



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)
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IRAN METEOROLOGICAL ORGANISATION, (THROUGH RTH JEDDAH)
QATAR METEOROLOGICAL DEPARTMENT (THROUGH RTH JEDDAH)**

TROPICAL CYCLONE ADVISORY NO. 28 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 1200 UTC OF 11.05.2022 BASED ON 0900 UTC OF 11.05.2022

SUB: CYCLONIC STORM 'ASANI' OVER WESTCENTRAL BAY OF BENGAL - CYCLONE WARNING FOR ANDHRA PRADESH COAST (RED MESSAGE)

THE CYCLONIC STORM 'ASANI' (PRONOUNCED AS ASANI) OVER WESTCENTRAL BAY OF BENGAL MOVED NORTH-NORTHEASTWARDS WITH A SPEED OF 4 KMPH DURING PAST 06 HOURS, AND LAY CENTERED AT 0900 UTC OF 11TH MAY, OVER SAME REGION NEAR LATITUDE 16.1°N AND LONGITUDE 81.4°E, ABOUT 30 KM EAST-SOUTHEAST OF MACHILIPATNAM (43185), 50 KM SOUTHWEST OF NARSAPUR, 120 KM SOUTHWEST OF KAKINADA (43189), 270 KM SOUTHWEST OF VISAKHAPATNAM (43149), 500 KM SOUTHWEST OF GOPALPUR (43049) AND 620 KM SOUTHWEST OF PURI (43053).

IT IS VERY LIKELY TO MOVE NORTH-NORTHEASTWARDS ALONG NARSAPUR, YANAM, KAKINADA, TUNI AND VISAKHAPATNAM COASTS TILL 1800 UTC OF TODAY AND EMERGE INTO WESTCENTRAL BAY OF BENGAL OFF NORTH ANDHRA PRADESH COASTS BY 0000 UTC 12TH MORNING. IT IS LIKELY TO WEAKEN INTO A DEEP DEPRESSION BY 1800 UTC OF TODAY AND FURTHER INTO A DEPRESSION BY 0000 UTC OF 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(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
11.05.22/0900	16.1/81.4	70-80 gusting to 90	Cyclonic Storm
11.05.22/1200	16.3/81.5	65-75 gusting to 85	Cyclonic Storm
11.05.22/1800	16.5/82.7	55-65 gusting to 75	Deep Depression
12.05.22/0000	16.6/82.0	45-55 gusting to 65	Depression
12.05.22/0600	16.6/82.5	35-45 gusting to 55	Depression

THE INTENSITY OF THE SYSTEM IS T2.5/3.0. INSAT-3D IMAGERY INDICATES BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER AREA BETWEEN LATITUDE 13.5N & 16.5N AND LONGITUDE 77.0E & 81.5E, RAYALSEEMA, SOUTH COASTAL ANDHRA PRADESH. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEG C.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 40 KNOTS GUSTING TO 50 KNOTS. THE SEA CONDITION IS HIGH OVER WESTCENTRAL BAY OF BENGAL. THE ESTIMATED CENTRAL PRESSURE IS 993 HPA.

STORM SURGE GUIDANCE: STORM SURGE OF HEIGHT ABOUT 0.5 M ABOVE ASTRONOMICAL TIDE IS LIKELY TO INUNDATE LOW LYING AREAS OF KRISHNA, EAST & WEST GODAVARI DISTRICTS OF ANDHRA PRADESH AND YANAM DISTRICT OF PUDUCHERRY.

REMARKS:

THE MADDEN JULIAN OSCILLATION INDEX (MJO) CURRENTLY LIES IN PHASE 5 WITH AMPLITUDE MORE THAN 1. IT WOULD MOVE TO PHASE 6 ON 12TH MAY. HENCE, MJO WILL SUPPORT ENHANCEMENT OF CONVECTIVE ACTIVITY OVER THE BAY OF BENGAL (BOB) DURING NEXT 1-2 DAYS.

