



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

NATIONAL BULLETIN NO. 29 (ARB/03/2023)

TIME OF ISSUE: 0830 HOURS IST

DATED: 24.10.2023

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) Crossed Yemen coast and weakened into a severe cyclonic storm over coastal Yemen and (B) Severe Cyclonic Storm "Hamoon" (pronounced as Hamoon) over Northwest Bay of Bengal.

(A) Very Severe Cyclonic Storm "Tej" (pronounced as Tej) Crossed Yemen coast and weakened into a severe cyclonic storm over coastal Yemen

The latest observations indicate the very severe cyclonic storm "TEJ" (Pronounced as Tej) crossed Yemen coast near latitude 15.9°N and longitude 52.15°E close to south of Al Ghaidah between 0230 hours IST and 0330 hours IST of 24th October as a very severe cyclonic storm with maximum sustained wind speed reaching 125-135 kmph gusting to 150 kmph. It then continued to move north-westward, weakened into a severe cyclonic storm and lay centered at 0530 hours IST of 24th October, over coastal Yemen, near latitude 15.9°N and longitude 52.1°E, about 20 km south of Al Ghaidah (Yemen) and 240 km west-southwest of Salalah (Oman).

It is very likely to move further north-westward and weaken into a cyclonic storm during next 6 hours.

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
24.10.23/0530	15.9/52.1	105-115 gusting to 125	Severe Cyclonic Storm
24.10.23/1130	16.2/51.6	70-80 gusting to 90	Cyclonic Storm
24.10.23/1730	16.4/51.1	30-40 gusting to 45	Depression

Warnings:

(i) Wind warning (warning graphics enclosed):

• **Westcentral Arabian Sea:**

Gale wind speed reaching **105-115 kmph gusting to 125 kmph** is prevailing and likely to decrease rapidly becoming **70-80 kmph gusting to 90 kmph** by the noon of 24th October, and decrease gradually thereafter.

(ii) Sea Condition

• **Westcentral Arabian Sea:**

Very high sea condition is prevailing and will become high by noon of 24th October. It would improve gradually thereafter becoming rough to very rough by evening of 24th October. Thereafter, it would improve gradually.

(iii) Fishermen Warning (Graphics attached):

Fishermen are advised not to venture into

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

(B) Severe Cyclonic Storm “Hamoon” (pronounced as Hamoon) over Northwest Bay of Bengal

The Severe Cyclonic Storm “Hamoon” (pronounced as Hamoon) over Northwest Bay of Bengal moved northeastwards with a speed of 21 kmph during past 6 hours, and lay centered at 0530 hours IST of 24th October over the same region, near latitude 19.8°N and longitude 88.9°E, about 230 km east-southeast of Paradip (Odisha), 240 km south-southeast of Digha (West Bengal), 280 km south-southwest of Khepupara (Bangladesh) and 410 km southwest of Chittagong (Bangladesh).

It is very likely to intensify further into a very severe cyclonic storm for a few hours during next 6 hours. Thereafter, it is likely to weaken gradually while moving northeastwards and cross Bangladesh coast between Khepupara and Chittagong around evening of 25th October as a **cyclonic storm with wind speed of 65 to 75 kmph gusting to 85 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
24.10.23/0530	19.8/88.9	100-110 gusting to 120	Severe Cyclonic Storm
24.10.23/1130	20.3/89.5	115-125 gusting to 135	Very Severe Cyclonic Storm
24.10.23/1730	20.7/90.0	100-110 gusting to 120	Severe Cyclonic Storm
24.10.23/2330	21.1/90.5	90-100 gusting to 110	Severe Cyclonic Storm
25.10.23/0530	21.5/90.9	80-90 gusting to 100	Cyclonic Storm
25.10.23/1730	22.3/91.4	65-75 gusting to 85	Cyclonic Storm
26.10.23/0530	23.5/92.1	40-50 gusting to 60	Depression

Warnings:

(i) Rainfall Warning

Manipur, Mizoram & Tripura and south Assam & Meghalaya: Light to moderate rainfall at most places with isolated heavy rainfall over Mizoram and heavy to very rainfall over Tripura is likely on 24th October. Isolated heavy rainfall is likely over the same region on 25th October. Rainfall intensity will decrease on 26th with light to moderate rainfall at a few places over the region.

