



India Meteorological Department  
(Ministry of Earth Sciences)

BULLETIN NUMBER: 12 (BOB/07/2021)

TIME OF ISSUE: 1200 HOURS IST

DATED: 04.12.2021

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23093750)  
CONTROL ROOM NDMA (FAX.NO. 26701729)  
CABINET SECRETARIAT (FAX.NO.23012284, 23018638)  
PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)  
SECRETARY, MOES, (FAX NO. 24629777)  
H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)  
DIRECTOR GENERAL, DOORDARSHAN (23385843)  
DIRECTOR GENERAL, AIR (23421105, 23421219)  
PIB MOES (FAX NO. 23389042)  
UNI (FAX NO. 23355841)  
D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)  
DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)  
CHIEF SECRETARY, ANDAMAN & NICOBAR ISLANDS (FAX NO. 03192- 232656)  
CHIEF SECRETARY, ANDHRA PRADESH (FAX NO. 0863-2441029, 08645-246600)  
CHIEF SECRETARY, GOVT. OF ODISHA (FAX NO. 0674 -2536660)  
CHIEF SECRETARY, GOVT. OF WEST BENGAL (FAX NO. 033-22144328)  
CHIEF SECRETARY, TAMIL NADU (FAX NO 044-25672304)  
CHIEF SECRETARY, PUDUCHERRY (FAX NO 0413-2334145)  
CHIEF SECRETARY, ASSAM (FAX NO. 0361-2260900)  
CHIEF SECRETARY, MEGHALAYA (FAX NO 0364-2225978)  
CHIEF SECRETARY, MIZORAM (FAX NO 0389-2322745)  
CHIEF SECRETARY, TRIPURA (FAX NO 0381-2414013)

**Sub: Cyclonic Storm 'JAWAD' over westcentral Bay of Bengal: Cyclone Warning for north Andhra Pradesh and Odisha coasts – Orange Message.**

The **Cyclonic Storm 'JAWAD'** (Pronounced as JOWAD) over westcentral Bay of Bengal moved nearly northwards with a speed of 6 kmph during past 06 hours and lay centered at 0830 hrs IST of today, the 04<sup>th</sup> December 2021, over westcentral Bay of Bengal near Lat. 16.4°N and Long. 84.8°E, about 210 km east-southeast of Vishakhapatnam (Andhra Pradesh), 320 km south of Gopalpur (Odisha), 390 km south-southwest of Puri (Odisha) and 470 km south-southwest of Paradip (Odisha).

It is likely to move nearly northwards, **weaken gradually** during next 12 hours and then move north-northeastwards along Odisha coast reaching near Puri around 5<sup>th</sup> December noon as a Deep Depression. Subsequently, **it is likely to weaken further** and continue to move north-northeastwards along Odisha coast towards West Bengal coast.

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
04.12.21/0830	16.4/84.8	70-80 gusting to 90	Cyclonic Storm
04.12.21/1130	16.6/84.8	65-75 gusting to 85	Cyclonic Storm
04.12.21/1730	17.2/84.8	60-70 gusting to 80	Cyclonic Storm
04.12.21/2330	17.9/85.0	55-65 gusting to 75	Deep Depression
05.12.21/0530	18.6/85.3	50-60 gusting to 70	Deep Depression
05.12.21/1730	19.6/86.0	45-55 gusting to 65	Depression

## **Warnings:**

### **(i) Rainfall (warning graphics enclosed)**

**4<sup>th</sup> Dec.:** Light to moderate rainfall at most places with **heavy to very heavy rainfall & extremely heavy falls** at isolated places very likely over coastal Odisha; **heavy to very heavy rainfall** at isolated places over north Coastal Andhra Pradesh, interior Odisha and coastal districts of Gangetic West Bengal.

**5<sup>th</sup> Dec.:** Light to moderate rainfall at many places with **heavy to very heavy rainfall at isolated places** likely over Gangetic West Bengal & north Odisha and **heavy rainfall at** isolated places over south Assam & Meghalaya, Mizoram and Tripura.

**6<sup>th</sup> Dec.:** Light to moderate rainfall at many places with **heavy rainfall at isolated places** likely over Assam & Meghalaya, Mizoram and Tripura.

