



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

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. 5 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0630 UTC OF 24.10.2022 BASED ON 0300 UTC OF 24.10.2022

SUBJECT: CYCLONIC STORM “SITRANG” (PRONOUNCED AS “SI-TRANG”) OVER NORTHWEST AND ADJOINING CENTRAL & BAY OF BENGAL (CYCLONE WARNING FOR WEST BENGAL COAST: ORANGE MESSAGE)

THE CYCLONIC STORM “SITRANG” PRONOUNCED AS “SI-TRANG” OVER EASTCENTRAL AND ADJOINING AREAS OF WESTCENTRAL & NORTHWEST BAY OF BENGAL MOVED NORTH-NORTHEASTWARDS WITH A SPEED OF 21 KMPH DURING PAST 06 HOURS AND LAY CENTERED AT 0300 UTC OF TODAY, THE 24TH OCTOBER OVER NORTHWEST AND ADJOINING CENTRAL BAY OF BENGAL NEAR LATITUDE 18.3⁰N AND LONGITUDE 88.9⁰E, ABOUT 380 KM SOUTH OF SAGAR ISLAND (42903) AND 520 KM SOUTH-SOUTHWEST OF BARISAL (41950).

IT IS VERY LIKELY TO CONTINUE TO MOVE NORTH-NORTHEASTWARDS AND INTENSIFY FURTHER INTO A SEVERE CYCLONIC STORM DURING NEXT 12 HOURS. CONTINUING TO MOVE NORTH-NORTHEASTWARDS THEREAFTER, IT IS VERY LIKELY TO CROSS BANGLADESH COAST BETWEEN TINKONA ISLAND AND SANDWIP CLOSE TO BARISAL (41950) AROUND 25TH OCTOBER EARLY MORNING (24/2100 UTC-25/000 UTC).

FORECAST TRACK AND INTENSITY ARE GIVEN BELOW:

DATE/TIME(IUTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
24.10.22/0300	18.3/88.9	75-85 gusting to 95	Cyclonic Storm
24.10.22/0600	19.1/89.2	80-90 gusting to 100	Cyclonic Storm
24.10.22/1200	20.1/89.6	90-100 gusting to 110	Severe Cyclonic Storm
24.10.22/1800	21.2/90.0	90-100 gusting to 110	Severe Cyclonic Storm
25.10.22/0000	22.3/90.6	80-90 gusting to 100	Cyclonic Storm
25.10.22/1200	23.8/91.5	45-55 gusting to 65	Depression
26.10.22/0000	25.6/92.7	25-35 gusting to 45	Low Pressure Area

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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THE CONVECTION OVER NORTHWEST & ADJOINING WESTCENTRAL BAY OF BENGAL AND NEIGHBOURHOOD HAS FURTHER INTENSIFIED. INTENSITY OF THE SYSTEM IS CHARACTERISED AS T 3.0/3.0. THE CLOUDS ARE ORGANISED IN SHEAR PATTERN AND MAXIMUM CONVECTION IS CLOSE TO SYSTEM CENTER. INTENSE COVECTIVE CLOUD MASS IS SEEN INTERACTING WITH NORTH COASTAL ODISHA, COASTAL GANGETIC WEST BENGAL AND BANGLADESH. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER BAY OF BENGAL BETWEEN LATITUDE 18.0⁰N & 23.0⁰N AND LONGITUDE 86.0⁰E & 93.5⁰E. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEGREE CELSIUS.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED (MSW) IS ABOUT 45 KNOTS GUSTING TO 55 KNOTS AROUND SYSTEM CENTER. ESTIMATED CENTRAL PRESSURE IS 995 HPA. SEA CONDITION IS LIKELY TO BE HIGH OVER NORTH & ADJOINING CENTRAL BAY OF BENGAL.

A BUOY NEAR 18.5N/88.5 DEG. E REPORTED MEAN SEA LEVEL PRESSURE (MSLP) OF 996 HPA. AT 0300 UTC, DIGHA (42901) REPORTED PRESSURE FALL OF 8.0 HPA DURING PAST 24 HOURS AND MSLP OF 1005.1 HPA. AT 0000 UTC, DIGHA (42901) REPORTED PRESSURE FALL OF 6.9 HPA DURING PAST 24 HOURS AND MSLP OF 1004.0 HPA. THESE OBSERVATIONS INDICATE FURTHER INTENSIFICATION OF THE SYSTEM AND MOVEMENT TOWARDS NORTH-NORTHEAST.

