



**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. 32 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 2300 UTC OF 24.10.2023 BASED ON 2100 UTC OF 24.10.2023.

SUB: SEVERE CYCLONIC STORM “HAMOON” (PRONOUNCED AS HAMOON) WEAKENED INTO A CYCLONIC STORM AND CROSSED BANGLADESH COAST

THE SEVERE CYCLONIC STORM “HAMOON” (PRONOUNCED AS HAMOON) OVER NORTHEAST BAY OF BENGAL MOVED NEARLY NORTHEASTWARDS WITH A SPEED OF 17 KMPH DURING PAST 6 HOURS, WEAKENED INTO A CYCLONIC STORM AND CROSSED BANGLADESH COAST TO THE SOUTH OF CHITTAGONG (BANGLADESH,41977) NEAR LATITUDE 21.9°N AND LONGITUDE 91.9°E BETWEEN 2000 UTC AND 2100 UTC OF 24 OCTOBER AS A CYCLONIC STORM WITH WIND SPEED OF 75-85 KMPH GUSTING TO 95 KMPH.

IT LAY CENTERED AT 2100 UTC OF 24TH OCTOBER OVER COASTAL BANGLADESH NEAR LATITUDE 22.0°N AND LONGITUDE 92.0°E, ABOUT 180 KM EAST OF KHEPUPARA (BANGLADESH,41984) AND 40 KM SOUTH-SOUTHEAST OF CHITTAGONG (BANGLADESH,41977).

IT IS VERY LIKELY TO MOVE NORTHEASTWARDS AND WEAKEN INTO A DEEP DEPRESSION DURING NEXT 06 HOURS AND FURTHER INTO A DEPRESSION DURING SUBSEQUENT 06 HOURS.

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%
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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
24.10.23/2100	22.0/92.0	70-80 GUSTING TO 90	CYCLONIC STORM
25.10.23/0000	22.2/92.2	65-75 GUSTING TO 85	CYCLONIC STORM
25.10.23/0600	22.8/92.7	50-60 GUSTING TO 70	DEEP DEPRESSION
25.10.23/1200	23.4/93.2	35-45 GUSTING TO 55	DEPRESSION

AS PER INSAT 3D IMAGERY, HAMOON OVER NORTH EAST BAY AND NEIGHBOURHOOD HAS CROSSED BANGLADESH COAST. IT SHOWS SHEAR PATTERN. ASSOCIATED BROKEN LOW TO MEDIUM CLOUDS WITH INTENSE TO VERY INTENSE CONVECTION LIES OVER BANGLADESH BETWEEN LAT 21.5N TO 25.5N LONG 92.5E TO 95.5E. MINIMUM CTT - 78 DEG CEL.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 50 KNOTS GUSTING TO 60 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 996 HPA.

(II) WIND WARNING (WARNING GRAPHICS ENCLOSED):

• **NORTHEAST BAY OF BENGAL:**

GALE WIND SPEED REACHING 70-80 KMPH GUSTING TO 90 KMPH IS PREVAILING AND LIKELY TO DECREASE GRADUALLY BECOMING SQUALLY WIND SPEED REACHING 50-60 KMPH GUSTING TO 70 KMPH BY 0600 UTC OF 25TH AND WOULD DECREASE THEREAFTER.

• **NORTHWEST BAY OF BENGAL:**

SQUALLY WIND SPEED REACHING 40-50 KMPH GUSTING TO 60 KMPH IS PREVAILING AND LIKELY TO CONTINUE DURING NEXT 06 HOURS AND DECREASE THEREAFTER.

ADJOINING EASTCENTRAL BAY OF BENGAL: SQUALLY WIND SPEED REACHING 50-60 KMPH GUSTING TO 70 KMPH IS PREVAILING AND LIKELY TO CONTINUE DURING NEXT 06 HOURS AND DECREASE THEREAFTER.

