



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI
TROPICAL WEATHER OUTLOOK**

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 24.10.2023

FROM: RSMC –TROPICAL CYCLONES, NEW DELHI

**TO: STORM WARNING CENTRE, NAYPYI TAW (MYANMAR)
STORM WARNING CENTRE, BANGKOK (THAILAND)
STORM WARNING CENTRE, COLOMBO (SRILANKA)
STORM WARNING CENTRE, DHAKA (BANGLADESH)
STORM WARNING CENTRE, KARACHI (PAKISTAN)
METEOROLOGICAL OFFICE, MALE (MALDIVES)
OMAN METEOROLOGICAL DEPARTMENT, MUSCAT (THROUGH RTH JEDDAH)
YEMEN METEOROLOGICAL SERVICES, REPUBLIC OF YEMEN (THROUGH RTH JEDDAH)
NATIONAL CENTRE FOR METEOROLOGY, UAE (THROUGH RTH JEDDAH)
PRESIDENCY OF METEOROLOGY AND ENVIRONMENT, SAUDI ARABIA (THROUGH RTH JEDDAH)
IRAN METEOROLOGICAL ORGANISATION, (THROUGH RTH JEDDAH)
QATAR METEOROLOGICAL DEPARTMENT (THROUGH RTH JEDDAH)**

TROPICAL CYCLONE ADVISORY NO. 31 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 2000 UTC OF 24.10.2023 BASED ON 1800 UTC OF 24.10.2023.

SUB: SEVERE CYCLONIC STORM “HAMOON” (PRONOUNCED AS HAMOON) OVER NORTHEAST BAY OF BENGAL.

SEVERE CYCLONIC STORM “HAMOON” (PRONOUNCED AS HAMOON) OVER NORTHEAST BAY OF BENGAL

THE SEVERE CYCLONIC STORM “HAMOON” (PRONOUNCED AS HAMOON) OVER NORTHEAST BAY OF BENGAL MOVED NEARLY NORTHEASTWARDS WITH A SPEED OF 19 KMPH DURING PAST 6 HOURS AND LAY CENTERED AT 1800 UTC OF TODAY, THE 24TH OCTOBER OVER THE SAME REGION, NEAR LATITUDE 21.6°N AND LONGITUDE 91.6°E, ABOUT 420 KM EAST-SOUTHEAST OF DIGHA (WEST BENGAL, 42901), 150 KM EAST-SOUTHEAST OF KHEPUPARA (BANGLADESH, 41984) AND 80 KM SOUTH-SOUTHWEST OF CHITTAGONG (BANGLADESH, 41977).

LANDFALL PROCESS HAS COMMENCED. THE SEVERE CYCLONIC STORM IS VERY LIKELY TO MOVE NORTHEASTWARDS, WEAKENED INTO A CYCLONIC STORM AND CROSS BANGLADESH COAST TO THE SOUTH OF CHITTAGONG WITHIN A FEW HOURS WITH WIND SPEED OF 80 TO 90 KMPH GUSTING TO 100 KMPH.

FORECAST TRACK AND INTENSITY ARE GIVEN BELOW:

DATE/TIME (UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
24.10.23/1800	21.6/91.6	90-100 GUSTING TO 110	SEVERE CYCLONIC STORM
25.10.23/0000	22.2/92.2	80-90 GUSTING TO 100	CYCLONIC STORM
25.10.23/0600	22.8/92.7	60-70 GUSTING TO 80	CYCLONIC STORM
25.10.23/1200	23.4/93.2	40-50 GUSTING TO 60	DEPRESSION
25.10.23/1800	24.0/93.7	25-35 GUSTING TO 45	LOW PRESSURE AREA

AS PER INSAT 3D IMAGERY, THE INTENSITY OF THE SYSTEM IS CHARACTERISED AS T3.5/C.I.3.5. IT SHOWS SHEAR PATTERN. ASSOCIATED BROKEN LOW TO MEDIUM CLOUDS WITH INTENSE TO VERY INTENSE CONVECTION LIES OVER NORTH EAST BAY OF BENGAL AND ADJOINING SOUTH BANGLADESH BETWEEN LAT 20.5N TO 24.5N LONG 90.5E TO 94.5E. MINIMUM CTT - 90 DEG CEL.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 50 KNOTS GUSTING TO 60 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 994 HPA.

