



MESSAGE

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INCOIS-IMD JOINT BULLETIN

To: Control Room, NDMA, Ministry of Home Affairs
Senior MET Officer, Eastern Naval Command, Indian Navy
Commandant, Indian Coast Guard, East Region
Commandant, Indian Coast Guard, North East Region
Commandant, Indian Coast Guard, A & N Region
Commandant, Indian Coast Guard, Southern Region
Ports in Tamil Nadu, Kerala, AP, Odisha, West Bengal
Ports in Karnataka, Goa, Maharashtra
Chief Secretary, Tamil Nadu, Puducherry
Chief Secretary, Kerala, Karnataka, Goa, Maharashtra
Chief Secretary, Andhra Pradesh, Odisha, West Bengal
State Disaster Management Authority, Tamil Nadu
State Disaster Management Authority, Kerala
State Disaster Management Authority, Andhra Pradesh
State Disaster Management Authority, Karnataka
State Disaster Management Authority, Goa
State Disaster Management Authority, Maharashtra
State Disaster Management Authority, Odisha
State Disaster Management Authority, West Bengal
Shipping Corporation of India
KSDMA, Thiruvananthapuram
Administrator, UT of Lakshadweep
DNOM, Indian Navy
Reliance Foundation, Mumbai
MSSRF, Chennai
PMSSS, Puducherry
Administrator, UT Puducherry
Kamaraj College, Tuticorin
IKSL- Odisha, Andhra Pradesh and West Bengal
Andhra University (INCOIS Project), Visakhapatnam
KUFOS, Kochi

Time of issue: 14:00 hours IST Dated: 25.11.2020, Bulletin No.: INCOIS/25/11/2020/5

**Sub: INCOIS-IMD Joint Bulletin - Ocean State Forecast associated with Severe Cyclonic Storm
—NIVAR over southwest Bay of Bengal—(Cyclone Warning for Tamilnadu and Puducherry
coasts- Orange Message)**

The **severe cyclonic storm NIVAR over** southwest Bay of Bengal moved northwestwards with a speed of 11 kmph during past six hours and lay centred at 1130 hrs IST of 25th November, 2020 over southwest Bay of Bengal near latitude 11.0°N and longitude 81.3°E, about 180 km east-southeast of

Cuddalore, about 190 km east southeast of Puducherry and 250 km south southeast of Chennai. It is very likely to intensify further into a very severe cyclonic storm during next 06 hours.

It is very likely to move northwestwards and cross Tamil Nadu and Puducherry coasts between Karaikal and Mamallapuram around Puducherry during mid-night of 25th and early hours of 26th November 2020 as a very severe cyclonic storm with a wind speed of 120-130 kmph gusting to 145 kmph.

North Tamilnadu

Table: Forecasted Significant wave height and corresponding swell height, for coastal region, into the ocean upto 10 km off North Tamilnadu.

Location/ District	Date/Time		Significant Wave Height (m)	Swell height (m)
	From	To		
Chennai	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	3.0 – 5.9	1.2 – 2.8
Chengalpattu	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	3.0 – 5.8	1.3 – 2.8
Puducherry	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	2.8 – 5.6	1.0 – 3.1
South Arcot	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	2.5 – 5.5	1.2 – 3.3
Karaikal	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	2.5 – 5.3	1.4 – 3.0
Thiruvararu	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	2.3 – 4.0	1.3 – 2.5
Thanjavuru	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	2.2 – 4.5	1.2 – 2.2
Pudukottai	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	2.0 – 4.0	1.0 – 2.2

Offshore:

High waves in the range of 4.0 – 7.0 meters are forecasted during 14:30 hours on 25-11-2020 to 23:30 hours of 26-11-2020 (approximately 100-200 Km away from the coast) off Northern Tamil Nadu coast (from Point Calimer to Pulicat). Surface Current speeds vary between 75 - 155 cm/sec.

The nearest buoy-CB06 (at 1130 hrs) has recorded a wave height of 3.0 m while the forecast is 3.2m

South Tamilnadu

Table: Forecasted Significant wave height and corresponding swell height, for coastal region, into the ocean upto 10 km off South Tamilnadu.

Location/ District	Date/Time		Significant Wave Height (m)	Swell height (m)
	From	To		
Ramanathpuram	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	1.5 – 3.3	1.0 – 2.3
Thoothukudi	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	1.4 – 3.4	1.0 – 2.1
Tirunelveli	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	1.4 – 3.2	1.0 – 2.2
Kanyakumari	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	1.3 – 3.3	1.1 – 2.3

Offshore

High waves in the range of 2.5 – 4.0 meters are forecasted during 14:30 hours on 25-11-2020 to 23:30 hours of 26-11-2020 along the coast of Southern Tamil Nadu from Kolachal to Dhanushkodi. Surface Current speeds vary between 43 - 85 cm/sec.