Light to moderate rainfall is likely at many places over south Assam and eastern Meghalaya on 24th and 25th October with isolated heavy rainfall over south Assam.

Coastal Districts of Odisha: Light to moderate rainfall at most places are likely on 24th October.

Coastal Districts of West Bengal: Light to moderate rainfall at most places with isolated heavy rainfall over coastal areas of West Bengal likely on 24th October.

(ii) Wind warning (warning graphics enclosed):

• North Bay of Bengal:

Gale wind speed reaching **100-110 kmph gusting to 120 kmph** is prevailing and likely to become **115-125 kmph gusting 135 kmph** during next 6 hours. It would decrease gradually thereafter becoming **Gale wind** speed reaching **90-100 kmph gusting to 110 kmph** by 24th night, and **Squally wind** speed reaching **70-80 kmph gusting to 90 kmph** by 25th noon and would decrease thereafter.

- Adjoining Westcentral Bay of Bengal: Squally wind** speed reaching **75-85 kmph gusting to 95 kmph** is prevailing and likely to continue till 24th October noon. It is likely to decrease gradually thereafter becoming **squally wind** speed reaching **50-60 kmph gusting to 70 kmph** by 24th evening and **30-40 kmph gusting to 50 kmph** till 25th morning.

- Adjoining eastcentral Bay of Bengal: Squally wind** speed reaching **45-55 kmph gusting to 65 kmph** is prevailing and likely to increase gradually becoming **55-65 kmph gusting to 75 kmph** on 24th afternoon and continues till 25th October.

• Along & off Odisha, West Bengal, Bangladesh and north Myanmar coasts:

Squally wind speed reaching **40-50 kmph gusting to 60 kmph** is likely on 24th along & off Odisha coast. **Squally wind** speed reaching **40-50 kmph gusting to 60 kmph** is prevailing along & off West Bengal, Bangladesh and North Myanmar coasts from 24th morning. It would gradually increase becoming **65-75 kmph gusting to 85 kmph** along & off Bangladesh coast, **55-65 kmph gusting to 75 kmph** along & off north Myanmar coast and **45-55 kmph gusting to 65 kmph** along & off west Bengal coast on 25th October.

• Mizoram, Tripura, south Assam and Manipur:

Squally wind speed reaching **40-50 kmph gusting to 60 kmph** is likely to prevail over Mizoram and Tripura and Strong wind speed reaching **30-40 kmph gusting to 50 kmph** over south Assam & Manipur on 25th October.

(iii) Sea Condition

• North Bay of Bengal:

Very high to phenomenal sea conditions are prevailing and likely to continue till 24th noon and very high to high thereafter till 25th October evening.

- Adjoining westcentral Bay of Bengal: High sea** condition is likely to prevail till 24th October noon and rough to very rough thereafter till 25th October morning. It is likely to improve gradually thereafter.

- Adjoining eastcentral Bay of Bengal: Rough to very rough sea condition** is prevailing and likely to continue till 25th October evening. It is likely to improve gradually thereafter.

- Along & off Odisha, West Bengal, Bangladesh and north Myanmar coasts: Rough to very rough sea conditions** on 24th and 25th October.

(iv) Fishermen Warning (Graphics attached):

Fishermen are advised not to venture into

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

Both the systems are under continuous surveillance and the next bulletin will be issued at 1130 hours IST of 24th October, 2023.

