



**India Meteorological Department
(Ministry of Earth Sciences)**

NATIONAL BULLETIN NO. 21 (ARB/03/2023)

TIME OF ISSUE:0900 HOURS IST

DATED: 23.10.2023

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

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

ADMINISTRATOR, LAKSHADWEEP ISLANDS (FAX NO. 0413-262184)

CHIEF SECRETARY, KERALA (FAX NO. 0471-2327176)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22258913)

CHIEF SECRETARY, GOA (FAX NO. 0832-2415201)

CHIEF SECRETARY, MAHARASHTRA (FAX NO. 022- 22028594)

CHIEF SECRETARY, GUJARAT (FAX NO. 079-23250305)

CHIEF SECRETARY, DAMAN & DIU (FAX NO. 0260-2230775)

CHIEF SECRETARY, DADRA & NAGAR HAVELI (FAX NO. 0260-2645466)

CHIEF SECRETARY, ODISHA (FAX NO. 0674-2536660)

CHIEF SECRETARY, WEST BENGAL (FAX NO. 033-22144328)

CHIEF SECRETARY, ANDHRA PRADESH (FAX NO. 0863-2441029, 08645-246600)

CHIEF SECRETARY, TAMIL NADU (FAX NO 044-25672304)

CHIEF SECRETARY, PUDUCHERRY (FAX NO 0413-2334145)

CHIEF SECRETARY, GOVT. OF TRIPURA (FAX NO. 0381-2414013, 2413200)

CHIEF SECRETARY, GOVT. OF MIZORAM (FAX NO. 0389-2322745, 2320588)

CHIEF SECRETARY, GOVT. OF MANIPUR (FAX NO. 0385-2452629)

CHIEF SECRETARY, GOVT. OF NAGALAND (FAX NO. 0370-2270057)

ADMINISTRATOR, ANDAMAN & NICOBAR ISLANDS (FAX NO. 03192- 232656)

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

(B) 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 Arabian Sea continued to move northwestwards with a speed of 13 kmph during past 6 hours and lay centered at 0530 hours IST of today, the 23rd October over Westcentral Arabian Sea, near latitude 14.4°N and longitude 53.5°E, about 200 km north-northwest of Socotra (Yemen), 300 km south of Salalah (Oman) and 240 km southeast of Al Ghaidah (Yemen).

It is very likely to continue to move northwestwards and weaken into a Very Severe Cyclonic Storm during next 06 hours. It is likely to 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
23.10.23/0530	14.4/53.5	165-175 gusting to 195	Extremely Severe Cyclonic Storm
23.10.23/1130	14.9/53.1	150-160 gusting to 175	Very Severe Cyclonic Storm
23.10.23/1730	15.3/52.7	135-145 gusting to 160	Very Severe Cyclonic Storm
23.10.23/2330	15.6/52.3	130-140 gusting to 155	Very Severe Cyclonic Storm
24.10.23/0530	15.9/51.9	80-90 gusting to 100	Cyclonic Storm
24.10.23/1730	16.2/51.5	40-50 gusting to 60	Depression
25.10.23/0530	16.6/51.0	25-35 gusting to 45	Well Marked Low

Warnings:

(i) Wind warning (warning graphics enclosed):

- **Southwest Arabian Sea:**

Squally wind speed reaching **50-60 kmph gusting to 70 kmph** prevailing over the region is likely to decrease gradually from today evening.

- **Westcentral Arabian Sea:**

Gale wind speed reaching **165-175 kmph gusting to 195 kmph** is prevailing and 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:**

Very rough to rough Sea conditions prevailing over the region is likely to improve further from evening of 23rd October.

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

(B) Deep Depression over Westcentral Bay of Bengal

The Deep Depression over Westcentral Bay of Bengal moved northeastwards during past 6 hours with a speed of 08 kmph and lay centered at 0530 hours IST of today, the 23rd October over Westcentral Bay of Bengal, near latitude 16.7°N and longitude 86.7°E, about 400 km south of Paradip (Odisha), 550 km south-southwest of Digha (West Bengal) and 690 km south-southwest of Khepupara (Bangladesh).

