



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. 19 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1000 UTC OF 10.05.2022 BASED ON 0600 UTC OF 10.05.2022

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

THE SEVERE CYCLONIC STORM 'ASANI' (PRONOUNCED AS ASANI) OVER WESTCENTRAL AND ADJOINING SOUTHWEST BAY OF BENGAL MOVED WEST-NORTHWESTWARDS WITH A SPEED OF 25 KMPH DURING PAST 06 HOURS AND LAY CENTERED AT 0600 HOURS UTC OF TODAY, THE 10TH MAY, OVER WESTCENTRAL BAY OF BENGAL NEAR LATITUDE 15.0°N AND LONGITUDE 82.5°E, 210 KM SOUTH-SOUTHEAST OF KAKINADA (43189), 310 KM SOUTH-SOUTHWEST OF VISAKHAPATNAM (43149), 530 KM SOUTHWEST OF GOPALPUR (43049) AND 630 KM SOUTHWEST OF PURI (43053).

IT IS VERY LIKELY TO MOVE NEARLY NORTHWESTWARDS AND REACH WESTCENTRAL BAY OF BENGAL CLOSE TO KAKINADA-VISHAKHAPATNAM COASTS BY 11TH MAY MORNING. THEREAFTER, IT IS VERY LIKELY TO RECURVE SLOWLY NORTH-NORTHEASTWARDS AND MOVE ALONG ANDHRA PRADESH COAST BETWEEN KAKINADA AND VISAKHAPATNAM AND THEN EMERGE INTO NORTHWEST BAY OF BENGAL OFF NORTH ANDHRA PRADESH AND ODISHA COASTS. IT IS LIKELY TO WEAKEN GRADUALLY INTO A CYCLONIC STORM BY 11TH MAY MORNING AND INTO A DEPRESSION BY 12TH MAY MORNING.

THE CYCLONIC STORM IS UNDER THE CONTINUOUS SURVEILLANCE OF DOPPLER WEATHER RADAR (DWR) AT MACHILIPATNAM (ANDHRA PRADESH).

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
10.05.22/0600	15.0/82.5	100-110 GUSTING TO 120	SEVERE CYCLONIC STORM
10.05.22/1200	15.4/82.1	95-105 GUSTING TO 115	SEVERE CYCLONIC STORM
10.05.22/1800	15.8/81.9	85-95 GUSTING TO 105	CYCLONIC STORM
11.05.22/0000	16.2/81.9	80-90 GUSTING TO 100	CYCLONIC STORM
11.05.22/0600	16.7/82.3	75-85 GUSTING TO 95	CYCLONIC STORM

11.05.22/1800	17.3/82.9	65-75 GUSTING TO 85	CYCLONIC STORM
12.05.22/0600	17.6/83.6	55-65 GUSTING TO 75	DEEP DEPRESSION
12.05.22/1800	17.9/84.5	45-55 GUSTING TO 65	DEPRESSION

THE INTENSITY OF THE SYSTEM IS T3.5. INSAT-3D IMAGERY INDICATES BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER AREA BETWEEN LATITUDE 11.0N & 15.5N AND LONGITUDE 80.0E & 84.5E. THE SATELLITE IMAGERY INDICATES INTENSE CONVECTION OVER SOUTH COASTAL ANDHRA PRADESH AND ADJOINING NORTHEAST TAMILNADU. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEG C.

AT 0600 UTC, A BUOY(13⁰12'N/84⁰19'E) REPORTED MAXIMUM SUSTAINED WIND SPEED OF 220⁰/21.4KT AND MEAN SEA LEVEL PRESSURE 999.1 HPA

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 55 KNOTS GUSTING TO 65 KNOTS. THE SEA CONDITION IS VERY HIGH OVER WESTCENTRAL BAY OF BENGAL. THE ESTIMATED CENTRAL PRESSURE IS 989 HPA.

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.

