



REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI  
TROPICAL CYCLONE ADVISORY BULLETIN NO. 1

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. 1 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 2100 UTC OF 14.05.2021 BASED ON 1800 UTC OF 14.05.2021.

**Sub: Deep Depression intensified into a Cyclonic Storm “Tauktae” (pronounced as Tau’Te) over Lakshadweep area and adjoining southeast & eastcentral Arabian Sea:**

THE **DEEP DEPRESSION** OVER LAKSHADWEEP AREA AND ADJOINING SOUTHEAST & EASTCENTRAL ARABIAN SEA MOVED NORTHWARDS WITH A SPEED OF ABOUT 07 KMPH DURING PAST 06 HOURS, INTENSIFIED INTO A **CYCLONIC STORM “TAUKTAE” (PRONOUNCED AS TAU’TE)** OVER LAKSHADWEEP AREA AND ADJOINING SOUTHEAST & EAST CENTRAL ARABIAN SEA AND LAY CENTRED AT 1800 UTC OF 14<sup>TH</sup> MAY, 2021 NEAR LATITUDE 12.0°N AND LONGITUDE 72.6°E, ABOUT 100 KM NORTH-NORTHWEST OF AMINI DIVI (43311), 290 KM WEST-NORTHWEST OF KANNUR (43315), 1010 KM SOUTH-SOUTHEAST OF VERAVAL (42909).

IT IS VERY LIKELY TO INTENSIFY FURTHER INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. IT IS VERY LIKELY TO MOVE NORTH-NORTHWESTWARDS AND REACH NEAR GUJARAT COAST AROUND 0000 UTC OF 18<sup>TH</sup> MAY.

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

DATE/TIME(UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SURFACE WIND (KMPH)	SUSTAINED WIND SPEED	CATEGORY OF CYCLONIC DISTURBANCE
14.05.21/1830	12.0/72.6	60-70	GUSTING TO 80	CYCLONIC STORM
15.05.21/0030	12.9/72.6	70-80	GUSTING TO 90	CYCLONIC STORM
15.05.21/0630	13.6/72.5	80-90	GUSTING TO 100	CYCLONIC STORM
15.05.21/1200	14.4/72.4	95-105	GUSTING TO 115	SEVERE CYCLONIC STORM
15.05.21/1800	15.1/72.2	110-120	GUSTING TO 130	SEVERE CYCLONIC STORM
16.05.21/0600	16.5/71.6	130-140	GUSTING TO 155	VERY SEVERE CYCLONIC STORM
16.05.21/1800	17.9/70.9	140-150	GUSTING TO 165	VERY SEVERE CYCLONIC STORM
17.05.21/0600	19.1/70.1	145-155	GUSTING TO 165	VERY SEVERE CYCLONIC STORM
17.05.21/1800	20.6/69.3	150-160	GUSTING TO 175	VERY SEVERE CYCLONIC STORM
18.05.21/0600	22.2/69.1	135-145	GUSTING TO 160	VERY SEVERE CYCLONIC STORM
18.05.21/1800	23.8/69.4	85-95	GUSTING TO 105	SEVERE CYCLONIC STORM

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

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

## REMARKS:

CONVECTION OVER LAKSHADWEEP AND ADJOINING SOUTHEAST ARABIAN SEA HAS FURTHER ORGANISED AND CLOUDS ARE ORGANISED IN CURVED BAND PATTERN. ASSOCIATED MINIMUM CLOUD TOP TEMPERATURE IS  $-93^{\circ}\text{C}$ . INTENSITY OF THE SYSTEM IS CATEGORISED AS T 2.5. BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER ARABIAN SEA (AS) BETWEEN LATITUDE  $10.0^{\circ}\text{N}$  &  $17.0^{\circ}\text{N}$  AND LONG  $67.0^{\circ}\text{E}$  &  $75.0^{\circ}\text{E}$  AND LAKSHADWEEP AREA.

THE ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 35 KNOTS GUSTING TO 45 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 997 HPA. SEA CONDITION IS VERY ROUGH.

THE MADDEN JULIAN INDEX (MJO) CURRENTLY LIES IN PHASE 2 WITH AMPLITUDE LESS THAN 1. IT WILL CONTINUE IN SAME PHASE WITH AMPLITUDE BECOMING MORE THAN 1 FROM 15<sup>TH</sup> 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 4 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 &  $30\text{-}31^{\circ}\text{C}$  OVER SOUTHEAST AS. THE CROSS EQUATORIAL FLOW IN THE NEAR EQUATORIAL BELT IS ENHANCED DUE TO WESTERLY WIND BURST.