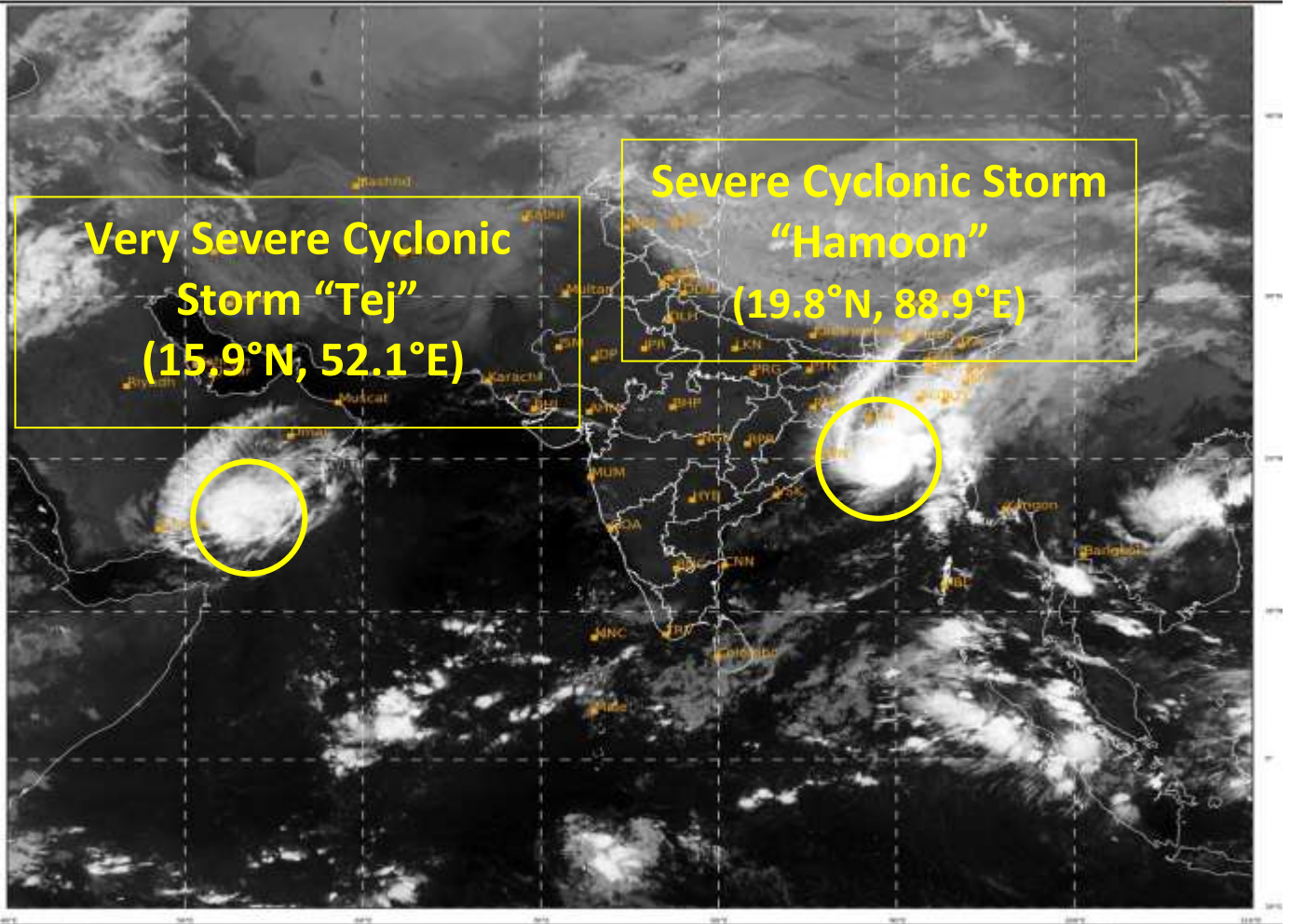
(Akhil Srivastava)

Scientist D, 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.



533

935



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF VERY SEVERE CYCLONIC STORM "TEJ" OVER COASTAL YEMEN BASED ON 0000 UTC (0530 IST) OF 24TH OCTOBER 2023.

