



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

HOURLY UPDATE ON CYCLONIC STORM 'GULAB'

**BULLETIN NO. 07**

DATE: 26-09-2021

TIME OF ISSUE: 1800 HRS IST

<b>DATE/TIME (IST) OF OBSERVATION</b>	<b>BASED ON 26-09-2021 (1730 HRS IST)</b>
LOCATION LATITUDE/LONGITUDE	<p>THE <b>CYCLONIC STORM 'GULAB' (PRONOUNCED AS 'Gul-Aab')</b> LAY CENTRED AT <b>1730 HRS IST</b> OF THE 26<sup>TH</sup> SEP, 2021 OVER NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL NEAR LATITUDE 18.4°N AND LONGITUDE 84.6°E, ABOUT 50 KM EAST-NORTHEAST OF KALINGAPATTNUM, 105 KM SOUTH-SOUTHEAST OF GOPLAPUR. THE SYSTEM IS LYING CLOSE TO COAST AND THE CENTRE IS ABOUT 30 KM TO THE EAST OF THE EXPECTED LANDFALL POINT.</p> <p><b>AS PER THE LATEST METEOROLOGICAL OBSERVATIONS, THE CLOUD BANDS HAVE TOUCHED THE COASTAL REGIONS AND THUS THE LANDFALL PROCESS HAS COMMENCED OVER NORTH COASTAL ANDHRA PRADESH AND ADJOINING SOUTH COASTAL ODISHA.</b></p> <p>THE CYCLONE IS BEING MONITORED BY DOPPLER WEATHER RADAR AT VISHAKHAPATNAM AS WELL AS BY THE COASTAL METEOROLOGICAL OBSERVATORIES. LIGHT TO MODERATE RAINFALL IN ASSOCIATION WITH THE INNER BANDS OF THE SYSTEM HAS COMMENCED OVER SOUTH COASTAL ODISHA AND COASTAL ANDHRA PRADESH.</p> <p>ALSO A GRADUAL &amp; STEADY INCREASE IN WIND SPEED IS BEING RECORDED BY THE COASTAL STATIONS OF SOUTH ODISHA, SINCE 1230 HRS IST. AT 1730 HRS IST, PURI REPORTED A MAXIMUM WIND SPEED OF 31 KMPH, FOLLOWED BY GOPALPUR, 26 KMPH.</p>
CURRENT INTENSITY NEAR CENTRE	75-85 KMPH GUSTING TO 95 KMPH
PAST MOVEMENT	MOVED NEARLY WESTWARDS WITH A SPEED OF 24 KMPH DURING PAST 06 HOURS.
FORECAST MOVEMENT AND INTENSITY	THE SYSTEM IS LIKELY TO CROSS NORTH ANDHRA PRADESH - SOUTH ODISHA COASTS BETWEEN KALINGAPATNAM & GOPALPUR, ABOUT 25 KM TO THE NORTH OF KALINGAPATNAM AS A CYCLONIC STORM WITH MAXIMUM SUSTAINED WIND SPEED OF 75-85 KMPH GUSTING TO 95

