



India Meteorological Department

(Ministry of Earth Sciences)

BULLETIN NO. : 07(BOB/05/2020)

TIME OF ISSUE: 1130 HOURS IST

DATED: 01.12.2020

FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

TO: CONTROL ROOM, NDM, MINISTRY OF HOME AFFAIRS (FAX.NO. 23093750)

CONTROL ROOM NDMA (FAX.NO. 26701729)

CABINET SECRETARIAT (FAX.NO.23012284, 23018638)

PS TO HON'BLE MINISTER FOR S & T AND EARTH SCIENCES (FAX NO.23316745)

SECRETARY, MOES, (FAX NO. 24629777)

H.Q. (INTEGRATED DEFENCE STAFF AND CDS) (FAX NO. 23005137/23005147)

DIRECTOR GENERAL, DOORDARSHAN (23385843)

DIRECTOR GENERAL, AIR (23421105, 23421219)

PIB MOES (FAX NO. 23389042)

UNI (FAX NO. 23355841)

D.G. NATIONAL DISASTER RESPONSE FORCE (NDRF) (FAX NO. 26105912, 2436 3260)

DIRECTOR, PUNCTUALITY, INDIAN RAILWAYS (FAX NO. 23388503)

CHIEF SECRETARY, KARNATAKA (FAX NO. 080-22256360, 22258913)

CHIEF SECRETARY, KERALA (FAX NO. 0471-233315)

CHIEF SECRETARY, LAKSHADWEEP ISLANDS (FAX NO. 04896-262184)

CHIEF SECRETARY, ANDAMAN & NICOBAR ISLANDS (FAX NO. 03192- 232656)

CHIEF SECRETARY, ANDHRA PRADESH (FAX NO. 0863-2441029, 08645-246600)

CHIEF SECRETARY, TAMIL NADU (FAX NO. 044-25672304)

CHIEF SECRETARY, PUDUCHERRY (FAX NO. 0413-2337575, 2334145)

Sub: Deep Depression over southwest and adjoining southeast Bay of Bengal (Cyclone Alert for South Tamilnadu and South Kerala coasts: **Yellow Message)**

The **Deep Depression** over southwest and adjoining southeast Bay of Bengal moved westwards with a speed of 11 kmph during past six hours and lay centered at 0830 hrs IST of 01st December 2020 over the same region near Lat. 7.8° N and Long. 85.7°E, about 500 km east-southeast of Trincomalee (Sri Lanka) and 900 km east-southeast of Kanniyakumari (India).

It is very likely to intensify further into a cyclonic storm during next 24 hours. It is very likely to move west-northwestwards and cross Sri Lanka coast between latitude 7.5°N and 9.0°N close to Trincomalee during evening/night of 2nd December. It is very likely to move nearly westwards thereafter, emerge into Gulf of Mannar and adjoining Comorin area on 3rd December morning and move westward towards south Tamilnadu coast.

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
01.12.20/0830	7.8/85.7	50-60 gusting to 70	Deep Depression
01.12.20/1130	7.9/85.3	55-65 gusting to 75	Deep Depression
01.12.20/1730	8.1/84.6	60-70 gusting to 75	Cyclonic Storm
01.12.20/2330	8.3/83.9	65-75 gusting to 85	Cyclonic Storm
02.12.20/0530	8.4/83.2	75-85 gusting to 95	Cyclonic Storm
02.12.20/1730	8.6/81.7	75-85 gusting to 95	Cyclonic Storm
03.12.20/0530	8.7/80.3	65-75 gusting to 85	Cyclonic Storm
03.12.20/1730	8.7/79.3	70-80 gusting to 90	Cyclonic Storm
04.12.20/0530	8.5/78.5	70-80 gusting to 90	Cyclonic Storm

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 (Kanniyakumari, Tirunelveli, Thoothukudi, Tenkasi, Ramanathapuram and Sivagangai)** on 2nd and 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 2nd & 4th December 2020 and south Kerala on 3rd & 4th December, 2020.
- Heavy to very heavy rainfall at Isolated places very likely over north Tamilnadu, Puducherry, Mahe & Kariakal and north Kerala during 2nd & 3rd December, isolated heavy rainfall on 4th December and isolated heavy rainfall over coastal Tamilnadu on 1st December.
- Heavy rainfall at isolated places very likely over south Coastal Andhra Pradesh during 2nd & 03rd December and over Lakshadweep during 03rd and 4th December, 2020.