SEA SURFACE TEMPERATURE (SST) IS AROUND 29°C OVER WESTCENTRAL BOB ALONG & OFF ANDHRA PRADESH AND ALONG THE FORECAST TRACK. 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 HAS DECREASED AND IS ABOUT 150 X10⁻⁶ S⁻¹ TO THE SOUTH OF SYSTEM CENTRE. VERTICALLY IT IS EXTENDING UPTO 200 HPA LEVEL. LOW LEVEL CONVERGENCE HAS SLIGHTLY INCREASED AND IS AROUND TO 20 X10⁻⁵ S⁻¹ TO THE SOUTHWEST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS 05 X10⁻⁵ S⁻¹ AROUND AND TO THE NORTHEAST OF SYSTEM CENTRE. WIND SHEAR IS LOW (15-20 KNOTS) AROUND THE SYSTEM AREA AND ALSO ALONG THE FORECAST TRACK. THE SYSTEM HAS COME CLOSE TO COAST AND DUE TO LAND INTERACTIONS WILL WEAKEN GRADUALLY. ALSO AS THE SYSTEM MOVES FURTHER NORTH-NORTHEASTWARDS, IT WILL ENCOUNTER LOWER SST, LOWER OHC AND HENCE WILL SHOW GRADUAL WEAKENING. IT IS LIKELY TO RECURVE NORTHEASTWARDS AND MOVE ALONG ANDHRA PRADESH COAST FOR NEXT 12 HOURS AND THEN EMERGE INTO WESTCENTRAL BAY OF BENGAL.

