

India Meteorological Department (Ministry of Earth Sciences)

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Sub: (A) Very Severe Cyclonic Storm "Tej" (pronounced as Tej) over Westcentral Arabian Sea and (B) Deep Depression over Westcentral Bay of Bengal intensified into a Cyclonic Storm "Hamoon" (pronounced as Hamoon)

(A) Very Severe Cyclonic Storm "Tej" (pronounced as Tej) over Westcentral Arabian Sea

The Very Severe Cyclonic Storm "Tej" (pronounced as Tej) over Westcentral Arabian Sea continued to move northwestwards with a speed of 9 kmph during past 6 hours and lay centered at 1730 hours IST of today, the 23rd October over the same region, near latitude 15.4°N and longitude 52.6°E, about 240 km south-southwest of Salalah (Oman) and 90 km southeast of Al Ghaidah (Yemen).

It is very likely to continue to move northwestwards and cross Yemen coast close to Al-Ghaidah during mid night of 23rd to 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)		Maximum sustained surface	
	(Lat. ⁰ N/ long. ⁰ E)	wind speed (Kmph)	disturbance
23.10.23/1730	15.4/52.6	135-145 gusting to 160	Very Severe Cyclonic Storm
23.10.23/2330	15.7/52.3	125-135 gusting to 150	Very Severe Cyclonic Storm
24.10.23/0530	16.0/51.9	90-100 gusting to 110	Severe Cyclonic Storm
24.10.23/1130	16.2/51.5	45-55 gusting to 65	Depression
24.10.23/1730	16.4/51.1	25-35 gusting to 45	Well Marked Low

Warnings:

(i) Wind warning (warning graphics enclosed):

Southwest Arabian Sea:

Squally wind speed reaching **40-50 kmph gusting to 60 kmph** is prevailing and likely to continue till 24th morning and decrease gradually thereafter.

Westcentral Arabian Sea:

Prevailing **Gale wind** speed reaching **135-145 kmph gusting to 160 kmph** is prevailing and likely to become **125-135 kmph gusting to 150 kmph** till midnight of 23rd October. It would decrease rapidly during the landfall becoming **Gale wind** speed reaching **90-100 kmph gusting to 110 kmph** in the mid night of 23rd, squally wind speed reaching **40-50 kmph gusting to 60 kmph** by noon of 24th October, and decrease gradually thereafter.

(ii) Sea Condition

• Southwest Arabian Sea:

Rough Sea condition is likely to continue till 23rd midnight and improve gradually thereafter.

Westcentral Arabian Sea:

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

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

(B) Deep Depression over Westcentral Bay of Bengal intensified into a Cyclonic Storm "Hamoon" (pronounced as Hamoon)

The Deep Depression over Westcentral Bay of Bengal moved north-northeastwards with a speed of 14 kmph during past 6 hours, intensified into a Cyclonic Storm "Hamoon" (pronounced as Hamoon) and lay centered at 1730 hours IST of today, the 23rd October over the same region, near latitude 18.3°N and longitude 87.3°E, about 230 km south-southeast of Paradip (Odisha), 360 km south of Digha (West Bengal) and 510 km south-southwest of Khepupara (Bangladesh).

It is likely to intensify further into a severe cyclonic storm over northwest Bay of Bengal during next 12 hours. It is very likely to move nearly north-northeastwards and cross Bangladesh coast between Khepupara and Chittagong around noon of 25th October as a **Deep Depression**.

Forecast track and intensity are given below:

Date/Time (IST)	Position (Lat. ⁰ N/ long. ⁰ E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
23.10.23/1730	18.3/87.3	70-80 gusting to 90	Cyclonic Storm
23.10.23/2330	18.9/87.6	80-90 gusting to 100	Cyclonic Storm
24.10.23/0530	19.5/88.1	90-100 gusting to 110	Severe Cyclonic Storm
24.10.23/1130	20.0/88.7	80-90 gusting to 100	Cyclonic Storm
24.10.23/1730	20.6/89.3	70-80 gusting to 90	Cyclonic Storm
25.10.23/0530	21.3/89.9	60-70 gusting to 80	Cyclonic Storm
25.10.23/1730	22.0/90.5	55-65 gusting to 75	Deep Depression
26.10.23/0530	22.7/91.0	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 23rd and 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 is likely on 23rd and 24th October with isolate heavy rainfall over coastal areas of north Odisha on 23rd October.

