH)**  
**QATAR METEOROLOGICAL DEPARTMENT (THROUGH RTH JEDDAH)**

**TROPICAL CYCLONE ADVISORY NO. 08 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1700 UTC OF 15.05.2021 BASED ON 1500 UTC OF 15.05.2021.**

**SUB: SEVERE CYCLONIC STORM “TAUKTAE” (PRONOUNCED AS TAU’TE) OVER EASTCENTRAL ARABIAN SEA**

**THE SEVERE CYCLONIC STORM “TAUKTAE” (PRONOUNCED AS TAU’TE) OVER EASTCENTRAL ARABIAN SEA MOVED NEARLY NORTHWARDS WITH A SPEED OF ABOUT 13 KMPH DURING PAST 06 HOURS AND LAY CENTRED AT 1500 UTC OF TODAY, THE 15<sup>TH</sup> MAY, 2021 OVER EASTCENTRAL ARABIAN SEA NEAR LATITUDE 14.2°N AND LONGITUDE 72.7°E, ABOUT 190 KM SOUTH-SOUTHWEST OF PANJIM-GOIA, 550 KM SOUTH-SOUTHWEST OF MUMBAI, 780 KM SOUTH-SOUTHEAST OF VERAVAL (42909) AND 910 KM SOUTH-SOUTHEAST OF KARACHI (41780).**

IT IS VERY LIKELY TO INTENSIFY FURTHER INTO A VERY SEVERE CYCLONIC STORM DURING NEXT 12 HOURS AND INTENSIFY FURTHER. IT IS VERY LIKELY TO MOVE NORTH-NORTHWESTWARDS AND REACH GUJARAT COAST DURING 0000-0400UTC OF 18<sup>TH</sup> & CROSS GUJARAT COAST BETWEEN PORBANDAR & NALIYA AROUND 0900-1200UTC OF 18<sup>TH</sup> MAY, 2021.

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
15.05.21/1500	14.2/72.7	100-110 gusting to 120	Severe Cyclonic Storm
15.05.21/1800	14.5/72.6	110-120 gusting to 130	Severe Cyclonic Storm
16.05.21/0000	15.3/72.3	115-125 gusting to 140	Very Severe Cyclonic Storm
16.05.21/0600	15.7/72.0	125-135 gusting to 150	Very Severe Cyclonic Storm
16.05.21/1200	16.4/71.5	135-145 gusting to 160	Very Severe Cyclonic Storm
17.05.21/0000	17.9/70.8	145-155 gusting to 170	Very Severe Cyclonic Storm
17.05.21/1200	19.4/70.1	150-160 gusting to 175	Very Severe Cyclonic Storm
18.05.21/0000	20.7/69.5	150-160 gusting to 175	Very Severe Cyclonic Storm
18.05.21/1200	22.3/69.4	145-155 gusting to 170	Very Severe Cyclonic Storm
19.05.21/0000	24.1/69.7	75-85 gusting to 95	Cyclonic Storm
19.05.21/1200	25.9/70.1	40-50 gusting to 60	Depression

**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 1500 UTC OF TODAY, THE INTENSITY OF THE SYSTEM IS CATEGORISED AS T 3.5 WITH CDO PATTERN. ASSOCIATED MINIMUM CLOUD TOP TEMPERATURE IS  $-93^{\circ}\text{C}$ . BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER ARABIAN SEA (AS) BETWEEN LATITUDE  $12.0^{\circ}\text{N}$  &  $19^{\circ}\text{N}$  AND EAST OF LONG  $68.0\text{E}$ .

THE ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 60 KNOTS GUSTING TO 70 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 984 HPA. SEA CONDITION IS VERY HIGH.

