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(Ministry of Earth Sciences)**

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Sub: (A) Extremely Severe Cyclonic Storm "Tej" (pronounced as Tej) over westcentral Arabian Sea and

(B) Depression intensified into Deep Depression over westcentral Bay of Bengal

(A) Extremely Severe Cyclonic Storm "Tej" (pronounced as Tej) over westcentral Arabian Sea

The Extremely Severe Cyclonic Storm "Tej" (pronounced as Tej) over westcentral & adjoining southwest Arabian Sea moved northwestwards with a speed of 18 kmph during past 6 hours, and lay centered at 1730 hours IST of today, the 22nd October over westcentral Arabian Sea, near latitude 13.3°N and longitude 54.4°E, about 90 km north-northeast of Socotra (Yemen), 410 km south of Salalah (Oman) and 390 km southeast of Al Ghaidah (Yemen).

It is very likely to move northwestwards and cross Yemen coast close to Al Ghaidah around early hours of 24th October as a very severe cyclonic storm with wind speed of 125-135 kmph gusting to 150 kmph.

Forecast track and intensity are given below:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
22.10.23/1730	13.3/54.4	170-180 gusting to 200	Extremely Severe Cyclonic Storm
22.10.23/2330	13.9/53.8	170-180 gusting to 200	Extremely Severe Cyclonic Storm
23.10.23/0530	14.5/53.3	165-175 gusting to 195	Extremely Severe Cyclonic Storm
23.10.23/1130	15.0/52.9	150-160 gusting to 175	Very Severe Cyclonic Storm
23.10.23/1730	15.5/52.5	135-145 gusting to 160	Very Severe Cyclonic Storm
24.10.23/0530	16.0/52.0	105-115 gusting to 125	Severe Cyclonic Storm
24.10.23/1730	16.4/51.5	70-80 gusting to 90	Cyclonic Storm
25.10.23/0530	16.8/50.9	30-40 gusting to 50	Depression

Warnings:

(i) Wind warning (warning graphics enclosed):

• **Southwest Arabian Sea:**

Gale wind speed reaching **170-180 kmph gusting to 200 kmph** is prevailing and is likely to continue till night of 22nd October. Thereafter, it is likely to decrease gradually becoming **Gale wind** speed reaching **80-90 kmph gusting to 100 kmph** by evening of 23rd and **Squally wind** speed reaching **40-50 kmph gusting to 60 kmph** by early hours of 24th October. It would decrease gradually thereafter.

• **Westcentral Arabian Sea:**

Gale wind speed reaching **170-180 kmph gusting to 200 kmph** is prevailing and likely to continue till night of 22nd October. Thereafter, it is likely to decrease gradually becoming **Gale wind** speed reaching **150-160 kmph gusting to 175 kmph** by 23rd noon and **125-135 kmph gusting to 150 kmph** by early hours of 24th October. It would decrease rapidly after the landfall becoming **Squally wind** speed reaching **40-50 kmph gusting to 60 kmph** in the morning of 25th October.

(ii) Sea Condition

• **Southwest Arabian Sea:**

Phenomenal sea condition is prevailing and will continue till morning of 23rd October. It is likely to improve gradually becoming **high to very rough** till evening of 23rd, **very rough to rough** till evening of 24th October and would improve thereafter.

• **Westcentral Arabian Sea:**

Phenomenal sea condition is prevailing and will continue till night of 23rd October. It would improve gradually thereafter becoming **high to very rough** by early hours of 24th October. Thereafter, it would improve gradually.

(iii) Fishermen Warning (Graphics attached):

Fishermen are advised not to venture into

- ❖ **Southwest Arabian Sea** till 24th October.
- ❖ **Westcentral Arabian Sea** till night of 24th October.

