



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

NATIONAL BULLETIN NO. 14 (ARB/03/2023)

TIME OF ISSUE: 1230 HOURS IST

DATED: 22.10.2023

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) Very Severe Cyclonic Storm "Tej" (pronounced as Tej) intensified into Extremely Severe Cyclonic Storm over westcentral & adjoining southwest Arabian Sea and (B) Depression over westcentral Bay of Bengal

(A) Very Severe Cyclonic Storm "Tej" (pronounced as Tej) intensified into Extremely Severe Cyclonic Storm over westcentral & adjoining southwest Arabian Sea

The Very Severe Cyclonic Storm "Tej" (pronounced as Tej) over westcentral & adjoining southwest Arabian intensified into an Extremely Severe Cyclonic Storm, moved northwestwards with a speed of 16 kmph during past 6 hours, and lay centered at 0830 hours IST of today, the 22nd October over the same region, near latitude 12.3°N and longitude 55.4°E about 160 km east-southeast of Socotra (Yemen), 540 km south-southeast of Salalah (Oman) and 550 km southeast of Al Ghaidah (Yemen).

It is very likely to move northwestwards and cross Yemen-Oman coasts between Al Ghaidah (Yemen) & Salalah (Oman), close to east of Al Ghaidah (Yemen) around noon of 24th October as a very severe cyclonic storm with wind speed of 115-125 kmph gusting to 140 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
22.10.23/0830	12.3/55.4	170-180 gusting to 200	Extremely Severe Cyclonic Storm
22.10.23/1130	12.6/54.9	180-190 gusting to 210	Extremely Severe Cyclonic Storm
22.10.23/1730	13.2/54.3	190-200 gusting to 220	Extremely Severe Cyclonic Storm
22.10.23/2330	13.8/53.9	180-190 gusting to 210	Extremely Severe Cyclonic Storm
23.10.23/0530	14.4/53.5	170-180 gusting to 200	Extremely Severe Cyclonic Storm
23.10.23/1730	15.1/53.1	150-160 gusting to 175	Very Severe Cyclonic Storm
24.10.23/0530	16.0/52.5	125-135 gusting to 150	Very Severe Cyclonic Storm
24.10.23/1730	16.8/52.0	90-100 gusting to 110	Severe Cyclonic Storm
25.10.23/0530	17.6/51.6	60-70 gusting to 80	Cyclonic Storm
25.10.23/1730	18.6/51.1	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 **100-110 kmph gusting to 120 kmph** by evening of 23rd and **Squally wind** speed reaching **50-60 kmph gusting to 70 kmph** by morning 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 increase gradually becoming **190-200 kmph gusting to 220 kmph** in the evening of 22nd till morning of 23rd October. Thereafter, it is likely to decrease gradually becoming **Gale wind** speed reaching **150-160 kmph gusting to 175 kmph** by 23rd evening and **90-100 kmph gusting to 110 kmph** on 24th evening. It would decrease rapidly after the landfall becoming **Squally wind** speed reaching **40-50 kmph gusting to 60 kmph** in the evening of 25th October.

(ii) Sea Condition

• **Southwest Arabian Sea:**

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

• **Westcentral Arabian Sea:**

Phenomenal sea condition is prevailing and will continue till evening of 24th October. It would improve gradually thereafter becoming **very high to high** from 24th evening and **very rough to rough** by evening of 25th October. Thereafter, it would improve gradually.

(iii) Fishermen Warning (Graphics attached):

Fishermen are advised not to venture into

- ❖ **Southwest Arabian Sea** till 25th October.
- ❖ **Westcentral Arabian Sea** till night of 25th October.
- ❖ Those out at sea are advised to return to coast.

(B) Depression over westcentral Bay of Bengal

The Depression over westcentral Bay of Bengal moved west-northwestwards with a speed of 06 kmph during past 6 hours and lay centered at 0830 hours IST of today, the 22nd October over the same region, near latitude 15.0°N and longitude 86.2°E about 590 km south of Paradip (Odisha), 740 km south of Digha (West Bengal), and 880 km south-southwest of Khepupara (Bangladesh).

It is likely to further intensify into a deep depression during next 12 hours. It is likely to move northwestwards during next 12 hours, then recurve and move north-northeastwards during subsequent 3 days towards Bangladesh and adjoining West Bengal coasts.