WIND GUIDANCE (MAP ENCLOSED):

- **NORTHEAST BAY OF BENGAL:**
GALE WIND SPEED REACHING **90-100 KMPH GUSTING TO 110 KMPH** IS LIKELY TO DECREASE GRADUALLY BECOMING **80-90 KMPH GUSTING TO 100 KMPH** BY 0300 UTC OF 25TH AND WOULD DECREASE THEREAFTER.
- **NORTHWEST BAY OF BENGAL:**
GALE WIND SPEED REACHING **80-90 KMPH GUSTING TO 100 KMPH** IS PREVAILING AND LIKELY TO DECREASE GRADUALLY THEREAFTER BECOMING **SQUALLY WIND** SPEED REACHING **50-60 KMPH GUSTING TO 70 KMPH** BY 0300 UTC OF 25TH 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 DECREASE FROM 06 UTC OF 25TH.
- **ALONG & OFF WEST BENGAL, BANGLADESH AND NORTH MYANMAR COASTS:**
SQUALLY WIND SPEED REACHING **40-50 KMPH GUSTING TO 60 KMPH** IS LIKELY TO PREVAIL ALONG & OFF WEST BENGAL COAST TILL 0300 UTC OF 25TH.
GALE WIND SPEED REACHING **80-90 KMPH GUSTING TO 100 KMPH** IS PREVAILING ALONG & OFF BANGLADESH AND ADJOINING NORTH MYANMAR COAST AND CONTINUE 0000 UTC OF 25TH AND DECREASE THEREAFTER. **SQUALLY WIND** SPEED REACHING **55-65 KMPH GUSTING TO 75 KMPH** LIKELY ALONG & OFF REMAINING PARTS OF NORTH MYANMAR COAST DURING THE SAME PERIOD AND DECREASE THEREAFTER.

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

- **NORTHEAST BAY OF BENGAL AND ALONG & OFF BANGLADESH & ADJOINING NORTH MYANMAR COASTS:**
VERY HIGH SEA CONDITIONS ARE PREVAILING AND LIKELY TO CONTINUE TILL 0300 UTC OF 25TH AND WOULD BECOME **HIGH** THEREAFTER TILL 0600 UTC OF 25TH AND **VERY ROUGH TO ROUGH** BY 1200 UTC OF 25TH OCTOBER.
- **NORTHWEST BAY OF BENGAL:**
HIGH TO VERY ROUGH SEA CONDITIONS ARE PREVAILING AND LIKELY TO CONTINUE TILL 0300 UTC OF 25TH AND WOULD BECOME **ROUGH** TILL 1200 UTC OF 25TH AND IMPROVE THEREAFTER.
- **ADJOINING EASTCENTRAL BAY OF BENGAL: VERY ROUGH TO ROUGH** SEA CONDITION IS LIKELY TO PREVAIL TILL 0600 UTC OF 25TH OCTOBER AND IMPROVE GRADUALLY THEREAFTER.
- **ALONG & OFF WEST BENGAL COASTS: ROUGH TO VERY ROUGH** SEA CONDITIONS IS LIKELY TO PREVAIL TILL 0300 UTC OG 25TH OCTOBER.

(IV) FISHERMEN WARNING (GRAPHICS ATTACHED):

FISHERMEN ARE ADVISED NOT TO VENTURE INTO

- ❖ **NORTH BAY OF BENGAL AND ALONG & OFF WEST BENGAL, BANGLADESH AND NORTH MYANMAR COASTS** TILL 25TH OCTOBER.
- ❖ **ADJOINING AREAS OF EASTCENTRAL BAY OF BENGAL** TILL 0300 UTC OF 25TH OCTOBER.

