



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)

MODIFIED TROPICAL CYCLONE ADVISORY NO. 27 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0900 UTC OF 24.10.2023 BASED ON 0600 UTC OF 24.10.2023.

SUB: (A) SEVERE CYCLONIC STORM "TEJ" (PRONOUNCED AS TEJ) WEAKENED INTO A CYCLONIC STORM OVER COASTAL YEMEN AND

(B) [Modified] VERY SEVERE CYCLONIC STORM "HAMOON" (PRONOUNCED AS HAMOON) OVER NORTHWEST & NORTHEAST ADJOINING 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-NORTHWESTWARDS WITH A SPEED OF 11 KMPH DURING PAST 6 HOURS, WEAKENED INTO A CYCLONIC STROM AND LAY CENTERED AT 0600 UTC OF TODAY, THE 24TH OCTOBER OVER YEMEN, NEAR LATITUDE 16.1°N AND LONGITUDE 51.5°E, ABOUT 60 KM WEST OF AL GHAIDAH (YEMEN, 41398) AND 290 KM WEST-SOUTHWEST OF SALALAH (OMAN, 41316).

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(UTC)	POSITION (LAT. ⁰ N/ LONG. ⁰ E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
24.10.23/0600	16.1/51.5	70-80 GUSTING TO 90	CYCLONIC STORM
24.10.23/1200	16.2/51.2	30-40 GUSTING TO 50	DEPRESSION

AS PER INSAT 3D IMAGERY, ASSOCIATED SACTTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WESTCENTRAL ARABIAN SEA BETWEEN LATITUDE 13.5°N TO 19.0°N AND LONGITUDE 50.0°E TO 59.0°E & EAST YEMEN, OMAN AND ADJOINING SOUTHEAST SAUDI ARABIA. MINIMUM CLOUD TOP TEMPRATURE IS MINUS 65°C. THE SATELLITE IMAGERY SHOWS GRADUAL DISORGANISATION IN STRUCTURE. MULTISATELLITE WINDS INDICATE STRONGER WINDS IN THE NORTH & EASTERN SECTOR. TOTAL PRECIPITABLE WATER IMAGERY SHOWS THAT DRY AIR INCURSION IS TAKING PLACE FROM THE WEST AND SOUTHWEST SECTOR OF THE SYSTEM AND THERE IS DECREASE IN WARM MOIST AIR INCURSION.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 40 KNOTS GUSTING TO 50 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 1000 HPA.

SEA CONDITION:

WESTCENTRAL ARABIAN SEA: HIGH SEA CONDITION IS LIKELY FROM 0600 UTC OF 24TH OCTOBER. IT WOULD BECOME VERY ROUGH TO ROUGH FOR SUBSEQUENT 06 HOURS.

(B) [Modified] VERY SEVERE CYCLONIC STORM "HAMOON" (PRONOUNCED AS HAMOON) OVER NORTHWEST AND ADJOINING NORTHEAST BAY OF BENGAL

THE VERY SEVERE CYCLONIC STORM "HAMOON" (PRONOUNCED AS HAMOON) 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 0600 UTC OF TODAY, THE 24TH OCTOBER OVER THE SAME REGION, NEAR LATITUDE 20.3°N AND LONGITUDE 89.9°E, ABOUT 330 KM EAST OF PARADIP (ODISHA, 42976), 290 KM EAST-SOUTHEAST OF DIGHA (WEST BENGAL, 42901), 190 KM SOUTH OF KHEPUPARA (BANGLADESH, 41984) AND 305 KM SOUTHWEST OF CHITTAGONG (BANGLADESH, 41977).