• **ALONG & OFF WEST BENGAL, BANGLADESH AND NORTH MYANMAR COASTS:**

SQUALLY WIND SPEED REACHING 30-40 KMPH GUSTING TO 50 KMPH IS LIKELY TO PREVAIL ALONG & OFF WEST BENGAL COAST TILL 0000 UTC OF 25TH.

GALE WIND SPEED REACHING 70-80 KMPH GUSTING TO 90 KMPH IS PREVAILING ALONG & OFF BANGLADESH AND ADJOINING NORTH MYANMAR COAST AND LIKELY TO DECREASE GRADUALLY BECOME SQUALLY WIND SPEED REACHING 40-50 KMPH GUSTING TO 60 KMPH BY 0600 UTC OF 25TH AND WOULD DECREASE FURTHER 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 30-40 KMPH GUSTING TO 50 KMPH IS LIKELY TO PREVAIL OVER MIZORAM AND TRIPURA AND STRONG WIND SPEED REACHING 25-35 KMPH GUSTING TO 45 KMPH OVER SOUTH ASSAM & MANIPUR ON 25TH OCTOBER.

(III) SEA CONDITION

• **NORTHEAST BAY OF BENGAL AND ALONG & OFF BANGLADESH & ADJOINING NORTH MYANMAR COASTS:**

HIGH SEA CONDITIONS ARE PREVAILING AND LIKELY TO CONTINUE DURING NEXT 06 HOURS AND WOULD BECOME VERY ROUGH TO ROUGH THEREAFTER FOR SUBSEQUENT 12 HOURS.

• **NORTHWEST BAY OF BENGAL:**

VERY ROUGH SEA CONDITIONS ARE PREVAILING AND LIKELY TO BECOME ROUGH FROM 0000 UTC OF 25TH FOR SUBSEQUENT 06 HOURS.

• **ADJOINING EASTCENTRAL BAY OF BENGAL:** VERY ROUGH TO ROUGH SEA CONDITION IS LIKELY TO PREVAIL DURING NEXT 06 HOURS AND BECOME ROUGH THEREAFTER FOR SUBSEQUENT 6 HOURS.

• **ALONG & OFF WEST BENGAL COASTS:** ROUGH SEA CONDITIONS IS LIKELY TO PREVAIL DURING NEXT 06 HOURS.

(IV) FISHERMEN WARNING (GRAPHICS ATTACHED):

FISHERMEN ARE ADVISED NOT TO VENTURE INTO

- ❖ NORTHEAST BAY OF BENGAL AND ALONG & OFF BANGLADESH & NORTH MYANMAR COASTS TILL 25TH OCTOBER.
- ❖ ADJOINING AREAS OF NORTHWEST BAY OF BENGAL, ALONG & OFF WEST BENGAL COAST AND EASTCENTRAL BAY OF BENGAL TILL 0600 UTC OF 25TH OCTOBER.

SYSTEM IS UNDER CONTINUOUS SURVEILLANCE AND THE NEXT BULLETIN WILL BE ISSUED AT 0300 HOURS IST OF 25TH OCTOBER, 2023.