(B) Depression intensified into Deep Depression over westcentral Bay of Bengal

The Depression over westcentral Bay of Bengal moved nearly northwards with a speed of 17 kmph during past 6 hours, intensified into a deep depression and lay centered at 1730 hours IST of today, the 22nd October over the same region, near latitude 16.2°N and longitude 86.4°E, about 450 km south of Paradip (Odisha), 560 km south-southwest of Digha (West Bengal), and 750 km south-southwest of Khepupara (Bangladesh).

It is likely to intensify further into a cyclonic storm during next 24 hours. It is likely to move nearly northwards till morning of 23rd October, then north-northeastwards and cross Bangladesh coast between Khepupara and Chittagong around 25th October evening as a deep depression.

Forecast track and intensity are given below:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
22.10.23/1730	16.2/86.4	50-60 gusting to 70	Deep Depression
22.10.23/2330	16.6/86.4	50-60 gusting to 70	Deep Depression
23.10.23/0530	17.3/86.5	55-65 gusting to 75	Deep Depression
23.10.23/1130	17.9/86.6	55-65 gusting to 75	Deep Depression
23.10.23/1730	18.6/86.9	60-70 gusting to 80	Cyclonic Storm
24.10.23/0530	19.5/87.7	60-70 gusting to 80	Cyclonic Storm
24.10.23/1730	20.4/88.8	60-70 gusting to 80	Cyclonic Storm
25.10.23/0530	21.2/89.7	55-65 gusting to 75	Deep Depression
25.10.23/1730	21.9/90.5	50-60 gusting to 70	Deep Depression
26.10.23/0530	22.8/91.0	40-50 gusting to 60	Depression

Warnings:

(i) Rainfall Warning

Nagaland, Manipur, Mizoram & Tripura: Light to moderate rainfall at most places with isolated heavy rainfall is likely on 24th and 25th October.

Coastal Districts of Odisha: Light to moderate rainfall at a few places is likely on 23rd and at many places on 24th & 25th October.

Coastal Districts of West Bengal: Light to moderate rainfall at many places is likely on 24th and 25th October.

(ii) Wind warning (warning graphics enclosed):

- **Westcentral Bay of Bengal:** Squally wind speed reaching **50-60 kmph gusting to 70 kmph** is prevailing and likely to increase becoming **55-65 kmph gusting to 75 kmph** from evening 23rd till 24th October morning. It is likely to decrease gradually thereafter becoming **squally wind speed reaching 40-50 kmph gusting 60 kmph** by 24th evening.
- **Adjoining eastcentral Bay of Bengal:** Squally wind speed reaching **40-50 kmph gusting to 60 kmph** is likely to prevail till morning of 23rd October and becoming **50-60 kmph gusting to 70 kmph** on 24th and decrease from 25th onwards.
- **North Bay of Bengal:**
Squally wind speed reaching **40-50 kmph gusting to 60 kmph** is likely on 22nd and likely to increase gradually becoming **Gale wind speed reaching 60-70 kmph gusting to 80 kmph** on 24th October.
- **Along & off Odisha, West Bengal, Bangladesh and north Myanmar coasts:**
Squally wind speed reaching **40-50 kmph gusting to 60 kmph** is likely from 23rd evening to 24th along & off Odisha coast. Squally wind speed reaching **40-50 kmph gusting to 60 kmph** is likely to commence along & off West Bengal, Bangladesh and North Myanmar coasts from 24th morning. It would gradually increase becoming **55-65 kmph gusting to 75 kmph** along & off Bangladesh coast, **50-60 kmph gusting to 70 kmph** along & off north Myanmar coast and **45-55 kmph gusting to 65** along & off west Bengal coast on 25th October.

(iii) Sea Condition

- **Westcentral Bay of Bengal:** Rough to very rough sea condition is prevailing and will continue till 25th October. It is likely to improve gradually thereafter.
- **Adjoining eastcentral Bay of Bengal:** Moderate to rough sea condition is prevailing and likely till 24th October. It is likely to improve gradually thereafter.
- **Adjoining Southwest Bay of Bengal:** Moderate to rough sea condition is prevailing and likely till night of 22nd October. It is likely to improve gradually thereafter.
- **North Bay of Bengal:**

Rough sea condition is likely on 23rd and becoming **Very rough to High** from 24th and very rough on 25th October.

