

Government of India Ministry of Earth Sciences India Meteorological Department

Press Release Date: 05th December, 2023 Time of Issue: 1400 hours IST

Subject: The Severe Cyclonic Storm "MICHAUNG" over Westcentral Bay of Bengal along & off south Andhra Pradesh coast.

Realized weather during past 24 hours till 0830 hours IST of today: (Refer Annexure I)

Severe Cyclonic Storm "MICHAUNG" (graphics in Annexure II)

- Yesterday's **Severe Cyclonic Storm "MICHAUNG"** (pronounced as MIGJAUM) over Westcentral & adjoining southwest Bay of Bengal now lay centered at 1230 hours IST of today the 5th December, 2023 over Westcentral Bay of Bengal along & off south Andhra Pradesh coast near latitude 15.55°N and longitude 80.25°E, about 20 km east-northeast of Ongole, 45 km southwest of Bapatla, 80 km north-northeast of Kavali, 120 km north-northeast of Nellore, and 110 km southwest of Machilipatnam. **The forward sector of system has entered the land.**
- The system is likely to move nearly northwards and cross south Andhra Pradesh coast close to Bapatla during next 2 hours as a Severe Cyclonic Storm with a maximum sustained wind speed of 90-100 kmph gusting to 110 kmph. Landfall process is likely to complete during next 3 hours.

Warnings in association with the above Cyclonic Storm:

(i) Rainfall Warning (graphics in Annexure III):

- **Coastal Andhra Pradesh:** Light to moderate rainfall at most places and heavy to very heavy rainfall at a few places with extremely heavy falls at isolated places over coastal Andhra Pradesh & Yanam on 5th December. Exceptionally heavy rainfall at one or two places is also likely over central districts of coastal Andhra Pradesh on 5th December. Isolated heavy rainfall is likely over north coastal Andhra Pradesh on 6th December.
- **Telangana:** Light to moderate rainfall at most places with isolated heavy to extremely heavy rainfall on 5th December and isolated heavy rainfall on 06th December.
- **Odisha:** Light to moderate rainfall at many places with isolated heavy to very heavy rainfall over south Coastal and adjoining south Interior Odisha on 5th December and isolated heavy rainfall over the same region on 6th December.
- **Chhattisgarh:** Light to moderate rainfall at most places with isolated heavy rainfall over south Chhattisgarh during 05th-07th December.

- **Vidarbha:** Light to moderate rainfall at many places with isolated heavy rainfall at isolated places on 06th December.
- **Rayalaseema:** Light to moderate rainfall at many places with isolated heavy rainfall on 5th December and decrease thereafter.
- **North Coastal Tamil Nadu & Puducherry:** Light to moderate rainfall at many places with isolated heavy rainfall on 5th December and decrease thereafter.

(ii) Wind warning:

- Southwest Bay of Bengal along & off north Tamil Nadu-Puducherry Coasts: Squally wind speed reaching 30-40 kmph gusting to 50 kmph is prevailing along and off north Tamil Nadu coast (Chennai and to its north) and southwest Bay of Bengal. It would decrease gradually.
- Westcentral Bay of Bengal and along & off south Andhra Pradesh Coast: Gale wind speed reaching 90-100 kmph gusting to 110 kmph would prevail over Westcentral Bay of Bengal around system centre during next 6 hours and gradually decreases thereafter. Gale wind speed reaching 70-80 kmph gusting to 90 kmph prevailing along and off Nellore district & 90-100 kmph gusting to 110 kmph along and off remaining districts of south Andhra Pradesh coast till 5th December is likely to continue till forenoon and gradually decrease thereafter.
- **Along & off north Andhra Pradesh Coast:** Squally wind speed reaching 50-60 kmph gusting to 65 kmph is prevailing, it is likely to continue during next 12 hours. It would gradually decrease thereafter.
- **Along & off Odisha Coast:** Squally wind speed reaching 35-45 kmph gusting to 55 kmph is likely to prevail till afternoon of 5th and it is likely to gradually increase becoming 40-50 kmph gusting to 60 kmph from 5th December evening for subsequent 12 hours. It would gradually decrease thereafter.

