



Government of India
Ministry of Earth Sciences



India Meteorological Department

PRESS RELEASE - 3

Time of issue: 1330 hours IST

Dated: 24-11-2020

BULLETIN NO.3 (BOB/04/2020 and ARB/04/2020)

Time of issue: 1300 hours IST

Dated: 24th November, 2020

Sub: Cyclonic Storm "NIVAR" over southwest Bay of Bengal—(Cyclone Warning for Tamilnadu and Puducherry coasts- Orange Message)

(2) Depression over Gulf of Aden and adjoining Somalia

(1) Cyclonic Storm "NIVAR" over southwest Bay of Bengal—(Cyclone Warning for Tamilnadu and Puducherry coasts- Orange Message)

Yesterday's depression over southwest Bay and adjoining southeast of Bengal (BoB) intensified into a deep depression over southwest BoB in the same evening (1730 hours IST). It further intensified into cyclonic storm "NIVAR" in the early morning (0530 hrs IST) of today, the 24th November over southwest BoB. It lay centered at 0830 hrs IST of 24th November, 2020 over southwest Bay of Bengal near latitude 10.0°N and longitude 83.0°E, about 410 km east-southeast of Puducherry and 450 km southeast of Chennai. It is very likely to intensify further into a severe cyclonic storm during next 24 hours.

It is very likely to move west-northwestwards for next 12 hours and then northwestwards. It is very likely to cross Tamil Nadu and Puducherry coasts between Karaikal and Mamallapuram around Puducherry during 25th November 2020 evening as a severe cyclonic storm with a wind speed of 100-110 kmph gusting to 120 kmph.

Forecast track and intensity are given below:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
24.11.20/0830	10.0/83.0	70-80 gusting to 90	Cyclonic Storm
24.11.20/1130	10.1/82.7	75-85 gusting to 95	Cyclonic Storm
24.11.20/1730	10.2/82.4	85-95 gusting to 105	Cyclonic Storm
24.11.20/2330	10.4/81.9	90-100 gusting to 110	Severe Cyclonic Storm
25.11.20/0530	10.9/81.2	100-110 gusting to 120	Severe Cyclonic Storm
25.11.20/1730	11.7/80.0	100-110 gusting to 120	Severe Cyclonic Storm
26.11.20/0530	12.5/79.0	80-90 gusting to 100	Cyclonic Storm
26.11.20/1730	13.5/77.8	50-60 gusting to 70	Deep Depression
27.11.20/0530	14.3/76.9	30-40 gusting to 50	Depression

Fairly widespread to widespread rainfall/thunderstorm activity very likely over coastal and north interior Tamilnadu, Puducherry & Karaikal during 24th to 26th November and over south coastal Andhra Pradesh, Rayalaseema during 25th to 26th and southeast Telangana during 26th November,

Contact: Cyclone Warning Division, Office of the Director General of Meteorology, India Meteorological Department, Ministry of Earth Sciences.

Phone: (91) 11-24652484, FAX: (91) 11-24643128, 24623220, E-mail: cwdhq2008@gmail.com, Website: rsmcnwdelhi.imd.gov.in

Spatial rainfall distribution: Isolated: <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.

2020. Isolated extremely heavy rainfall activity also very likely over coastal & north interior Tamilnadu & Puducherry (**Pudukottai, Thanjavur, Tiruvarur, Karaikal, Nagapattinam, Cuddalore, Ariyalur & Perabalu** districts during 24th and **Kadalur, Kallakurchi, Puducherry, Villupuram, Tiruvannamalai, Chengalpattu to Ariyalur, Perambalur and Karaikal** districts during 25th) and over **Nellore and Chittoor districts** of Andhra Pradesh on 25th and over Rayalseema & southeast Telangana on 26th November, 2020.

Sub-Divisions	24 Nov 2020*	25 Nov 2020*	26 Nov 2020*	27 Nov 2020*
South Coastal Andhra Pradesh	Rainfall at a few places with heavy rainfall at isolated places	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 and 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 with heavy rainfall at isolated places	Rainfall at many places
South Interior Karnataka	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
Rayalaseema	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 at a few places and extremely heavy falls at isolated places	Rainfall at many places
Telangana	Rainfall at isolated places	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

(ii) Wind warning

- Gale wind speed reaching 70-80 kmph gusting to 90 kmph is prevailing over Southwest Bay of Bengal. It would further increase becoming 100-110 kmph gusting to 120 kmph over the southwest Bay of Bengal from 25th November morning for subsequent 18 hours.
- Squally wind speed reaching 30-40 kmph gusting to 50 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 100-110 kmph gusting to 120 kmph along & off coastal districts of north Tamil Nadu and Puducherry (**Nagapattinam, Karaikal, Myladuthurai, Cuddalore, Puducherry, Villupuram & Chengalpattu districts**; 80-90 gusting to 100

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kmph very likely over Tiruvarur, Kanchipuram, Chennai, Tiruvallaur districts) during forenoon to night of 25th 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 districts of south coastal districts of Tamil Nadu during forenoon to night of 25th November, 2020.