THE MADDEN JULIAN INDEX (MJO) CURRENTLY LIES IN PHASE 2 WITH AMPLITUDE MORE THAN 1. IT WILL CONTINUE TO BE IN SAME PHASE & SAME AMPLITUDE TILL 17<sup>TH</sup>. THEREAFTER, IT WILL MOVE TO PHASE 3 WITH AMPLITUDE NEAR 1. THUS, MJO IS CONDUCIVE FOR ENHANCED CONVECTION OVER THE ARABIAN SEA (AS) DURING NEXT 3 DAYS. THE TROPICAL CYCLONE HEAT POTENTIAL (TCHP) IS MORE THAN  $140 \text{ KJ}/\text{CM}^2$  OVER SOUTHEAST AS AND IS DECREASING OVER CENTRAL PARTS OF CENTRAL AS & NORTH AS. SEA SURFACE TEMPERATURE (SST) IS AROUND  $30^{\circ}\text{C}$  OVER ENTIRE AS.

THE LOW LEVEL CYCLONIC VORTICITY IS ABOUT  $250 \times 10^{-6} \text{ S}^{-1}$  AROUND SYSTEM CENTRE. LOW LEVEL CONVERGENCE IS ( $40 \times 10^{-5} \text{ S}^{-1}$ ) TO THE NORTHEAST OF SYSTEM CENTRE. POSITIVE UPPER LEVEL DIVERGENCE IS ( $30 \times 10^{-5} \text{ S}^{-1}$ ) TO THE SOUTH-SOUTHWEST OF THE SYSTEM CENTRE. UPPER TROPOSPHERIC RIDGE RUNS ALONG  $12.5^{\circ}\text{N}$ . THE SYSTEM IS ENTERING TO THE REGION OF MODERATE VERTICAL WIND SHEAR (VWS) (15-20 KTS).

THE SEVERE CYCLONIC STORM OVER EASTCENTRAL ARABIAN SEA WOULD INTENSIFY INTO A VERY SEVERE CYCLONIC STORM DURING NEXT 12 HOURS. IT WOULD MOVE NORTH-NORTHWESTWARDS AND CROSS GUJARAT COAST BETWEEN PORBANDAR (42830) AND NALIYA (42631) DURING 0900-1200 UTC OF 18TH MAY.

