



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

**NATIONAL BULLETIN NO. 31 (ARB/03/2023)**

**TIME OF ISSUE: 1615 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) Severe Cyclonic Storm "Tej" (pronounced as Tej) weakened into a Cyclonic Storm over Yemen and (B) [Modified] Very Severe Cyclonic Storm "Hamoon" (pronounced as Hamoon) over Northwest & Adjoining Northeast Bay of Bengal.**

**(A) Severe Cyclonic Storm "Tej" (pronounced as Tej) weakened into a Cyclonic Storm over Yemen**

The severe cyclonic storm "TEJ" (Pronounced as Tej) over coastal Yemen moved west-northwestward with a speed of 11 kmph during past 6 hours, weakened into a Cyclonic Storm and lay centered at 1130 hours IST of today, the 24<sup>th</sup> October over Yemen, near latitude 16.1°N and longitude 51.5°E, about 60 km west of Al Ghaidah (Yemen) and 290 km west-southwest of Salalah (Oman).

It is very likely to move further west-northwestwards and weaken into a Depression during next 06 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
24.10.23/1130	16.1/51.5	70-80 gusting to 90	Cyclonic Storm
24.10.23/1730	16.2/51.2	30-40 gusting to 50	Depression

**Warnings:**

(i) Wind warning (warning graphics enclosed):

• **Westcentral Arabian Sea:**

Gale wind speed reaching **70-80 kmph gusting to 90 kmph** is prevailing and decrease gradually becoming squally wind speed reaching **30-40 gusting to 50 kmph** from evening of 24<sup>th</sup> October.

(ii) Sea Condition

• **Westcentral Arabian Sea:**

**Very rough to rough** condition is prevailing and likely to continue during next 06 hours.

(iii) Fishermen Warning (Graphics attached):

Fishermen are advised not to venture into **Westcentral Arabian Sea** till night of 24<sup>th</sup> October.

**(B) [Modified] Very Severe Cyclonic Storm “Hphoon” (pronounced as Hphoon) over Northwest & adjoining Northeast Bay of Bengal**

The Very Severe Cyclonic Storm “Hphoon” (pronounced as Hphoon) over Northwest and adjoining Northeast Bay of Bengal moved east-northeastwards with a speed of 23 kmph during past 6 hours and lay centered at 1130 hours IST of today, the 24<sup>th</sup> October over the same region, near latitude 20.3°N and longitude 89.9°E, about 330 km east of Paradip (Odisha), 290 km east-southeast of Digha (West Bengal), 190 km south of Khepupara (Bangladesh) and 305 km southwest of Chittagong (Bangladesh).

It is likely to weaken gradually into a **Severe Cyclonic Storm** during next 06 hours. It is likely to further weaken while moving northeastwards and cross Bangladesh coast close to south of Chittagong by early hours of 25<sup>th</sup> October as a **Cyclonic Storm with wind speed of 80 to 90 kmph gusting to 100 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
24.10.23/1130	20.3/89.9	120-130 gusting to 145	Very Severe Cyclonic Storm
24.10.23/1730	20.8/90.6	105-115 gusting to 125	Severe Cyclonic Storm
24.10.23/2330	21.3/91.3	100-110 gusting to 120	Severe Cyclonic Storm
25.10.23/0530	21.9/92.0	80-90 gusting to 100	Cyclonic Storm
25.10.23/1130	22.4/92.5	65-75 gusting to 85	Cyclonic Storm
25.10.23/2330	23.6/93.5	40-50 gusting to 60	Depression

**Warnings:**

(i) Rainfall Warning:

**Manipur, Mizoram & Tripura and south Assam & Meghalaya:** Light to moderate rainfall is very likely at most places with isolated heavy rainfall over Mizoram and Tripura on 24<sup>th</sup> and 25<sup>th</sup> and over

south Assam on 24<sup>th</sup> October. Light to moderate rainfall is likely at many places over Mizoram and Tripura on 26<sup>th</sup> October.

Light to moderate rainfall is very likely at many places over Nagaland and Manipur during 24-26<sup>th</sup> October and east Arunachal Pradesh on 25<sup>th</sup> & 26<sup>th</sup> October.