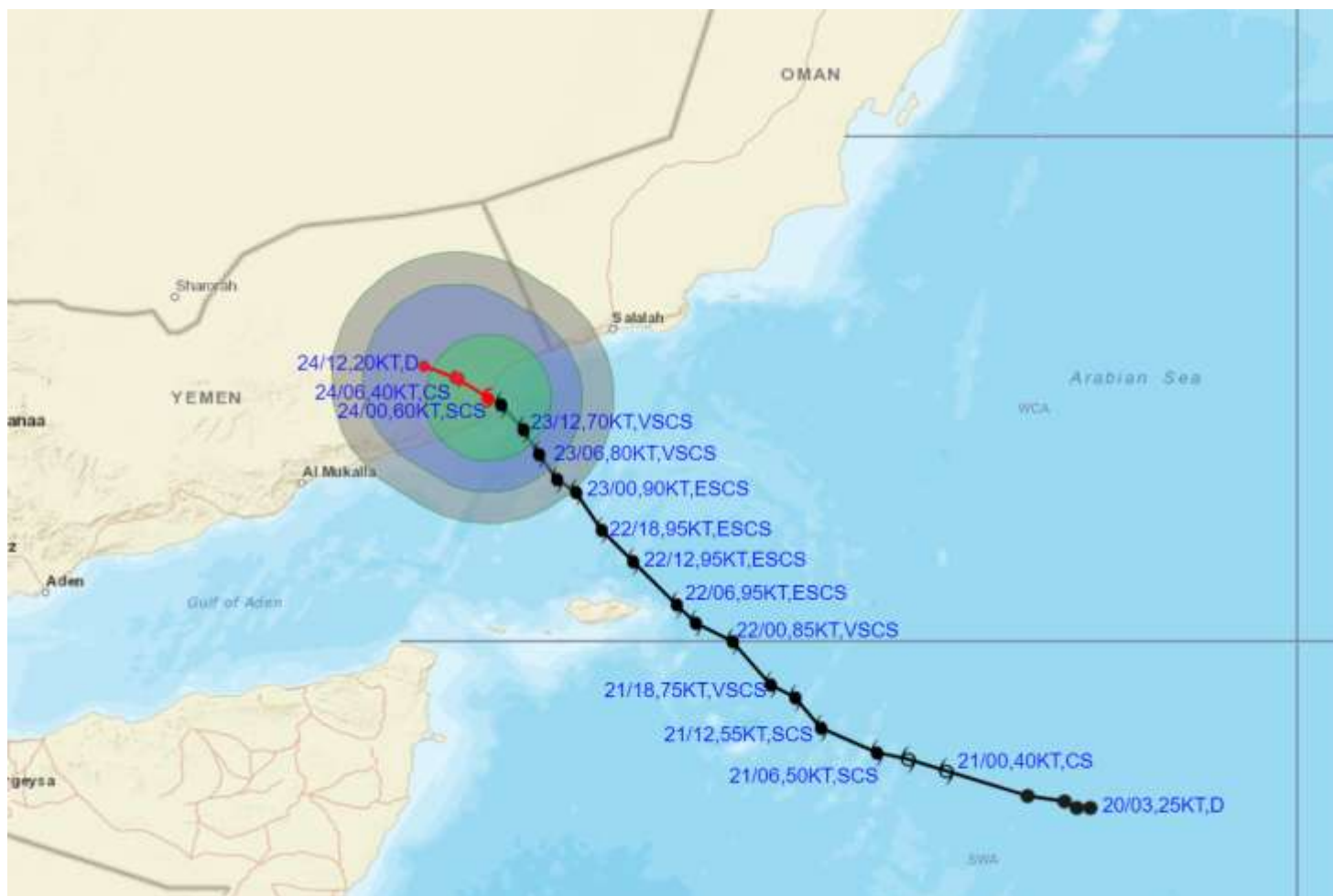


DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM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



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF VERY SEVERE CYCLONIC STORM "TEJ" OVER COASTAL YEMEN BASED ON 0000 UTC (0530 IST) OF 24TH 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)