STORM SURGE WARNING:

- (I) TIDAL WAVE OF ABOUT 2.4 M HEIGHT ABOVE ASTRONOMICAL TIDE IS LIKELY TO INUNDATE LOW LYING AREAS OF BANGLADESH COAST NEAR THE LANDFALL AREA AROUND THE TIME OF LANDFALL.
- (II) TIDAL WAVE OF ABOUT 1.0 M HEIGHT ABOVE ASTRONOMICAL TIDE IS LIKELY TO INUNDATE LOW LYING AREAS OF WEST BENGAL (NORTH & SOUTH 24 PARGANAS) AROUND THE TIME OF LANDFALL.

REMARKS:

THE MADDEN JULIAN OSCILLATION INDEX (MJO) CURRENTLY LIES IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. IT WOULD CONTINUE IN SAME PHASE DURING NEXT 5 DAYS WITH GRADUALLY INCREASING AMPLITUDE.

SEA SURFACE TEMPERATURE (SST) IS AROUND 29-30⁰C OVER NORTH CENTRAL & BAY OF BENGAL. THE OCEAN HEAT CONTENT (OHC) IS AROUND 80-90 KJ/CM² OVER THE SAME REGION. LOW LEVEL VORTICITY HAS INCREASED AND IS ABOUT 150 X10⁻⁶ S⁻¹ TO THE NORTH-NORTHEAST OF SYSTEM CENTRE. VERTICALLY IT IS EXTENDING UPTO 200 HPA LEVEL. LOW LEVEL CONVERGENCE IS AROUND 60 X10⁻⁵ S⁻¹ TO THE NORTHEAST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS AROUND 60 X10⁻⁵ S⁻¹ TO THE NORTHEAST OF SYSTEM CENTRE. STRONG POLEWARD AND EQUATORWARD OUTFLOW IS SEEN IN UPPER LEVELS AS EXHIBITED IN SATELLITE IMAGERY. TOTAL PRECIPITABLE WATER IMAGERY INDICATES WARM MOIST AIR INCURSION INTO THE CORE OF THE SYSTEM. WIND SHEAR IS MODERATE (15-20 KNOTS) AROUND THE SYSTEM CENTER AND IS HIGH (20-30 KNOT) TO THE NORTH OF 18⁰N.

CURRENTLY, THE SYSTEM IS IN A FAVOURABLE ENVIRONMENT FOR FURTHER INTENSIFICATION INTO A MARGINALLY SEVERE CYCLONIC STORM DURING NEXT 12 HOURS. A TROUGH IN MID-LATITUDE WESTERLIES IS ROUGHLY RUNNING ALONG 83⁰E UPTO 19⁰N. THE SYSTEM CONTINUED TO MOVE NORTH-NORTHEASTWARDS UNDER THE INFLUENCE OF THE TROUGH IN MID-LATITUDE WESTERLIES IN MIDDLE AND UPPER TROPOSPHERIC LEVELS, THE ANTI CYCLONE TO THE EAST OF THE SYSTEM CENTRE OVER MYANMAR AND THE SOUTH-SOUTHWESTERLY WINDS TO THE NORTH OF RIDGE ALONG 18⁰N.

MOST OF THE MODELS ARE INDICATING MARGINAL INTENSIFICATION OF THE SYSTEM INTO A SEVERE CYCLONIC STORM DURING NEXT 12 HOURS. THE MODELS ARE ALSO INDICATING NORTH-NORTHEASTWARD MOVEMENT OF THE SYSTEM AND CROSSING OVER BANGLADESH COAST NEAR 22.0N/90E DURING 1500-1800 UTC OF 24TH OCTOBER.

