



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

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**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, GOVT. OF ODISHA (FAX NO. 0674 -2536660)  
CHIEF SECRETARY, GOVT. OF WEST BENGAL (FAX NO. 033-22144328)  
CHIEF SECRETARY, ANDAMAN & NICOBAR ISLANDS (FAX NO. 03192- 232656)  
CHIEF SECRETARY, ANDHRA PRADESH (FAX NO. 0863-2441029, 08645-246600)  
CHIEF SECRETARY, TELANGANA (FAX NO. 040-23453700)  
CHIEF SECRETARY, CHATTISGARH (FAX NO 0771-2221206)  
CHIEF SECRETARY, TAMIL NADU (FAX NO 044-25672304)  
CHIEF SECRETARY, PUDUCHERRY (FAX NO 0413-2334145)  
CHIEF SECRETARY, MAHARASHTRA (FAX NO 022-22028594)**

**Sub: Cyclonic Storm 'Gulab' (pronounced as Gul-Aab) over Northwest & adjoining west-central Bay of Bengal: Cyclone warning for north Andhra Pradesh and south Odisha coasts – Orange Message**

The Cyclonic Storm 'Gulab' (pronounced as Gul-Aab) over northwest and adjoining westcentral Bay of Bengal moved nearly westwards with a speed of 07 kmph in last 6 hours, and lay centered at 2330 hrs IST of 25<sup>th</sup> September 2021, over northwest and adjoining westcentral Bay of Bengal near Lat. 18.3°N and Long. 87.9°E, about 330 km east-southeast of Gopalpur (Odisha) & 400 km east of Kalingapatnam (Andhra Pradesh).

It is likely to move nearly westwards and cross north Andhra Pradesh - south Odisha coasts between Kalingapatnam & Gopalpur around evening of 26<sup>th</sup> September, 2021.

Forecast track and intensity are given in the following table:

<b>Date/Time(IST)</b>	<b>Position (Lat. °N/ long. °E)</b>	<b>Maximum sustained surface wind speed (Kmph)</b>	<b>Category of cyclonic disturbance</b>
25.09.21/2330	18.3/87.9	65-75 gusting to 85	Cyclonic Storm
26.09.21/0530	18.4/86.8	70-80 gusting to 90	Cyclonic Storm
26.09.21/1130	18.4/85.9	75-85 gusting to 95	Cyclonic Storm
26.09.21/1730	18.5/84.8	75-85 gusting to 95	Cyclonic Storm
26.09.21/2330	18.6/83.9	60-70 gusting to 80	Cyclonic Storm
27.09.21/1130	18.8/82.2	30-40 gusting to 50	Depression

## **Warnings:**

### **(i) Rainfall**

- 26<sup>th</sup> Sept.: Light to moderate rainfall at most places with heavy to very heavy falls at a few places & extremely heavy falls at isolated places very likely over south Odisha and north coastal Andhra Pradesh; heavy to very heavy falls at isolated places is also likely over Telangana and heavy falls at isolated places over north interior Odisha & Chhattisgarh.
- 27<sup>th</sup> Sept.: Light to moderate rainfall at most places with heavy to very heavy & extremely heavy falls at isolated places very likely over south Chhattisgarh; heavy to very heavy falls at isolated places over Odisha, Telangana & Vidarbha and heavy rainfall at isolated places over coastal West Bengal & North Chattisgarh.