It is likely to intensify into a **Cyclonic Storm** during next 12 hours. It is very likely to move nearly 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
23.10.23/0530	16.7/86.7	55-65 gusting to 75	Deep Depression
23.10.23/1130	17.5/87.0	55-65 gusting to 75	Deep Depression
23.10.23/1730	18.2/87.3	60-70 gusting to 80	Cyclonic Storm
23.10.23/2330	18.8/87.7	60-70 gusting to 80	Cyclonic Storm
24.10.23/0530	19.3/88.2	60-70 gusting to 80	Cyclonic Storm
24.10.23/1730	20.2/89.1	60-70 gusting to 80	Cyclonic Storm
25.10.23/0530	21.1/89.8	55-65 gusting to 75	Deep Depression
25.10.23/1730	21.9/90.3	50-60 gusting to 70	Deep Depression
26.10.23/0530	22.8/90.7	25-35 gusting to 45	Well Marked Low

Warnings:

(i) Rainfall Warning

Nagaland, Manipur, Mizoram & Tripura and south Assam & Meghalaya: Light to moderate rainfall at most places with isolated heavy rainfall is likely on 24th, 25th & 26th 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 23rd evening 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 **45-55 kmph gusting to 65 kmph** is likely to increase gradually 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 prevailing and likely to become **50-60 kmph gusting to 70 kmph** from today evening. It would become **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.
- **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 1130 hours IST of today, the 23rd October, 2023.

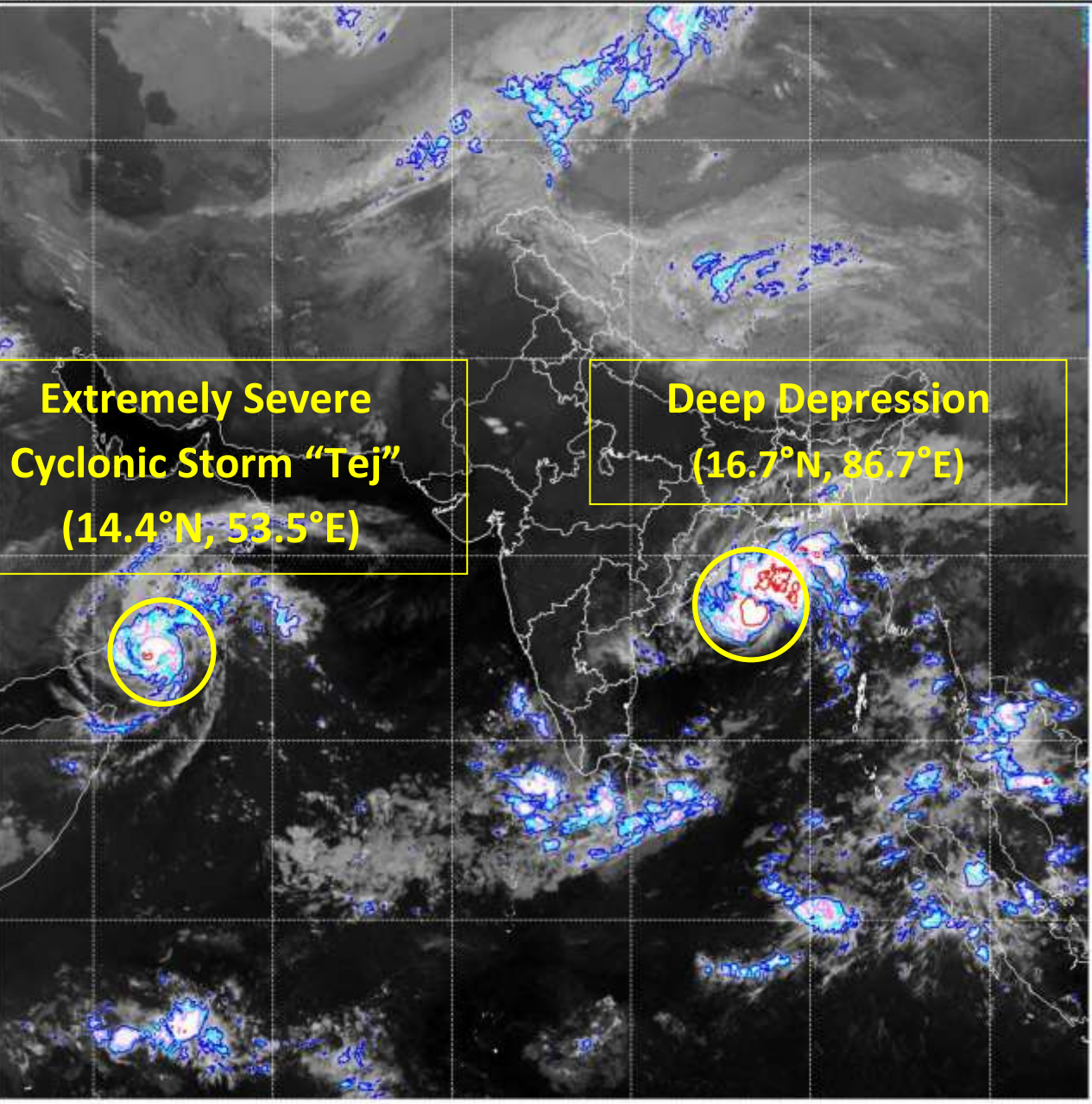
(Ananda K Das)

