



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

**BULLETIN NUMBER: 16 (BOB/04/2021)**

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

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CHIEF SECRETARY, PUDUCHERRY (FAX NO 0413-2334145)  
CHIEF SECRETARY, MAHARASHTRA (FAX NO 022-22028594)**

**Sub: Cyclonic Storm 'Gulab' (pronounced as Gul-Aab) over north Andhra Pradesh and adjoining south Odisha**

The Cyclonic Storm 'Gulab' (pronounced as Gul-Aab) over north coastal Andhra Pradesh moved westwards with a speed of 21 kmph during last 06 hours and lay centered at 2330 hrs IST of 26<sup>th</sup> September 2021 over north Andhra Pradesh and adjoining south Odisha near Lat. 18.4°N and Long. 83.4°E, about 190 km west-southwest of Gopalpur (Odisha) & 70 km west of Kalingapatnam (Andhra Pradesh).

It is likely to move west-northwestwards and weaken into a Deep Depression during next 06 hours and further into a Depression during subsequent 06 hours.

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>
26.09.21/2330	18.4/83.4	60-70 gusting to 80	Cyclonic Storm
27.09.21/0530	18.5/82.4	50-60 gusting to 70	Deep Depression
27.09.21/1130	18.6/81.6	40-50 gusting to 60	Depression
27.09.21/1730	18.7/80.8	30-40 gusting to 50	Well Marked Low

## **Warnings:**

### **(i) Rainfall**

- 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 north Coastal Andhra Pradesh, 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 60-70 kmph gusting to 80 kmph, very likely to prevail over Northwest and adjoining Westcentral Bay of Bengal during next 06 hours.
- Gale wind, speed reaching 60-70 kmph gusting to 80 kmph, is likely to prevail along & off north Andhra Pradesh (Srikakulam, Vizianagaram, Visakhapatnam Districts), 50-60 kmph gusting to 70 kmph along & off and south Odisha districts of Raigada, Koraput, Gajapati, Navrangpur and Malkangiri during next 06 hours and decrease thereafter becoming 40-50 kmph gusting to 60 kmph over these areas.
- Squally wind speed reaching 40-50 kmph gusting to 60 kmph likely to prevail along & off remaining parts of south Odisha & north Andhra Pradesh 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 early morning of today, the 27<sup>th</sup> Sep and improve gradually thereafter.
- Sea condition will be rough to very rough over eastcentral & adjoining northeast Bay of Bengal during next 12 hours.

### **(iv) 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 during next 24 hours.
- The fishermen are advised not to venture into eastcentral & adjoining northeast Bay of Bengal and Andaman Sea during next 12 hours.

### **(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 27<sup>th</sup> Sept. morning.

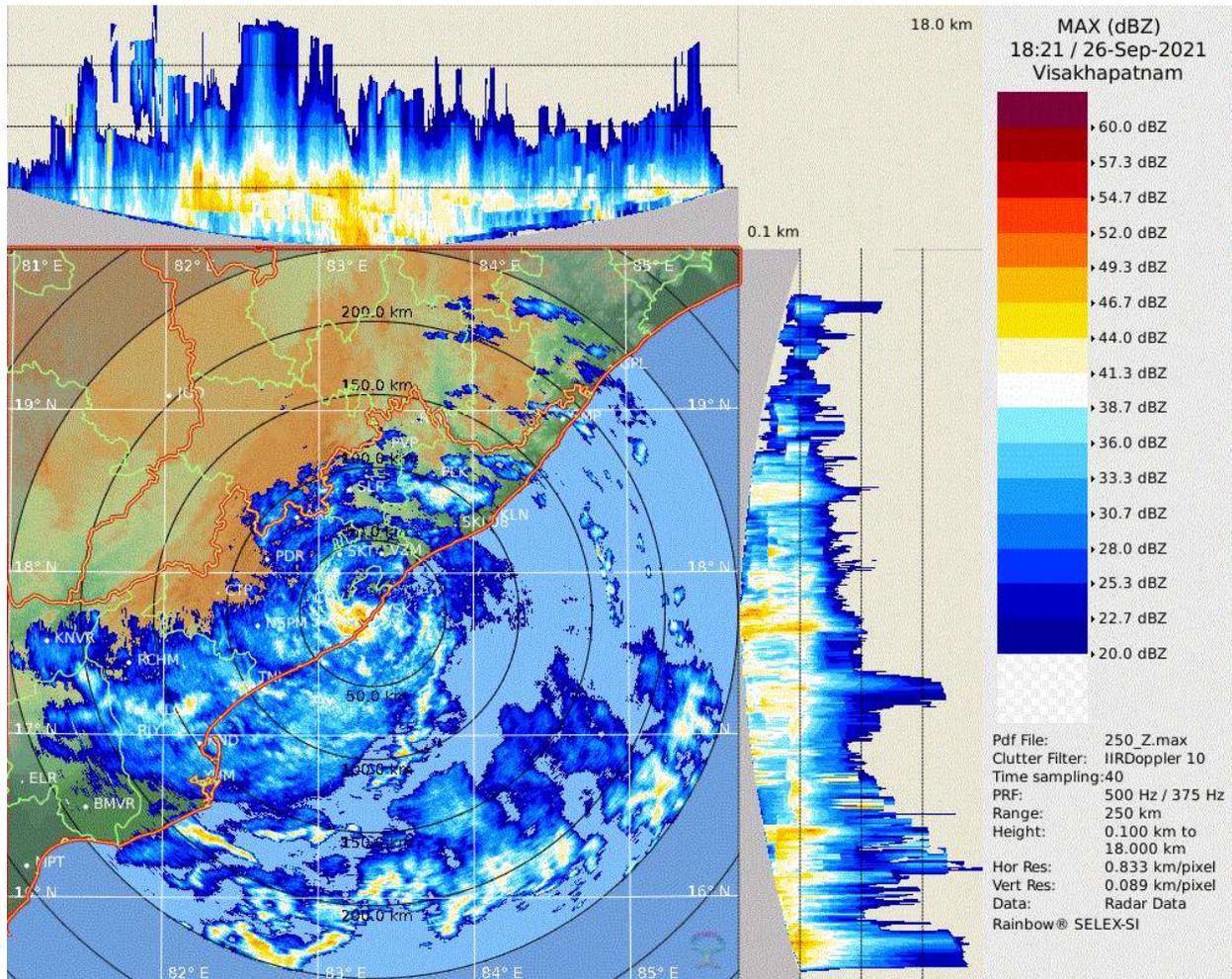
- Stay indoors and in safe places.
- Avoid staying in vulnerable structure.
- Avoid going to areas that face the water logging problems often.
- Check for traffic congestion on your route before leaving for your destination.
- Follow any traffic advisories that are issued in this regard.
- Follow IMD warnings for updates

