



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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 23.10.2023

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. 22 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1800 UTC OF 23.10.2023 BASED ON 1500 UTC OF 23.10.2023.

SUB: (A) VERY SEVERE CYCLONIC STORM “TEJ” (PRONOUNCED AS TEJ) OVER WESTCENTRAL ARABIAN SEA AND (B) CYCLONIC STORM “HAMOON” (PRONOUNCED AS HAMOON) OVER NORTHWEST & ADJOINING WESTCENTRAL BAY OF BENGAL

(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 MOVED NORTH-NORTHWESTWARDS WITH A SPEED OF 11 KMPH DURING PAST 6 HOURS AND LAY CENTERED AT 1500 UTC OF TODAY, THE 23RD OCTOBER OVER THE SAME REGION, NEAR LATITUDE 15.6°N AND LONGITUDE 52.5°E, ABOUT 230 KM SOUTHWEST OF SALALAH (OMAN, 41316) AND 70 KM SOUTHEAST OF AL GHAI DAH (YEMEN, 413198). LANDFALL PROCESS WILL COMMENCE WITHIN NEXT 2 HOURS.

IT IS VERY LIKELY TO MOVE NORTHWESTWARDS AND CROSS YEMEN COAST CLOSE TO AL- GHAI DAH DURING 1800-2100 UTC OF 23RD 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 (UTC)	POSITION LAT. ⁰ N/ LONG. ⁰ E	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
23.10.23/1500	15.6/52.5	130-140 GUSTING TO 150	VERY SEVERE CYCLONIC STORM
23.10.23/1800	15.7/52.3	125-135 GUSTING TO 150	VERY SEVERE CYCLONIC STORM
24.10.23/0000	16.0/51.9	90-100 GUSTING TO 110	SEVERE CYCLONIC STORM
24.10.23/0600	16.2/51.5	45-55 GUSTING TO 65	DEPRESSION
24.10.23/1200	16.4/51.1	25-35 GUSTING TO 45	WELL MARKED LOW

AS PER INSAT 3D IMAGERY, INTENSITY OF THE SYSTEM IS CHARACTERISED AS T 4.0/4.0. THE SYSTEM HAS MOVED NORTH-NORTHWEST WARDS IN LAST 6 HRS. IT IS OBSERVED AS A CURVED BAND PATTERN WITH TIGHTLY CURVED BANDING. THE INTENSE CONVECTIVE CURVED BANDS ARE SEEN OVER EAST YEMEN AND SOUTH OMAN. HENCE THE LAND INTERACTION HAS BEEN CONTINUING. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WESTCENTRAL ARABIAN SEA BETWEEN LATITUDE 13.0°N TO 17.0°N AND LONGITUDE 51.0°E TO 55.5°E & EAST YEMEN & OMAN. MINIMUM CLOUD TOP TEMPRATURE HAS INCREASED AND IS MINUS 77°C. THE SATELLITE IMAGERY SHOWS GRADUAL WEAKENING OF SYSTEM. MULTISATELLITE WINDS INDICATE STRONGER WINDS IN THE NORTHEASTERN SECTOR. TOTAL PRECIPITABLE WATER IMAGERY SHOWS THAT DRY AIR INCURSION IS TAKING PLACE REACHING UPTO THE CORE FROM WESTERN SECTOR.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 70 KNOTS GUSTING TO 80 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 984HPA.

LATEST OBSERVATIONS INDICATE THAT GALE WIND SPEED REACHING 45-55 KNOTS GUSTING TO 65 KNOTS ARE PREVAILING ALONG & OFF SOUTH OMAN AND EASTERN YEMEN COASTS. IT WOULD GRADUALLY INCREASE BECOMING 70 KNOTS GUSTING TO 80 KNOTS FROM 1600 UTC ONWARDS WITH THE COMMENCEMENT OF LANDFALL PROCESS. THE SAME WIND SPEED WOULD CONTINUE FOR SUBSEQUENT 6 HOURS TILL THE COMPLETION OF LANDFALL PROCESS.

STORM SURGE GUIDANCE FOR YEMEN COAST:

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.

SEA CONDITION:

- **SOUTHWEST ARABIAN SEA:**
ROUGH SEA CONDITION IS LIKELY TO CONTINUE TILL 1800 UTC OF 23RD AND IMPROVE GRADUALLY THEREAFTER.
- **WESTCENTRAL ARABIAN SEA:**
PHENOMENAL SEA CONDITION IS PREVAILING AND WILL CONTINUE TILL 2100 UTC OF 23RD OCTOBER. IT WOULD IMPROVE GRADUALLY THEREAFTER BECOMING **HIGH TO VERY ROUGH** BY 0000 UTC OF 24TH AND ROUGH TO VERY

ROUGH BY 1200 UTC OF 24TH OCTOBER. THEREAFTER, IT WOULD IMPROVE GRADUALLY.

(B) CYCLONIC STORM “HAMOON” (PRONOUNCED AS HAMOON) OVER NORTHWEST & ADJOINING WESTCENTRAL BAY OF BENGAL

THE CYCLONIC STORM “HAMOON” (PRONOUNCED AS HAMOON) OVER WESTCENTRAL BAY OF BENGAL MOVED NORTH-NORTHEASTWARDS WITH A SPEED OF 16 KMPH DURING PAST 6 HOURS, AND LAY CENTERED AT 1500 UTC OF TODAY, THE 23RD OCTOBER OVER NORTHWEST & ADJOINING WESTCENTRAL BAY OF BENGAL, NEAR LATITUDE 18.7°N AND LONGITUDE 87.6°E, ABOUT 200 KM SOUTH-SOUTHEAST OF PARADIP (ODISHA, 42976), 320 KM SOUTH OF DIGHA (WEST BENGAL, 42901) AND 450 KM SOUTH-SOUTHWEST OF KHEPUPARA (BANGLADESH, 41984).