CONSIDERING ALL THE ABOVE, THE **CYCLONIC STORM "SITRANG"** OVER NORTHWEST AND ADJOINING CENTRAL BAY OF BENGAL IS VERY LIKELY TO CONTINUE TO MOVE NORTH-

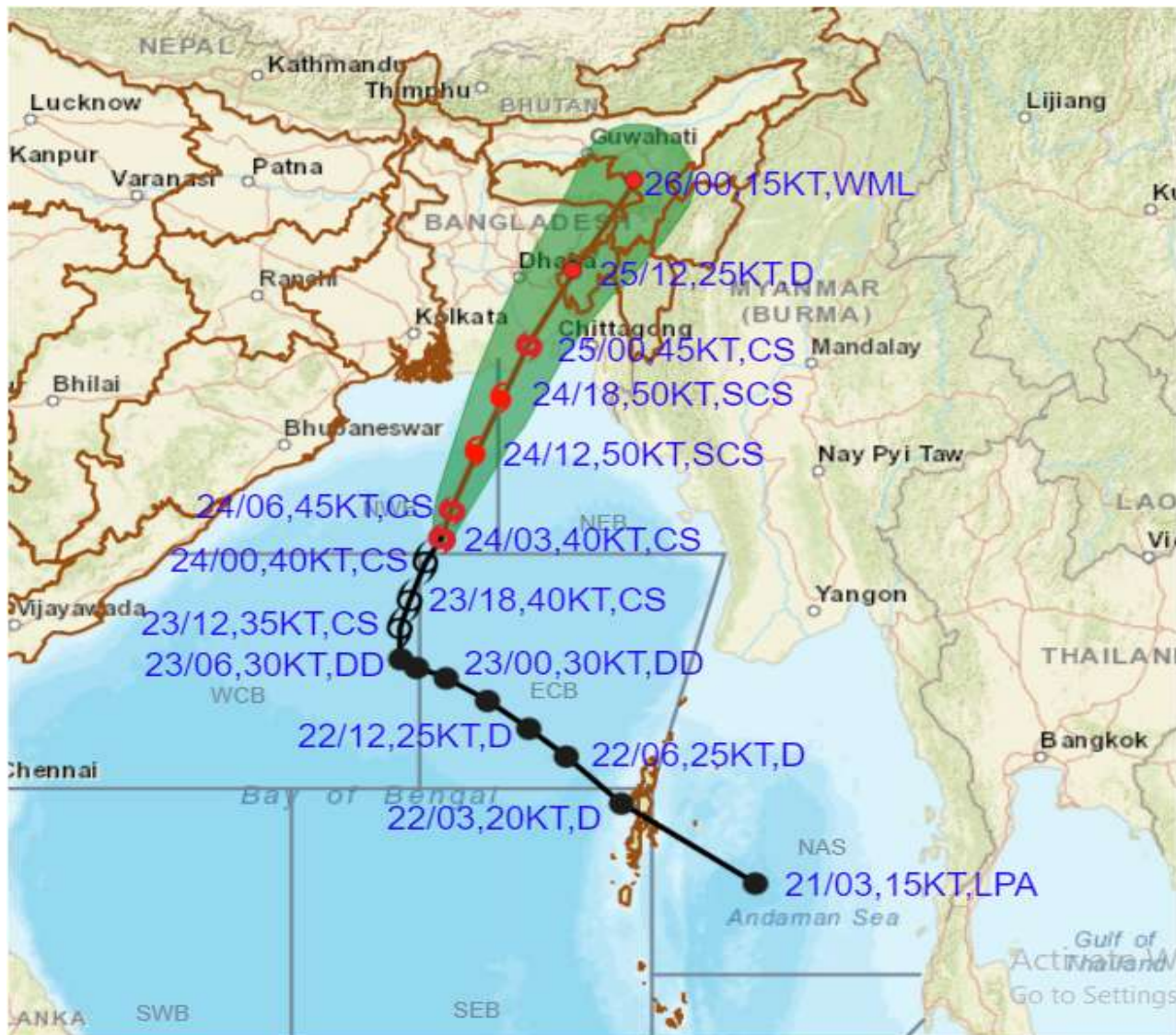
NORTHEASTWARDS AND INTENSIFY FURTHER INTO A SEVERE CYCLONIC STORM DURING NEXT 12 HOURS. CONTINUING TO MOVE NORTH-NORTHEASTWARDS THEREAFTER, IT IS VERY LIKELY TO CROSS BANGLADESH COAST BETWEEN TINKONA ISLAND AND SANDWIP CLOSE TO BARISAL (41950) AROUND 25TH OCTOBER EARLY MORNING (24/2100 UTC-25/000 UTC).

NEXT BULLETIN WILL BE ISSUED AT 0900 UTC OF 24TH OCTOBER 2022.