- **Along & off Odisha, West Bengal, Bangladesh and north Myanmar coasts: Rough sea condition** is likely on 23rd and becoming **rough to very rough** sea condition from 24th to 25th October.

(iv) Fishermen Warning (Graphics attached):

Fishermen are advised not to venture into

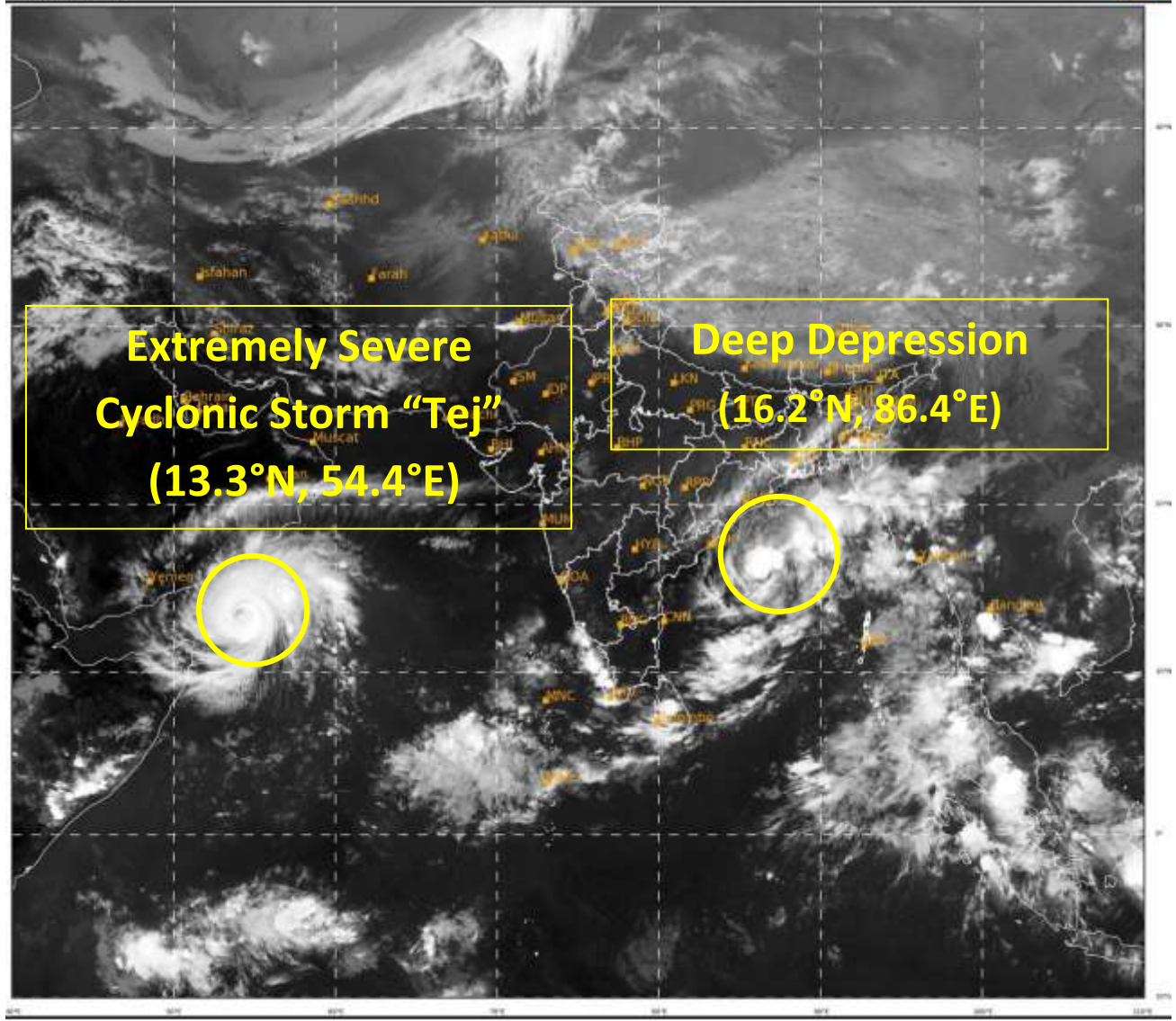
- ❖ **Adjoining eastcentral Bay of Bengal** till 23rd October.
- ❖ **Westcentral Bay of Bengal** till 24th October.
- ❖ **North Bay of Bengal and along & off Odisha, West Bengal, Bangladesh and north Myanmar coasts** during 23rd to 25th October.

