REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI

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. 11 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0900 UTC OF 09.05.2022 BASED ON 0600 UTC OF 09.05.2022

SUB: SEVERE CYCLONIC STORM 'ASANI' OVER WESTCENTRAL AND ADJOINING SOUTH BAY OF BENGAL

THE **SEVERE CYCLONIC STORM 'ASANI' (PRONOUNCED AS ASANI)** OVER WESTCENTRAL AND ADJOINING SOUTH BAY OF BENGAL MOVED NEARLY NORTHWESTWARDS WITH A SPEED OF 16 KMPH DURING PAST 06 HOURS AND LAY CENTERED AT 0600 UTC OF TODAY, THE 09TH MAY, OVER WESTCENTRAL BAY OF BENGAL NEAR LATITUDE 14.3°N AND LONGITUDE 85.6°E, ABOUT 970 KM NORTHWEST OF CAR NICOBAR (43367), 820 KM WEST-NORTHWEST OF PORT BLAIR (43333), 450 KM SOUTHEAST OF VISAKHAPATNAM (43149) AND 610 KM SOUTH OF PURI (43053).

IT IS VERY LIKELY TO MOVE NORTHWESTWARDS TILL 10TH MAY AND REACH WESTCENTRAL AND ADJOINING NORTHWEST BAY OF BENGAL OFF NORTH ANDHRA PRADESH & ODISHA COASTS. THEREAFTER, IT IS VERY LIKELY TO RECURVE NORTH-NORTHEASTWARDS AND MOVE TOWARDS NORTHWEST BAY OF BENGAL OFF ODISHA COAST. IT IS LIKELY TO WEAKEN GRADUALLY INTO A CYCLONIC STORM DURING NEXT 24 HOURS.

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
09.05.22/0600	14.3/85.6	100-110 gusting to 120	Severe Cyclonic Storm
09.05.22/1200	14.7/85.1	95-105 gusting to 115	Severe Cyclonic Storm
09.05.22/1800	15.0/84.7	90-100 gusting to 110	Severe Cyclonic Storm
10.05.22/0000	15.3/84.4	85-95 gusting to 105	Severe Cyclonic Storm
10.05.22/0600	15.8/84.2	80-90 gusting to 100	Cyclonic Storm
10.05.22/1800	16.9/84.4	70-80 gusting to 90	Cyclonic Storm
11.05.22/0600	17.7/85.1	60-70 gusting to 80	Cyclonic Storm
11.05.22/1800	18.4/85.8	50-60 gusting to 70	Deep Depression
12.05.22/0600	19.1/86.7	40-50 gusting to 60	Depression

THE INTENSITY OF THE SYSTEM IS T3.5. CLOUDS ARE ORGANISED IN CDO PATTERN. INSAT-3D IMAGERY INDICATES BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER AREA BETWEEN LATITUDE 10.0N & 15.0N AND LONGITUDE 81.0E & 87.0E. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEG C.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 55 KNOTS GUSTING TO 65 KNOTS. THE SEA CONDITION IS VERY HIGH OVER WESTCENTRAL & ADJOINING SOUTH BAY OF BENGAL. THE ESTIMATED CENTRAL PRESSURE IS 988 HPA.

A BUOY NEAR 16.3N/88.0E AT 0600 UTC REPORTED MEAN SEA LEVEL PRESSUREOF 1000.1 HPA AND MAXIMUM SUSTAINED WIND SPEED OF 130^0/24KT.

REMARKS:
THE MADDEN JULIAN OSCILLATION INDEX (MJO) CURRENTLY LIES IN PHASE 5 WITH AMPLITUDE LESS THAN 1. IT WOULD CONTINUE IN SAME PHASE 5 DURING NEXT 2 DAYS WITH AMPLITUDE BECOMING MORE THAN 1. HENCE, MJO WILL SUPPORT ENHANCEMENT OF CONVECTIVE ACTIVITY OVER THE BAY OF BENGAL (BOB) DURING NEXT 3-4 DAYS.