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
22.10.23/0830	15.0/86.2	40-50 gusting to 60	Depression
22.10.23/1730	15.4/85.7	50-60 gusting to 70	Deep Depression
23.10.23/0530	16.0/85.7	50-60 gusting to 70	Deep Depression
23.10.23/1730	17.1/86.3	55-65 gusting to 75	Deep Depression
24.10.23/0530	18.4/87.1	60-70 gusting to 80	Cyclonic Storm
24.10.23/1730	19.5/88.0	60-70 gusting to 80	Cyclonic Storm
25.10.23/0530	20.6/88.9	60-70 gusting to 80	Cyclonic Storm

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 **40-50 kmph gusting to 60 kmph** is prevailing and likely to increase gradually becoming **50-60 kmph gusting to 70 kmph** from evening of 22nd till 25th October. It is likely to decrease gradually thereafter.
- **Adjoining eastcentral & southeast Bay of Bengal:** Squally wind speed reaching **40-50 kmph gusting to 60 kmph** is prevailing near the system and likely to become **50-60 kmph gusting to 70 kmph** from morning of 22nd till 23rd October. It is likely to decrease gradually thereafter.
- **North Bay of Bengal and along & off Odisha, West Bengal and Bangladesh coasts:** Squally wind speed reaching **40-50 kmph gusting to 60 kmph** is likely on 23rd and likely to increase gradually becoming **Gale wind speed reaching 60-70 kmph gusting to 80 kmph** from 24th to 26th 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.
- **Southwest Bay of Bengal:** Moderate to rough sea condition is prevailing and likely till 22nd October. It is likely to improve gradually thereafter.
- **North Bay of Bengal and along & off Odisha, West Bengal and Bangladesh coasts:** Rough sea condition is likely on 23rd and becoming **Very rough to High** sea condition from 24th to 26th October.

(iv) Fishermen Warning (Graphics attached):

Fishermen are advised not to venture into

- ❖ **Westcentral Bay of Bengal** till 25th October.
- ❖ **Adjoining eastcentral & southeast Bay of Bengal** till 23rd October.
- ❖ **North Bay of Bengal and along & off Odisha, West Bengal and Bangladesh coasts** during 23rd to 26th October.

Those out at sea are advised to return to coast.

Both the systems are under continuous surveillance and the next bulletin will be issued at 1430 hours IST of 22nd October, 2023.