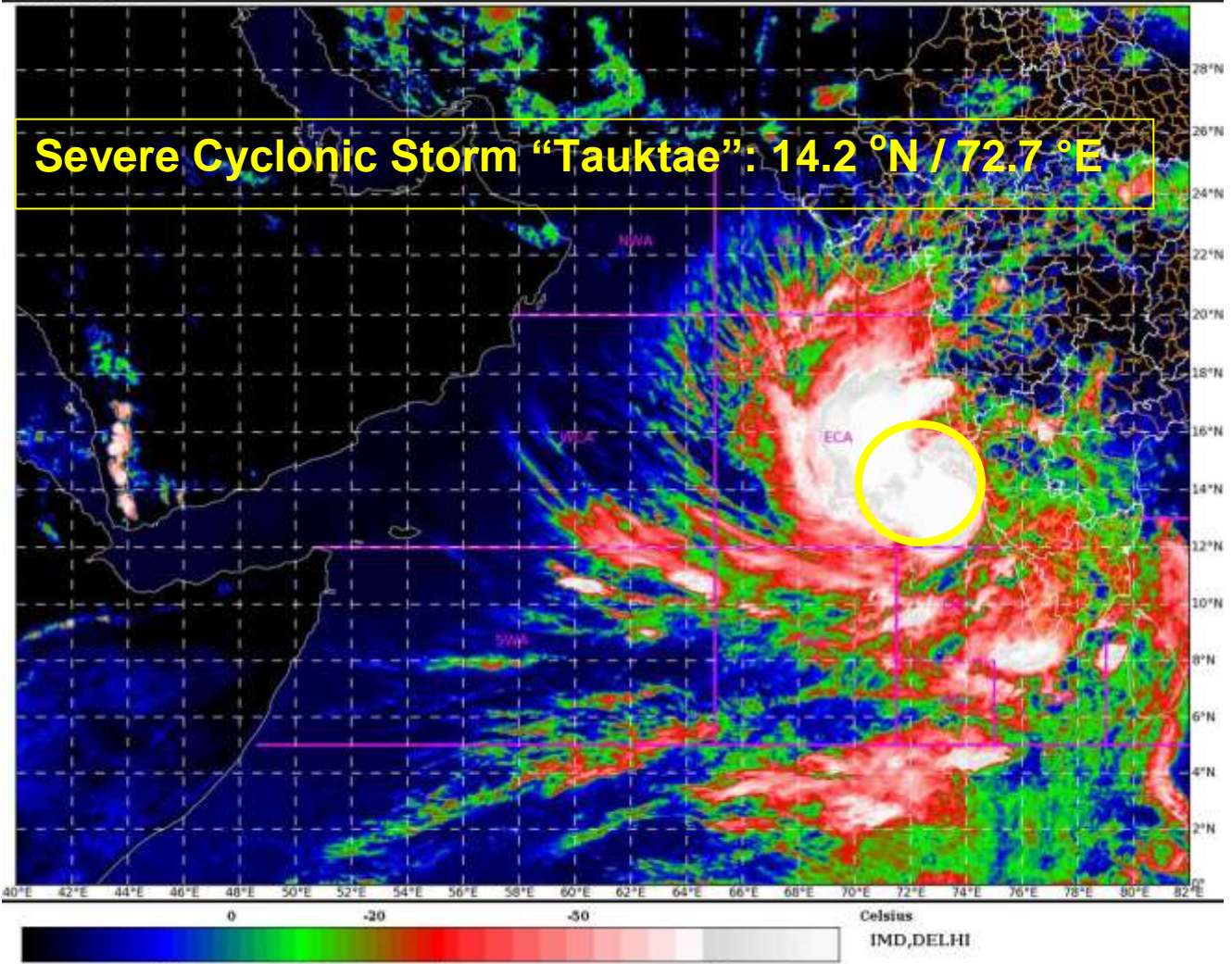
THUS UNDER FAVOURABLE ENVIRONMENT LIKE MJO, HIGH SST, HIGH TCHP, GOOD POLEWARD OUTFLOW, MODERATE VWS AND WESTERLY WIND BURST, THE SEVERE CYCLONIC STORM OVER EASTCENTRAL ARABIAN SEA WOULD INTENSIFY INTO A VERY SEVERE CYCLONIC STORM DURING NEXT 12 HOURS. IT IS VERY LIKELY TO MOVE NORTH-NORTHWESTWARDS AND CROSS GUJARAT COAST BETWEEN PORBANDAR (42830) AND NALIYA (42631) DURING 0900-1200 UTC OF 18TH MAY.