(M. SHARMA)
SCIENTIST-D
RSMC NEW DELHI



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF CYCLONIC STORM SITRANG OVER NORTHWEST AND ADJOINING CENTRAL BAY OF BENGAL BASED ON 0300 UTC OF 24th OCTOBER, 2022



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

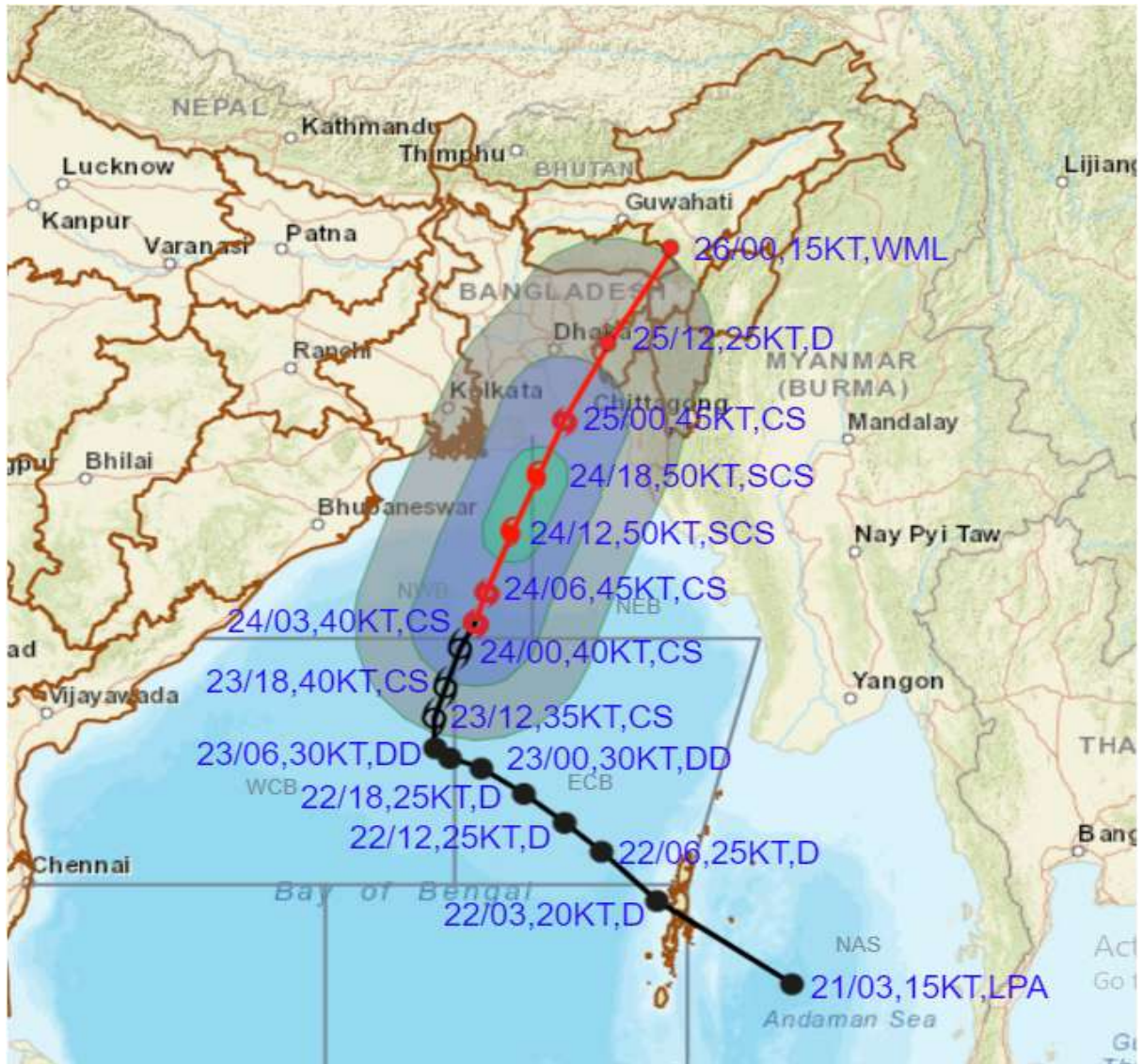
▬ OBSERVED TRACK

▬ FORECAST TRACK

▲ CONE OF UNCERTAINTY



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM SITRANG OVER NORTHWEST AND ADJOINING CENTRAL BAY OF BENGAL BASED ON 0300 UTC OF 24th OCTOBER, 2022