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

- Gale wind speed reaching 65-75 kmph gusting to 85 kmph very likely to prevail over Northwest and adjoining Westcentral Bay of Bengal and increase further becoming wind speed reaching 75-85 kmph gusting to 95 kmph from 26<sup>th</sup> forenoon till late evening.
- Squally wind speed reaching 45-55 kmph gusting to 65 kmph likely to prevail along and off Odisha-North Andhra Pradesh coasts. It will gradually increase becoming gale wind speed reaching 75-85 kmph gusting to 95 kmph from afternoon of 26<sup>th</sup> till midnight along & off north Andhra Pradesh (Srikakulam, Vizianagaram, Visakhapatnam Districts) and south Odisha coasts (Ganjam, Gajapati Districts), 55-65 kmph gusting to 75 kmph along & off Khordha, Puri, Raigada & Koraput districts, 50-60 kmph gusting to 70 kmph over Navrangpur & Malkangiri districts of Odisha. Squally wind speed reaching 40-50 kmph gusting to 60 kmph likely to prevail along & off remaining parts of Odisha & Andhra Pradesh & West Bengal coasts on 26<sup>th</sup> Sept. and over northeast Bay of Bengal on 26<sup>th</sup> Sept.

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

- Sea condition will be rough to very rough over east-central & adjoining northeast Bay of Bengal on 26<sup>th</sup> Sept.
- Sea condition will be 'very rough to high' over Northwest and adjoining Westcentral Bay of Bengal during next 24 hours, rough to very rough along and off Odisha, West Bengal and North Andhra Pradesh coasts during next 12 hours and become High from today morning till late evening.
- Sea condition will be rough to very rough over Northwest Bay of Bengal and along and off Odisha-north Andhra Pradesh coasts on 27<sup>th</sup> Sept.

### **(iv) Storm surge warning**

Tidal wave of about 0.5 m height above the astronomical tide likely to inundate low lying areas of Srikakulam, Sompeta, Vizianagaram, Ganjam districts during the time of landfall.

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

- The fishermen are advised not to venture into east-central & adjoining northeast Bay of Bengal and Andaman Sea on 26<sup>th</sup> Sept.
- The fishermen are advised not to venture into northwest & adjoining westcentral Bay of Bengal and along & off Odisha, West Bengal & North Andhra Pradesh coasts till 27<sup>th</sup> Sept.

**(v) EXPECTED IMPACT & ACTION SUGGESTED due to Strong winds & very Heavy/Extremely heavy Rainfall.**

- Damage to thatched huts.
- 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.
- Sea water inundation in low lying areas after erosion of Kutcha embankments.
- Localized Flooding of roads, inundation and water logging in low lying areas and closure of underpasses mainly in urban areas of the above region.
- Occasional reduction in visibility due to heavy rainfall.
- Disruption of traffic in cities due to water logging in roads. Possibilities of damage to vulnerable structure.
- Localized Landslides/Mudslides
- Damage to standing crops and horticulture including paddy, banana, papaya trees and orchards due to inundation and strong winds.
- It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

**B. Action Suggested**

- Complete suspension of fishing operations, onshore & off-shore activities over the above region till 27<sup>th</sup> Sept. morning.
- Stay indoors and in safe places.
- Avoid staying in vulnerable structure.
- Avoid going to areas that face the water logging problems often.
- Check for traffic congestion on your route before leaving for your destination.
- Follow any traffic advisories that are issued in this regard.
- Follow IMD warnings for updates

**(D R Pattanaik)**  
**Scientist F, RSMC, New Delhi**

Next bulletin will be issued at 0530 hrs IST of today, the 26<sup>th</sup> September, 2021.

*Copy to: ACWC Kolkata/ Chennai/CWC Bhubaneswar/CWC Visakhapatnam/MC Ranchi/MC Hyderabad/MC Raipur*