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 DURING 0600-0900 UTC OF 25TH OCTOBER AS A DEEP DEPRESSION.

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
23.10.23/1500	18.7/87.6	75-85 GUSTING TO 95	CYCLONIC STORM
23.10.23/1800	18.9/87.6	80-90 GUSTING TO 100	CYCLONIC STORM
24.10.23/0000	19.5/88.1	90-100 GUSTING TO 110	SEVERE CYCLONIC STORM
24.10.23/0600	20.0/88.7	80-90 GUSTING TO 100	CYCLONIC STORM
24.10.23/1200	20.6/89.3	70-80 GUSTING TO 90	CYCLONIC STORM
25.10.23/0000	21.3/89.9	60-70 GUSTING TO 80	CYCLONIC STORM
25.10.23/1200	22.0/90.5	50-60GUSTING TO 70	DEEP DEPRESSION
26.10.23/0000	22.7/91.0	40-50 GUSTING TO 60	DEPRESSION

AS PER INSAT 3D IMAGERY, INTENSITY OF THE SYSTEM IS CHARACTERISED AS T 2.5. IRREGULAR CENTRE DENSE OVERCAST PATTERN IS SEEN WITH DIAMETER OF 1.5 DEGREE. CONVECTIVE CLOUD MASS ASSOCIATED WITH THE SYSTEM IS SEEN OVER THE NORTHWEST BAY OF BENGAL. OUTFLOW CLOUD BANDS ARE OBSERVED OVER ODISHA, JHARKHAND, EAST BIHAR, WEST BENGAL, NORTHEAST STATES OF INDIA & SOUTH BANGLADESH.

ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTH AND ADJOINING CENTRAL BAY OF BENGAL BETWEEN LATITUDE 16.5N TO 21.0N AND LONGITUDE 85.0E TO 90.0E. MINIMUM CLOUD TOP TEMPRATURE IS MINUS 93 DEGREE CELSIUS. OUTFLOW CLOUD BANDS ARE OBSERVED OVER ODISHA, JHARKHAND EAST BIHAR, WEST BENGAL, NORTHEAST STATES OF INDIA. CONVECTIVE CLOUDS ARE ALSO OBSERVED OVER WEST CENTRAL & ADJOINING NORTH BAY OF BENGAL. MULTISATELLITE WINDS INDICATE STRONGER WINDS IN EASTERN SECTOR. TOTAL PRECIPITABLE WATER IMAGERY INDICATES WARM MOIST AIR INCURSION INTO THE SYSTEM CORE.

WIND GUIDANCE (WARNING MAP ENCLOSED):

- **WESTCENTRAL BAY OF BENGAL: SQUALLY WIND SPEED REACHING 75-85 KMPH GUSTING TO 95 KMPH IS PREVAILING AND LIKELY TO INCREASE BECOMING 80-90 KMPH GUSTING TO 100 KMPH TILL 0600 UTC OF 24TH OCTOBER. IT IS LIKELY TO DECREASE GRADUALLY THEREAFTER BECOMING SQUALLY WIND SPEED REACHING 50-60 KMPH GUSTING 70 KMPH BY 1200 UTC OF 24TH AND 40-50 KMPH GUSTING 60 KMPH TILL 0000 UTC OF 25TH.**
- **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 75-85 KMPH GUSTING TO 95 KMPH IS PREVAILING AND LIKELY TO BECOME 80-90 KMPH GUSTING TO 100 KMPH FROM 1800 UTC OF 23RD AND 90-100 KMPH GUSTING 110 KMPH FROM 0000 TO 0600 UTC OF 24TH. IT WOULD DECREASE GRADUALLY THEREAFTER BECOMING GALE WIND SPEED REACHING 70-80 KMPH GUSTING TO 90 KMPH BY 1200 UTC OF 24TH, 60-70 KMPH GUSTING TO 80 KMPH BY 0000 UTC OF 25TH AND SQUALLY WIND SPEED REACHING 50-60 KMPH GUSTING TO 70 KMPH AROUND 1200 UTC OF 25TH 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 1200 UTC OF 23RD 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 0000 UTC OF 24TH. 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.

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:

- **NORTH BAY OF BENGAL:**
VERY ROUGH TO HIGH SEA CONDITION IS PREVAILING AND LIKELY TO CONTINUE TILL 24TH AND VERY ROUGH ON 25TH OCTOBER.
- **ADJOINING WESTCENTRAL BAY OF BENGAL: VERY ROUGH TO HIGH SEA CONDITION IS PREVAILING AND LIKELY TO CONTINUE TILL 24TH AND ROUGH TO VERY ROUGH ON 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.
- **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.