Sub-Divisions	01 Dec 2020*	02 Dec 2020*	03 Dec 2020*	04 Dec 2020*
South Tamilnadu	Rainfall at many places with 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 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 a few 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 to very heavy rainfall at isolated places	Rainfall at many places with heavy fall at isolated places
South Kerala	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 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 many places with heavy to very 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 isolated places	Rainfall at a few places with heavy rainfall at isolated places	Rainfall at a few places with heavy rainfall at isolated places	Rainfall at a few places
Lakshadweep	Rainfall at a few places	Rainfall at most places	Rainfall at most places with heavy to very falls at isolated places	Rainfall at most places with heavy to very falls at isolated places

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.

(ii) Wind warning

- Squally wind speed reaching 50-60 kmph gusting to 70 kmph very likely over central parts of South Bay of Bengal during next 12 hours.
- It would gradually increase becoming gale wind speed reaching 60-70 kmph gusting to 80 kmph over southwest and adjoining southeast Bay of Bengal from 1st December evening. It would gradually increase becoming 70-80 kmph gusting to 90 kmph over southwest Bay of Bengal, along & off Sri Lanka coast from 2nd December morning for subsequent 24 hours.
- Squally wind speed reaching 45-55 kmph gusting to 65 kmph very likely over Comorin Area, Gulf of Mannar and south Tamilnadu-Kerala coasts from 2nd December forenoon. It will gradually increase becoming 55-65 kmph gusting to 75 kmph over Gulf of Mannar, along & off south Tamilnadu & Kerala coasts, over Comorin Area, Lakshadweep-Maldives area and adjoining southeast Arabian Sea from 3rd December morning and 70-80 kmph gusting to 90 kmph from evening of 3rd December for subsequent 24 hours.

(iii) Sea condition

- Prevailing rough to very rough sea condition over southeast Bay of Bengal will continue during 1st December and very rough to high over southeast & adjoining southwest Bay of Bengal and along & off east Sri Lanka coast during 1st & 2nd December, and rough to very rough over Comorin Area, Gulf of Mannar & along & off south Tamilnadu-Kerala coasts from 2nd to 4th December.
- Sea condition will be rough to very rough over Lakshadweep-Maldives area and adjoining southeast Arabian Sea during 3rd – 4th December.

(iv) Fishermen Warning

- **Total suspension** of fishing operation **during 1st december to 4th December** over the areas as mentioned below.
- Fishermen are advised not to venture into southeast Bay of Bengal during 1st December, southwest Bay of Bengal and along & off east Sri Lanka coast from **1st to 3rd December**; Comorin Area, Gulf of Mannar and south Tamilnadu-Kerala coasts from **2nd to 4th December**, over Lakshadweep-Maldives area & adjoining southeast Arabian Sea **from 3rd to 4th December**.
- Fishermen out at Sea are advised to return to the coast by today.

The next bulletin will be issued at 1430 hrs IST of 1st 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.