**(ii) Wind warning (warning graphics enclosed):**

• **Northeast Bay of Bengal:**

**Gale wind** speed reaching **120-130 kmph gusting to 145 kmph** is prevailing and likely to continue during next 03 hours. It would decrease gradually thereafter becoming **Gale wind** speed reaching **100-110 kmph gusting to 120 kmph** by 24<sup>th</sup> midnight and **80-90 kmph gusting to 100 kmph** by 25<sup>th</sup> early morning and would decrease thereafter.

• **Northwest Bay of Bengal:**

**Gale wind** speed reaching **120-130 kmph gusting 145 kmph** is prevailing and likely to continue during next 03 hours. It would decrease gradually thereafter becoming **Gale wind** speed reaching **80-90 kmph gusting to 100 kmph** by 24<sup>th</sup> midnight, and **Squally wind** speed reaching **50-60 kmph gusting to 70 kmph** by 25<sup>th</sup> evening and would decrease thereafter.

• **Adjoining eastcentral Bay of Bengal: Squally wind** speed reaching **50-60 kmph gusting to 70 kmph** is prevailing and would gradually increase becoming **80-90 kmph gusting to 100 kmph** from 24<sup>th</sup> October midnight and decrease thereafter becoming **60-70 kmph gusting to 80 kmph from morning of 25<sup>th</sup> and squally winds speed reaching 45-55 gusting to 65 kmph from noon for next 06 hours.**

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

**Squally wind** speed reaching **40-50 kmph gusting to 60 kmph** is likely prevailing along & off Odisha coast on 24<sup>th</sup>. **Squally wind** speed reaching **40-50 kmph gusting to 60 kmph** is prevailing along & off West Bengal, Bangladesh and North Myanmar coasts from 24<sup>th</sup> morning. It would gradually increase becoming **80-90 kmph gusting to 100 kmph** along & off Bangladesh and adjoining north Myanmar coast and **55-65 kmph gusting to 75 kmph** along & off remaining parts of north Myanmar coast from early hours of 25<sup>th</sup> October for subsequent 06 hours and decrease thereafter. Squally winds speed reaching **45-55 kmph gusting to 65 kmph** along & off west Bengal coast till early morning of 25<sup>th</sup> 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 25<sup>th</sup> October.

**(iii) Sea Condition**

• **Northeast Bay of Bengal and along & off Bangladesh & adjoining north Myanmar coasts:**

**Phenomenal sea conditions** are prevailing and likely to continue till 24<sup>th</sup> evening and would become very high to high thereafter till 25<sup>th</sup> morning and very rough to rough till 25<sup>th</sup> October evening.

• **Northwest Bay of Bengal:**

**Phenomenal sea conditions** are prevailing and likely to continue till 24<sup>th</sup> evening and would become very high to high thereafter till 24<sup>th</sup> night and then very rough to rough by 25<sup>th</sup> October morning.

• **Adjoining eastcentral Bay of Bengal: Very rough to rough** till 25<sup>th</sup> October morning. It is likely to improve gradually thereafter.

• **Along & off West Bengal coasts: Rough to very rough sea conditions** till 25<sup>th</sup> October morning.

**(iv) Fishermen Warning (Graphics attached):**

Fishermen are advised not to venture into

- ❖ **North Bay of Bengal and along & off Odisha, West Bengal, Bangladesh and north Myanmar coasts** during 24<sup>th</sup> to 25<sup>th</sup> October.

