REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI

TROPICAL CYCLONE ADVISORY BULLETIN NO. 36

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. 36 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0000 UTC OF 21.05.2020 BASED ON 0000 UTC OF 20.05.2020.

SUB: SUPER CYCLONIC STORM '**AMPHAN**' (PRONOUNCED AS **UM-PUN**) **CROSSED WEST BENGAL – BANGLADESH COASTS**

THE VERY SEVERE CYCLONIC CYCLONIC STORM '**AMPHAN**' (PRONOUNCED AS **UM-PUN**) OVER WEST BENGAL COAST MOVED NORTH-NORTHEASTWARDS WITH A SPEED OF 28 KMPH DURING PAST 06 HOURS AND LAY CENTERED AT 2100 UTC OF TODAY, THE 20TH MAY 2020 OVER BANGLADESH AND ADJOINING WEST BENGAL NEAR LAT. 24.2°N AND LONG. 89.0°E AS A SEVERE CYCLONIC STORM ABOUT 210 KM NORTHEAST OF KOLKATA (42807), 340 KM NORTHEAST OF DIGHA (42901), 300 KM NORTH-NORTHEAST OF SAGAR ISLANDS (42903) AND 260 KM NORTHWEST OF KHEPUPARA (41984). IT IS VERY LIKELY TO CONTINUE TO MOVE NORTH-NORTHEASTWARDS AND WEAKEN FURTHER INTO A DEEP DEPRESSION DURING NEXT 03 HOURS AND INTO A DEPRESSION DURING SUBSEQUENT 06 HOURS.

THE SYSTEM IS NOW BEING CONTINUOUSLY TRACKED BY THE DOPPLER WEATHER RADAR (DWR) AT KOLKATA (WEST BENGAL).

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
20.05.20/2100	24.2/89.0	80-90 GUSTING TO 100	CYCLONIC STORM
21.05.20/0000	24.6/89.3	60-70 GUSTING TO 80	CYCLONIC STORM
21.05.20/0600	26.0/90.3	30-40 GUSTING TO 50	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 2100 UTC OF 20TH MAY SHOWS THE VORTEX LIES OVER THE LAND IN AEAS OF WEST BENGAL COAST ASSOCIATED BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER BAY BETWEEN LATITUDE 19.0°N TO 27.0°N LONGITUDE 85.0°E TO 92.5°E. WALL CLOUDS MINIMUM CLOUD TOP TEMPERATURE -93 DEG C.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 50 KNOTS GUSTING TO 60 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS **988** HPA.

THE CYCLONE IS BEING TRACKED BY DOPPLER WEATHER RADARS (DWR) AT KOLKATTA (43049). THE SYSTEM IS AT DISTANCE 70 KM SOUTH OF KOLKATA RADAR.

THE SYSTEM ENTERING THE COAST. CONSIDERING THE ENVIRONMENTAL CONDITIONS, WITH THE POSITIVE VORTICITY MAINTAINING AT (250-300)X10^{-6} SEC^{-1} AROUND THE SYSTEM CENTRE WITH VERTICAL EXTENSION UPTO 200 HPA LEVEL. THE LOWER LEVEL CONVERGENCE IS (30-40)X10^{-5} SEC^{-1} AROUND THE SYSTEM CENTRE. THE UPPER LEVEL DIVERGENCE HAS ALSO REDUCED TO 10X10^{-5} SEC^{-1} AROUND THE SYSTEM CENTRE. VERTICAL WIND SHEAR (VWS) IS MODERATE TO HIGH (25-30 KTS) AROUND THE SYSTEM CENTRE. IT IS INCREASING TO 30-40 KTS AT NORTH OF 23°N ALONG THE EXPECTED TRACK. THE UPPER TROPOSPHERIC RIDGE IS AT NORTH AND NOW LIES NEAR 22.0°N OVER BAY OF BENGAL. AT PRESENT THE SYSTEM IS MOVING NORTH-NORTHEASTWARD ALONG THE PERIPHERY OF THE ANTICYCLONE LIES OVER MAYNMAR.