SEA SURFACE TEMPERATURE (SST) IS AROUND 30-31^0C OVER ENTIRE BOB. IT DECREASES GRADUALLY TOWARDS THE ANDHRA PRADESH & ODISHA COASTS BECOMING 28^0C. THE OCEAN HEAT CONTENT (OHC) IS >100 KJ/CM^2 OVER WESTCENTRAL & SOUTH BAY OF BENGAL (BOB) BECOMING 50-70 KJ/CM^2 OVER NORTHWEST BOB & ALONG & OFF ANDHRA PRADESH & ODISHA COASTS AND ADJOINING WESTCENTRAL BOB.

LOW LEVEL VORTICITY HAS INCREASED DURING PAST 3 HOURS AND IS ABOUT 300 $X10^{-6}$ S^{-1} AROUND SYSTEM CENTRE. VERTICALLY IT IS EXTENDING UPTO 200 HPA LEVEL. VORTICITY FIELD IS ORIENTED SOUTH-NORTH INDICATING NORTHWARDS VORTICITY ADVECTION. LEVEL CONVERGENCE IS AROUND 20 $X10^{-5}$ S^{-1} TO THE SOUTHWEST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE HAS DECREASED SLIGHTLY AND IS AROUND 10 $X10^{-5}$ S^{-1} TO THE SOUTHWEST OF SYSTEM CENTRE. ANOTHER POSITIVE DIVERGENCE FIELD IS SEEN TO THE NORTHEAST OF SYSTEM AREA. WIND SHEAR IS MODERATE (15-20 KNOTS) AROUND THE SYSTEM AREA. IT IS LIKELY TO BECOME LOW TO MODERATE (10-15 KNOTS) ALONG THE FORECAST TRACK OVER WESTCENTRAL & NORTHWEST BOB. THIS WILL HELP SYSTEM MAINTAIN IT'S INTENSITY FOR SOME TIME. AS THE SYSTEM MOVES FURTHER NORTHWARDS, IT WILL ENCOUNTER LOWER SST & OHC AND HENCE WILL SHOW GRADUAL WEAKENING. THERE IS DECREASE IN WESTWARD OUTFLOW AND INCREASE IN NORTHEAST OUTFLOW DURING PAST 6 HOURS SUPPORTING THE DEVELOPMENT OF A SECONDARY DIVERGENCE ZONE IN THE NORTHEAST SECTOR, IN ADDITION TO THAT IN THE SOUTHWEST SECTOR. THERE WILL BE DRY AIR INCURSION REACHING INTO THE CORE AREA FROM INDIAN LANDMASS AS THE SYSTEM MOVES FURTHER NORTHWARDS. IT WILL HELP IN WEAKENING OF THE SYSTEM. FURTHER IT IS EXPECTED TO TRACK NORTHWESTWARDS FOR SOME TIME AND THEN RECURVE NORTHEASTWARDS FROM 10^{TH} NIGHT WHILE MOVING ALONG THE PERIPHERY OF SUB-TROPICAL RIDGE ASSOCIATED WITH ANTICYCLONIC CIRCULATION OVER THE EASTCENTRAL BOB.