REMARKS:

ARABIAN SEA:

MADDEN JULIAN OSCILLATION INDEX IS IN PHASE 8 WITH AMPLITUDE LESS THAN 1. IT WOULD CONTINUE IN SAME PHASE DURING NEXT 3 DAYS. SEA SURFACE TEMPERATURE IS 27-28°C OVER WESTCENTRAL ARABIAN SEA. THE TROPICAL CYCLONE HEAT POTENTIAL IS AROUND 20-30 KJ/CM² OVER WESTCENTRAL ARABIAN SEA NEAR THE SYSTEM LOCATION AND ALSO ALONG & OFF OMAN-YEMEN COASTS. THE LOW LEVEL POSITIVE VORTICITY IS AROUND 200 X10⁻⁶S⁻¹ TO THE AROUND THE SYSTEM CENTER WITH VERTICAL EXTENSION UPTO 200 HPA LEVEL. THE POSITIVE LOW LEVEL CONVERGENCE IS ABOUT 40X10⁻⁵S⁻¹ TO THE SOUTH-SOUTHEAST OF SYSTEM CENTER. POSITIVE UPPER LEVEL DIVERGENCE IS ABOUT 40 X10⁻⁵ S⁻¹ TO THE SOUTHWEST OF SYSTEM CENTRE. WIND SHEAR IS LOW TO MODERATE (10-15 KNOTS) OVER SYSTEM AREA AND ALONG THE EXPECTED TRACK.

EXISTING FEATURES INDICATE THAT THE SYSTEM HAS ENTERED OVER COLDER SEA, AN AREA OF LOWER OCEAN THERMAL ENERGY AND IS EXPERIENCING DRY COLD AIR INCURSION INTO THE CORE FROM ARABIAN PENINSULAR REGION. UNDER SUCH ENVIRONMENTAL CONDCTIONS, THE SYSTEM HAS WEAKENED GRADUALLY AND IS LIKELY TO WEAKEN FURTHER BEFORE LANDFALL.

IN VIEW OF ABOVE, THE VERY SEVERE CYCLONIC STORM "TEJ" (PRONOUNCED AS TEJ) OVER WESTCENTRAL ARABIAN SEA IS VERY LIKELY TO CONTINUE TO MOVE NORTHWESTWARDS AND CROSS YEMEN COAST CLOSE TO AL- GHAI DAH DURING 1800-2100 UTC OF 23RD OCTOBER AS A **VERY SEVERE CYCLONIC STORM** WITH WIND SPEED OF 125-135 KMPH GUSTING TO 150 KMPH.

BAY OF BENGAL:

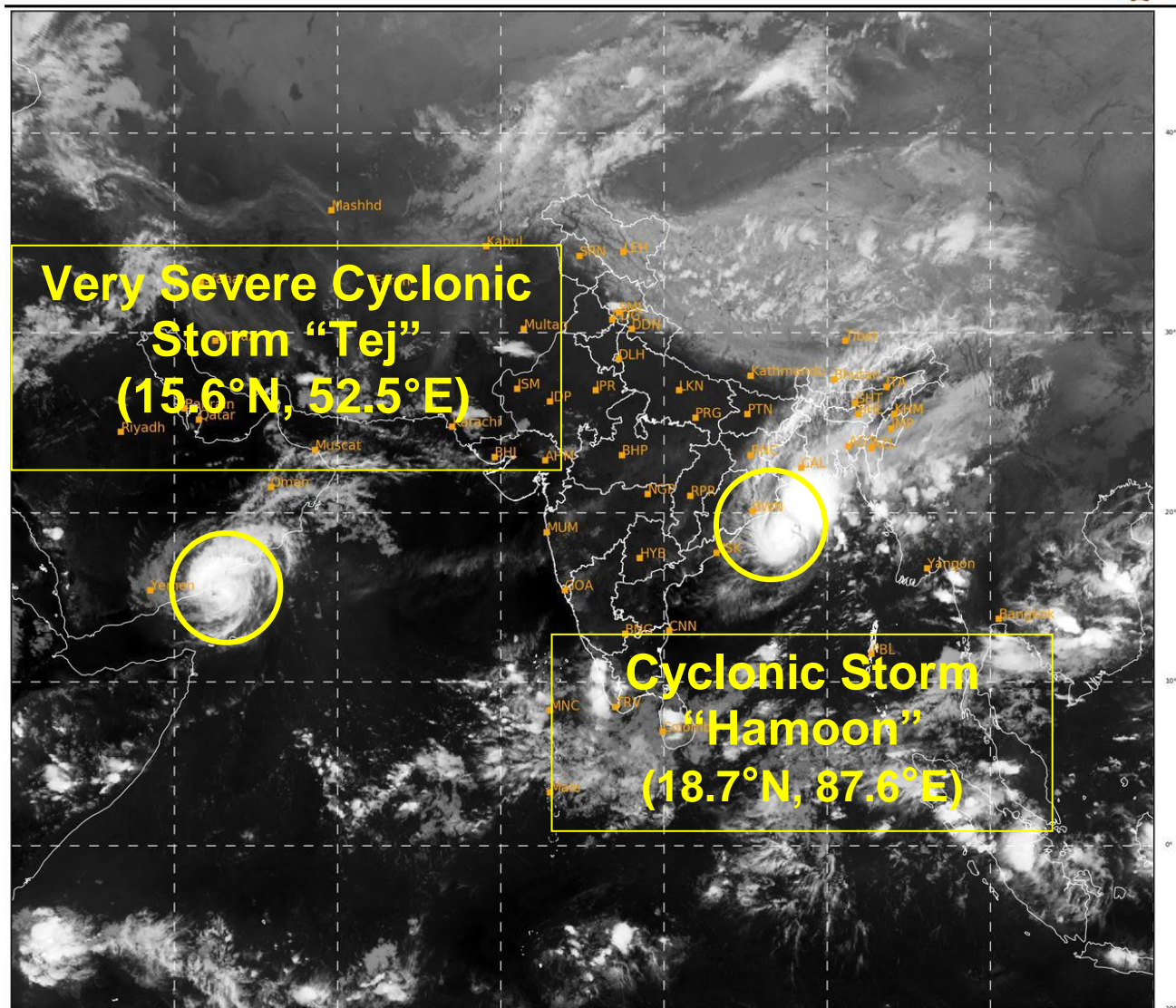
MODELS ARE IN AGREEMENT THAT THE CYCLONIC STORM "HAMOON" WOULD CROSS BANGLADESH COAST. SOME OF THE MODELS ARE ALSO ALSO INDICATING FURTHER INTENSIFICATION INTO SEVERE CYCLONIC STORM DURING NEXT 12 HOURS. THERE IS ALSO CONSENSUS AMONG VARIOUS MODELS WRT WEAKENING BEFORE LANDFALL.

