



REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI  
TROPICAL CYCLONE ADVISORY BULLETIN NO. 7

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. 7 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0900 UTC OF 17.05.2020 BASED ON 0600 UTC OF 17.05.2020.

**SUB:** SEVERE CYCLONIC STORM 'AMPHAN' (PRONOUNCED AS UM-PUN) OVER CENTRAL PARTS OF SOUTH BAY OF BENGAL AND NEIGHBOURHOOD.

THE SEVERE CYCLONIC STORM 'AMPHAN' (PRONOUNCED AS **UM-PUN**) OVER SOUTHEAST BAY OF BENGAL AND NEIGHBOURHOOD MOVED SLOWLY NORTHWESTWARDS WITH SPEED OF 02 KMPH DURING PAST 06 HOURS, AND LAY CENTRED OVER CENTRAL PARTS OF SOUTH BAY OF BENGAL AND NEIGHBOURHOOD AT 0600 UTC OF 17<sup>TH</sup> MAY, 2020 NEAR LATITUDE 11.5°N AND LONGITUDE 86.0°E, ABOUT 980 KM SOUTH OF PARADIP (42976), 1130 KM SOUTH-SOUTHWEST OF DIGHA (42901) AND 1250 KM SOUTH-SOUTHWEST OF KHEPUPARA (41984). IT IS VERY LIKELY TO INTENSIFY FURTHER INTO A VERY SEVERE CYCLONIC STORM DURING 12 HOURS. IT IS VERY LIKELY TO MOVE NEARLY NORTHWARDS SLOWLY DURING NEXT 24 HOURS AND THEN RE-CURVE NORTH-NORTHEASTWARDS AND MOVE FAST ACROSS NORTHWEST BAY OF BENGAL AND CROSS WEST BENGAL AND BANGLADESH COASTS BETWEEN DIGHA (42901) AND HATIYA ISLANDS (41963) DURING 0900-1200 UTC OF 20<sup>TH</sup> 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
17.05.20/0600	11.5/86.0	95-105 GUSTING TO 115	SEVERE CYCLONIC STORM
17.05.20/1200	12.2/86.0	105-115 GUSTING TO 125	SEVERE CYCLONIC STORM
17.05.20/1800	12.9/86.0	115-125 GUSTING TO 140	VERY SEVERE CYCLONIC STORM
18.05.20/0000	13.5/86.0	125-135 GUSTING TO 150	VERY SEVERE CYCLONIC STORM
18.05.20/0600	14.0/86.1	135-145 GUSTING TO 160	VERY SEVERE CYCLONIC STORM
18.05.20/1800	15.2/86.3	155-165 GUSTING TO 180	VERY SEVERE CYCLONIC STORM
19.05.20/0600	16.6/86.7	170-180 GUSTING TO 200	EXTREMELY SEVERE CYCLONIC STORM
19.05.20/1800	18.4/87.2	170-180 GUSTING TO 200	EXTREMELY SEVERE CYCLONIC STORM
20.05.20/0600	20.4/87.7	160-170 GUSTING TO 190	EXTREMELY SEVERE CYCLONIC STORM
20.05.20/1800	22.4/88.2	125-135 GUSTING TO 150	VERY SEVERE CYCLONIC STORM
21.05.20/0600	24.2/88.7	70-80 GUSTING TO 90	CYCLONIC STORM
21.05.20/1800	26.0/89.2	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 0600 UTC OF 17<sup>TH</sup> MAY, THE CURRENT INTENSITY OF THE SYSTEM IS T3.5 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 55 KNOTS GUSTING TO 65 KNOTS. THE SEA CONDITION IS VERY HIGH AROUND THE SYSTEM CENTER. THE ESTIMATED CENTRAL PRESSURE IS 988 HPA.

AT 0600 UTC OF 17<sup>TH</sup> MAY, A BOUY (23094) LOCATED AT 13.4°N/83.9°E REPORTED A MEAN SEA LEVEL PRESSURE OF 1001.6 HPA AND ANOTHER BOUY (23459) LOCATED AT 13.9°N/86.9°E REPORTED A MEAN SEA LEVEL PRESSURE OF 998 HPA AND MEAN SURFACE WIND SPEED OF 70°/25 KNOTS.

