



REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI
TROPICAL CYCLONE ADVISORY NO. 2

FROM: RSMC TROPICAL CYCLONES NEW DELHI DATED 23.10.2022

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. 1 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1800 UTC OF 23.10.2022 BASED ON 1500 UTC OF 23.10.2022

SUBJECT: CYCLONIC STORM SITRANG OVER WESTCENTRAL AND ADJOINING EASTCENTRAL BAY OF BENGAL PRONOUNCED AS “SI-TRANG”

THE CYCLONIC STORM “SITRANG” (PRONOUNCED AS “SI-TRANG”) OVER WESTCENTRAL & ADJOINING EASTCENTRAL BAY OF BENGAL MOVED NEARLY NORTHWARDS WITH A SPEED OF 7 KMPH DURING PAST 3 HOURS, AND LAY CENTERED AT 1500 UTC OF TODAY, THE 23RD OCTOBER OVER THE SAME REGION NEAR LATITUDE 16.6N AND LONGITUDE 88.1E, ABOUT 740 KM NORTHWEST OF PORT BLAIR (43333), 560 KM SOUTH OF SAGAR ISLAND (42903) AND 720 KM SOUTH-SOUTHWEST OF BARISAL (41950).

IT IS VERY LIKELY TO MOVE NORTH-NORTHEASTWARDS AND CROSS BANGLADESH COAST BETWEEN TINKONA ISLAND AND SANDWIP, CLOSE TO BARISAL AROUND 0000 UTC OF 25TH OCTOBER, 2022.

FORECAST TRACK & INTENSITY IS GIVEN BELOW:

DATE/TIME(UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
23.10.22/1500	16.6/88.1	60-70 GUSTING TO 80	CYCLONIC STORM
23.10.22/1800	17.2/88.2	70-80 GUSTING TO 90	CYCLONIC STORM
24.10.22/0000	18.2/88.6	80-90 GUSTING TO 100	CYCLONIC STORM
24.10.22/0600	19.4/89.1	85-95 GUSTING TO 105	SEVERE CYCLONIC STORM
24.10.22/1200	20.7/89.7	90-100 GUSTING TO 110	SEVERE CYCLONIC STORM
25.10.22/0000	22.2/90.5	85-95 GUSTING TO 105	SEVERE 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	WELL MARKED LOW PRESSURE AREA

THE CONVECTION OVER WEST CENTRAL BAY OF BENGAL & NEIGHBOURHOOD HAS INTENSIFIED. INTENSITY OF THE SYSTEM IS CHARACTERISED AS T 2.5/2.5. THE SYSTEM SHOWS SHEAR PATTERN AND MAXIMUM CONVECTION IS SHEARED TOWARDS NORTH OF SYSTEM CENTER. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER BAY OF BENGAL BET LATITUDE 13.0⁰N TO 22.0⁰N LONGITUDE 85.0⁰E TO 92.5⁰E. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEGREE CELSIUS.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED (MSW) IS ABOUT 35 KNOTS GUSTING TO 45 KNOTS AROUND SYSTEM CENTER. ESTIMATED CENTRAL PRESSURE IS 998 HPA. SEA CONDITION IS LIKELY TO BE VERY ROUGH TO HIGH OVER CENTRAL BAY OF BENGAL.

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 CENTRAL & NORTH BOB. THE OCEAN HEAT CONTENT (OHC) IS AROUND 120 KJ/CM² OVER THE SAME REGION.

LOW LEVEL VORTICITY HAS INCREASED AND IS ABOUT 150 X10⁻⁶ S⁻¹ CLOSE TO THE SOUTH-SOUTHEAST OF SYSTEM CENTRE. VERTICALLY IT IS EXTENDING UPTO 200 HPA LEVEL. LOW LEVEL CONVERGENCE HAS INCREASED AND IS AROUND 40 X10⁻⁵ S⁻¹ TO THE NORTHEAST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS AROUND 50 X10⁻⁵ S⁻¹ TO THE NORTH OF SYSTEM CENTRE. STRONG POLEWARD OUTFLOW IS SEEN IN UPPER LEVELS AS EXHIBITED IN SATELLITE IMAGERY. WIND SHEAR IS MODERATE (15-20 KNOTS) AROUND THE SYSTEM CENTER AND IS HIGH (25-35 KNOT) ALONG THE FORECAST TRACK.

A BUOY (23093) NEAR LAT. 16.4 DEG. N AND LONG. 88.0 DEG. E. REPORTED FALL IN PRESSURE BY 07 HPA DURING PAST 24 HOURS WITH MEAN SEA LEVE PRESSURE 1000.3 HPA AND WIND OF 330⁰/19.4 KNOT.