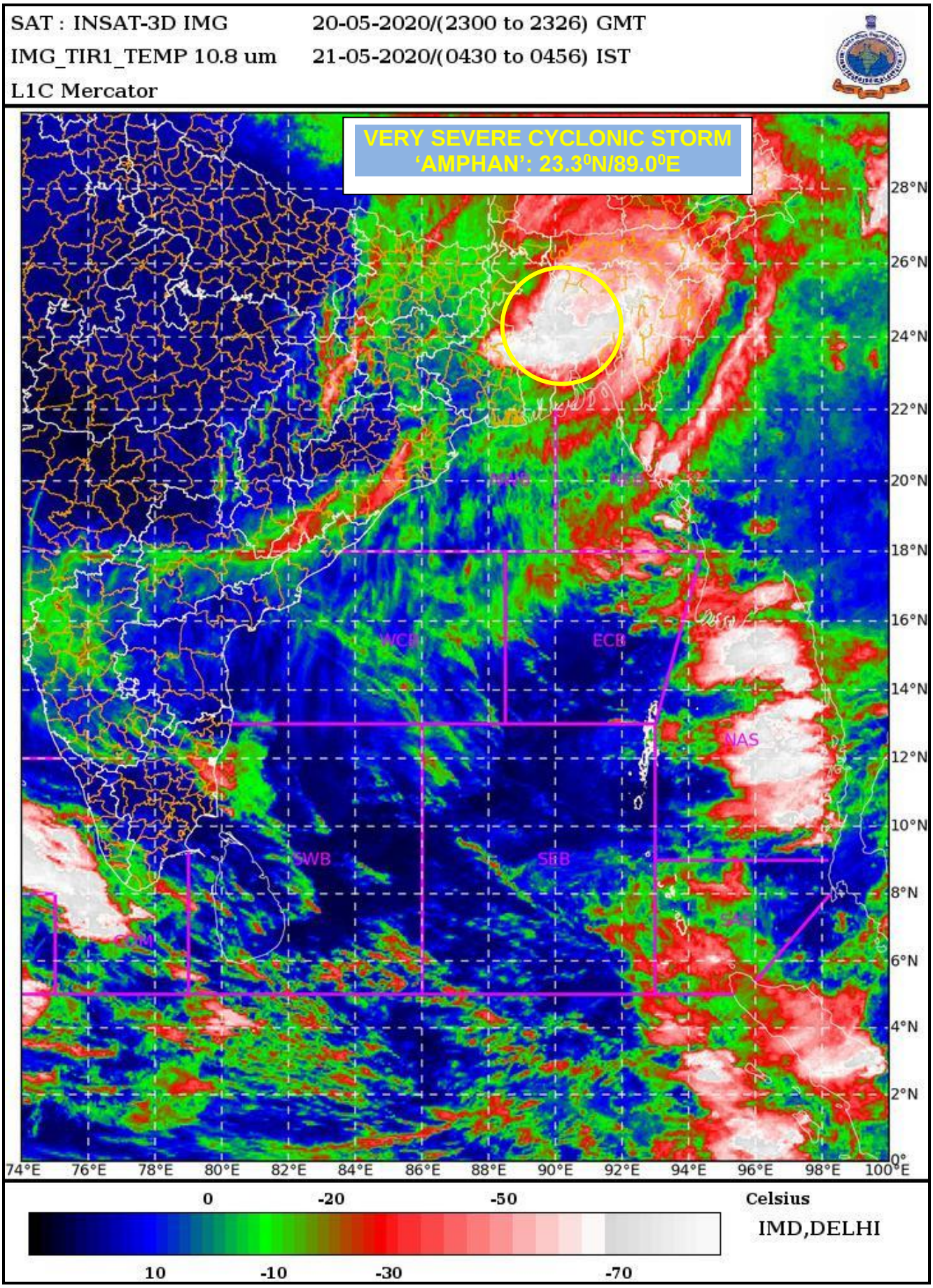
VARIOUS NUMERICAL MODELS INCLUDING ECMWF, IMD GFS, NCEP GFS, GEFS, NEPS AND NCUM ARE INDICATING THE SYSSTEM IS LIKELY TO MOVE ACROSS NORTHWEST BAY OF BENGAL TOWARDS WEST BENGAL AND BANGLADESH COASTS AS AN EXTREMELY SEVERE CYCLONIC STORM DURING 1000-1200 UTC OF 20TH MAY 2020. THE FORECAST IS BASED ON THE CONSENSUS FROM VARIOUS MODELS.

