



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: 16:30 hours IST Dated: 23.11.2020, Bulletin No.: INCOIS/23/11/2020/5**

**Sub: INCOIS-IMD Joint Special Message - Ocean State Forecast associated with the (1) Depression over southwest and adjoining southeast Bay of Bengal—(Cyclone Alert for Tamilnadu and Puducherry coasts- Yellow Message) (2) Cyclonic Storm —GATI weakened into Deep Depression over Somalia**

## **(1) Depression over southwest and adjoining southeast Bay of Bengal—(Cyclone Alert for Tamilnadu and Puducherry coasts-Yellow Message)**

The Depression over southwest and adjoining southeast Bay of Bengal moved west-northwestwards with a speed of 11 kmph during past 06 hours and lay centred at 1130 hrs IST of 23<sup>rd</sup> November, 2020 over the same region near latitude 9.6°N and longitude 84.0°E, about 520 km east-southeast of Puducherry and 560 km southeast of Chennai. It is very likely to intensify into a cyclonic storm during next 24 hours. It is very likely to move northwestwards and cross Tamil Nadu and Puducherry coasts between Karaikal and Mamallapuram around 25<sup>th</sup> November 2020 afternoon as a severe cyclonic storm with a wind speed of 100-110 kmph gusting to 120 kmph.

### **High Wave/Ocean State warning/alert for South & North Tamil Nadu and South Andhra Pradesh**

#### **North Tamilnadu**

**Table 1:** Forecasted Significant wave height and corresponding swell height, for coastal region, into the ocean upto 10 km off North Tamilnadu.

<b>Location/ District</b>	<b>Date/Time</b>		<b>Significant Wave Height (m)</b>	<b>Swell height (m)</b>
	<b>From</b>	<b>To</b>		
Chennai	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	2.0 – 4.8	1.0 – 2.0
Chengalpattu	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	2.0 – 4.8	1.0 – 1.9
Puducherry	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	1.5 – 4.7	1.0 – 2.0
South Arcot	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	1.5 – 4.6	1.2 – 2.1
Karaikal	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	1.5 – 4.4	1.3 – 2.0
Thiruvararu	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	1.3 – 3.8	1.3 – 1.9
Thanjavuru	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	1.2 – 3.2	1.2 – 2.0
Pudukottai	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	1.0 – 3.2	1.0 – 2.0

#### **Offshore:**

High waves in the range of 4.0 – 6.0 meters are forecasted during 16:00 hours on 23-11-2020 to 23:30 hours of 25-11-2020 (approximately 100-200 Km away from the coast) off Northern Tamil Nadu coast (from Point Calimer to Pulicat). Surface Current speeds vary between 70 - 80 cm/sec.

#### **South Tamilnadu**

**Table 2:** Forecasted Significant wave height and corresponding swell height, for coastal region, into the ocean upto 10 km off South Tamilnadu.

<b>Location/ District</b>	<b>Date/Time</b>		<b>Significant Wave Height (m)</b>	<b>Swell height (m)</b>
	<b>From</b>	<b>To</b>		
Ramanathapuram	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	1.5 – 2.9	1.0 - 1.4

Thoothukudi	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	1.4 – 2.8	1.0 - 1.8
Tirunelveli	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	1.4 – 2.7	1.0 – 1.7
Kanyakumari	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	1.3 – 2.8	1.1 – 1.6

### Offshore

High waves in the range of 1.5 – 3.0 meters are forecasted during 16:00 hours on 23-11-2020 to 23:30 hours of 25-11-2020 along the coast of Southern Tamil Nadu from Kolachal to Dhanushkodi. Surface Current speeds vary between 43 - 62 cm/sec.

### South Andhra Pradesh

**Table 3:** 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	Swell height (m)
	From	To	Height (m)	
Krishna	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	1.5 – 3.5	0.5 - 1.4
Guntur	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	1.4 – 3.6	0.5 - 1.1
Prakasam	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	1.5 – 4.1	0.8 - 1.5
Nellore	16:00 hrs, 23-11-2020	23:30hrs, 25-11-2020	1.8 – 5.1	1.0 - 1.9

### Offshore

High waves in the range of 1.5 – 5.3 meters are forecasted during 16:00 hours on 23-11-2020 to 23:30 hours of 25-11-2020 (approximately 150-250 Km away from the coast) off south Andhra Pradesh coast (from Machilipatnam to Dugarajapatnam). Surface Current speeds vary between 164 - 194 cm/sec.