THE LOW LEVEL CYCLONIC VORTICITY IS AROUND  $150 \times 10^{-6} \text{ S}^{-1}$  TO THE SOUTH OF SYSTEM CENTRE. LOW LEVEL CONVERGENCE HAS INCREASED AND IS ( $60 \times 10^{-5} \text{ S}^{-1}$ ) TO THE WEST OF SYSTEM CENTRE. POSITIVE UPPER LEVEL DIVERGENCE ( $30 \times 10^{-5} \text{ S}^{-1}$ ) IS SEEN AROUND THE SYSTEM CENTRE. UPPER TROPOSPHERIC RIDGE RUNS ALONG  $12.5^{\circ}\text{N}$ . THE SYSTEM IS IN A REGION OF MODERATE TO HIGH VERTICAL WIND SHEAR (VWS) (25-30 KTS).

MOST OF THE NUMERICAL MODELS ARE INDICATING THAT THE DEEP DEPRESSION OVER LAKSHADWEEP WOULD INTENSIFY INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. IT WOULD MOVE NORTH-NORTHWESTWARDS AND REACH NEAR GUJARAT COAST BY 0000 UTC OF 18TH MAY.

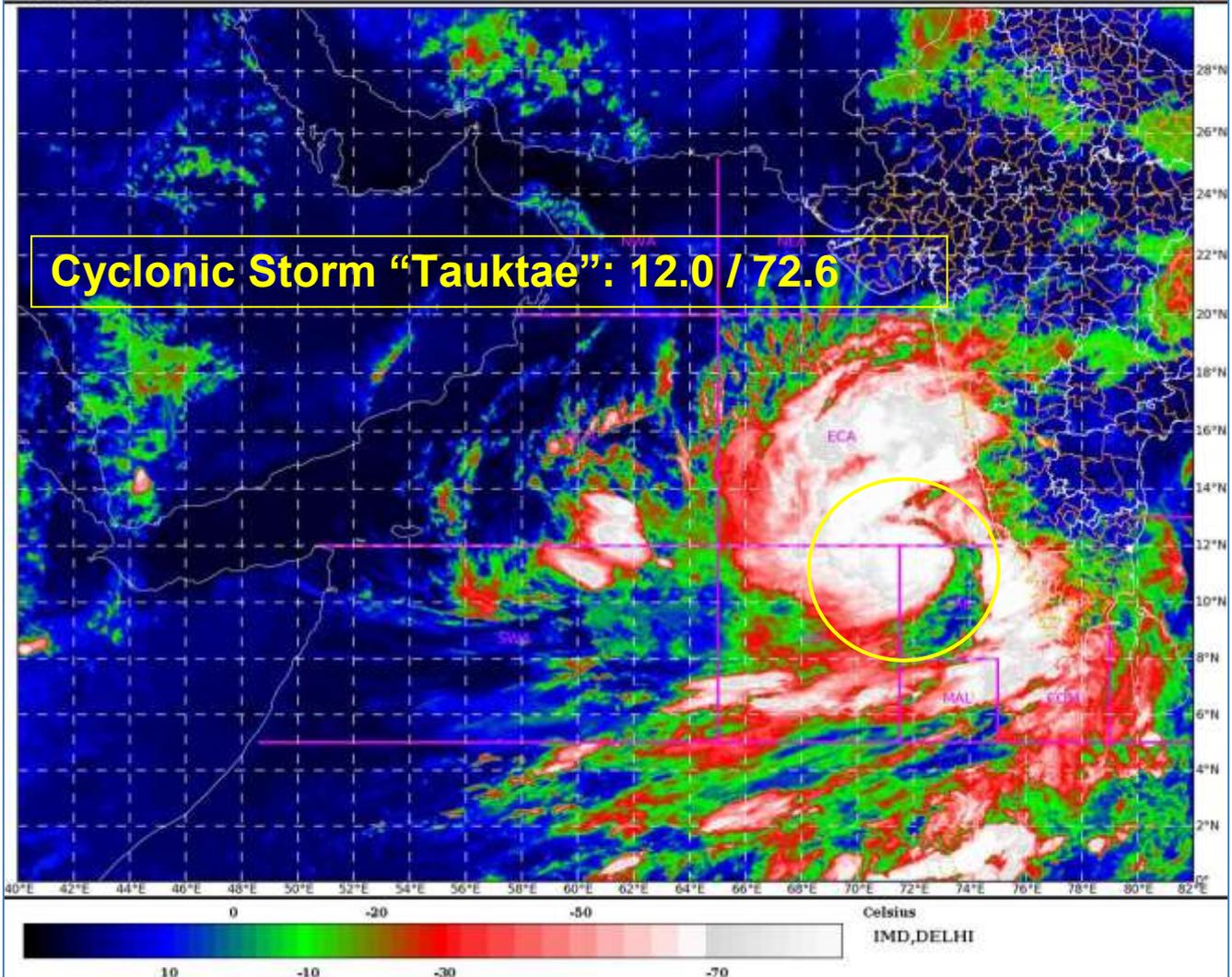
THUS UNDER FAVOURABLE ENVIRONMENT LIKE MJO, HIGH SST, HIGH TCHP, GOOD POLEWARD OUTFLOW, MODERATE VWS AND WESTERLY WIND BURST, THE CYCLONIC STORM OVER LAKSHADWEEP AREA WOULD INTENSIFY INTO A SEVERE CYCLONIC STORM DUROING NEXT 24 HOURS. IT IS VERY LIKELY TO INTENSIFY FURTHER. IT IS LIKELY TO MOVE INITIALLY NORTH-NORTHWESTWARDS AND REACH NEAR GUJARAT COAST BY 0000 UTC OF 18TH MAY.