SYSTEM IS UNDER CONTINUOUS SURVEILLANCE AND THE NEXT BULLETIN WILL BE ISSUED AT 0000 UTC OF 25TH OCTOBER, 2023.

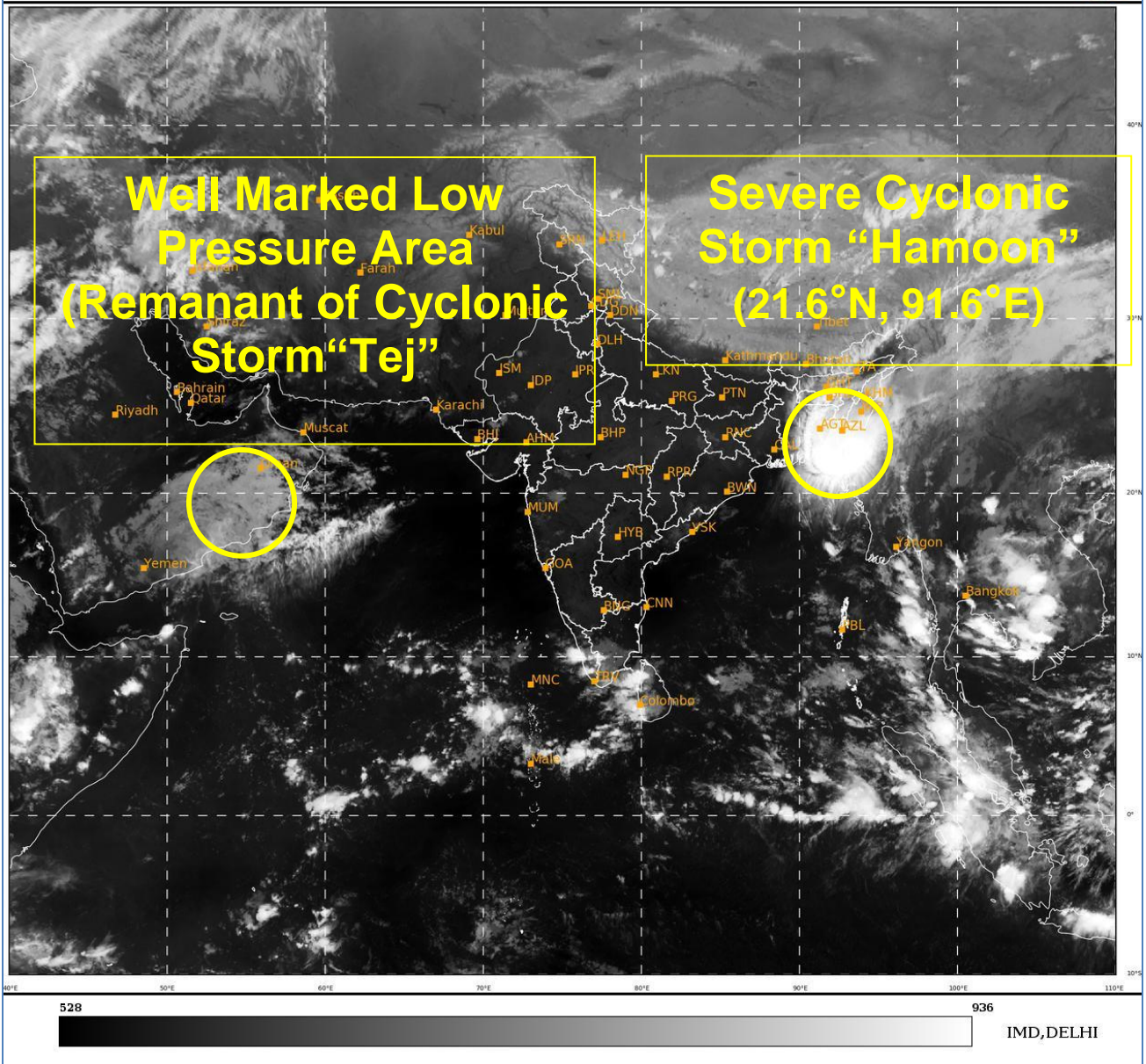
REMARKS:

BAY OF BENGAL:

SEA SURFACE TEMPERATURE IS 28-30°C OVER NORTH BAY OF BENGAL. THE LOW LEVEL POSITIVE VORTICITY HAS DECREASED IN PAST 03 HOURS AND IS AROUND $150 \times 10^{-6} \text{S}^{-1}$ TO THE SOUTH OF SYSTEM CENTER. THE POSITIVE LOW LEVEL CONVERGENCE HAS DECREASED FURTHER AND IS ABOUT $05-10 \times 10^{-5} \text{S}^{-1}$ TO THE SOUTHEAST OF SYSTEM CENTRE. POSITIVE UPPER LEVEL DIVERGENCE IS HAS DECREASED AND IS ABOUT $10 \times 10^{-5} \text{S}^{-1}$ ALONG THE FORECAST TRACK OF SYSTEM. IT IS NORTHEAST-SOUTHWEST ORIENTED. THE SYSTEM HAS ENTERED INTO A ZONE OF HIGH (> 30 KNOTS) WIND SHEAR. THE SYSTEM IS MOVING FASTER AND ALSO EXPECTED TO MOVE FAST UNDER THE INFLUENCE OF UPPER TROPOSPHERIC WESTERLY TROUGH LYING TO THE WEST OF THE SYSTEM OVER CENTRAL AND NORTH INDIA.

LANDFALL PROCESS HAS COMMENCED. THE SEVERE CYCLONIC STORM IS VERY LIKELY TO MOVE NORTHEASTWARDS, WEAKENED INTO A CYCLONIC STORM AND CROSS BANGLADESH COAST TO THE SOUTH OF CHITTAGONG WITHIN A FEW HOURS WITH WIND SPEED OF 80 TO 90 KMPH GUSTING TO 100 KMPH.