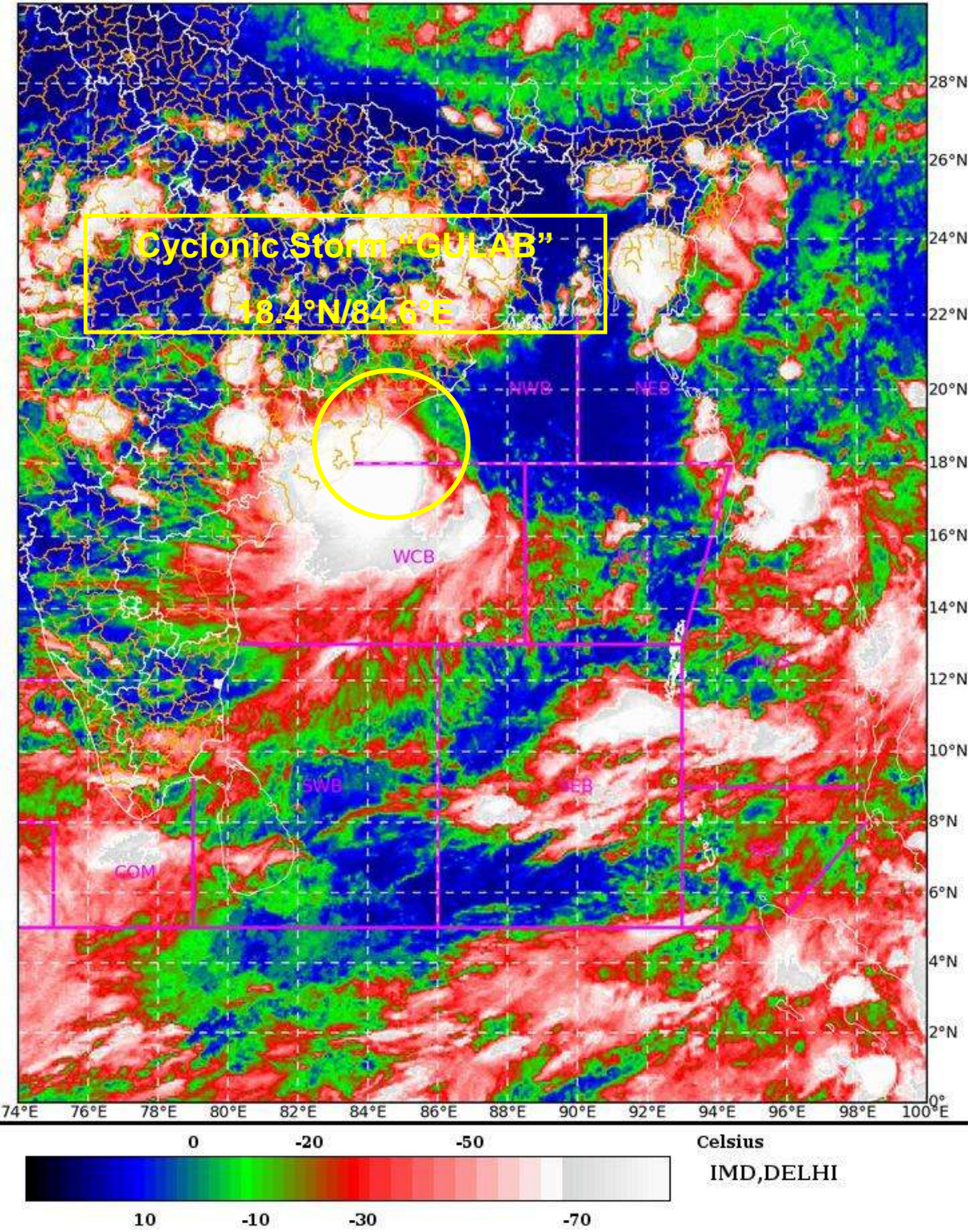
	KMPH DURING NEXT 3 HOURS.
FORECAST RAINFALL	<ul style="list-style-type: none"> <li>• <b>26<sup>TH</sup> SEP:</b> LIGHT TO MODERATE RAINFALL AT MOST PLACES WITH <b>HEAVY TO VERY HEAVY FALLS</b> AT A FEW PLACES &amp; <b>EXTREMELY HEAVY RAINFALL (<math>\geq 20</math> CM)</b> AT ISOLATED PLACES VERY LIKELY OVER <b>SOUTH ODISHA AND NORTH COASTAL ANDHRA PRADESH</b>; <b>HEAVY TO VERY HEAVY FALLS</b> AT ISOLATED PLACES IS ALSO LIKELY OVER <b>TELANGANA</b> AND <b>HEAVY FALLS</b> AT ISOLATED PLACES OVER <b>NORTH INTERIOR ODISHA &amp; CHHATTISGARH</b>.</li> <li>• <b>27<sup>TH</sup> SEP:</b> LIGHT TO MODERATE RAINFALL AT MOST PLACES WITH <b>HEAVY TO VERY HEAVY &amp; EXTREMELY HEAVY RAINFALL (<math>\geq 20</math> CM)</b> AT ISOLATED PLACES VERY LIKELY OVER <b>SOUTH CHHATTISGARH</b>; <b>HEAVY TO VERY HEAVY FALLS</b> AT ISOLATED PLACES OVER <b>ODISHA, TELANGANA &amp; VIDARBHA</b> AND <b>HEAVY RAINFALL</b> AT ISOLATED PLACES OVER <b>COASTAL WEST BENGAL &amp; NORTH CHATTISGARH</b>.</li> </ul>
FORECAST WIND SPEED (KMPH) AT THE TIME OF LANDFALL	75-85 KMPH GUSTING TO 95 KMPH
FORECAST STORM SURGE	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.
OBSERVED RAINFALL (MM) (FROM 0830 HRS IST OF TODAY) AND WIND (KMPH) DATA	<b>WIND:</b> PURI-31, GOPLAPUR-26, KALINGAPATNAM-15, <b>RAINFALL:</b> PURI-9, GOPALPUR-12, KALINGAPATNAM-58