(iii) Sea Condition:

- **Southwest Bay of Bengal and along & off north Tamil Nadu-Puducherry Coasts:** Very rough to rough sea condition is prevailing. It is likely to become rough to moderate by noon of 5th December and further improve thereafter.
- Westcentral Bay of Bengal and along & off south Andhra Pradesh Coast: High to very high sea condition is prevailing over the region. It is likely to continue till 5th December noon. It is likely to improve thereafter gradually becoming very rough by 5th evening and rough by 6th morning for subsequent 12 hours.
- **Along & off North Andhra Pradesh Coast:** Rough to Very Rough to sea condition is likely till 6th December morning and further improve thereafter.
- Along & off Odisha Coast: Rough to Very Rough to sea condition is likely till 6th December morning.

(iv) Fishermen Warning (graphics attached): Fishermen are advised not to venture into:

- Southwest Bay of Bengal and along & off North Tamil Nadu-Puducherry Coasts till 5th December noon.
- Westcentral Bay of Bengal and along & off Andhra Pradesh Coast till 6th December evening.
- Northwest Bay of Bengal and along & off Odisha coast till 6th December morning.

(v) Storm Surge (Graphics enclosed):

• Storm surge of about 1-1.5 meter above astronomical tide likely to inundate south Coastal Andhra Pradesh districts at the time of landfall.

(vi) Post landfall outlook:

 After landfall while weakening gradually, the system will maintain the intensity of cyclonic storm for about 12 hours. The wind speed will gradually decrease to 75-85 kmph gusting to 95 kmph by evening of 5th December and further gradually decrease becoming 55-65 kmph gusting to 75 kmph by 05th December midnight.

(vii) Damage Expected over coastal districts of South Andhra Pradesh (Nellore, Tirupati Prakasam, Bapatla, Guntur, Krishna and West Godavari) & adjoining coastal districts of North Tamil Nadu-Puducherry:

- Major damage to thatched houses/ huts. Roof tops may blow off. Unattached metal sheets may fly.
- Possibilities of damage to vulnerable structure.
- Breaking of tree branches, uprooting of large avenue trees. Major damage to banana and papaya trees. Large dead limbs blown from trees.
- 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 due to heavy rain.
- Damage to paddy crops, horticultural crops and orchards.
- Sea water inundation in low lying areas after erosion of Kutcha embankments
- Inundation of low lying areas in coastal districts due to heavy rainfall and flash flood
- Localized Flooding of roads and closure of underpasses mainly in urban areas of the above region.
- Occasional reduction in visibility due to heavy rainfall.
- Disruption of traffic due to water logging and squally winds
- Localized Landslides/Mudslides
- It may lead to riverine flooding in some river catchments (for riverine flooding please visit Web page of CWC)

(viii) Action Suggested for coastal districts of South Andhra Pradesh & adjoining coastal districts of North-Tamil Nadu & Puducherry:

- Total suspension of fishing operations.
- Surface transport and shipping operations need to be regulated
- Onshore & Offshore operation need to be regulated as per guidelines
- Coastal hutment dwellers to be in safer places.
- People in affected areas to remain indoors.
- Avoid going to areas that face the water logging problems often.
- Avoid staying in vulnerable structure.

Agromet advisories for Tamil Nadu, Andhra Pradesh, Telangana and Odisha in view of Cyclonic Storm "MICHAUNG" (Based on the IBF and advisories issued by different AMFUs and DAMUs)

- Postpone harvesting of matured rice, late sown kharif groundnut and chilli in Andhra Pradesh; rice and finger millet in Odisha; rice in Chhattisgarh and picking of matured cotton bolls in Andhra Pradesh, Odisha and Telangana.
- Keep already harvested produce of crops in safer places or cover the harvested produce in the fields with tarpaulin/polythene sheets.
- Make necessary arrangements for adequate drainage in crop fields to avoid water logging.