(MONICA SHARMA)
SCIENTIST-D, RSMC, NEW DELHI

SAT : INSAT-3D IMG

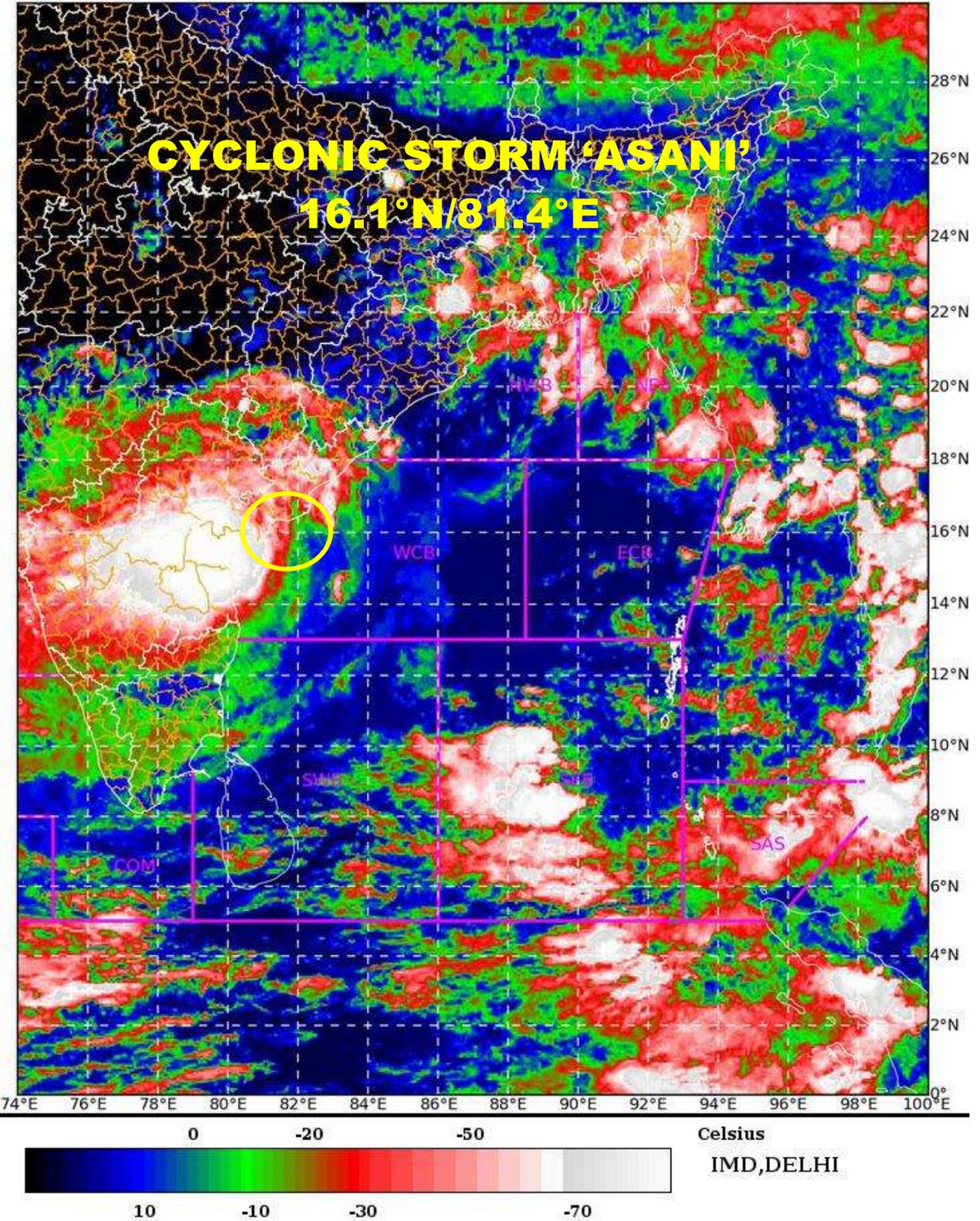
11-05-2022/(1000 to 1026) GMT

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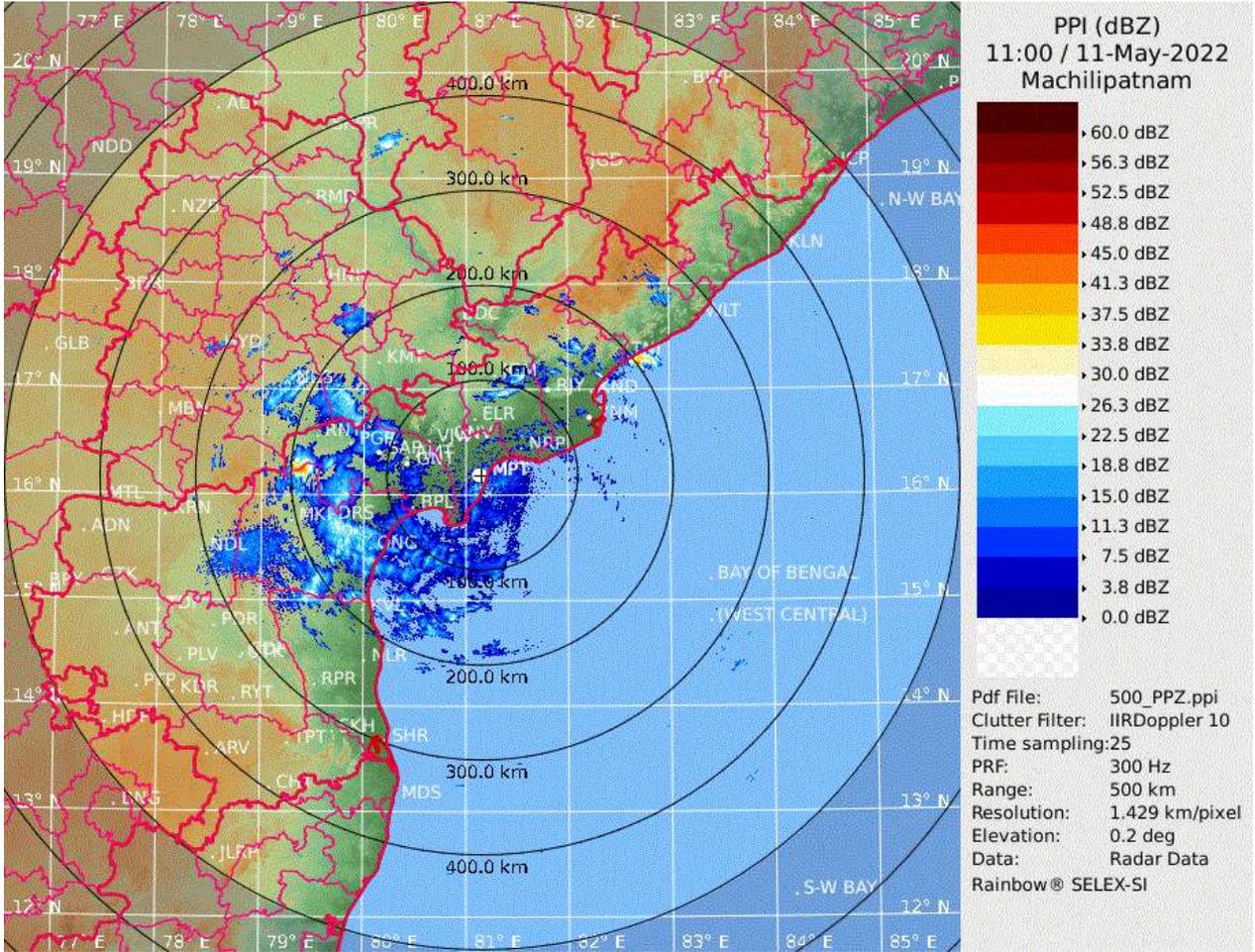
11-05-2022/(1530 to 1556) IST