(M. Sharma)
Scientist D, Cyclone Warning, New Delhi

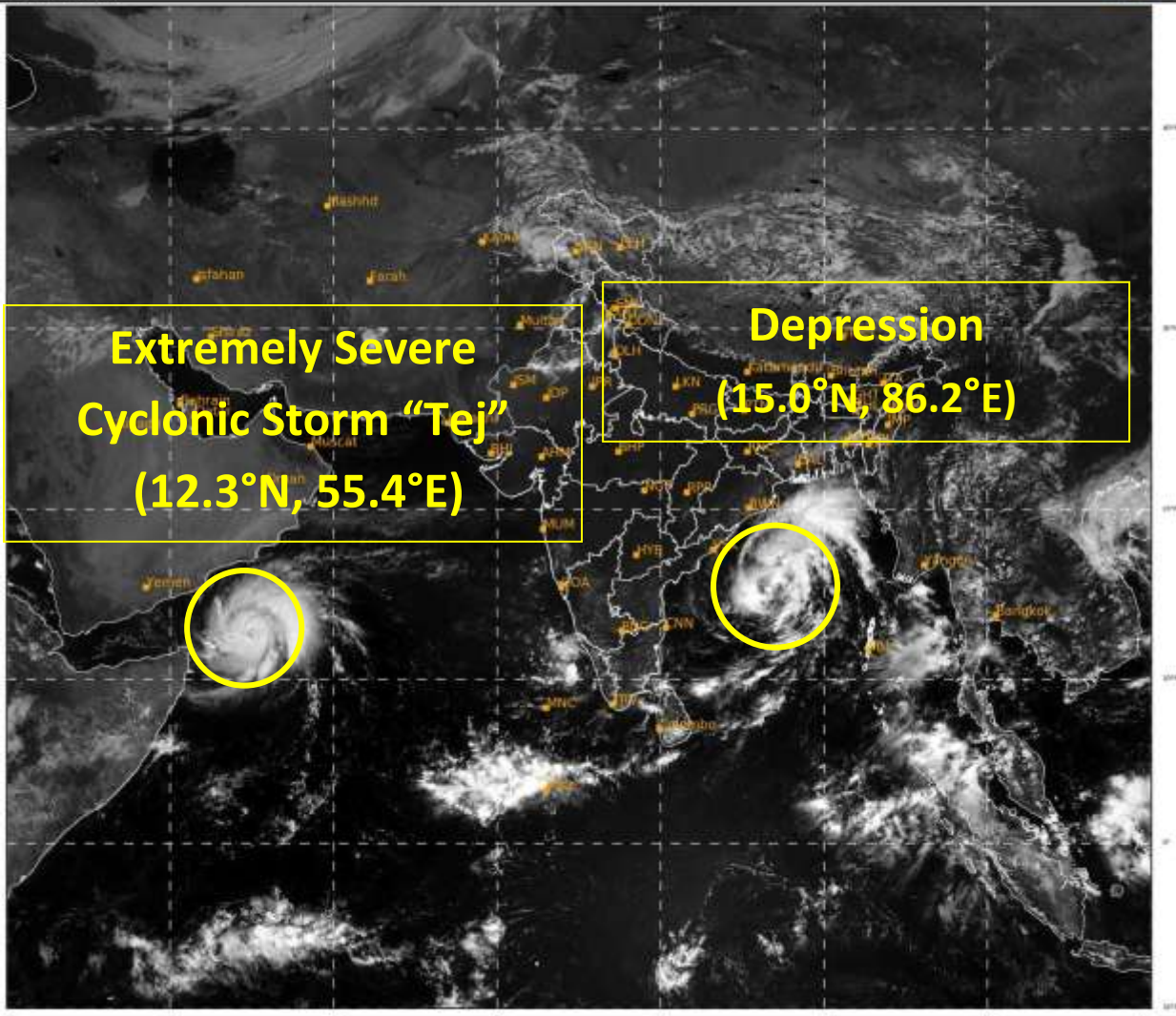
Copy to: ACWC Mumbai/ ACWC Chennai/ ACWC Kolkata/CWC Ahmedabad/CWC Bhubaneswar/CWC Vishakhapatnam/CWC Thiruvananthapuram/MC Goa

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.