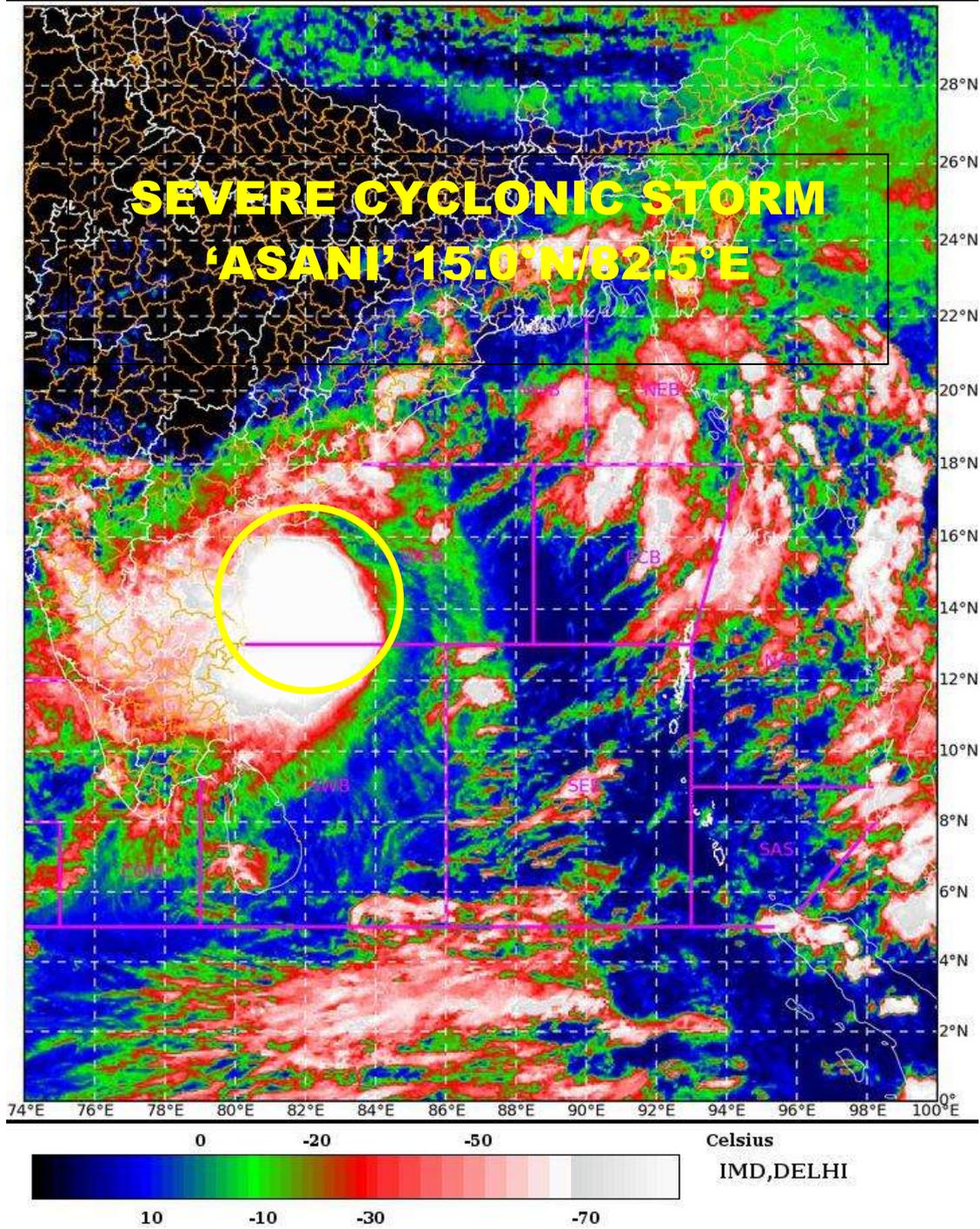
SEA SURFACE TEMPERATURE (SST) IS AROUND 30-31⁰C OVER ENTIRE BOB. IT DECREASES GRADUALLY TOWARDS THE ANDHRA PRADESH & ODISHA COASTS BECOMING 28⁰C. THE OCEAN HEAT CONTENT (OHC) IS >100 KJ/CM² OVER WESTCENTRAL & SOUTH BAY OF BENGAL (BOB) BECOMING 50-70 KJ/CM² OVER NORTHWEST BOB & ALONG & OFF ANDHRA PRADESH & ODISHA COASTS AND ADJOINING WESTCENTRAL BOB.