South Andhra Pradesh

Table: Forecasted Significant wave height and corresponding swell height, for coastal region, into the ocean upto 10 km off South Andhra Pradesh

Location/ District	Date/Time		Significant Wave Height (m)	Swell height (m)
	From	To		
Krishna	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	2.5 – 4.5	0.5 – 2.0
Guntur	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	2.2 – 4.3	0.5 – 2.2
Prakasam	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	2.1 – 5.0	0.8 – 2.5
Nellore	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	2.5 – 5.2	1.0 – 2.5

Offshore

High waves in the range of 3.0 – 5.3 meters are forecasted during 14:30 hours on 25-11-2020 to 23:30 hours of 26-11-2020 (approximately 150-250 Km away from the coast) off south Andhra Pradesh coast (from Machilipatnam to Dugarajapatnam). Surface Current speeds vary between 91 - 120 cm/sec.

North Andhra Pradesh

Table: Forecasted Significant wave height and corresponding swell height, for coastal region, into the ocean upto 10 km off North Andhra Pradesh

Location/ District	Date/Time	Significant Wave Height (m)	Swell height (m)	Location/ District
Srikakulam	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	1.5 – 3.5	1.0 – 2.3
Vizianagaram	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	1.4 – 3.3	1.0 – 2.1
Vishakhapatnam	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	1.5 – 3.0	1.0 – 2.2
Godavari (East & West)	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	1.8 – 3.2	1.1 – 2.3

Offshore

High waves in the range of 2.0 – 4.0 meters are forecasted during 14:30 hours on 25-11-2020 to 23:30 hours of 26-11-2020 (approximately 150-250 Km away from the coast) off North Andhra Pradesh coast (from Dugarajapatnam to Srikakulam). Surface Current speeds vary between 80 - 110 cm/sec.

Odisha

Table: Forecasted wave height and swell height for coastal region into the ocean upto 10 km off Odisha

Location/ District	Date/Time		Significant Wave Height (m)	Swell height (m)
Ganjam	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	2.5 – 3.5	1.7 – 2.5
Puri	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	2.4 – 3.4	1.5 – 2.0
Jagatsinghpur	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	2.2 – 3.3	1.5 – 1.9

Kendrapada	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	2.2 – 3.1	1.4 – 1.8
Bhadrak	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	1.7 – 3.2	1.5 – 1.9
Balasore	14:30 hrs, 25-11-2020	23:30hrs, 27-11-2020	1.5 – 3.0	1.3 – 1.6

Offshore: High waves in the range of 2.3 – 3.7 meters are forecasted during 14:30 hours on 25-11-2020 to 23:30 hours of 26-11-2020 beyond 10 km off the coast of Odisha from Gopalpur to Chandipur. Surface Current speeds vary between 85 - 110 cm/sec.

Offshore (around the system)

High waves in the range of 3.5 – 7.0 meters are forecasted during 14:30 hours of 25-11-2020 to 23:30 hours of 25-11-2020 at and around the system (at 1130 hrs, near latitude 11.0°N and longitude 81.3°E, about 190 km east-southeast of Cuddalore). Surface Current speeds vary between 150 - 210 cm/sec.

Warnings

Fishermen Warning & Action Suggested:

Total suspension of fishing operations.

Mobilise evacuation from coastal areas. Coastal hutment dwellers to be moved to safer places.

People in affected areas to remain in safe places and indoors.

Judicious regulation of rail, road and air traffic.

Movement in motor boats and small ships unsafe.

Wind Warning

- Gale wind speed reaching 110-120 kmph gusting to 135 kmph is prevailing over Southwest Bay of Bengal. It would further increase becoming 120-130 kmph gusting to 145 kmph during afternoon of 25th to early hours of 26th November.
- Squally wind speed reaching 55-65 kmph gusting to 75 kmph is prevailing along & off Tamil Nadu, Puducherry and adjoining South Andhra Pradesh coast and over Gulf of Mannar. It will gradually increase and become gale wind speed reaching 120-130 kmph gusting to 145 kmph along & off coastal districts of north Tamil Nadu and Puducherry (**Nagapattinam, Karaikal, Myladuthurai, Cuddalore, Puducherry, Villupuram & Chengalpattu**) and 80-90 gusting to 100 kmph very likely over Tiruvarur, Kanchipuram, Chennai, Tiruvallur districts during afternoon of 25th to early hrs of 26th November, 2020.
- Gale wind speed reaching 65-75 kmph gusting to 85 kmph very likely over adjoining westcentral Bay of Bengal and along & off South Andhra Pradesh (Nellore & Chittoor districts), Gulf of Mannar and along and off south coastal districts of Tamil Nadu during afternoon of 25th to early hrs of 26th November, 2020.

Storm Surge Warning

Tidal wave of about 1-1.5m height above the astronomical tide is very likely to inundate the low lying areas of north coastal districts of Tamilnadu & Puducherry near the place of landfall.

Damage expected over Nagapattinam, Myladuthurai, Cuddalore, , Villupuram & Chengalpattu districts of Tamilnadu and Karaikal & Puducherry:

Total destruction of thatched houses/ extensive damage to kutcha houses. Some damage to old pucca houses. Potential threat from flying objects.

Bending/ uprooting of power and communication poles.

Major damage to Kutcha and Pucca roads. Flooding of escape routes. Disruption of railways, overhead powerlines and signalling systems.