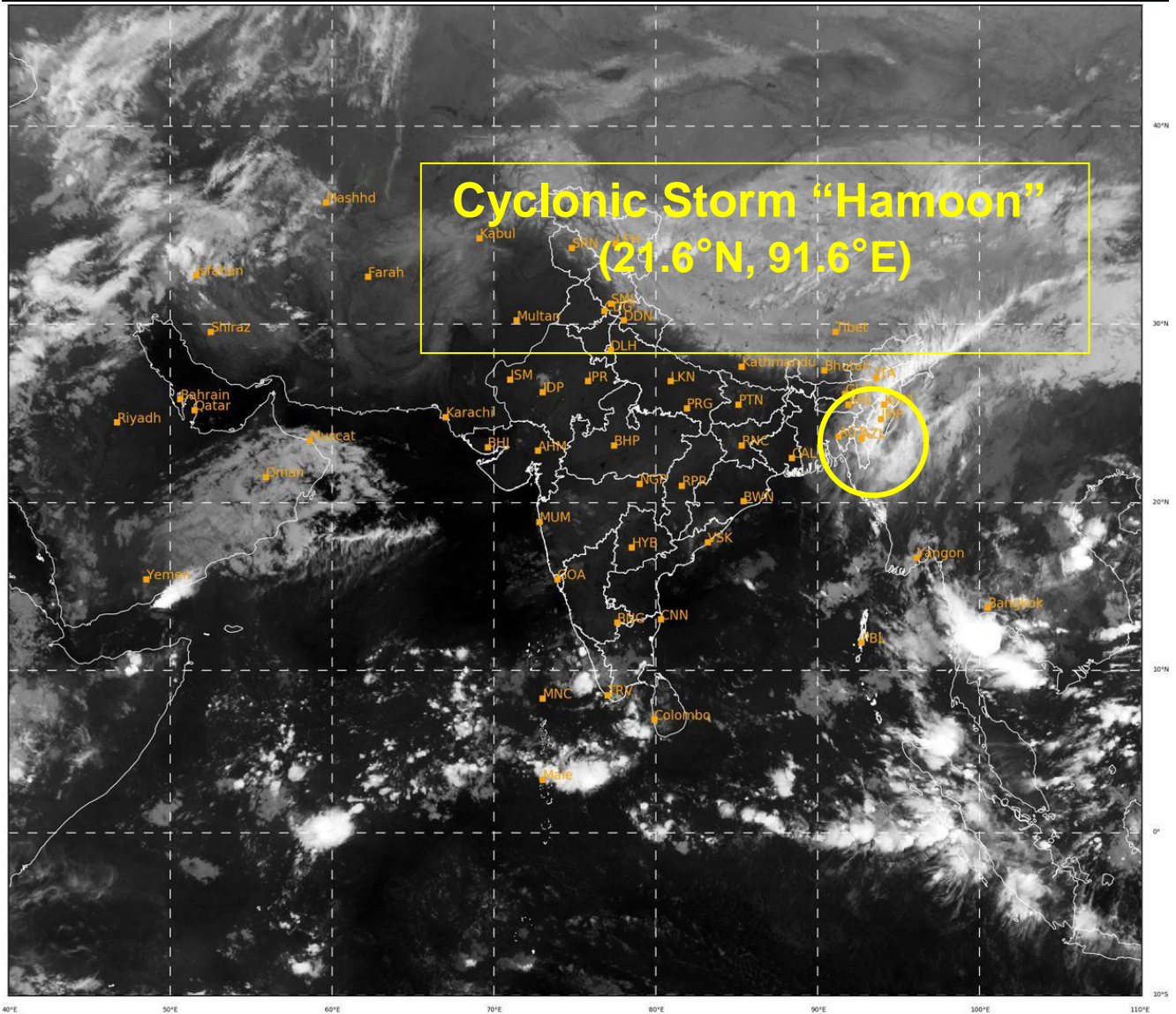
REMARKS:

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 $100 \times 10^{-6} S^{-1}$ TO THE SOUTH OF SYSTEM CENTER. THE POSITIVE LOW LEVEL CONVERGENCE HAS DECREASED FURTHER AND IS ABOUT $05-10 \times 10^{-5} S^{-1}$ TO THE SOUTHEAST OF SYSTEM CENTRE. POSITIVE UPPER LEVEL DIVERGENCE HAS DECREASED AND IS ABOUT $10 \times 10^{-5} S^{-1}$ ALONG THE FORECAST TRACK OF SYSTEM. IT IS NORTHEAST-SOUTHWEST ORIENTED. THE SYSTEM HAS ENTERED INTO A ZONE OF HIGH (> 40 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.