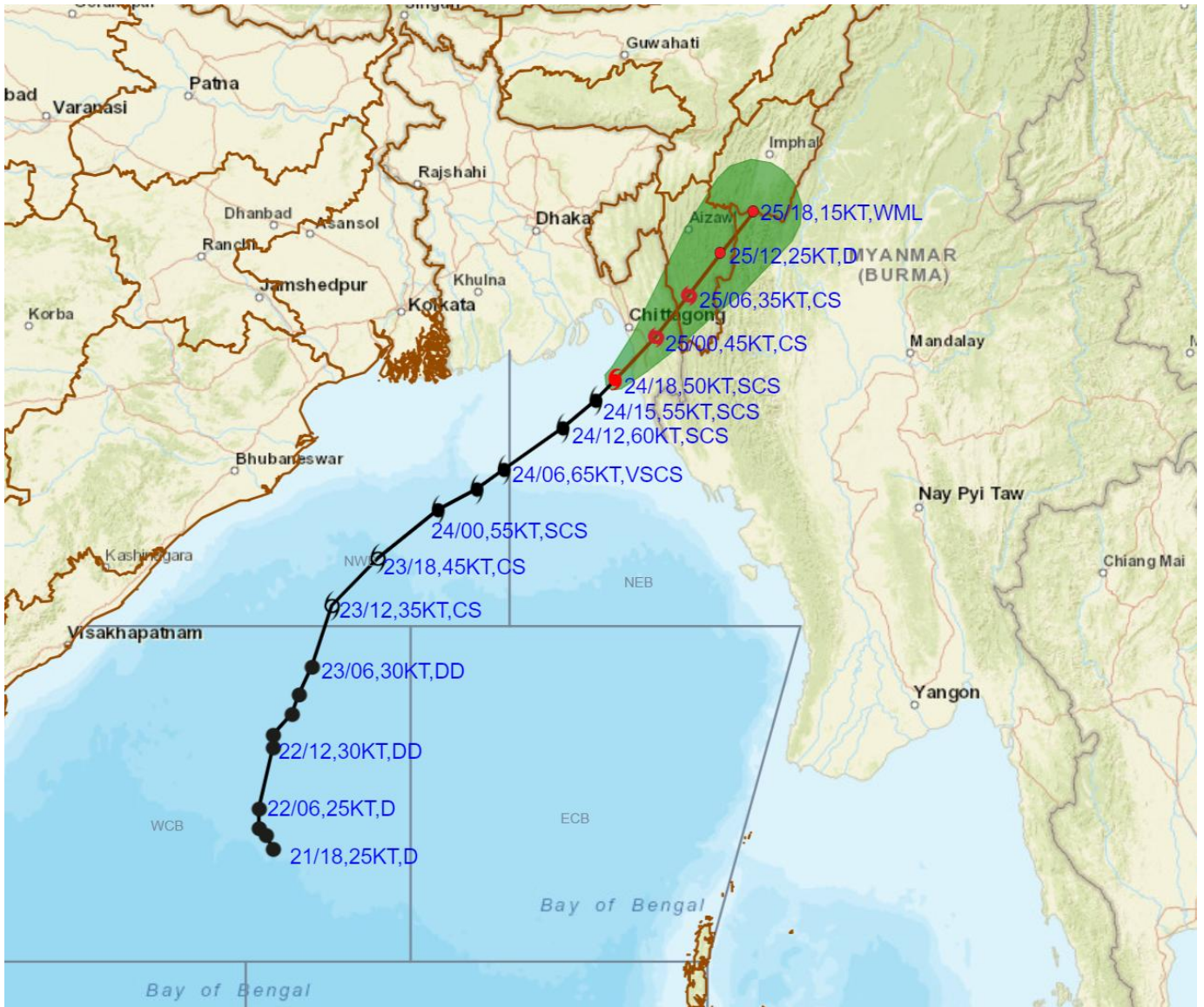
(TRISANU BANIK)
SCIENTIST-C
RSMC, NEW DELHI



Cloud distribution: (a) Isolated: <25%, Scattered:25-50%, Broken: 51-75%, Solid:>75%, Convection Intensity: (a) Weak: Cloud Top Temperature (CTT) >-25°C, (b) Moderate: CTT: - 25°C to -40°C, (c) Intense: CTT: - 41°C to -70°C and (d) Very Intense: : Less than -70°C
PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION):NIL: 0%, LOW: 1-33%, , MODERATE: 34-66% AND HIGH: 67-100%
This is a guidance Bulletin for WMO/ESCAP Panel Member countries. Visit respective National websites for Country specific Bulletins



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF SEVERE CYCLONIC STORM "HAMOON" OVER NORTHEAST BAY OF BENGAL BASED ON 1800 UTC (2330 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)