(iii) Sea condition

- Sea condition is high over Southwest Bay of Bengal and rough to very rough along & off Tamil Nadu, Puducherry, south Andhra Pradesh coasts and over Gulf of Mannar. It would gradually become very high over the southwest Bay of Bengal from 24th November night.
- The sea condition would be very high over the southwest and adjoining west-central Bay of Bengal and along & off north Tamil Nadu, Puducherry coasts and high along and off south Tamil Nadu & south Andhra Pradesh coasts and also over Gulf of Mannar on 25th November, 2020.

(iv) Storm Surge Warning

- Tidal wave of about 1m 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.

(v) Damage expected over and Action suggested over coastal districts of Tamilnadu & Puducherry and adjoining Andhra Pradesh:

- 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.

(vi) Fishermen Warning & Action Suggested:

- Total suspension of fishing operations.
- 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 24-25th November.
- Fishermen out at Sea are advised to return to the coast and avoid the above sea area.
- Coastal hutment dwellers to be moved to safer places. People in affected areas to remain indoors. Movement in motor boats unsafe.

2. Depression over Gulf of Aden and adjoining Somalia

Yesterday's cyclonic storm "GATI" over Somalia moved west-southwestwards and weakened into a deep depression in the noon (1130 hours IST) of 23rd November. Further moving west-southwestwards, it weakened into a depression over Gulf of Aden and adjoining Somalia in

the early morning (0530 hrs IST) of today, the 24th November, 2020. At 0830 hours IST of today, it lay over the same region near Latitude 11.6°N and Longitude 46.8°E, about 480 km west-northwest of Ras Binnah (Somalia) and 230 km east-southeast of Aden (Yemen). It is very likely to move nearly west-southwestwards and weaken into a well marked low pressure area during next 12 hours.

(i) Wind warning

Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail over Gulf of Aden and along and off north Somalia coast during next 12 hours and decrease thereafter.

(ii) Sea condition

Sea condition will be rough to very rough over Gulf of Aden along and off north Somalia coast during next 12 hours and improve thereafter.

(iii) Fishermen Warning

Fishermen are advised not to venture into Gulf of Aden and along and off north Somalia coast during next 12 hours.

This is the last bulletin for GATI and bulletins for “NIVAR” will be updated regularly.

Both the systems are under continuous surveillance and the concerned state governments are being informed regularly.

