



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. 25 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0300 UTC OF 11.05.2022 BASED ON 0000 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-NORTHWESTWARDS WITH A SPEED OF 6 KMPH DURING PAST 06 HOURS, AND LAY CENTERED AT 0000 UTC OF 11TH MAY, OVER SAME REGION NEAR LATITUDE 15.8°N AND LONGITUDE 81.4°E, ABOUT 50 KM SOUTH-SOUTHEAST OF MACHILIPATNAM (43185), 150 KM SOUTHWEST OF KAKINADA (43189), 290 KM SOUTHWEST OF VISAKHAPATNAM (43149), 530 KM SOUTHWEST OF GOPALPUR (43049) AND 640 KM SOUTHWEST OF PURI (43053).

IT IS VERY LIKELY TO MOVE NEARLY NORTHWARDS FOR NEXT FEW HOURS AND THEN NORTH-NORTHEASTWARDS ALONG NARSAPUR, YANAM, KAKINADA, TUNI & VISAKHAPATNAM COASTS DURING 0600-1200 UTC OF TODAY AND EMERGE INTO WESTCENTRAL BAY OF BENGAL OFF NORTH ANDHRA PRADESH COASTS BY 1800 UTC. IT IS LIKELY TO WEAKEN GRADUALLY INTO A DEPRESSION BY 12TH MAY 0000 UTC.

THE CYCLONIC STORM IS UNDER THE CONTINUOUS SURVEILLANCE OF DOPPLER WEATHER RADAR (DWR) AT MACHILIPATNAM (43185).

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
11.05.22/0000	15.8/81.4	75-85 GUSTING TO 95	CYCLONIC STORM
11.05.22/0600	16.2/81.5	70-80 GUSTING TO 90	CYCLONIC STORM
11.05.22/1200	16.5/81.9	65-75 GUSTING TO 85	CYCLONIC STORM
11.05.22/1800	16.8/82.5	55-65 GUSTING TO 75	DEEP DEPRESSION
12.05.22/0000	17.1/83.2	45-55 GUSTING TO 65	DEEP DEPRESSION

THE INTENSITY OF THE SYSTEM IS T3.0/3.0. INSAT-3D IMAGERY INDICATES BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER AREA BETWEEN LATITUDE 13.0N & 16.5N AND LONGITUDE 80.0E & 83.0E, RAYALSEEMA, SOUTH COASTAL ANDHRA PRADESH & ADJOINING NORTHEAST TAMILNADU. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEG C.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 45 KNOTS GUSTING TO 55 KNOTS. THE SEA CONDITION IS HIGH OVER WESTCENTRAL BAY OF BENGAL. THE ESTIMATED CENTRAL PRESSURE IS 992 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 29DEGC OVER WESTCENTRAL BOB ALONG & OFF ANDHRA PRADESH 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 IS ABOUT 200×10^{-6} S⁻¹ TO THE SOUTH OF SYSTEM CENTRE. VERTICALLY IT IS EXTENDING UPTO 200 HPA LEVEL. LOW LEVEL CONVERGENCE IS AROUND 20×10^{-5} S⁻¹ TO THE SOUTHWEST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS 05×10^{-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. AS THE SYSTEM MOVES FURTHER NORTH-NORTHEASTWARDS, IT WILL ENCOUNTER LOWER SST & 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

