



India Meteorological Department
(Ministry of Earth Sciences)

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Sub: Cyclonic Storm 'Burevi' over southwest Bay of Bengal (Cyclone Warning for South Tamilnadu and South Kerala coasts: **Orange Message)**

The **Cyclonic Storm 'Burevi'** over southwest Bay of Bengal moved west-northwestwards with a speed of 15 kmph during past six hours and lay centered at 1430 hrs IST of today, the 02nd December 2020 over southwest Bay of Bengal near Lat. 8.8°N and Long. 82.2°E, about 110 km east-northeast of Trincomalee (Sri Lanka), 330 km east-southeast of Pamban (India) and 520 km east-northeast of Kanniyakumari (India).

It is very likely to move west-northwestwards and cross Sri Lanka coast around latitude 9.0°N, to north of Trincomalee during evening/night of 2nd December as a Cyclonic Storm with a wind speed of 80-90 kmph gusting to 100 kmph. It is very likely to move nearly west-northwestwards thereafter, emerge into Gulf of Mannar and adjoining Comorin area on 3rd December morning.

The Cyclonic Storm with wind speed of 70-80 gusting to 90 kmph would be centered very close to Pamban around noon of 3rd December. It would then move nearly west-southwestwards across Pamban area by afternoon and cross south Tamilnadu coast between Pamban and Kanniyakumari during 3rd December night and 4th December early morning as a Cyclonic Storm with wind speed of 70-80 gusting to 90 kmph. Thus its impact on south Tamilnadu coastal districts is very likely to commence from 3rd December forenoon initially over Ramanathapuram district and gradually towards Kanniyakumari district.

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
02.12.20/1430	8.8/82.2	80-90 gusting to 100	Cyclonic Storm
02.12.20/1730	9.0/81.4	80-90 gusting to 100	Cyclonic Storm
02.12.20/2330	9.1/80.6	75-85 gusting to 95	Cyclonic Storm
03.12.20/0530	9.2/80.0	70-80 gusting to 90	Cyclonic Storm
03.12.20/1130	9.2/79.3	70-80 gusting to 90	Cyclonic Storm
03.12.20/2330	9.1/78.6	70-80 gusting to 90	Cyclonic Storm
04.12.20/1130	9.0/78.0	60-70 gusting to 80	Cyclonic Storm
04.12.20/2330	8.8/77.3	50-60 gusting to 70	Deep Depression

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.

Warnings:

(i) Rainfall

- Heavy to very heavy rainfall at a few places with isolated Extremely heavy falls very likely over south Tamilnadu (Ramanathapuram, Thoothukudi, Tirunelveli, Kanniyakumari, Tenkasi and Sivagangai districts) on 2nd & 3rd December, 2020; over south Kerala (Thiruvananthapuram, Kollam, Pathanamthitta and Alappuzah) on 3rd December and isolated heavy to very heavy rainfall likely over south Tamilnadu on 4th December 2020 and south Kerala on 2nd & 4th December, 2020.
- Heavy to very heavy rainfall at isolated places very likely over north Tamilnadu, Puducherry, Mahe & Karaikal and north Kerala on 3rd December, isolated heavy rainfall on 2nd & 4th December.
- Heavy rainfall at isolated places very likely over south Coastal Andhra Pradesh and Lakshadweep on 3rd & 04th December.

Sub-Divisions	02 Dec 2020*	03 Dec 2020*	04 Dec 2020*
South Tamilnadu	Rainfall at most places with heavy to very heavy rainfall at few places and extremely heavy fall at isolated places	Rainfall at most places with heavy to very heavy rainfall at few places and extremely heavy fall at isolated places	Rainfall at many places with heavy to very heavy rainfall at isolated places
North Tamilnadu, Puducherry & Karaikal	Rainfall at many places with heavy rainfall at isolated places	Rainfall at many places with heavy to very heavy rainfall at isolated places	Rainfall at many places with heavy fall at isolated places
South Kerala	Rainfall at most places with heavy to very heavy rainfall at isolated places	Rainfall at most places with heavy to very heavy rainfall at few places and extremely heavy fall at isolated places	Rainfall at many places with heavy to very heavy rainfall at isolated places
North Kerala & Mahe	Rainfall at many places with heavy rainfall at isolated places	Rainfall at most places with heavy to very heavy rainfall at isolated places	Rainfall at a few places with heavy fall at isolated places
South Coastal Andhra Pradesh	Rainfall at a few places	Rainfall at a few places with heavy rainfall at isolated places	Rainfall at a few places with heavy rainfall at isolated places
Lakshadweep	Rainfall at a few places	Rainfall at many places with heavy falls at isolated places	Rainfall at most places with heavy to very falls at isolated places

