



India Meteorological Department
(Ministry of Earth Sciences)

BULLETIN NO.: 10(ARB/01/2021)

TIME OF ISSUE: 1730 HOURS IST

DATED: 15.05.2021

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

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Sub: Cyclonic Storm "Tauktae" (pronounced as Tau'Te) over eastcentral Arabian Sea: Cyclone Alert for Gujarat & Diu coasts (Yellow message)

The **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 1430 hours IST of today, the 15th May, 2021 over eastcentral Arabian Sea near latitude 13.5°N and longitude 72.7°E, about 250 km southwest of Panjim-Goa, 620 km south-southwest of Mumbai, 850 km south-southeast of Veraval (Gujarat) and 960 km south-southeast of Karachi (Pakistan).

It is very likely to intensify further into a Severe Cyclonic Storm during next 3 hours and into a Very Severe Cyclonic Storm during the subsequent 12 hours. It is very likely to move north-northwestwards and reach Gujarat coast in the morning of 18th & cross Gujarat coast between Porbandar & Naliya around 18th May Afternoon / evening.

Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
15.05.21/1430	13.5/72.7	80-90 gusting to 100	Cyclonic Storm
15.05.21/1730	13.8/72.4	95-105 gusting to 115	Severe Cyclonic Storm
15.05.21/2330	14.5/72.3	110-120 gusting to 135	Severe Cyclonic Storm
16.05.21/0530	15.3/72.0	115-125 gusting to 140	Very Severe Cyclonic Storm
16.05.21/1130	15.7/71.7	125-135 gusting to 150	Very Severe Cyclonic Storm
16.05.21/2330	17.2/71.1	135-145 gusting to 160	Very Severe Cyclonic Storm
17.05.21/1130	18.7/70.3	145-155 gusting to 170	Very Severe Cyclonic Storm
17.05.21/2330	20.1/69.7	150-160 gusting to 175	Very Severe Cyclonic Storm
18.05.21/1130	21.4/69.2	150-160 gusting to 175	Very Severe Cyclonic Storm
18.05.21/2330	23.2/69.5	125-135 gusting to 150	Very Severe Cyclonic Storm
19.05.21/1130	25.0/70.0	60-70 gusting to 80	Cyclonic Storm

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

Warnings:

(i) Rainfall:

- **Lakshadweep Islands:** Light to moderate rainfall at most places with heavy to very heavy falls at isolated places over northern Islands on 15th May and heavy falls at isolated places on 16th May.
- **Kerala:** Light to moderate rainfall at most places with heavy to very heavy falls at a few places and extremely heavy falls at isolated places on 15th, heavy to very heavy falls at isolated places on 16th and heavy falls at isolated places on 17th May.
- **Tamil Nadu (Ghat districts):** Light to moderate rainfall at many places with heavy to very heavy falls at isolated places on 15th May.
- **Karnataka (coastal & adjoining Ghat districts):** Light to moderate rainfall at most places with heavy to very heavy falls at a few places and extremely heavy falls at isolated places on 15th and heavy to very heavy falls at isolated places on 16th.
- **Konkan & Goa:** Light to moderate rainfall at most places with heavy to very heavy falls at a few places over south Konkan & Goa and heavy to very heavy falls at isolated places over north Konkan on 15th and heavy to very heavy falls at a few places over Konkan & Goa & adjoining Ghat areas on 16th and heavy falls at isolated places on 17th May over north Konkan.
- **Gujarat:** Light to moderate rainfall at many places very likely to commence over coastal districts of Saurashtra from 16th May afternoon, at many places with heavy to very heavy falls at isolated places over Saurashtra & Kutch and Diu and extremely heavy falls at isolated places in Junagarh & Gir Somnath Districts on 17th and with heavy to very heavy falls at a few places over Saurashtra & Kutch and Diu with extremely heavy falls (≥ 20 cm) at isolated places of Porbandar, Devbhoomi Dwarka, Jamnagar & Kutch districts on 18th.
- **West Rajasthan:** Light to moderate rainfall at many places with heavy to very heavy falls at isolated places very likely on 18th & 19th May.