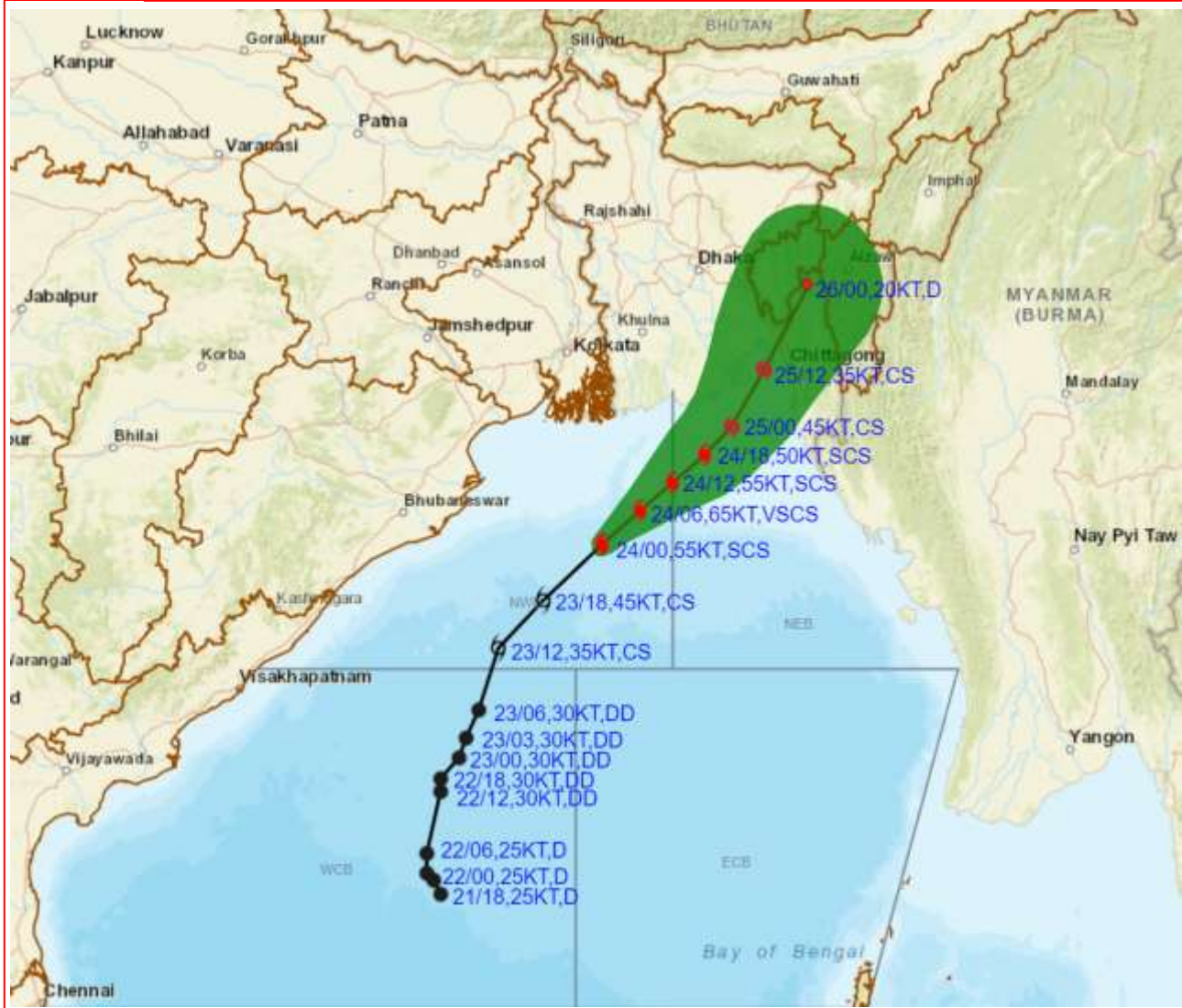
■ ≥ 64 KT (≥118 KMPH)

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 SEVERE CYCLONIC STORM “HAMOON” OVER NORTHWEST BAY OF BENGAL BASED ON 0000 UTC (0530 IST) OF 24TH OCTOBER 2023.