Widespread damage to standing crops, plantations, orchards, falling of green coconuts and tearing of palm fronds. Blowing down of bushy trees like mango.

Small boats, country crafts may get detached from moorings.

Visibility severely affected.

Damage expected over Tiruvarur, Kanchipuram, Chennai, Tiruvallur districts of Tamilnadu and adjoining Andhra Pradesh:

Damage to thatched houses/ huts with possibility of roof tops being blown off and unattached metal sheets may fly.

Damage to power and communication lines.

Damage to Kutcha and some damage to Pucca roads. Flooding of escape routes.

Breaking of tree branches, uprooting of trees. Severe damage to banana and papaya trees, horticulture and crops & orchards. Large dead limbs blown from trees.

Major damage to coastal crops. Damage to embankments/ salt pans.

POST LANDEFALLOUTLOOK FOR INTERIOR DISTRICTS (RANIPET, TIRUVANNAMALAI, TIRUPATTUR, VELLORE AND CHITTOOR)

1. Even after landfall, the system is likely to maintain its cyclone intensity for about 6 hours and weaken gradually.
2. Under its influence rainfall at most/many places with heavy to very heavy falls at a few places with isolated extremely heavy falls likely to occur over Ranipet, Tiruvannamalai, Tirupattur, Vellore districts of Tamilnadu and Chittoor, Kurnool, Prakasam; Cuddappa districts of Andhra Pradesh and adjoining southeast Telangana on 26.th Nov. Heavy to very heavy rainfall at isolated paces likely over remaining districts of north interior Tamilnadu, south Andhra Pradesh and southeast Telangana.
3. Gale wind speed reaching 65-75 kmph gusting to 85 kmph very likely to prevail over interior districts (Ranipet, Tiruvannamalai, Tirupattur, Vellore) of Tamilnadu and Chittoor district of Andhra Pradesh during 26th Nov early morning to forenoon.
4. **Damage expected over Ranipet, Tiruvannamalai, Tirupattur, Vellore districts of Tamilnadu and Chittoor, Kurnool, Prakasam and Cuddappa districts of Andhra Pradesh:**
 - . Partial damage to thatched houses/ huts with possibility of roof tops being blown off and unattached metal sheets may fly.
 - . Partial damage to power and communication lines.

- . Damage to Kutcha and some damage to Pucca roads. Flooding of escape routes.
- . Breaking of tree branches, uprooting of small trees. Damage to banana and papaya trees, horticulture and crops & orchards.

5. People are advised to remain indoors/in safe places and cooperate with state government officials and disaster management agencies.

Heavy Rainfall Warning

Fairly widespread to widespread rainfall/thunderstorm activity very likely over coastal and north interior Tamilnadu, Puducherry & Karaikal, south coastal Andhra Pradesh and Rayalaseema during 25th and 26th November and southeast Telangana during 26th November, 2020. Isolated extremely heavy rainfall activity also very likely over coastal & north interior Tamilnadu & Puducherry (**Thanjavur, Tiruvarur, Nagapattinam, Cuddalore, Chennai, Kanchipuram, Chengalpattu, Myladuthirai, Ariyalur, Perambalur, Kallakurchi, Villupuram, Tiruvannamalai, Puducherry and Karaikal** districts) during 25th; over **Nellore and Chittoor** districts of Andhra Pradesh on 25th and over **Ranipet, Tiruvannamalai, Tirupattur, Vellore** districts of Tamilnadu; **Chittoor, Kurnool, Prakasam and Cuddappa** districts of Andhra Pradesh and adjoining southeast Telangana on 26th November, 2020.

Sub-Divisions	25 Nov 2020*	26 Nov 2020*	27 Nov 2020*
South Coastal Andhra Pradesh	Rainfall at most places with isolated heavy to very heavy and extremely heavy falls	Rainfall at most places with isolated heavy to very heavy and extremely heavy falls	Rainfall at many places
Coastal & North Interior Tamilnadu, Puducherry & Karaikal	Rainfall at most places with heavy to very heavy rainfall at a few places and extremely heavy falls at isolated places	Rainfall at many places with heavy rainfall at isolated places	Rainfall at many places
South Interior Karnataka	Rainfall at many places with heavy rainfall at isolated places	Rainfall at many places with heavy rainfall at isolated places	Rainfall at many places
Rayalaseema	Rainfall at most places with heavy to very heavy rainfall with extremely heavy falls at isolated places	Rainfall at most places with heavy to very heavy rainfall at a few places and extremely heavy falls at isolated places	Rainfall at many places

Telangana	Rainfall at a few places	Rainfall at most places with heavy to very heavy rainfall and extremely heavy falls at isolated places over southeast Telangana	Rainfall at many places
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Marine Forecaster
Ocean State Forecast Team
Information Services and Ocean Sciences Group

For Specific Ocean State forecast for Shipping visit <http://115.113.76.77/shipforecast/shipforecast.html>
Port and Harbours visit (<http://115.113.76.77/OSF>).

For location specific forecast data for any part of Bay of Bengal, visit
(http://115.113.76.77/webmapservice/Indian_Ocean_Forecast.html)

For complete details visit (<http://www.incois.gov.in/portal/osf/osf.jsp>)