(ii) Wind warning

- Gale wind speed reaching 80-90 kmph gusting to 100 kmph continues to prevails over southwest Bay of Bengal and along & off Sri Lanka coast during next 12 hours. It will gradually decrease thereafter.
- Squally wind speed reaching 45-55 kmph gusting to 65 kmph very likely over Comorin Area, Gulf of Mannar and along and off south Tamilnadu coast (Ramanathapuram, Thoothukudi, Tirunelveli and Kanniyakumari districts) and south Kerala coast (Thiruvananthapuram, Kollam, Pathanamthitta and Alappuzah districts). It will gradually increase becoming 55-65 kmph gusting to 75 kmph from 2nd December evening and 70-80 kmph gusting to 90 kmph from 3rd December forenoon for subsequent 24 hours and decrease thereafter.

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.

- Squally wind speed reaching 45-55 kmph gusting to 65 kmph very likely over Lakshadweep-Maldives area and adjoining southeast Arabian Sea from 3rd December morning for next 48 hours.

(iii) Storm Surge:

- Storm surge of about 1.0 m height above astronomical tide is very likely to inundate low lying areas of south coastal Tamilnadu (Ramanathapuram, Thoothukudi, Tirunelveli and Kanniyakumari districts) during the time of landfall.

(iii) Sea condition

- Sea conditions is very rough to high over southwest Bay of Bengal and along & off east Sri Lanka coast and the same will continue till mid-night of 3rd December and gradually improve thereafter.
- It will be rough to very rough over Comorin Area, Gulf of Mannar, along & off south Tamilnadu-Kerala and west Sri Lanka coast on 2nd and very rough to high on 3rd and 4th December.
- Sea condition will be rough to very rough over Lakshadweep-Maldives area and adjoining southeast Arabian Sea during 3rd – 5th December.

(iv) Damage expected over south Tamilnadu (Kanniyakumari, Tirunelveli, Thoothukudi and Ramanathapuram districts) and south Kerala (Thiruvananthapuram, Kollam, Pathanamthitta and Alappuzah districts)

- Damage to thatched huts.
- Minor damage to power and communication lines due to breaking of branches.
- Major damage to Kutcha and minor damage to Pucca roads.
- Some damage to paddy crops, banana, papaya trees and orchards.
- Sea water inundation in low lying areas after erosion of Kutcha embankments.

(v) Fishermen warning and Action suggested

- Total suspension of fishing operation during 2nd to 5th December over the areas as mentioned below.
- Fishermen are advised not to venture into southwest Bay of Bengal and along & off east Sri Lanka coast from 2nd to 3rd December; Comorin Area, Gulf of Mannar and south Tamilnadu-Kerala and west Sri Lanka coasts from 2nd to 4th December, over Lakshadweep-Maldives area & adjoining southeast Arabian Sea from 3rd to 5th December.

The next bulletin will be issued at 2030 hrs IST of 2nd December, 2020.

(R.K. Jenamani)
Scientist-F, RSMC, New Delhi

Copy to: ACWC Kolkata/Chennai/CWC Bhubaneswar/CWC Visakhapatnam/CWC Thiruvananthapuram

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.