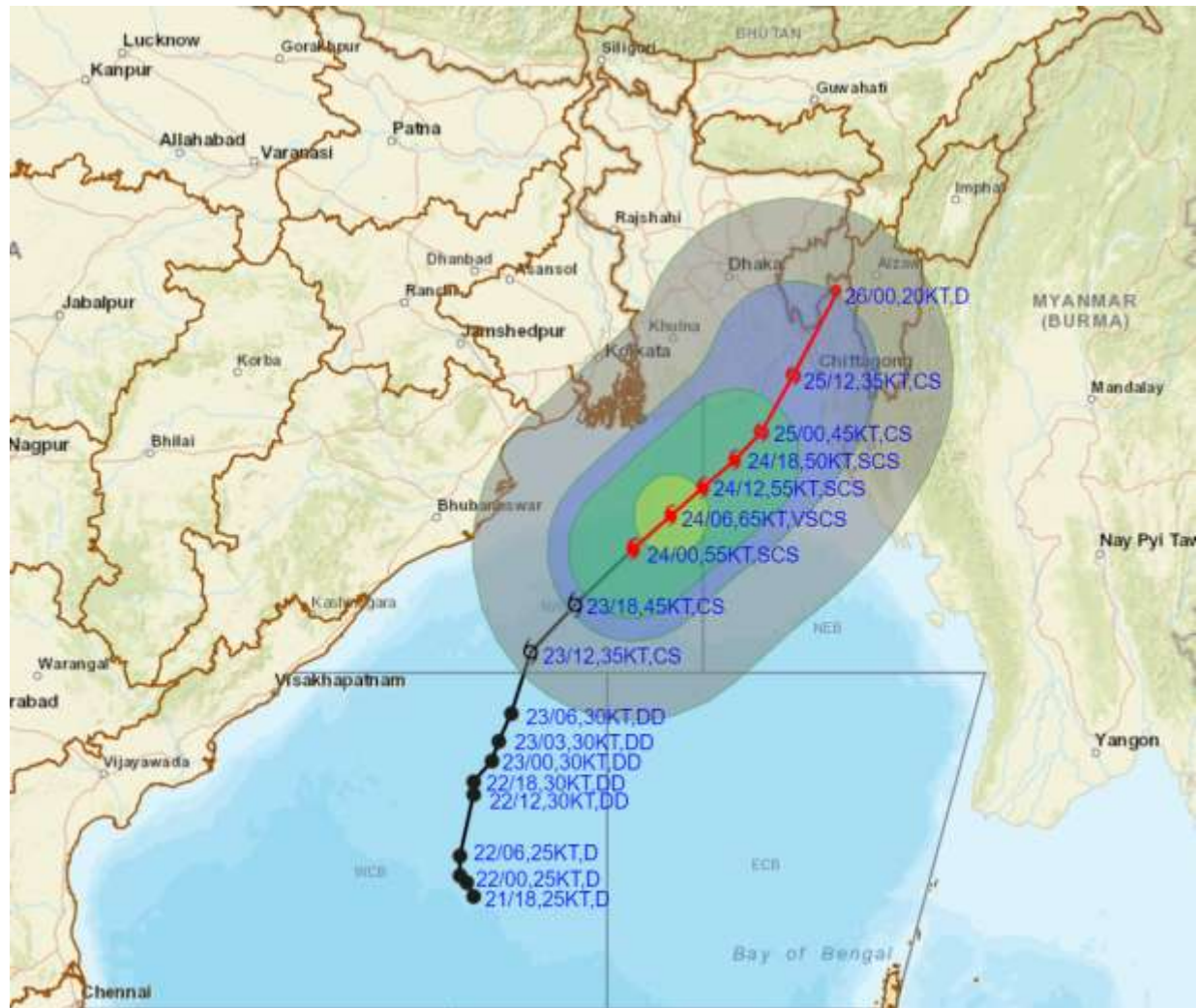
DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (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			
Date and Time	PARADIP (CWR)	DIGHA	KHEPUPARA	CHITTAGONG (AMBAGAN)
25.10.23/0000	460, ENE	360, E	90, SE	130, SW
25.10.23/1200	540, ENE	410, ENE	130, ENE	50, W
26.10.23/0000	660, ENE	520, ENE	260, NE	130, NNE



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF SEVERE CYCLONIC STORM "HAMOON" OVER NORTHWEST BAY OF BENGAL BASED ON 0000 UTC (0530 IST) OF 24TH



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

AREA OF MAXIMUM SUSTAINED WIND SPEED:

○ 28-33 KT (52-61 KMPH)

○ 34-49 KT (62-91 KMPH)

○ 50-63 KT (92-117 KMPH)

