REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI

TROPICAL CYCLONE ADVISORY BULLETIN NO. 17

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. 17 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0200 UTC OF 25.05.2021 BASED ON 0000 UTC OF 25.05.2021.

SUB: THE VERY SEVERE CYCLONIC STORM 'YAAS' (PRONOUNCED AS 'YASS') OVER NORTHWEST BAY OF BENGAL– (CYCLONE WARNING FOR ODISHA – WEST BENGAL COASTS)

THE **VERY SEVERE CYCLONIC STORM 'YAAS' (PRONOUNCED AS 'YASS')** OVER NORTHWEST BAY OF BENGAL MOVED NORTH-NORTHWESTWARDS WITH A SPEED OF ABOUT 15 KMPH DURING PAST 6 HOURS AND LAY CENTRED AT 0000 UTC OF 26TH MAY, 2021 OVER NORTHWEST BAY OF BENGAL NEAR LATITUDE 20.8°N AND LONGITUDE 87.3°E, ABOUT 80 KM EAST-SOUTHEAST OF PARADIP (42976), 90 KM SOUTH-SOUTHEAST OF BALASORE (42895), 90 KM SOUTH-SOUTHWEST OF DIGHA (42901) AND 40 KM EAST OF DHAMRA PORT (ODISHA, INDIA).

IT IS VERY LIKELY TO MOVE NORTH-NORTHWESTWARDS AND CROSS NORTH ODISHA COAST NORTH OF DHAMRA AND SOUTH OF BALASORE, DURING NOON (0600-0800 UTC) OF WEDNESDAY, THE 26TH MAY AS A **VERY SEVERE CYCLONIC STORM**.

THE CYCLONE IS BEING TRACKED BY DOPPLER WEATHER RADAR AT PARADIP.

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

DATE/TIME(UTC)	POSITION LAT. ^{0}N/ LONG ^{0}E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
26.05.21/0000	20.8/87.3	130-140 GUSTING TO 155	VERY SEVERE CYCLONIC STORM
26.05.21/0600	21.3/86.9	130-140 GUSTING TO 155	VERY SEVERE CYCLONIC STORM
26.05.21/1200	21.8/86.5	5-105 GUSTING TO 11	SEVERE CYCLONIC STORM
26.05.21/1800	22.3 /86.1	60-70 GUSTING TO 80	CYCLONIC STORM
27.05.21/0000	22.9/85.5	40-50 GUSTING TO 50	DEPRESSION
27.05.21/1200	23.9/84.5	20-30 GUSTING TO 50	WEL MARKED LOW

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)
NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%

THE MAXIMUM SUSTAINED WIND SPEED IS 70 KNOTS GUSTING TO 80 KNOTS AROUND SYSTEM CENTRE. SEA CONDITION IS VERY HIGH TO PHENOMENAL. THE ESTIMATED CENTRAL PRESSURE IS 974 HPA. MAXIMUM WINDS ARE OBSERVED IN THE NORTHEAST & SOUTHEAST SECTOR WITH LARGE AREAL EXTENSION. GALE WINDS EXCEEDING 40 KNOTS HAVE COMMENCED ALONG & OFF NORTH ODISHA & ADJOINING WEST BENGAL COASTS.

AT 0000 UTC, A BUOY (23092) NEAR 17.5°N/89.1°E REPORTED MAXIMUM SUSTAINED WIND OF 240°/14 KTS, MEAN SEA LEVEL PRESSURE OF 996 HPA AND SEA SURFACE TEMPERATURE 28.2°C.

AS PER SATELLITE IMAGERY BASED ON 0000 UTC OF THE 26TH MAY, THE REGULAR AND COMPACT OUTER SPIRAL BANDS ARE ENTERING COASTAL ODISHA AND WEST BENGAL LEADING TO RAINFALL OVER THE AREA. THE INTENSITY OF THE SYSTEM IS CHARACTERISED AS T 4.0 AND CDO PATTERN. BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER THE NORTHWEST AND BETWEEN LATITUDE 18.5^{o} N TO 22.0^{o} N AND LONG 85.0^{o} E TO 88.5^{o} E. MINIMUM CLOUD TOP TEMPERATURE IS 93°C.