Both the systems are under continuous surveillance and the next bulletin will be issued at 2330 hours IST of 22nd October, 2023.

**(Ananda Kumar Das)
Scientist F, Cyclone Warning, New Delhi**

Copy to: ACWC Mumbai/ ACWC Chennai/ ACWC Kolkata/CWC Ahmedabad/CWC Bhubaneswar/CWC Vishakhapatnam/CWC Thiruvananthapuram/MC Goa

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.



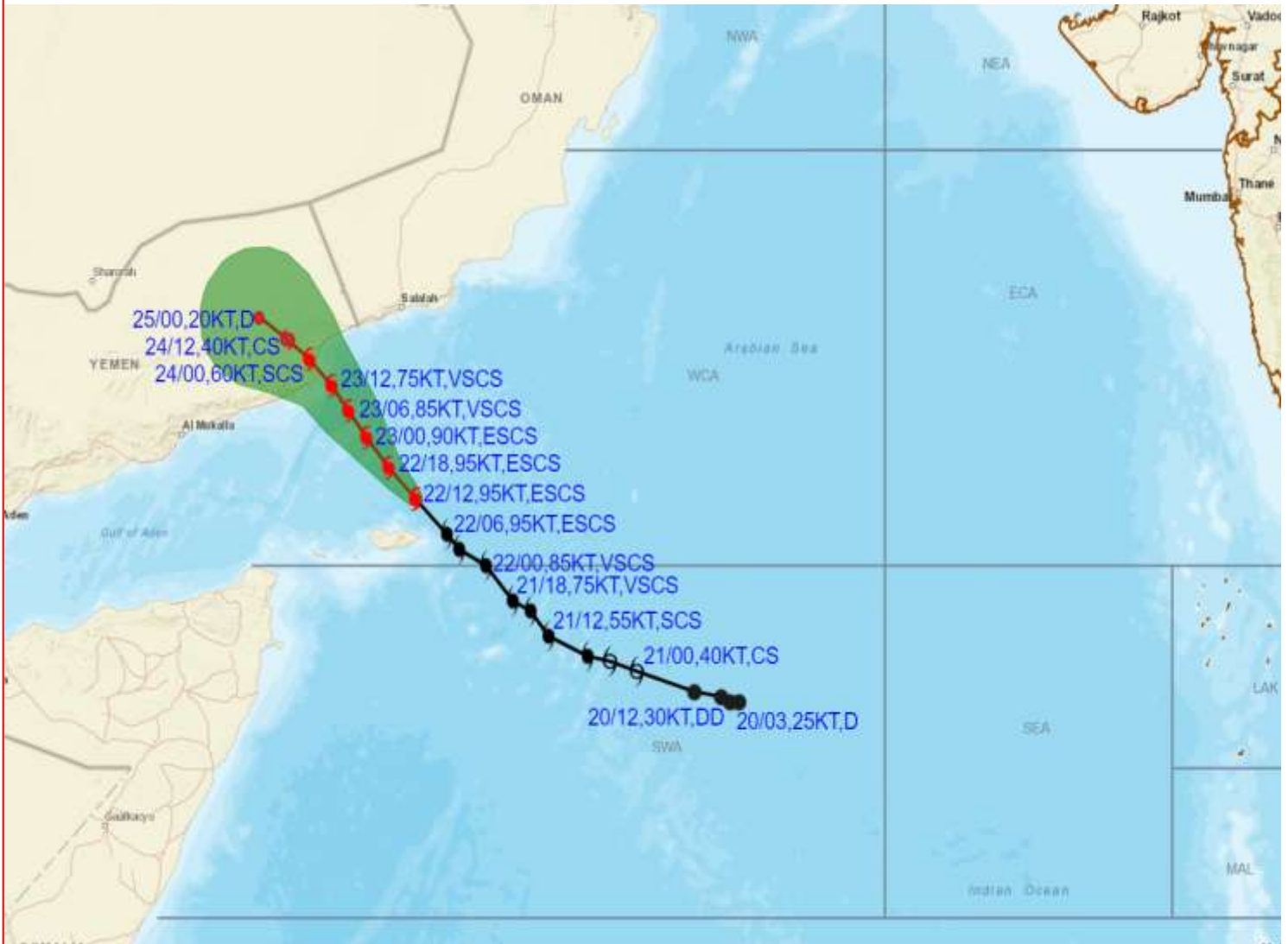
**Extremely Severe
Cyclonic Storm "Tej"
(13.3°N, 54.4°E)**