THE SYSTEM IS VERY LIKELY TO MOVE NORTHEASTWARDS AND WEAKEN INTO A DEEP DEPRESSION DURING NEXT 06 HOURS AND FURTHER INTO A DEPRESSION DURING SUBSEQUENT 06 HOURS

(TRISANU BANIK)
SCIENTIST-C
RSMC, NEW DELHI



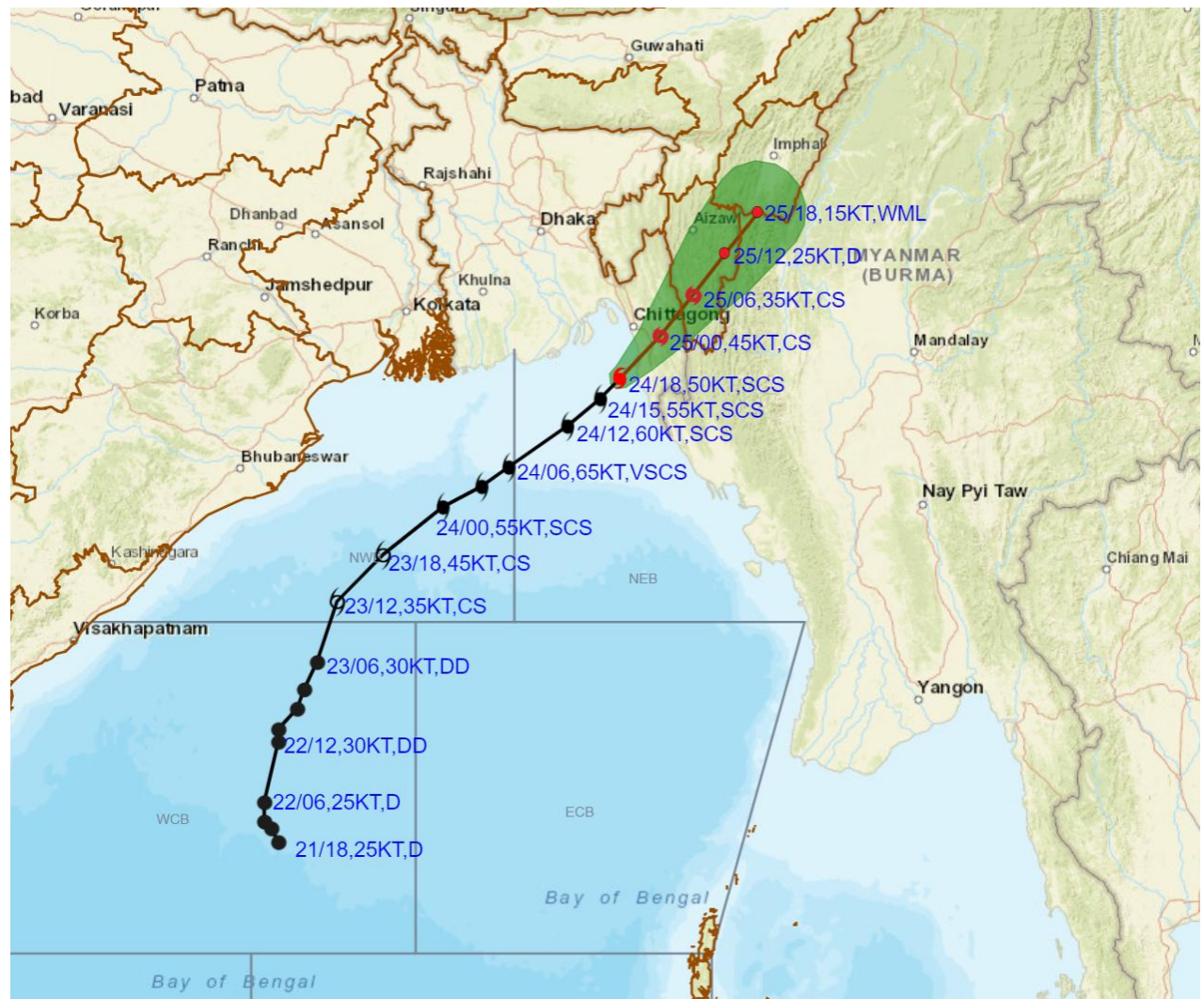
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IMD, DELHI



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)