- Postpone sowing of Bengal gram in Andhra Pradesh; rabi groundnut in Rayalaseema; sunflower, green gram and maize in Telangana and toria/mustard, rabi groundnut and rabi maize in Odisha.
- Provide mechanical support to young fruit plants and staking in vegetables to avoid lodging.

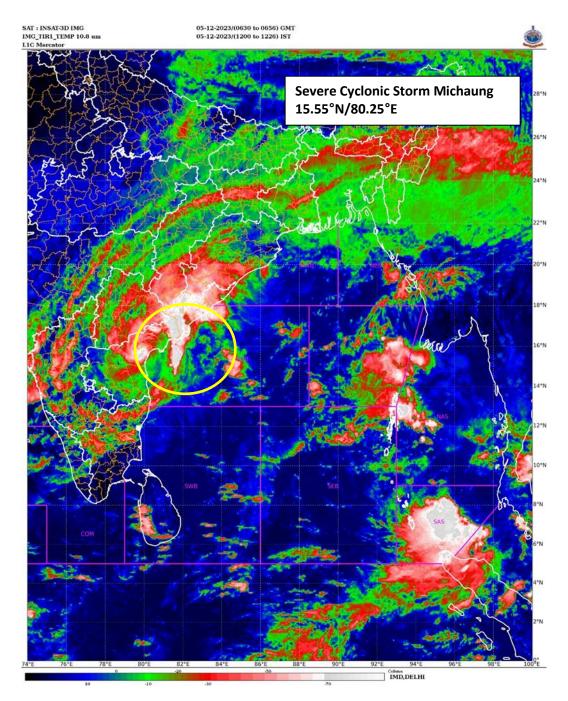
Other Weather Systems and associated Forecast & Warnings during next 5 days: (graphics in Annexure III)

- Light to moderate rainfall at isolated places accompanied with thunderstorm & lightning very likely over Kerala & Mahe during next 5 days.
- Light to moderate fairly widespread rainfall with **isolated heavy falls** very likely over Tamil Nadu, Puducherry & Karaikal and Kerala & Mahe on 09th November.
- **Dense fog** during morning hours very likely in isolated pockets over Punjab on 06th December.

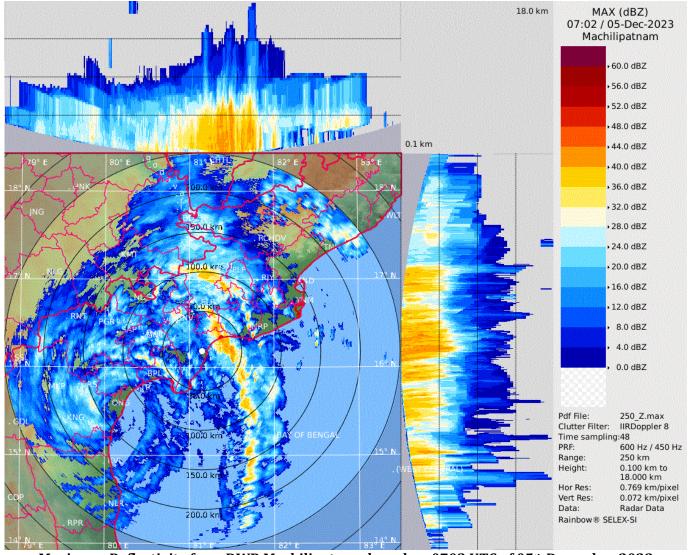
For more details kindly refer: https://mausam.imd.gov.in/responsive/all-india-forcast-bulletin.php and https://mausam.imd.gov.in/responsive/cycloneinformation.php

Realized weather during past 24 hours till 0830 hours IST of today (05.12.2023):