Coastal Districts of West Bengal: Light to moderate rainfall at most places is likely on 23rd and 24th October with isolated heavy rainfall over coastal areas of West Bengal on 24th October.

(ii) Wind warning (warning graphics enclosed):

- Westcentral Bay of Bengal: Squally wind speed reaching 70-80 kmph gusting to 90 kmph is prevailing and likely to increase becoming 80-90 kmph gusting to 100 kmph till 24th October noon. It is likely to decrease gradually thereafter becoming squally wind speed reaching 50-60 kmph gusting 70 kmph by 24th evening and 40-50 kmph gusting 60 kmph till 25th morning.
- 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:
 - **Gale wind** speed reaching **70-80 kmph gusting to 90 kmph** is prevailing and likely to become **80-90 kmph gusting to 100 kmph** from 23rd midnight and **90-100 kmph gusting 110 kmph** from 24th morning to noon. It would decrease gradually thereafter becoming **Gale wind** speed reaching **70-80 kmph gusting to 90 kmph** by 24th evening, **60-70 kmph gusting to 80 kmph** by 25th morning and **Squally wind** speed reaching **50-60 kmph gusting to 70 kmph** during 25th evening and would decrease thereafter.
- 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.

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

- 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 to continue till 24th October and rough to very rough on 25th October. It is likely to improve gradually thereafter.
- North Bay of Bengal: Rough sea condition is likely on 23rd and Very rough to High on 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 rough to very rough on 24th and 25th October.

(iv) Fishermen Warning (Graphics attached):

Fishermen are advised not to venture into

- ❖ Adjoining eastcentral Bay of Bengal from 23rd to 25th 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 today, the 23rd October, 2023.

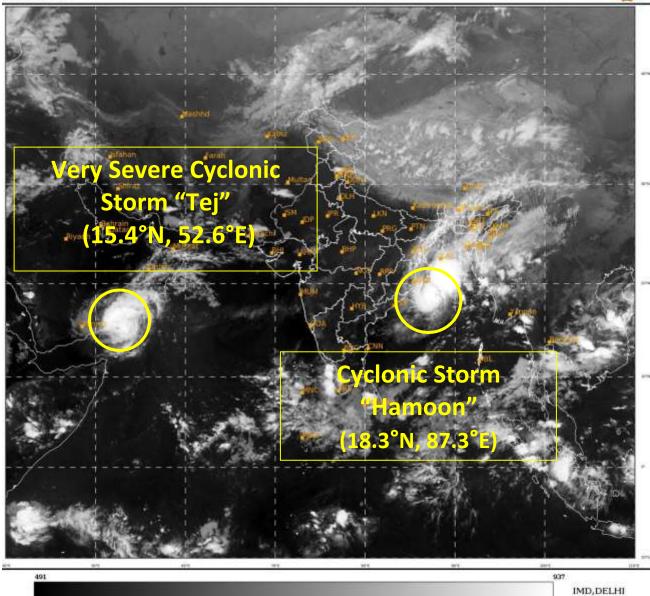
(Ananda K Das)
Scientist F, Cyclone Warning Division, New Delhi

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.







OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF VERY SEVERE CYCLONIC STORM "TEJ" OVER WESTCENTRAL ARABIAN SEA **BASED ON 1200 UTC (1730 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

