



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

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Sub: Cyclonic Storm 'Gulab' (pronounced as Gul-Aab) crossed north Andhra Pradesh and south Odisha coasts: Post landfall outlook for north Andhra Pradesh and south Odisha coasts – Red Message

The Cyclonic Storm 'Gulab' (pronounced as Gul-Aab) over northwest and adjoining westcentral Bay of Bengal moved nearly westwards with a speed of 27 kmph during last 06 hours, crossed north Andhra Pradesh – south Odisha coasts near latitude 18.4° N and longitude 84.2°E, about 20 km north of Kalingapatnam with a maximum sustained wind speed of 75-85 kmph gusting to 95 kmph during 1930 & 2030 hrs IST and lay centered at 2030 hrs IST of 26th September 2021, over north coastal Andhra Pradesh near Lat. 18.3°N and Long. 83.8°E, about 160 km south-southwest of Gopalpur (Odisha) & 30 km west of Kalingapatnam (Andhra Pradesh).

It is likely to move west-northwestwards and weaken into a Deep Depression during next 12 hours.

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
26.09.21/2030	18.3/83.8	70-80 gusting to 90	Cyclonic Storm
26.09.21/2330	18.3/83.4	60-70 gusting to 80	Cyclonic Storm
27.09.21/0530	18.4/82.5	50-60 gusting to 70	Deep Depression
27.09.21/1130	18.5/81.6	40-50 gusting to 60	Depression
27.09.21/1730	18.6/80.7	30-40 gusting to 50	Well Marked Low

Warnings:

(i) Rainfall

- 26th 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.
- 27th Sept.: Light to moderate rainfall at most places with heavy to very heavy & extremely heavy falls at isolated places very likely over south Chhattisgarh, Telangana & Vidarbha; heavy to very heavy falls at isolated places over Odisha and heavy rainfall at isolated places over coastal West Bengal & North Chattisgarh.

(ii) Wind warning

- Gale wind speed reaching 70-80 kmph gusting to 90 kmph very likely to prevail over Northwest and adjoining Westcentral Bay of Bengal during next 6 hours.
- Gale wind speed reaching 70-80 kmph gusting to 90 kmph from is likely to prevail along & off north Andhra Pradesh (Srikakulam, Vizianagaram, Visakhapatnam Districts), 60-70 kmph gusting to 80 kmph along & off and south Odisha districts of Raigada, Koraput, Gajapati, Navrangpur and Malkangiri, 50-60 kmph gusting to 70 kmph over districts of Ganjam, Khordha and Puri during next 6 hours and decrease thereafter gradually. Squally wind speed reaching 40-50 kmph gusting to 60 kmph likely to prevail along & off remaining parts of Odisha & Andhra Pradesh coasts and also over northeast Bay of Bengal during next 12 hours.

(iii) Sea condition

- Sea condition will be 'high' over Northwest and adjoining Westcentral Bay of Bengal and along and off Odisha, West Bengal and North Andhra Pradesh till late night / early morning of tomorrow, the 27th Sept. and improve gradually thereafter.
- Sea condition will be rough to very rough over east-central & adjoining northeast Bay of Bengal during next 12 hours.

(iv) Storm surge warning

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

(v) Fishermen Warning

- 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 tomorrow, the 27th Sept.
- The fishermen are advised not to venture into east-central & adjoining northeast Bay of Bengal and Andaman Sea during next 12 hours.

(vi) Post Landfall outlook for south Odisha, north Andhra Pradesh, south Chhattisgarh and adjoining Telangana

After the landfall, the system is likely to maintain the cyclonic storm intensity with slight weakening of wind speed during the subsequent 06 hours over south Odisha & adjoining north coastal Andhra Pradesh. It is likely to move west-northwestwards across south Odisha & south Chhattisgarh and weaken gradually into a Depression during the subsequent 12 hours.

Gale wind speed reaching 70-80 kmph gusting to 90 kmph from is likely to prevail along & off north Andhra Pradesh (Srikakulam, Vizianagaram, Visakhapatnam Districts), 60-70 kmph gusting to 80 kmph along & off and south Odisha districts of Raigada, Koraput, Gajapati, Navrangpur and Malkangiri, 50-60 kmph gusting to 70 kmph over districts of Ganjam, Khordha and Puri during next 6 hours and decrease thereafter gradually. Squally wind speed reaching 40-50 kmph gusting to 60 kmph likely to prevail over south interior Odisha, south Chhattisgarh & adjoining north Telangana on 27th Sept.