SAT : INSAT-3D IMG
Visible Count 0.65 um
LIC Mercator

22-10-2023/(0600 to 0626) GMT
22-10-2023/(1130 to 1156) IST



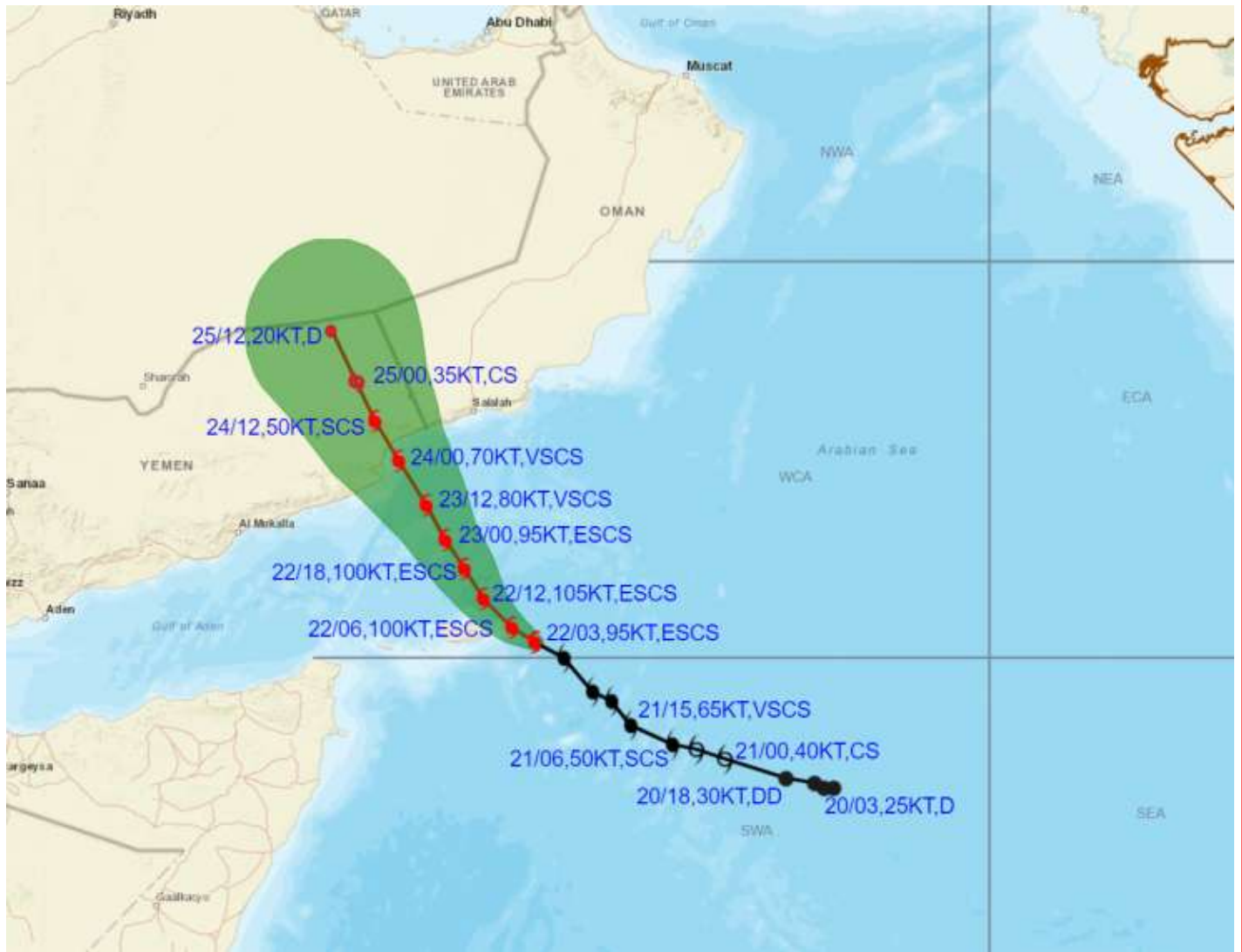
18

517

IMD, DELHI



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF EXTREMELY SEVERE CYCLONIC STORM “TEJ” OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA BASED ON 0300 UTC (0830 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