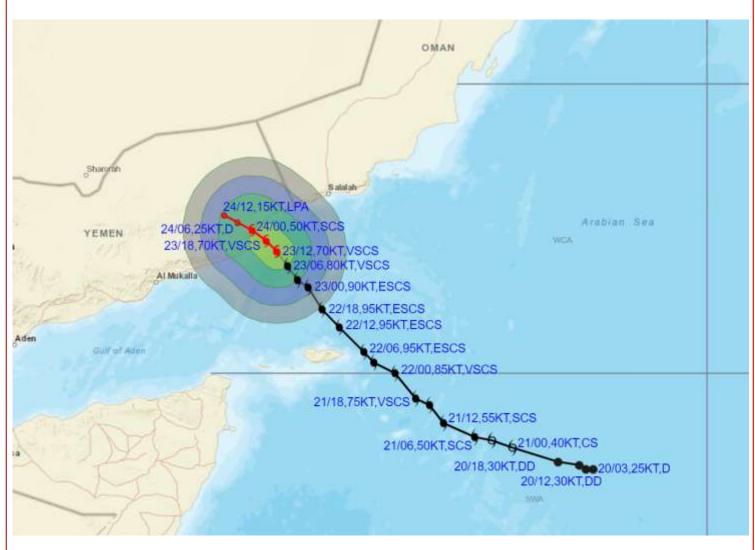
OBSERVED TRACK FORECAST TRACK

CONE OF UNCERTAINTY

	Forecast	distan	ce (km) and direction	on of the centre	from nearest 5 co	astal stations	
Forecast Date and Time	Lead Period	Lat	Lon	Station 1	Station 2	Station 3	Station 4	Station 5
23.10.23/1200	0	15.4	52.6	AL- GHAIDAH (94,SE)	MINA SALALAH (218,SW)	SALALAH (241,SW)	QAIROON HAIRITI (260,SW)	THUMRAIT (294,SSW)
23.10.23/1800	6	15.7	52.3	AL- GHAIDAH (49,SSE)	MINA SALALAH (218,SW)	SALALAH (241,SW)	QAIROON HAIRITI (257,SW)	THUMRAIT (285,SW)
24.10.23/0000	12	16.0	51.9	AL- GHAIDAH (22,WSW)	MINA SALALAH (237,WSW)	THAMUD (258,SE)	SALALAH (260,WSW)	QAIROON HAIRITI (271,WSW)
24.10.23/0600	18	16.2	51.5	AL- GHAIDAH (64,WNW)	THAMUD (210,SE)	MINA SALALAH (269,WSW)	SEIYOUN (274,E)	SALALAH (291,WSW)



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF VERY SEVERE CYCLONIC STORM "TEJ" OVER WESTCENTRAL ARABIAN SEA BASED ON 1200 UTC (1730 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)

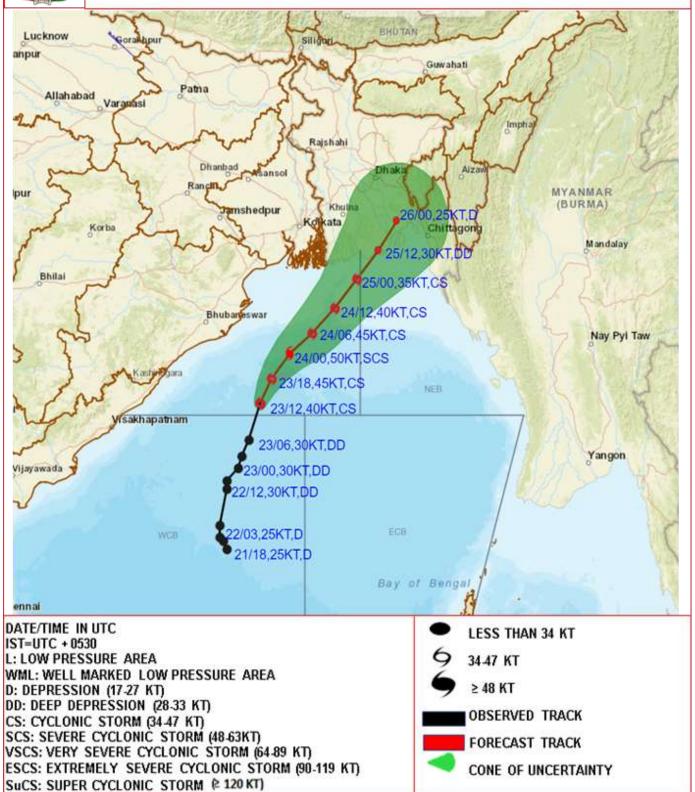
50-63 KT (92-117 KMPH) ≥ 64 KT (≥118 KMPH)

IMPACT OV	ER TI	HE S	SEA
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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