- **❖** Heavy to very heavy rainfall with extremely heavy falls observed at isolated places over Tamil Nadu, Coastal Andhra Pradesh and Rayalaseema.
- **Significant Rainfall Amount:**
- ❖ Tamil Nadu: Poonamallee (dist Tiruvallur) 34, Avadi (dist Tiruvallur) 28, KVK Kattukuppam AWS (dist Kancheepuram) 27, Chennai (N) (dist Chennai), Chennai(N) AWS (dist Chennai), Tambaram (dist Chengalpattu) 24 each, Mahabalipuram (dist Chengalpattu), Zone 09 Ice House (dist Chennai) 22 each, Royapuram (dist Chennai), Zone 13 Adyar (dist Chennai), Thiru-Vi-Ka Nagar (dist Chennai), Zone 05 GCC (dist Chennai), Zone 10 Kodambakkam (dist Chennai), Chembarapakkam_Rev (dist Kancheepuram) 21 each, Zone 15 Sholinganallur (dist Chennai), Taramani ARG (dist Chennai), Meenambakkam AWS (dist Chennai), Chennai (AP) (dist Chennai), Kundrathur (dist Kancheepuram), Thamaraipakkam (dist Tiruvallur), Kodambakkam (dist Chennai), Tirur KVK AWS (dist Tiruvallur) 19 each, Teynampet (dist Chennai), Valasaravakkam (dist Chennai), Tiruvallur (dist Tiruvallur), Anna University ARG (dist Chennai), Zone 11 Valasaravakkam (dist Chennai) 18 each, Uthukottai (dist Tiruvallur), NIOT_Pallikaranai ARG (dist Chennai), Ponneri (dist Tiruvallur), Sriperumbudur (dist Kancheepuram), Koratur (dist Tiruvallur) 17 each, Kelambakkam (dist Chengalpattu) 16, Cholavaram (dist Tiruvallur) 15, Thiruvalangadu (dist Tiruvallur), Poondi (dist Tiruvallur), Alandur (dist Chengalpattu), Thirupporur (dist Chengalpattu) 14 each, Red Hills (dist Tiruvallur) 13, Zone Alandhur (dist Tiruvallur), Gummidipoondi Chennai), Tiruttani (dist (dist Chembarabakkam CMWSSB (dist Kancheepuram) each. Thirukalukundram (dist 12 Chengalpattu), Pechiparai (dist Kanniyakumari), Zone 05 Royapuram (dist Chennai) 11 each, Minnal (dist Ranipet), Zone 04 Tondiarpet (dist Chennai) 10 each, Chengalpattu (dist Chengalpattu), Zone 12 D156 Mugalivakkam (dist Chennai), Wallajah (dist Ranipet), Perunchani Dam (dist Kanniyakumari), Tiruttani PTO (dist Tiruvallur) 9 each, Zone 03 Puzhal (dist Chennai), Puthan Dam (dist Kanniyakumari), Panapakkam (dist Ranipet), Zone 09 Teynampet (dist Chennai) 8 each, R.K.Pet (dist Tiruvallur), Walajabad (dist Kancheepuram), Pallipattu (dist Tiruvallur), Vembakkam (dist Tiruvannamalai), Sholingur (dist Ranipet), Kuzhithurai (dist Kanniyakumari) 7 each
- ❖ COASTAL ANDHRA PRADESH: Bapatla (dist Bapatla) 22, Nellore (dist Spsr Nellore) 22, Rapur (dist Spsr Nellore) 21, Atmakur (dist Spsr Nellore) 19, Amalapuram (dist B R Ambedkar Konaseema) 17, Addanki (dist Bapatla) 17, Karamchedu (dist Bapatla) 17, Masulipatnam Cdr (dist Krishna) 16, Kavali (dist Spsr Nellore) 15, Avanigada (dist Krishna) 14, Vinjamur (dist Spsr Nellore) 14, Udayagiri (dist Spsr Nellore) 13, Ongole (dist Prakasam) 12, Repalle (dist Bapatla) 11, Kandukur (dist Spsr Nellore) 11, Konakanamitla (dist Prakasam) 9, Gudivada (dist Krishna) 9, Santhamaguluru (dist Bapatla) 9, Tenali (dist Guntur) 8, Kakinada (dist Kakinada) 8, Yanam (dist Yanam) 8, Marripudi (dist Prakasam) 7, Veligandla (dist Prakasam) 7, Mundlamuru (dist Prakasam) 7, Guntur (dist Guntur) 7, Seetharamapuram (dist Spsr Nellore) 7, Tanuku (dist West Godavari) 7, Vijayawada A.p. (dist Ntr District) 7, Peddapuram (dist Kakinada) 7
- * RAYLASEEMA: Gudur (dist Tirupati) 28, Srikalahasti (dist Tirupati) 24, Kodur (dist Ysr District) 24, Thottambedu (dist Tirupati) 23, Sullurpeta (dist Tirupati) 23, Penagaluru (dist Annamayya District) 23, Tada (dist Tirupati) 20, Venkatagiri (dist Tirupati) 18, Satyavedu (dist Tirupati) 14, Nagari (dist Chittoor) 13, Tirupati Aero (dist Tirupati) 13, Rajampet (dist Annamayya District) 12, Atlur (dist Ysr District) 9, Badvel (dist Ysr District) 8, Gurramkonda (dist Annamayya District) 7, Kalakada (dist Annamayya District) 7, Sambepalle (dist Annamayya District) 7, Royachoti (dist Annamayya District) 7, Pakala (dist Tirupati) 7, Pullampeta (dist Annamayya District) 7, Cuddapah (dist Ysr District) 7