REMARKS:

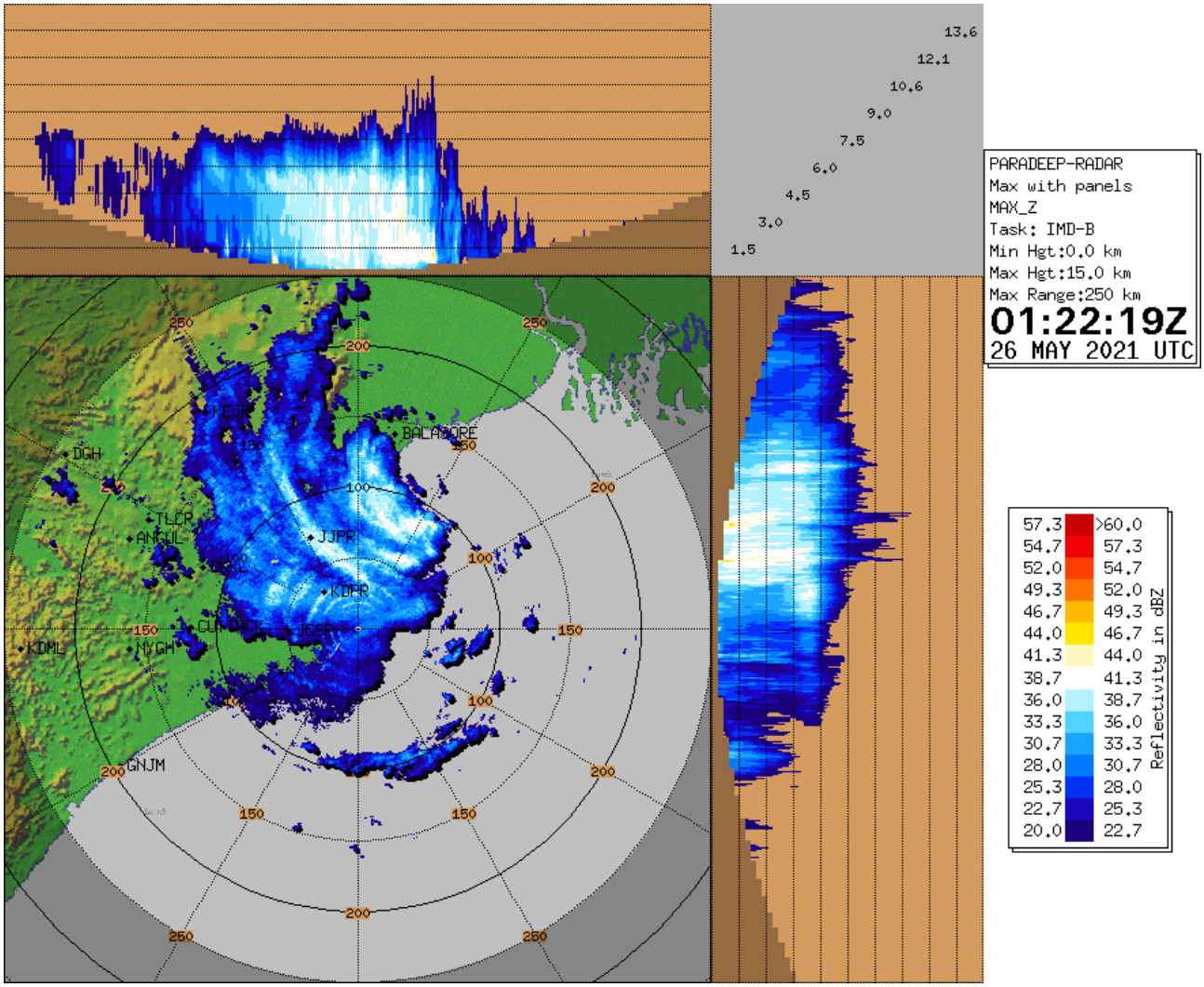
THE TROPICAL CYCLONE HEAT POTENTIAL (TCHP) OVER NORTHWEST BAY OF BENGAL ALONG & OFF NORTH ODISHA-WEST BENGAL COASTS IS ABOUT 90-110 KJ/CM^{2}. SEA SURFACE TEMPERATURE (SST) IS AROUND 30-31^{0}C OVER MAJOR PARTS OF BOB.