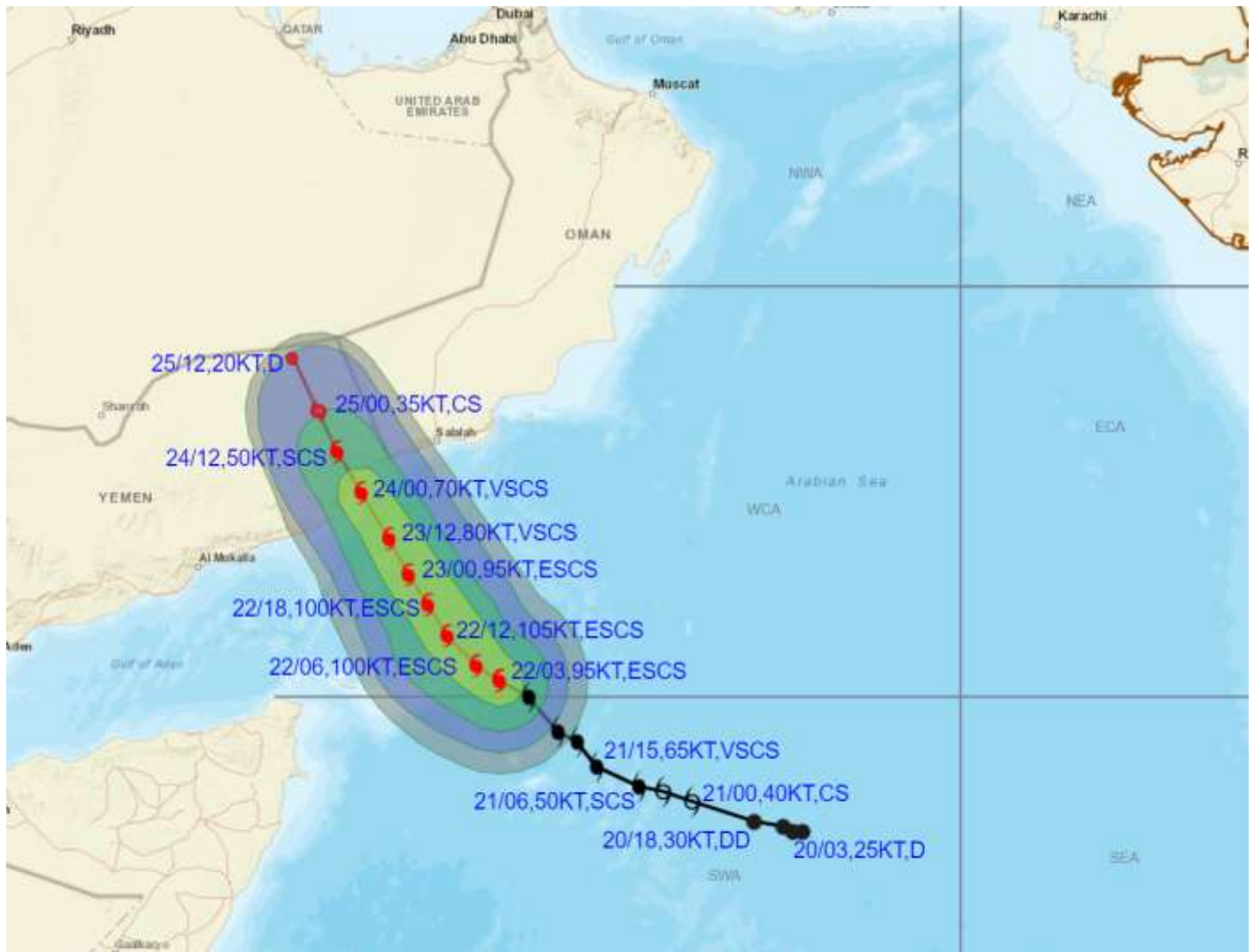


CONE OF UNCERTAINTY

STATIONS	DISTANCE(KM) AND DIRECTION FROM STATIONS		
	23.10.23/0300	24.10.23/0000	25.10.23/0000
SOCOTRA	210, NNW	410, NNW	610, NNW
SALALAH	290, SSW	210, SW	270, WNW
AL-GHAIDAH	240, SE	50, ESE	180, NNW



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF EXTREMELY SEVERE CYCLONIC STORM "TEJ" OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA BASED ON 0300 UTC (0830 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

AREA OF MAXIMUM SUSTAINED WIND SPEED:

— 28-33 KT (52-61 KMPH)

— 34-49 KT (62-91 KMPH)

— 50-63 KT (92-117 KMPH)