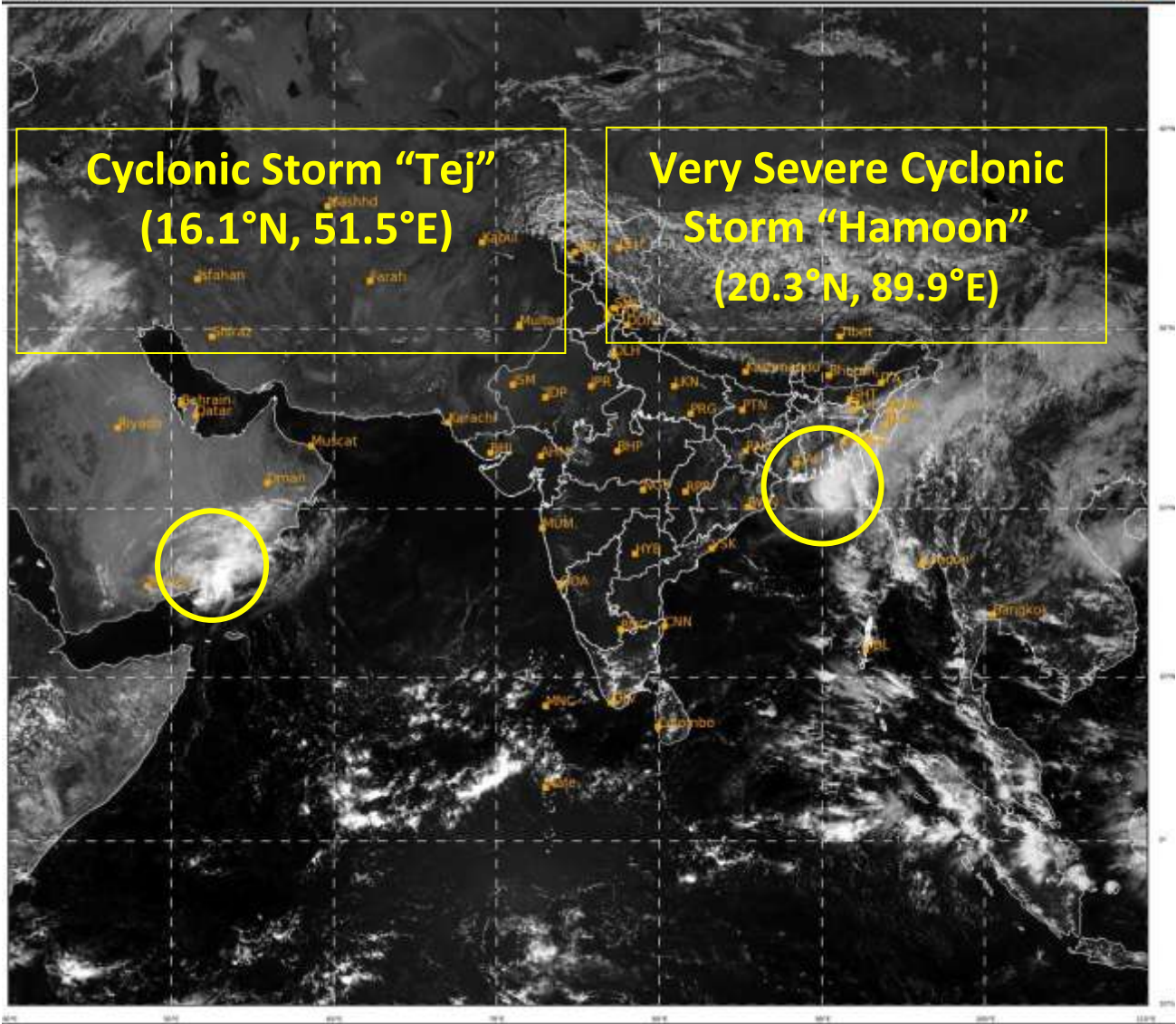
❖ **Adjoining areas of Westcentral till 24<sup>th</sup> October evening and Eastcentral Bay of Bengal till 25<sup>th</sup> October morning.**

**Both the systems are under continuous surveillance and the next bulletin will be issued at 1730 hours IST of 24<sup>th</sup> October, 2023.**

**(Ananda Kumar 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.**







**OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF CYCLONIC STORM "TEJ" OVER COASTAL YEMEN BASED ON 0600 UTC (1130 IST) OF 24<sup>TH</sup> 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