### **(ii) Wind warning**

- Gale wind, speed reaching 70-80 kmph gusting to 90 kmph, prevails over westcentral Bay of Bengal. It would gradually decrease becoming 60-70 kmph gusting to 80 kmph over northwest and adjoining westcentral Bay of Bengal by mid-night of today, the 4<sup>th</sup> December. It would decrease further becoming 50-60 gusting to 70 kmph from the morning of 5<sup>th</sup> December over northwest Bay of Bengal.
- Squally winds speed reaching 45-55 kmph gusting to 65 kmph likely to prevail along & off North Andhra Pradesh–Odisha coasts during next 12 hours. It will gradually increase becoming 55-65 gusting to 75 kmph till morning of 5<sup>th</sup> and squally winds speed reaching 50-60 kmph gusting to 70 kmph from 5<sup>th</sup> morning till afternoon. It would decrease thereafter gradually.
- Squally wind speed reaching 45-55 kmph gusting to 65 kmph also likely to commence along & off West Bengal coast from 4<sup>th</sup> December evening till the evening of 5<sup>th</sup> December and gradually decrease thereafter.

### **(iii) Sea condition**

- High Sea conditions likely to prevail over westcentral & adjoining northwest Bay of Bengal during next 12 hours. It is likely to be Very Rough over northwest & adjoining west-central Bay of Bengal from midnight of 04<sup>th</sup> till evening of 5<sup>th</sup> December and improve thereafter.
- Rough to Very Rough Sea conditions will prevail along & off North Andhra Pradesh – Odisha & West Bengal coasts till 5<sup>th</sup> December evening.

### **(iv) Fishermen Warning**

Fishermen are advised not to venture into westcentral & northwest Bay of Bengal and along & off north Andhra Pradesh-Odisha-West Bengal coasts on 04<sup>th</sup> & 05<sup>th</sup> December 2021.

### **(v) Advisory to along & off shore Installations**

The off-shore & alongshore operations along north Andhra Pradesh, Odisha & West Bengal coasts are advised to be suspended on 04<sup>th</sup> December 2021 to ensure safety of life & property.

### **(vi) EXPECTED IMPACT & ACTION SUGGESTED (For Srikakulam district of north Coastal Andhra Pradesh; Gajapati, Ganjam, Puri, Nayagarh, Khurda, Cuttack, Jagatsinghpur & Kendrapara districts of Odisha)**

#### **A. Impact Expected**

- Damage to thatched houses/ huts and possible of damage to vulnerable structure.
- Breaking of tree branches, uprooting of small trees.
- Localized Flooding, water logging and inundation in low lying areas due to Heavy rain.
- Occasional reduction in visibility due to heavy rainfall.
- Disruption of traffic in roads of major cities due to water logging leading to delayed travel.
- Minor damage to kutcha roads.
- Localized Landslides/Mudslides

➤ Damage to horticulture and standing crops in some areas due to inundation. Damage to banana, Papaya & Moring (Drumstick) trees due to strong winds.