POSITIVE LOW LEVEL VORTICITY HAS DECREASED AND IS ABOUT 250 X10^{-6} S^{-1} OVER THE SYSTEM CENTRE WITH VERTICAL EXTENSION UPTO 200 HPA LEVEL. LOW LEVEL CONVERGENCE IS ABOUT 20 X 10^{-5} S^{-1} OVER THE SYSTEM CENTRE. THE POSITIVE UPPER LEVEL DIVERGENCE HAS ALSO DECREASED AND IS 10x 10^{-5} S^{-1} OVER THE SYSTEM CENTRE. STRONG POLEWARD AND EQUATORWARD OUTFLOW IS SEEN IN THE UPPER LEVEL. MODERATE TO HIGH VERTICAL WIND SHEAR (VWS) (20-25 KTS) IS PREVAILING OVER THE SYSYEM CENTRE. THE SPIRAL BAND OF THE SYSTEM LIES OVER LAND. THUS THE SYSTEM IS UNLIKELY TO INTENSIFY FURTHER. MOVING NORTH-NORTHWESTWARDS ALONG THE WESTERN PERIPHERY OF THE SUB TROPICAL RIDGE TO THE NORTHEAST OF SYSTEM CENTRE THE SYSTEM WILL MAKE LANDFALL CLOSE TO NORTH OF DHAMRA AND SOUTH OF BALASORE AROUND NOON (0600-0800 UTC OF 26TH MAY). AFTER LANDFALL THE SYSTEM WILL WEAKEN GRADUALLY WHILE MOVING NORTHWESTWARDS ACROSS ODISHA TOWARDS JHARKHAND.

MOST OF THE NUMERICAL MODELS ARE INDICATING NORTH-NORTHWESTWARD MOVEMENT TO CROSS COAST NORTH OF DHAMRA & SOUTH OF BALASORE IN THE NOON OF 26TH MAY.

(ANANDA KUMAR DAS)
SCIENTIST-E, RSMC NEWDELHI

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)
NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%