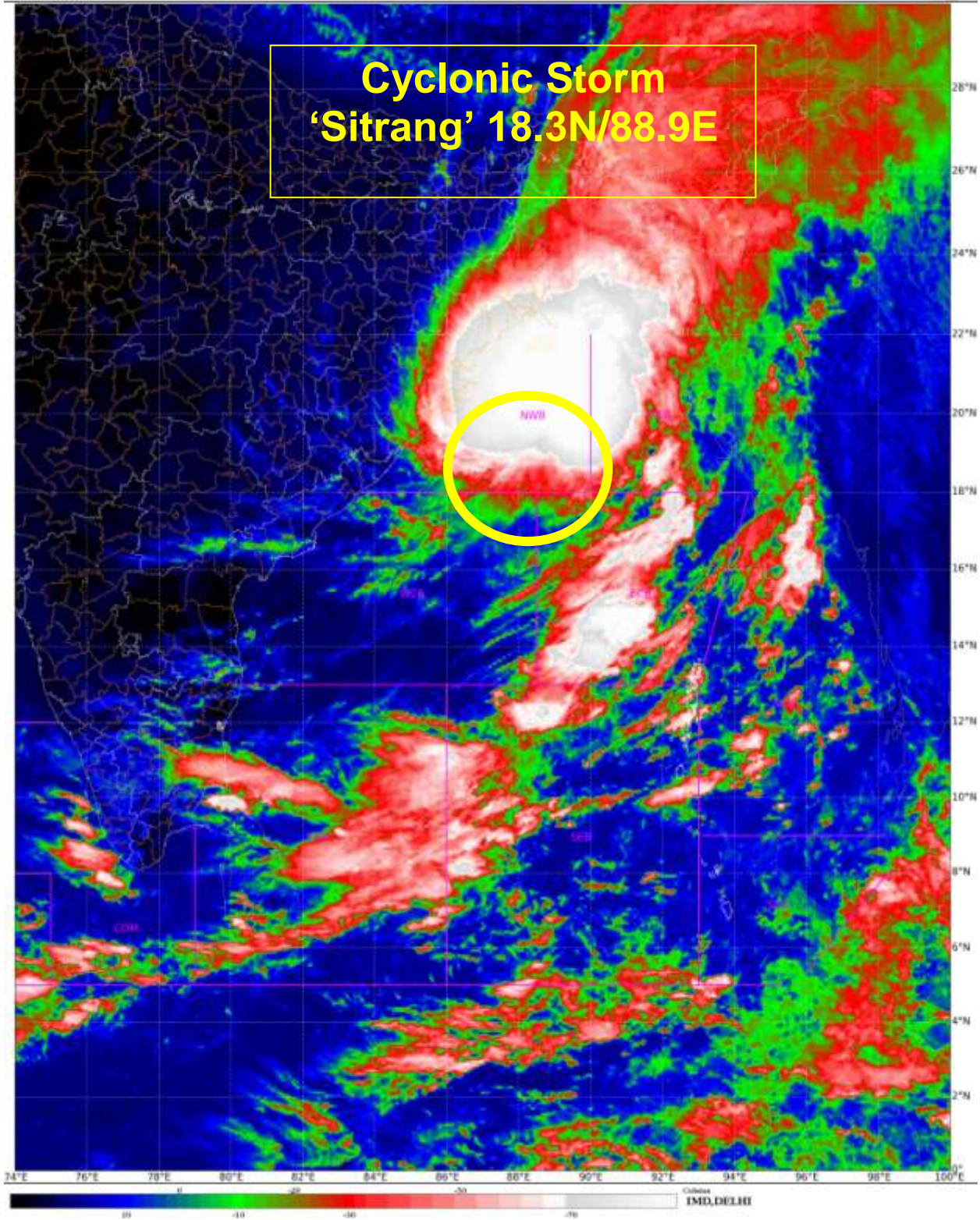
DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
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 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE 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