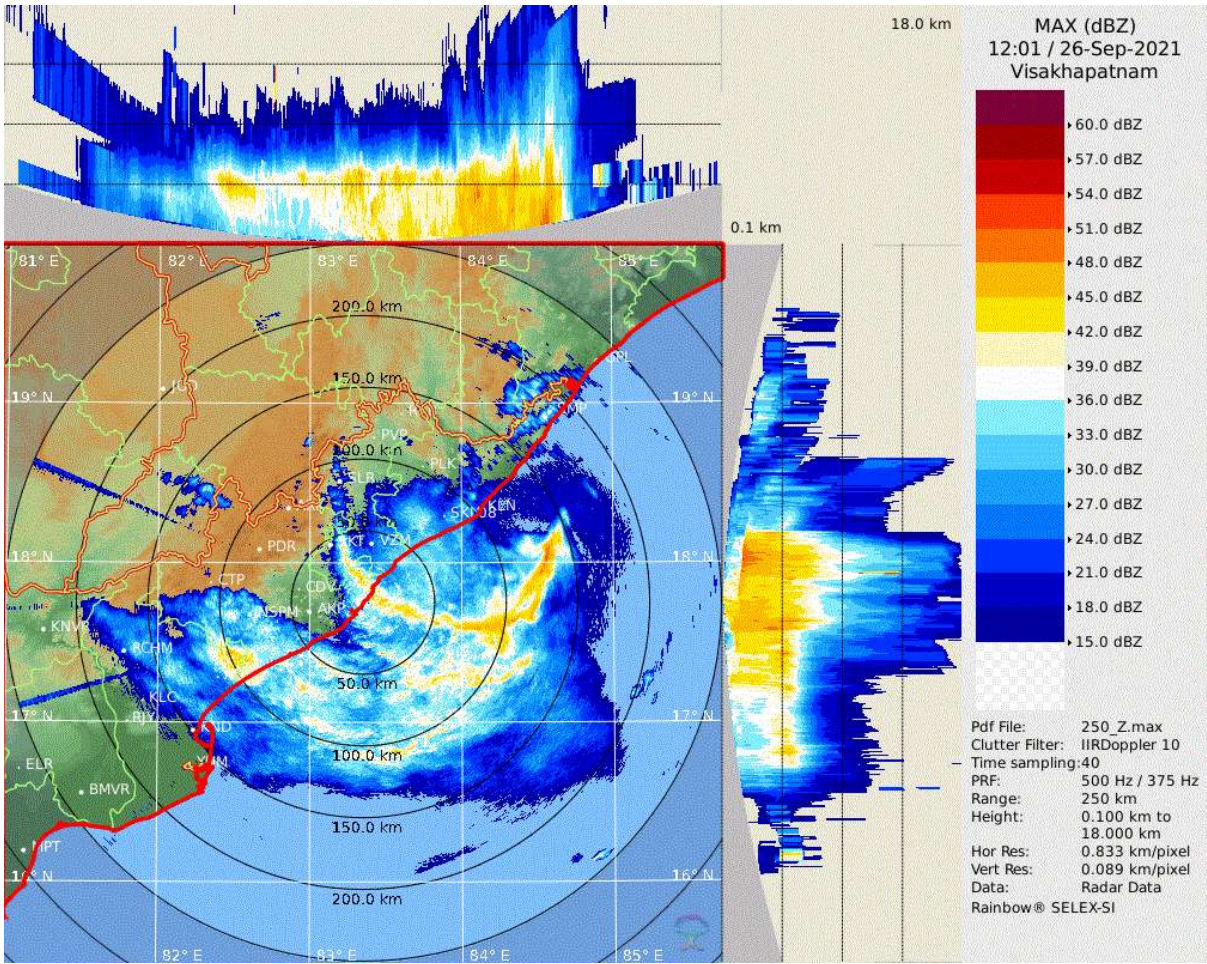
SAT : INSAT-3D IMG 26-09-2021/(1130 to 1156) GMT