Latest imagery from Doppler Weather RADAR Paradip

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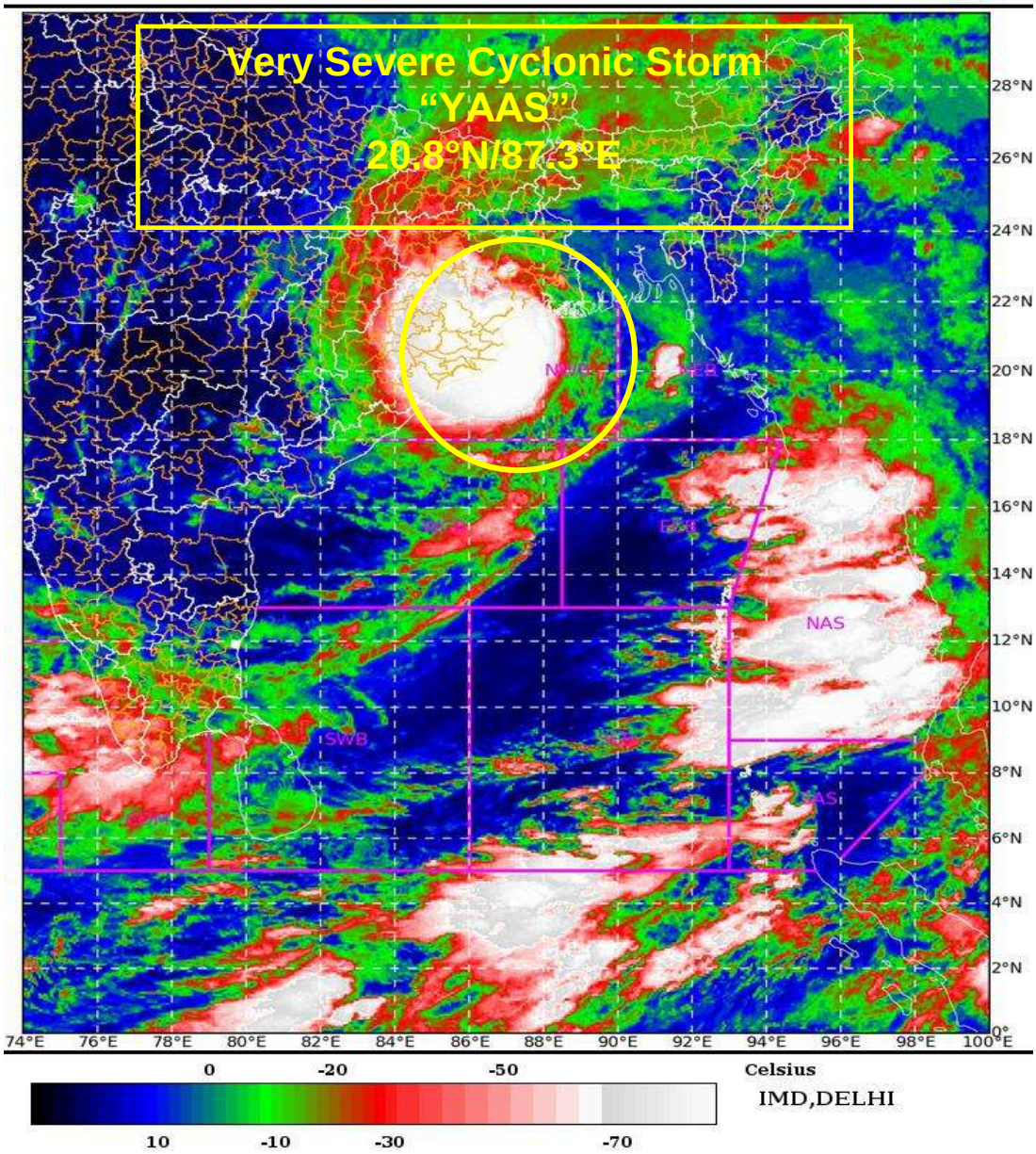
