



REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI
TROPICAL CYCLONE ADVISORY BULLETIN NO. 5

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 0300 UTC OF 17.05.2020 BASED ON 0000 UTC OF 17.05.2020.

SUB: THE CYCLONIC STORM 'AMPHAN' (PRONOUNCED AS UM-PUN) OVER SOUTHEAST BAY OF BENGAL AND NEIGHBOURHOOD.

THE CYCLONIC STORM 'AMPHAN' (PRONOUNCED AS **UM-PUN**) OVER SOUTHEAST BAY OF BENGAL AND NEIGHBOURHOOD MOVED NORTH-NORTHWESTWARDS WITH SPEED OF 06 KMPH DURING PAST 06 HOURS, INTENSIFIED SLIGHTLY AND LAY CENTRED OVER THE SAME REGION AT 0000 UTC OF 17TH MAY, 2020 NEAR LATITUDE 11.4°N AND LONGITUDE 86.0°E, ABOUT 990 KM SOUTH OF PARADIP (42976), 1140 KM SOUTH-SOUTHWEST OF DIGHA (42901) AND 1260 KM SOUTH-SOUTHWEST OF KHEPUPARA (41984). IT IS VERY LIKELY TO INTENSIFY FURTHER INTO A SEVERE CYCLONIC STORM DURING NEXT 06 HOURS AND INTO A VERY SEVERE CYCLONIC STORM DURING SUBSEQUENT 12 HOURS. IT IS VERY LIKELY TO MOVE NEARLY NORTHWARDS DURING NEXT 24 HOURS AND THEN RE-CURVE NORTH-NORTHEASTWARDS ACROSS NORTHWEST BAY OF BENGAL AND CROSS WEST BENGAL AND BANGLADESH COASTS BETWEEN SAGAR ISLANDS (42903) AND HATIYA ISLANDS (41963) AROUND 0900-1200 UTC OF 20TH MAY 2020 AS A VERY SEVERE CYCLONIC STORM.

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

DATE/TIME(UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
17.05.20/0000	11.4/86.0	80-90 GUSTING TO 100	CYCLONIC STORM
17.05.20/0600	11.9/85.9	95-105 GUSTING TO 115	SEVERE CYCLONIC STORM
17.05.20/1200	12.5/85.8	105-115 GUSTING TO 125	SEVERE CYCLONIC STORM
17.05.20/1800	13.1/85.9	115-125 GUSTING TO 140	VERY SEVERE CYCLONIC STORM
18.05.20/0000	13.7/86.0	125-135 GUSTING TO 150	VERY SEVERE CYCLONIC STORM
18.05.20/1200	14.8/86.2	145-155 GUSTING TO 170	VERY SEVERE CYCLONIC STORM
19.05.20/0000	16.1/86.6	160-170 GUSTING TO 190	EXTREMELY SEVERE CYCLONIC STORM
19.05.20/1200	17.6/87.2	170-180 GUSTING TO 200	EXTREMELY SEVERE CYCLONIC STORM
20.05.20/0000	19.6/88.0	170-180 GUSTING TO 200	EXTREMELY SEVERE CYCLONIC STORM
20.05.20/1200	21.7/89.0	155-165 GUSTING TO 180	VERY SEVERE CYCLONIC STORM
21.05.20/0000	23.5/89.7	95-105 GUSTING TO 115	SEVERE CYCLONIC STORM
21.05.20/1200	25.3/90.2	40-50 GUSTING TO 60	DEPRESSION

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%

REMARKS:

AS PER INSAT-3D SATELLITE IMAGERY BASED ON 0000 UTC OF 17TH MAY, THE CURRENT INTENSITY OF THE SYSTEM IS T3.0 ASSOCIATED WITH CURVED BAND PATTERN. MINIMUM CLOUD TOP TEMPERATURE IS -93 DEG CELCIUS. ASSOCIATED BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER BAY BETWEEN LAT 7.5°N TO 14.0°N LONG 81.0°E TO 89.0°E.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 45 KNOTS GUSTING TO 55 KNOTS. THE SEA CONDITION IS VERY HIGH AROUND THE SYSTEM CENTER. THE ESTIMATED CENTRAL PRESSURE IS 992 HPA.

AT 0000 UTC OF 17TH MAY, A BOUY (23094) LOCATED AT 13.5°N/84.2°E REPORTED A MEAN SEA LEVEL PRESSURE OF 999.6 HPA AND ANOTHER BOUY (23459) LOCATED AT 13.9°N/86.9°E REPORTED A MEAN SEA LEVEL PRESSURE OF 998.9 HPA AND MEAN SURFACE WIND SPEED OF 70°/21 KNOTS.