L1C Mercator



CYCLONIC STORM "ASANI" VIEWED BY THE DWR AT MACHILIPATNAM





FORECAST TRACK AND INTENSITY OF CYCLONIC STORM 'ASANI' ALONGWITH CONE OF UNCERTAINTY OVER WESTCENTRAL BAY OF BENGAL BASED ON 0900 UTC OF 11TH 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 (≥ 120 KT)

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

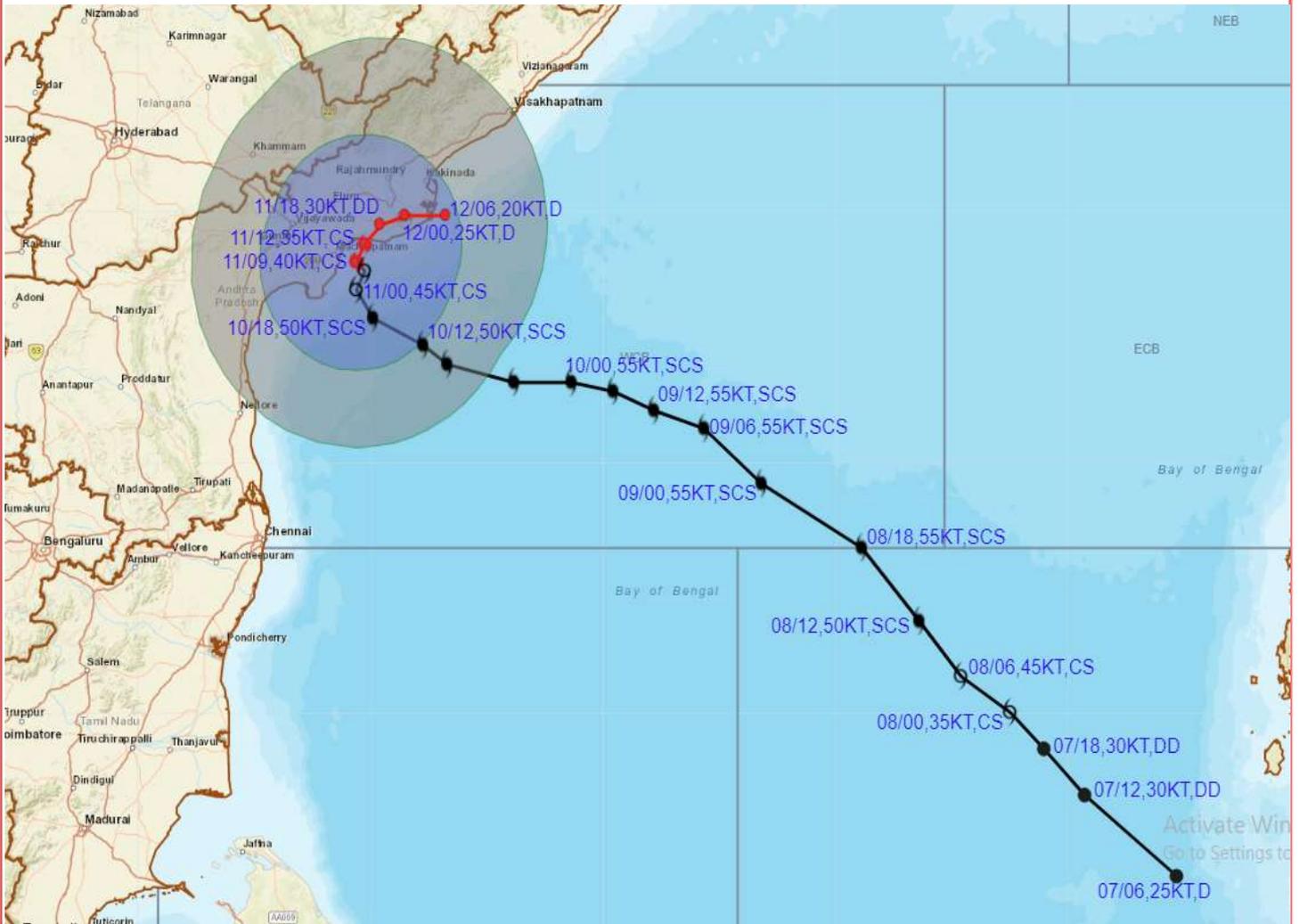
STATIONS	DISTANCE(KM) AND DIRECTION FROM STATIONS	
	12.05.22/0600	
MACHILIPATNAM	150,ENE	
KAKINADA	50,SE	
VISHAKHAPATNAM	150,SW	
GOPALPUR	390,SW	