INSAT 3D Image based on 0530 UTC of 05th Dec 2023



Maximum Reflectivity from DWR Machilipatnam based on 0702 UTC of 05th December 2023



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINITY IN ASSOCIATION WITH SEVERE CYCLONIC STORM "MICHAUNG" OVER WESTCENTRAL BAY OF BENGAL ALONG AND OFF SOUTH ANDHRA PRADESH COAST BASED ON 0300 UTC (0830 IST) OF 5TH DECEMBER 2023.

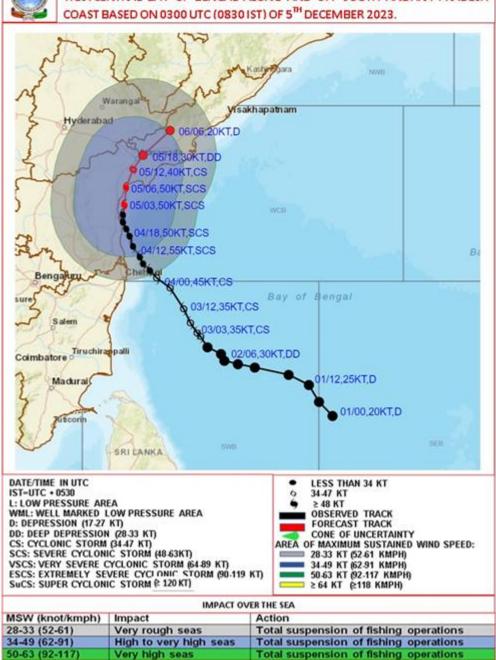


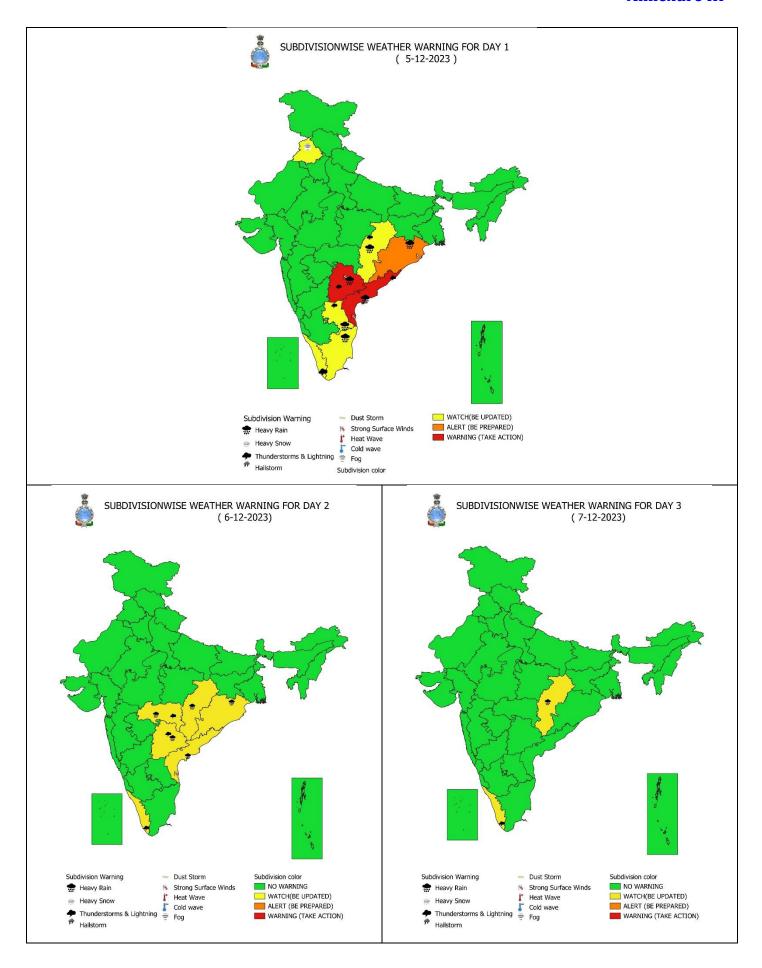
Forecast	DISTANCE (KM) AND DIRECTION FROM STATIONS				
Date and Time (UTC)	NELLORE	BAPATLA	MACHILIPATNAM/ FRANCHPET	MO PONDICHER RY	
05.12.23/0300	90, NNE	90, SSW	140, SW	370, N	
06.12.23/0600	370, NNE	200, NE	140, NNE	630, NNE	