THE MADDEN JULIAN OSCILLATION (MJO) INDEX IS IN PHASE 2 WITH AMPLITUDE MORE THAN 1 DURING 17<sup>TH</sup>-20<sup>TH</sup> MAY. IT WILL REMAIN IN PHASE 3 WITH AMPLITUDE MORE THAN 1 DURING NEXT 3 DAYS. THUS MJO PHASE AND AMPLITUDE WILL SUPPORT ENHANCEMENT OF CONVECTIVE ACTIVITY OVER BAY OF BENGAL DURING NEXT 5 DAYS.

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/CM<sup>2</sup> OVER MAJOR PARTS OF SOUTH & CENTRAL BOB. IT IS ABOUT 60-80 KJ/CM<sup>2</sup> 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 200X10<sup>-6</sup>SEC<sup>-1</sup>) AROUND THE SYSTEM CENTRE WITH VERTICAL EXTENSION UPTO 200 HPA LEVEL. THE LOWER LEVEL CONVERGENCE ZONE IS AROUND 30X10<sup>-5</sup>SEC<sup>-1</sup> LOCATED OVER SOUTHEAST OF THE SYSTEM CENTRE. THE UPPER LEVEL HAS DECREASED AND IS ABOUT 30X10<sup>-5</sup>SEC<sup>-1</sup> LOCATED AROUND THE SYSTEM CENTRE. VERTICAL WIND SHEAR (VWS) CONINUES TO REMAIN MODERATE TO HIGH (20-25 KTS) AROUND THE SYSTEM CENTRE. IT IS INCREASING TO THE 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 AND WILL CONTINUE THE SAME MOVEMENT FOR NEXT 24 HOURS. SUBSEQUENTLY, THE SYSTEM WILL MOVE TO THE NORTH OF THE RIDGE AXIS AND WILL START RECURVING NORTH/NORTHEASTWARDS AND MOVE FASTER.

TOTAL PRECIPITABLE WATER IMAGERY OF 17<sup>TH</sup> MAY INDICATES CONTINUED WARM MOIST AIR INCURSION OVER THE SYSTEM AREA, MAINLY IN ITS NORTHWESTERN SECTOR.

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 ON THE CONCENSUS FROM VARIOUS MODELS.

(SUNITHA DEVI)  
SCIENTIST-E, RSMC, NEW DELHI

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**PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)**

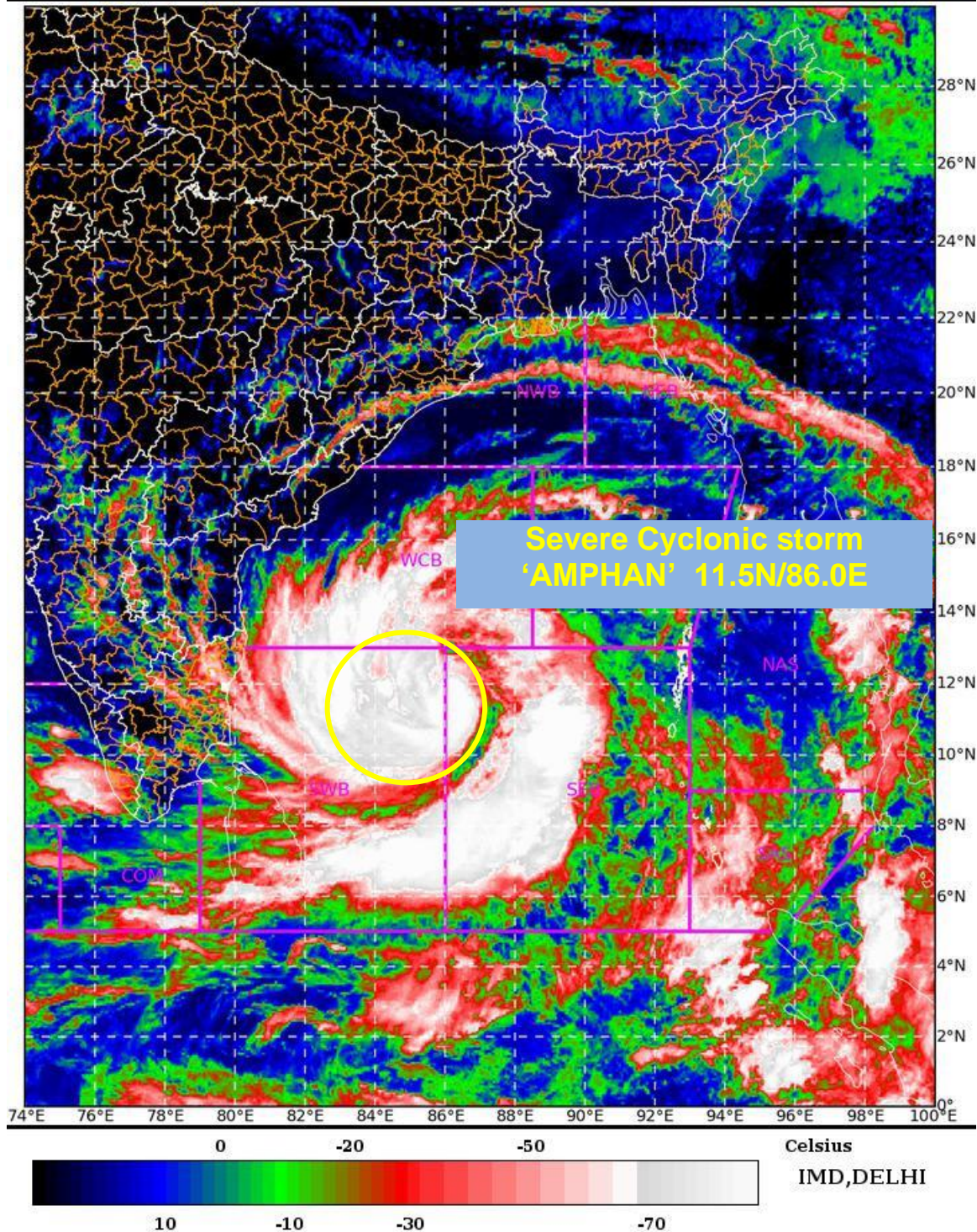
**NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%**