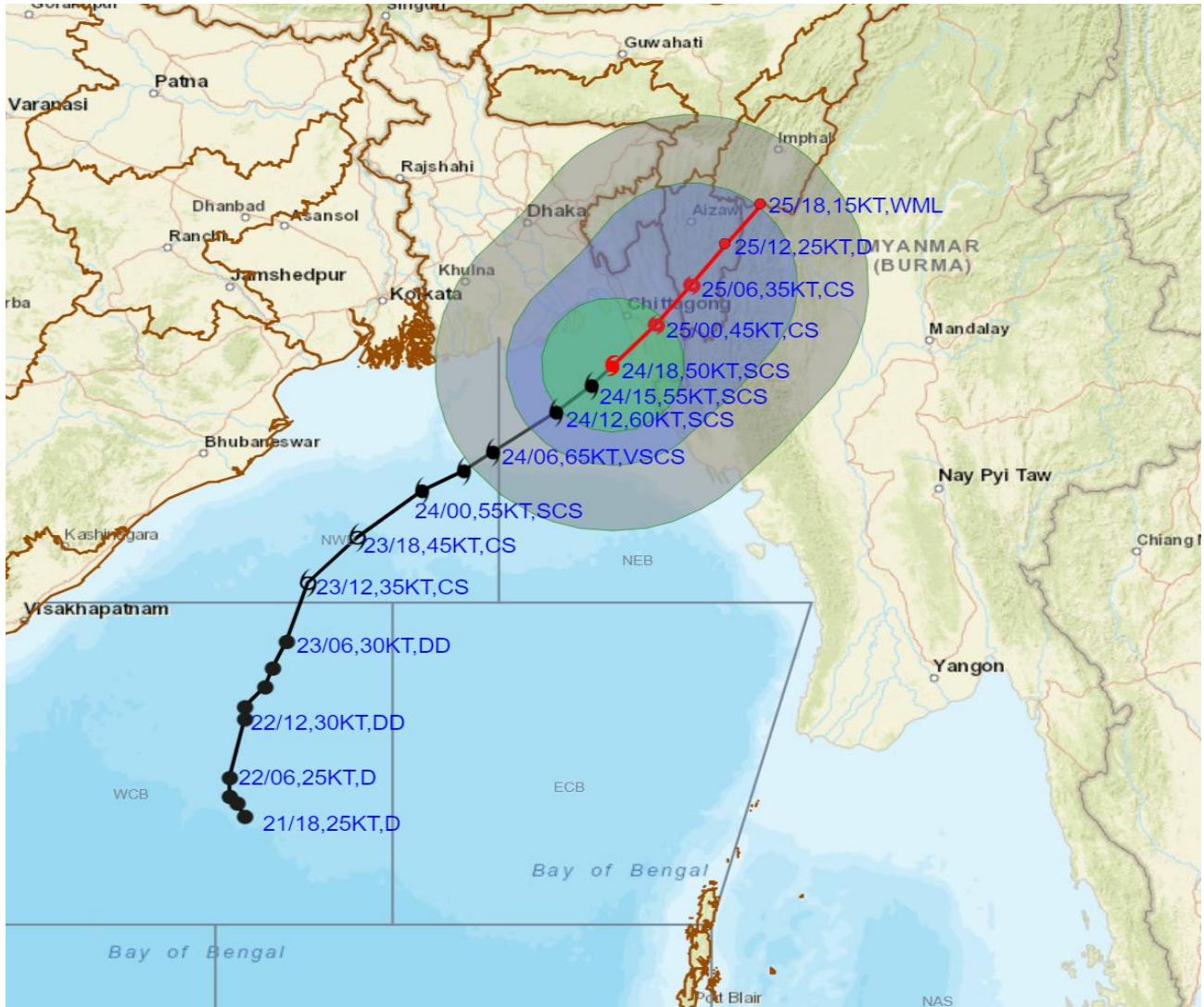
- LESS THAN 34 KT
- 34-47 KT
- ≥ 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

Forecast	DISTANCE(KM) AND DIRECTION FROM STATIONS			
	PARADIP (CWR)	DIGHA	KHEPUPARA	CHITTAGONG (AMBAGAN)
25.10.23/1800	830, ENE	690, ENE	420, ENE	270, NE

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OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF SEVERE CYCLONIC STORM "HAMOON" OVER NORTHEAST BAY OF BENGAL BASED ON 1800 UTC (2330 IST) OF 24TH OCTOBER 2023.



