



**India Meteorological Department
(Ministry of Earth Sciences)**

National Bulletin No. 7 (BOB/06/2023)

TIME OF ISSUE: 1240 HOURS IST

DATED: 02.12.2023

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Sub: Deep Depression over Southwest Bay of Bengal (Cyclone Alert for Andhra Pradesh and adjoining North Tamil Nadu-Puducherry Coasts: **Yellow Message)**

The deep depression over Southwest Bay of Bengal moved west-northwestwards with a speed of 18 kmph during past 06 hours and lay centered at 0830 hours IST of today, the 2nd December, 2023 over the same region near Latitude 10.6°N and Longitude 83.6°E, about 440 km east-southeast of Puducherry, 450 km east-southeast of Chennai, 580 km south-southeast of Nellore, 670 km south-southeast of Bapatla and 670 km south-southeast of Machilipatnam.

It is likely to move west-northwestwards and intensify into a Cyclonic Storm over Southwest Bay of Bengal during next 24 hours. Thereafter, it would move northwestwards and reach westcentral Bay of Bengal off south Andhra Pradesh and adjoining north Tamilnadu coasts by 4th December forenoon. Thereafter, it would move nearly northwards almost parallel and close to south Andhra Pradesh coast and cross South Andhra Pradesh coast between Nellore and Machilipatnam during forenoon of 5th December as a **Cyclonic Storm** with a maximum sustained wind speed of 80-90 kmph gusting to 100 kmph.

Track and Intensity Forecasts:

Date/Time (IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
02.12.23/0830	10.6/83.6	50-60 kmph gusting to 70 kmph	Deep Depression
02.12.23/1130	10.7/83.2	50-60 kmph gusting to 70 kmph	Deep Depression
02.12.23/1730	11.0/82.6	55-65 kmph gusting to 75 kmph	Deep Depression
02.12.23/2330	11.4/82.2	60-70 kmph gusting to 80 kmph	Cyclonic Storm
03.12.23/0530	11.8/81.9	65-75 kmph gusting to 85 kmph	Cyclonic Storm
03.12.23/1730	12.6/81.4	70-80 kmph gusting to 90 kmph	Cyclonic Storm
04.12.23/0530	13.5/80.9	75-85 kmph gusting to 95 kmph	Cyclonic Storm
04.12.23/1730	14.5/80.5	80-90 kmph gusting to 100 kmph	Cyclonic Storm
05.12.23/0530	15.5/80.7	80-90 kmph gusting to 100 kmph	Cyclonic Storm
05.12.23/1730	16.5/81.1	70-80 kmph gusting to 90 kmph	Cyclonic Storm
06.12.23/0530	17.6/82.2	45-55 kmph gusting to 65 kmph	Depression
06.12.23/1730	18.5/83.6	35-45 kmph gusting to 55 kmph	Depression

Warnings:

(i) Rainfall Warning (graphics enclosed):

- **North Coastal Tamil Nadu & Puducherry:** Light to moderate rainfall at most places with isolated heavy rainfall is very likely on 2nd December, heavy to very heavy rainfall at a few places on 3rd Dec., isolated heavy rainfall on 4th December and decrease thereafter.
- **Coastal Andhra Pradesh:** Light to moderate rainfall at most places with heavy to very heavy rainfall at a few places over south coastal Andhra Pradesh on 3rd and heavy to very heavy rainfall with extremely heavy falls at isolated places over coastal Andhra Pradesh & Yanam on 4th & 5th December. Isolated heavy rainfall is likely over north coastal Andhra Pradesh on 6th December.
- **Rayalaseema:** Light to moderate rainfall at most places with **isolated heavy rainfall** during 2nd-4th with **very heavy rainfall** at isolated places on 3rd December.
- **Odisha:** Light to moderate rainfall at most places with **isolated heavy rainfall** is likely over south Coastal and adjoining south Interior Odisha during 4th -6th with **isolated very heavy rainfall** over the same region on 5th December.