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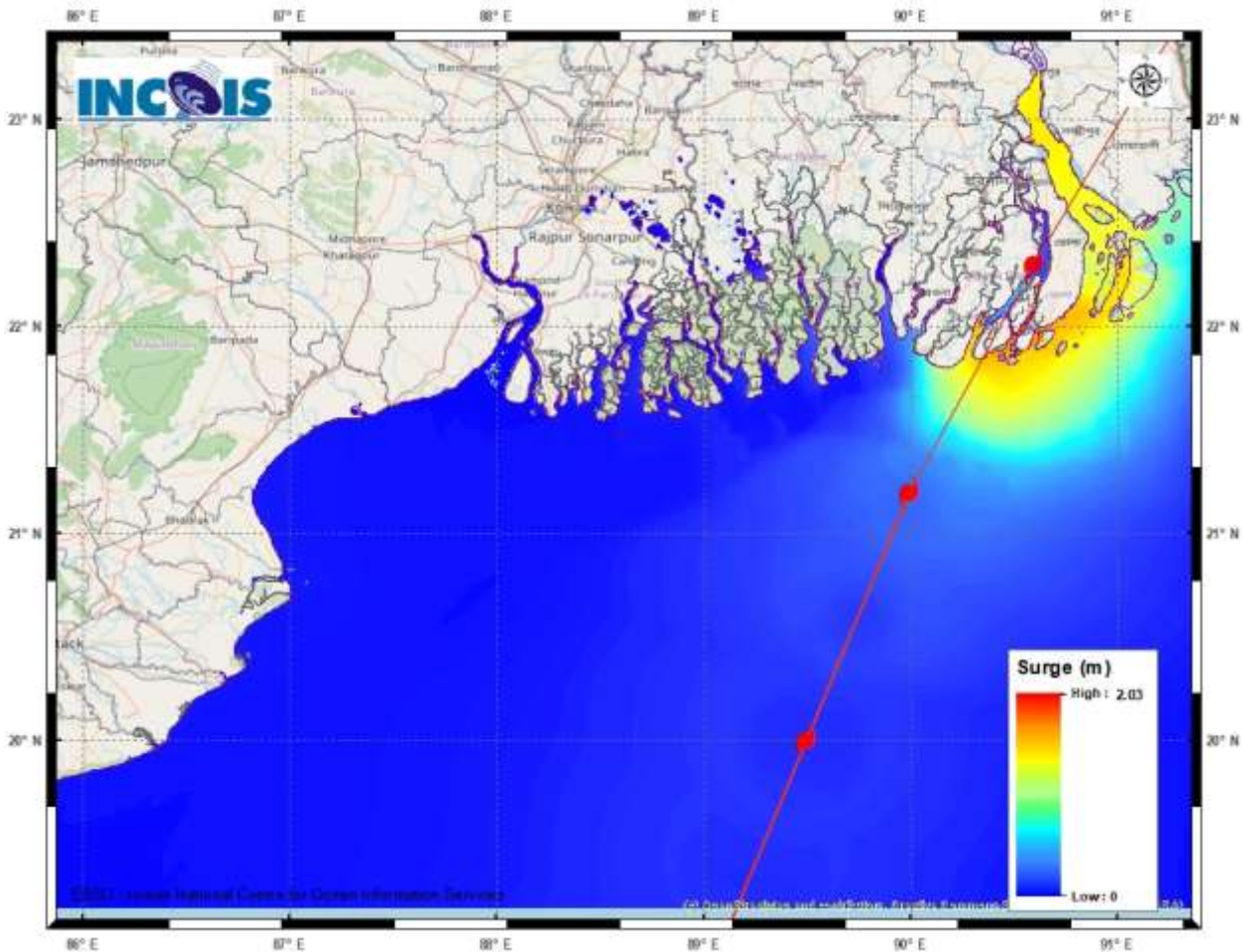
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Fishermen warning graphics



	Squally WX with wind speed 40-45 kmph gusting to 55 kmph
	Squally WX with wind speed 45-55 kmph gusting to 65 kmph
	Squally wind speed with wind speed 45-55 kmph gusting to 65 kmph
	Squally wind speed with wind speed 55-65 kmph gusting to 75 kmph
	Gale wind speed with wind speed 65-75 kmph gusting to 85 kmph
	Gale wind speed with wind speed 80-90 kmph gusting to 100 kmph
	Gale wind speed with wind speed 90-100 kmph gusting to 110 kmph

Fishermen are advised not to venture into the marked areas.



Storm Surge Warning Graphics

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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