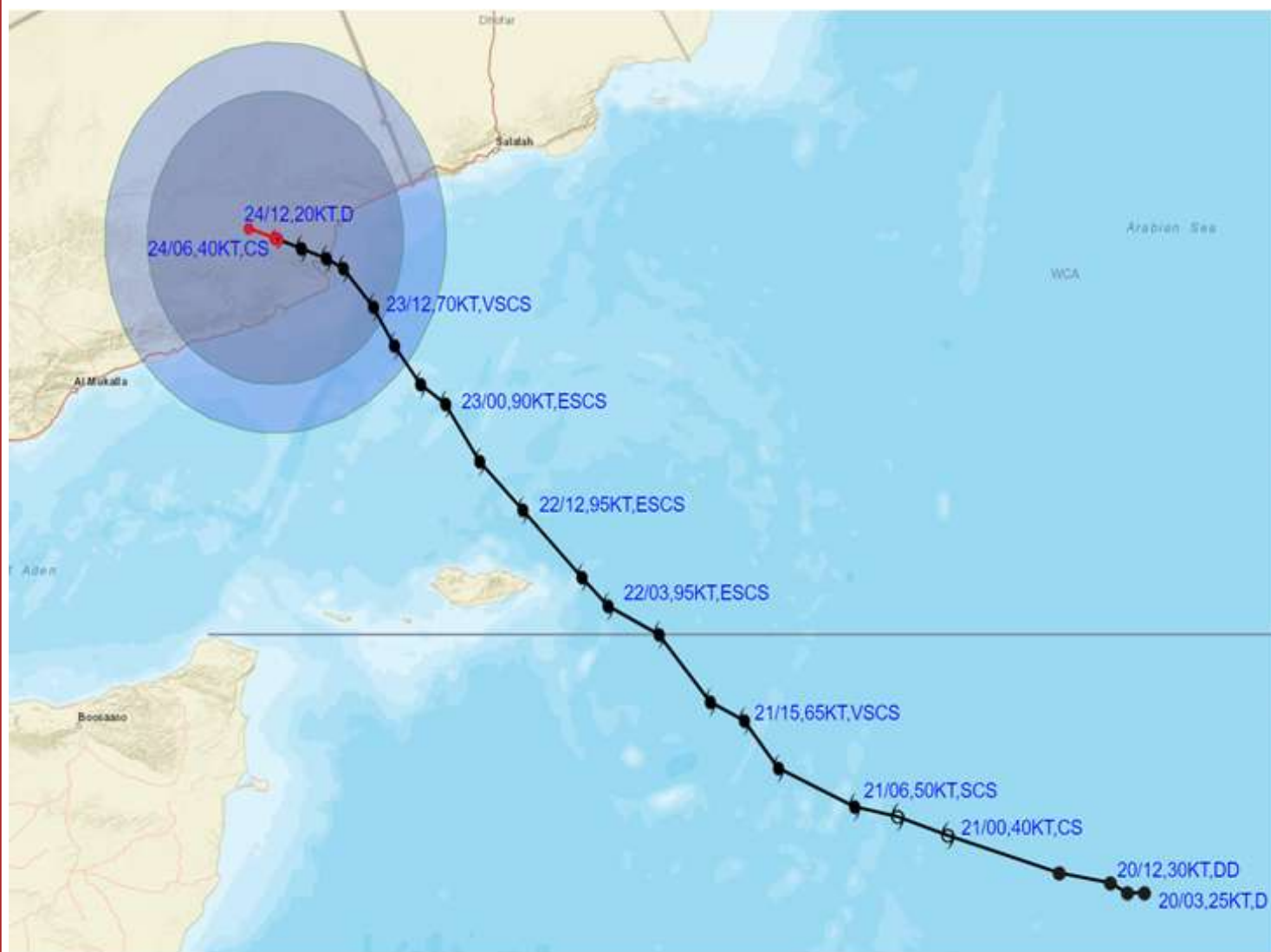
— OBSERVED TRACK

— FORECAST TRACK

▲ CONE OF UNCERTAINTY



**OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM "TEJ" OVER COASTAL YEMEN BASED ON 0600 UTC (1130 IST) OF 24<sup>TH</sup> 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)