(ii) Wind warning:

- **Southwest Bay of Bengal along & off north Tamil Nadu-Puducherry Coasts:**
Squally wind speed reaching **50-60 kmph gusting to 70 kmph** is prevailing over Southwest Bay of Bengal. It is likely to gradually increase becoming **Gale Wind** speed reaching **60-70 kmph gusting to 80 kmph** from 2nd December night to 4th Dec. evening and it will gradual decrease thereafter.
- **Southeast Bay of Bengal:**
Squally weather with wind speed reaching **45-55 kmph gusting to 65 kmph** is prevailing over Southeast Bay of Bengal on 2nd and likely to decrease thereafter.
- **Westcentral Bay of Bengal and along & off south Andhra Pradesh Coast:**
Squally wind speed reaching **35-45 kmph gusting to 55 kmph** is likely to prevail over westcentral Bay of Bengal from 2nd December evening. It is likely to gradually increase becoming **55-65 kmph gusting to 75 kmph** from 3rd December morning. It is likely to increase further becoming **Gale Wind** speed reaching **70-80 kmph gusting to 90 kmph** from 3rd evening and **80-90 kmph gusting to 100 kmph** from 4th evening to 5th Dec. noon. It would gradually decrease thereafter.

- **Along & off north Andhra Pradesh Coast:**

Squally wind speed reaching **45-55 kmph gusting to 65 kmph** likely from 4th December evening, likely to gradually increase **becoming 55-65 kmph gusting to 75 kmph** from 5th December evening for subsequent 12 hours. It would gradually decrease thereafter.

- **Along & off South Odisha Coast:**

Squally wind speed reaching **35-45 kmph gusting to 55 kmph** likely from 4th December evening, likely to gradually increase becoming **40-50 kmph gusting to 60 kmph** from 5th December evening for subsequent 12 hours. It would gradually decrease thereafter.

(iii) Sea Condition:

- **Southeast Bay of Bengal:**

Rough to very Rough Sea condition is likely over Southeast Bay of Bengal on 2nd December and would improve thereafter.

- **Southwest Bay of Bengal and along & off north Tamil Nadu-Puducherry Coasts:**

Rough to Very Rough sea condition is prevailing over the region. It is likely to become **very rough to high** from 3rd December for subsequent 24 hours and improve thereafter gradually.

- **Westcentral Bay of Bengal and along & off south Andhra Pradesh Coast:**

Rough to Very Rough to sea condition is likely from 2nd December evening, becoming **very rough to high** from 3rd December morning till 5th December.

- **Along & off North Andhra Pradesh Coast:**

Rough to Very Rough to sea condition is likely from 4th December, very rough to high on 5th and very rough to rough on 6th December.

- **Along & off South Odisha Coast:**

Rough to Very Rough to sea condition is likely from 4th December evening till 6th December morning.

(iv) Fishermen Warning (graphics attached):

Fishermen are advised not to venture into:

- Southeast Bay of Bengal on 2nd December.
- Southwest Bay of Bengal and along & off North Tamil Nadu-Puducherry Coasts during 2nd to 4th December.
- Westcentral Bay of Bengal and along & off Andhra Pradesh Coast from 2nd December morning to 6th December.
- Along & off South Odisha coast from 4th December evening till 6th December

The Fishermen out at sea are advised to return to coast.

(v) Storm Surge (Graphics enclosed):

Storm surge of about 1-1.5 meter above astronomical tide likely to inundate south Coastal Andhra Pradesh districts at the time of landfall.