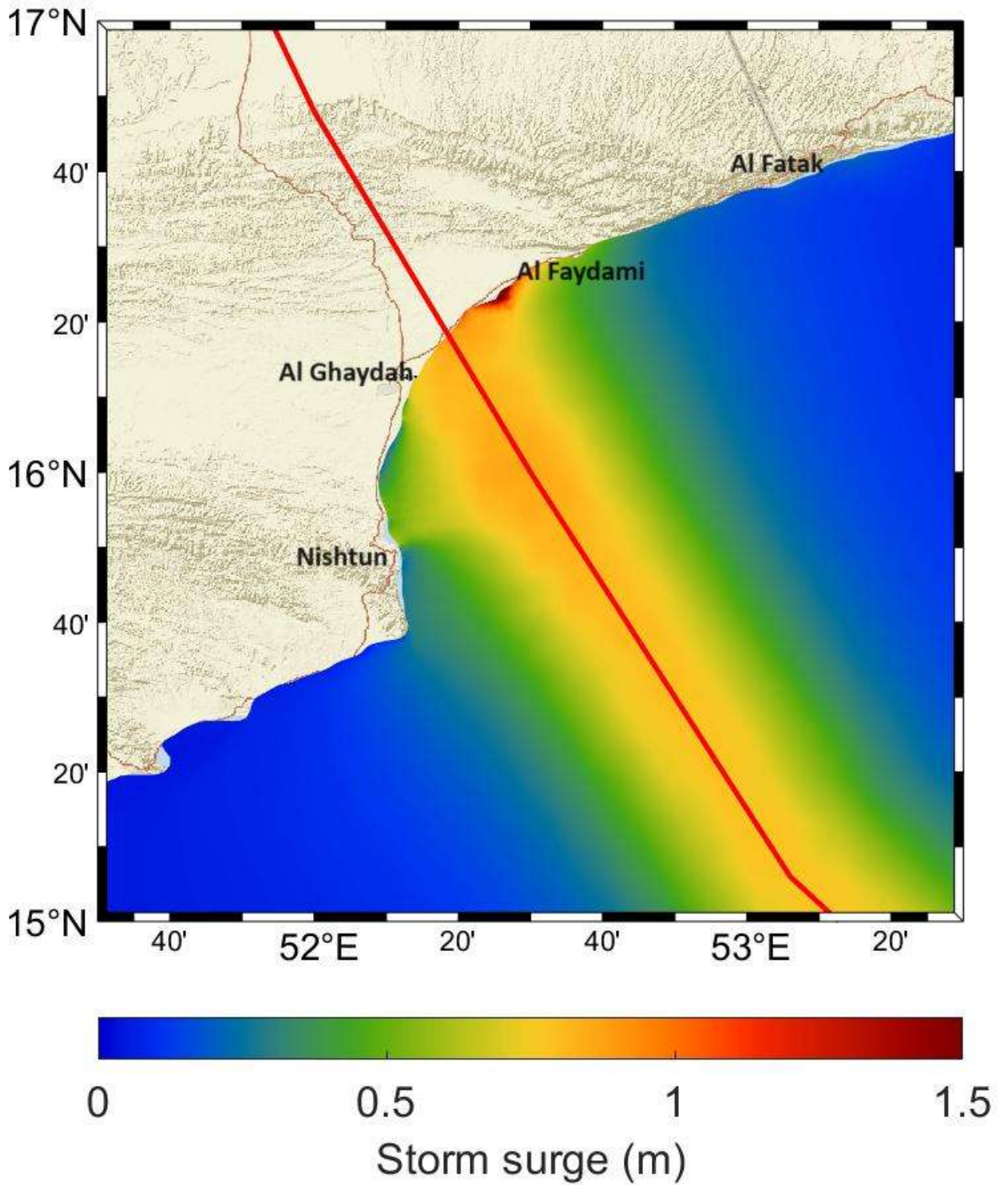
○ ≥ 64 KT (≥118 KMPH)