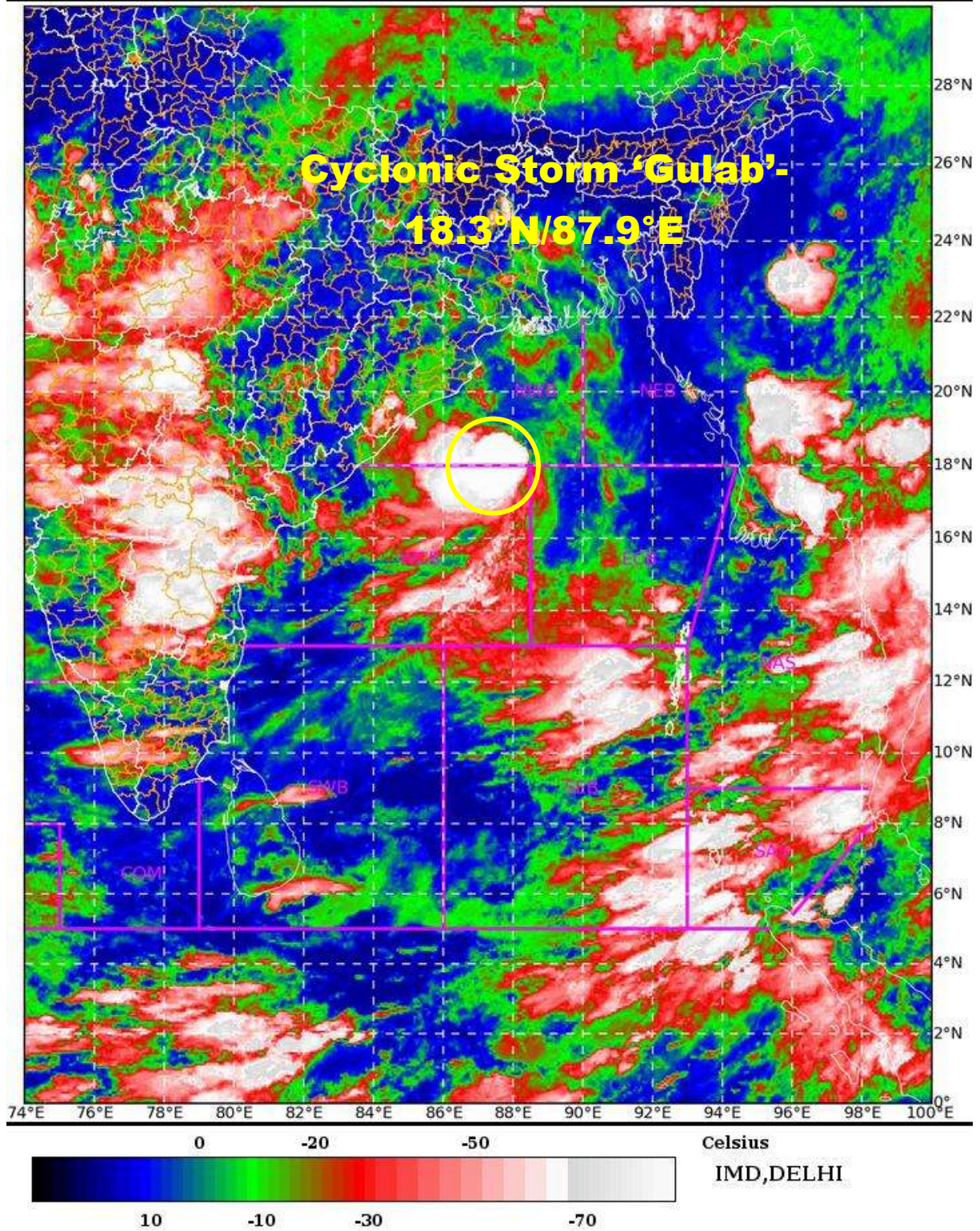
**LEGEND: Heavy Rainfall:** 64.5 to 115.5mm, **Very Heavy Rainfall:** 115.6 to 204.4mm, **Extremely Heavy Rainfall:** 204.5mm or more. **Many Places:** 51% to 75% of the stations, **Most Places:** more than 76% of total stations, **Isolated Places:** Less than 25% of total stations