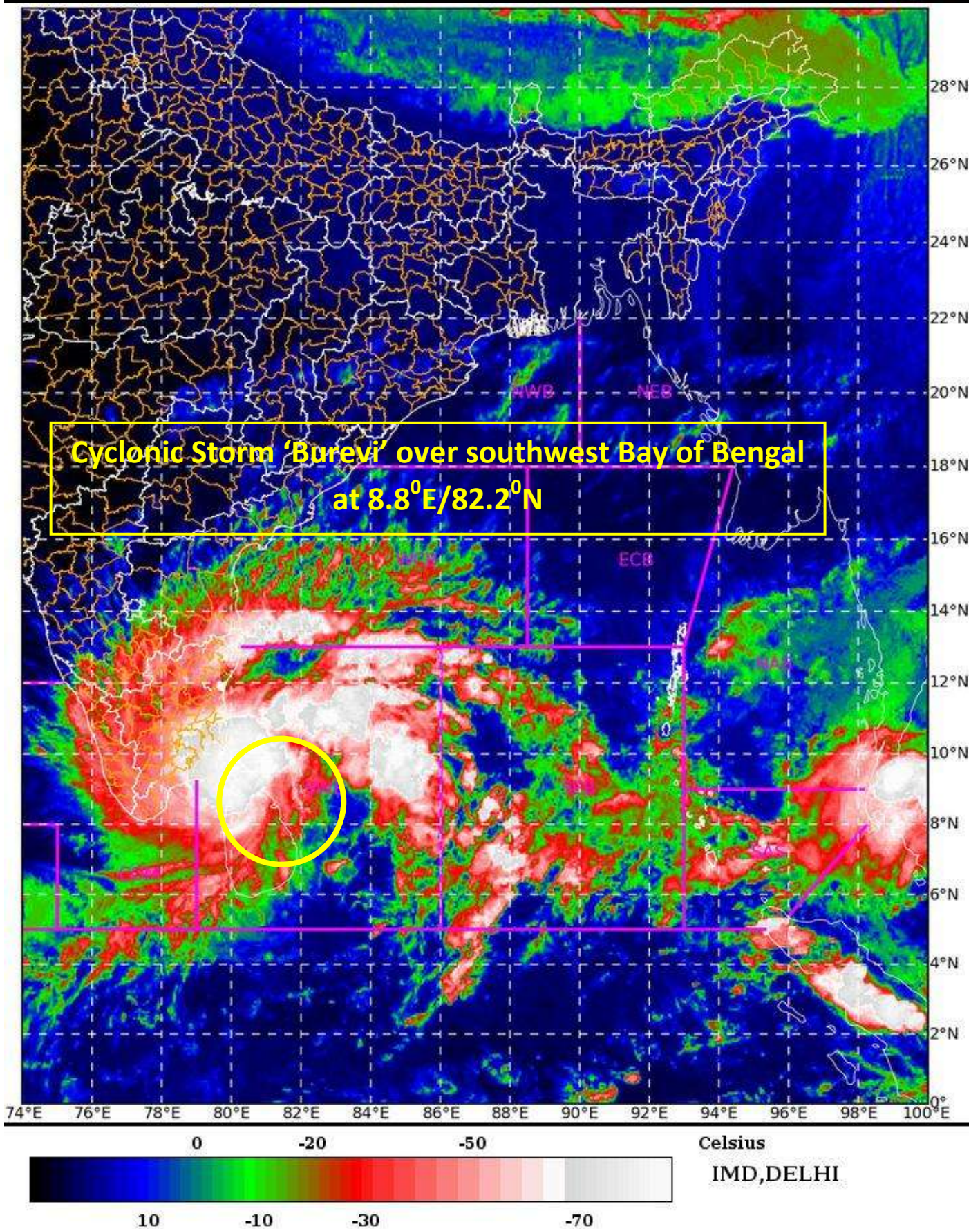
SAT : INSAT-3D IMG

02-12-2020/(1000 to 1026) GMT

IMG_TIR1_TEMP 10.8 um

02-12-2020/(1530 to 1556) IST

L1C Mercator



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.



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF CYCLONIC STORM “BUREVI” OVER SOUTHWEST BAY OF BENGAL BASED ON 0600 UTC OF 2nd DECEMBER, 2020.