CURRENTLY, THE SYSTEM IS IN A FAVOURABLE ENVIRONMENT FOR FURTHER INTENSIFICATION INTO A MARGINALLY SEVERE CYCLONIC STORM. UPPER TROPOSPHERIC RIDGE ROUGHLY RUNS ALONG 18⁰N OVER BAY OF BENGAL. A TROUGH IN MID-LATITUDE WESTERLIES IS ROUGHLY RUNNING ALONG 83⁰E UPTO 20⁰N. THE SYSTEM IS CURRENTLY TRACKING NEARLY NORTHWARDS UNDER THE INFLUENCE OF THE SOUTHEASTERLY WINDS IN ASSOCIATION WITH RIDGE ALONG LAT. 18 DEG. N AND AN ANTICYCLONE TO THE EAST OF SYSTEM CENTER. IT WOULD CONTINUE TO MOVE NEARLY NORTHWARD TILL 18 UTC OF 23RD. THEREAFTER COMING UNDER THE INFLUENCE OF THE TROUGH IN MID-LATITUDE WESTERLIES IN MIDDLE AND UPPER TROPOSPHERIC LEVELS AND THE ABOVE ANTI CYCLONE/RIDGE AS MENTIONED ABOVE, IT WOULD RECURVE NORTH-NORTHEASTWARDS AND MOVE TOWARDS BANGLADESH COAST.

MOST OF THE MODELS ARE INDICATING LIKELY INTENSIFICATION INTO A MARGINALLY SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. THE MODELS ARE ALSO INDICATING GRADUAL NORTH-NORTHEASTWARD RECURVATURE OF THE SYSTEM TOWARDS BANGLADESH COAST.

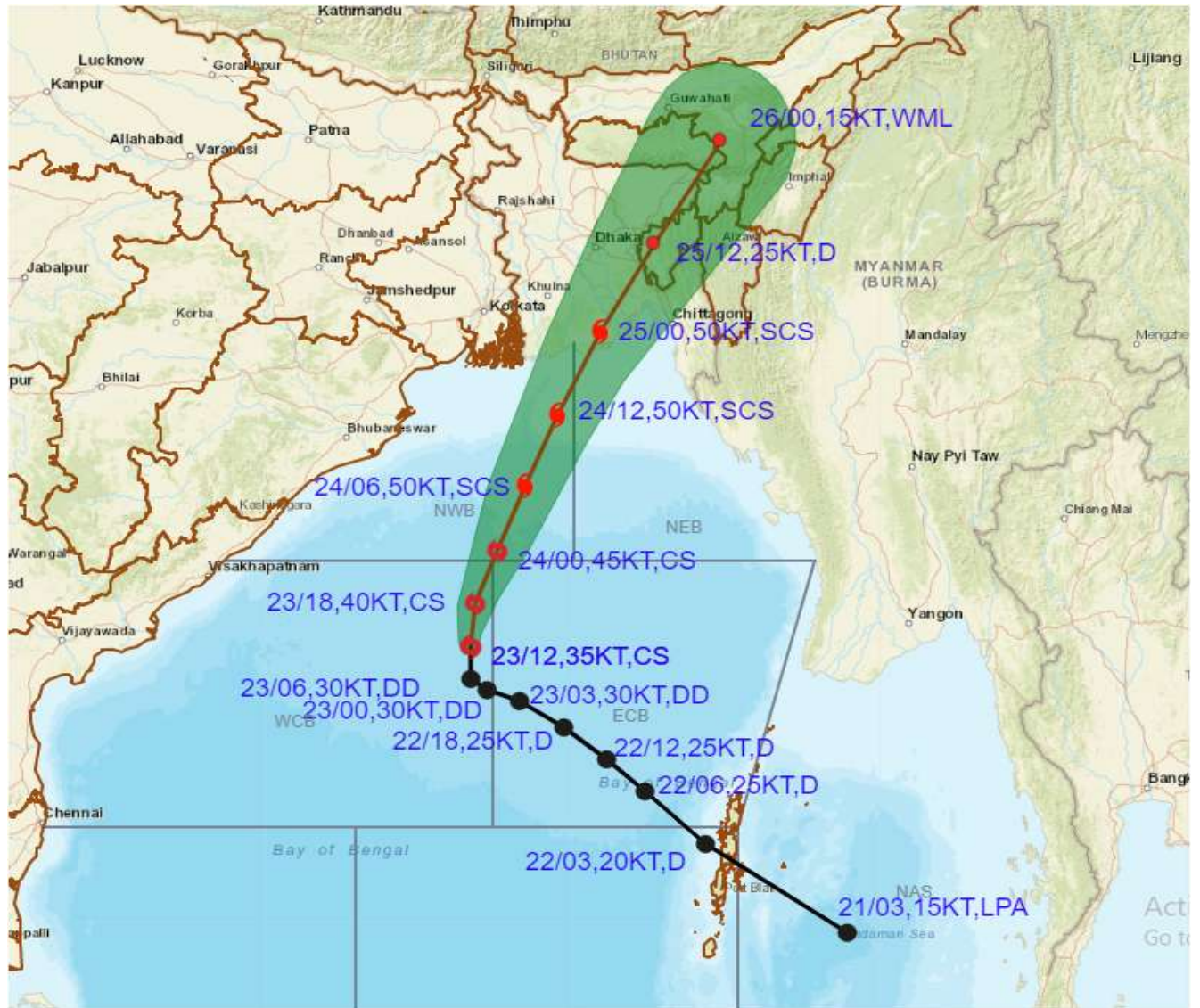
CONSIDERING ALL THE ABOVE, THE **CYCLONIC STORM "SITRANG"** OVER CENTRAL BAY OF BENGAL IS LIKELY TO MOVE NORTH-NORTHEASTWARD DURING NEXT 24 HOURS AND INTENSIFY INTO A **SEVERE CYCLONIC STORM** OVER NORTHWEST BAY OF BENGAL. THEREAFTER, IT WOULD CONTINUE TO MOVE NORTH-NORTHEASTWARDS AND CROSS BANGLADESH COAST BETWEEN TINKONA ISLAND AND SANDWIP, CLOSE TO BARISAL (41964) AROUND 25TH OCTOBER EARLY MORNING (2100 UTC OF 24TH - 0000 UTC OF 25TH).