SAT : INSAT-3D IMG 25-09-2021/(1630 to 1656) GMT

IMG\_TIR1\_TEMP 10.8 um 25-09-2021/(2200 to 2226) IST

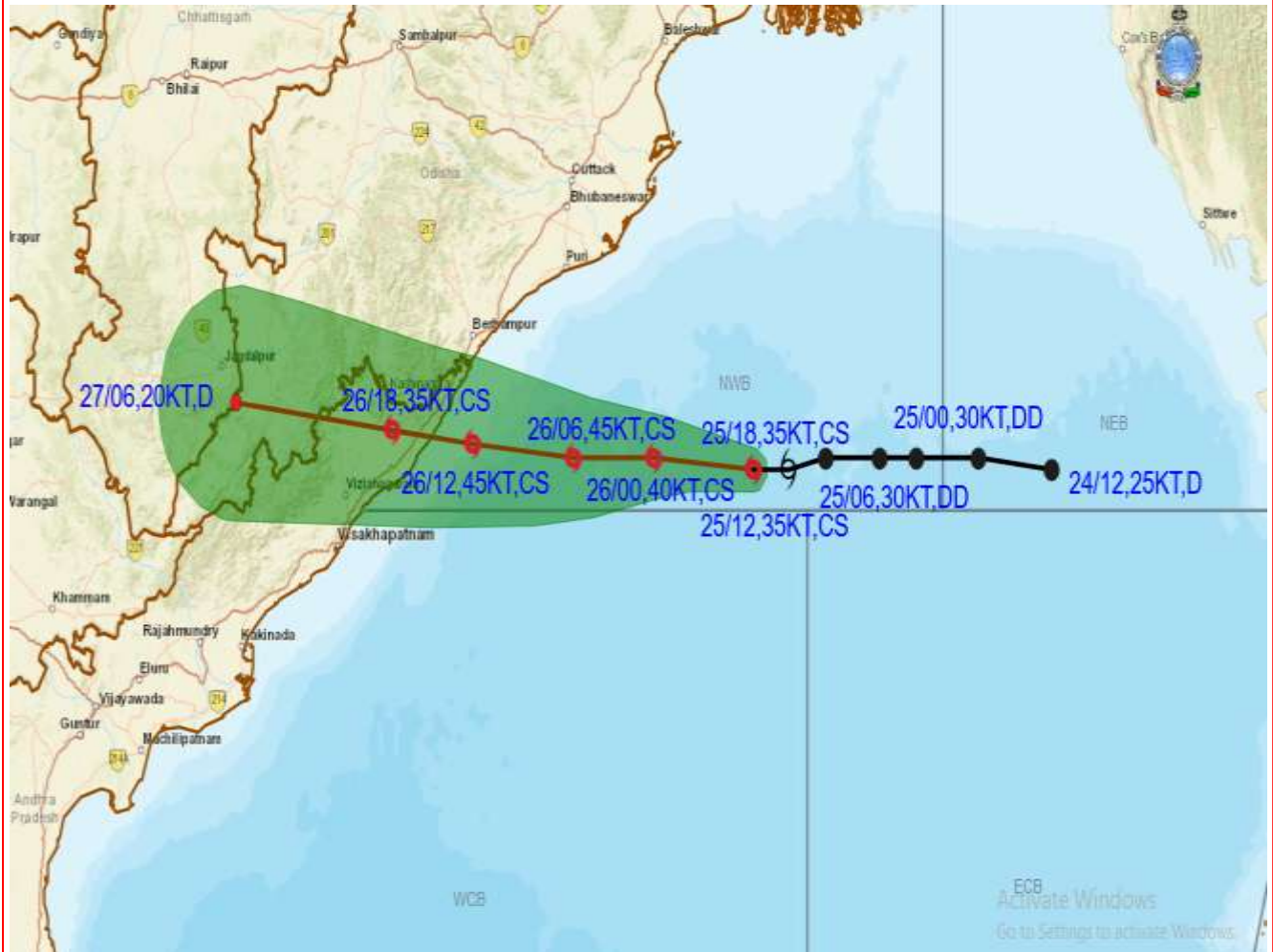
L1C Mercator







# OBSERVED AND FORECAST TRACK OF CYCLONIC STORM GULAB OVER NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL BASED ON 1800 UTC OF 25<sup>TH</sup> SEPTEMBER, 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 ( $\geq 20$  KT)