(vii) 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)

Action Suggested

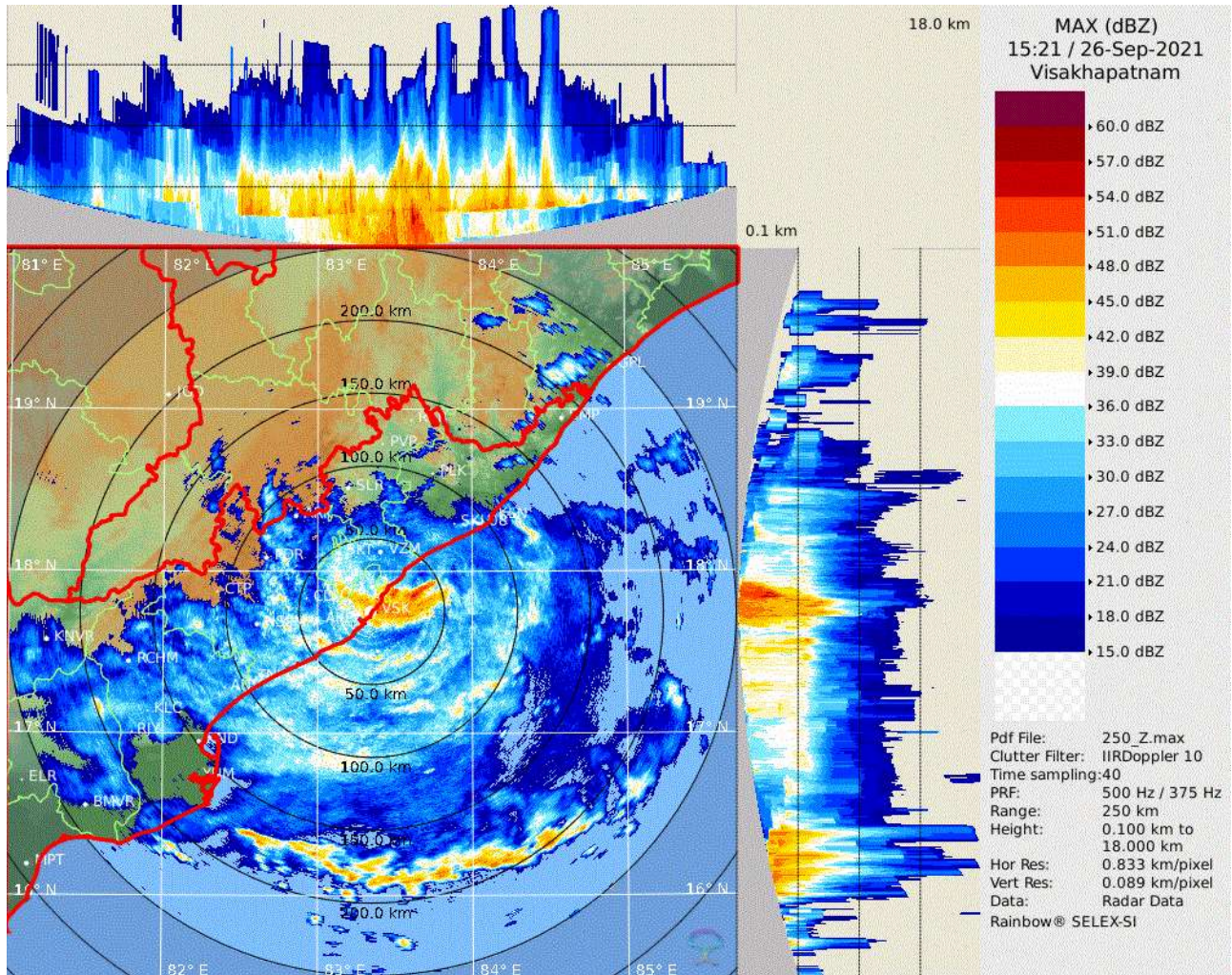
- Complete suspension of fishing operations, onshore & off-shore activities over the above region till 27th Sept. morning.
- Stay indoors and in safe places.
- Avoid staying in vulnerable structure.
- Avoid going to areas that face the water logging problems often.
- Check for traffic congestion on your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