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

**Next bulletin will be issued at 0530 hrs IST of 27<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



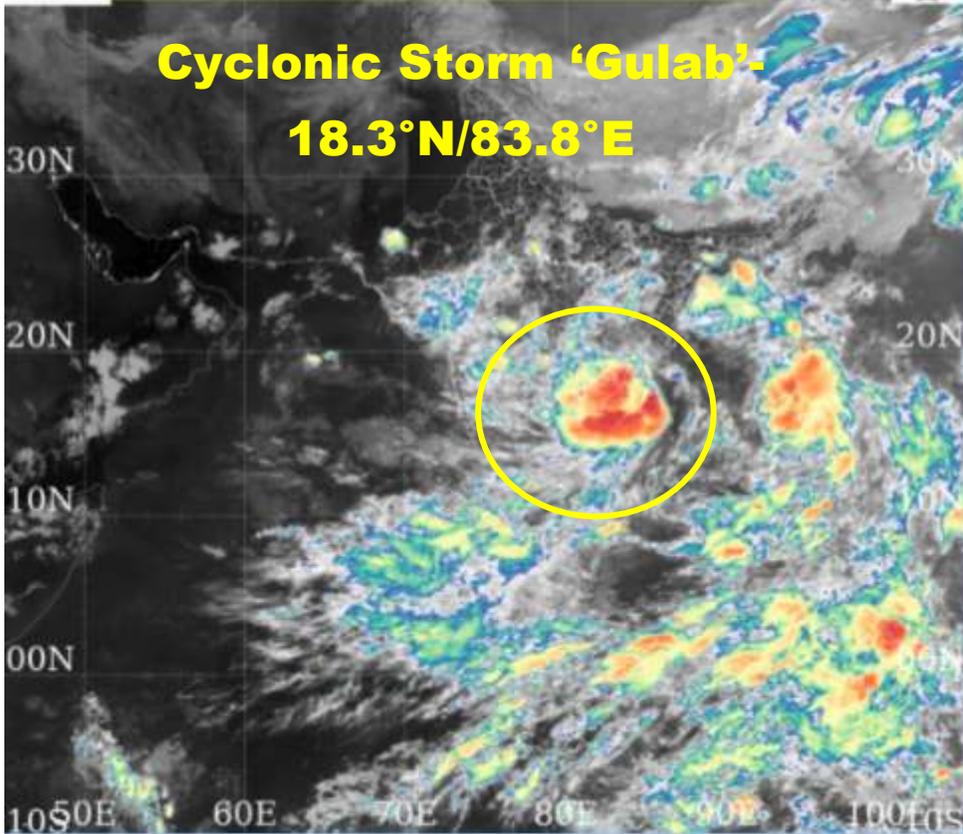
Reflectivity imagery from Doppler weather RADAR Vishakhapatnam based on 2350 hrs IST of 26<sup>th</sup> September 2021.



60E 70E 80E 90E  
MSG-1: SEVIRI [colorized\_ir\_clouds]  
20210926 1815UTC



**Cyclonic Storm 'Gulab'-  
18.3°N/83.8°E**





## OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM GULAB OVER NORTH ANDHRA PRADESH AND ADJOINING SOUTH ODISHA BASED ON 1800 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 ANDHRA PRADESH AND ADJOINING SOUTH ODISHA BASED ON 1800 UTC OF 26<sup>TH</sup> SEPTEMBER, 2021



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**ECS: 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**

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