Places: Less than 25% of total

SAT : INSAT-3D IMG

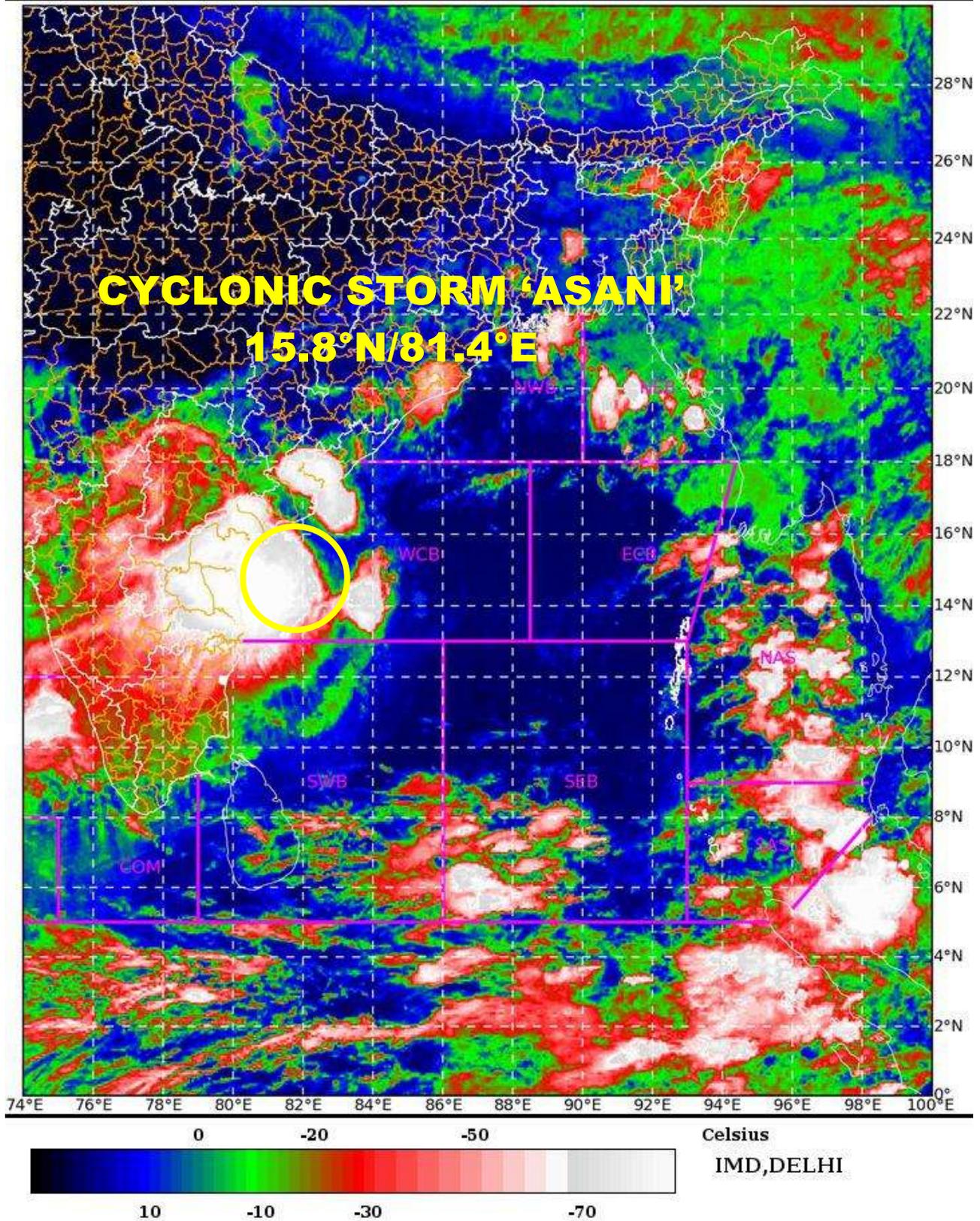
11-05-2022/(0130 to 0156) GMT

IMG_TIR1_TEMP 10.8 um

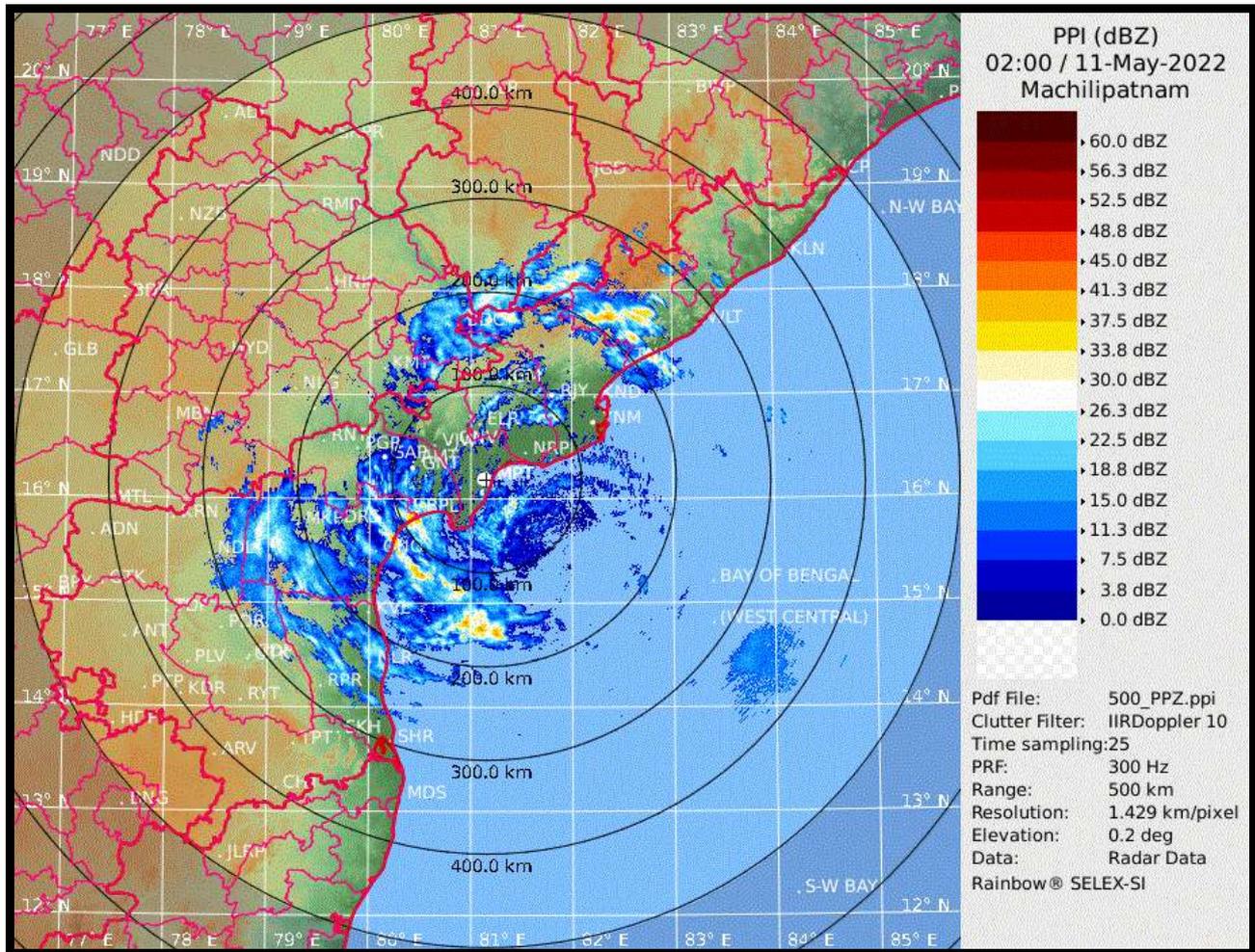
11-05-2022/(0700 to 0726) IST



L1C Mercator

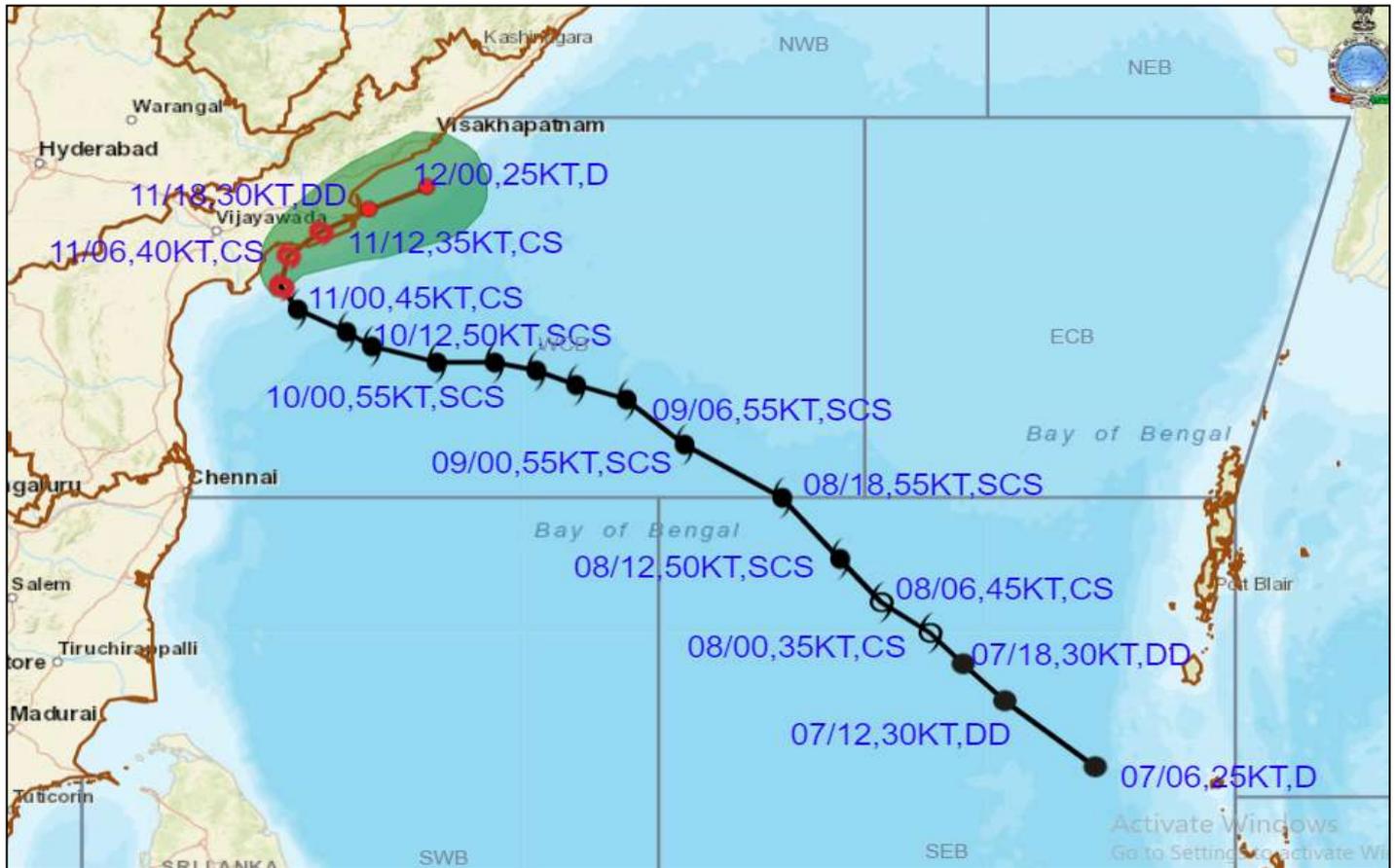


CYCLONIC STORM "ASANI" VIEWED BY THE DWR AT MACHILIPATNAM





FORECAST TRACK AND INTENSITY OF CYCLONIC STORM 'ASANI' ALONGWITH CONE OF UNCERTAINTY OVER WESTCENTRAL BAY OF BENGAL BASED ON 0000 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	