### Offshore (around the system)

High waves in the range of 2.5 – 4.0 meters are forecasted during 16:00 hours of 23-11-2020 to 23:30 hours of 23-11-2020 at and around the system (at 1130 hrs, near latitude 09.60°N and longitude 84.0°E, about 520 km east-southeast of Puducherry). Surface Current speeds vary between 150 - 200 cm/sec.

### Warnings

#### Fishermen Warning

Fishermen are advised not to venture into Southwest & adjoining west-central & southeast Bay of Bengal, Gulf of Mannar and along & off Tamil Nadu, Puducherry and south Andhra Pradesh coasts during 23-25<sup>th</sup> November. Also the fishermen out at Sea are advised to return to the coast and avoid the above sea area.

#### Wind Warning

Squally weather with wind speed of 45-55 kmph gusting to 65 kmph likely over Southwest & adjoining west-central & southeast Bay of Bengal and along & off Tamil Nadu and south Andhra Pradesh coasts on 23<sup>rd</sup> November. It would increase gradually becoming 65-75 kmph gusting to 85 kmph over the southwest and adjoining westcentral Bay of Bengal and 55-65 kmph gusting to 75 kmph along and off Tamil Nadu and adjoining South Andhra Pradesh coast and over Gulf of Mannar from 24<sup>th</sup> November morning. It would further increase becoming 100-110 kmph gusting to 120 kmph over

the southwest Bay of Bengal along and off coastal districts of north Tamil Nadu and Puducherry (**Nagapattinam, Karaikal, Myladuthurai, Cuddalore, Puducherry, Villupuram & Chengalpattu districts**), 65-75 kmph gusting to 85 kmph very likely over adjoining westcentral Bay along and off South Andhra Pradesh (Nellore & Prakasham districts), Gulf of Mannar and along and off districts of south coastal districts of Tamil Nadu from 25<sup>th</sup> November morning for subsequent 12 hrs.

### Strom Surge Warning

Tidal wave of about 1m height above the astronomical tide is very likely to inundate the low lying areas near the place of landfall.

### Damage expected over and Action suggested:

Major 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.

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

Breaking of tree branches, uprooting of large avenue 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.

### Fishermen Warning & Action Suggested:

Total suspension of fishing operations.

Coastal hutment dwellers to be moved to safer places. People in affected areas to remain indoors. Movement in motor boats unsafe.

### Heavy Rainfall Warning

Fairly widespread to widespread rainfall/thunderstorm activity very likely over Tamilnadu, Puducherry & Karaikal during 24<sup>th</sup> to 26<sup>th</sup> November and over south Coastal Andhra Pradesh, Rayalaseema during 25<sup>th</sup> to 26<sup>th</sup> and Telangana during 26<sup>th</sup> to 27<sup>th</sup> November, 2020. Isolated extremely heavy rainfall activity also very likely over Tamilnadu & Puducherry (**Pudukottai, Thanjavur, Tiruvarur, Karaikal, Nagapattinam, Cuddalore, Ariyalur & Perabalu** districts during 24<sup>th</sup> and **Kadalur, Kallakurchi, Puducherry, Villupuram, Tiruvannamalai, Chengalpattu to Ariyalur, Perambalur and Karaikal** districts during 25<sup>th</sup>) and over south Coastal Andhra Pradesh & Rayalaseema (**Nellore and Chittoor districts**) on 25<sup>th</sup> & 26<sup>th</sup> and over Telangana on 26<sup>th</sup> November, 2020.

Sub-Divisions	23 Nov 2020*	24 Nov 2020*	25 Nov 2020*	26 Nov 2020*	27 Nov 2020*
<b>Coastal Andhra Pradesh</b>	Rainfall at a few places places	Rainfall at a few places with heavy rainfall at isolated places	Rainfall at most places with isolated heavy to very heavy with extremely heavy falls	Rainfall at most places with isolated heavy to very heavy with extremely heavy falls	Rainfall at many places with isolated heavy falls
<b>Tamilnadu,</b>	Rainfall at many	Rainfall at most places with heavy to very heavy	Rainfall at most places with heavy to	Rainfall at many places with heavy rainfall at isolated	Rainfall at many places with heavy