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 AROUND 2100 UTC OF 24TH 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 (UTC)	POSITION (LAT. ⁰ N/ LONG. ⁰ E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
24.10.23/0600	20.3/89.9	20.3/89.9	120-130 gusting to 145
24.10.23/1200	20.8/90.6	20.8/90.6	105-115 gusting to 125
24.10.23/1800	21.3/91.3	21.3/91.3	100-110 gusting to 120
25.10.23/0000	21.9/92.0	21.9/92.0	80-90 gusting to 100

25.10.23/0600	22.4/92.5	22.4/92.5	65-75 gusting to 85
25.10.23/1800	23.6/93.5	23.6/93.5	40-50 gusting to 60

AS PER INSAT 3D IMAGERY, THE INTENSITY OF THE SYSTEM IS CHARACTERISED AS T4.0. ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTHWEST AND ADJOINING NORTHEAST BAY OF BENGAL BETWEEN LATITUDE 19.0N TO 21.5N AND LONGITUDE 85.0E TO 90.5E. MINIMUM CLOUD TOP TEMPRATURE IS MINUS 93 DEGREE CELSIUS. INTENSE CONVECTIVE CLOUD MASS EMBEDDED WITH MULTIPLE VERY INTENSE CONVECTIVE CELLS CONTINUES TO APPEAR TO THE NORTHEAST OF THE SYSTEM INTERACTING WITH BANGLADESH COAST. THE OUTFLOW BANDS WITH MODERATE CONVECTION IS SEEN OVER MIZORAM MANIPUR MEGHALAYA. MULTISATELLITE WINDS INDICATE STRONGER WINDS IN EASTERN SECTOR.

WIND GUIDANCE (MAP 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 1800 UTC OF 24^{TH} AND 80-90 **KMPH GUSTING TO 90 KMPH** BY 0000 UTC OF 25^{TH} 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 1800 UTC OF 24TH, AND SQUALLY WIND SPEED REACHING 50-60 KMPH GUSTING TO 70 KMPH BY 1200 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 INCREASE BECOMING 80-90 KMPH GUSTING TO 100 KMPH FROM 1800 UTC OF 24TH AND BECOME 60-70 GUSTING TO 80 KMPH FROM 0300 UTC OF 25TH AND 45-55 GUSTING TO 65 KMPH FROM 0600 UTC OF 25TH.
- 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 24TH. SQUALLY WIND SPEED REACHING 40-50 KMPH GUSTING TO 60 KMPH IS PREVAILING ALONG & OFF WEST BENGAL, BANGLADESH AND NORTH MYANMAR COASTS FROM 0000 UTC OF 24TH. 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 1800 UTC OF 24TH 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 0000 UTC OF 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.

STORM SURGE GUIDANCE FOR BANGLADESH COAST:

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 AROUND THE TIME OF LANDFALL.

SEA CONDITION:

- NORTHEAST BAY OF BENGAL AND ALONG & OFF BANGLADESH & ADJOINING NORTH MYANMAR COASTS:
 - PHENOMENAL SEA CONDITIONS ARE PREVAILING AND LIKELY TO CONTINUE TILL 1200 UTC OF 24TH AND WOULD BECOME VERY HIGH TO HIGH THEREAFTER TILL 0000 UTC OF 25TH AND VERY ROUGH TO ROUGH TILL 1200 UTC OF 25TH OCTOBER.
- NORTHWEST BAY OF BENGAL: PHENOMENAL SEA CONDITIONS ARE PREVAILING AND LIKELY TO CONTINUE TILL 1200 UTC OF 24TH AND WOULD BECOME VERY HIGH TO HIGH THEREAFTER TILL 1800 UTC OF
- ADJOINING EASTCENTRAL BAY OF BENGAL: VERY ROUGH TO ROUGH TILL 0000 UTC OF 25TH OCTOBER. IT IS LIKELY TO IMPROVE GRADUALLY THEREAFTER.

24TH AND THEN VERY ROUGH TO ROUGH BY 0000 UTC OF 25TH OCTOBER.

• ALONG & OFF WEST BENGAL COASTS: ROUGH TO VERY ROUGH SEA CONDITIONS TILL 0000 UTC OF 25TH OCTOBER.