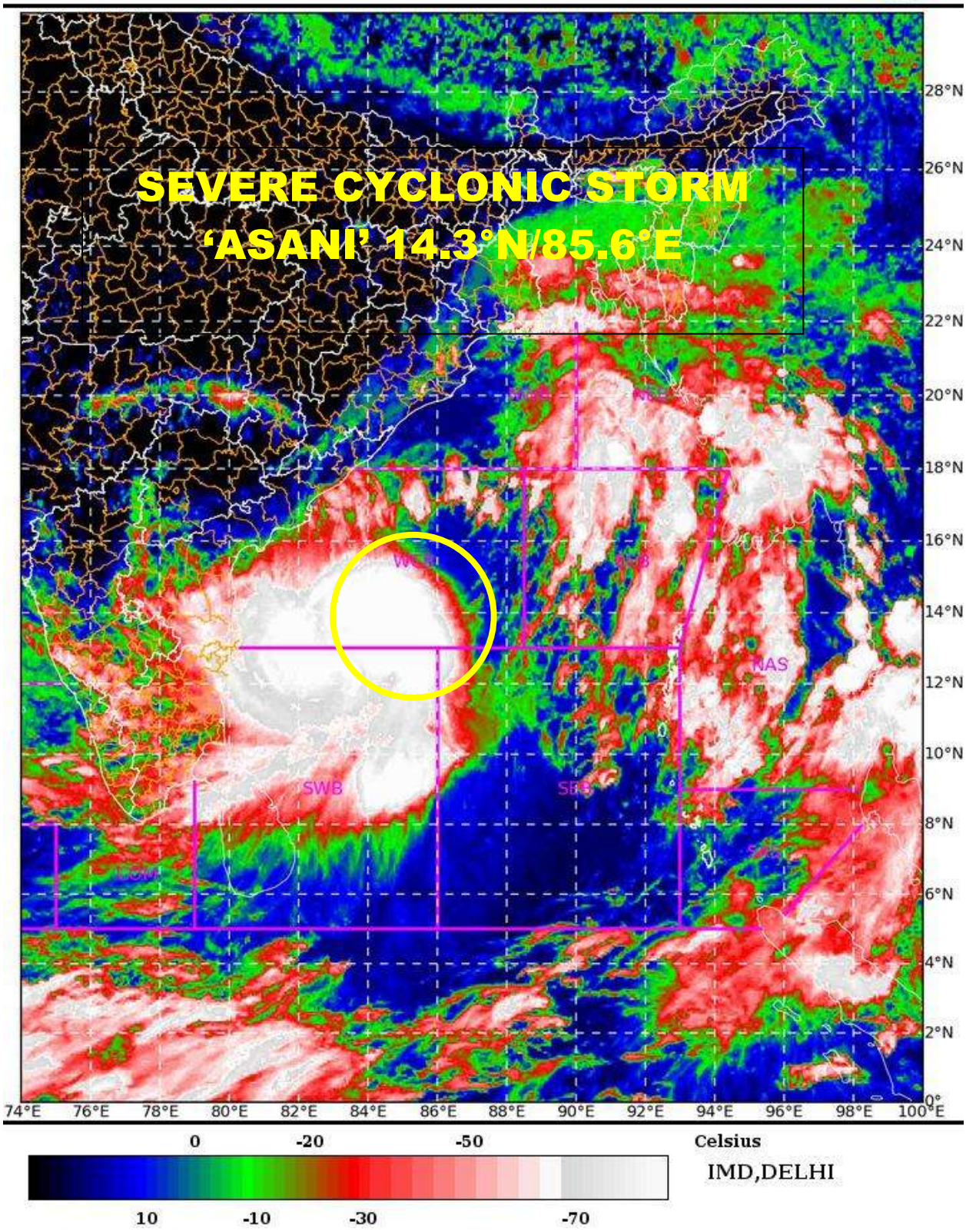
MOST OF THE NUMERICAL MODELS ARE IN GOOD AGREEMENT THAT THE SYSTEM WOULD MOVE NORTHWESTWARDS TILL 10^{TH} MAY AND REACH WESTCENTRAL AND ADJOINING NORTHWEST BAY OF BENGAL OFF NORTH ANDHRA PRADESH & ODISHA COASTS ON 10^{TH} MAY. THEREAFTER, IT IS VERY LIKELY TO RECURVE NORTH-NORTHEASTWARDS AND MOVE TOWARDS NORTHWEST BAY OF BENGAL OFF ODISHA COAST. IT IS LIKELY TO WEAKEN GRADUALLY INTO A CYCLONIC STORM DURING NEXT 36 HOURS.