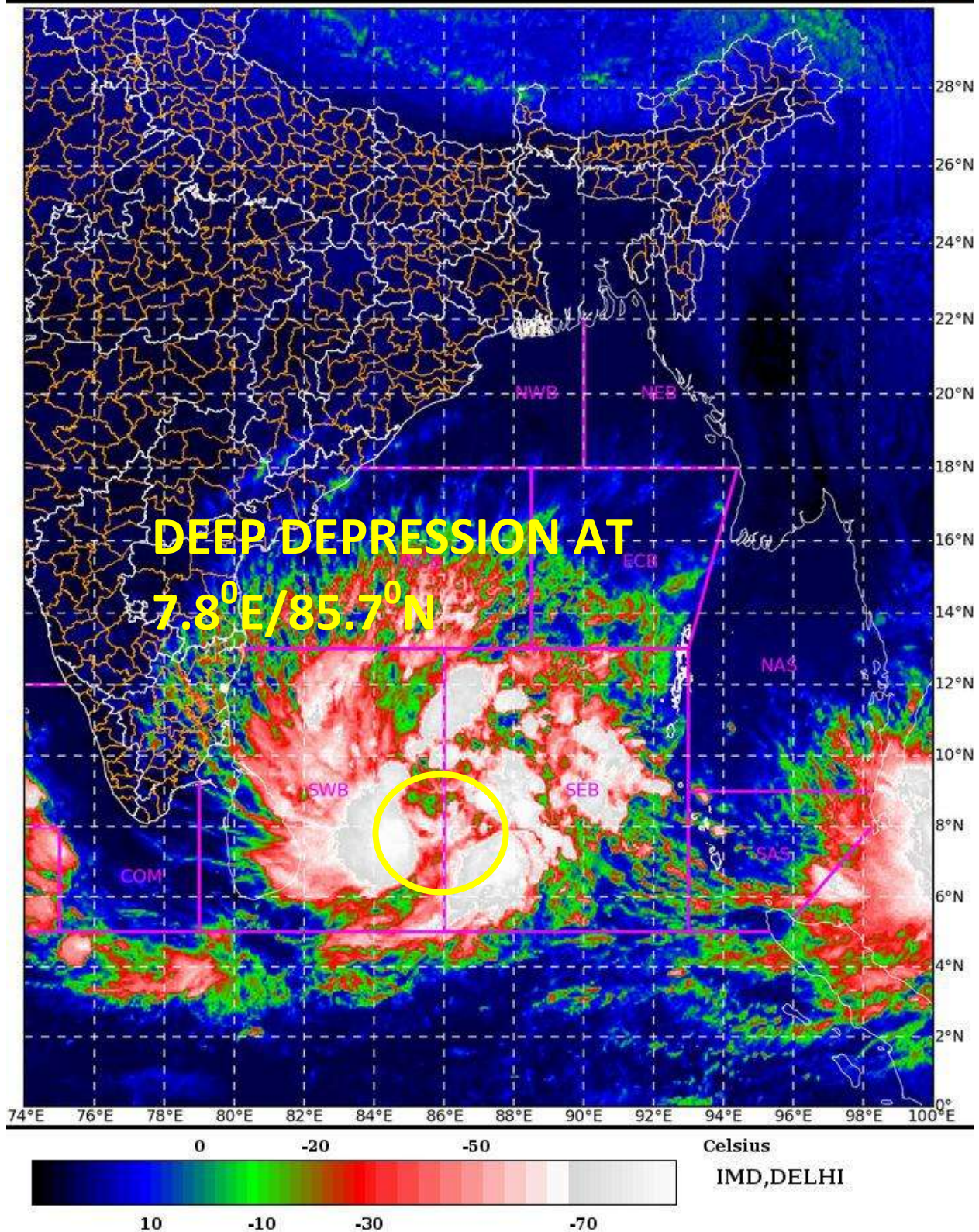
SAT : INSAT-3D IMG

01-12-2020/(0400 to 0427) GMT

IMG_TIR1_TEMP 10.8 um

01-12-2020/(0930 to 0957) IST

L1C Mercator

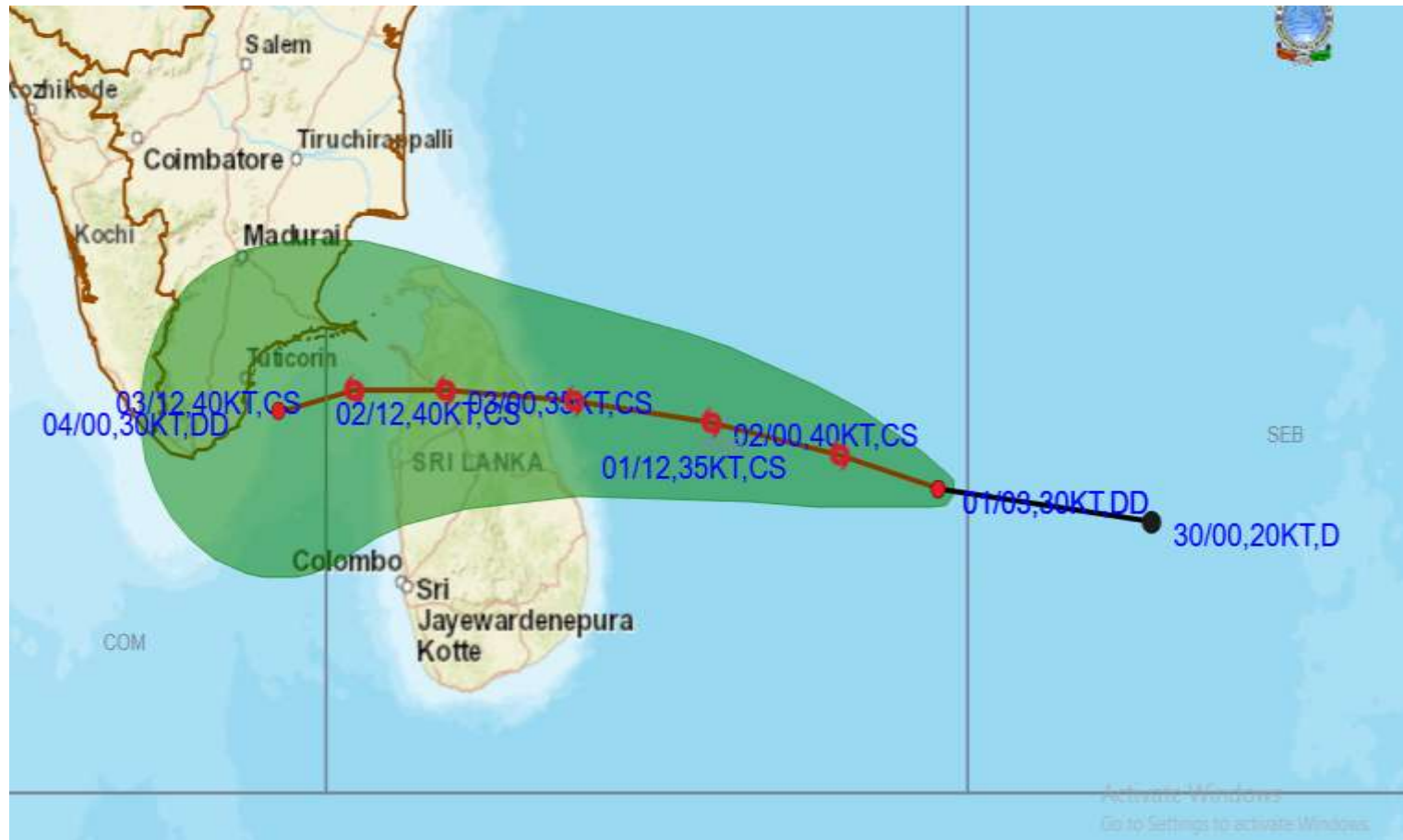


Spatial rainfall distribution: Isolated: ≤25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

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 DEEP DEPRESSION OVER SOUTHWEST AND ADJOINING SOUTHEAST BAY OF BENGAL BASED ON 0300 UTC OF 1st DECEMBER, 2020.