REMARKS:

ARABIAN SEA:

THE LOW LEVEL POSITIVE VORTICITY IS ABOUT 100 X10⁻⁶S⁻¹ AROUND SYSTEM CENTER WITH VERTICAL EXTENSION UPTO 200 HPA LEVEL. THE POSITIVE LOW LEVEL CONVERGENCE IS ABOUT 30X10⁻⁵S⁻¹ TO THE SOUTHWEST OF SYSTEM CENTER. POSITIVE UPPER LEVEL DIVERGENCE IS ABOUT 20 X10⁻⁵ S⁻¹. SYSTEM HAS NOW ENTERED A ZONE OF HIGH VERTICAL WIND SHEAR. COLD DRY AIR INCURSION IS TAKING PLACE INTO THE CORE FROM WEST AND SOUTHWEST SECTOR. UNDER THESE CONDITIONS, THE SYSTEM WOULD WEAKEN RAPIDLY DURING NEXT 06 HOURS.

MOST OF THE MODELS ARE INDICATING WEAKENING OF THE SYSTEM BY 0000 UTC OF 25^{TH} OVER CENTRAL PARTS OF YEMEN.

CONSIDERING ALL THESE, THE CYCLONIC STORM "TEJ" IS VERY LIKELY TO MOVE FURTHER WEST-NORTHWESTWARDS AND WEAKEN INTO A DEPRESSION DURING SUBSEQUENT 06 HOURS.

BAY OF BENGAL:

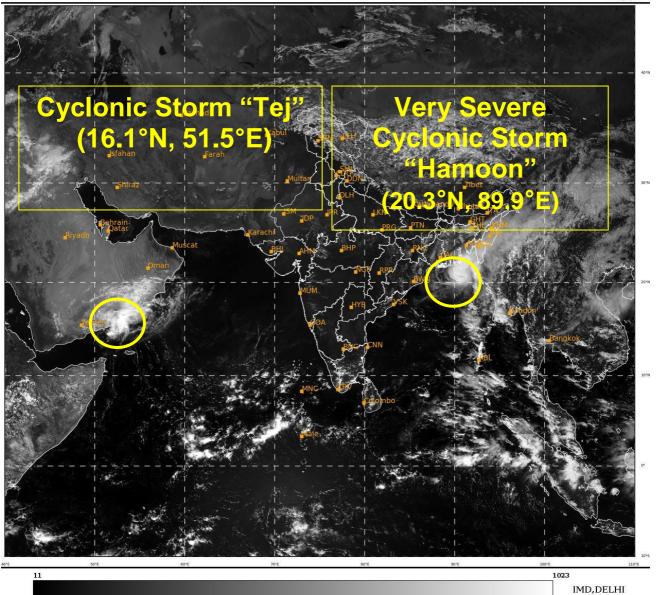
SEA SURFACE TEMPERATURE IS 28-30°C OVER NORTH BAY OF BENGAL. THE LOW LEVEL POSITIVE VORTICITY IS AROUND 200 X10-6S-1 AROUND SYSTEM CENTER. THE POSITIVE LOW LEVEL CONVERGENCE IS ABOUT 30X10-5S-1 TO THE SOUTHEAST OF SYSTEM CENTRE. POSITIVE UPPER LEVEL DIVERGENCE IS ABOUT 20 X10-5 S-1 ALONG THE FORECAST TRACK OF SYSTEM. IT IS NORTHEAST-SOUTHWEST ORIENTED. THE SYSTEM HAS ENTERED INTO A ZONE OF HIGH (> 30 KNOTS) WIND SHEAR. THE SYSTEM WOULD THUS ENCOUNTER UNFAVOURABLE ENVIRONMENT CONDITIONS AFTER NEXT 06 HOURS AND WOULD START WEAKENING GRADUALLY.

MODELS ARE IN AGREEMENT THAT THE VERY SEVERE CYCLONIC STORM "HAMOON" WOULD CROSS BANGLADESH COAST. THERE IS ALSO CONSENSUS AMONG VARIOUS MODELS WITH RESPECT TO WEAKENING BEFORE LANDFALL.

CONSIDERING ALL THESE, THE VERY SEVERE CYCLONIC STORM "HAMOON" OVER NORTHWEST & ADJOINING NORTHEAST BAY OF BENGAL IS VERY LIKELY TO WEAKEN FURTHER WHILE MOVING NORTHEASTWARDS AND CROSS BANGLADESH COAST TO THE SOUTH OF CHITTAGONG AROUND 2100 UTC OF 25TH OCTOBER AS A CYCLONIC STORM WITH WIND SPEED OF 80-90 KMPH GUSTING TO 100 KMPH.