(vi) Damage Expected over coastal districts of South Andhra Pradesh and adjoining coastal districts of North Tamil Nadu-Puducherry:

- Damage to thatched huts.
- Possibilities of damage to vulnerable structure.
- Breaking of tree branches and uprooting of small & medium sized trees.
- Minor damage to power and communication lines due to breaking of branches and uprooting of trees.
- Major damage to Kutcha and minor damage to Pucca roads due to heavy rain.
- Damage to paddy crops, horticultural crops and orchards.
- Sea water inundation in low lying areas after erosion of Kutcha embankments
- Inundation of low lying areas in coastal districts due to heavy rainfall and flash flood

- Localized Flooding of roads and closure of underpasses mainly in urban areas of the above region.
- Occasional reduction in visibility due to heavy rainfall.
- Disruption of traffic due to water logging and squally winds
- Localized Landslides/Mudslides
- It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

(vi) Action Suggested for coastal districts of South Andhra Pradesh and adjoining coastal districts of North Tamil Nadu-Puducherry:

- Total suspension of fishing operations.
- Fishermen out at sea are advised to return to coast by 1st December
- Surface transport and shipping operations need to be regulated
- Onshore & Offshore operation need to be regulated as per guidelines
- Coastal hutment dwellers to be in safer places.
- People in affected areas to remain indoors.
- Avoid going to areas that face the water logging problems often.
- Avoid staying in vulnerable structure.

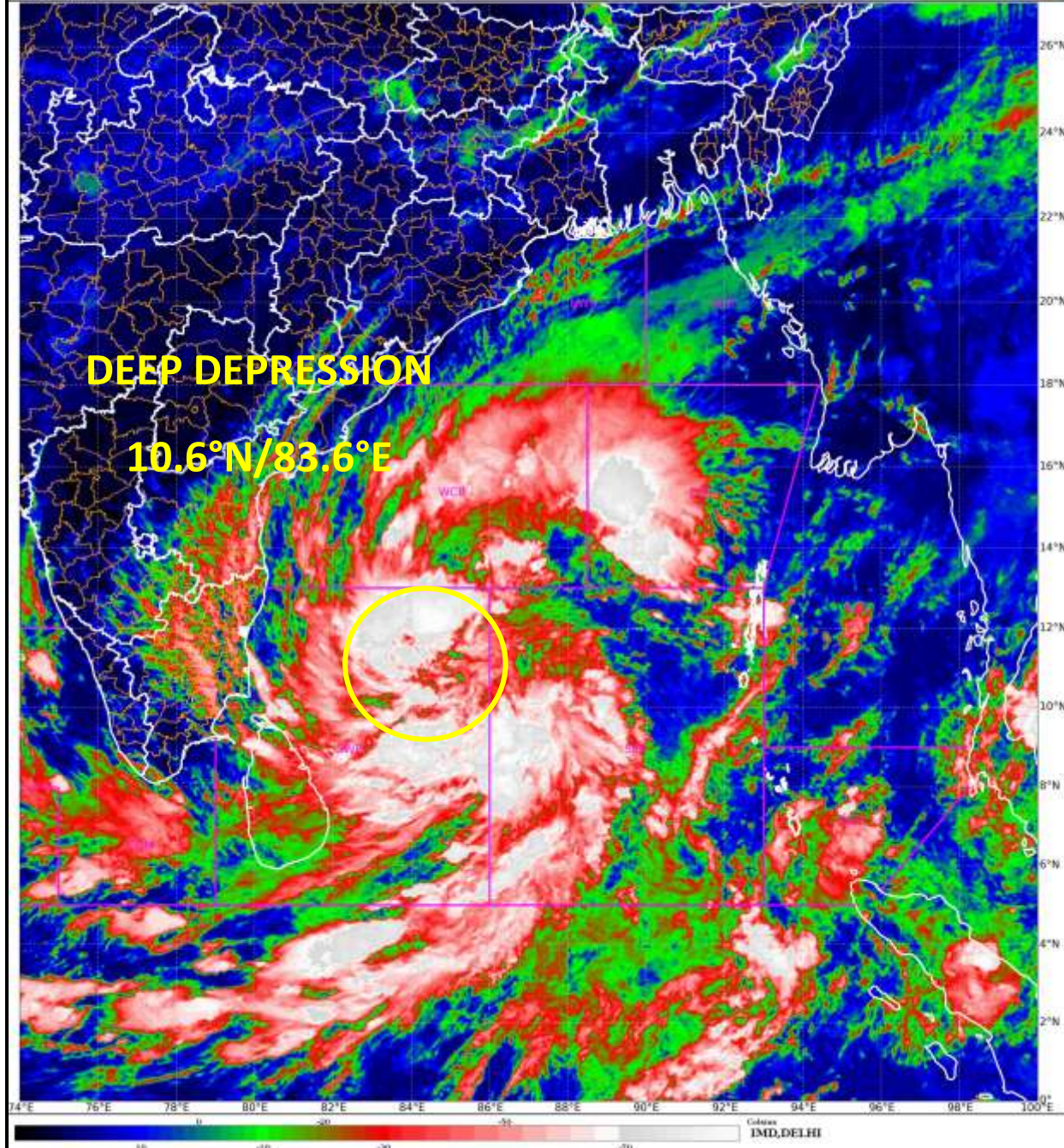
The system is under continuous surveillance and the next message will be issued at 0230 hours IST of today, the 02nd December, 2023.