(MONICA SHARMA)
Scientist-D, RSMC, New Delhi

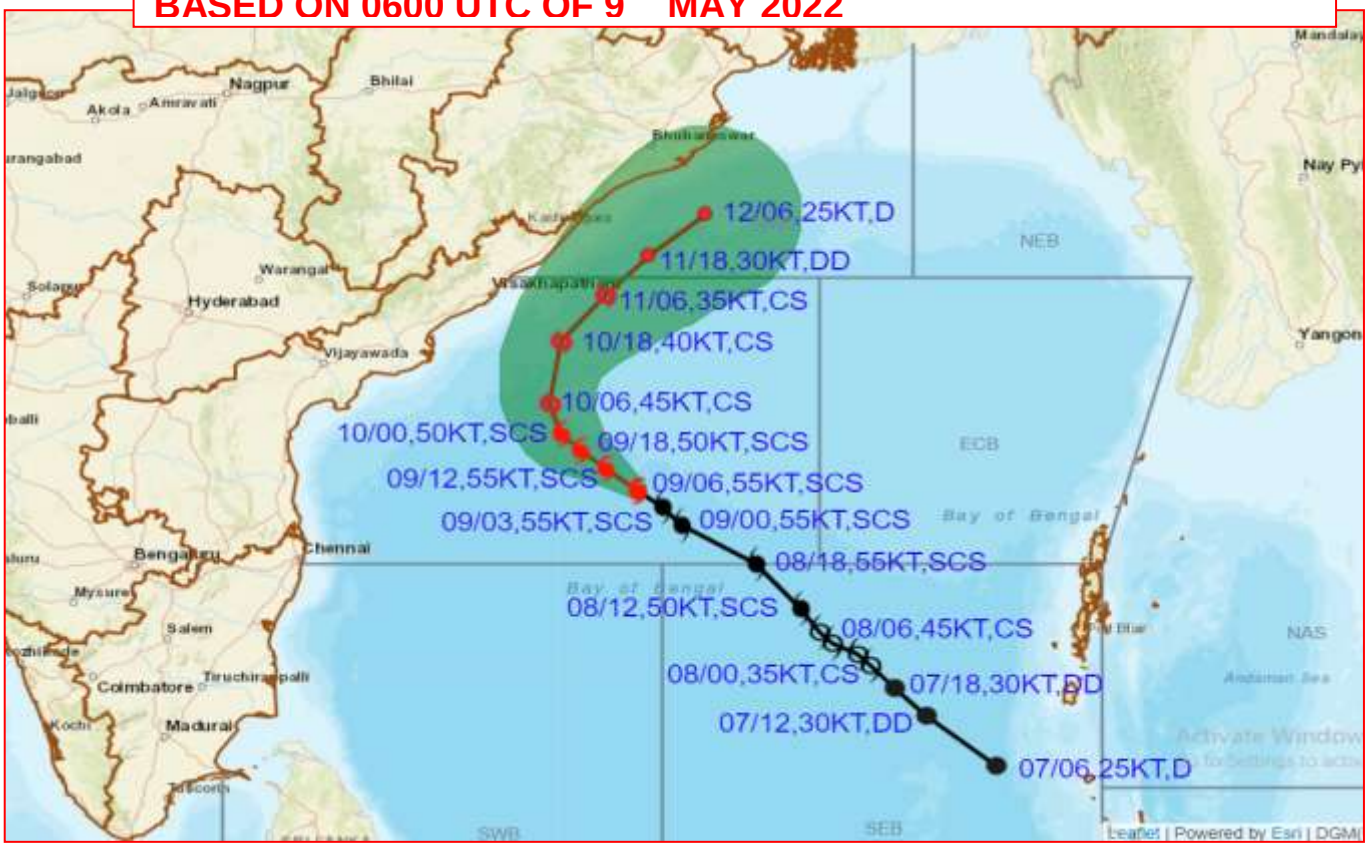
SAT : INSAT-3D IMG 09-05-2022/(0830 to 0856) GMT