Scientist F, Cyclone Warning Division, New Delhi

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

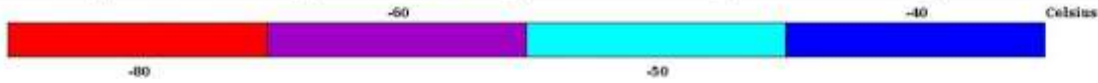
Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

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



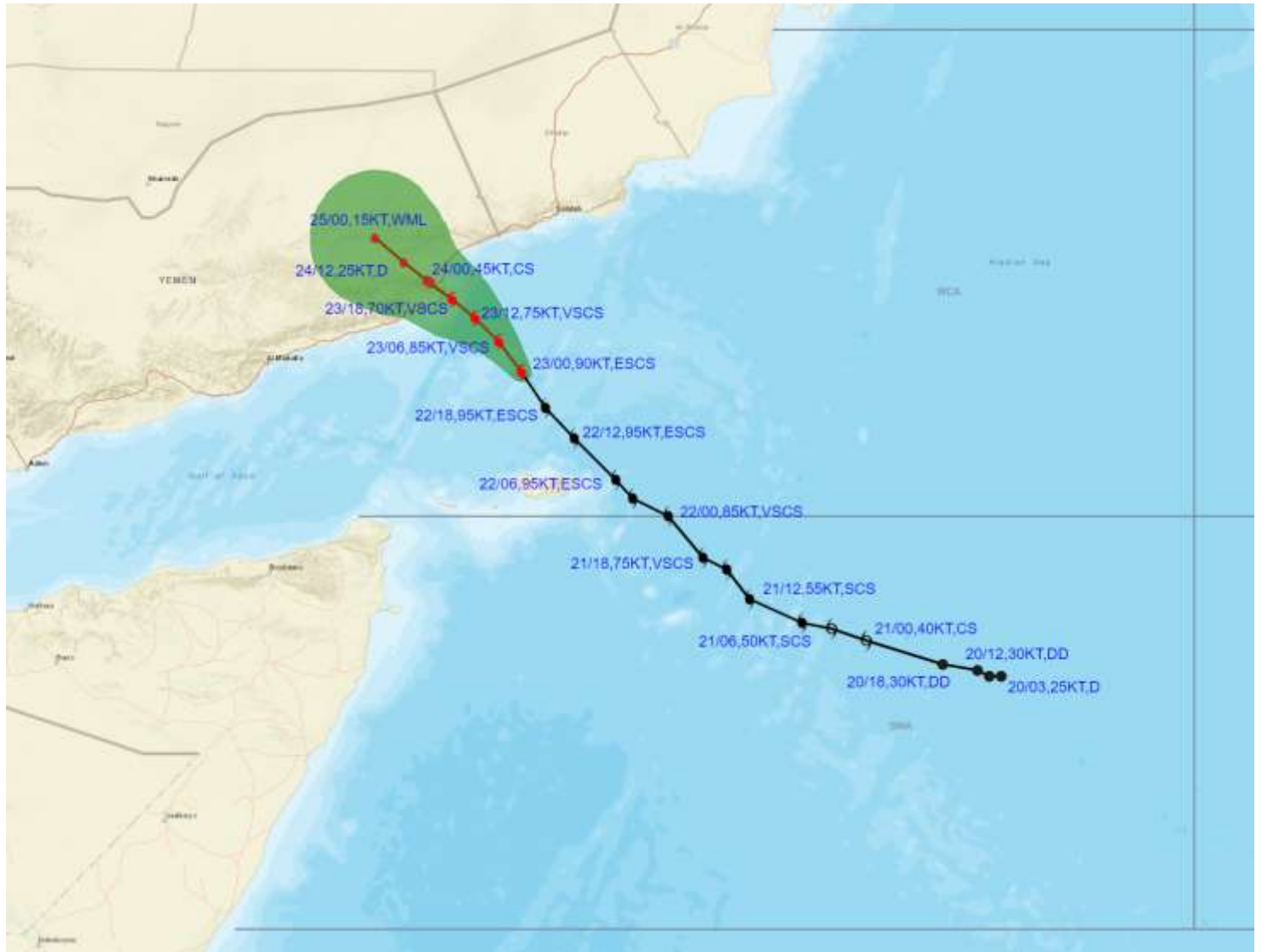
**Extremely Severe
Cyclonic Storm "Tej"
(14.4°N, 53.5°E)**