**Deep Depression
(16.2°N, 86.4°E)**





OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF EXTREMELY SEVERE CYCLONIC STORM “TEJ” OVER WESTCENTRAL ARABIAN SEA BASED ON 1200 UTC (1730 IST) OF 22ND OCTOBER 2023.

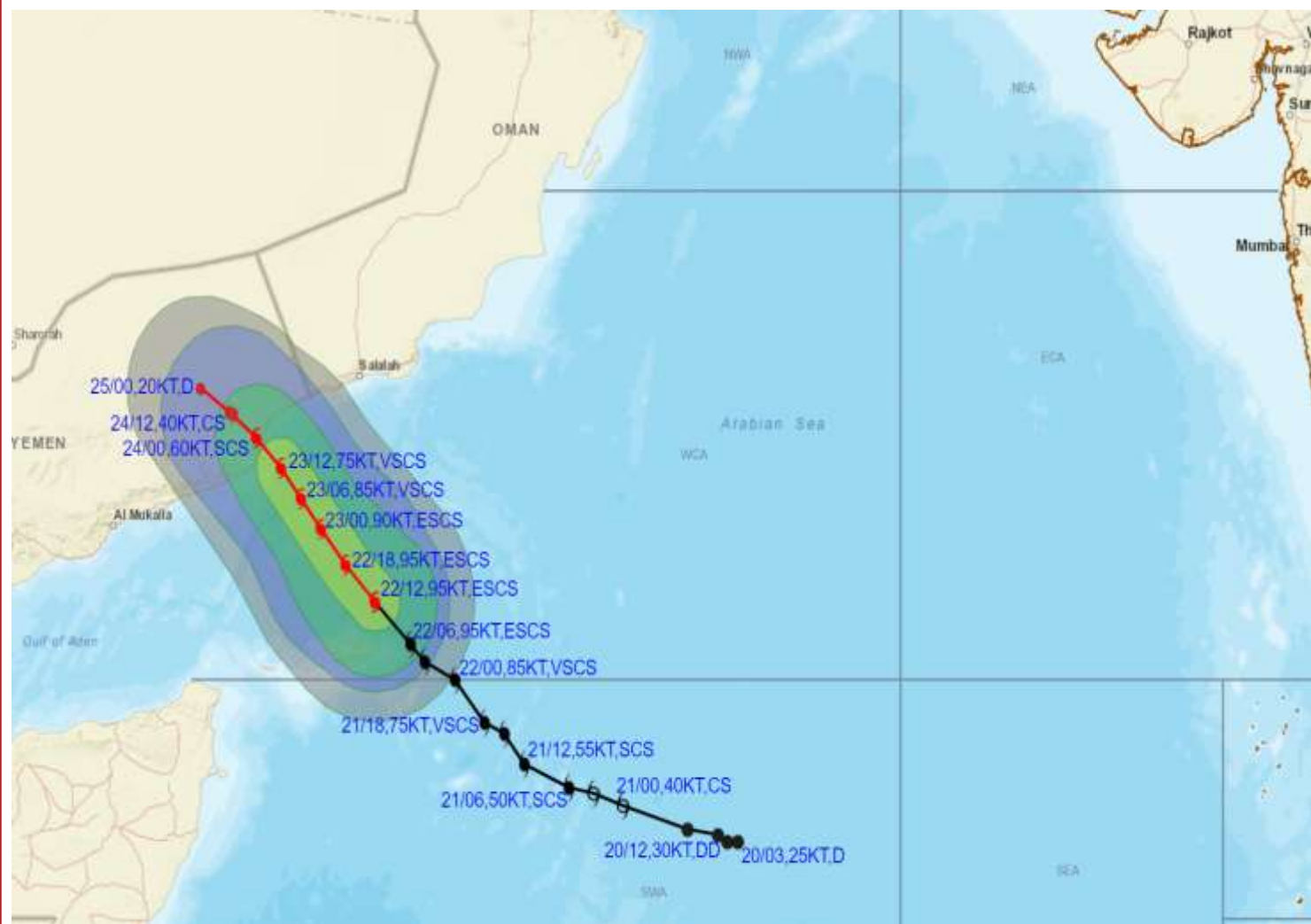


DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (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

Forecast	DISTANCE(KM) AND DIRECTION FROM STATIONS		
	SOCOTRA	SALALAH	AL-GHAIDAH
Date and Time			
23.10.23/1200	360, NNW	250, SW	70, SE
24.10.23/1200	490, NNW	280, WSW	70, WNW

OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF EXTREMELY SEVERE CYCLONIC STORM “TEJ” OVER WESTCENTRAL ARABIAN SEA BASED ON 1200 UTC (1730 IST) OF 22ND OCTOBER 2023.



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)