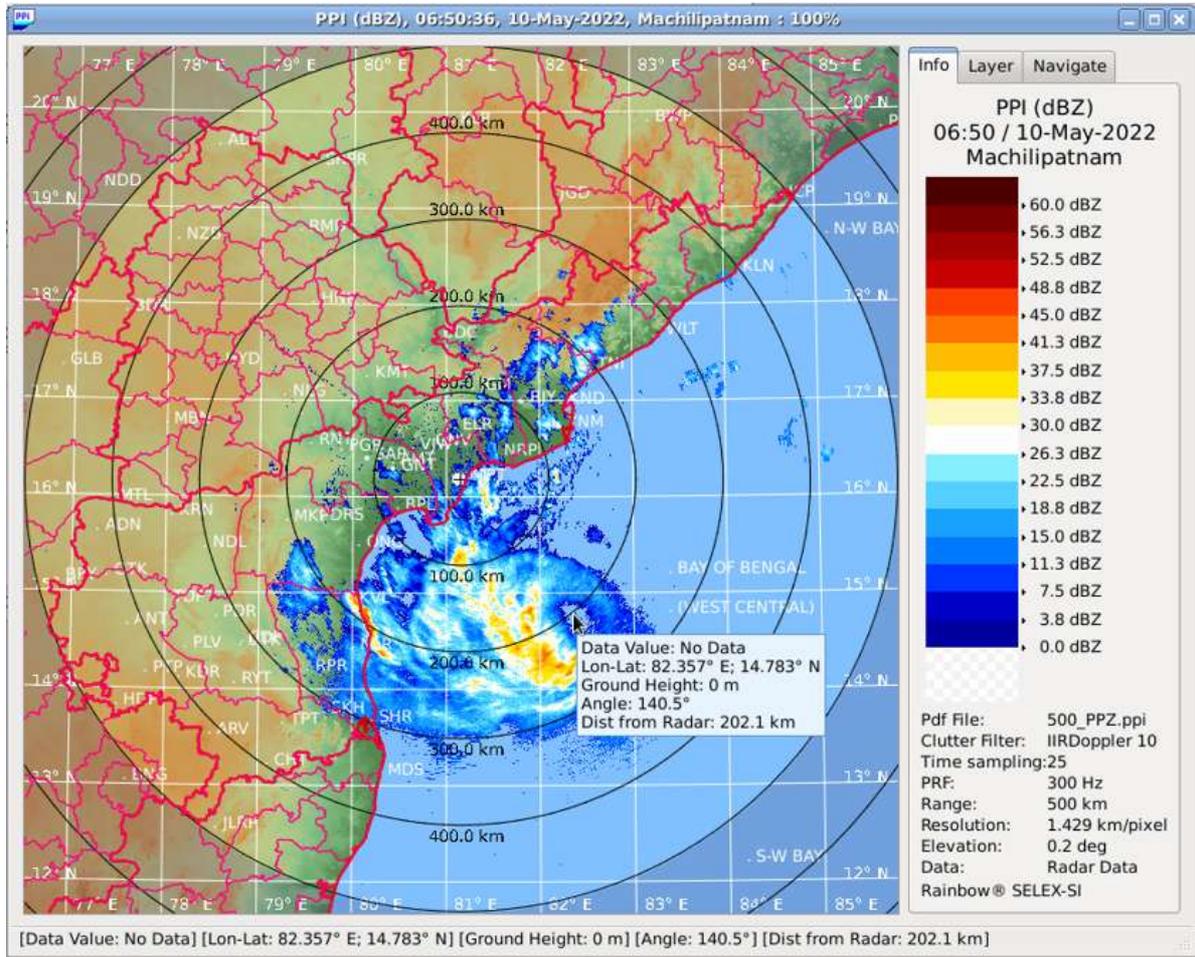
LOW LEVEL VORTICITY IS ABOUT 300 X10⁻⁶ S⁻¹ TO THE SOUTH OF SYSTEM CENTRE. VERTICALLY IT IS EXTENDING UPTO 200 HPA LEVEL. VORTICITY FIELD IS ORIENTED SOUTH-NORTH INDICATING NORTHWARDS VORTICITY ADVECTION. LOW LEVEL CONVERGENCE IS AROUND 20 X10⁻⁵ S⁻¹ TO THE WEST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS AROUND 10 X10⁻⁵ S⁻¹ TO THE SOUTHWEST OF THE SYSTEM CENTRE. 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 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. IT IS LIKELY TO RECURVE NORTHEASTWARDS FROM 11TH MORNING 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 IT IS VERY LIKELY TO RECURVE NORTH-NORTHEASTWARDS, MOVE TOWARDS NORTHWEST BAY OF BENGAL OFF NORTH ANDHRA PRADESH AND ODISHA COASTS. IT IS LIKELY TO WEAKEN GRADUALLY INTO A CYCLONIC STORM DURING NEXT 12 HOURS.