(SHOBHIT KATIYAR)  
SCIENTIST-C

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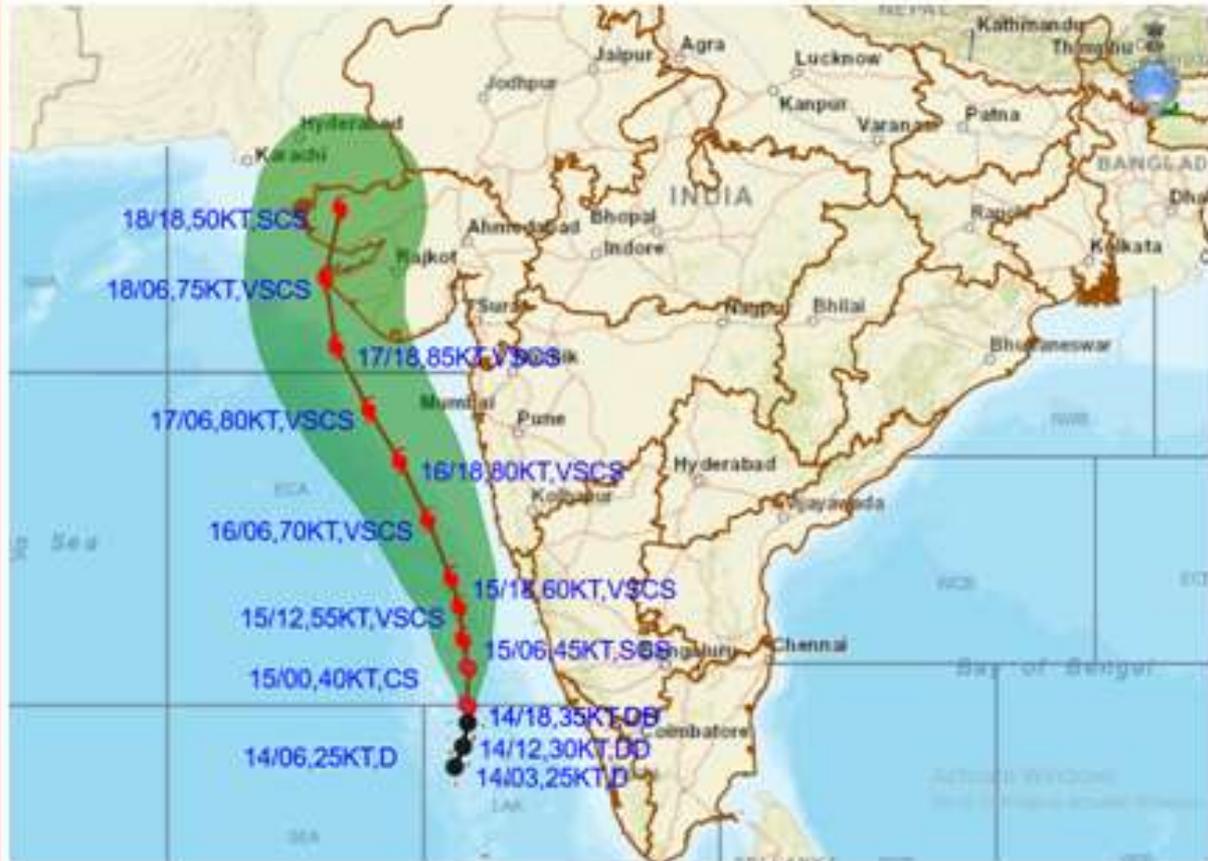