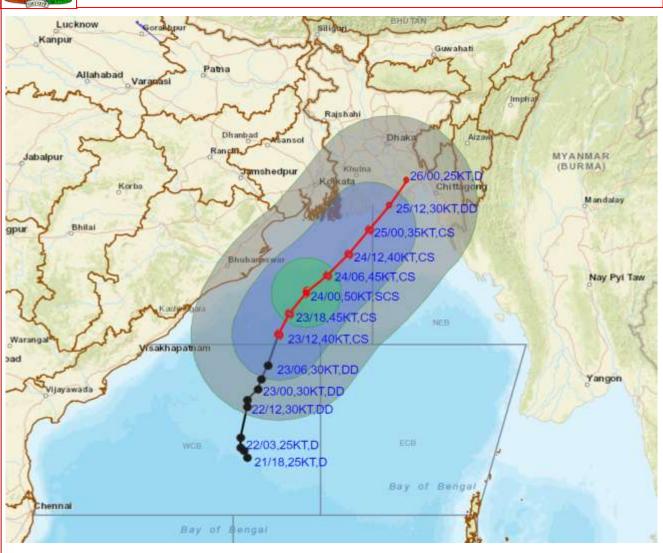
OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF CYCLONIC STORM "HAMOON" OVER NORTHWEST BAY OF BENGAL BASED ON 1200 UTC (1730 IST) OF 23RD OCTOBER 2023.



	Foreca	st dist	ance (l	om) and direction	on of the centre	from nearest 5 coas	tal stations	
Forecast Date and Time	Lead Period	Lat	Lon	Station 1	Station 2	Station 3	Station 4	Station 5
23.10.23/1200	0	18.3	87.3	PURI (229,SE)	PARADIP (CWR) (232,SSE)	BHUBANESHWAR (266,SE)	GOPALPUR (276,ESE)	CUITACK (281,SSE)
23.10.23/1800	6	18.9	87.6	PARADIP (CWR) (183,SSE)	PURI (212,ESE)	SANDHEADS (227,SSW)	CHANDBALI (228,5SE)	BHRJBANESH WAR (239,SE)
24.10.23/000 0	12	19.5	88.1	SANDHEADS (151,5)	PARADIP (CWR) (173,ESE)	CHANDBALL (202,SE)	SAGAR ISIAND (239,5)	PLIR1 (242,E)
24.1 0. 23/ 0600	18	20.0	88.7	SANDHEADS (106,SSE)	SAGAR ISLAND (196,SSE)	PARADIP (CMR) (213,F)	DIGHA (219,SE)	CONTAI (222,SSE)
24.10.23/1200	24	20.6	89.3	SANDHEADS (113,ESE)	SAGAR ISLAND (175,SE)	KHEPUPARA (182,SSW)	CANNING (195,SSE)	HALDIA (207,SE)
25.10.23/0000	36	21.3	89.9	KHEPUPARA (84,55W)	PATUAKHALI (123,55W)	MONGLA (150,SSE)	CANNING (166,SE)	BARISAL (168,55W)
25.10.23/1200	48	22.0	90.5	KHEPUPARA (28,F)	PATUAKHALI (41,SSE)	BHOLA (78,5)	HATIA (78,SW)	BARISAL (85,S)



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM "HAMOON" OVER NORTHWEST BAY OF BENGAL BASED ON 1200 UTC (1730 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 (≥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)

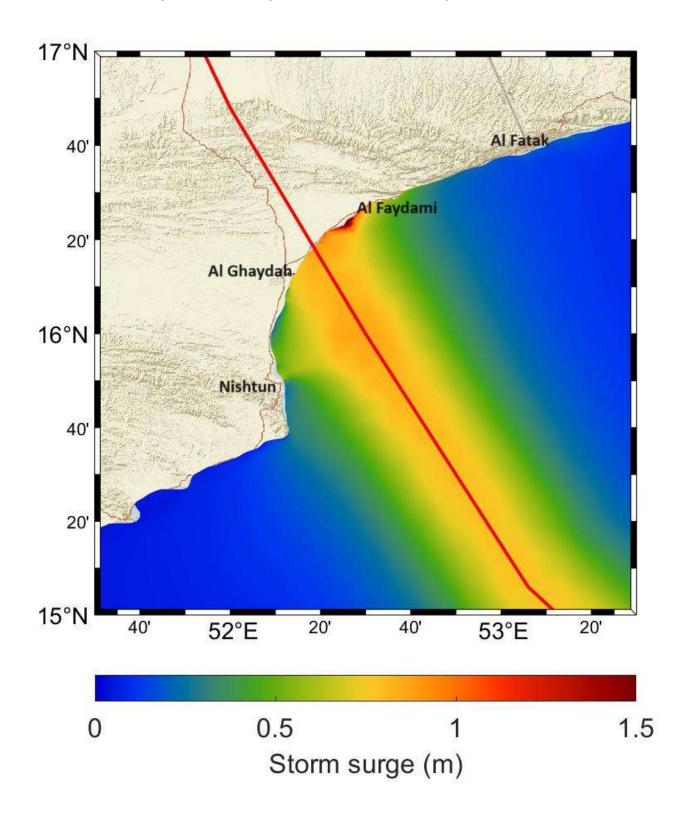
50-63 KT (92-117 KMPH) ≥ 64 KT (≥118 KMPH)