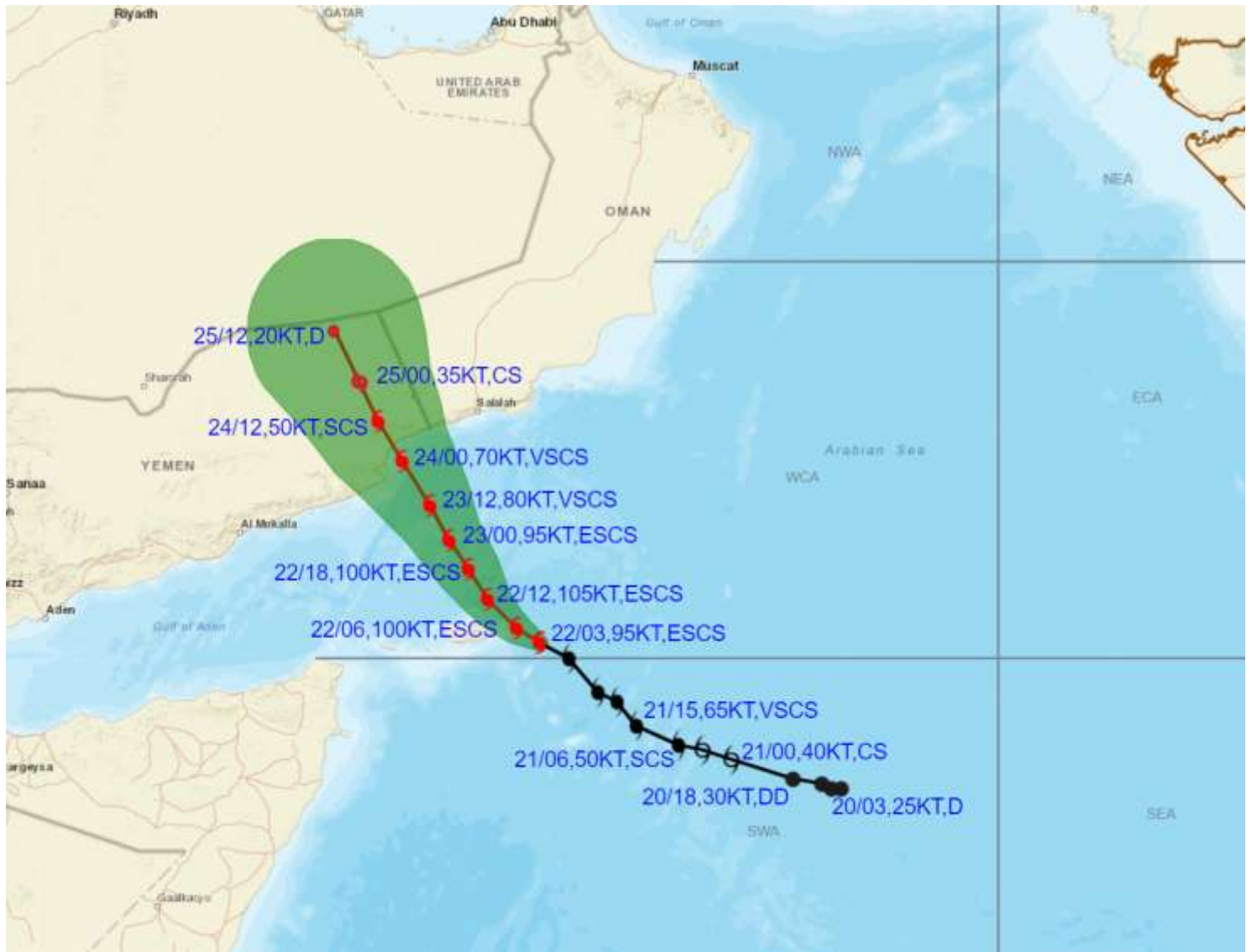
— \geq 64 KT (\geq 118 KMPH)

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
\geq 64 (\geq 118)	Phenomenal	Total suspension of fishing operations



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF EXTREMELY SEVERE CYCLONIC STORM “TEJ” OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA BASED ON 0300 UTC (0830 IST) OF 22ND OCTOBER 2023.