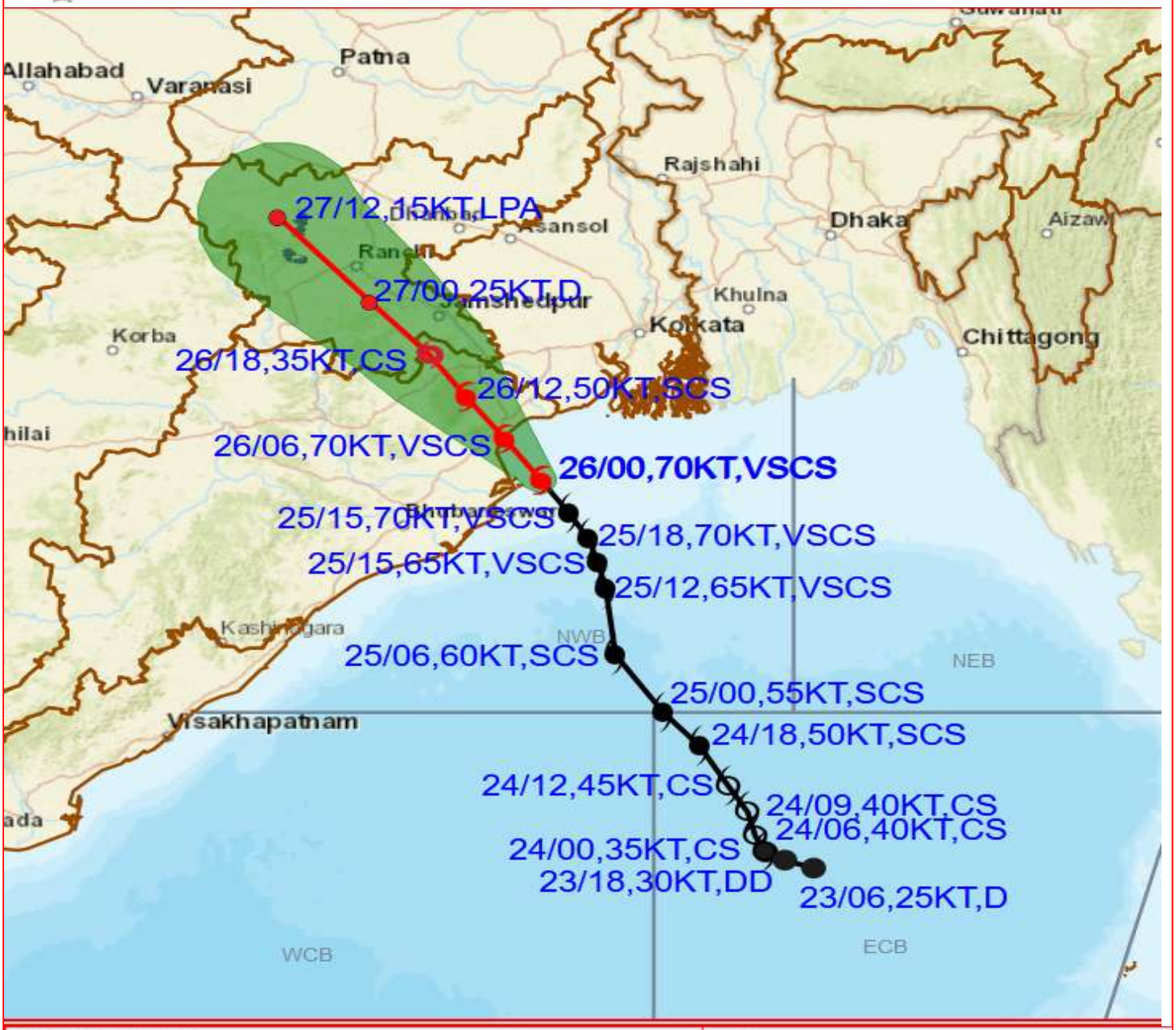
SAT : INSAT-3D IMG 26-05-2021/(0100 to 0126) GMT
IMG_TIR1_TEMP 10.8 um 26-05-2021/(0630 to 0656) IST
L1C Mercator



PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)
NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%

OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINITY OF VERY SEVERE CYCLONIC STORM "YAAS" OVER NORTHWEST BAY OF BENGAL BASED ON 0000 UTC OF 26th MAY, 2021



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

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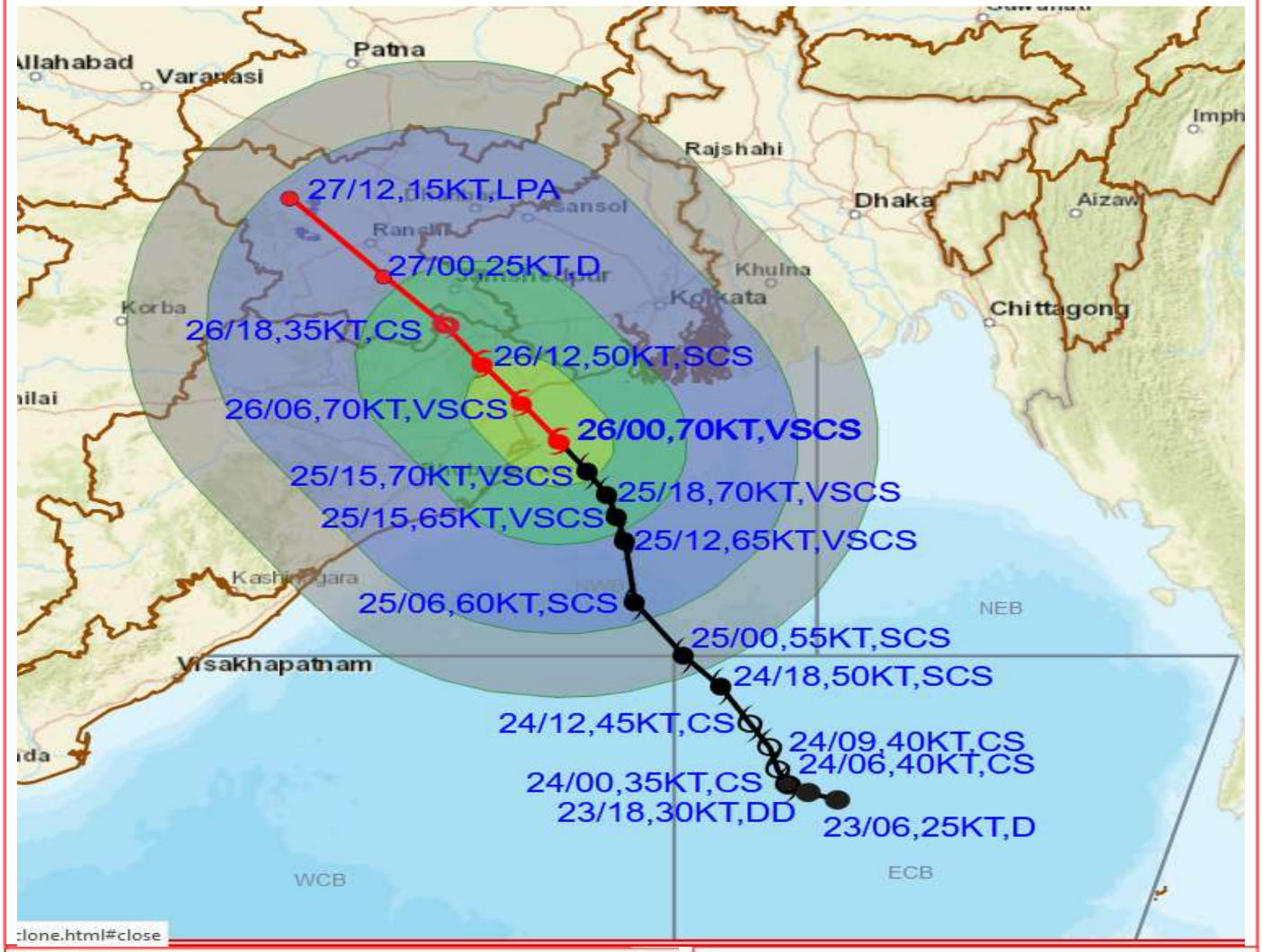
OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF VERY SEVERE CYCLONIC STORM "YAAS" OVER NORTHWEST BAY OF BENGAL BASED ON 0000 UTC OF 26th MAY, 2021