**Deep Depression
(16.7°N, 86.7°E)**





OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF EXTREMELY SEVERE CYCLONIC STORM "TEJ" OVER WESTCENTRAL ARABIAN SEA BASED ON 0000 UTC (0530 IST) OF 23RD OCTOBER 2023.



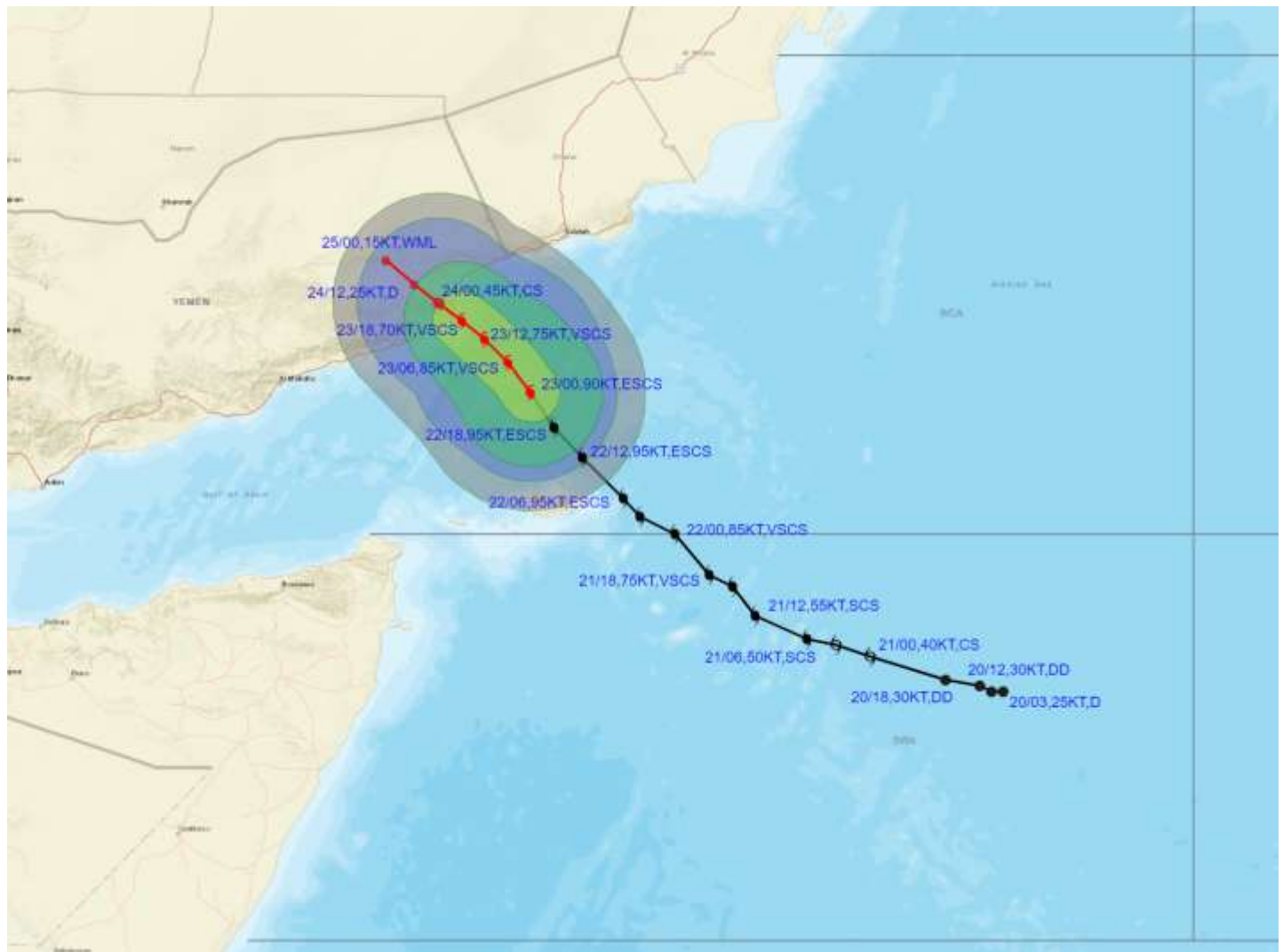
DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM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