IMG_TIR1_TEMP 10.8 um 09-05-2022/(1400 to 1426) IST

L1C Mercator



FORECAST TRACK AND INTENSITY OF SEVERE CYCLONIC STORM 'ASANI' ALONGWITH CONE OF UNCERTAINTY OVER WESTCENTRAL AND ADJOINING SOUTH BAY OF BENGAL BASED ON 0600 UTC OF 9TH MAY 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)

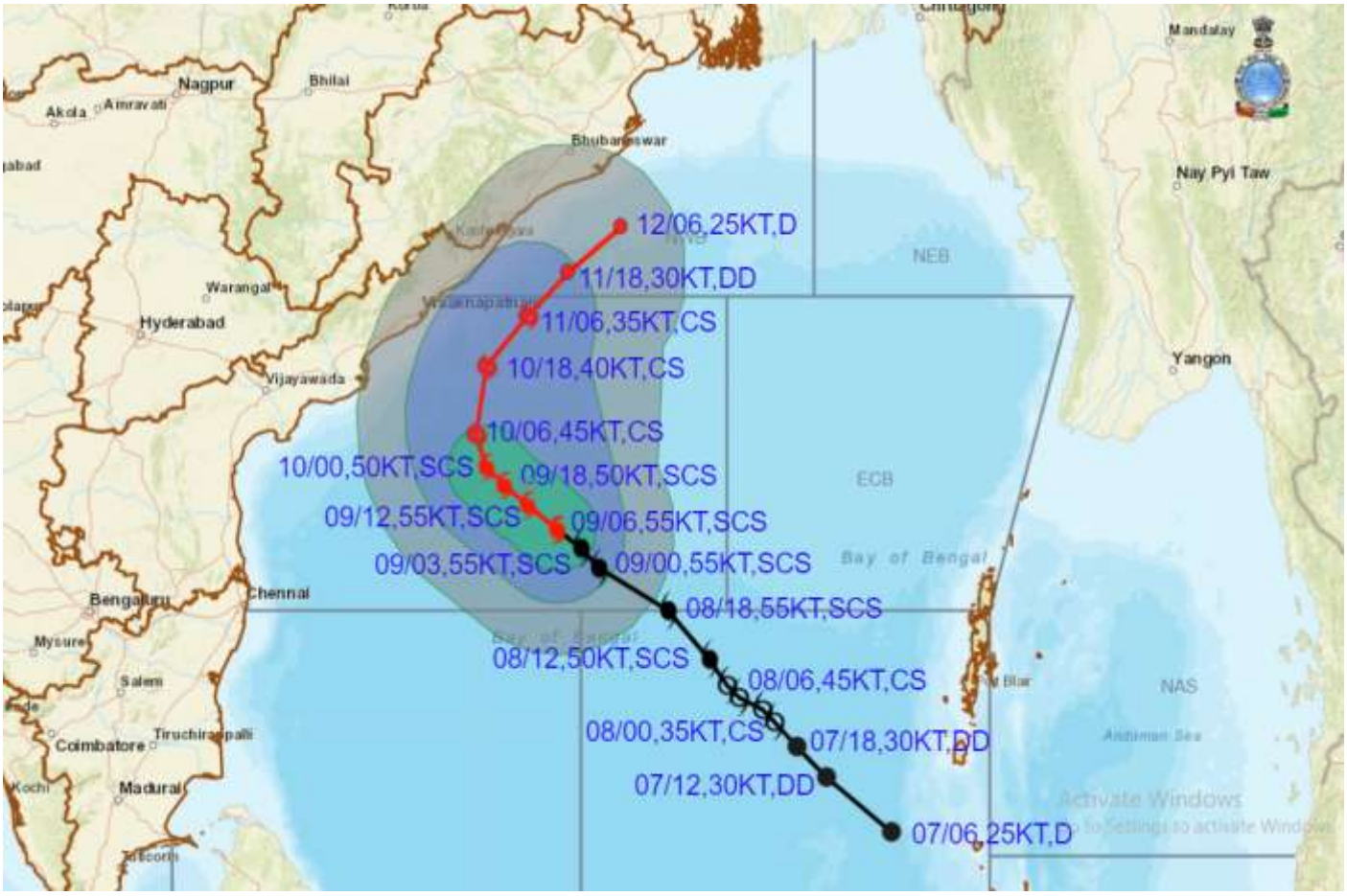
LESS THAN 34 KT
34-47 KT
≥ 48 KT
OBSERVED TRACK
FORECAST TRACK
CONE OF UNCERTAINTY