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
11.05.22/0900	0	16.1	81.4	MACHILIPATNAM/ FRANCHPET (29,ESE)	NARSAPUR (49,SW)	VIJAYAWADA /GANNAVARAM (80,SE)	NIDADAVOLE (84,SSW)	VIJAYAWADA (96,ESE)
11.05.22/1200	3	16.3	81.5	NARSAPUR (26,SW)	MACHILIPATNAM/ FRANCHPET (39,ENE)	NIDADAVOLE (60,S)	VIJAYAWADA /GANNAVARAM (79,ESE)	VIJAYAWADA (97,ESE)
11.05.22/1800	9	16.5	81.7	NARSAPUR (7,N)	NIDADAVOLE (39,SSE)	MACHILIPATNAM/ FRANCHPET (68,ENE)	KAKINADA (76,SW)	VIJAYAWADA /GANNAVARAM (96,E)
12.05.22/0000	15	16.6	82.0	NARSAPUR (37,ENE)	KAKINADA (46,SSW)	NIDADAVOLE (51,ESE)	MACHILIPATNAM/ FRANCHPET (101,ENE)	TUNI (102,SW)
12.05.22/0600	21	16.6	82.5	KAKINADA (48,SE)	TUNI (84,S)	NARSAPUR (87,ENE)	NIDADAVOLE (101,ESE)	VISHAKHAPATNAM (151,SW)

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 CYCLONIC STORM 'ASANI' OVER WESTCENTRAL BAY OF BENGAL BASED ON 0900 UTC OF 11TH 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 (≥ 120 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)

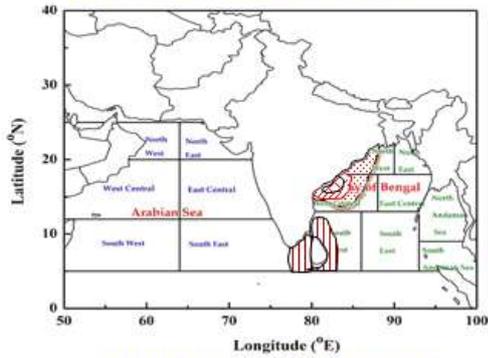
■ ≥ 64 KT (≥118 KMPH)

IMPACT OVER THE SEA

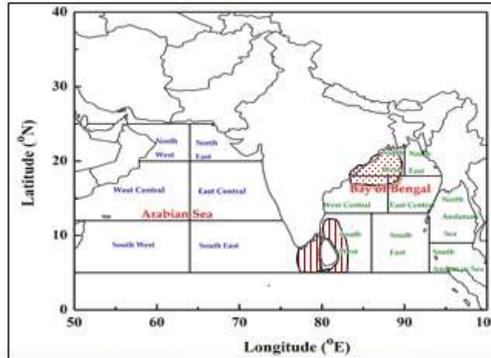
MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