SEA SURFACE TEMPERATURE IS 29-30°C OVER WESTCENTRAL BAY OF BENGAL. THE LOW LEVEL POSITIVE VORTICITY IS AROUND 200 X10⁻⁶S⁻¹ AROUND THE SYSTEM CENTER. THE POSITIVE LOW LEVEL CONVERGENCE LIES TO THE EAST OF SYSTEM CENTRE AND IS ABOUT 40X10⁻⁵S⁻¹. POSITIVE UPPER LEVEL DIVERGENCE IS

ABOUT $40 \times 10^{-5} \text{ S}^{-1}$ TO THE NORTHEAST OF SYSTEM CENTRE. WIND SHEAR IS LOW TO MODERATE (10-20 KNOTS) OVER SYSTEM AREA AND IS HIGH TO THE NORTH OF 19°N . THUS THE CYCLONE WILL ENCOUNTER FAVOURABLE VERTICAL WIND SHEAR TILL 1800 UTC OF 23RD AND THEN IT WILL BECOME UNFAVOURABLE.

CONSIDERING ALL THESE, THE CYCLONIC STORM "HAMOON" OVER NORTHWEST & ADJOINING WESTCENTRAL BAY OF BENGAL IS VERY LIKELY TO INTENSIFY FURTHER DURING NEXT 12 HOURS REACHING PEAK INTENSITY OF 50 KNOTS GUSTING TO 60 KNOTS WILL OCCUR AROUND 0000 UTC OF 24TH. THEREAFTER, IT IS EXPECTED TO WEAKEN GRADUALLY WHILE MOVING TOWARDS BANGLADESH COAST. IT IS LIKELY TO WEAKEN UNDER THE INFLUENCE OF HIGH VERTICAL WIND SHEAR IN ASSOCIATION WITH THE UPPER AIR TROUGH IN WESTERLY WITH EMBEDDED JET STREAM OVER THE REGION. IT IS VERY LIKELY TO MOVE NEARLY NORTH-NORTHEASTWARDS AND CROSS BANGLADESH COAST BETWEEN KHEPUPARA AND CHITTAGONG AROUND 0600-0900 UTC OF 25TH OCTOBER AS A **DEEP DEPRESSION** WITH WIND SPEED OF 55-65 GUSTING TO 75 KMPH (30 GUSTING TO 40 KNOTS).

(SHASHI KANT)
SCIENTIST-D
RSMC, NEW DELHI



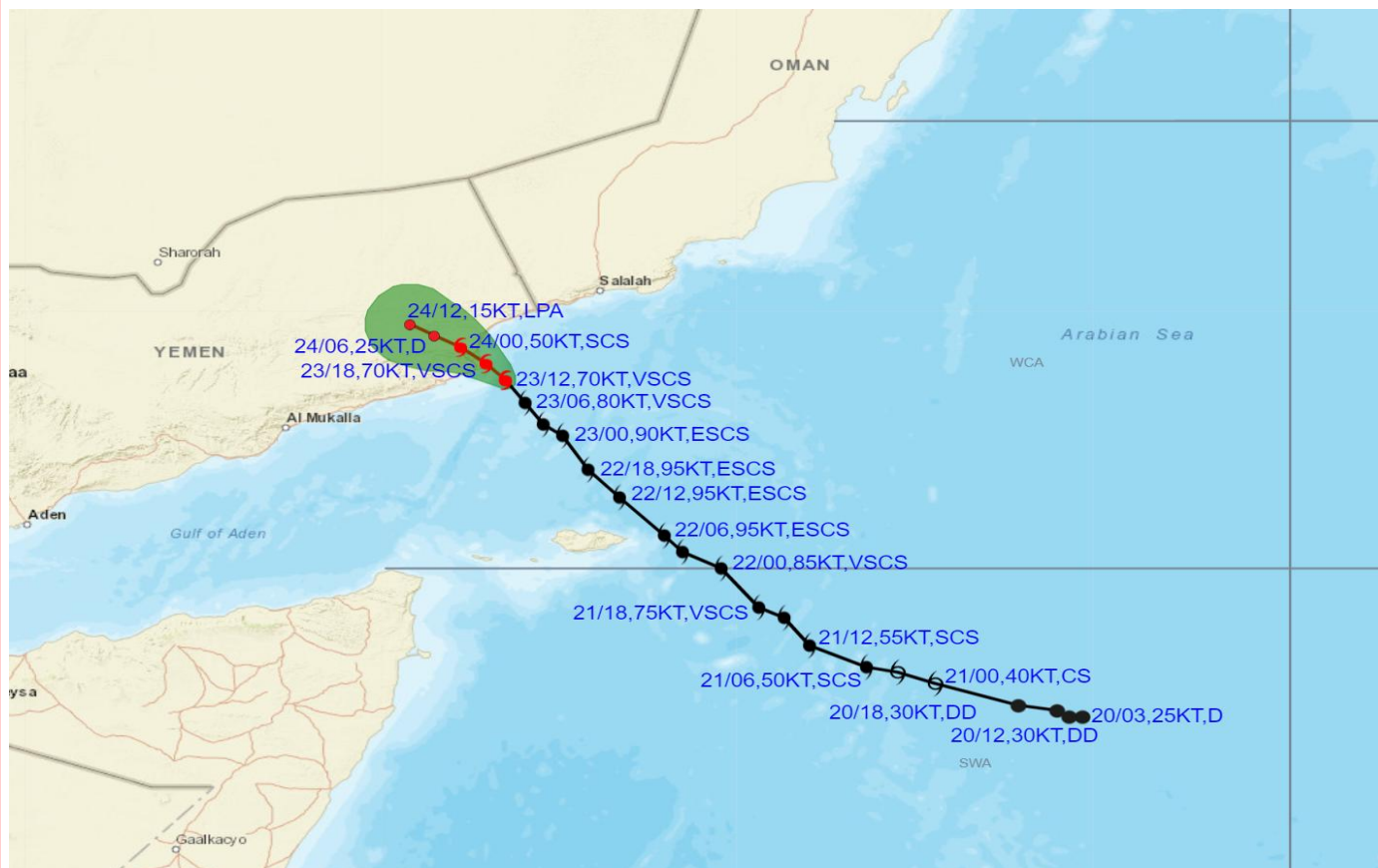
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IMD, DELHI