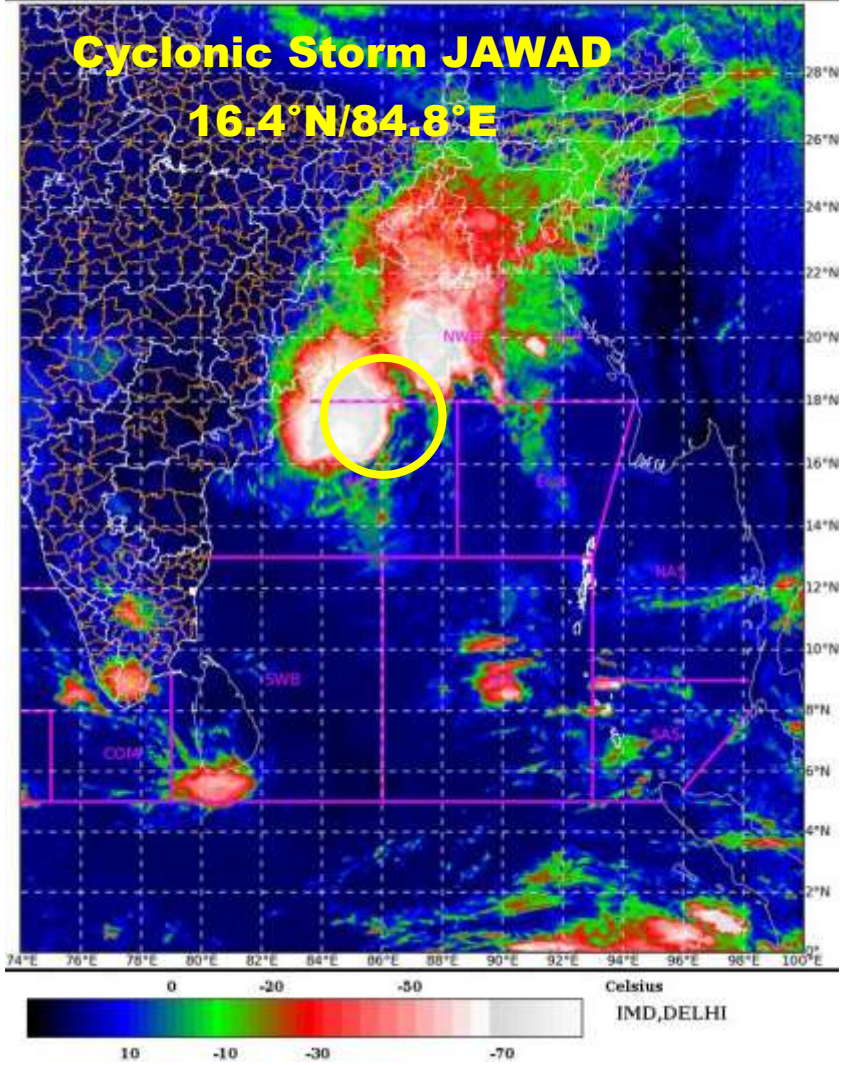
**B. Action Suggested**

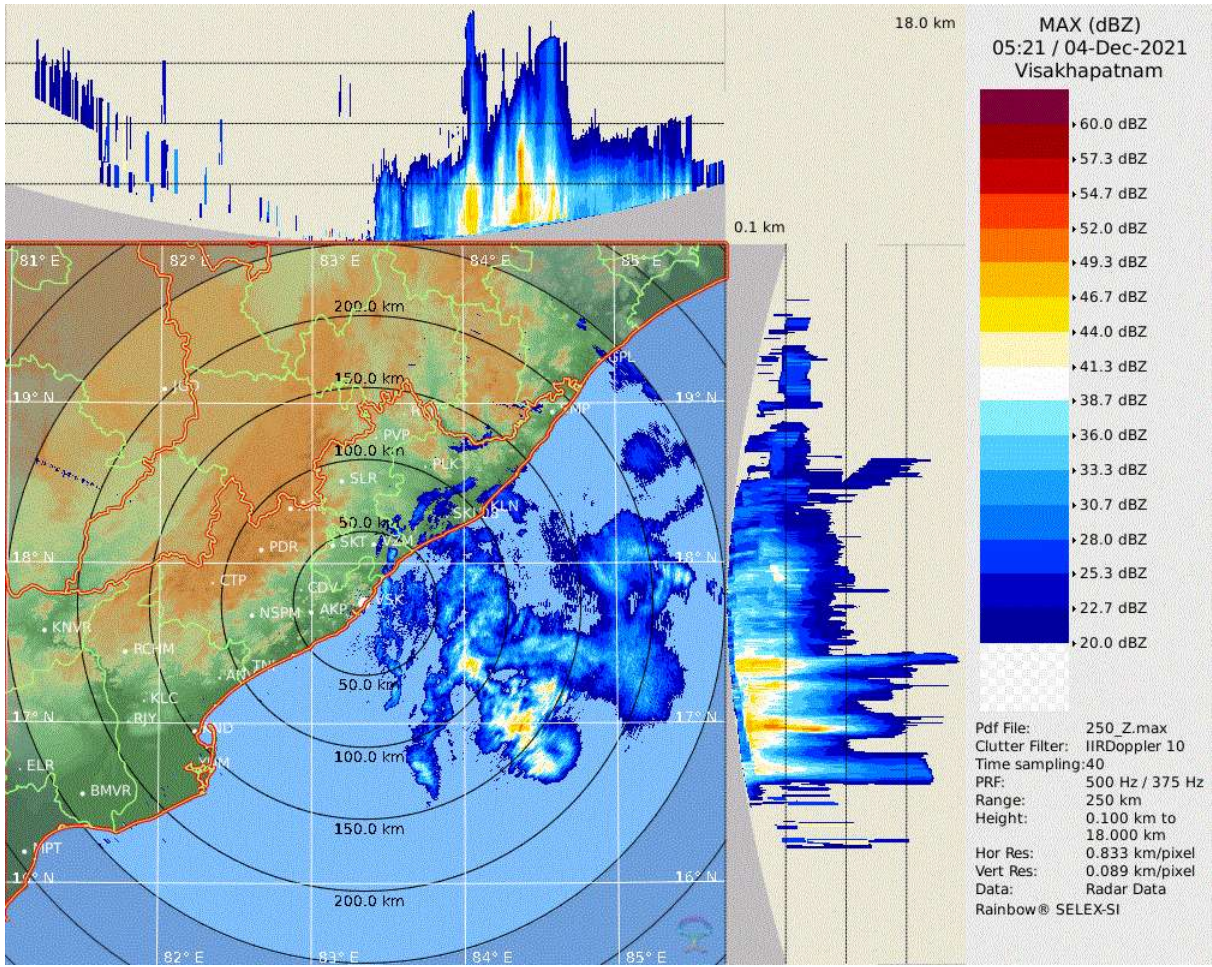
- Total suspension of fishing operations.
- Check for traffic congestion on your route before leaving for your destination.
- Follow any traffic advisories that are issued in this regard.
- Avoid going to areas that face the water logging problems often.
- Avoid staying in vulnerable structure.