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

SAT : INSAT-3D IMG 10-05-2022/(0930 to 0956) GMT
IMG_TIR1_TEMP 10.8 um 10-05-2022/(1500 to 1526) IST
L1C Mercator





DOPPLER WEATHER RADAR IMAGERY FROM MACHILIPATNAM AT 0650 UTC OF 10TH MAY



FORECAST TRACK AND INTENSITY OF SEVERE CYCLONIC STORM 'ASANI' ALONGWITH CONE OF UNCERTAINTY OVER WESTCENTRAL BAY OF BENGAL BASED ON 0600 UTC OF 10TH 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)
ECS: 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**

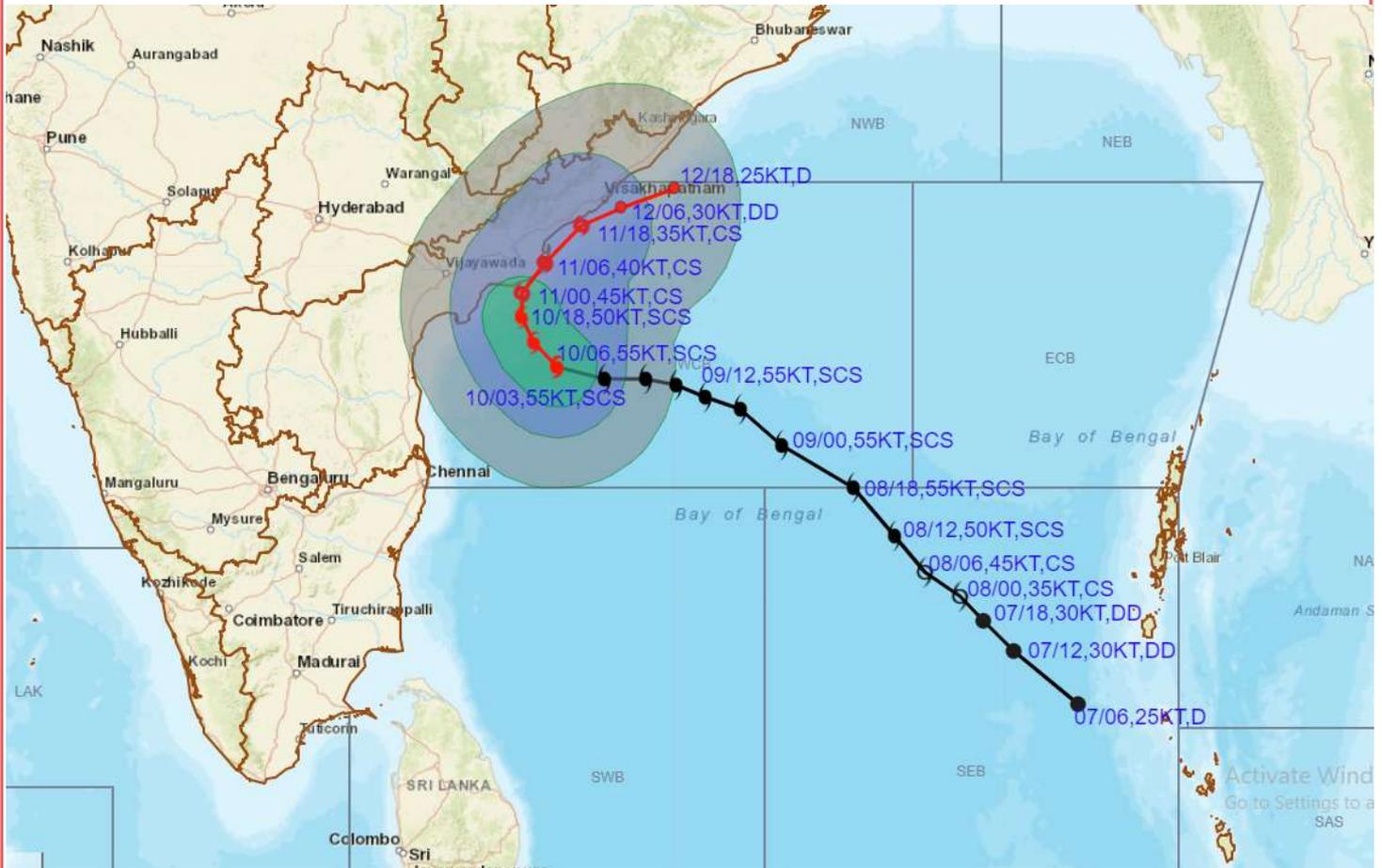
STATIONS	DISTANCE(KM) AND DIRECTION FROM STATIONS	
	11.05.22/0600	12.05.22/0600
KAKINADA	30,SSE	160,ENE
GOPALPUR	390,SW	230,SW
VISHAKHAPATNAM	150,SW	30,ESE
PURI	500,SW	340,SW