(ii) Wind warning

- Squally weather with wind speed reaching 45-55 kmph gusting to 65 kmph is very likely over Maldives area and equatorial Indian Ocean during next 06 hours.
- Gale wind speed reaching 80 –90 kmph gusting to 100 kmph is prevailing over east-central Arabian Sea and adjoining southeast Arabian Sea and Lakshadweep area. It is likely to increase over eastcentral Arabian Sea becoming 120-130 kmph gusting to 145 kmph from 16th May morning.
- Squally wind speed reaching 50-60 kmph gusting to 70 kmph along & off Kerala coast on 15th May.
- Squally wind speed reaching 50-60 kmph gusting to 70 kmph likely along & off Karnataka south Maharashtra & Goa coasts on 15th and Gale winds speed reaching 60-70 kmph gusting to 80 kmph along & off Maharashtra –Goa coasts on 16th May.
- Squally wind speed reaching 40-50 kmph gusting to 60 kmph likely over northeast Arabian Sea and along & off south Gujarat & Daman and Diu coasts on 17th morning and gradually increase becoming Gale winds speed reaching 150-160 kmph gusting to 175 kmph over northeast Arabian Sea from 18th morning and along & off Saurashtra & Kutch coasts (Devbhoomi Dwarka & Porbandar) and 120 -150 kmph gusting to 165 kmph over Kutch, Porbandar, Junagarh, Jamnagar districts of Gujarat from 18th May afternoon / evening for subsequent 06 hours.

(iii) Sea condition

- Sea conditions will be very rough over southeast Arabian Sea and adjoining Lakshadweep - Maldives area & equatorial Indian Ocean during next 06 hours.
- Sea condition over eastcentral Arabian Sea will be high to very high on 15th & very high to Phenomenal on 16th May and over northeast Arabian Sea on 17th & 18th May.

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.

- Sea conditions will be rough to very rough over Comorin area and along & off Kerala coast on 15th, very rough to High over east central Arabian Sea along & off Karnataka coast on 15th May and Maharashtra – Goa coasts on 15th& 16th May. It is very likely to be very rough to High over northeast Arabian Sea along & off south Gujarat coast from 17th May morning and very high to Phenomenal from 18th morning.

(iv) Storm surge warning

Tidal wave of about 2- 3 m above astronomical tide is likely to inundate coastal areas of Morbi, Kutch, Devbhoomi Dwarka & Jamnagar districts and 1-2 meters along Porbandar, Junagarh, Diu, Gir Somnath, Amreli, Bhavnagar and 0.5 to 1m over the remaining coastal districts of Gujarat during the time of landfall..

(v) Fishermen Warning

- Total suspension of fishing operations over eastcentral and adjoining southeast Arabian Sea and along & off Kerala – Karnataka – Goa – Maharashtra coasts.
- Total suspension of fishing operations over northeast Arabian Sea and along & off Gujarat coast from 17th May.
- The fishermen are advised not to venture into southeast Arabian Sea, Lakshadweep – Maldives areas, east central Arabian Sea along & off Karnataka coast, eastcentral Arabian Sea and along & off Maharashtra – Goa coasts and into eastcentral& adjoining northeast Arabian Sea along & off Gujarat coast till 18th May.
- Those who are out at Sea over north Arabian Sea are advised to return to the coast.

(vi) (A) Damage Expected over Devbhoomi Dwarka, Kutch, Porbandar, Junagarh, Gir Somnath & Jamnagar districts of Gujarat:

- Total destruction of thatched houses/ extensive damage to kutcha houses. Some damage to pucca houses. Potential threat from flying objects.
- Bending/ uprooting of power and communication poles.
- Major damage to Kutcha and Pucca roads. Flooding of escape routes. Minor disruption of railways, overhead power lines and signaling systems.
- Widespread damage to salt pans & standing crops,. Blowing down of bushy trees.
- Small boats, country crafts may get detached from moorings.
- Visibility severely affected.

(vi) (B) Damage Expected over Amreli, Rajkot & Morbi districts of Gujarat:

- Major damage to thatched houses/ huts. Roof tops may blow off. Unattached metal sheets may fly.
- Minor damage to power and communication lines.
- Major damage to Kutcha and some damage to Pucca roads. Flooding of escape routes.
- Breaking of tree branches, uprooting of large avenue trees. Moderate damage to banana and papaya trees. Large dead limbs blown from trees.
- Major damage to coastal crops.
- Damage to embankments/ salt pans.