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

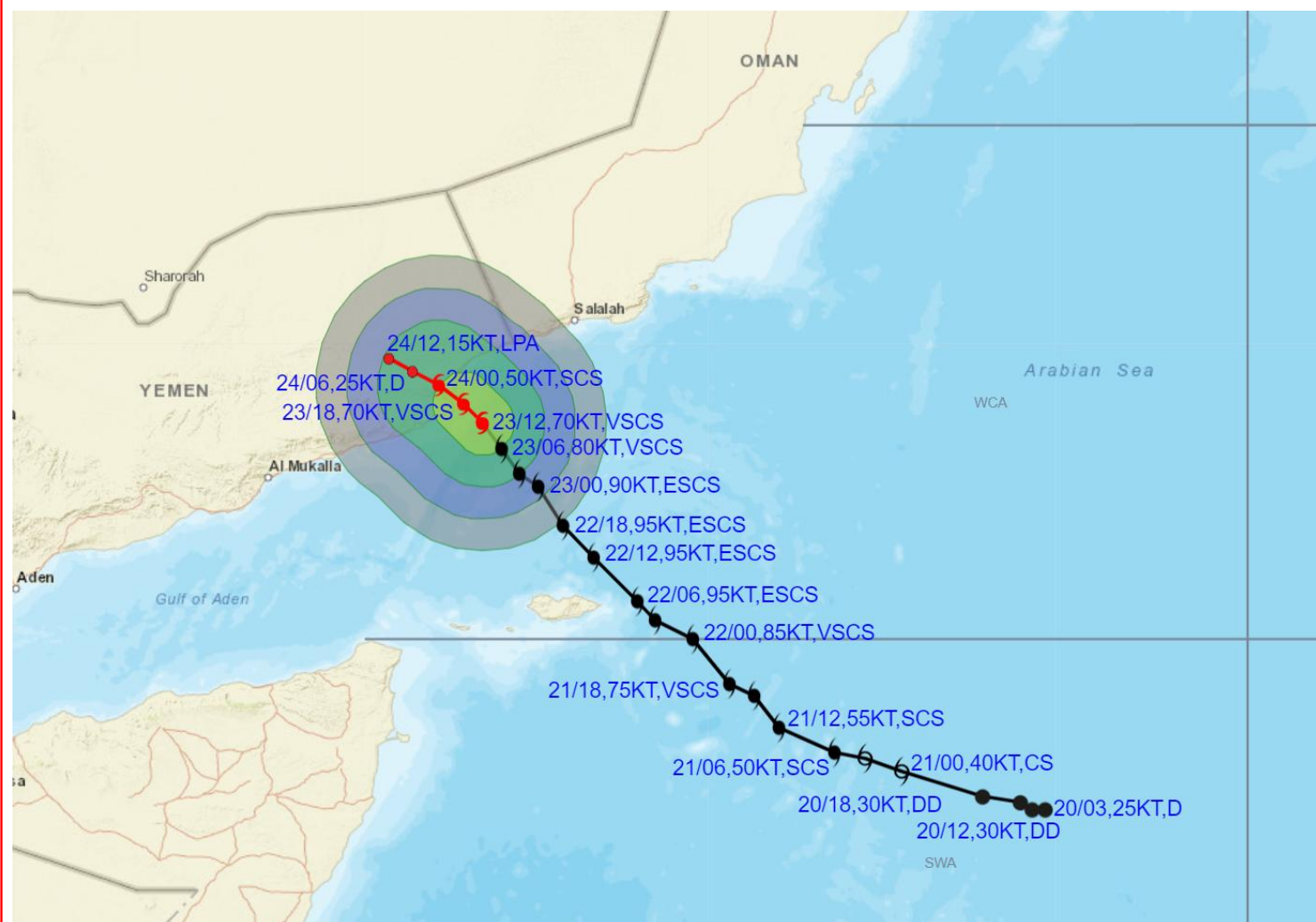
Forecast distance (km) and direction of the centre from nearest 5 coastal stations

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)

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 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

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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)