(Ananda Kumar Das)
Scientist E, RSMC, New Delhi

Next bulletin will be issued at 0230 hrs IST of 27th 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

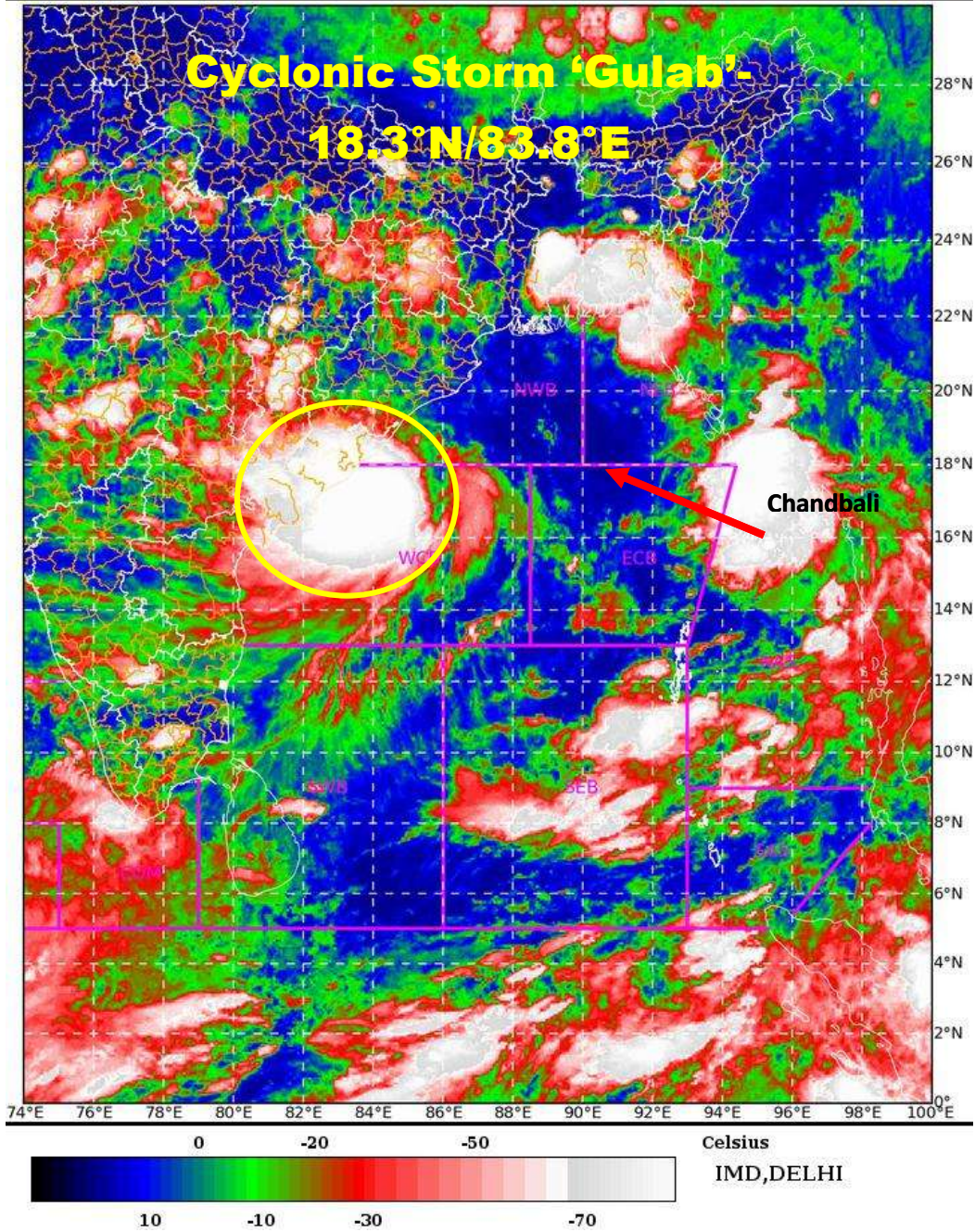


Reflectivity imagery from Doppler weather RADAR Vishakhapatnam based on 2051 IST of 26th September 2021.