THE MADDEN JULIAN OSCILLATION (MJO) INDEX IS CURRENTLY IN PHASE 2 WITH AMPLITUDE MORE THAN 1. IT WILL CONTINUE IN SAME PHASE TILL 17TH MAY WITH AMPLITUDE REMAINING MORE THAN 1 AND BECOMING LESS THAN 1 THEREAFTER IN PHASE 3. THUS MJO WILL SUPPORT ENHANCEMENT OF CONVECTIVE ACTIVITY AND HENCE THE INTENSIFICATION OF THE SYSTEM.

CONSIDERING THE SEA CONDITIONS, THE SEA SURFACE TEMPERATURE (SST) IS 30-31°C OVER ENTIRE BOB. THE TROPICAL CYCLONE HEAT POTENTIAL IS MORE THAN 100 KJ/CM² OVER MAJOR PARTS OF SOUTH & CENTRAL BOB. IT IS ABOUT 60-80 KJ/CM² OVER BOB TO THE NORTH OF 17°N AND IS DECREASING TOWARDS EXTREME NORTH BOB.

CONSIDERING THE ENVIRONMENTAL CONDITIONS, THE ENHANCED POSITIVE VORTICITY ZONE IS BEING MAINTAINED DURING PAST 6 HOURS (MORE THAN $200 \times 10^{-6} \text{SEC}^{-1}$) AROUND THE SYSTEM CENTRE WITH VERTICAL EXTENSION UPTO 200 HPA LEVEL. THE LOWER LEVEL CONVERGENCE ZONE IS AROUND $30 \times 10^{-5} \text{SEC}^{-1}$ LOCATED OVER SOUTHEAST OF THE SYSTEM CENTRE., HOWEVER THR UPPER LEVEL DIVERGENCE HAS INCREASED AND IS ABOUT $60 \times 10^{-5} \text{SEC}^{-1}$ LOCATED AROUND THE SYSTEM CENTRE. VERTICAL WIND SHEAR (VWS) HAS HAS INCREASED AND IS MODERATE (15-20 KTS) AROUND THE SYSTEM CENTRE. IT IS INCREASING TO NORTH OF LAT. 15N ALONG THE EXPECTED TRACK. THE UPPER TROPOSPHERIC RIDGE LIES NEAR 13.0 N OVER BOB. AT PRESENT THE SYSTEM IS MOVING NEAR NORTHWARD ALONG THE AXIS OF THE RIDGE IN AND WILL CONTINUE THE SAME MOVEMENT FOR NEXT 24 HORS. SUBSEQUENTLY, THE SYSTEM WILL MOVE TO THE NORTH OF THE RIDGE AXIS AND WILL START RECURVING NORTH/NORTHEASTWARDS.

TOTAL PRECIPITABLE WATER IMAGERY AT 0100 UTC OF 17TH MAY INDICATES CONTINUED WARM MOIST AIR INCURSION OVER THE SYSTEM AREA.

VARIOUS NUMERICAL MODELS INCLUDING ECMWF, IMD GFS, NCEP GFS, GEFS, NEPS AND NCUM ARE INDICATING FURTHER INTENSIFICATION OF THE SYSTEM INTO VERY SEVERE CATEGORY AND MOVEMENT TOWARDS WEST BENGAL AND BANGLADESH COASTS. THE FORECAST IS BASED AS THE CONCENSUS FROM VARIOUS MODELS.

(D R PATTANAİK)
SCIENTIST-F, RSMC, NEW DELHI

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NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%