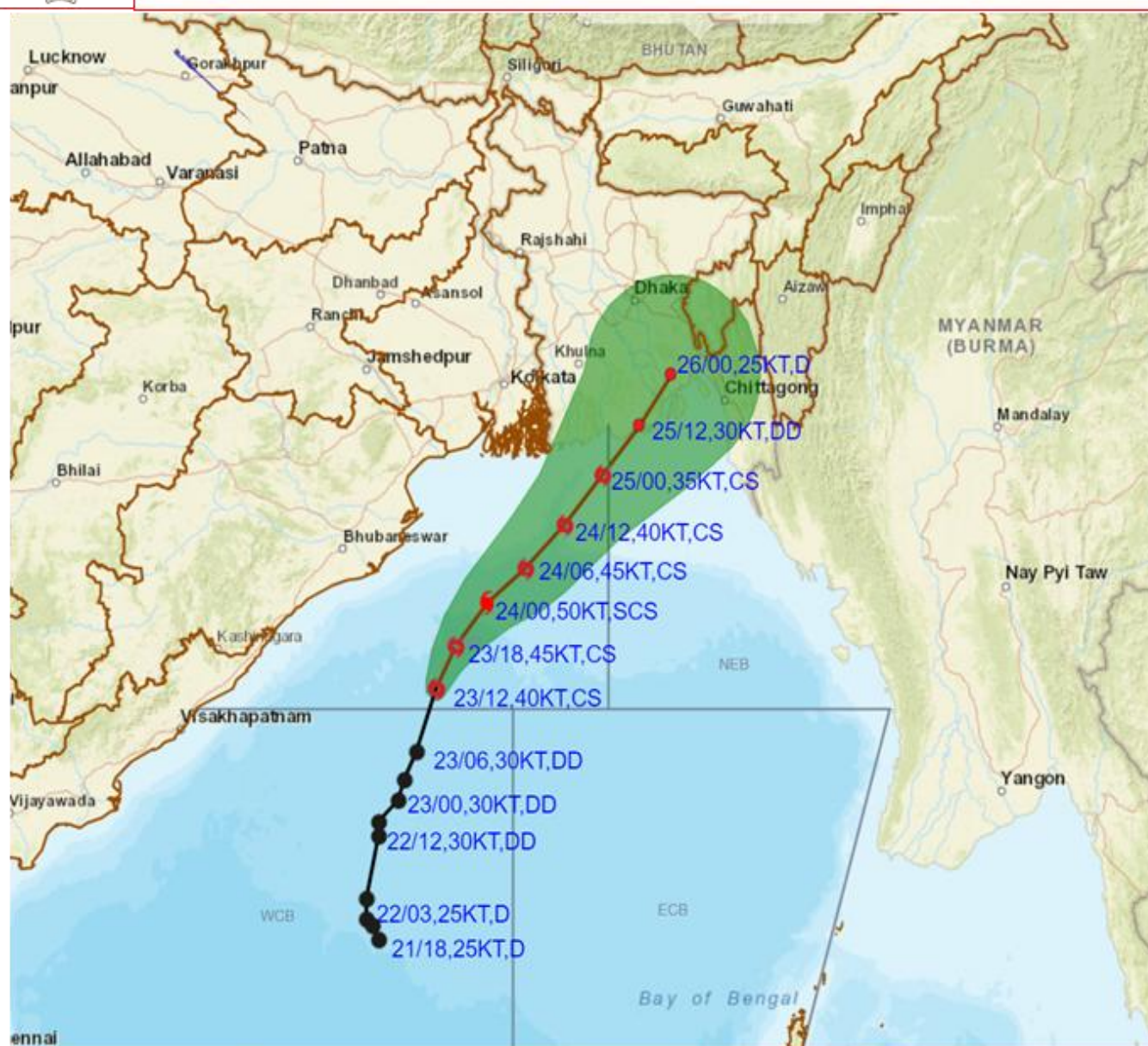
IMPACT OVER THE SEA

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

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
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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.



DATE/TIME IN UTC

IST=UTC + 0530

L: LOW PRESSURE AREA

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SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