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
10.05.22/0600	0	15.0	82.5	NARSAPUR (181,SSE)	MACHILIPATNAM/ FRANCHPET (197,SE)	KAKINADA (219,S)	NIDADAVOLE (226,SSE)	BAPATLA (240,ESE)
10.05.22/1200	6	15.4	82.1	NARSAPUR (123,SSE)	MACHILIPATNAM/ FRANCHPET (135,SE)	NIDADAVOLE (169,SSE)	KAKINADA (173,S)	BAPATLA (184,ESE)
10.05.22/1800	12	15.8	81.9	NARSAPUR (74,SSE)	MACHILIPATNAM/ FRANCHPET (92,ESE)	NIDADAVOLE (120,SSE)	KAKINADA (133,SSW)	VIJAYAWADA /GANNAVARAM (143,SE)
11.05.22/0000	18	16.2	81.9	NARSAPUR (34,SE)	NIDADAVOLE (78,SSE)	MACHILIPATNAM/ FRANCHPET (80,E)	KAKINADA (91,SSW)	VIJAYAWADA /GANNAVARAM (123,ESE)
11.05.22/0600	24	16.7	82.3	KAKINADA (29,SSE)	NARSAPUR (71,ENE)	TUNI (77,SSW)	NIDADAVOLE (78,E)	MACHILIPATNAM/ FRANCHPET (135,ENE)
11.05.22/1800	36	17.3	82.9	TUNI (38,E)	VISHAKHAPATNAM (63,SW)	KAKINADA (81,ENE)	NIDADAVOLE (149,ENE)	NARSAPUR (160,NE)
12.05.22/0600	48	17.6	83.6	VISHAKHAPATNAM (34,ESE)	KALINGAPATAM (99,SW)	TUNI (115,ENE)	KAKINADA (162,ENE)	KORAPUT (165,SE)
12.05.22/1800	60	17.9	84.5	KALINGAPATAM (62,SE)	VISHAKHAPATNAM (129,E)	GOPALPUR (157,SSW)	KORAPUT (214,ESE)	TUNI (216,ENE)

**N : NORTH NNE : NORTH-NORTHEAST NE : NORTHEAST ENE : EAST-NORTHEAST E : EAST
 ESE : EAST-SOUTHEAST SE : SOUTHEAST SSE : SOUTH-SOUTHEAST S : SOUTH
 SSW : SOUTH-SOUTHWEST SW : SOUTHWEST WSW : WEST-SOUTHWEST W : WEST
 WNW : WEST-NORTHWEST NW : NORTHWEST NNW : NORTH-NORTHWEST**



FORECAST TRACK AND INTENSITY ALONGWITH QUADRANT WIND DISTRIBUTION SEVERE CYCLONIC STORM 'ASANI' OVER WESTCENTRAL BAY OF BENGAL BASED ON 0600 UTC OF 10TH 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)
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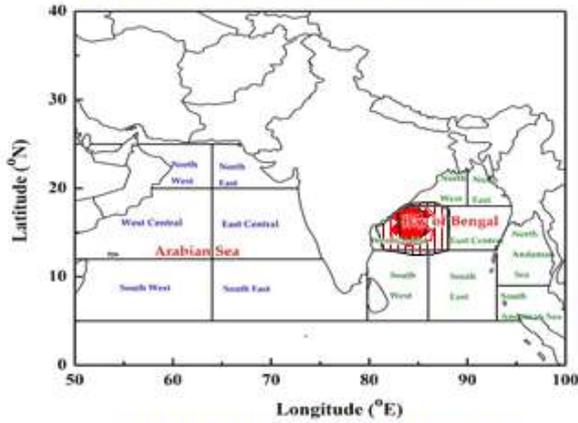
● LESS THAN 34 KT
 ○ 34-47 KT
 ● ≥ 48 KT
 — OBSERVED TRACK
 — FORECAST TRACK
 — CONE OF UNCERTAINTY
 AREA OF MAXIMUM SUSTAINED WIND SPEED:
 ■ 28-33 KT (52-61 KMPH)
 ■ 34-49 KT (62-91 KMPH)
 ■ 50-63 KT (92-117 KMPH)
 ■ ≥ 64 KT (≥118 KMPH)