(D. R. PATTANAİK)  
SCIENTIST-F  
RSMC, NEW DELHI

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

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



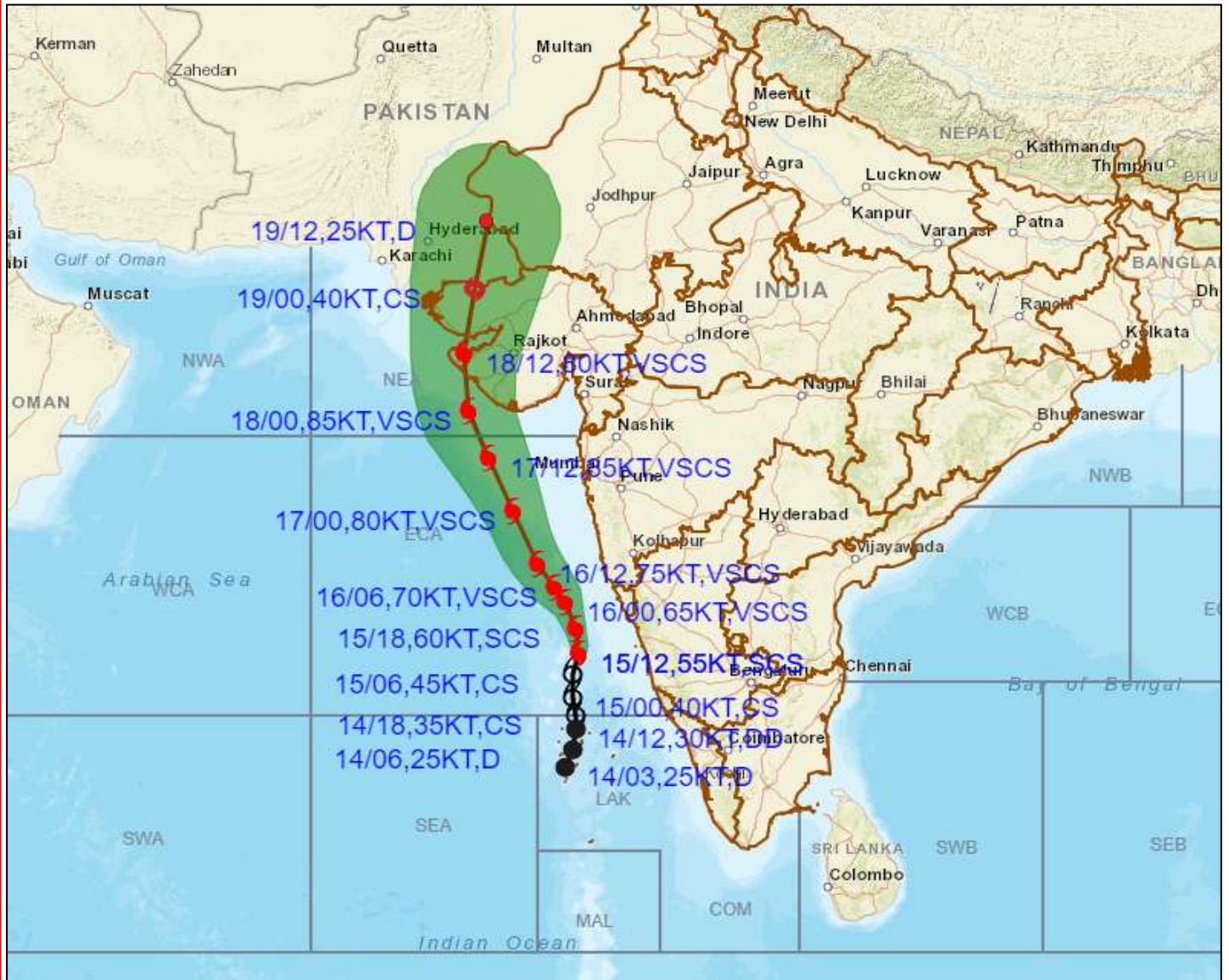
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**PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)**  
**NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%**





**OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF SEVERE CYCLONIC STORM "TAUKTAE" OVER EASTCENTRAL ARABIAN SEA BASED ON 1200 UTC OF 15<sup>TH</sup> MAY, 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