● LESS THAN 34 KT

○ 34-47 KT

● ≥ 48 KT

— OBSERVED TRACK

— FORECAST TRACK

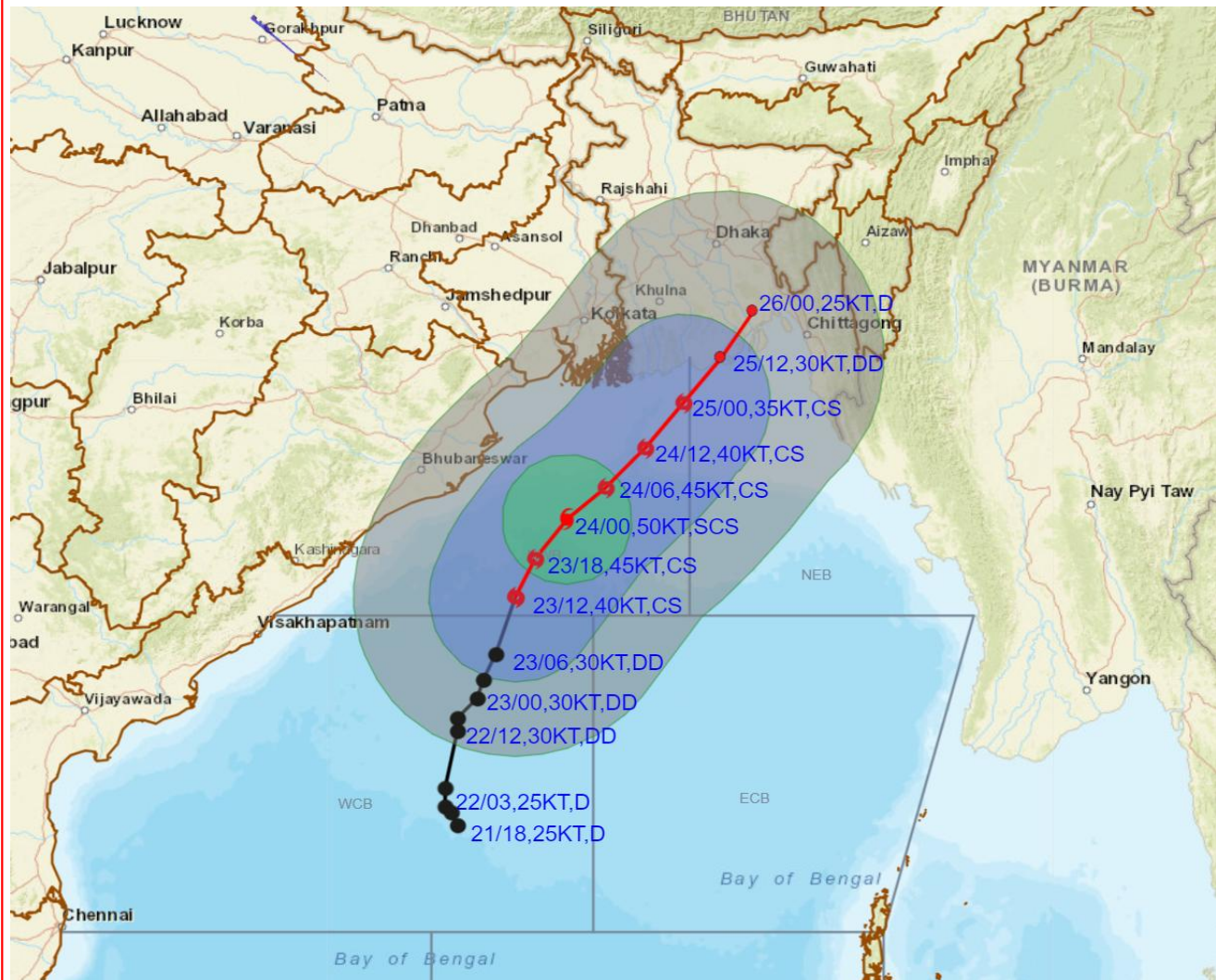
▲ CONE OF UNCERTAINTY

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 distance (km) and direction of the centre from nearest 5 coastal 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)	CUTTACK (281,SSE)
23.10.23/1800	6	18.9	87.6	PARADIP (CWR) (183,SSE)	PURI (212,ESE)	SANDHEADS (227,SSW)	CHANDBALI (228,SSE)	BHUBANESHWAR (239,SE)
24.10.23/0000	12	19.5	88.1	SANDHEADS (151,S)	PARADIP (CWR) (173,ESE)	CHANDBALI (202,SE)	SAGAR ISLAND (239,S)	PURI (242,E)
24.10.23/0600	18	20.0	88.7	SANDHEADS (106,SSE)	SAGAR ISLAND (196,SSE)	PARADIP (CWR) (213,E)	DIGHA (219,SE)	CONTAIL (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,SSW)	PATUAKHALI (123,SSW)	MONGLA (150,SSE)	CANNING (166,SE)	BARISAL (168,SSW)
25.10.23/1200	48	22.0	90.5	KHEPUPARA (28,E)	PATUAKHALI (41,SSE)	BHOLA (78,S)	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)