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- 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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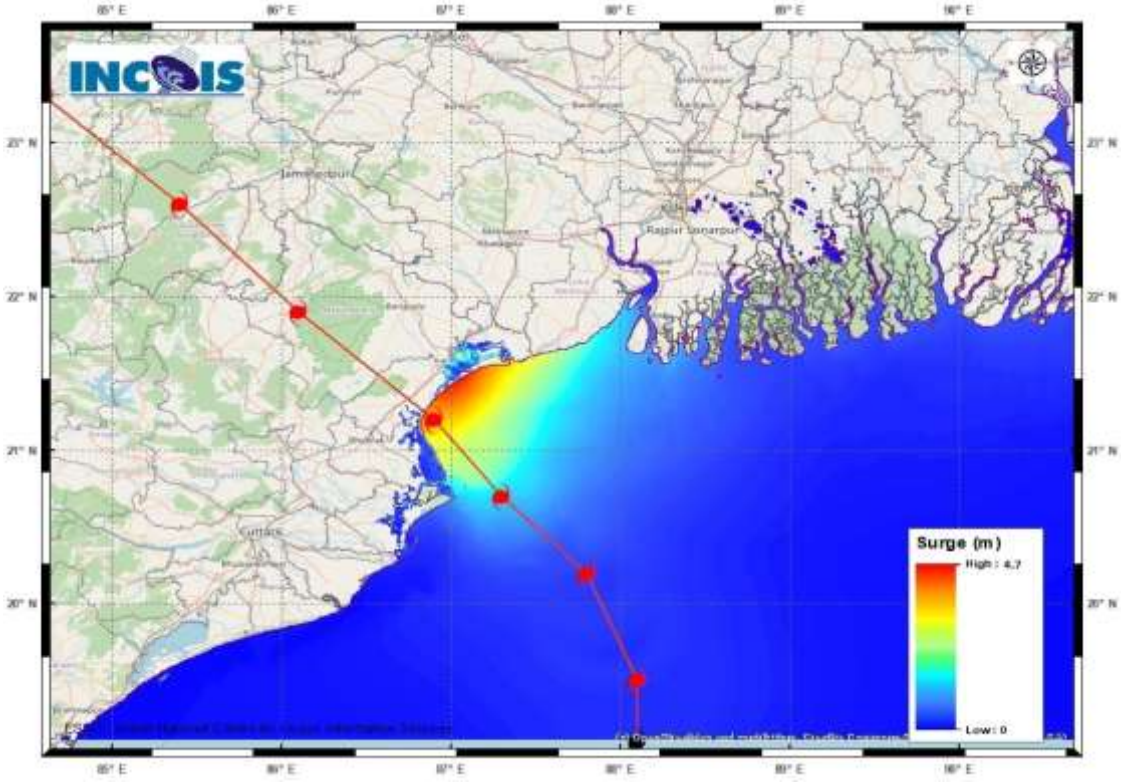
Storm Surge Forecast around the time of Landfall:



MANDAL/TALUK	DISTRICT	STATE / UNION TERRITORY	NEAREST PLACEOF HABITATION	STORM SURGE (m) *	EXPECTED INUNDATION EXTENT (km)
Baleshwar	Baleshwar	Odisha	Kumbhirgari	2.2-4.7	Upto 3.53
Bhadrak	Bhadrak	Odisha	Mohanpur	1.5-3.9	Upto 9.00
Jagatsinghpur	Jagatsinghapur	Odisha	Musadia	0.3-0.5	Upto 0.28
Kendraparha	Kendrapara	Odisha	Tikayat Nagar	0.2-1.7	Upto 5.47
Kanthi	Purba Medinipur	West Bengal	Safar Chata	0.5-2.9	Upto 1.50
Diamond Harbour	South 24 Parganas	West Bengal	Chakloknath	0.2-1.2	Upto 0.78
Basirhat	North 24 Parganas	West Bengal	Amlamethi	0.3-1.0	Upto 0.37
Tamluk	Purba Medinipur	West Bengal	Jamitta	0.3-1.3	Upto 0.42
Uluberiya	Haora	West Bengal	Denanchar OrphuliChar	0.3-0.5	Upto 0.42

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