NEXT BULLETIN WILL BE ISSUED AT 2100 UTC OF 23RD OCTOBER 2022.

(P.L.N. MURTY)



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF CYCLONIC STORM SITRANG OVER WESTCENTRAL AND ADJOINING EASTCENTRAL BAY OF BENGAL BASED ON 1200 UTC OF 23rd 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

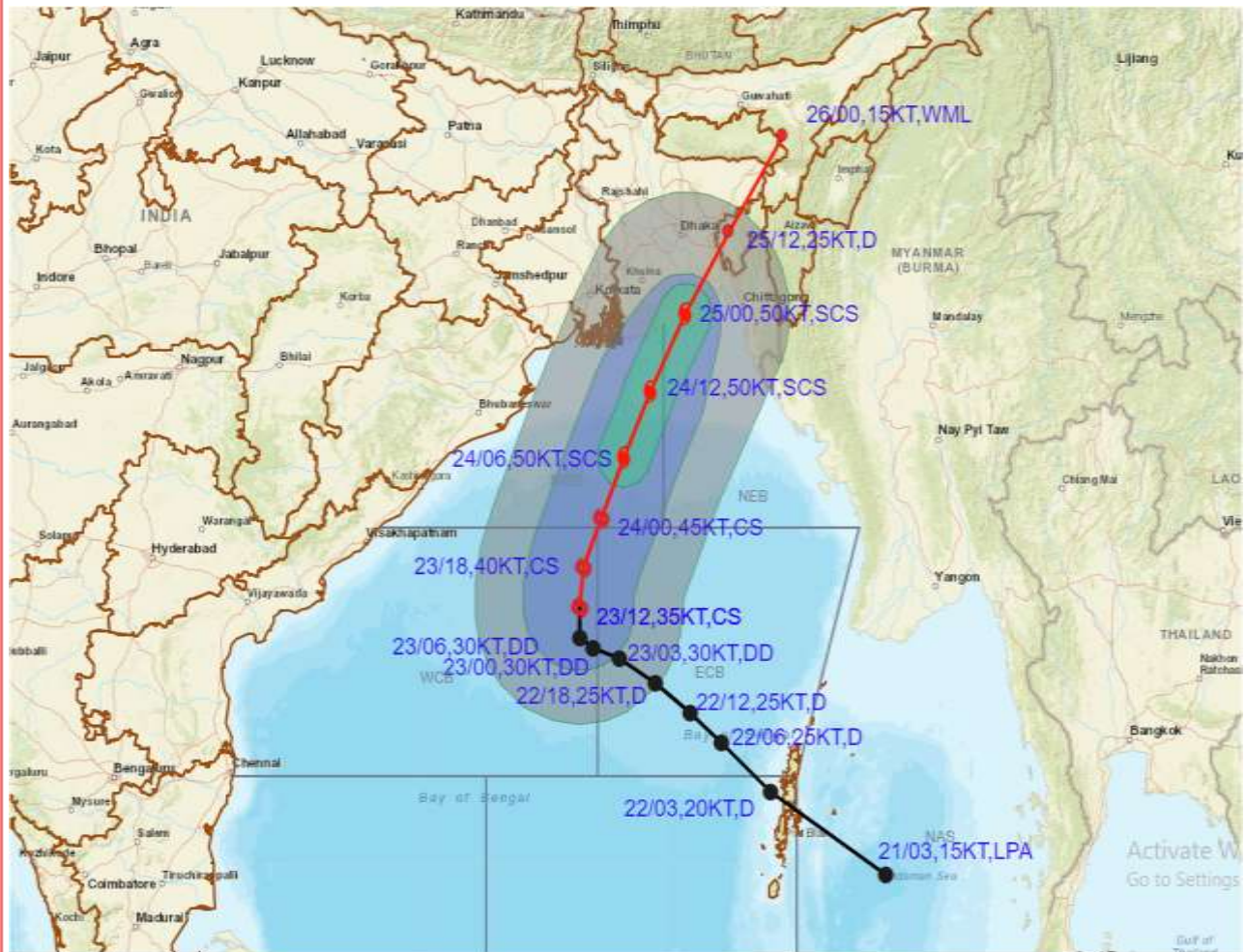
— OBSERVED TRACK

— FORECAST TRACK

▲ CONE OF UNCERTAINTY



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM SITRANG OVER WESTCENTRAL AND ADJOINING EASTCENTRAL BAY OF BENGAL BASED ON 1200 UTC OF 23rd 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 (≥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