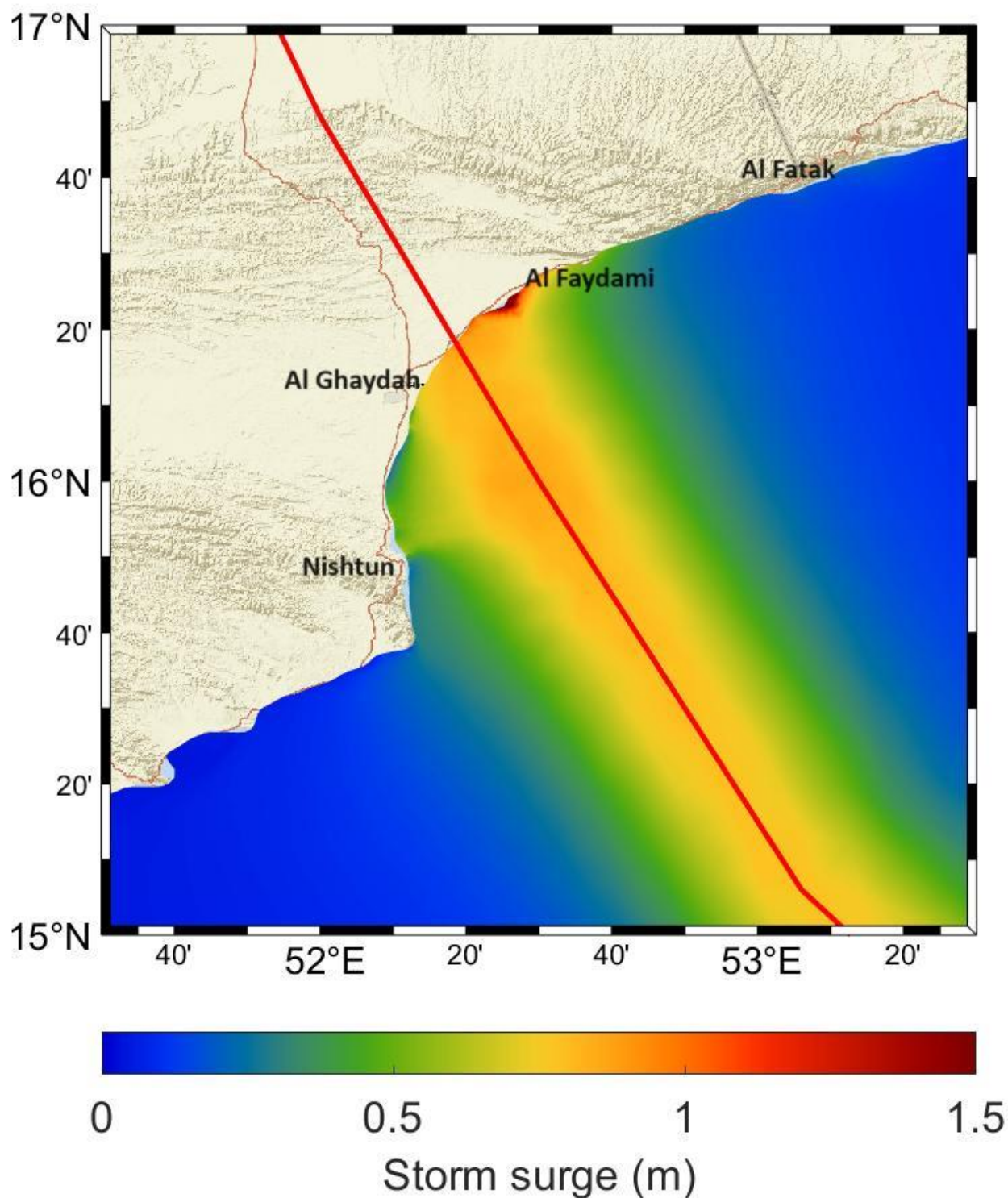
IMPACT OVER THE SEA

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

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

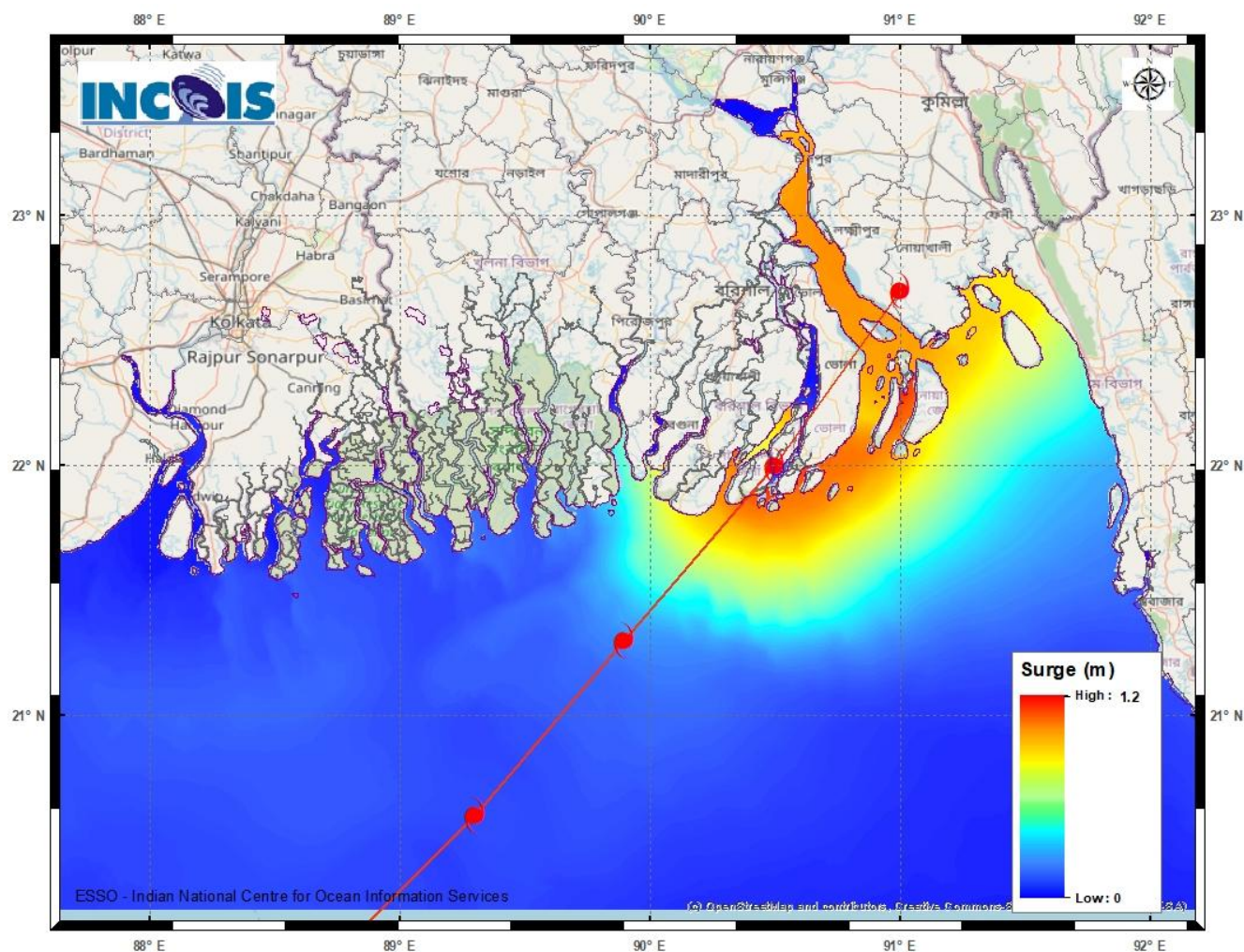
STORM SURGE GUIDANCE FOR YEMEN:

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 AROUND THE TIME OF LANDFALL.



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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Fishermen warning graphics