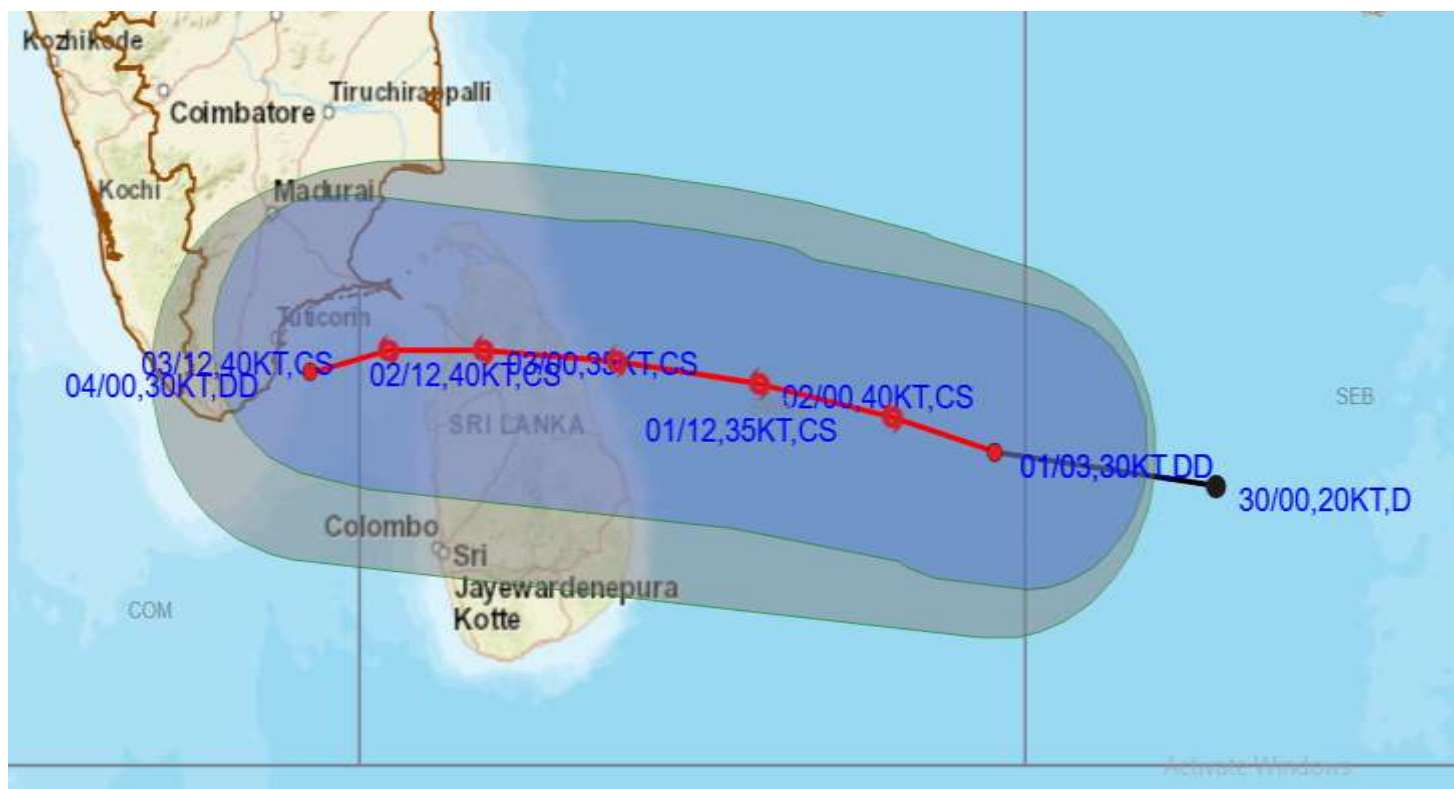
DATE/TIME IN UTC
IST=UTC + 0530
L: LOW PRESSURE AREA
WML: WELL MARKED LOW PRESSURE AREA
D: DEPRESSION (17-27 KT)
DD: DEEP DEPRESSION (28-33 KT)
CS: CYCLONIC STORM (34-47 KT)
SCS: SEVERE CYCLONIC STORM (48-63KT)
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 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 DEEP DEPRESSION OVER SOUTHWEST AND ADJOINING SOUTHEAST BAY OF BENGAL BASED ON 0300 UTC OF 1st 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: ≤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)
Arantangi	Pudukkottai	Tamil Nadu	Manamelkudi	0.2-0.3	Nil
Peravurani	Thanjavur	Tamil Nadu	Adaikkathevan	0.2-0.3	Nil
Ramanathapuram	Ramanathapuram	Tamil Nadu	Devipattinam	0.2-0.6	Upto 0.57
Tiruvadanai	Ramanathapuram	Tamil Nadu	Vattanam	0.3-0.5	Upto 0.12