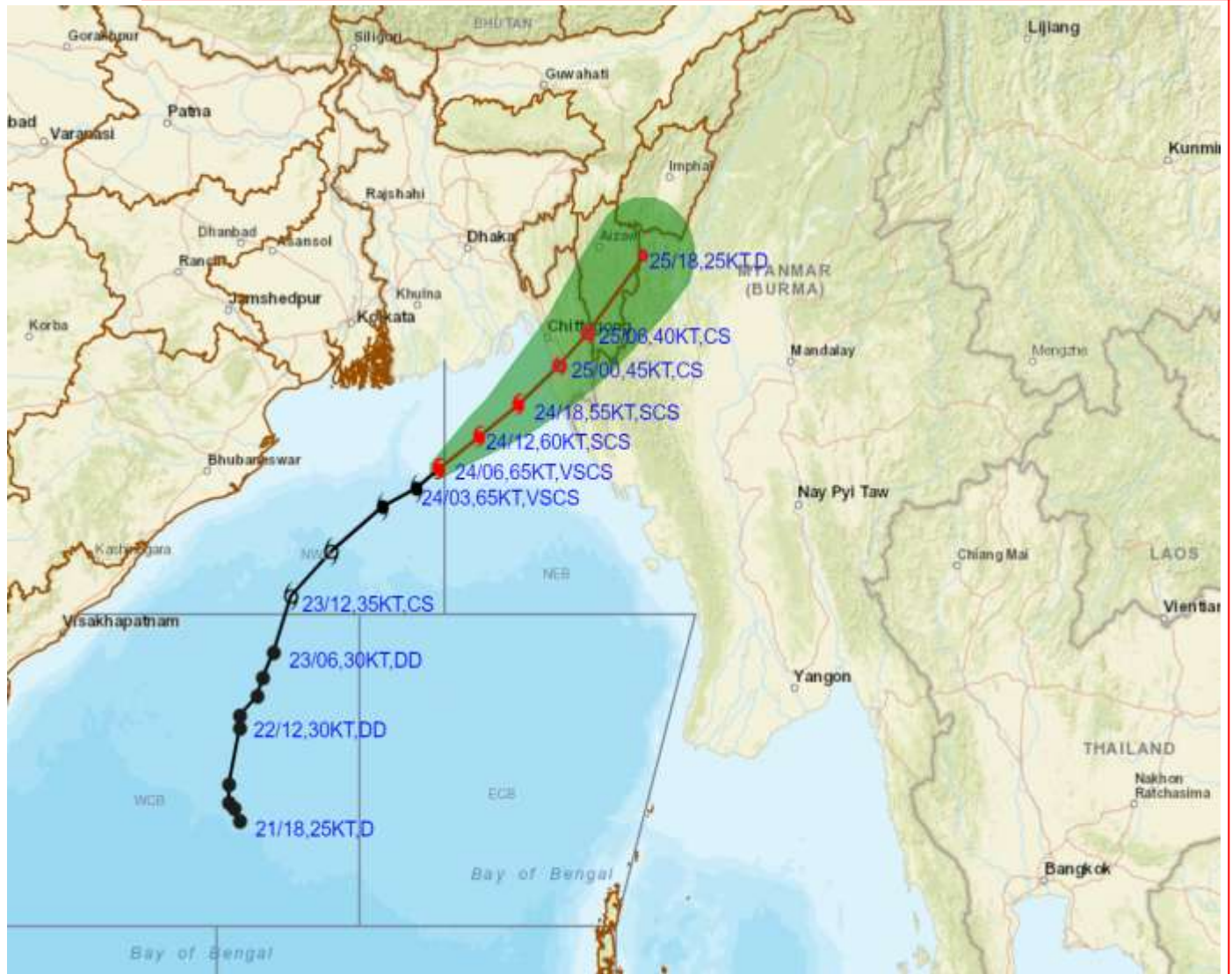
- LESS THAN 34 KT
- ⊕ 34-47 KT
- ⊙  $\geq$  48 KT
- OBSERVED TRACK
- FORECAST TRACK
- ▲ CONE OF UNCERTAINTY
- AREA OF MAXIMUM SUSTAINED WIND SPEED:
- 28-33 KT (52-61 KMPH)
- 34-49 KT (62-91 KMPH)
- 50-63 KT (92-117 KMPH)
- $\geq$  64 KT ( $\geq$ 118 KMPH)

**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 VERY SEVERE CYCLONIC STORM "HAMOON" OVER NORTHWEST & ADJOINING NORTHEASTBAY OF BENGAL BASED ON 0600 UTC (1130 IST) OF 24<sup>TH</sup> OCTOBER 2022**