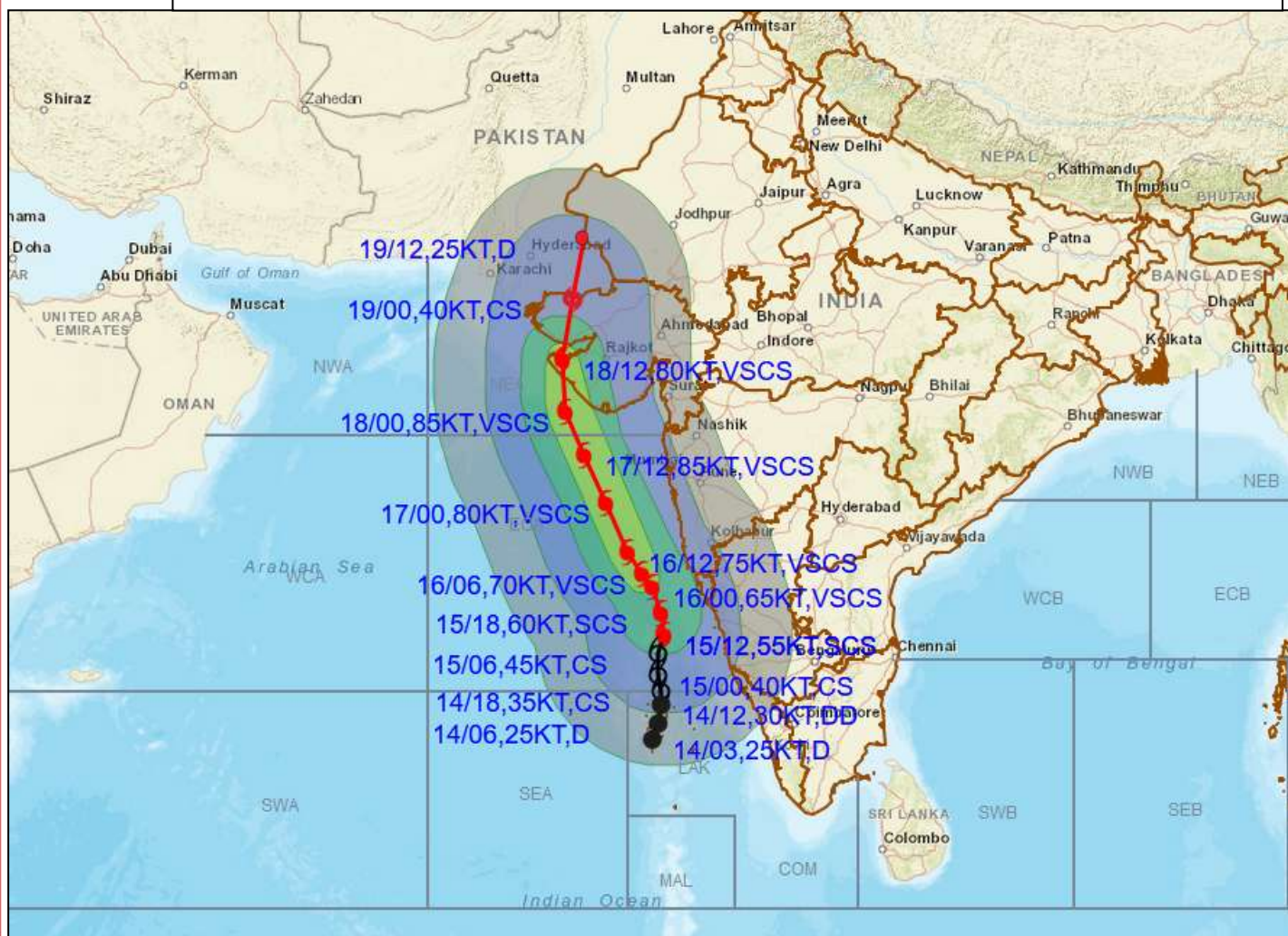
**PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)**

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





## OBSERVED & FORECAST TRACK OF SEVERE CYCLONE 'TAUKTAE' WITH CONE OF UNCERTAINTY OVER EAST CENTRAL ARABIAN SEA AT 1200 UTC OF 15<sup>TH</sup> MAY 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 (≥20 KT)

● LESS THAN 34 KT  
○ 34-47 KT  
● ≥ 48 KT  
— OBSERVED TRACK  
— FORECAST TRACK  
— CONE OF UNCERTAINTY  
AREA OF MAXIMUM SUSTAINED WIND SPEED:  
— 28-33 KT (52-61 KMPH)  
— 34-49 KT (62-91 KMPH)  
— 50-63 KT (92-117 KMPH)  
— ≥ 64 KT (≥118 KMPH)

### IMPACT OVER THE SEA

MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

### PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

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