STATIONS	DISTANCE(KM) AND DIRECTION FROM STATIONS		
	10.05.22/0600	11.05.22/0600	12.05.22/0600
CAR NICOBAR	1200,NW	1270,NW	1280,NNW
PORT BLAIR	1030,WNW	1050,NW	1040,NW
VISHAKHAPATNAM	230,SSE	200,E	390,ENE
PURI	470,SSW	240,SSW	120,SE

Forecast distance (km) and direction of the centre from nearest 5 coastal stations

Forecast Date and Time	Lead Period	Lat	Lon	Station 1	Station 2	Station 3	Station 4	Station 5
09.05.22/0600	0	14.3	85.6	VISHAKHAPATNAM (453,SSE)	KAKINADA (466,SE)	TUNI (471,SE)	KALINGAPATAM (476,SSE)	NARSAPUR (481,ESE)
10.05.22/0600	24	15.8	84.2	VISHAKHAPATNAM (234,SSE)	KAKINADA (246,ESE)	TUNI (246,SE)	NARSAPUR (276,ESE)	KALINGAPATAM (282,S)
11.05.22/0600	48	17.7	85.1	KALINGAPATAM (124,SE)	GOPALPUR (176,S)	VISHAKHAPATNAM (191,E)	PURI (246,SSW)	TUNI (273,E)
12.05.22/0600	72	19.1	86.7	PURI (121,SE)	PARADIP (CWR) (134,S)	BHUBANESHWAR (157,SE)	CUTTACK (172,SSE)	CHANDBALI (187,S)

FORECAST TRACK AND INTENSITY ALONGWITH QUADRANT WIND DISTRIBUTION SEVERE CYCLONIC STORM 'ASANI' OVER WESTCENTRAL AND ADJOINIG SOUTH BAY OF BENGAL BASED ON 0600 UTC OF 9TH MAY 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)

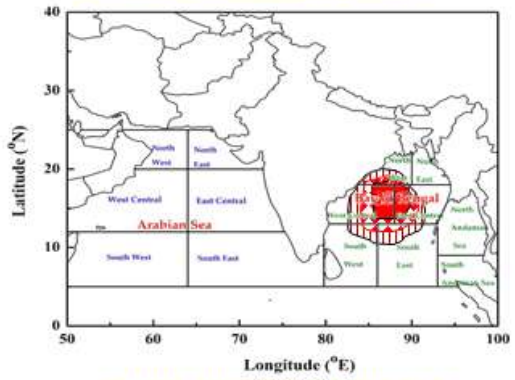
LESS THAN 34 KT
34-47 KT
≥ 48 KT
OBSERVED TRACK
FORECAST TRACK
CONE OF UNCERTAINTY
AREA OF MAXIMUM SUSTAINED WIND SPEED:
28-33 KT (52-61 KMPH)
34-49 KT (62-91 KMPH)
50-63 KT (92-117 KMPH)
≥ 64 KT (≥118 KMPH)