	12.05.22/0000	
KAKINADA	100,	E
GOPALPUR	300,	SW
VISHAKHAPATNAM	70,	S
PURI	410,	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
11.05.22/0000	0	15.8	81.4	MACHILIPATNAM/ FRANCHPET (52,SSE)	NARSAPUR (77,SSW)	BAPATLA (101,E)	VIJAYAWADA /GANNAVARAM (104,SE)	VIJAYAWADA (116,SE)
11.05.22/0600	6	16.2	81.5	NARSAPUR (34,SW)	MACHILIPATNAM/ FRANCHPET (37,E)	NIDADAVOLE (71,S)	VIJAYAWADA /GANNAVARAM (83,ESE)	VIJAYAWADA (101,ESE)
11.05.22/1200	12	16.5	81.9	NARSAPUR (23,ENE)	NIDADAVOLE (50,SE)	KAKINADA (61,SW)	MACHILIPATNAM/ FRANCHPET (87,ENE)	TUNI (117,SW)
11.05.22/1800	18	16.8	82.5	KAKINADA (33,ESE)	TUNI (61,S)	NARSAPUR (95,ENE)	NIDADAVOLE (98,E)	VISHAKHAPATNAM (133,SW)
12.05.22/0000	24	17.1	83.2	VISHAKHAPATNAM (69,S)	TUNI (75,ESE)	KAKINADA (104,E)	KALINGAPATAM (169,SW)	NIDADAVOLE (175,E)

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 0000 UTC OF 11TH MAY 2022



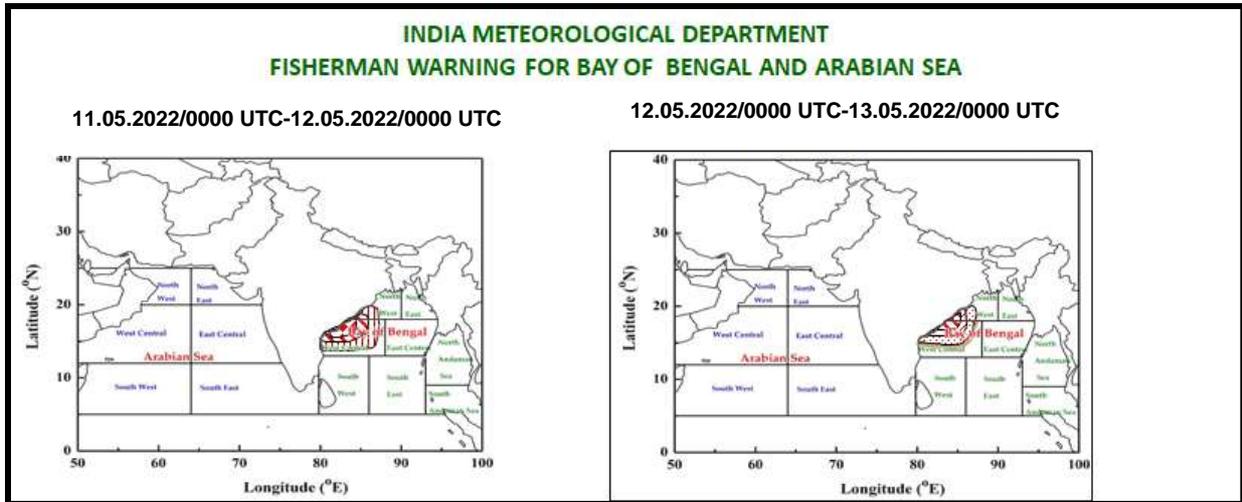
DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
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 D: DEPRESSION (17-27 KT)
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 ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
 SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

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

FISHERMEN WARNING GRAPHICS



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
- 80-90 KMPH GUSTING TO 100 KMPH
- 90-100 KMPH GUSTING TO 110 KMPH