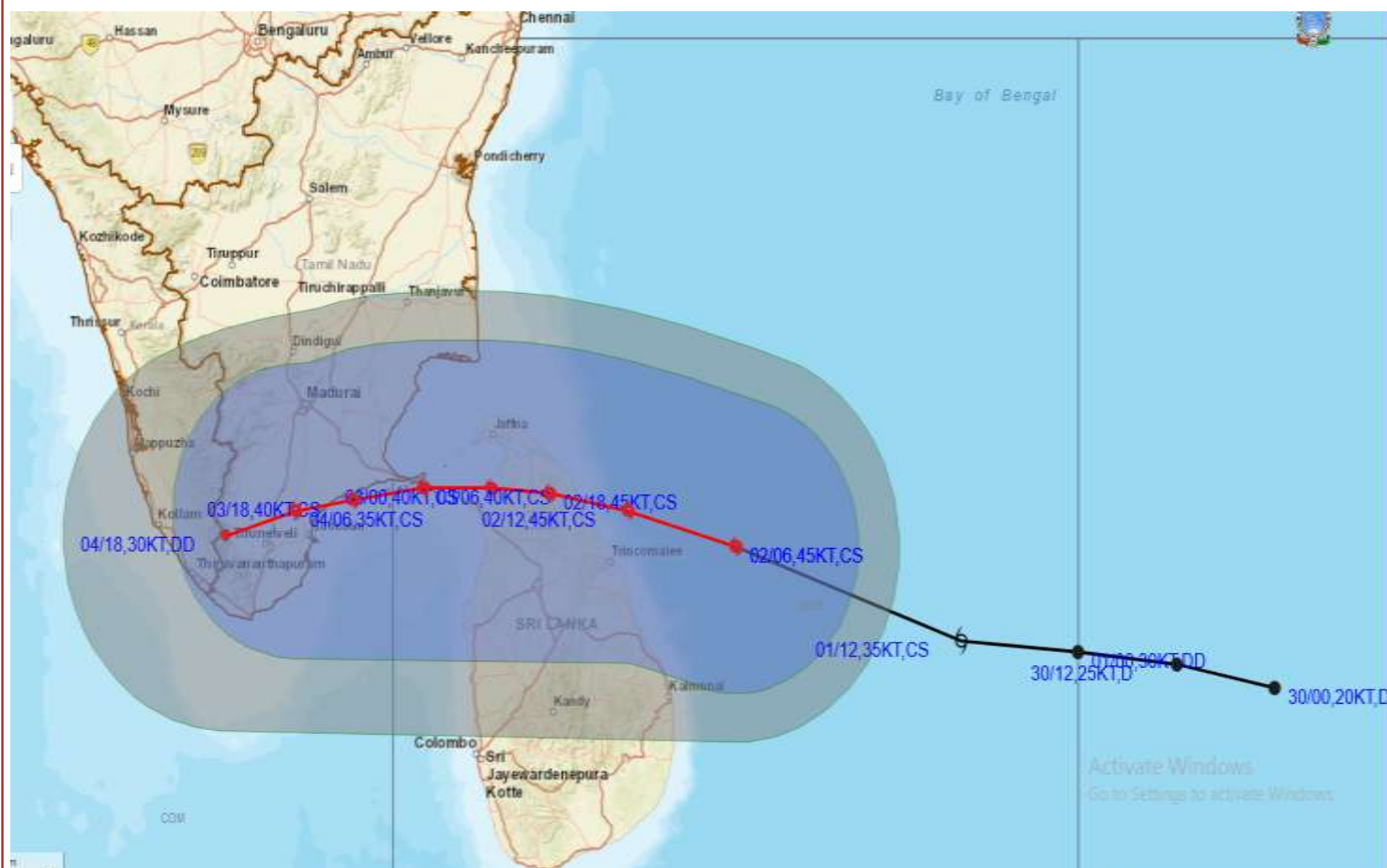
DATE/TIME IN UTC
IST=UTC + 0530
L: LOW PRESSURE AREA
WML: WELL MARKED LOW PRESSURE AREA
D: DEPRESSION (17-27 KT)
DD: DEEP DEPRESSION (28-33 KT)
CS: CYCLONIC STORM (34-47 KT)
SCS: SEVERE CYCLONIC STORM (48-63KT)
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

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

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.



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM "BUREVI" OVER SOUTHWEST BAY OF BENGAL BASED ON 0600 UTC OF 2nd DECEMBER, 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

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

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.

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)
Ramanathapuram	Ramanathapuram	Tamil Nadu	Nagachi	1.1-1.3	Upto 0.47
Tiruvadanai	Ramanathapuram	Tamil Nadu	Marungur	0.7-1.1	Upto 0.69
Arantangi	Pudukkottai	Tamil Nadu	Enadi	0.5-0.8	Upto 0.39
Tuticorin	Thoothukkudi	Tamil Nadu	Mappilaiurani	0.4-0.8	Upto 1.2
Ottapidaram	Thoothukkudi	Tamil Nadu	Pattanamardur	0.5-0.7	Nil
Peravurani	Thanjavur	Tamil Nadu	Sendalaivayal	0.6-0.7	Nil
Thoothukkudi	Tuticorin	Tamil Nadu	Hare Island	0.4-0.6	Nil
Thoothukkudi	Tuticorin	Tamil Nadu	Tuticorin Bay	0.4-0.6	Upto 0.2
Pattukkottai	Thanjavur	Tamil Nadu	Palanjur	0.4-0.5	Upto 0.18
Srivaikuntam	Thoothukkudi	Tamil Nadu	Palayakkayal	0.4-0.4	Upto 0.23
Tiruchchendur	Thoothukkudi	Tamil Nadu	Kayalpattinam	0.2-0.3	Upto 0.28
Vilattikulam	Thoothukkudi	Tamil Nadu	Vaippar	0.3-0.4	Nil