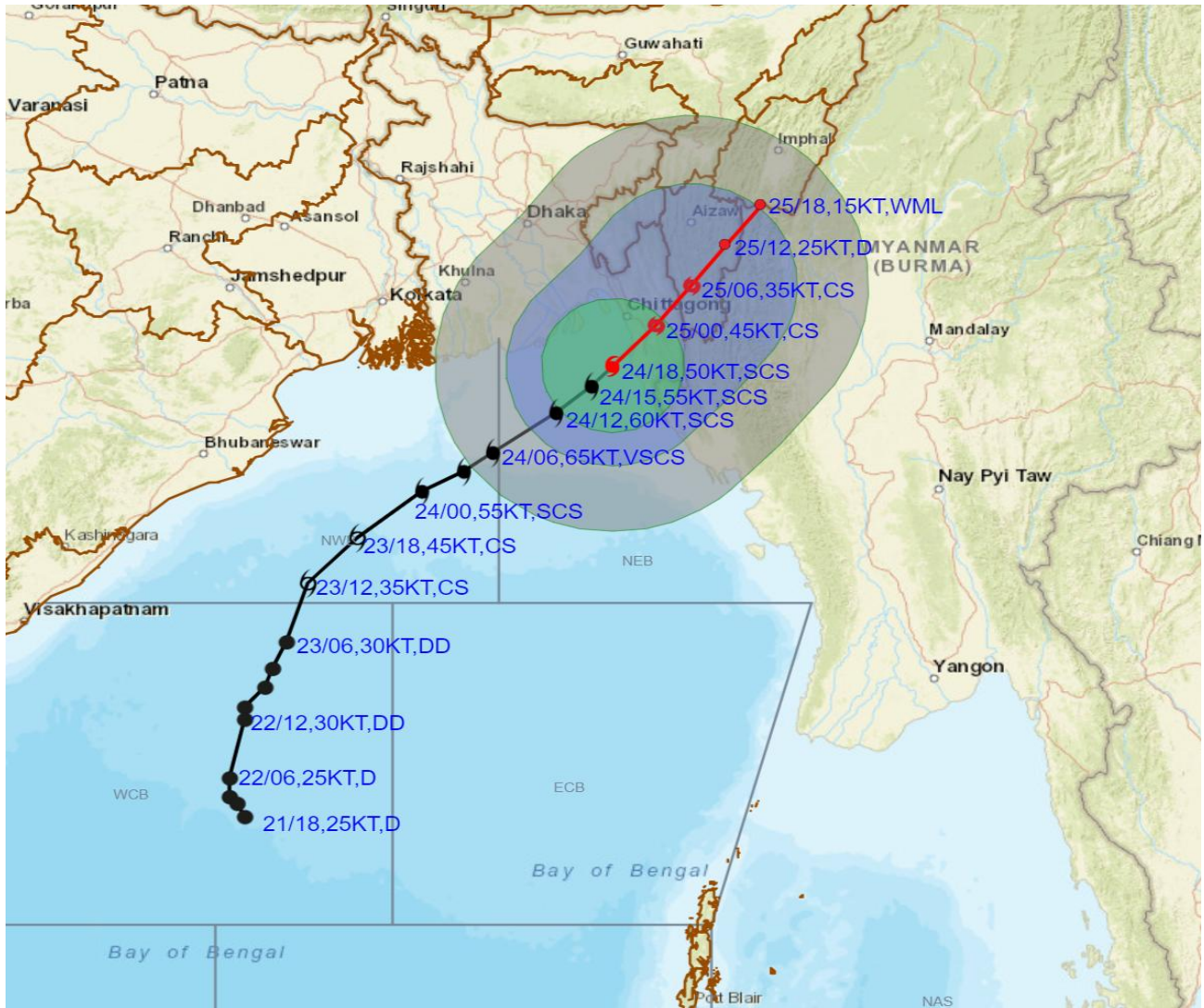
- LESS THAN 34 KT
- ⊙ 34-47 KT
- ⊙ ≥ 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- ▲ CONE OF UNCERTAINTY

Forecast	DISTANCE(KM) AND DIRECTION FROM STATIONS			
Date and Time	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.