IMAD	ACT	OW	ED.	THE	SEA
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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			

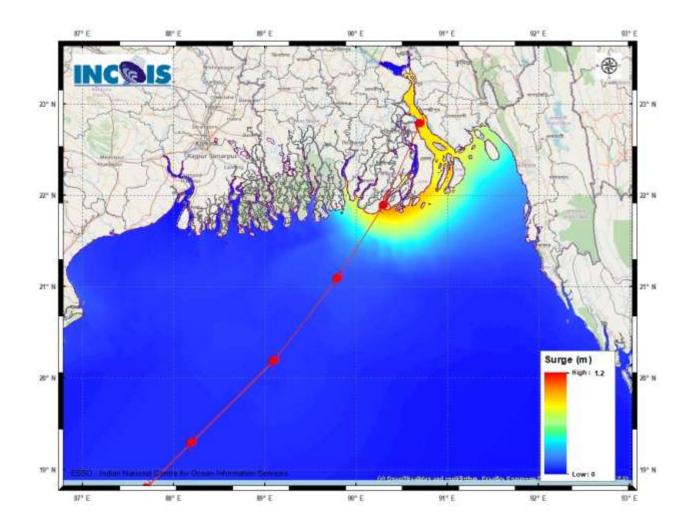
STORM SURGE GUIDANCE FOR YEMEN:

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.

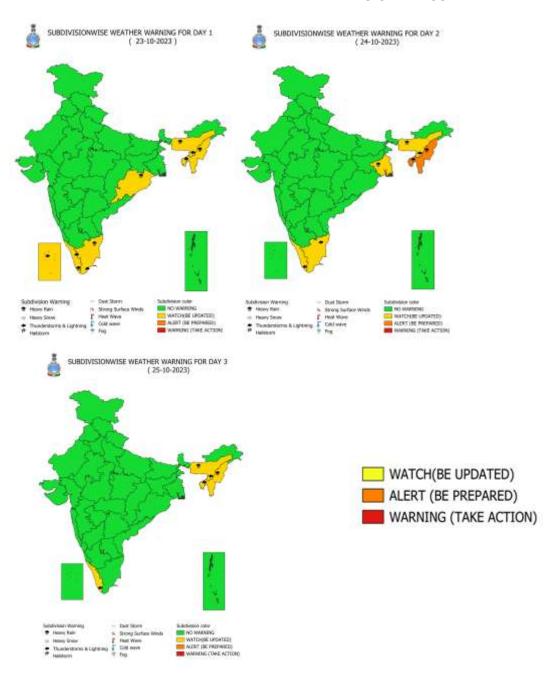


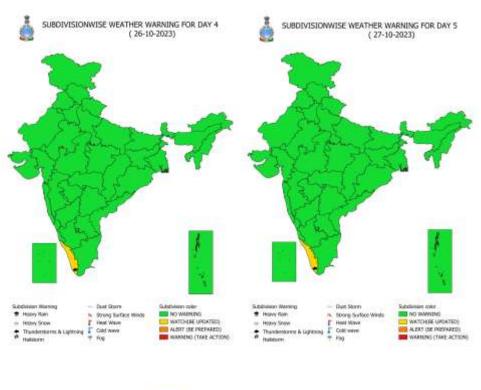
STORM SURGE GUIDANCE FOR BANGLADESH:

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.



WEATHER WARNING GRAPHICS





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