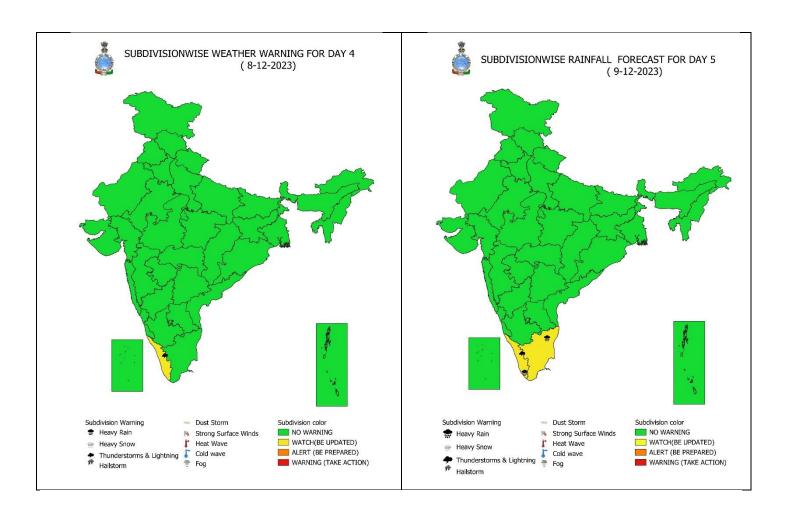


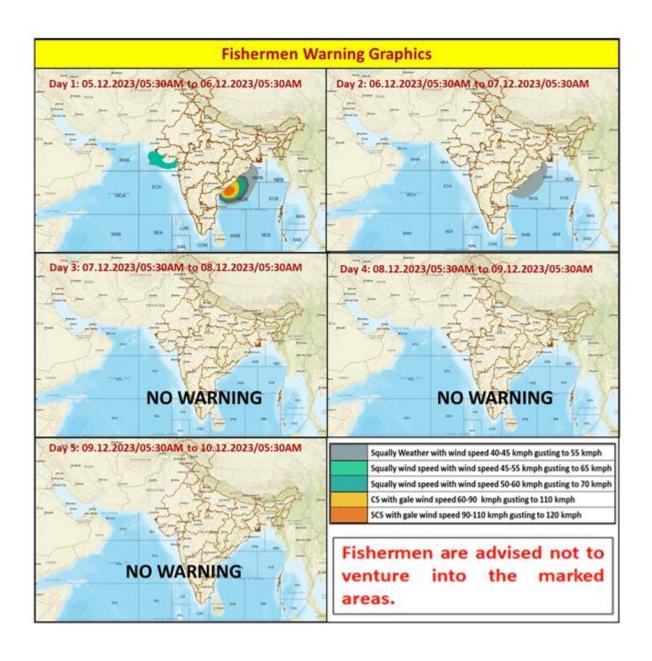
≥ 64 (≥118)

OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND IN ASSOCIATION WITH SEVERE CYCLONIC STORM "MICHAUNG" OVER WESTCENTRAL BAY OF BENGAL ALONG AND OFF SOUTH ANDHRA PRADESH COAST BASED ON 1300 LITC (1830 LST) OF 5TH DECEMBER 2023







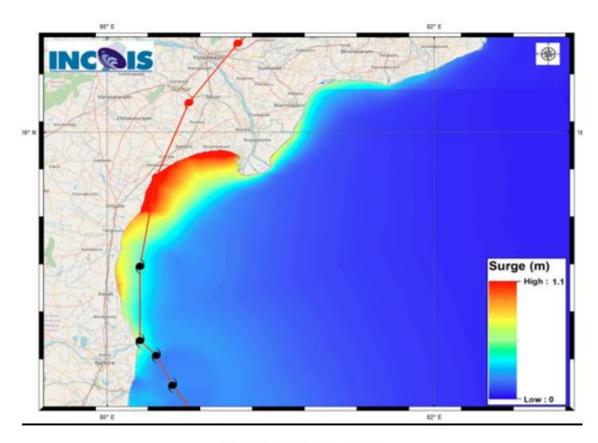


Storm Surge Warning Graphics based on Forecast Track

STORM SURGE HEIGHT INFORMATION:

^{*} The below listed surge heights are over and above astronomical tide.

MANDAL/TALUK	DISTRICT	STATE/UNION TERRITORY	NEARESTPLACE OF HABITATION	STORM SURGE (m)	EXPECTED INUNDATION EXTENT (km)
Repalle	Guntur	Andhra Pradesh	Repalle	0.5-1.1	Upto 0.23
Sullurpeta	Nellore	Andhra Pradesh	Duggaraja Patnam	0.5-1.0	Upto 0.24