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**PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)**  
**NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%**



**OBSERVED AND FORECAST TRACK ALONG WITH CONE OF UNCERTAINTY OF CYCLONIC STORM "TAUKTAE" OVER LAKSHADWEEP AND ADJOINING SOUTHEAST & EASTCENTRAL ARABIAN SEA BASED ON 1800 UTC OF 14<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)

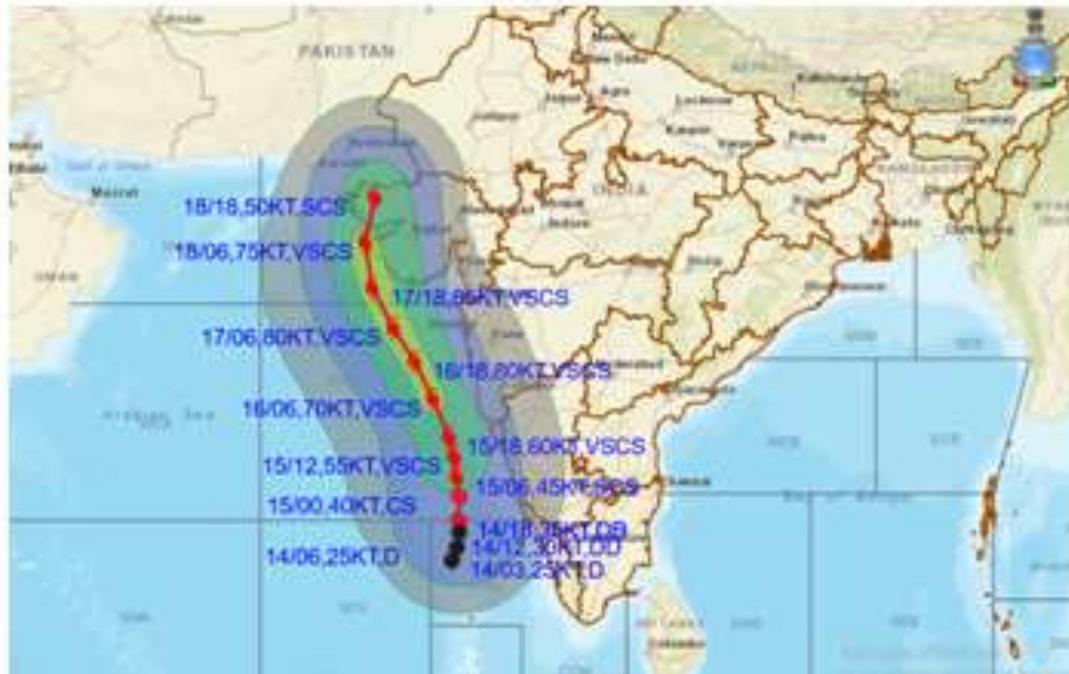
- LESS THAN 34 KT
- ⊙ 34.47 KT
- ⊙ ≥ 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- ▲ CONE OF UNCERTAINTY

**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 QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM "TAUKTAE" OVER LAKSHADWEEP AND ADJOINING SOUTHEAST & EASTCENTRAL ARABIAN SEA BASED ON 1800 UTC OF 14<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 (48.63 KT)

VSCS: VERY SEVERE CYCLONIC STORM (64.89 KT)

ESCS: EXTREMELY SEVERE CYCLONIC STORM (80.119 KT)

SaCS: SUPER CYCLONIC STORM (≥ 120 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 (≥ 119 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 (≥ 119)	Phenomenal	Total suspension of fishing operations

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