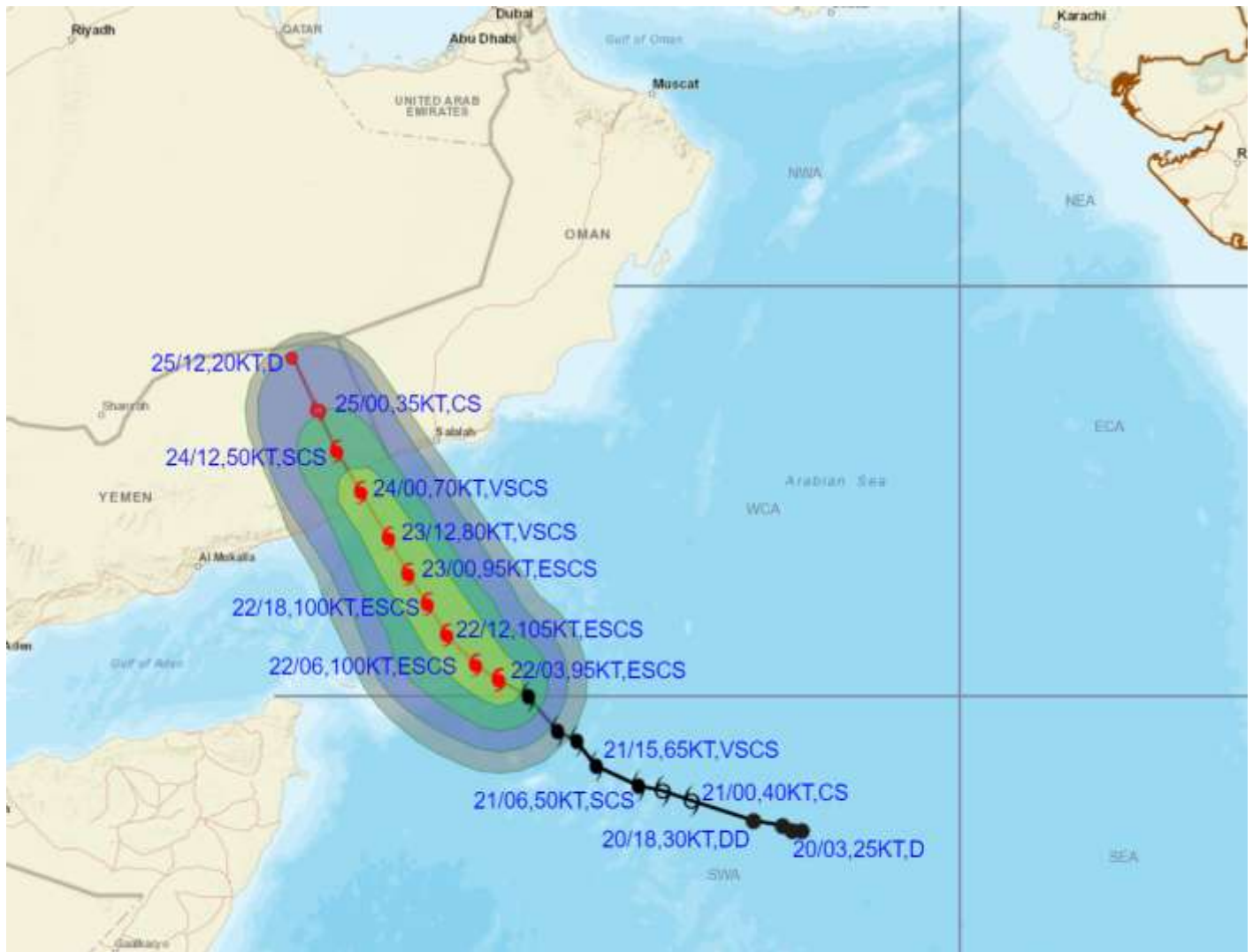
DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM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

STATIONS	DISTANCE(KM) AND DIRECTION FROM STATIONS		
	23.10.23/0300	24.10.23/0000	25.10.23/0000
SOCOTRA	210, NNW	410, NNW	610, NNW
SALALAH	290, SSW	210, SW	270, WNW
AL-GHAIDAH	240, SE	50, ESE	180, NNW



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF EXTREMELY SEVERE CYCLONIC STORM "TEJ" OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA BASED ON 0300 UTC (0830 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: 22.10.2023/11:30AM 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