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

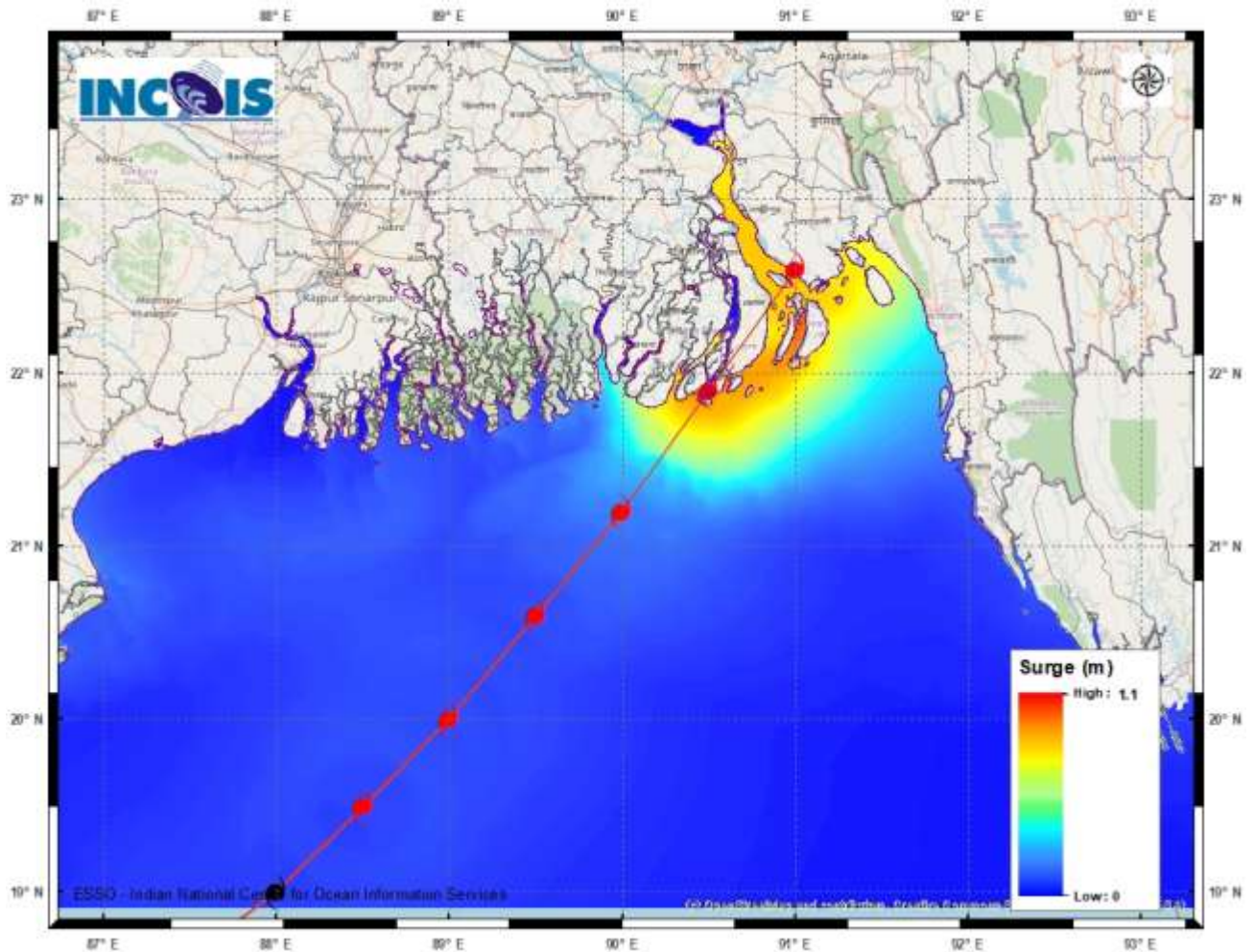
STORM SURGE GUIDANCE FOR YEMEN:

Storm surge of about 2 meter height above the astronomical tide is Likely to inundate low lying areas between al Ghaydah and al Faydami near the landfall point at the time of landfall.



STORM SURGE GUIDANCE FOR BANGLADESH:

Storm surge of about 1.0-1.5 metre height above the astronomical tide is likely to inundate low lying areas between Khepupara and Chittagong (Bangladesh) around the time of landfall.



Fishermen warning graphics

Day 1: 24.10.2023/05:30AM to 25.10.2023/05:30AM



Day 2: 25.10.2023/05:30AM to 26.10.2023/05:30AM



Day 3: 26.10.2023/05:30AM to 27.10.2023/05:30AM



Day 4: 27.10.2023/05:30AM to 28.10.2023/05:30AM



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