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

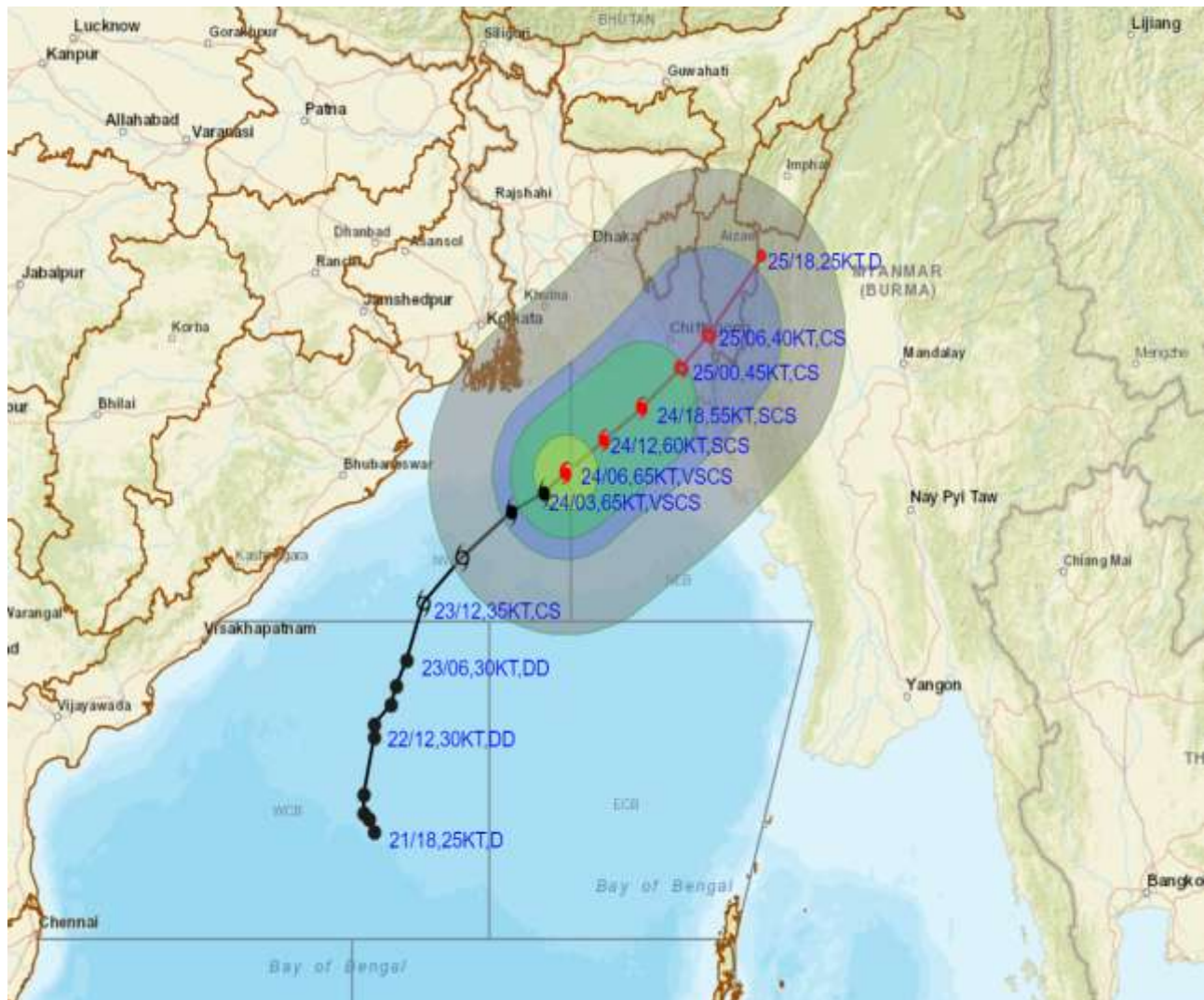
▲ CONE OF UNCERTAINTY

Forecast	DISTANCE(KM) AND DIRECTION FROM STATIONS			
Date and Time	PARADIP (CWR)	DIGHA	KHEPUPARA	CHITTAGONG (AMBAGAN)
25.10.23/0600	650, ENE	530, E	240, ENE	80, E
25.10.23/1800	790, ENE	650, ENE	380, ENE	220, NE





**OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF VERY SEVERE CYCLONIC STORM "HAMOON" OVER NORTHWEST & ADJOINING NORTHEASTBAY OF BENGAL BASED ON 0600 UTC (1130 IST) OF 24<sup>TH</sup> 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 (≥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)