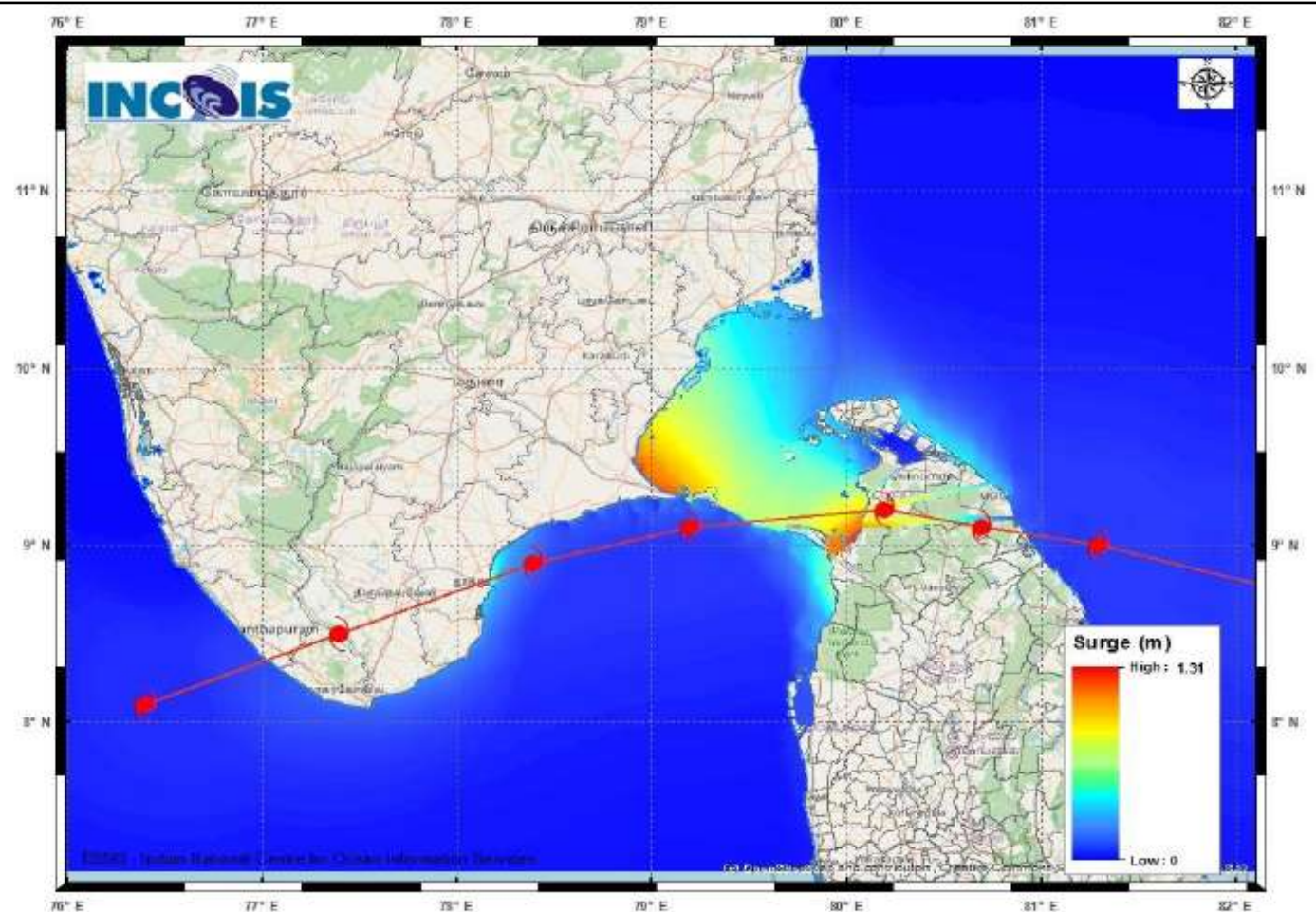


Figure: Storm Surge Map

Storm Surge Forecast by INCOIS Model based on 0300 UTC of 2nd December

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.