<b>Puducherry &amp; Karaikal</b>	places with heavy rainfall at isolated places	rainfall with extremely heavy falls at isolated places	very heavy rainfall at a few places and extremely heavy falls at isolated places	places over north Tamilnadu	rainfall at isolated places
<b>South Interior Karnataka</b>	Rainfall at isolated places	Rainfall at a few places	Rainfall at many places with heavy rainfall at isolated places	Rainfall at many places with heavy rainfall at isolated places	Rainfall at many places
<b>Rayalaseema</b>	Rainfall at a few places	Rainfall at many places with isolated heavy falls	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 with extremely heavy falls at isolated places	Rainfall at many places with heavy rainfall at isolated places
<b>Telangana</b>	Rainfall at isolated places	Rainfall at isolated places	Rainfall at a few places with isolated heavy falls	Rainfall at most places with heavy to very heavy rainfall with extremely heavy falls at isolated places	Rainfall at many places
<b>South Chattisgarh and South Odisha</b>				isolated places Rainfall at many places with isolated heavy falls	

**Spatial rainfall distribution: Isolated:  $\leq 25\%$ , A few: 26-50%, Many: 51-75%, Most: 76-100%**

**Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.**

## **2. Cyclonic Storm —GATI weakened into a Deep Depression**

The cyclonic storm “GATI” over north Somalia moved nearly westwards with a speed of about 15 kmph during past 06 hours, weakened into a Deep Depression and lay centered at 1130 hrs IST of 23<sup>rd</sup> November 2020 over the same region near Latitude 10.7°N and Longitude 49.2°E, 220 km west-southwest of Ras Binnah (Somalia). It is very likely to move nearly westwards and weaken gradually into a depression during next 06 hours and into a well marked low pressure area during subsequent 06 hours.

### **Ocean State Forecast for Lakshadweep, South Tamil Nadu, Kerala, Karnataka, Goa and Maharashtra**

#### **Lakshadweep**

High swell waves in the range of 1.2 - 2.4 meters are forecasted during 16:00 hours on 23-11-2020 to 23:30 hours of 24-11-2020 along the coast of Lakshadweep Islands from Minicoy to Bitra. Surface Current speeds vary between 29 - 50 cm/sec.

#### **South Tamil Nadu**

High waves in the range of 1.5 – 3.0 meters are forecasted during 16:00 hours on 23-11-2020 to 23:30 hours of 24-11-2020 along the coast of Southern Tamil Nadu from Kolachal to Dhanushkodi. Surface Current speeds vary between 43 - 62 cm/sec.

#### **Kerala**

High swell waves in the range of 1.2 – 2.3 meters are forecasted during 16:00 hours on 23-11-2020 to 23:30 hours of 24-11-2020 along the coast of Kerala from Pozhiyoor to Kasargod. Surface Current speeds vary between 36 - 62 cm/sec.

#### **Karnataka**

Waves in the range of 1.0 - 2.1 meters are forecasted during 16:00 hours on 23-11-2020 to 23:30 hours of 24-11-2020 along the coast of Karnataka from Mangalore to Karwar. Surface Current speeds vary between 28 - 55 cm/sec.

#### **Goa**

Waves in the range of 1.0 - 2.1 meters are forecasted during 16:00 hours on 23-11-2020 to 23:30 hours of 24-11-2020 along the coast of Goa from Vengurla to Vasco. Surface Current speeds vary between 23 - 38 cm/sec.

#### **Maharashtra**

Waves in the range of 1.0 - 2.2 meters are forecasted during 16:00 hours on 23-11-2020 to 23:30 hours of 24-11-2020 along the coast of Maharashtra from Malvan to Vasai . Surface Current speeds vary between 34 - 44 cm/sec.

### **Offshore (around the system):**

High waves in the range of 3.0 – 4.5 meters are forecasted during 16:00 hours of 23-11-2020 to 23:30 hours of 23-11-2020 at and around the system (at 1130 hrs, near latitude 10.7°N and longitude 49.2°E, 220 km west-southwest of Ras Binnah (Somalia). Surface Current speeds vary between 50 - 70 cm/sec.

## **Warnings**

**Fishermen Warning:** Fishermen are advised not to venture into Gulf of Eden and southwest Arabian Sea along and off north Somalia coast during next 12 hours.

**Wind warning:** Gale wind speed reaching 55-65 kmph gusting to 75 kmph is prevailing over Gulf of Eden along and off Somalia coast and 50-60 kmph gusting to 70 kmph prevails over southwest Arabian Sea along and off north Somalia coast during next 06 hours. It will gradually decrease and becoming 40-50 kmph gusting to 60 kmph over the above areas during subsequent 06 hours.

**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](http://115.113.76.77/webmapservice/Indian_Ocean_Forecast.html))

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