IMG\_TIR1\_TEMP 10.8 um 26-09-2021/(1700 to 1726) IST

L1C Mercator





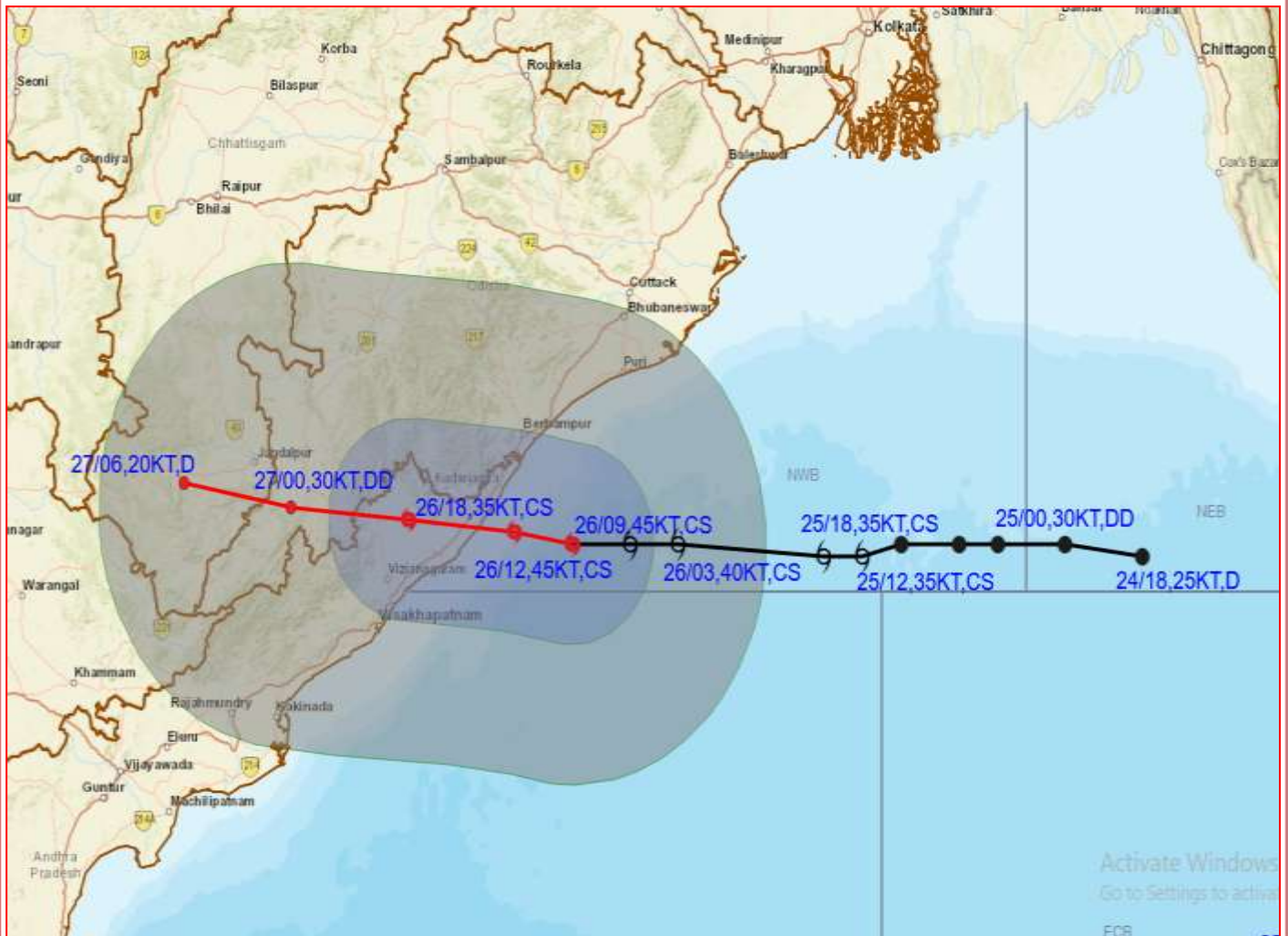


Reflectivity imagery from Doppler weather RADAR Vishakhapatnam based on 1730 hrs IST of 26<sup>th</sup> September 2021.





## OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM GULAB OVER NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL BASED ON 0900 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)

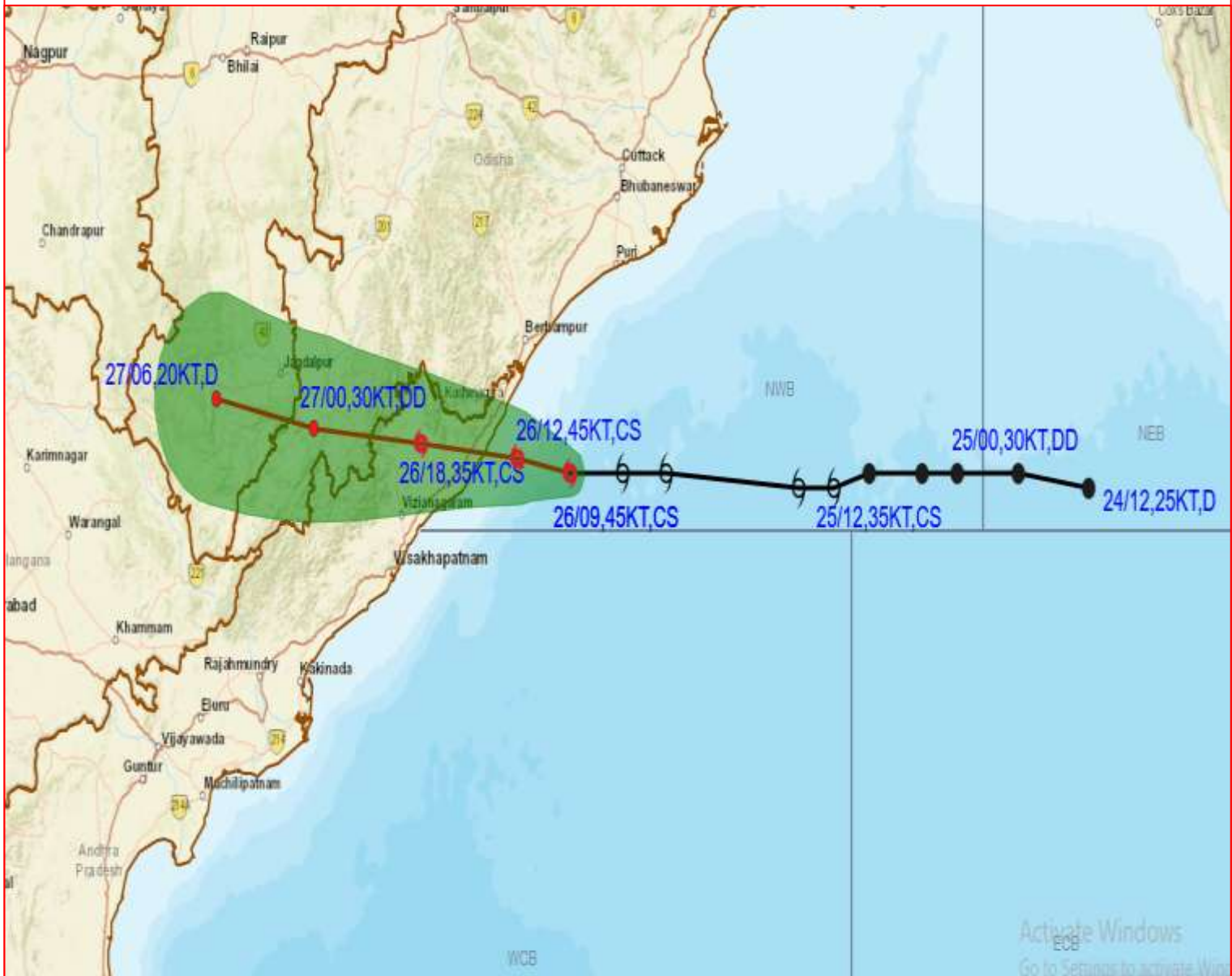
- LESS THAN 34 KT
- ⊖ 34-47 KT
- ⊖ ≥ 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- ▲ CONE OF UNCERTAINTY
- AREA OF MAXIMUM SUSTAINED WIND SPEED:**
- 28-33 KT (52-61 KMPH)
- 34-49 KT (62-91 KMPH)
- 50-63 KT (92-117 KMPH)
- ≥ 64 KT (≥118 KMPH)