Forecast	DISTANCE(KM) AND DIRECTION FROM STATIONS		
	SOCOTRA	SALALAH	AL-GHAIDAH
Date and Time			
24.10.23/0000	430, NNW	270, WSW	30, SW
25.10.23/0000	540, NW	330, W	130, WNW



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF EXTREMELY SEVERE CYCLONIC STORM "TEJ" OVER WESTCENTRAL ARABIAN SEA BASED ON 0000 UTC (0530 IST) OF 23RD 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)

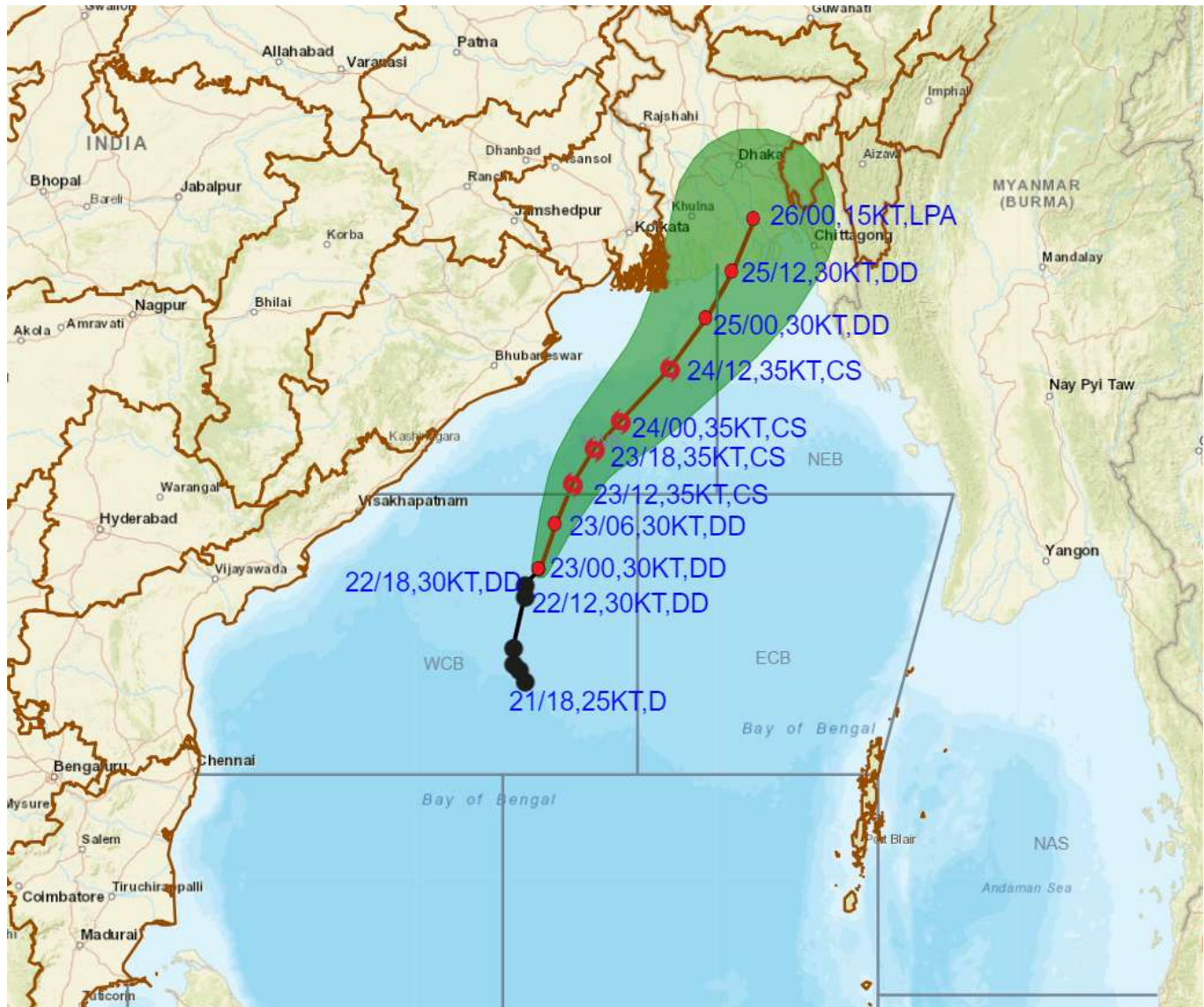
■ ≥ 64 KT (≥118 KMPH)