**(Shobhit Katiyar)
Scientist C, Cyclone Warning, New Delhi**

Copy to: ACWC Chennai/ ACWC Kolkata/ CWC Bhubaneswar/ CWC Vishakhapatnam/ MC Amravati

SAT : INSAT-3DR IMG
IMG_TIR1_TEMP 10.8 um
LIC Mercator

02-12-2023/(0445 to 0512) GMT
02-12-2023/(1015 to 1042) IST





OBSERVED AND FORECAST TRACK ALONG WITH QUADRANT WIND DISTRIBUTION IN ASSOCIATION WITH DEEP DEPRESSION OVER SOUTHWEST BAY OF BENGAL BASED ON 0300 UTC (0830 IST) OF 02ND DECEMBER 2023.



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 (48-63 KT)

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

AREA OF MAXIMUM SUSTAINED WIND SPEED:

■ 28-33 KT (52-61 KMPH)

■ 34-49 KT (62-91 KMPH)

■ 50-63 KT (92-117 KMPH)

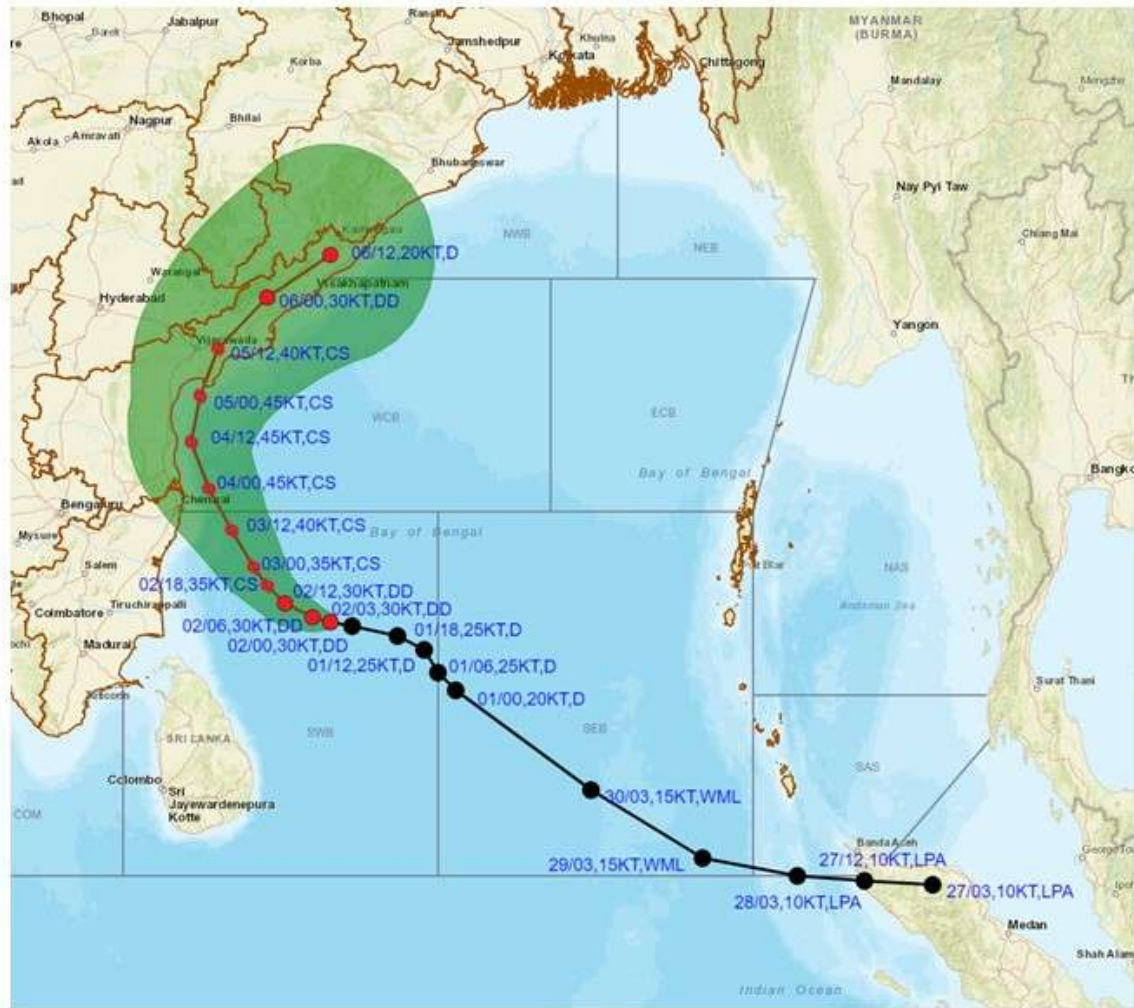
■ ≥ 64 KT (≥ 118 KMPH)