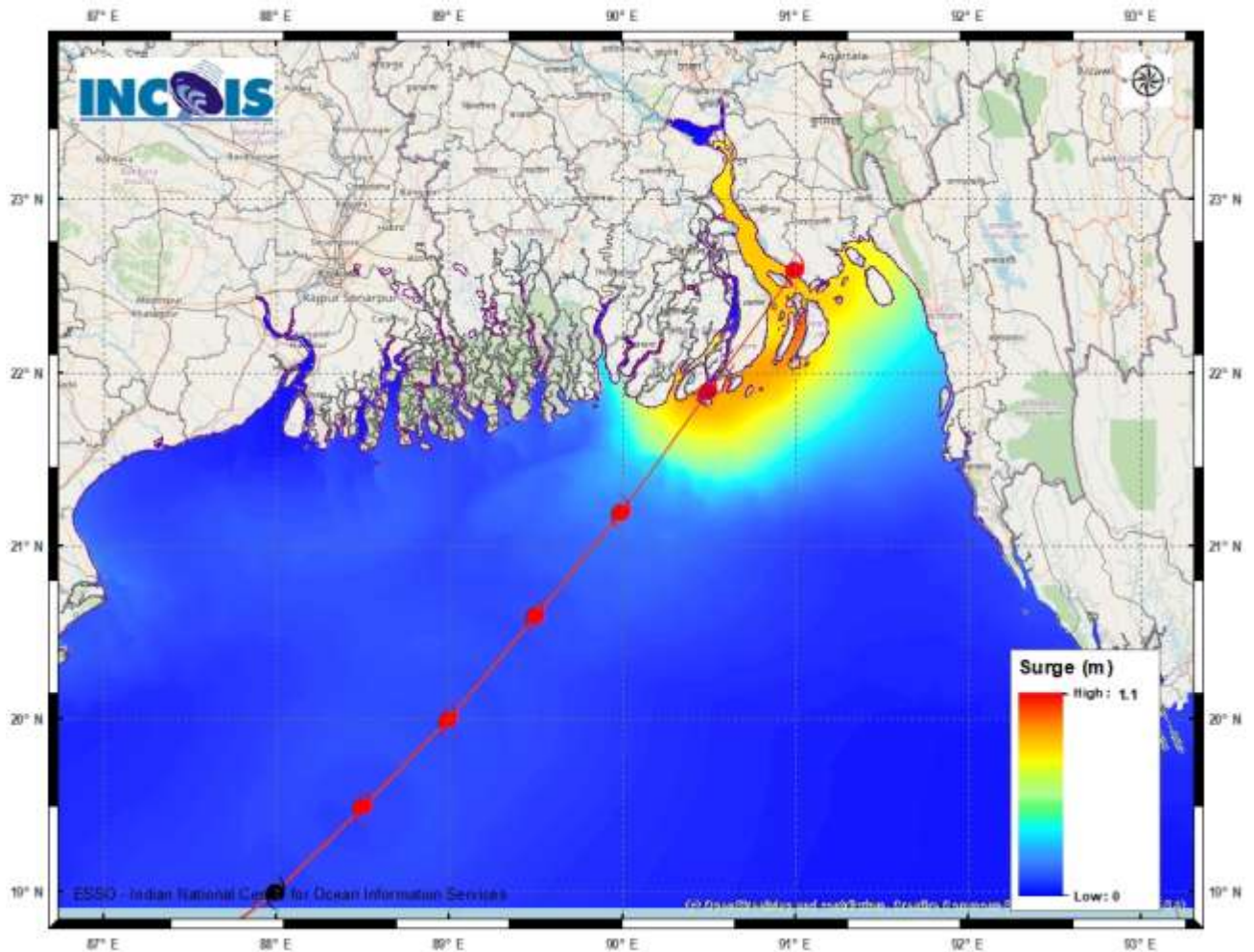
— ≥ 64 (≥118 KMPH)

**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 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

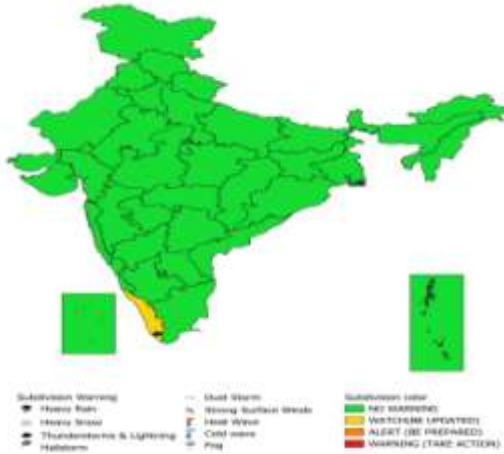
**SUBDIVISIONWISE WEATHER WARNING FOR DAY 1**  
( 24-10-2023 )



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 2**  
( 25-10-2023 )



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 3**  
( 26-10-2023 )



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 4**  
( 27-10-2023 )



**SUBDIVISIONWISE WEATHER WARNING FOR DAY 5**  
( 28-10-2023 )



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