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 0000 UTC (0530 IST) OF 23RD 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



34.7 KT



≥ 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 0000 UTC (0530 IST) OF 23RD 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)

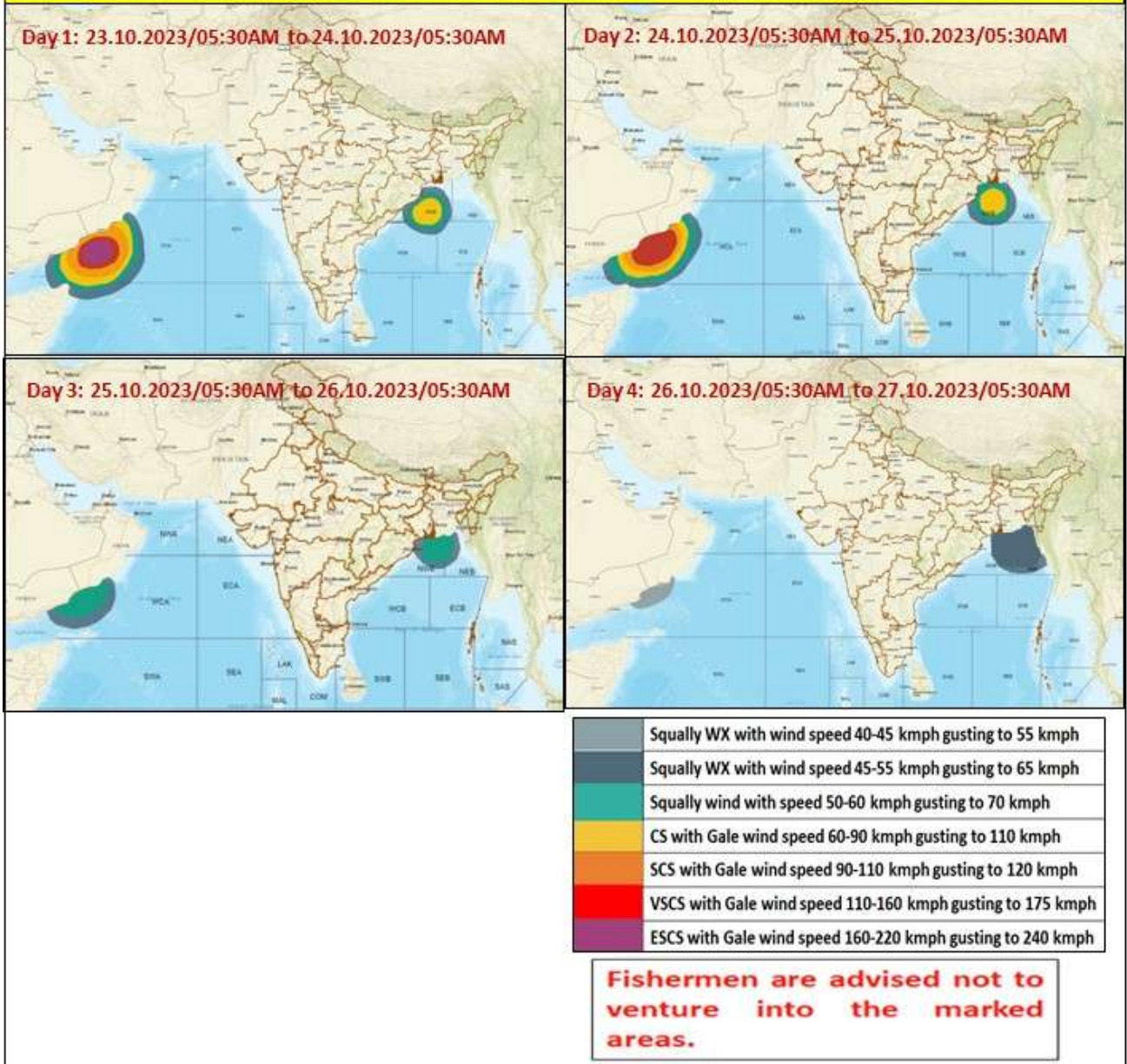
SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