DATE/TIME IN UTC

IST=UTC + 0530

L: LOW PRESSURE AREA

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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)

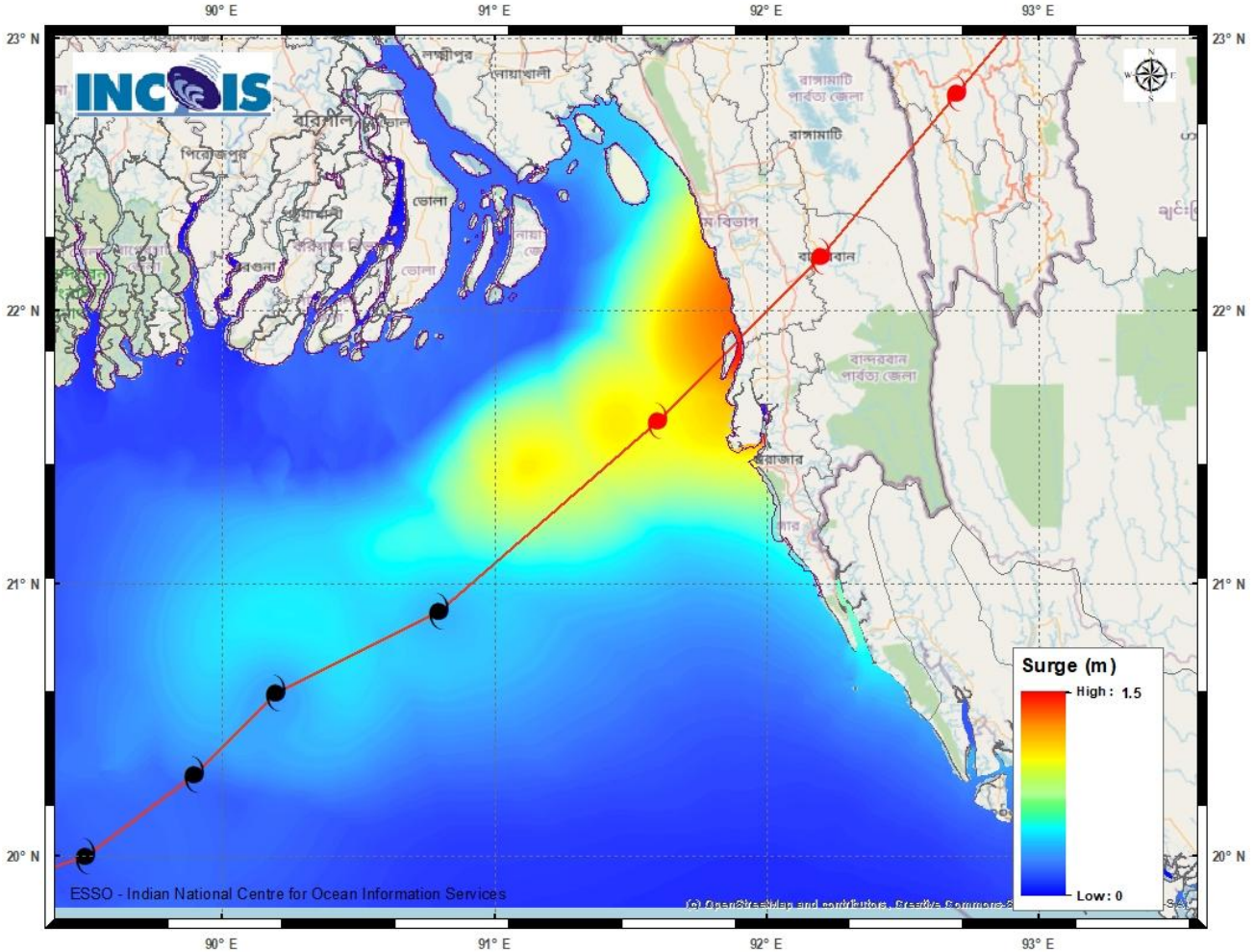
IMPACT OVER THE SEA