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



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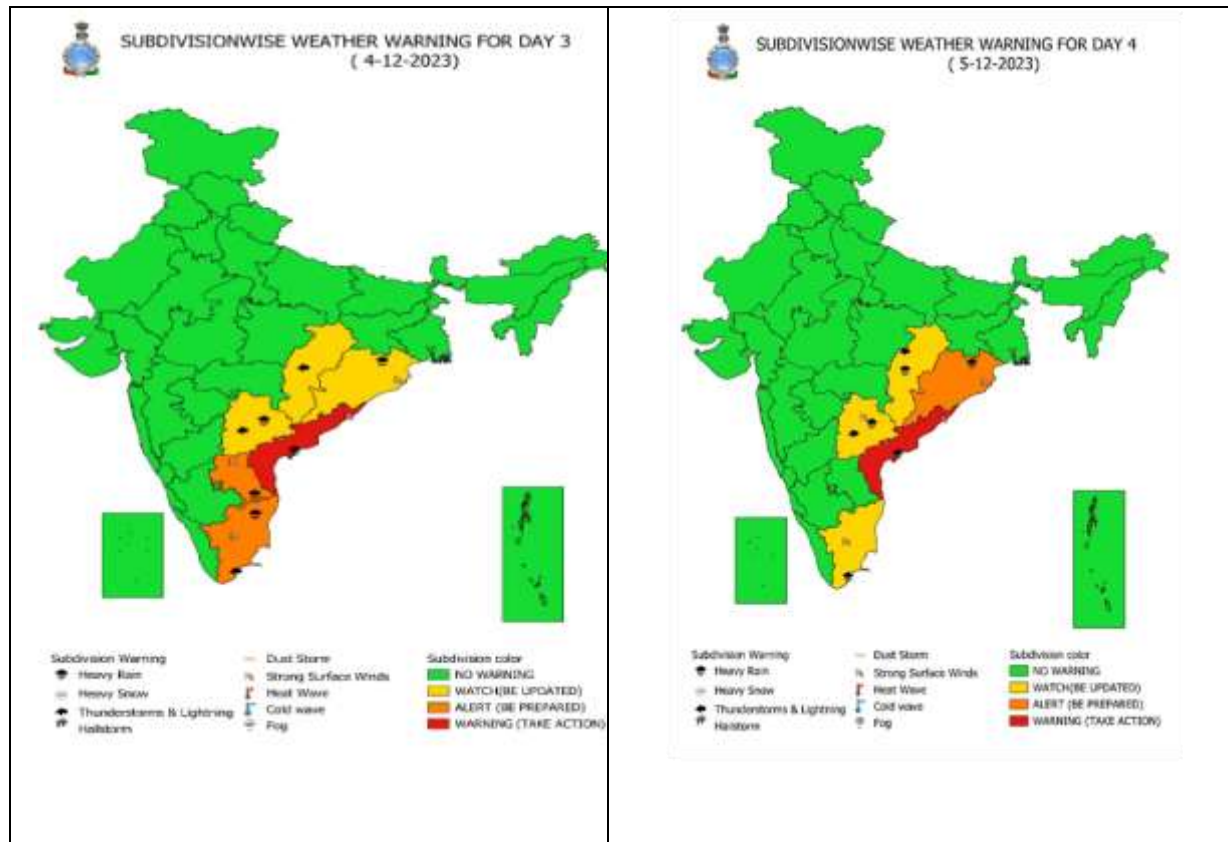
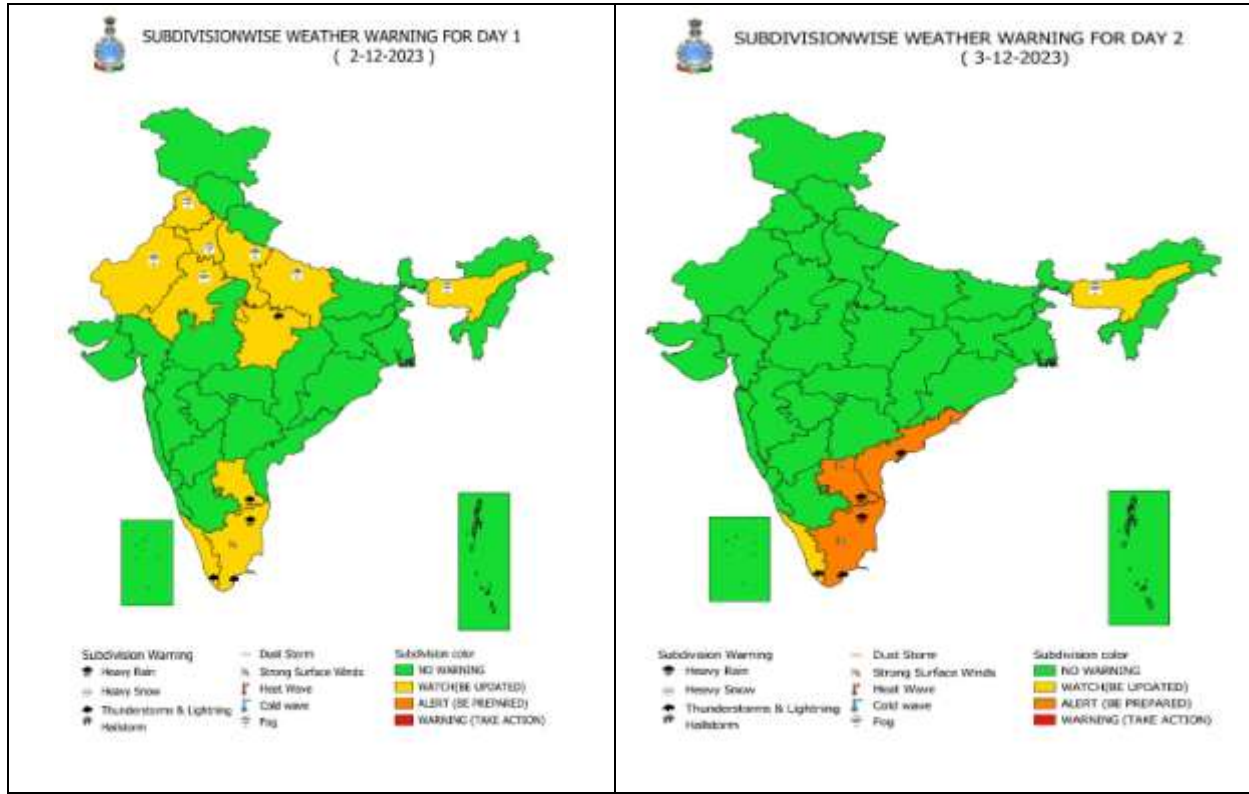
— OBSERVED TRACK