SAT : INSAT-3D IMG

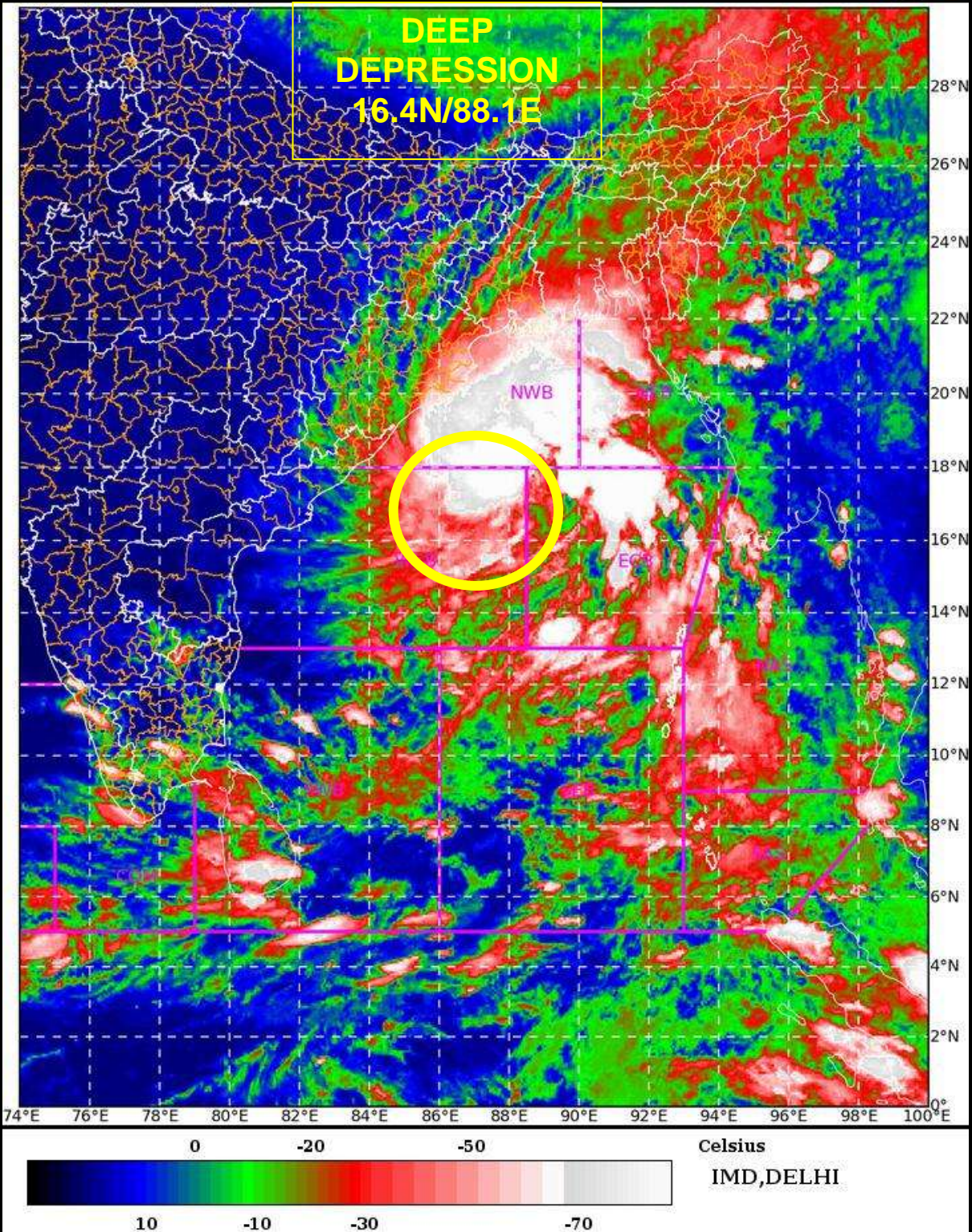
23-10-2022/(1200 to 1226) GMT

IMG_TIR1_TEMP 10.8 um

23-10-2022/(1730 to 1756) IST



L1C Mercator



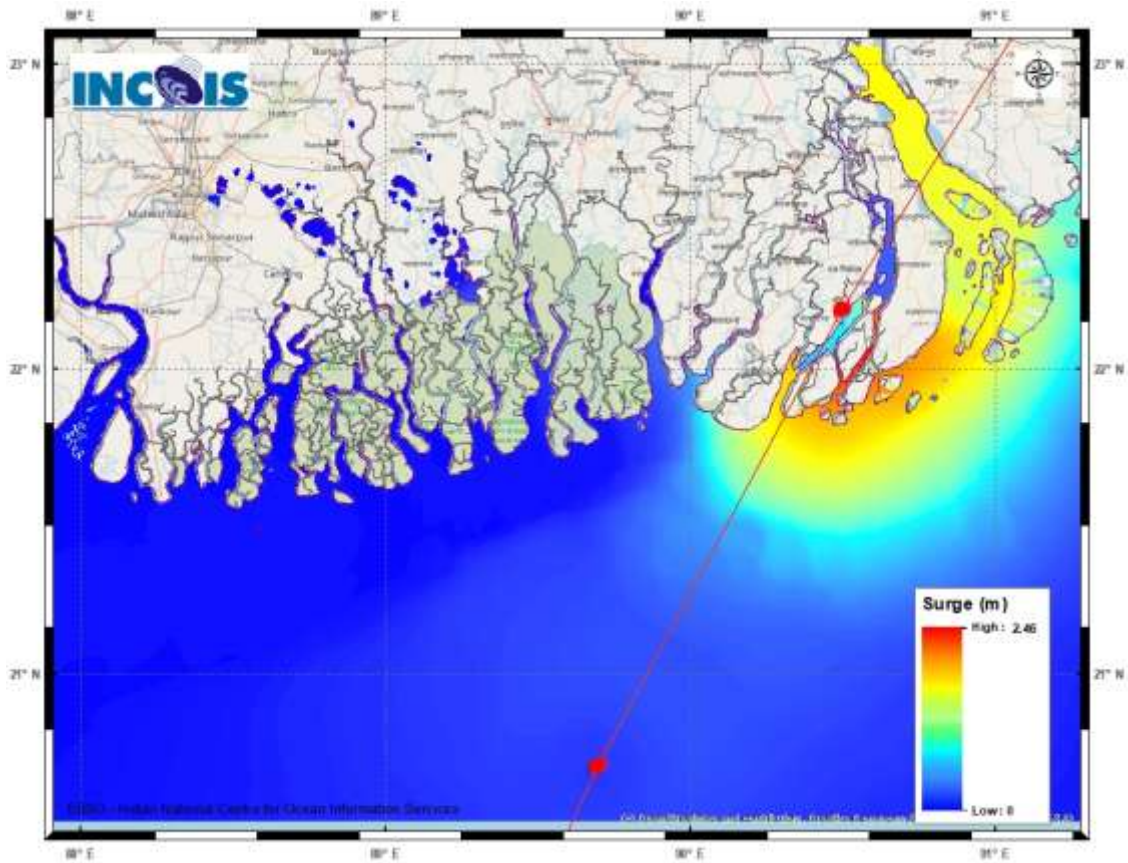
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Fishermen warning graphics



	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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