Next Bulletin will be issued at 1130 hrs IST of today, the 04<sup>th</sup> December 2021.

**(Sunitha Devi. S)**  
**Scientist-F, RSMC, New Delhi**

Copy to: ACWC Kolkata/ CWC Vishakhapatnam/CWC Bhubaneswar/RMC Guwahati  
**LEGEND: Heavy Rainfall:** 64.5 to 115.5mm, **Very Heavy Rainfall:** 115.6 to 204.4mm **Most Places:** more than 76% of total stations, **Isolated Places:** Less than 25% of total stations

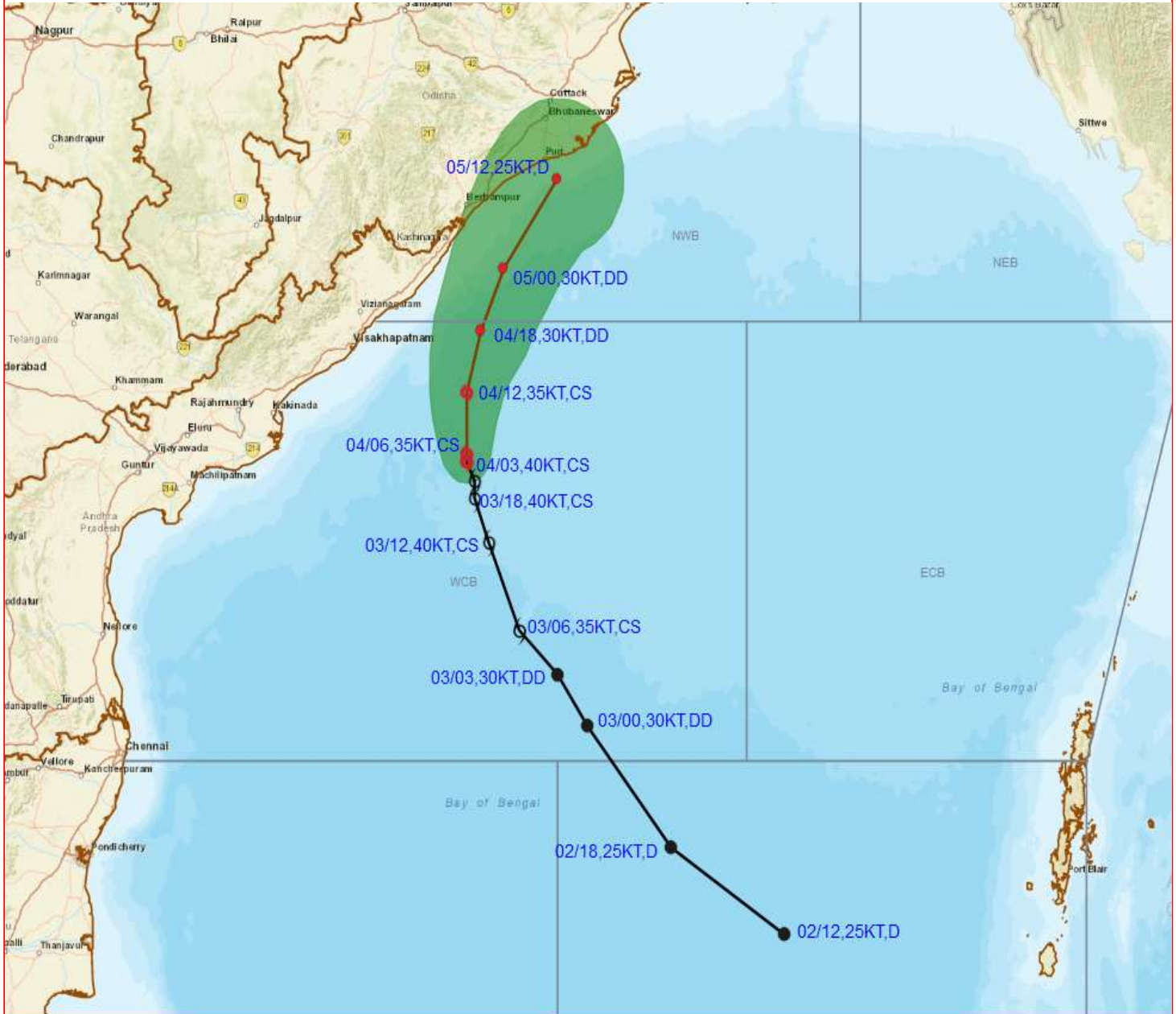




Doppler Weather RADAR imagery Vishakhapatnam



# OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF CYCLONIC STORM 'JAWAD' OVER WESTCENTRAL BAY OF BENGAL BASED ON 0300 UTC OF 4<sup>th</sup> DECEMBER, 2021