— FORECAST TRACK

▲ CONE OF UNCERTAINTY

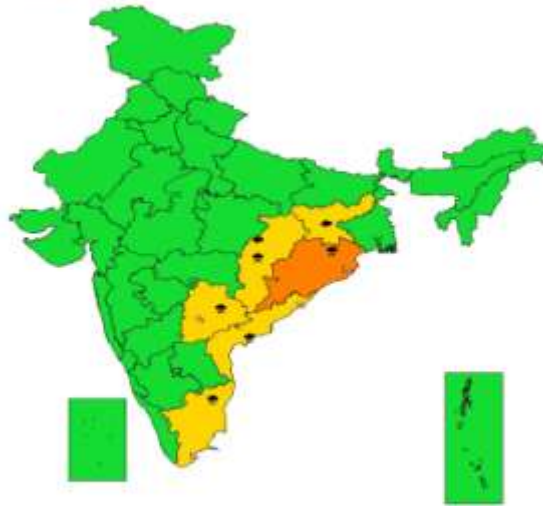
Forecast Date and Time (UTC)	DISTANCE (KM) AND DIRECTION FROM STATIONS				
	MO PONDICHERRY	CHENNAI/MINAMBAKKAM	NELLORE	BAPATLA	MACHILIPATNAM/ FRANCHPET
02.12.23/0300	440, ESE	450, SE	580, SE	680, SSE	670, SSE
03.12.23/0000	220, E	220, SE	360, SE	480, SSE	490, S
04.12.23/0000	210, NE	100, NE	140, SE	270, S	300, S
05.12.23/0000	410, NNE	290, NNE	150, NNE	60, SSE	100, SSW
06.12.23/0000	680, NNE	560, NNE	430, NE	270, NE	200, NE

Weather Warning Graphics





**SUBDIVISIONWISE WEATHER WARNING FOR DAY 5
(6-12-2023)**



- | | | |
|---|---|---|
| <ul style="list-style-type: none"> ☁ Heavy Rain ❄ Heavy Snow ⚡ Thunderstorm & Lightning ⚡ Hailstone | <ul style="list-style-type: none"> ☁ Dust Storm 🌪 Strong Surface Winds 🌡 Heat Wave 🌡 Cold wave 🌨 Fog | <ul style="list-style-type: none"> 🟢 Subdivision color 🟢 NO WARNING 🟡 WATCH (BE UPDATED) 🟠 ALERT (BE PREPARED) 🔴 WARNING (TAKE ACTION) |
|---|---|---|

WARNING



Heavy Rain



Heavy Snow



Thunderstorm



Dust Storm



Strong Winds



Visibility



Cyclone



Squall/ Hail



Frost



Cold Wave



Heat Wave



Sea State

Fishermen warning graphics

Day 1: 02.12.2023/11:30AM to 03.12.2023/05:30AM



Day 2: 03.12.2023/05:30AM to 04.12.2023/05:30AM



Day 3: 04.12.2023/05:30AM to 05.12.2023/05:30AM



Day 4: 05.12.2023/05:30AM to 06.12.2023/05:30AM



Day 5: 06.12.2023/05:30AM to 07.12.2023/05:30AM



Squally WX with wind speed 40-45 kmph gusting to 55 kmph

Squally WX with wind speed 45-55 kmph gusting to 65 kmph

Squally wind with speed 50-60 kmph gusting to 70 kmph

CS with Gale wind speed 60-90 kmph gusting to 110 kmph

Fishermen are advised not to venture into the marked areas.