- 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



WEATHER WARNING GRAPHICS

SUBDIVISIONWISE WEATHER WARNING FOR DAY 1
(23-10-2023)



- | | | |
|-----------------------------|-------------------------|--------------------------|
| Subdivision Warning | ☁️ Dust Storm | Subdivision color |
| ☔ Heavy Rain | 🌪️ Strong Surface Winds | 🟢 NO WARNING |
| ☁️ Heavy Snow | 🔥 Heat Wave | 🟡 WATCH(BE UPDATED) |
| ⚡ Thunderstorms & Lightning | 🌡️ Cold wave | 🟠 ALERT (BE PREPARED) |
| 🌫️ Haze/smog | 🌫️ Fog | 🔴 WARNING (TAKE ACTION) |

SUBDIVISIONWISE WEATHER WARNING FOR DAY 2
(24-10-2023)



- | | | |
|-----------------------------|-------------------------|--------------------------|
| Subdivision Warning | ☁️ Dust Storm | Subdivision color |
| ☔ Heavy Rain | 🌪️ Strong Surface Winds | 🟢 NO WARNING |
| ☁️ Heavy Snow | 🔥 Heat Wave | 🟡 WATCH(BE UPDATED) |
| ⚡ Thunderstorms & Lightning | 🌡️ Cold wave | 🟠 ALERT (BE PREPARED) |
| 🌫️ Haze/smog | 🌫️ Fog | 🔴 WARNING (TAKE ACTION) |

SUBDIVISIONWISE WEATHER WARNING FOR DAY 3
(25-10-2023)



- | | | |
|-----------------------------|-------------------------|--------------------------|
| Subdivision Warning | ☁️ Dust Storm | Subdivision color |
| ☔ Heavy Rain | 🌪️ Strong Surface Winds | 🟢 NO WARNING |
| ☁️ Heavy Snow | 🔥 Heat Wave | 🟡 WATCH(BE UPDATED) |
| ⚡ Thunderstorms & Lightning | 🌡️ Cold wave | 🟠 ALERT (BE PREPARED) |
| 🌫️ Haze/smog | 🌫️ Fog | 🔴 WARNING (TAKE ACTION) |

SUBDIVISIONWISE WEATHER WARNING FOR DAY 4
(26-10-2023)



- | | | |
|-----------------------------|-------------------------|--------------------------|
| Subdivision Warning | ☁️ Dust Storm | Subdivision color |
| ☔ Heavy Rain | 🌪️ Strong Surface Winds | 🟢 NO WARNING |
| ☁️ Heavy Snow | 🔥 Heat Wave | 🟡 WATCH(BE UPDATED) |
| ⚡ Thunderstorms & Lightning | 🌡️ Cold wave | 🟠 ALERT (BE PREPARED) |
| 🌫️ Haze/smog | 🌫️ Fog | 🔴 WARNING (TAKE ACTION) |

SUBDIVISIONWISE WEATHER WARNING FOR DAY 5
(27-10-2023)



- | | | |
|-----------------------------|-------------------------|--------------------------|
| Subdivision Warning | ☁️ Dust Storm | Subdivision color |
| ☔ Heavy Rain | 🌪️ Strong Surface Winds | 🟢 NO WARNING |
| ☁️ Heavy Snow | 🔥 Heat Wave | 🟡 WATCH(BE UPDATED) |
| ⚡ Thunderstorms & Lightning | 🌡️ Cold wave | 🟠 ALERT (BE PREPARED) |
| 🌫️ Haze/smog | 🌫️ Fog | 🔴 WARNING (TAKE ACTION) |

- WATCH(BE UPDATED)
- ALERT (BE PREPARED)
- WARNING (TAKE ACTION)