SAT : INSAT-3D IMG 26-09-2021/(1500 to 1526) GMT

IMG_TIR1_TEMP 10.8 um 26-09-2021/(2030 to 2056) IST

L1C Mercator





OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM GULAB OVER NORTH COASTAL ANDHRA PRADESH BASED ON 1500 UTC OF 26TH 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



OBSERVED AND FORECAST TRACK OF CYCLONIC STORM GULAB OVER NORTH COASTAL ANDHRA PRADESH BASED ON 1500 UTC OF 26TH 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 120 KT)

● LESS THAN 34 KT

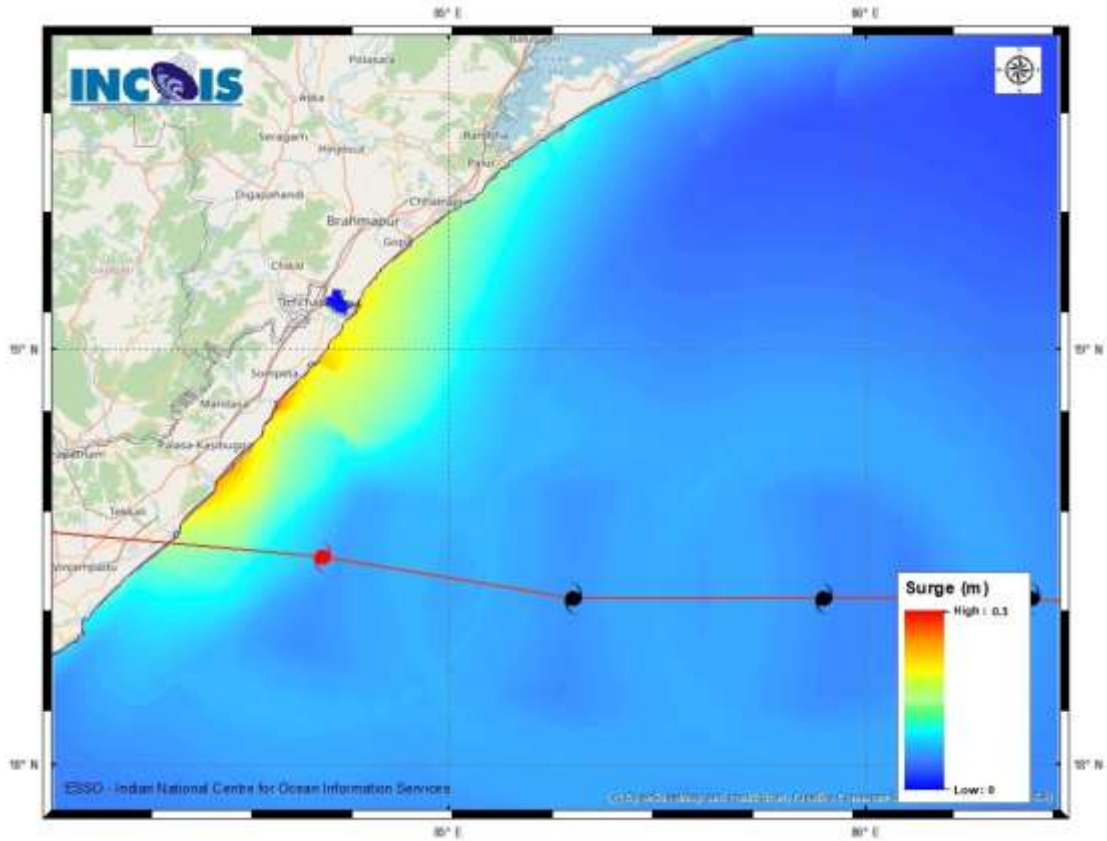
⊙ 34-47 KT

⊙ \geq 48 KT

— OBSERVED TRACK

— FORECAST TRACK

▲ CONE OF UNCERTAINTY



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

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

Sub-division wise heavy rainfall warning for next 5 days