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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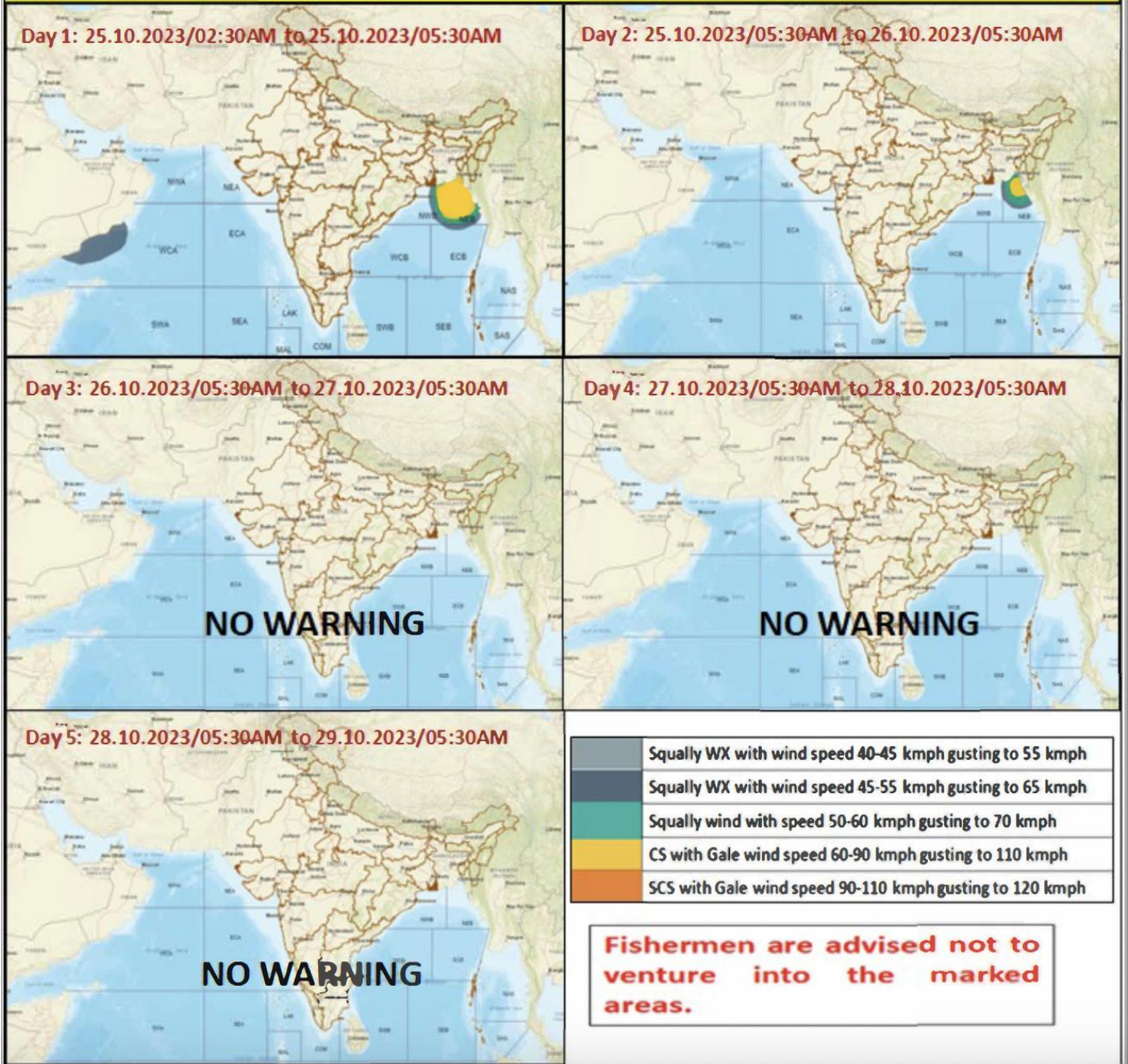
STORM SURGE GUIDANCE FOR BANGLADESH:

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



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