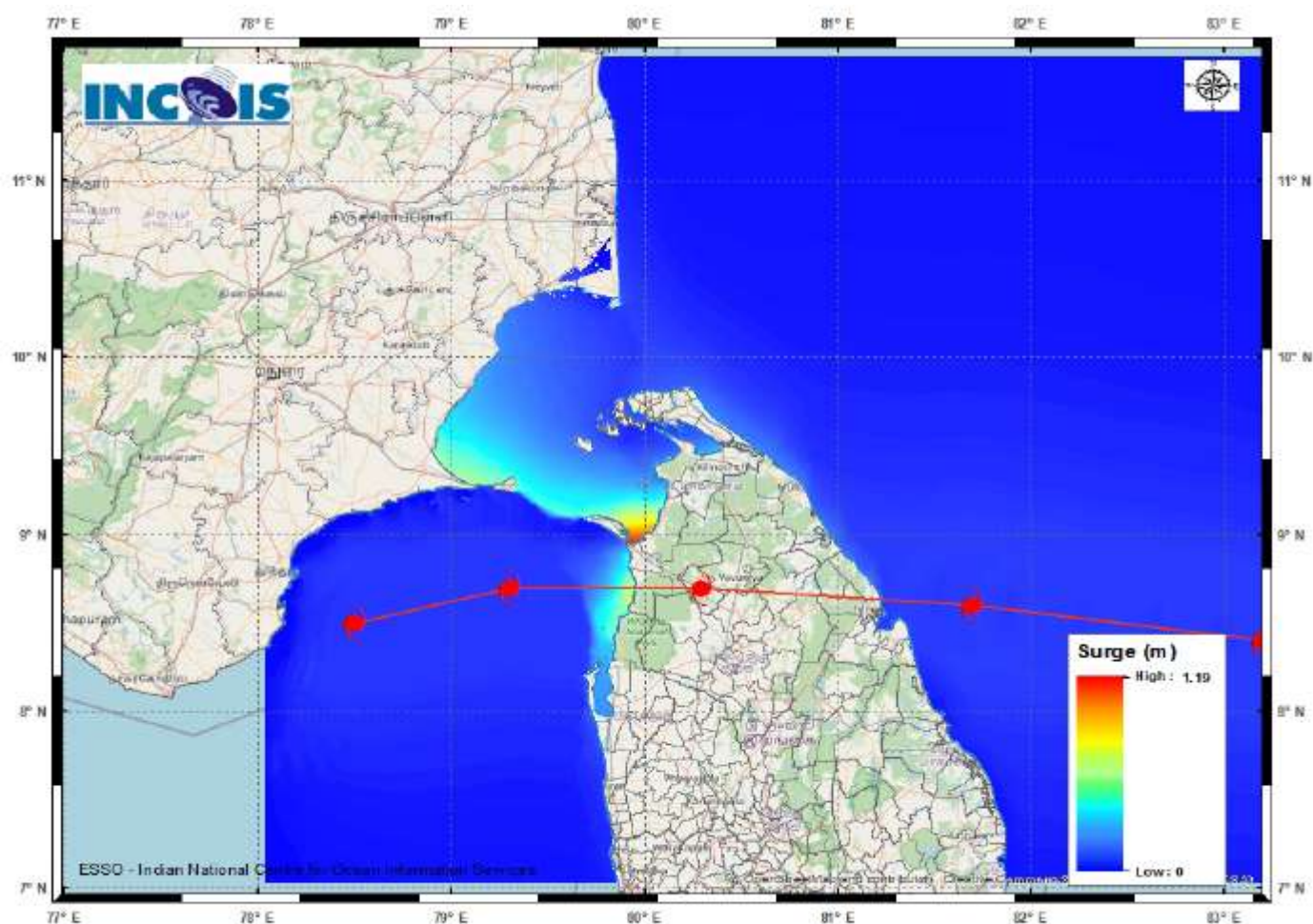


Figure: Storm Surge Map

Storm Surge Forecast by INCOIS Model

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.