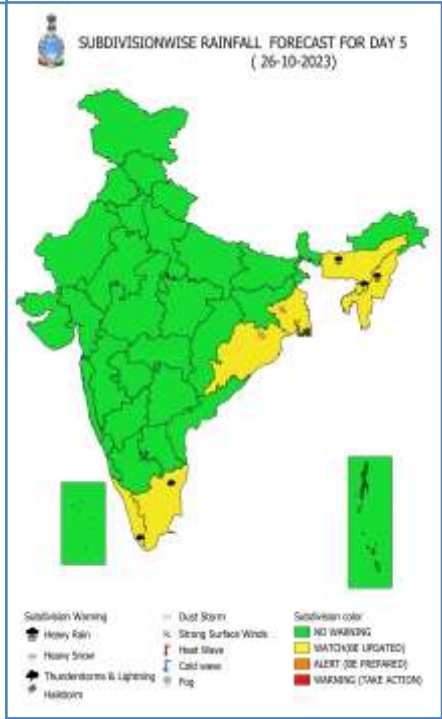
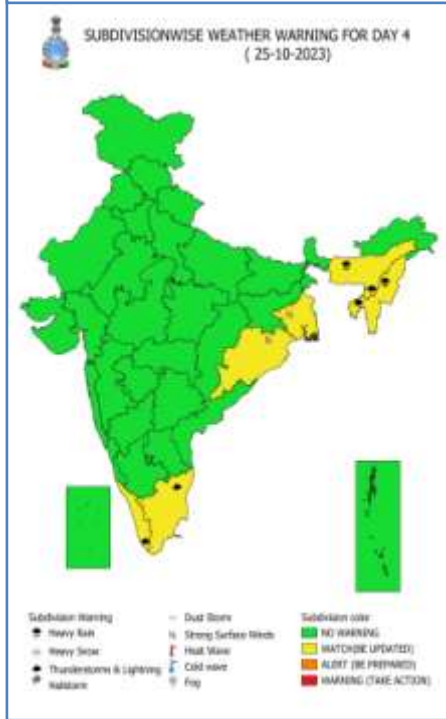
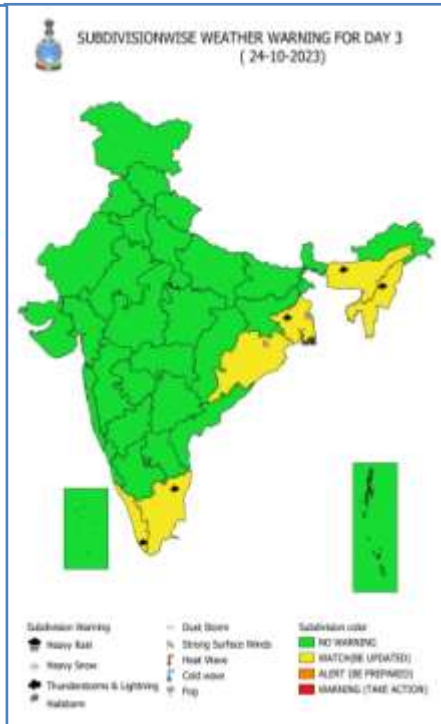
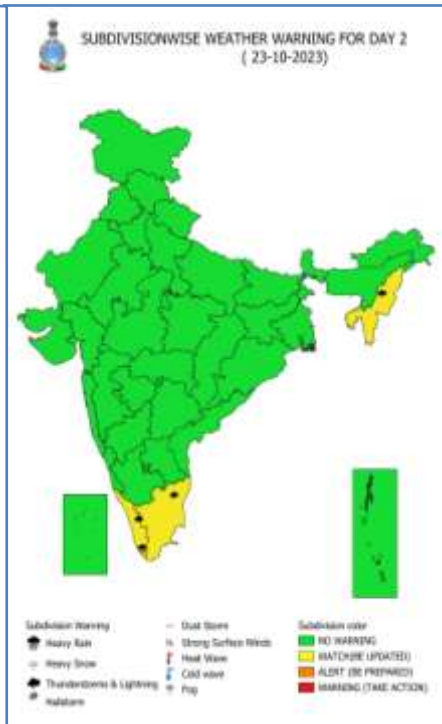
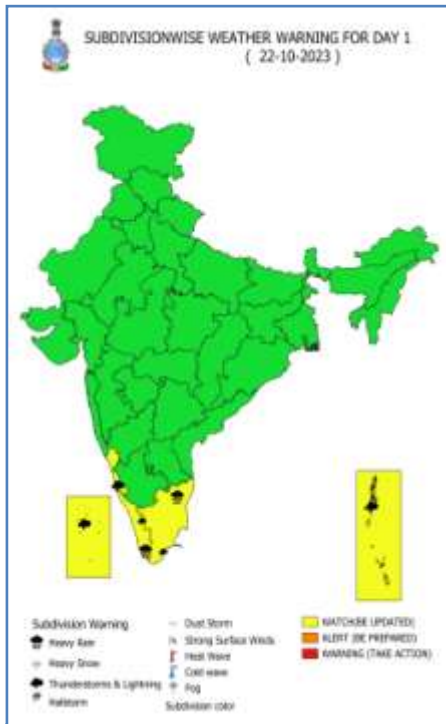


Day 5: 26.10.2023/05:30AM to 27.10.2023/05:30AM



	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.



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