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

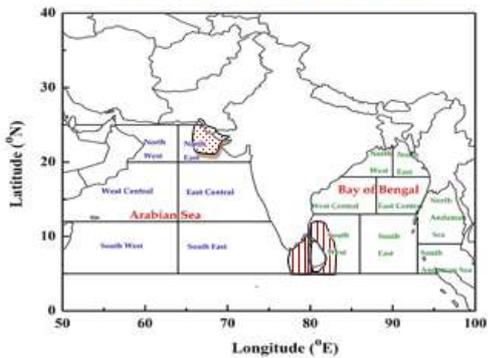
DAY-1: 11.05.2022/0600 UTC TO 12.05.2022/0600 UTC



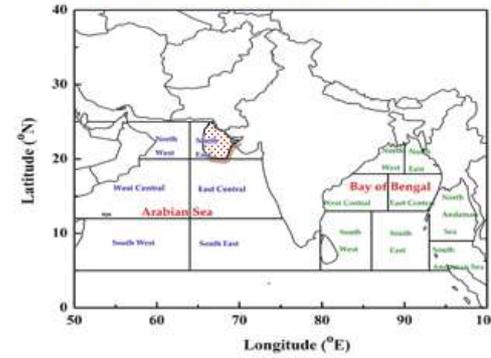
DAY-2: 12.05.2022/0600 UTC TO 13.05.2022/0600 UTC



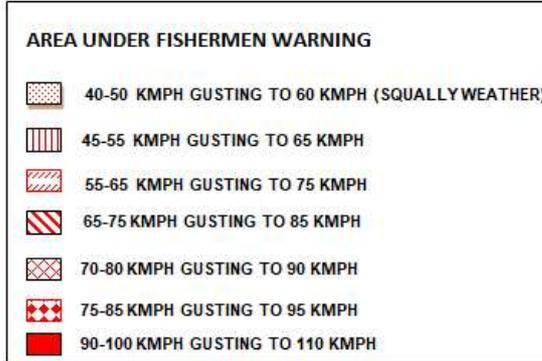
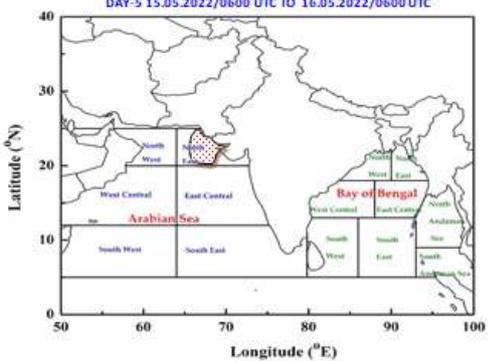
DAY-3: 13.05.2022/0600 UTC TO 14.05.2022/0600 UTC



DAY-4: 14.05.2022/0600 UTC TO 15.05.2022/0600 UTC



DAY-5: 15.05.2022/0600 UTC TO 16.05.2022/0600 UTC



Storm Surge Guidance

STORM SURGE HEIGHT INFORMATION:

* The below listed surge heights are over and above astronomical tide.

MANDAL/TALUK	DISTRICT	STATE / UNION TERRITORY	NEAREST PLACE OF HABITATION	STORM SURGE (m) *	EXPECTED INUNDATION EXTENT (km)
Kakinada	East Godavari	Andhra Pradesh	P. Mallavaram	0.2-0.5	Upto 0.11
Machilipatnam	Krishna	Andhra Pradesh	Pedapatnam	0.2-0.5	Upto 0.12
Razole	East Godavari	Andhra Pradesh	Bendamurulanka	0.3-0.4	Upto 0.19
Mummidivaram	East Godavari	Andhra Pradesh	Katrenikona	0.2-0.3	Nil
Yanam	Yanam	Puducherry	Yanam	0.2-0.3	Upto 0.11