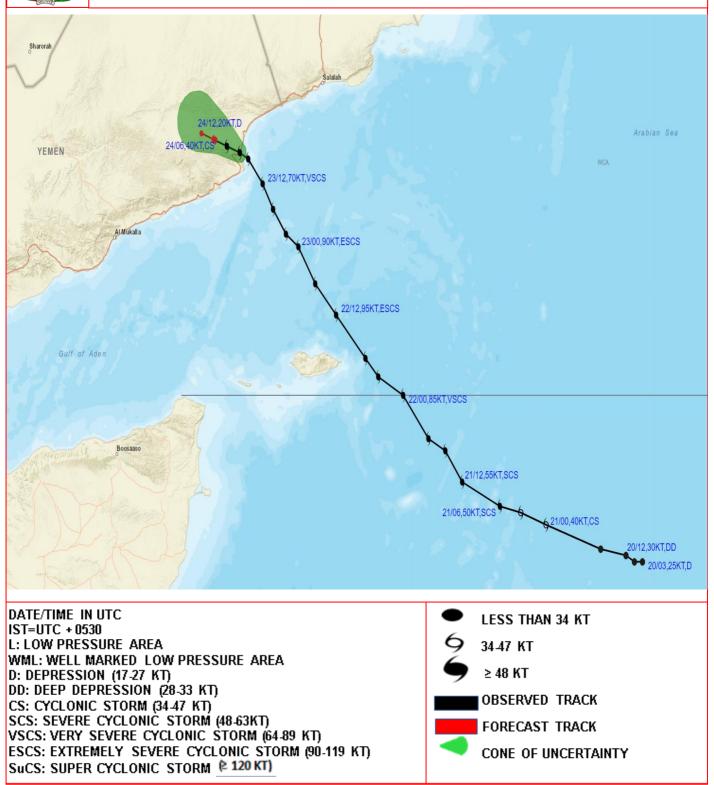
(M.SHARMA) SCIENTIST-D RSMC, NEW DELHI







OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF CYCLONIC STORM "TEJ" OVER COASTAL YEMEN BASED ON 0600 UTC (1130 IST) OF 24TH OCTOBER 2023.

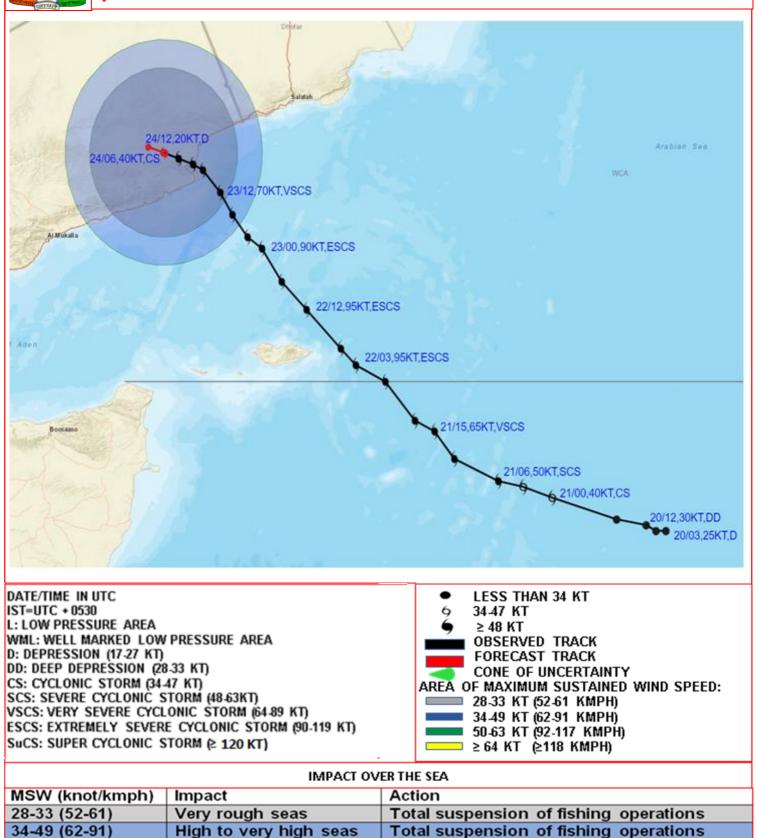




50-63 (92-117)

≥ 64 (≥118)

OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM "TEJ" OVER COASTAL YEMEN BASED ON 0600 UTC (1130 IST) OF 24TH OCTOBER 2023.