Storm Surge Warning Graphics based on Forecast Track

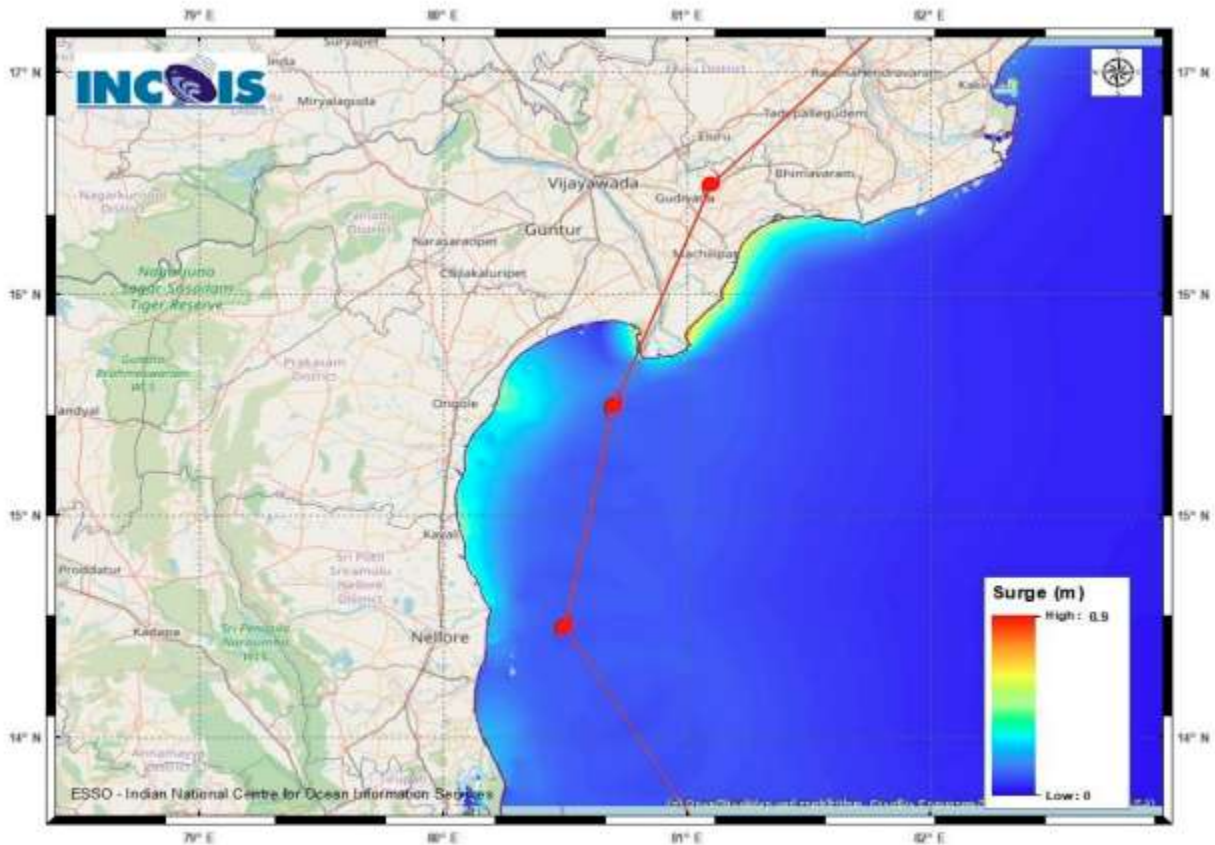


Figure: Storm Surge Map

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)
Avanigadda	Krishna	Andhra Pradesh	Ramakrishnapuram	0.3-0.8	Upto 0.10
Machilipatnam	Krishna	Andhra Pradesh	Chinagollapalem	0.4-0.9	Upto 0.49
Repalle	Guntur	Andhra Pradesh		0.2-0.5	Upto 0.34