### 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

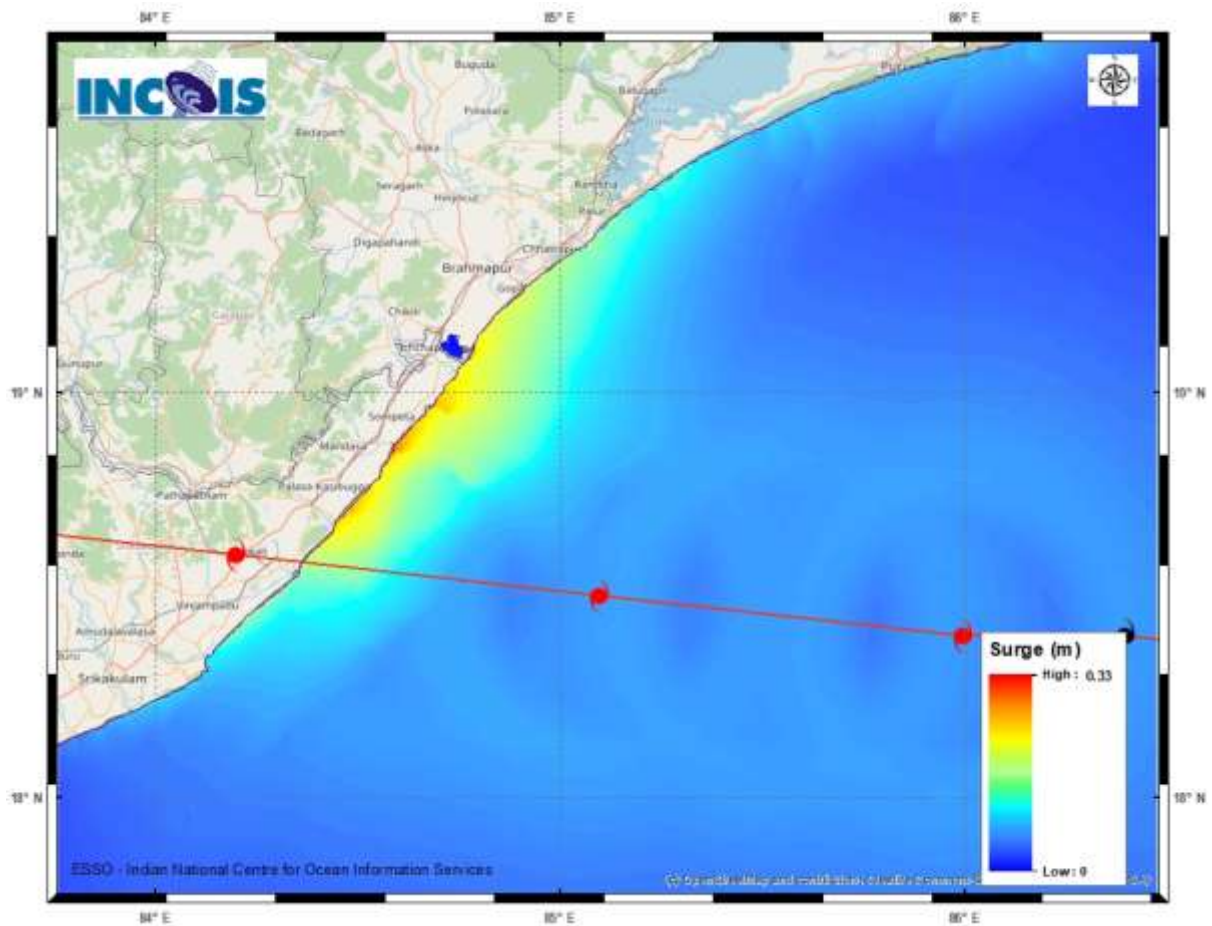


# OBSERVED AND FORECAST TRACK OF CYCLONIC STORM GULAB OVER NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL BASED ON 0900 UTC OF 26<sup>TH</sup> SEPTEMBER, 2021



**DATE/TIME IN UTC**  
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**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)

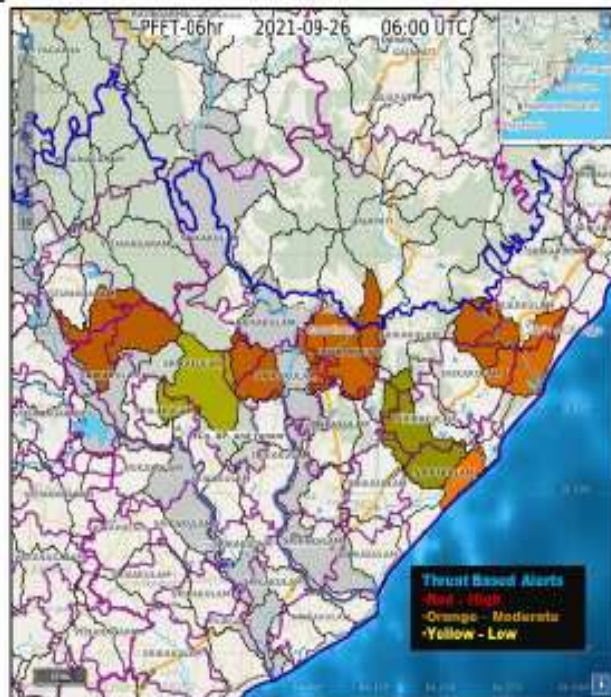
Peak storm surge upto 0.5 m over and above the astronomical tide is noticed at (i) Sompeta and Tekkali of Srikakulam district, Andhra Pradesh and (ii) Brahmapur of Ganjam district, Odisha.



**Forecasted Flash Flood Threat (PFFT)**  
**Till 1730 IST of 26.09.2021:**

Moderate to High Threat very likely over few watersheds and neighborhoods in the Srikakulam, Vizianagaram districts of North Coastal Andhra Pradesh and adjoining Gajapati district of South Odisha Met Subdivisions in next 6 hours.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as depicted in map due to the persistence rainfall of Cyclonic Storm "Gulab" in next 6 hours.



**24 hours Flash Flood Risk Outlook Till**  
**1130 IST of 27.09.2021:**

High Risk likely over few watersheds and neighborhoods of North Coastal Andhra Pradesh and adjoining South Odisha, South Chhattisgarh Met Subdivisions in next 24 hours.

Surface runoff/ Inundation may occur at some fully saturated soils & low-lying areas over AoC as depicted in map due to the expected rainfall of Cyclonic Storm "Gulab" approaching landfall in next 24 hours.