For details kindly visit www.rsmcnewdelhi.imd.gov.in, www.mausam.imd.gov.in

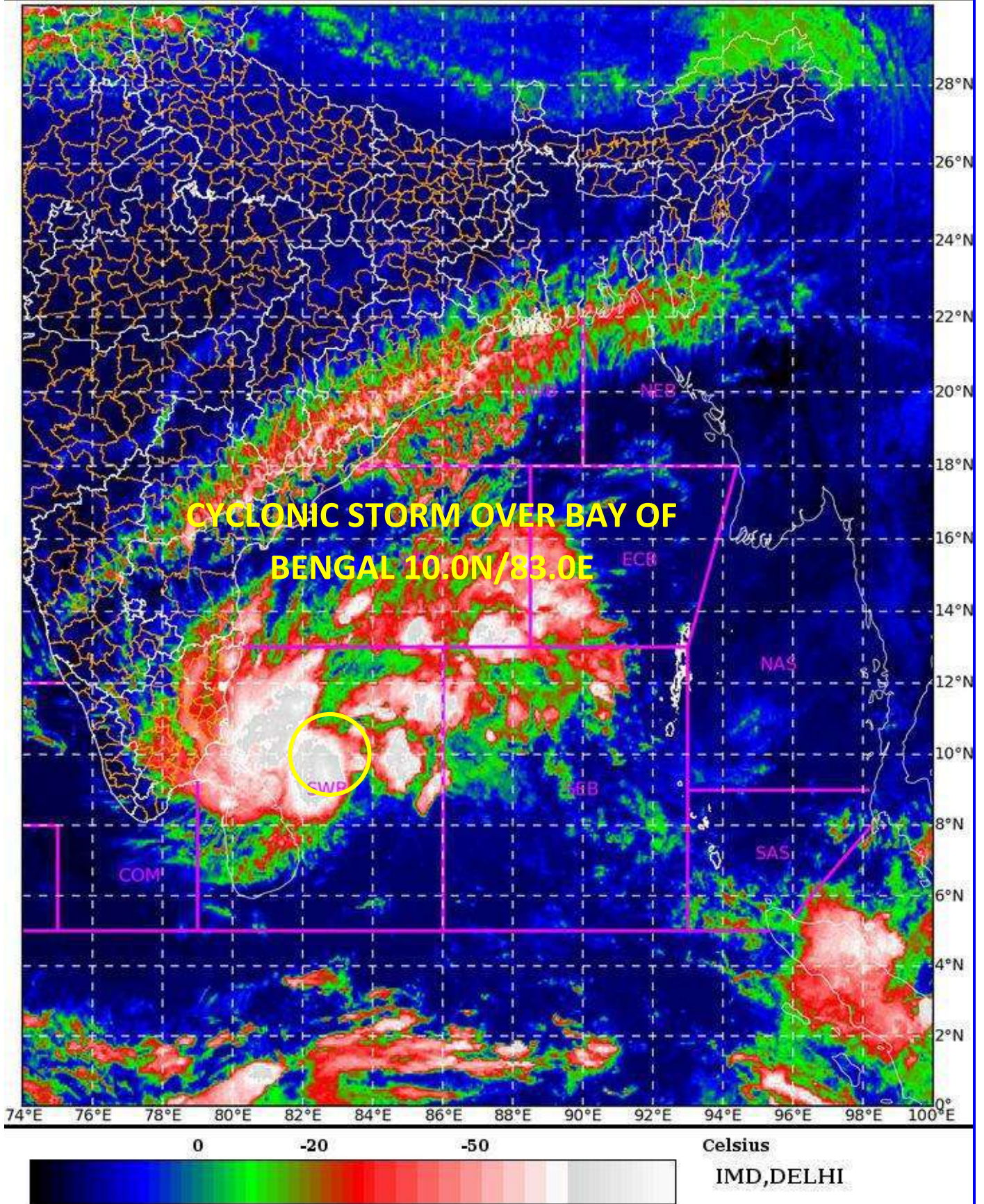
SAT : INSAT-3D IMG

24-11-2020/(0400 to 0427) GMT

IMG_TIR1_TEMP 10.8 um

24-11-2020/(0930 to 0957) IST

L1C Mercator



Contact: Cyclone warning Division, Office of the Director General of meteorology, India Meteorological Department, Ministry of Earth Sciences.