SAT : INSAT-3D IMG

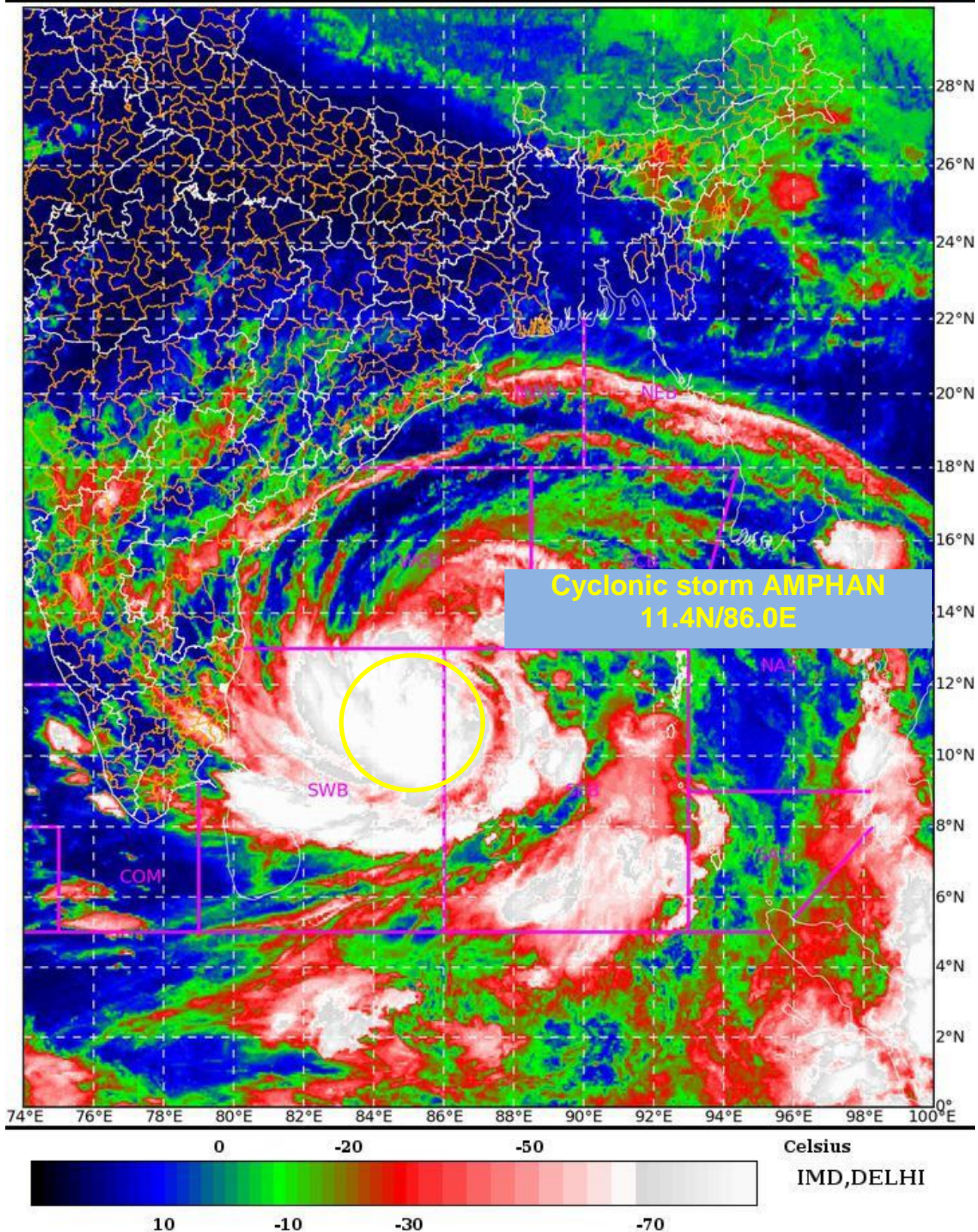
17-05-2020/(0100 to 0127) GMT

IMG_TIR1_TEMP 10.8 um

17-05-2020/(0630 to 0657) IST

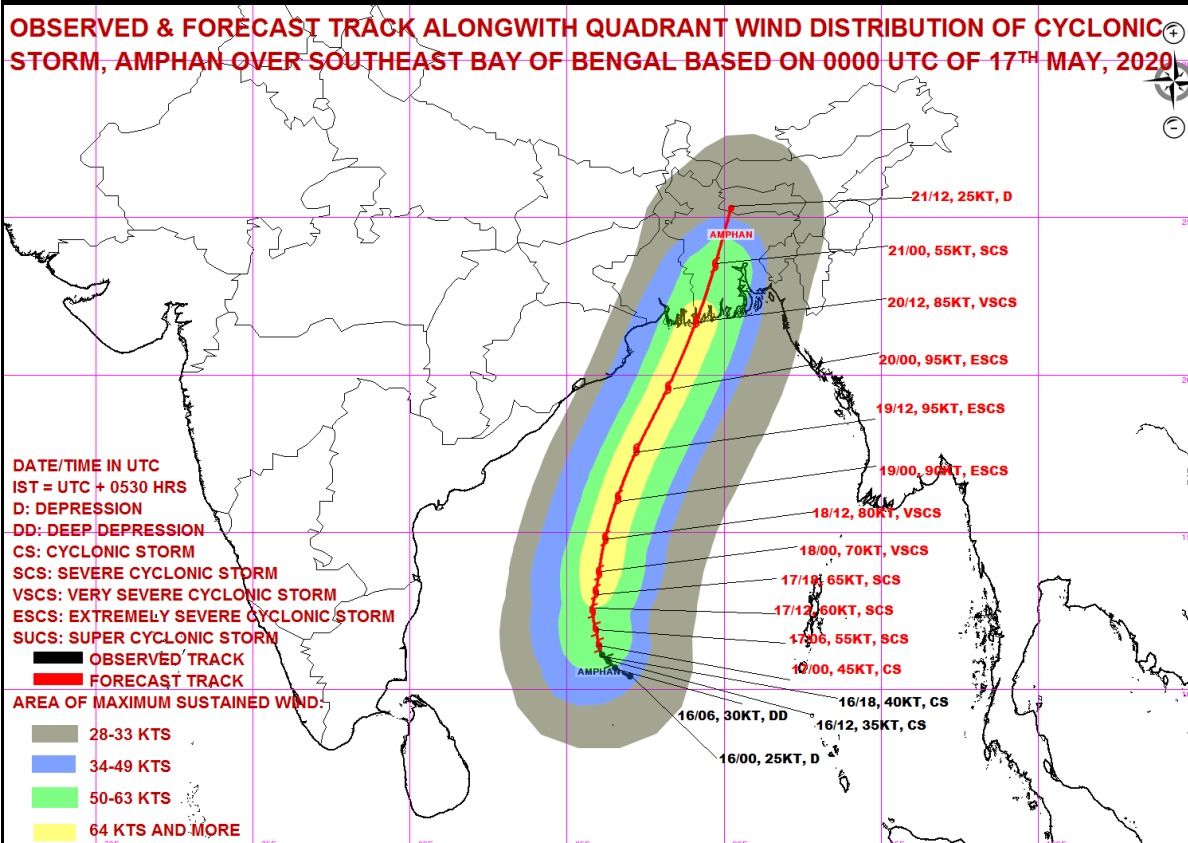
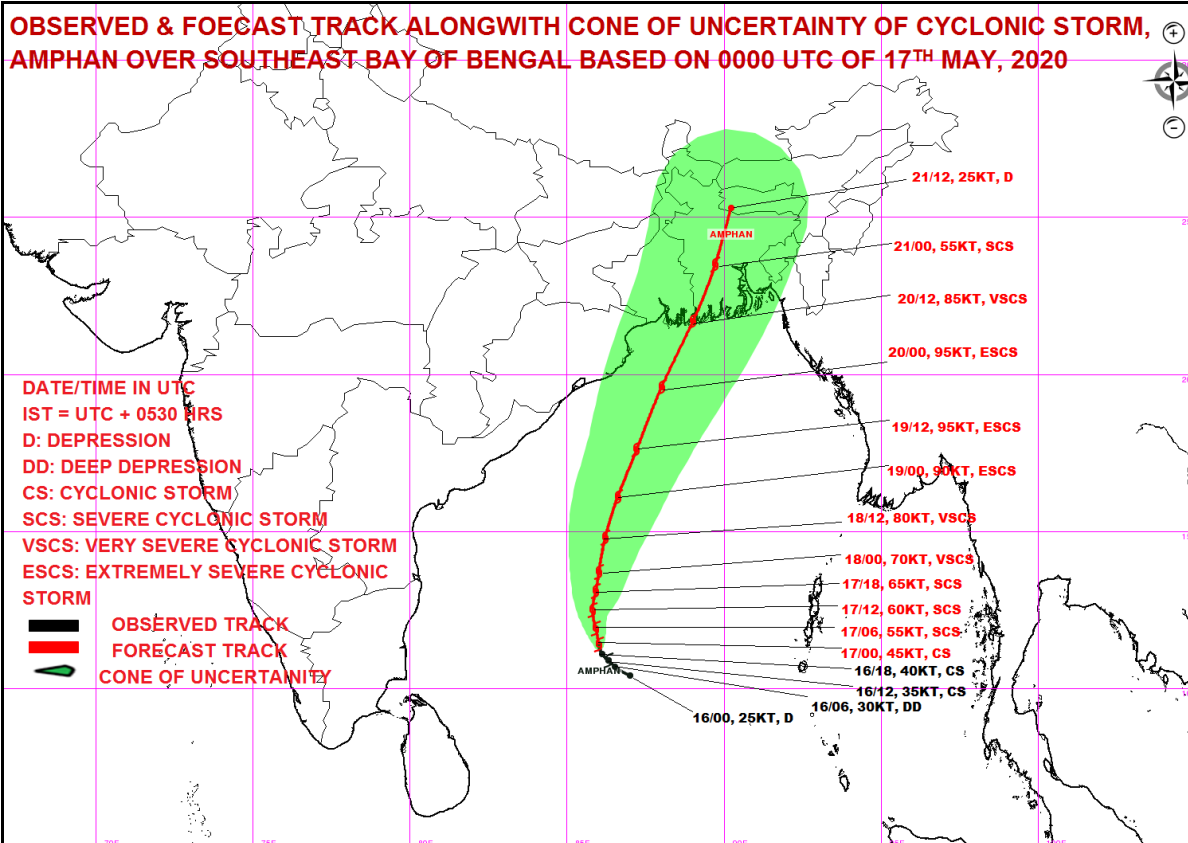


L1C Mercator



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MSW(knot)/kmph	Impact	Action
28-33 / (52-61)	Very rough seas.	Total suspension of fishing operations
34-40 / (62-74)	High to very high seas	Total suspension of fishing operations
41-63 / (75-117)	Very High seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

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