IMPACT OVER THE SEA

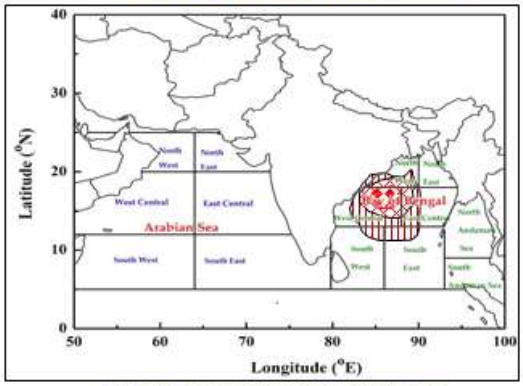
MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

INDIA METEOROLOGICAL DEPARTMENT
FISHERMAN WARNING FOR BAY OF BENGAL AND ARABIAN SEA

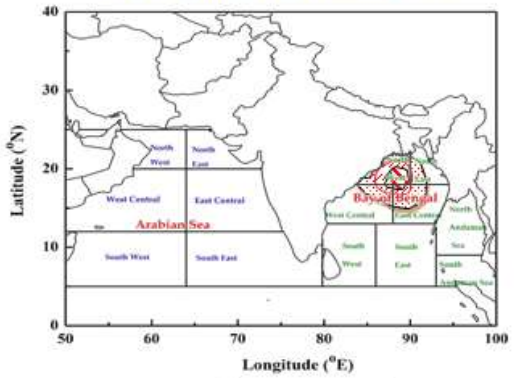
DAY-1: 09.05.2022/0600 UTC TO 10.05.2022/0600 UTC



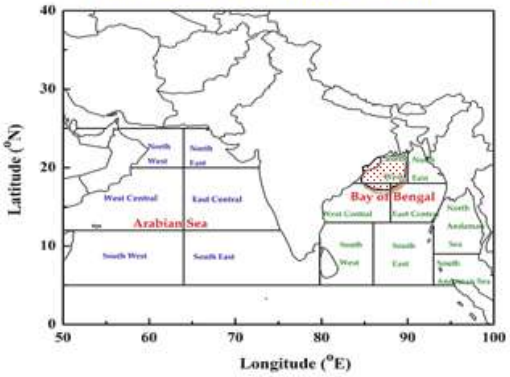
DAY-2: 10.05.2022/0600 UTC TO 11.05.2022/0600 UTC



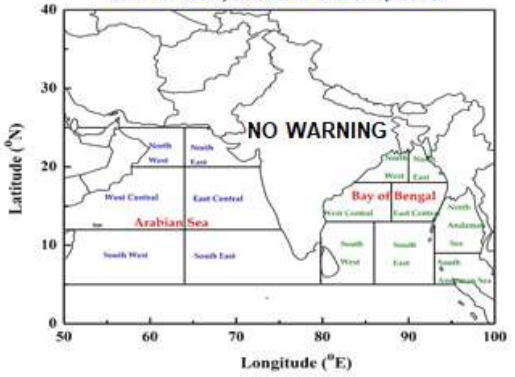
DAY-3 -: 11.05.2022/0600 UTC TO 12.05.2022/0600 UTC



DAY-4 12.05.2022/0600 UTC TO 13.05.2022/0600 UTC



DAY-5 13.05.2022/0600 UTC TO 14.05.2022/0600 UTC



AREA UNDER FISHERMEN WARNING

- 40-50 KMPH GUSTING TO 60 KMPH (SQUALLY WEATHER)
- 45-55 KMPH GUSTING TO 65 KMPH
- 50-60 KMPH GUSTING TO 70 KMPH
- 60-70 KMPH GUSTING TO 80 KMPH
- 70-80 KMPH GUSTING TO 90 KMPH
- 90-100 KMPH GUSTING TO 110 KMPH
- 100-110 KMPH GUSTING TO 120 KMPH