SAT : INSAT-3D IMG 17-05-2020/(0600 to 0627) GMT

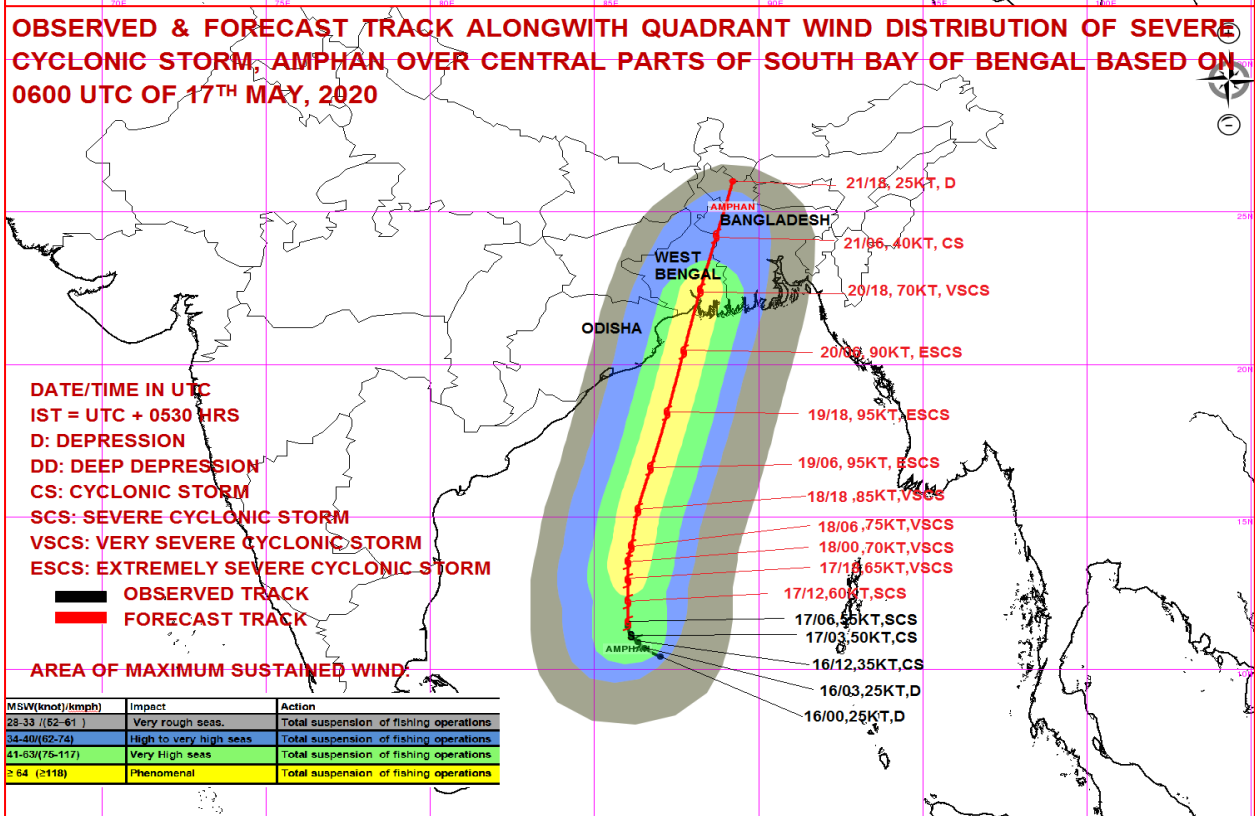
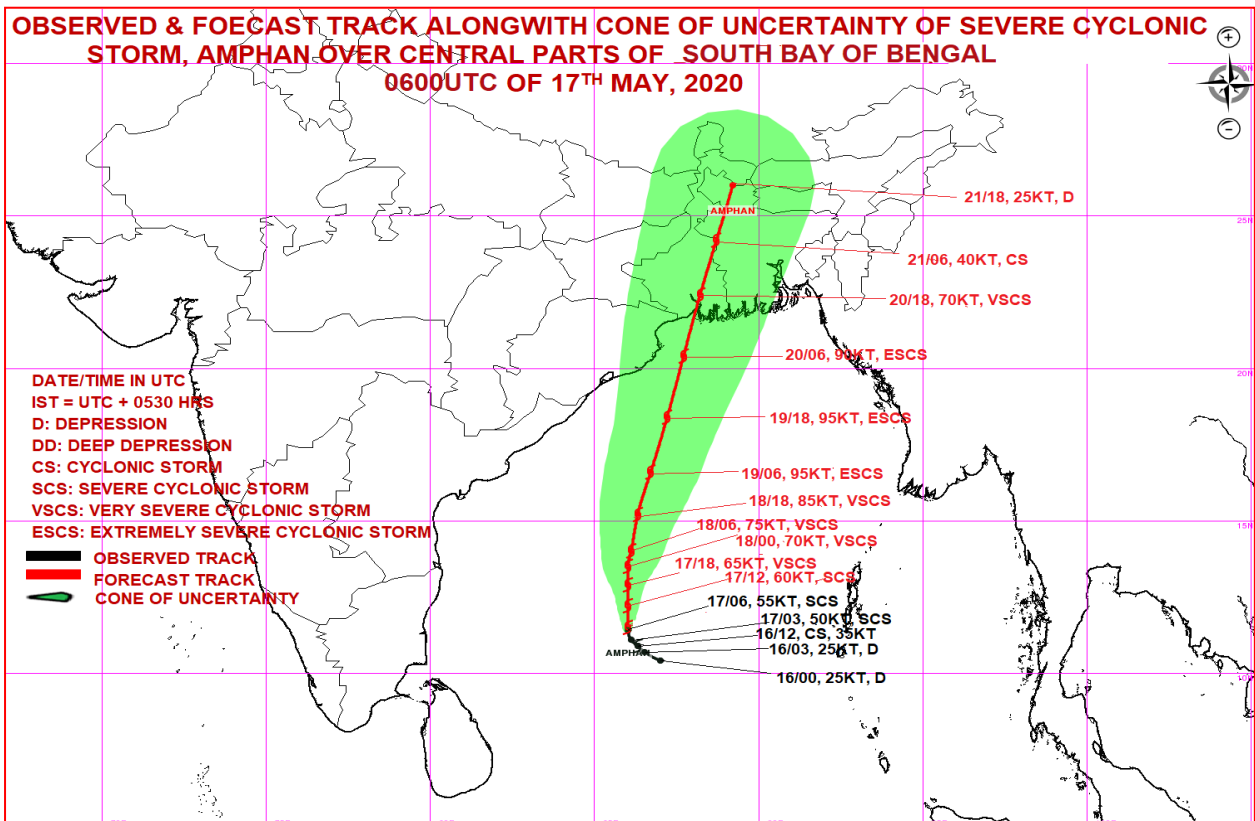
IMG\_TIR1\_TEMP 10.8 um 17-05-2020/(1130 to 1157) IST

L1C Mercator



**PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)**

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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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