(vii) Action Suggested:

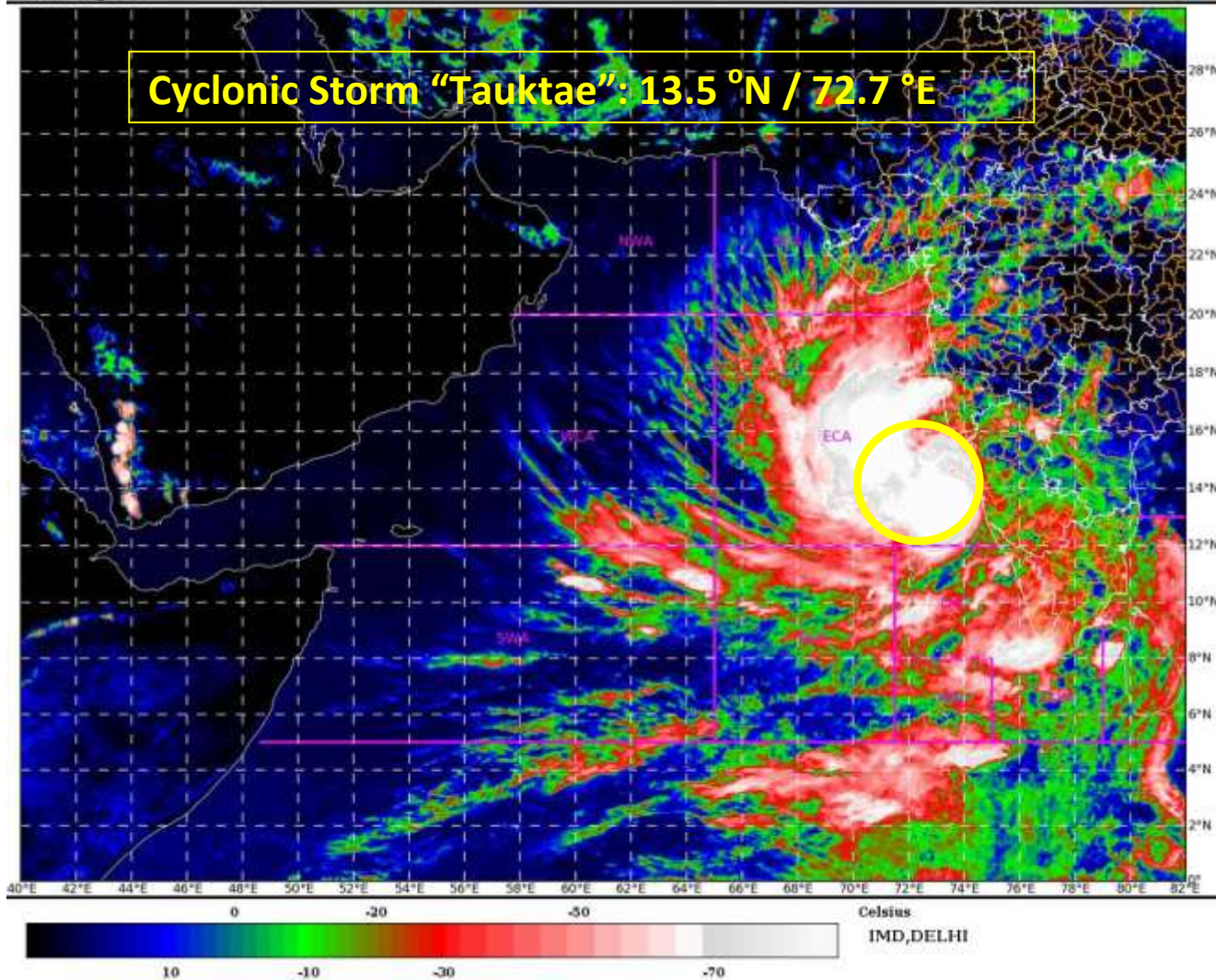
- Total suspension of fishing operations.
- Judicious regulation of rail and road traffic.
- People in affected areas to remain indoors.
- Movement in motor boats and small ships unsafe.

The next bulletin will be issued at 2030 hrs IST of 15th May, 2021.