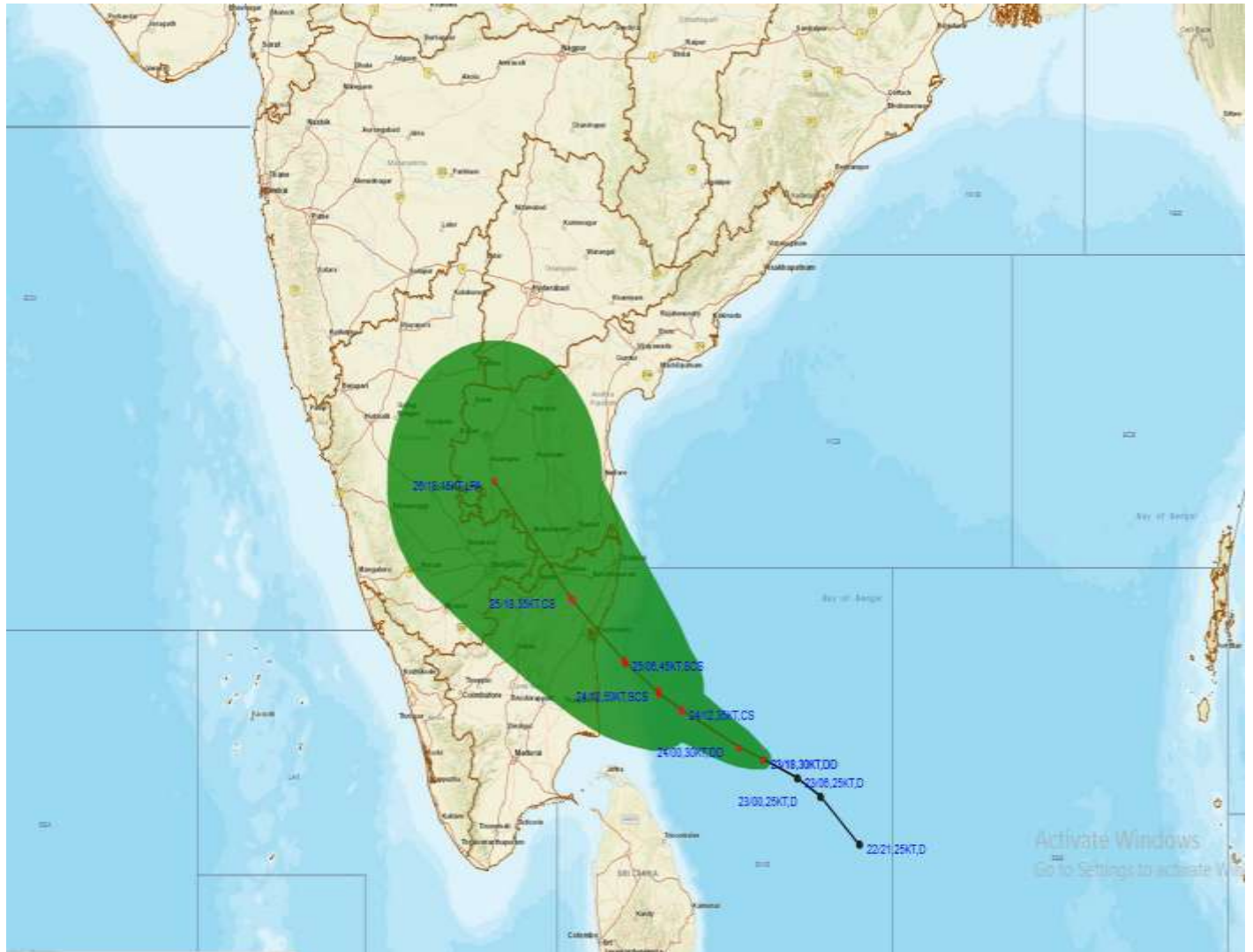
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Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

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



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF CYCLONIC STORM “NIVAR” OVER SOUTHWEST BAY OF BENGAL BASED ON 0300 UTC OF 24TH NOVEMBER, 2020.



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

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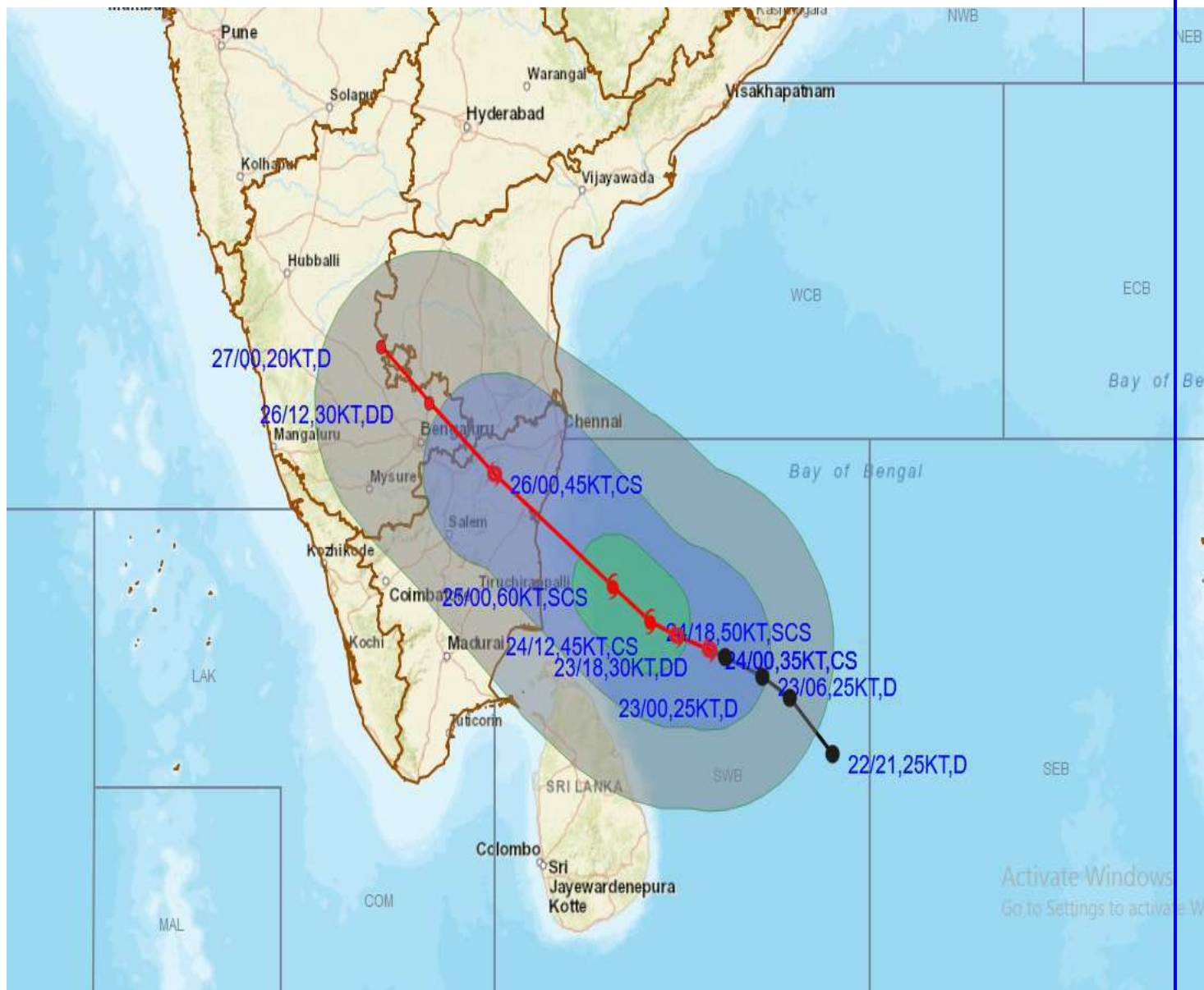
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Rainfall amount (mm): Heavy rain: 64.5 – 115.5, Very heavy rain: 115.6 – 204.4, Extremely heavy rain: 204.5 or more.