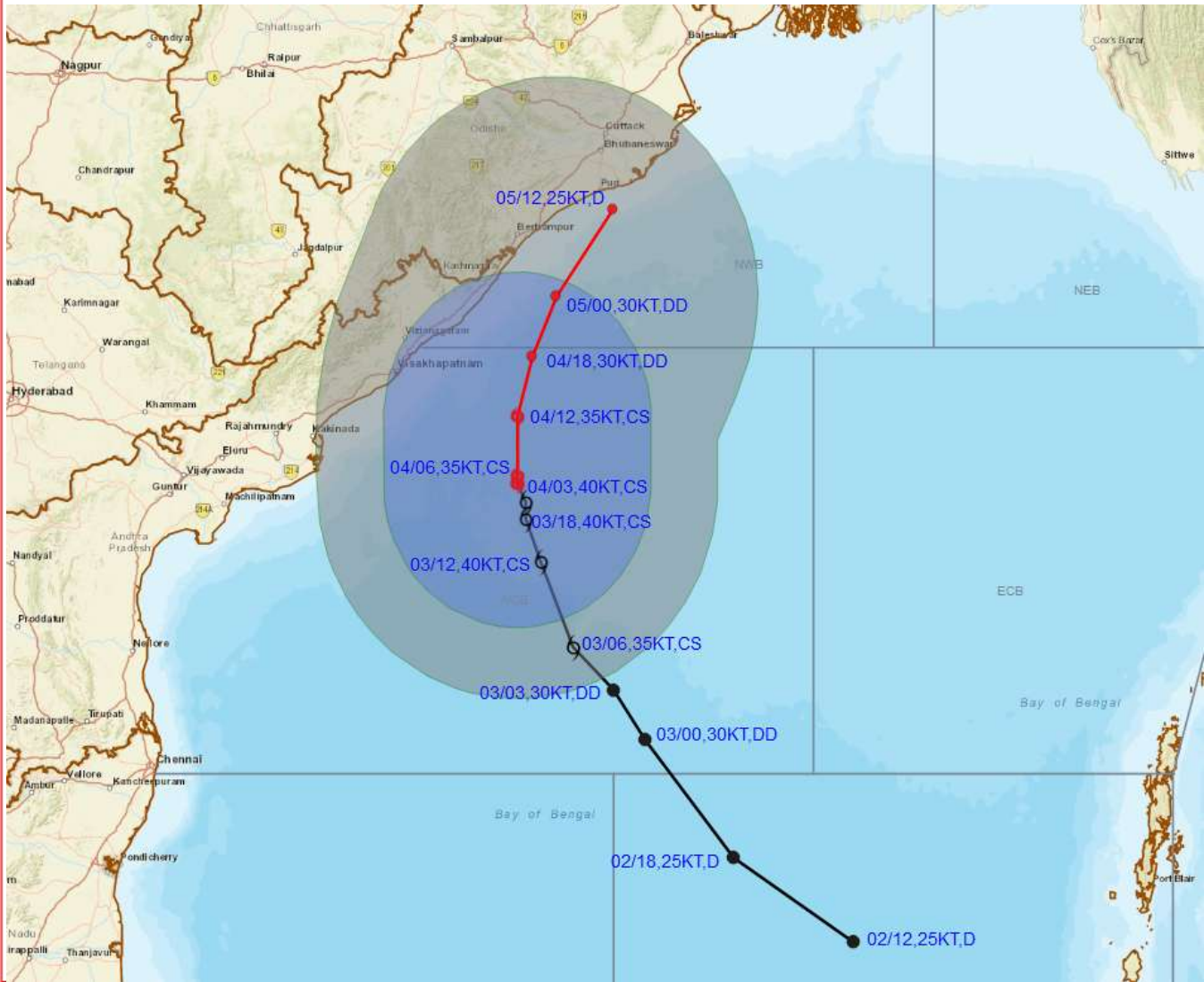


**DATE/TIME IN UTC**  
**IST=UTC + 0530**  
**L: LOW PRESSURE AREA**  
**WML: WELL MARKED LOW PRESSURE AREA**  
**D: DEPRESSION (17-27 KT)**  
**DD: DEEP DEPRESSION (28-33 KT)**  
**CS: CYCLONIC STORM (34.47 KT)**  
**SCS: SEVERE CYCLONIC STORM (48-63KT)**  
**VSCS: VERY SEVERE CYCLONIC STORM (64-89 