IMPACT OVER THE SEA

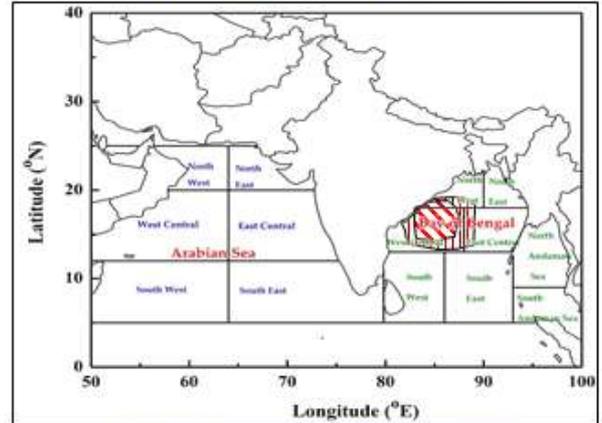
MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

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

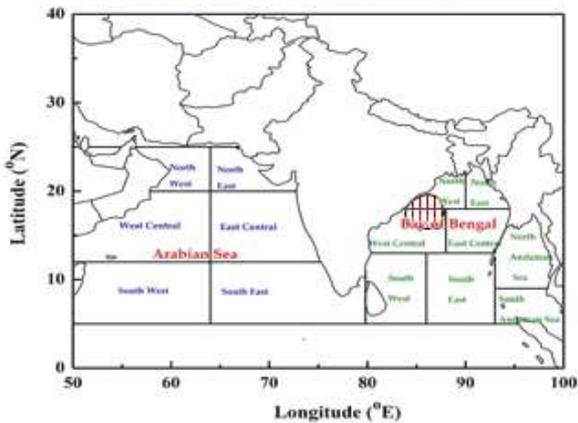
DAY-1: 10.05.2022/0600 UTC TO 11.05.2022/0600 UTC



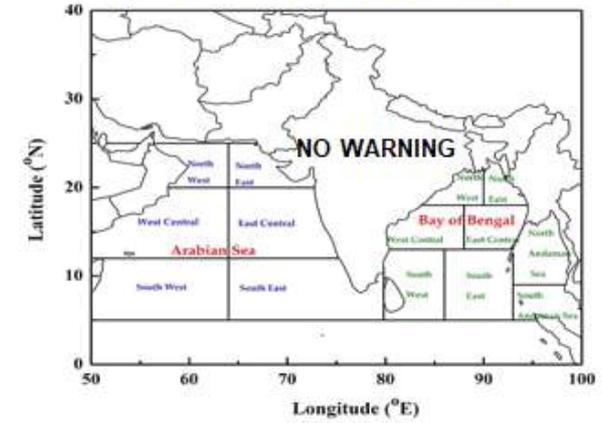
DAY-2: 11.05.2022/0600 UTC TO 12.05.2022/0600 UTC



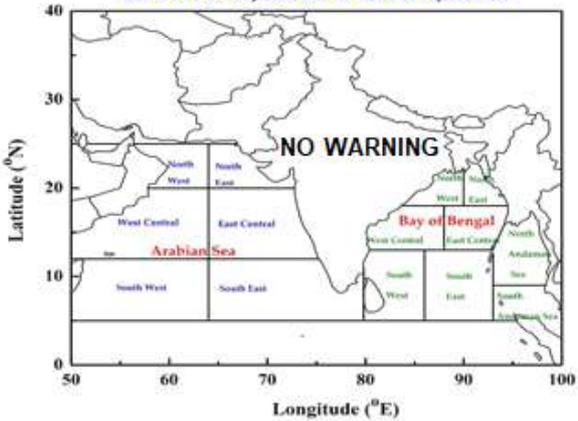
DAY-3: 12.05.2022/0600 UTC TO 13.05.2022/0600 UTC



DAY-4: 13.05.2022/0600 UTC TO 14.05.2022/0600 UTC



DAY-5: 14.05.2022/0600 UTC TO 15.05.2022/0600 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
- 65-75 KMPH GUSTING TO 85 KMPH
- 70-80 KMPH GUSTING TO 90 KMPH
- 80-90 KMPH GUSTING TO 100 KMPH
- 90-100 KMPH GUSTING TO 110 KMPH