OBSERVED AND FORECAST TRACK OF CYCLONIC STORM "NIVAR" OVER SOUTHWEST BAY OF BENGAL ALONGWITH QUADRANT WIND DISTRIBUTION BASED ON 0300 UTC OF 24TH NOV., 2020



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)

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● 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

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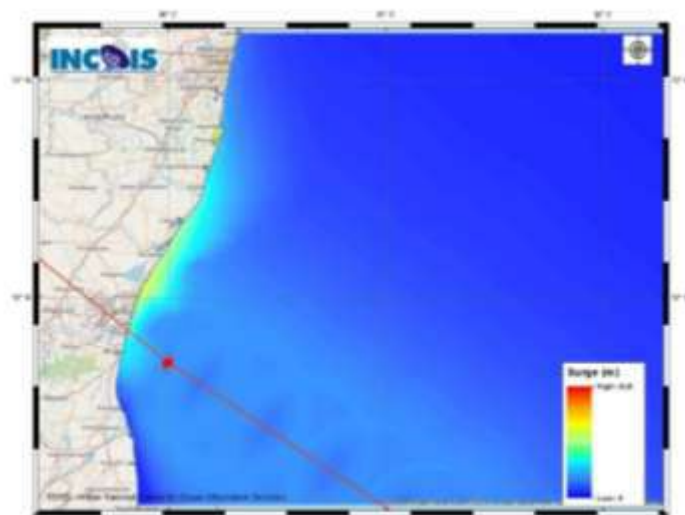


Figure: Storm surge map

Storm Surge Guidance based on 0000 UTC observations of 24th November

STORM SURGE HEIGHT INFORMATION:

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

MANDAL/TALUK	DISTRICT	STATE / UNION TERRITORY	NEAREST PLACE OF HABITATION	STORM SURGE (m) *	EXPECTED INUNDATION EXTENT (km)
Chengalpattu	Kancheepuram	Tamil Nadu	Thiruporur	0.5-0.8	Upto 0.20
Cheyyur	Kancheepuram	Tamil Nadu	Kadalur	0.3-0.4	Nil
Cuddalore	Cuddalore	Tamil Nadu	Cuddalore	0.3-0.4	Nil
Tindivanam	Viluppuram	Tamil Nadu	OZHUKARAI MUNICIPALITY	0.3-0.5	Upto 0.10
Tirutturaippundi	Nagappattinam	Tamil Nadu	Vaimedu west	0.3-0.5	Upto 0.10