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 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)

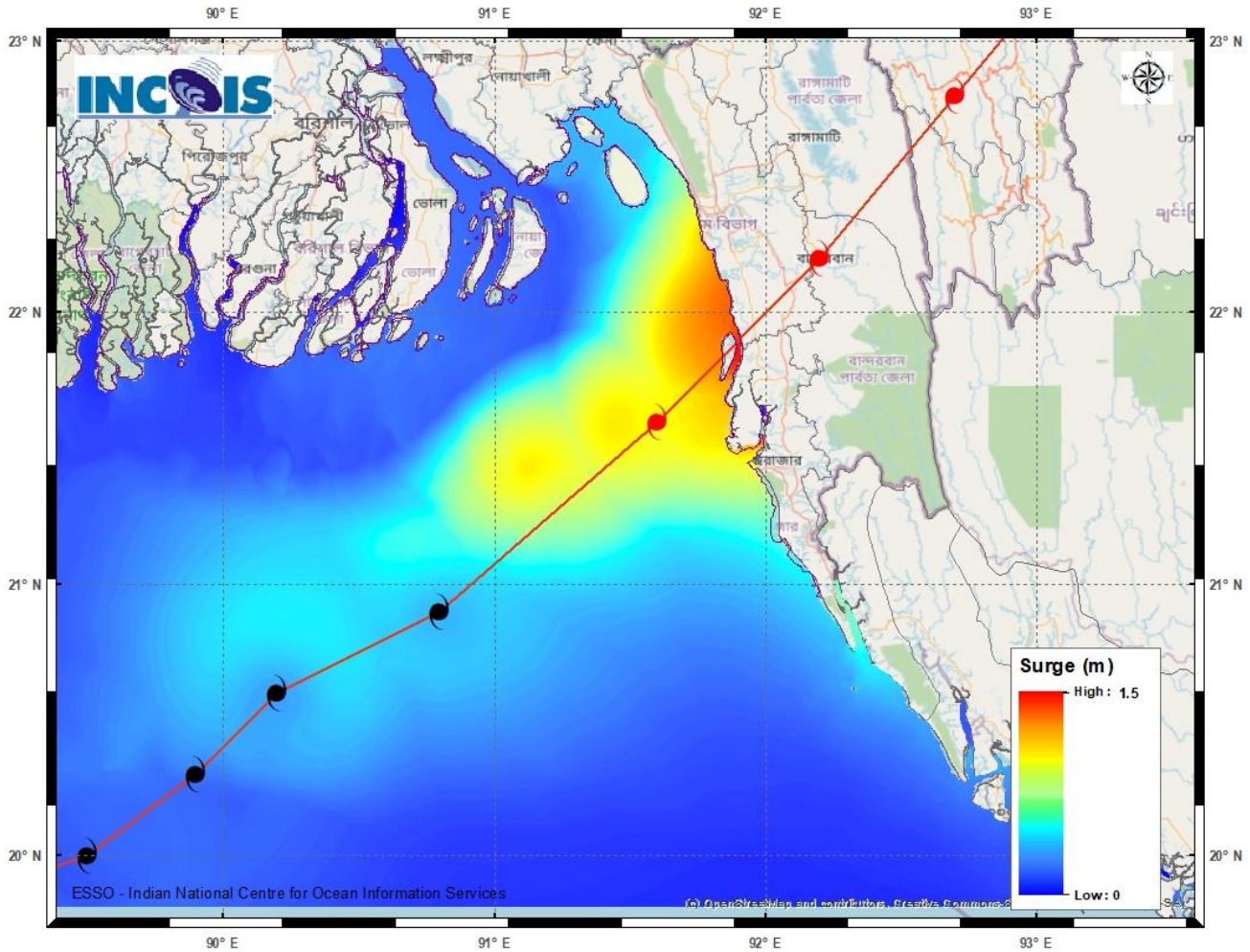
IMPACT OVER THE SEA

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

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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.



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Fishermen warning graphics