(Sunitha Devi. S)
Scientist-F, RSMC, New Delhi

Copy to: ACWC Chennai/ ACWC Mumbai/ MC Goa/ MC Bengaluru/ CWC Ahmedabad/ Thiruvananthapuram.

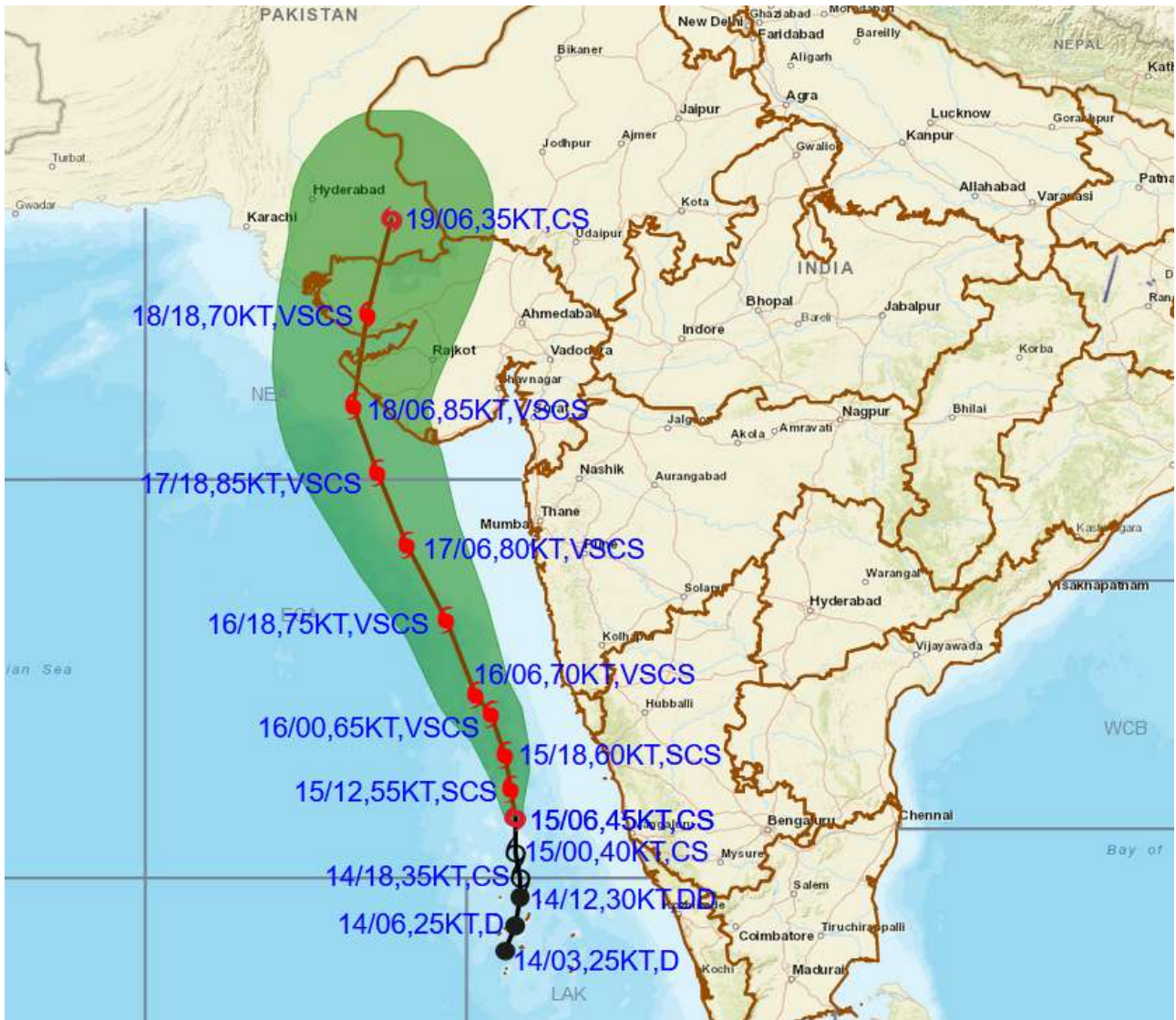
Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%
Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.



Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%
Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF CYCLONIC STORM "TAUKTAE" OVER EASTCENTRAL ARABIAN SEA BASED ON 0600 UTC OF 15TH 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



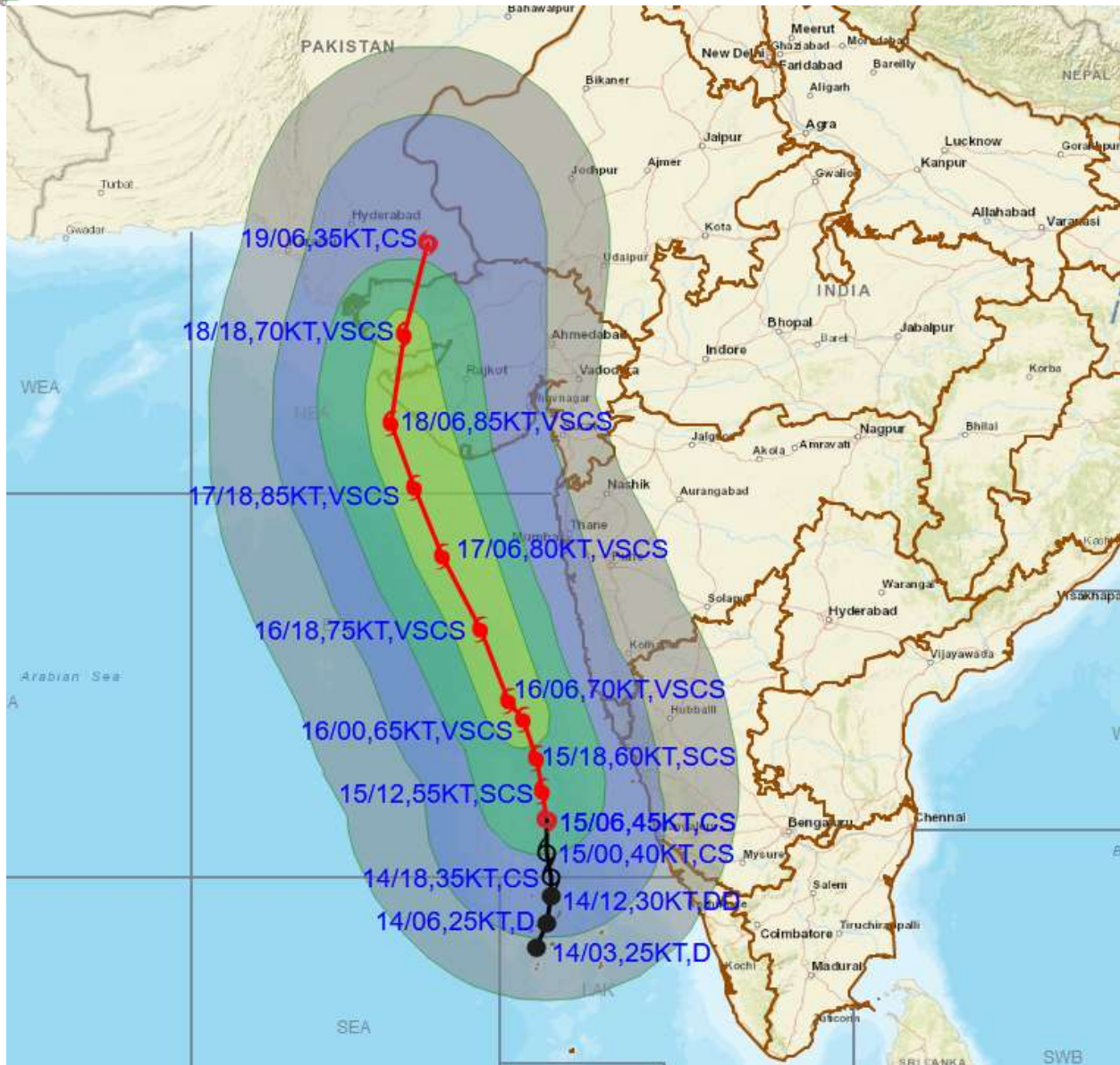
CONE OF UNCERTAINTY

Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM "TAUKTAE" OVER EASTCENTRAL ARABIAN SEA BASED ON 0600 UTC OF 15TH 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 (≥ 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 (≥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