● LESS THAN 34 KT

⊖ 34-47 KT

⊖  $\geq 48$  KT

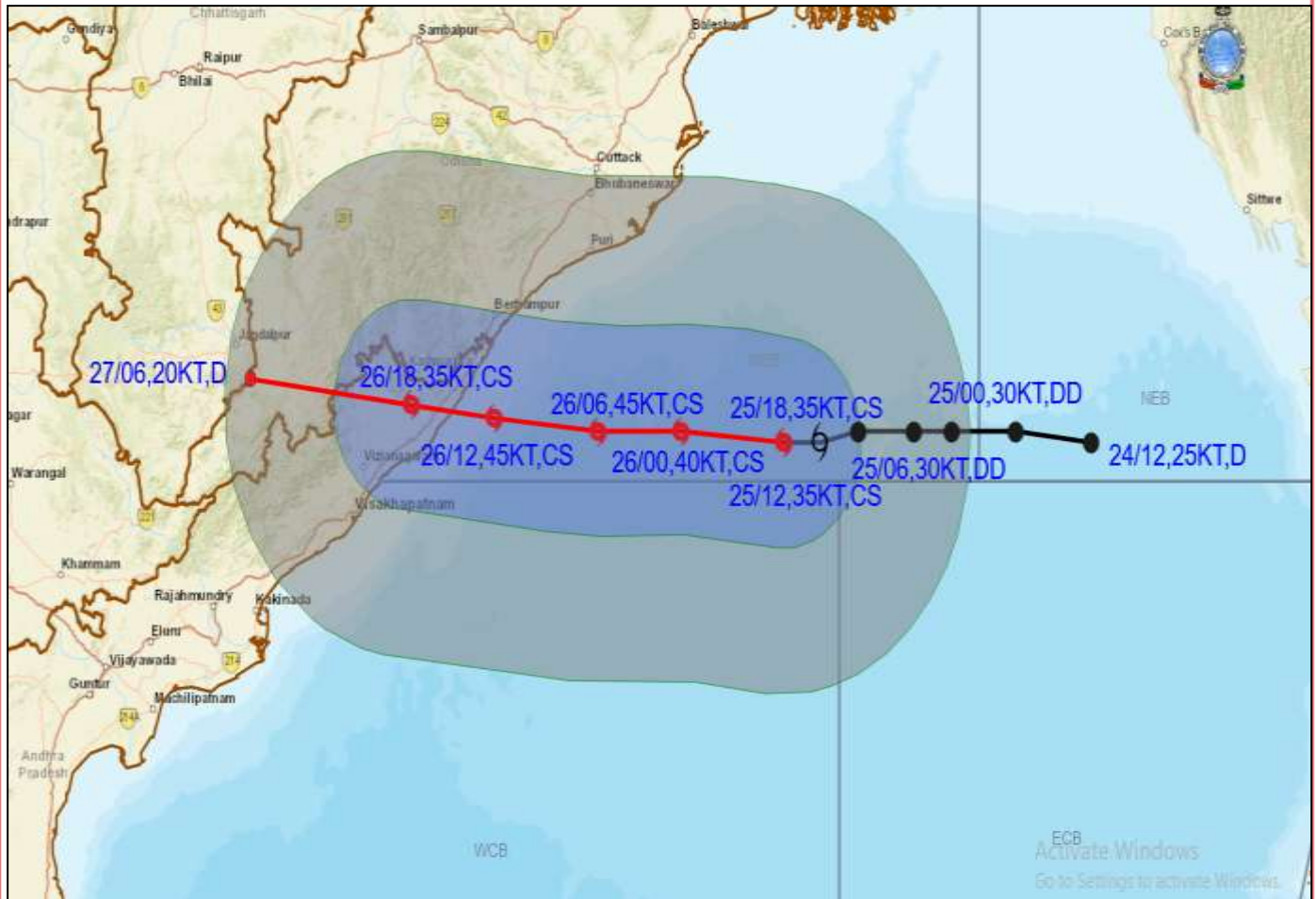
— OBSERVED TRACK

— FORECAST TRACK

▲ CONE OF UNCERTAINTY



## OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM GULAB OVER NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL BASED ON 1800 UTC OF 25TH SEPTEMBER, 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)

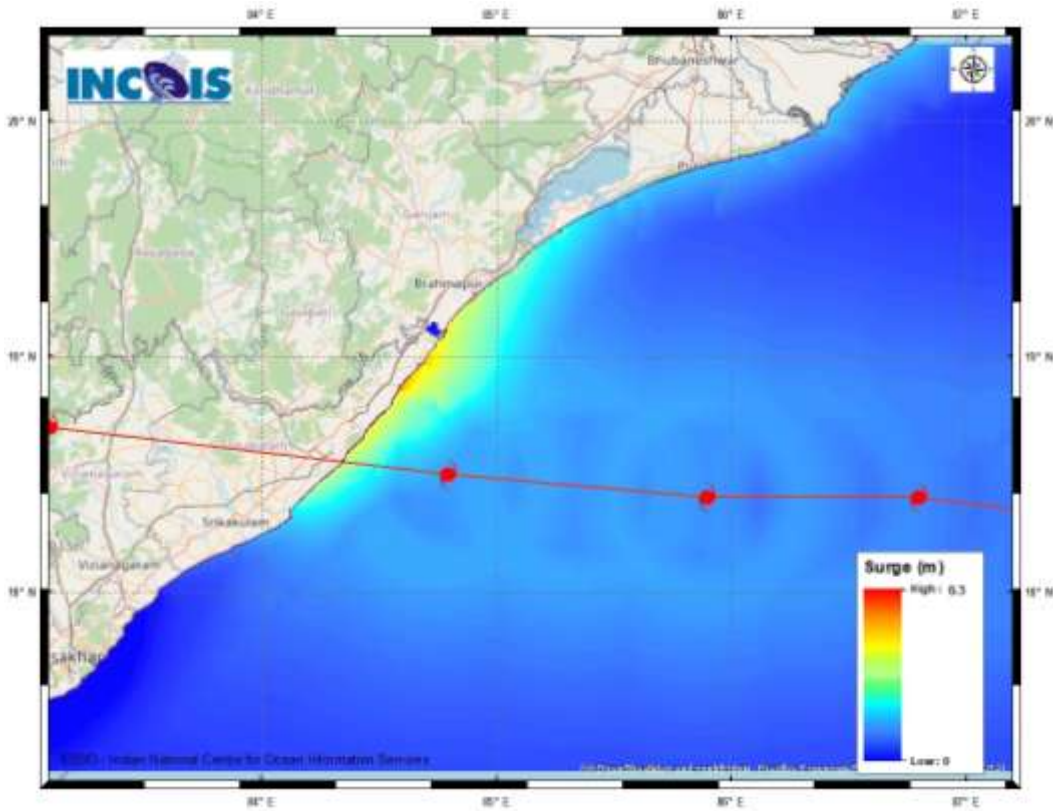
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)