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



## OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM 'JAWAD' OVER WESTCENTRAL BAY OF BENGAL BASED ON 0300 UTC OF 4<sup>th</sup> DECEMBER, 2021



**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)

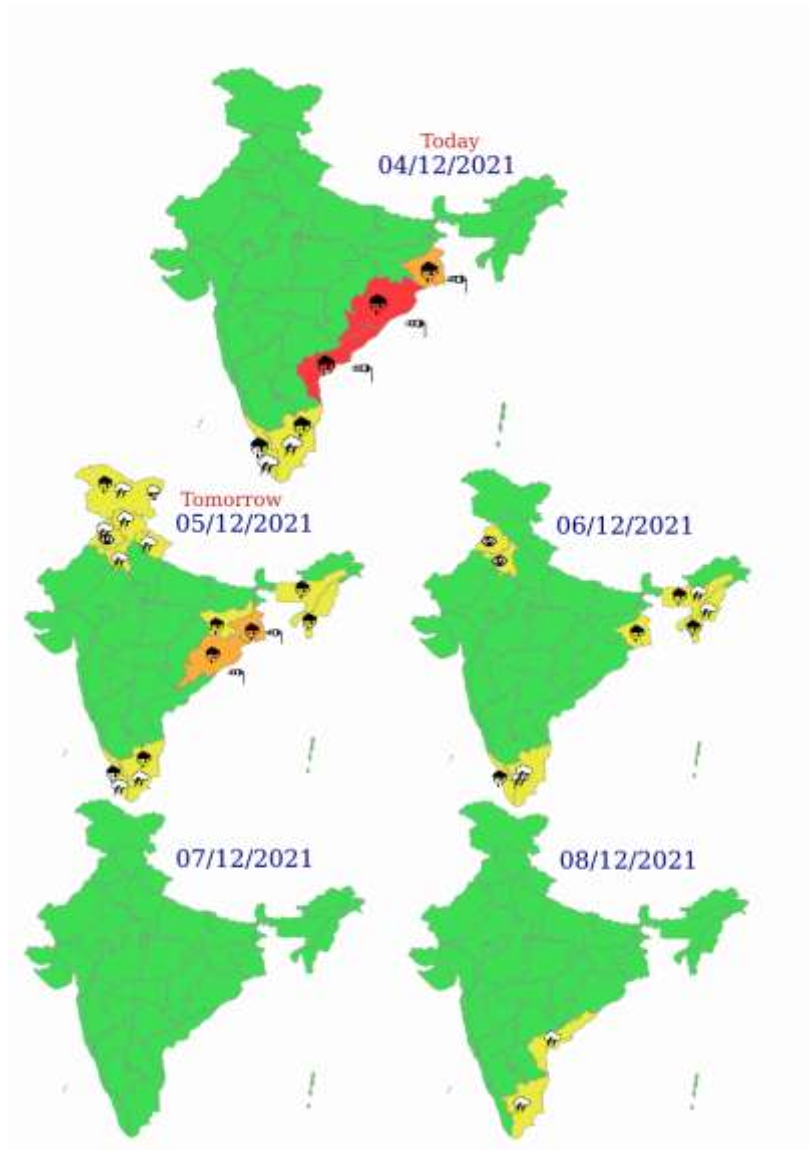
SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