Ongole Prakasam		Andhra Pradesh	Kanuparthi	0.4-0.0	Upto 0.16
Bapatla	Guntur	Andhra Pradesh	Bapatla	0.6-0.8	Upto 0.19
Chirala	Prakasam	Andhra Pradesh	Kotha Peta (Rural)	0.6-0.8	Upto 0.17
Kovvur	Nellore	Andhra Pradesh	Isakapalle	0.4-0.7	Upto 0.13



Storm Surge Map

Flash Flood Guidance

24 hours Outlook for the Flash Flood Risk (FFR) till 0530 IST of 06-12-2023 : High flash flood risk likely over few watersheds &

High flash flood risk likely over few watersheds & neighbourhoods of following coastal districts of Andhra Pradesh

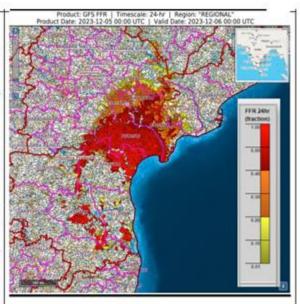
Guntur, Prakasam and Krishna (>50%) districts of Andhra Pradesh;

Moderate flash flood risk likely over few watersheds & neighbourhoods of following coastal districts (>20% - <50%) of Andhra Pradesh and Telangana during next 24 hours.