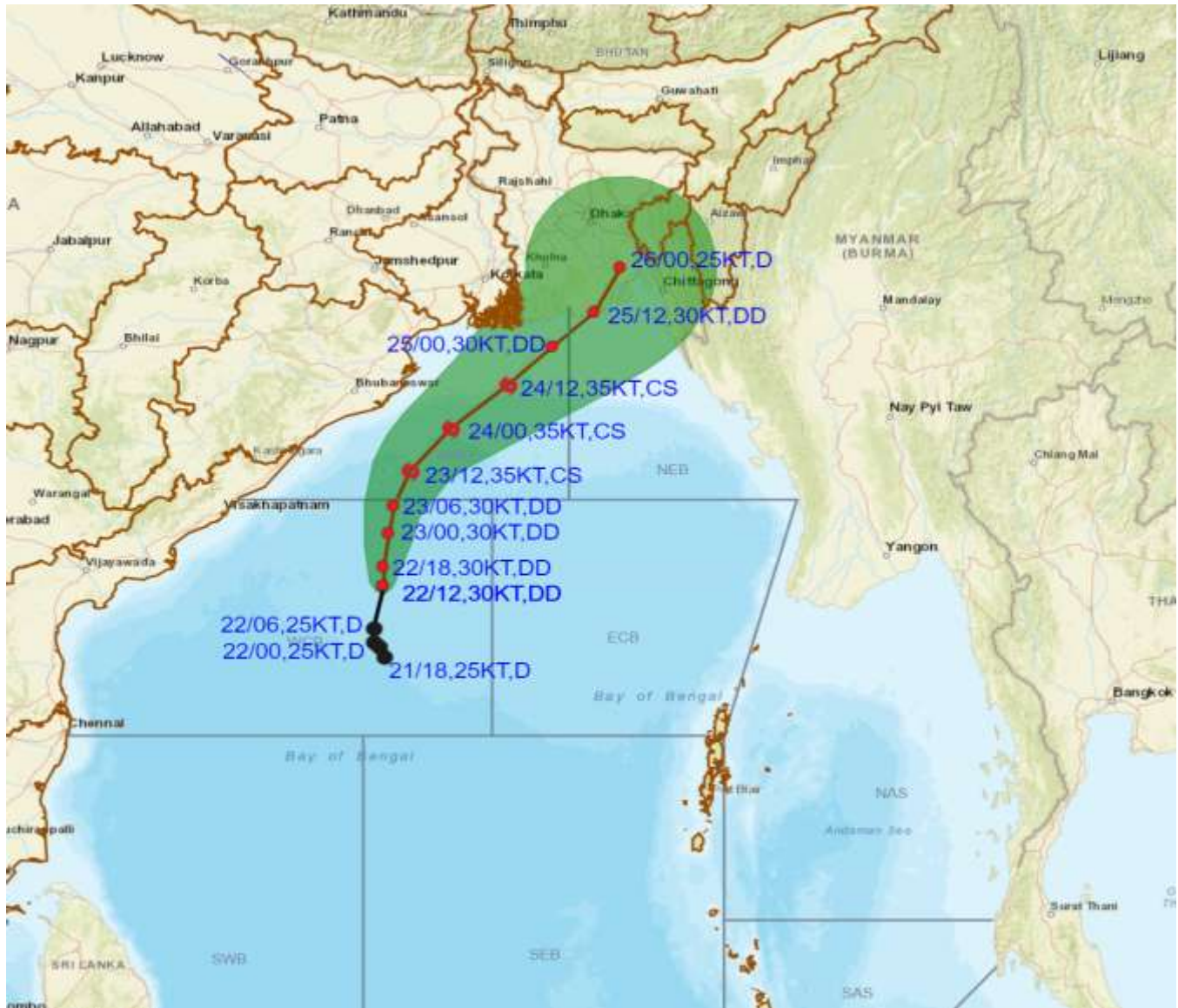
● LESS THAN 34 KT
 Ⓞ 34-47 KT
 Ⓢ ≥ 48 KT
 — OBSERVED TRACK
 — FORECAST TRACK
 — CONE OF UNCERTAINTY
 AREA OF MAXIMUM SUSTAINED WIND SPEED:
 ■ 28-33 KT (52-61 KMPH)
 ■ 34-49 KT (62-91 KMPH)
 ■ 50-63 KT (92-117 KMPH)
 ■ ≥ 64 KT (≥118 KMPH)

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



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEEP DEPRESSION OVER WESTCENTRAL BAY OF BENGAL BASED ON 1200 UTC (1730 IST) OF 22ND OCTOBER 2023.



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



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER WESTCENTRAL BAY OF BENGAL BASED ON 1200 UTC (1730 IST) OF 22ND OCTOBER 2023.



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

Fishermen warning graphics

Day 1: 22.10.2023/17:30AM to 23.10.2023/05:30AM



Day 2: 23.10.2023/05:30AM to 24.10.2023/05:30AM



Day 3: 24.10.2023/05:30AM to 25.10.2023/05:30AM










Day 4: 25.10.2023/05:30AM to 26.10.2023/05:30AM



Day 5: 26.10.2023/05:30AM to 27.10.2023/05:30AM



- | | |
|---|--|
|  | Squally WX with wind speed 40-45 kmph gusting to 55 kmph |
|  | Squally WX with wind speed 45-55 kmph gusting to 65 kmph |
|  | Squally wind with speed 50-60 kmph gusting to 70 kmph |
|  | CS with Gale wind speed 60-90 kmph gusting to 110 kmph |
|  | SCS with Gale wind speed 90-110 kmph gusting to 120 kmph |
|  | VSCS with Gale wind speed 110-160 kmph gusting to 175 kmph |
|  | ESCS with Gale wind speed 160-220 kmph gusting to 240 kmph |

Fishermen are advised not to venture into the marked areas.

WEATHER WARNING GRAPHICS