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

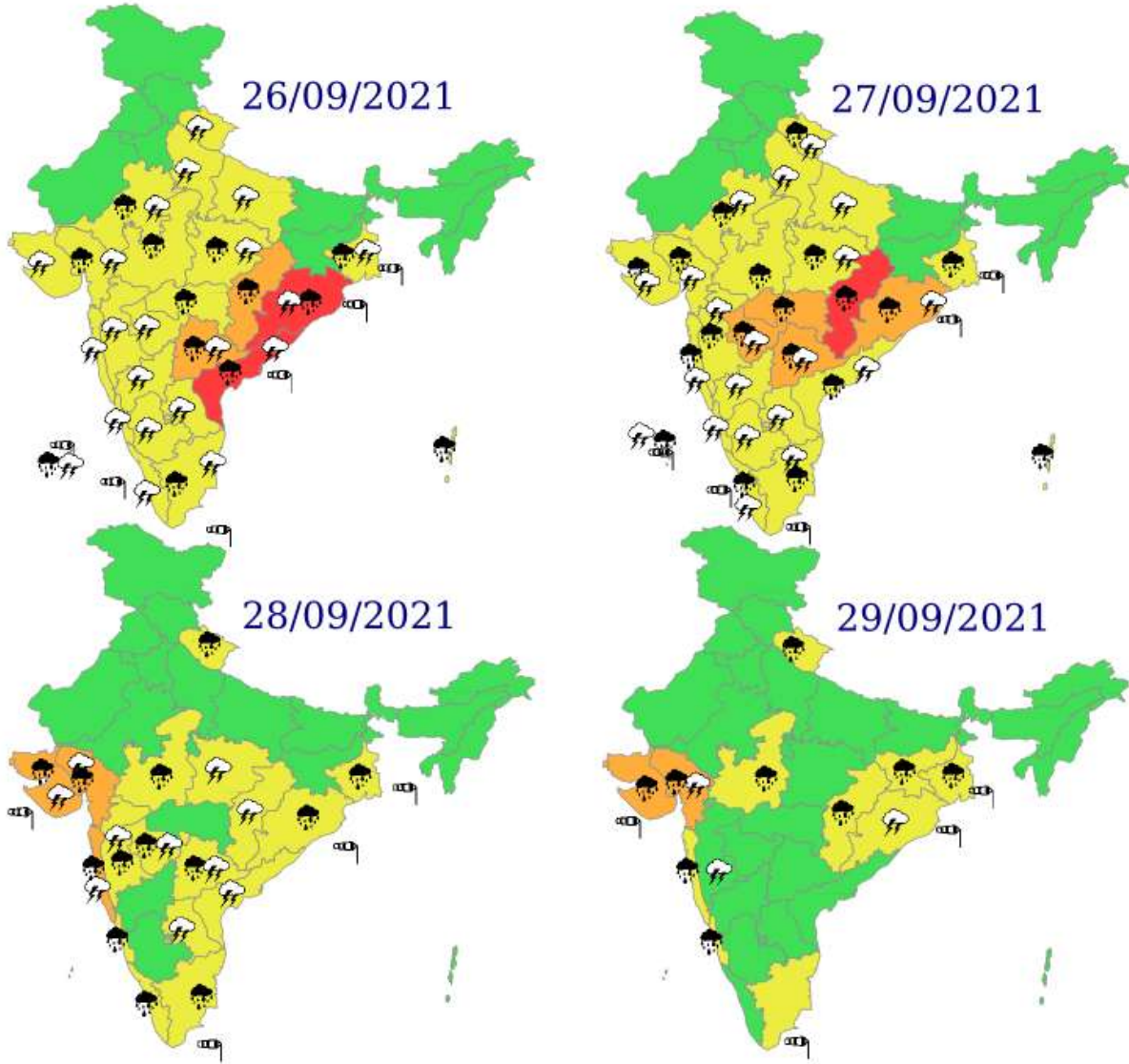


Storm surge graphic from INCOIS for the current system (BoB/04/2021)

Peak storm surge upto 0.5 m over and above the astronomical tide near Tekkali, Sompeta Srikakulam, Andhra Pradesh.



Sub-division wise heavy rainfall warning for next 4 days



-  No Warning
-  Watch
-  Alert
-  Warning