Verv high seas

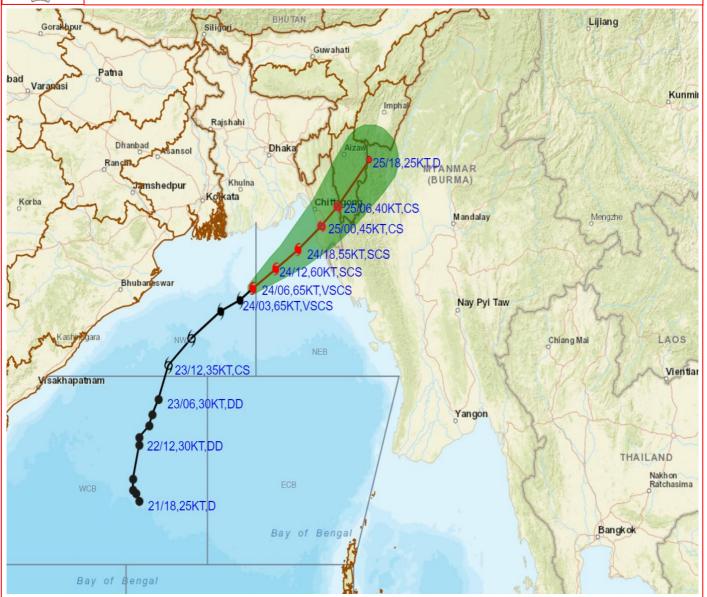
Phenomenal

Total suspension of fishing operations

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 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
9 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
Clou Tem	25.10.23/1800	790, ENE	650, ENE	380, ENE	220, NE

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



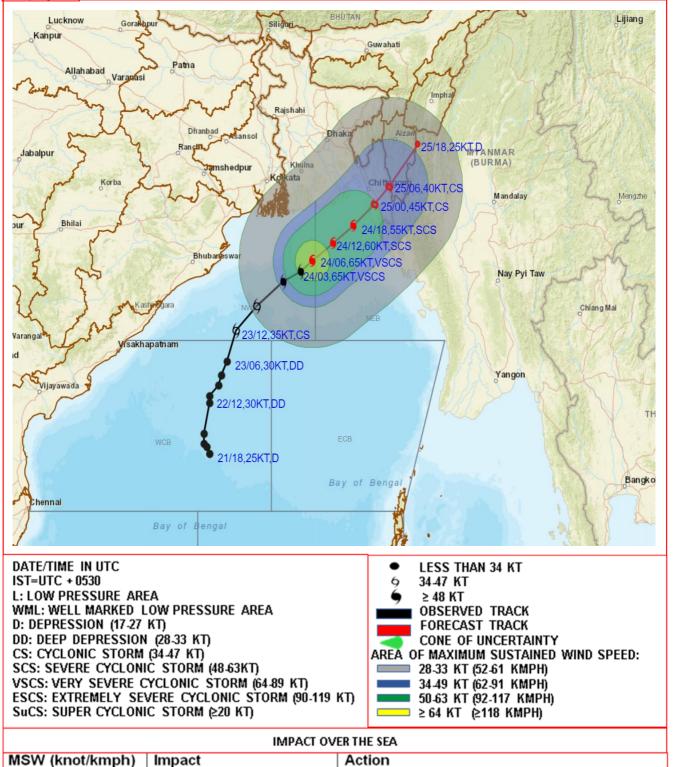
28-33 (52-61)

34-49 (62-91)

≥ 64 (≥118)

50-63 (92-117)

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 24TH OCTOBER 2023.



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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Very rough seas

Very high seas Phenomenal

High to very high seas

Total suspension of fishing operations