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

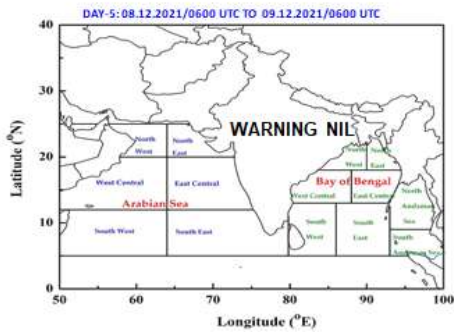
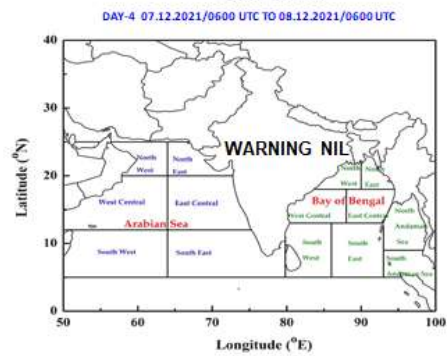
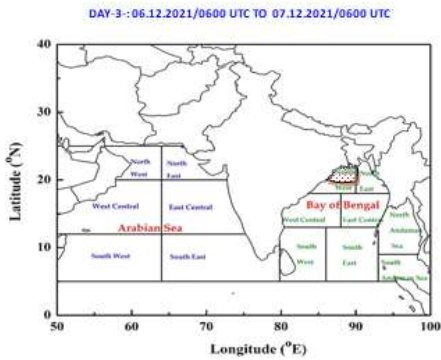
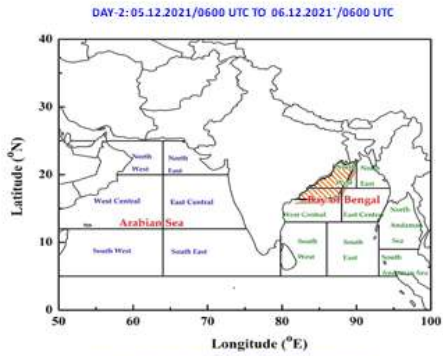
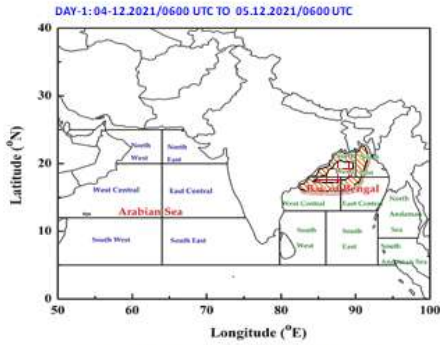
## Sub-division wise heavy rainfall warning for next 5 days





# Fishermen Warning Graphics

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



### AREA UNDER FISHERMEN WARNING

-  40-50 KMPH G TO 60 KMPH (SQ.WEATHER)
-  45-55 KMPH GUSTING TO 65 KMPH
-  50-60 KMPH G TO 70 KMPH
-  60-70 KMPH G TO 80 KMPH
-  70-80 KMPH G TO 90 KMPH
-  80-90 KMPH G TO 95 KMPH
-  90-100 KMPH G TO 110 KMPH