(V R DURAI)
SCIENTIST-E, RSMC, NEW DELHI

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)
NIL: 0%, LOW: 1-2

EXTREMELY SEVERE CYCLONIC STORM 'AMPHAN': 21.4^{0}N/88.1 ^{0}E

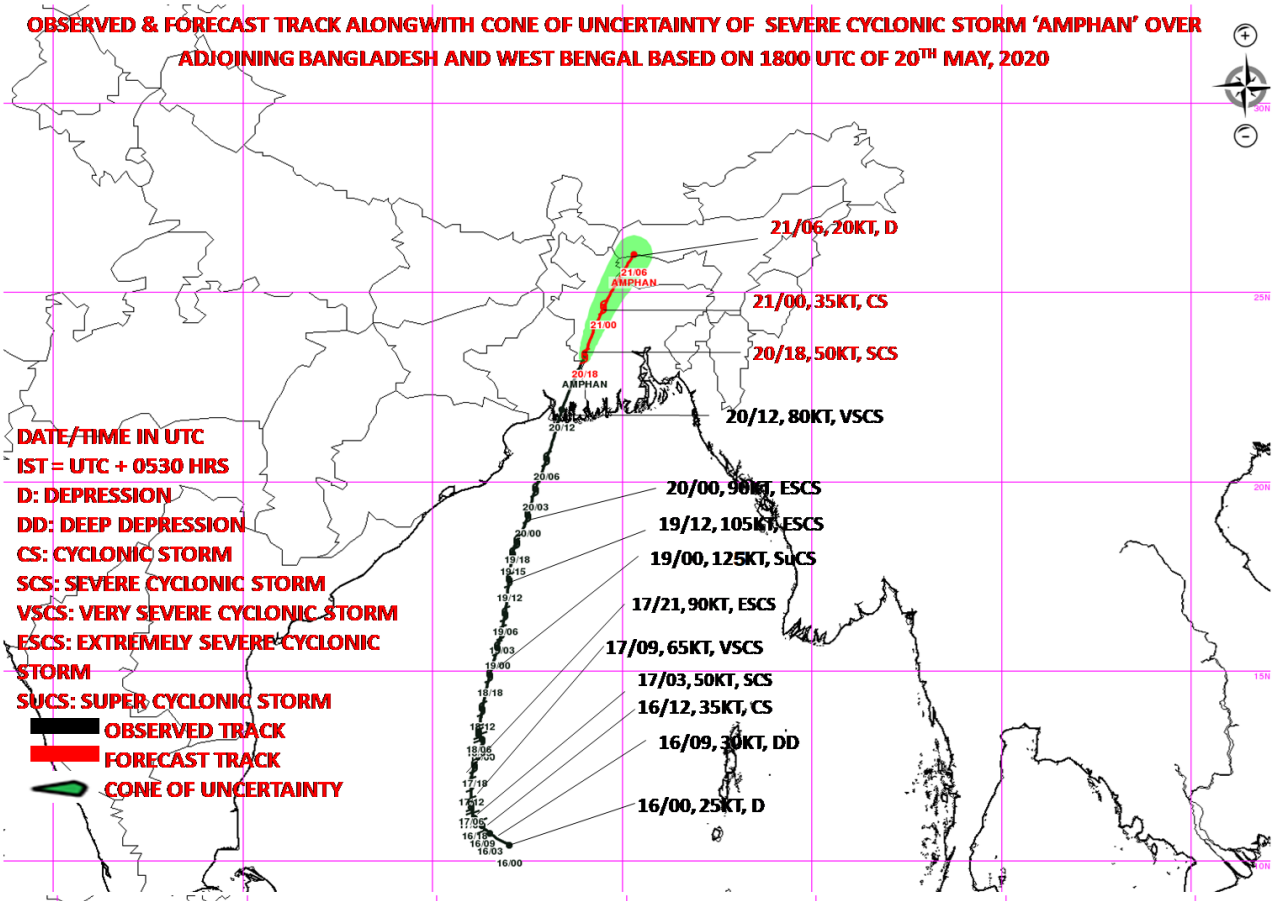
GH: 76-100%



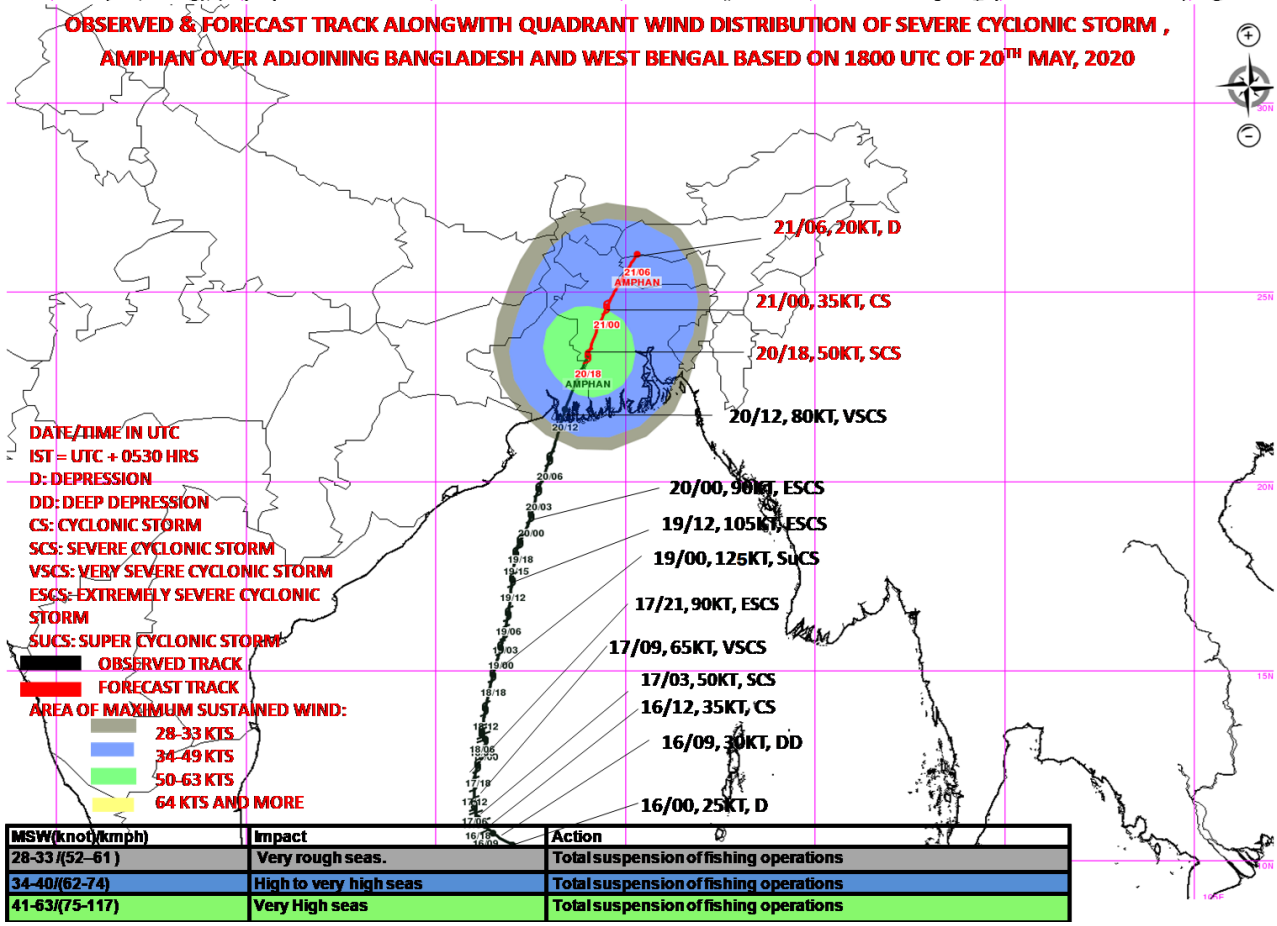
Legend: WCB – Westcentral Bay of Bengal
NWB – Northwest Bay of Bengal

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

OBSERVED & FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF SEVERE CYCLONIC STORM 'AMPHAN' OVER ADJOINING BANGLADESH AND WEST BENGAL BASED ON 1800 UTC OF 20TH MAY, 2020



OBSERVED & FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF SEVERE CYCLONIC STORM , AMPHAN OVER ADJOINING BANGLADESH AND WEST BENGAL BASED ON 1800 UTC OF 20TH MAY, 2020



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

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

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