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
Avanigadda	Krishna	Andhra Pradesh	Gangadipalem	0.3-0.4	Nil
Narsapur	West Godavari	Andhra Pradesh	Perupalem	0.2-0.3	Upto 0.14
Repalle	Guntur	Andhra Pradesh	Gangadipalem	0.2-0.4	Upto 0.15
Yanam	Yanam	Puducherry	Yanam	0.2-0.3	Upto 0.11

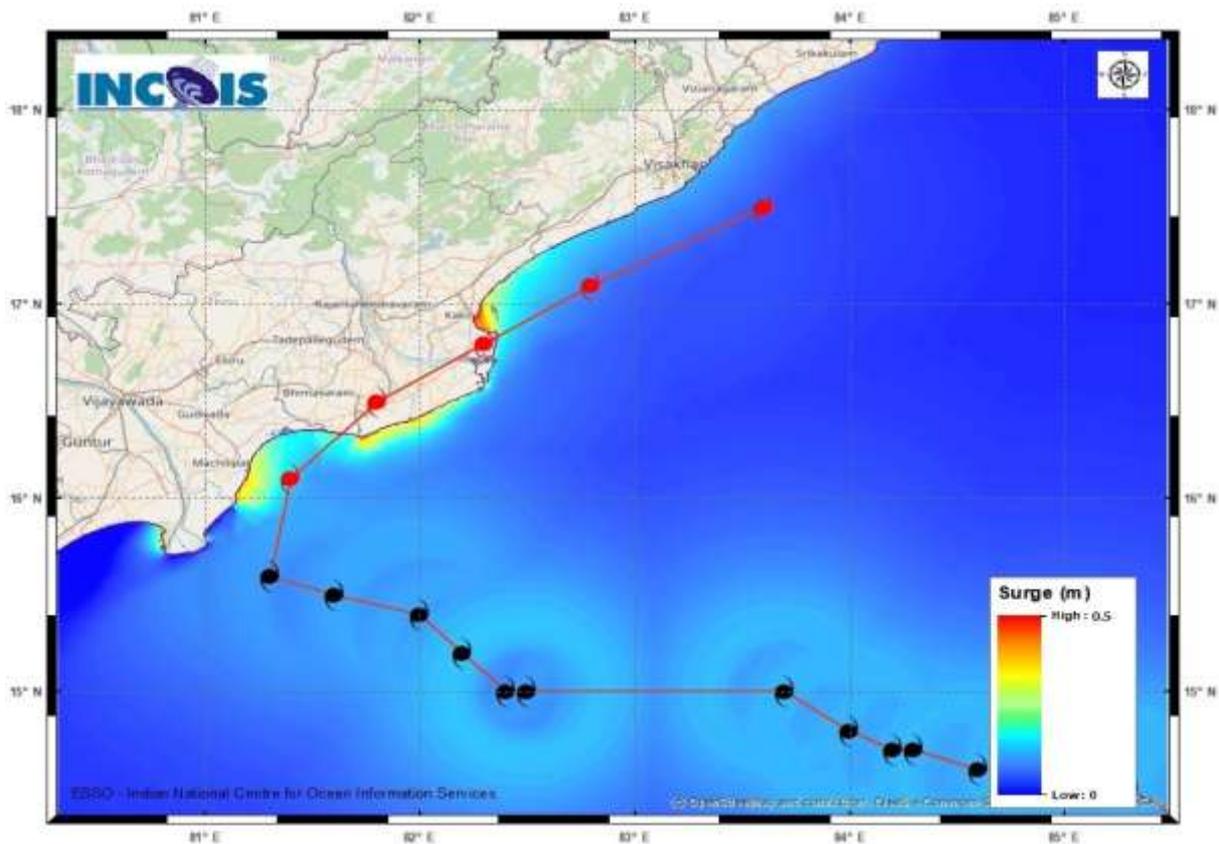


Figure: Storm Surge Map