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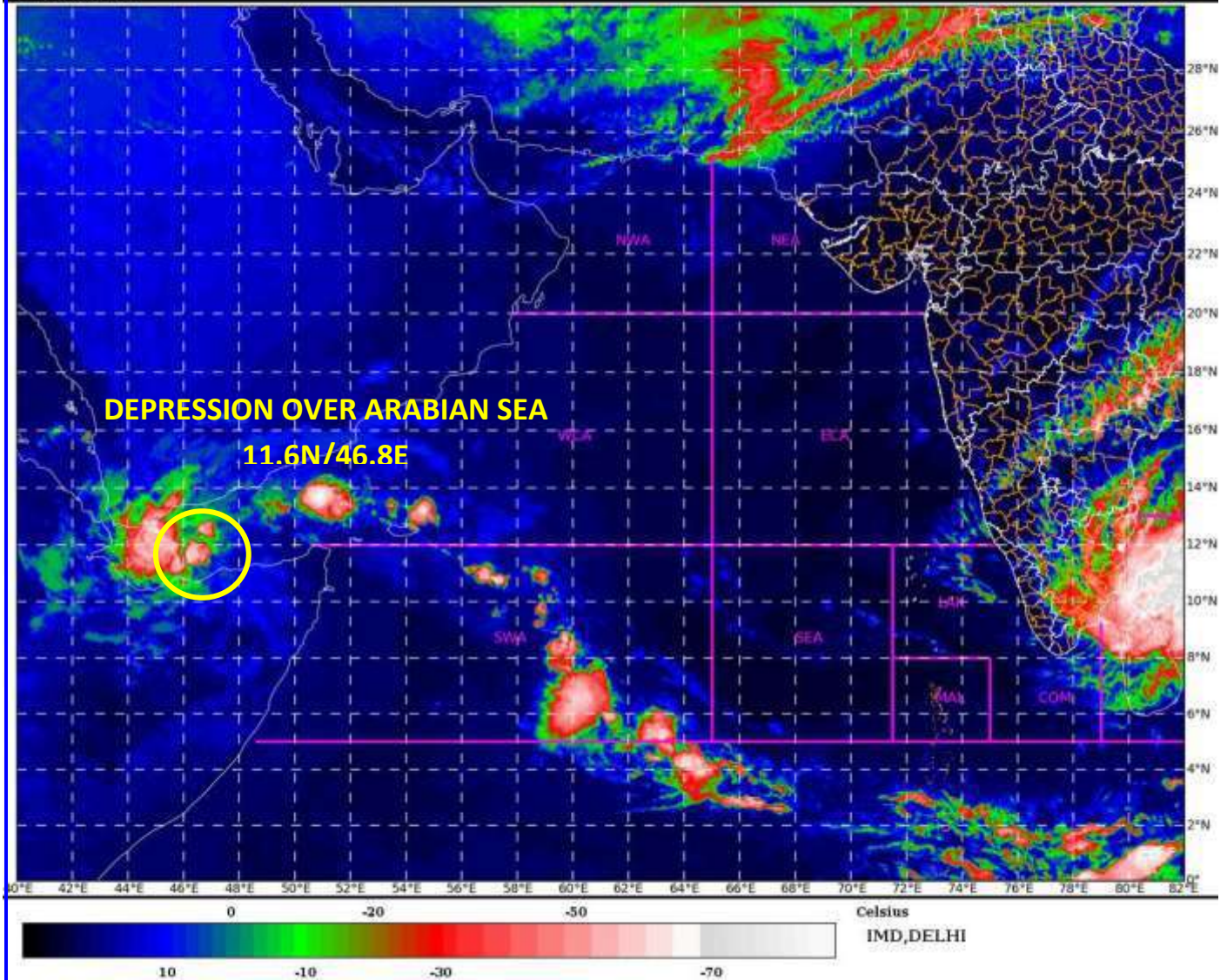
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SAT : INSAT-3D IMG
IMG_TIR1_TEMP 10.8 um
ARABIAN_SEA

24-11-2020/(0430 to 0457) GMT
24-11-2020/(1000 to 1027) IST



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OBSERVED AND FORECAST TRACK OF DEPRESSION OVER GULF OF ADEN BASED ON 0300 UTC OF 24TH NOV., 2020



DATE/TIME IN UTC
IST=UTC + 0530
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WML: WELL MARKED LOW PRESSURE AREA
D: DEPRESSION (17-27 KT)
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SuCS: SUPER CYCLONIC STORM ≥ 120 KT

● LESS THAN 34 KT
○ 34-47 KT
○ ≥ 48 KT
— OBSERVED TRACK
— FORECAST TRACK
▲ CONE OF UNCERTAINTY

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