Vizianagarm, West Godavari, Krishna, Guntur, Kadapa, Kurnool, Chittoor, Prakasam and Nellore (>20% -<50%) districts of Andhra Pradesh;

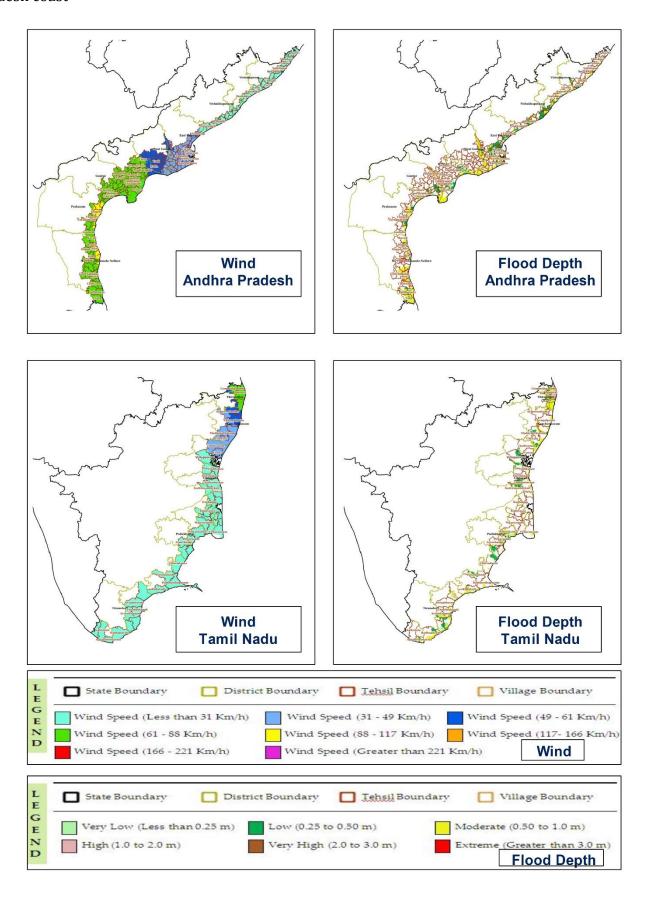
Suryapet, Khammam and Nagarkurnool districts of Telangana.

Surface runoff/ Inundation may occur at some fully saturated watersheds & low-lying areas over AoC as depicted in map due to Severe Cyclonic Storm 'Michaung' during next 24 hours.





Hazard Map with Severe Cyclonic Storm MICHAUNG over Westcentral & adjoining off south Andhra Pradesh coast



Legends:

- **♦ Heavy Rain:** 64.5 to 115.5 mm; **Very Heavy Rain:** 115.6 to 204.4 mm; **Extremely Heavy Rain:** >204.4mm.
- ❖ Obsy: Observatory; AWS: Automatic Weather Station; dist: District: NH: National Highway; KVK: Krishi Vigyan Kendra; DVC: Damodar Valley Corporation
- **Region wise classification of meteorological Sub-Divisions:**
 - **Northwest India:** Western Himalayan Region (Jammu-Kashmir-Ladakh-Gilgit-Baltistan-Muzaffarabad, Himachal Pradesh and Uttarakhand); Punjab, Haryana-Chandigarh-Delhi; West Uttar Pradesh, East Uttar Pradesh, West Rajasthan and East Rajasthan.
 - Central India: West Madhya Pradesh, East Madhya Pradesh, Vidarbha and Chhattisgarh.
 - **East India:** Bihar, Jharkhand, Sub-Himalaya West Bengal & Sikkim; Gangetic West Bengal, Odisha and Andaman & Nicobar Islands.
 - Northeast India: Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
 - West India: Gujarat Region, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra and Marathwada.
 - **South India:** Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Coastal Karnataka, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu, Puducherry & Karaikal and Lakshadweep.

