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Earth System Science Organisation
(Ministry of Earth Sciences)**

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Sub: (a) Very Severe Cyclonic Storm 'TITLI' over westcentral Bay of Bengal: Cyclone Warning for districts of north Andhra Pradesh & south Odisha coasts: Red Message.

(b) Very Severe Cyclonic Storm, 'LUBAN' over westcentral Arabian Sea

(a) Very Severe Cyclonic Storm 'TITLI' over westcentral Bay of Bengal: Cyclone Warning for districts of north Andhra Pradesh & Odisha coasts: Red Message.

The very severe cyclonic storm, 'TITLI' is being monitored by the coastal Doppler Weather Radars at Visakhapatnam, Gopalpur and Paradip. The latest observations indicate that the Very Severe Cyclonic Storm 'TITLI' over westcentral Bay of Bengal moved northwestwards with a speed of about 18 kmph during past 06 hours and lay centered at 1430 hrs IST of today, the 10th October 2018 over Westcentral Bay of Bengal near latitude 17.2°N and longitude 85.5°E, about 230 km south-southeast of Gopalpur (Odisha) and 190 km southeast of Kalingapatnam (Andhra Pradesh). It is very likely to intensify further during next 12 hours. It is very likely to move north-northwestwards and cross Odisha & adjoining north Andhra Pradesh coasts between Gopalpur & Kalingapatnam around morning of 11th October. Thereafter, it is very likely to re-curve northeastwards, move towards Gangetic West Bengal across Odisha and weaken gradually. Forecast track and intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
10.10.18/1430	17.2/85.5	130-140 gusting to 155	Very Severe Cyclonic Storm
10.10.18/1730	17.4/85.3	140-150 gusting to 165	Very Severe Cyclonic Storm
10.10.18/2330	18.0/85.1	140-150 gusting to 165	Very Severe Cyclonic Storm
11.10.18/0530	18.6/84.9	140-150 gusting to 165	Very Severe Cyclonic Storm
11.10.18/1130	19.3/84.8	140-150 gusting to 165	Very Severe Cyclonic Storm
11.10.18/2330	20.5/85.5	70-80 gusting to 90	Cyclonic Storm
12.10.18/1130	21.8/87.0	50-60 gusting to 70	Deep Depression
12.10.18/2330	23.1/88.7	40-50 gusting to 60	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.

(i) Heavy rainfall warnings:

Region	10 Oct. 2018 (Rainfall till 0830 IST of next day.)	11 Oct. 2018 (Rainfall till 0830 IST of next day.)	12 Oct. 2018(Rainfall till 0830 IST of next day.)	13 Oct. 2018(Rainfall till 0830 IST of next day.)
Odisha	Rainfall at most places with heavy to very heavy falls at a few places and extremely heavy falls at Isolated Places over coastal Odisha and isolated heavy over interior Odiha.	Rainfall at most places with heavy to very heavy falls at a few places and extremely heavy falls at Isolated Places over coastal & interior Odisha.	Rainfall at many places with heavy falls at Isolated Places over north Odisha.	Nil
North Coastal Andhra Pradesh	Rainfall at many places with heavy to very heavy falls at Isolated Places.	Rainfall at many places with heavy to very heavy and extremely heavy falls at Isolated Places.	Nil	Nil
Gangetic West Bengal	Rainfall at many places with heavy to very heavy falls at Isolated Places over coastal West Bengal	Rainfall at most places with heavy to very heavy falls at Isolated Places	Rainfall at many places with heavy to very heavy falls at Isolated Places	Nil
Assam & Meghalaya	Nil	Rainfall at most places with heavy falls at isolated places	Rainfall at most places with heavy to very heavy falls at isolated places	Rainfall at many places with heavy falls at isolated places
Mizoram & Tripura	Rainfall at most places with heavy falls at isolated places	Rainfall at most places with heavy to very heavy falls at isolated places	Rainfall at most places with heavy to very heavy falls at isolated places	Rainfall at many places with heavy falls at isolated places

Legends: **Red-Take Action**; **Orange- Be prepared**; **Yellow- be updated**; **Green: No warning**

Heavy rain: 64.5-115.5 mm/day; Very heavy rain: 115.6-204.4 mm/day; Extremely heavy rain: more than 204.4 mm/day

(ii) Wind warning

- Gale wind speed reaching 140-150 kmph gusting to 165 kmph prevails over deep sea areas of westcentral & adjoining north Bay of Bengal till 11th forenoon.
- Gale wind speed reaching 60-70 kmph gusting to 80 kmph is very likely to commence along & off north Andhra Pradesh and Odisha coasts from today afternoon.
- **It is very likely to increase gradually becoming 140-150 kmph gusting to 165 kmph from today, the 10th October 2018 night onwards along & off south Odisha & adjoining districts of north Andhra Pradesh coasts** and 70-80 kmph gusting to 90 kmph along & off north Odisha and remaining districts of north Andhra Pradesh coasts.
- Squally winds speed reaching 50-60 kmph gusting 70 kmph is very likely to commence along & off West Bengal coast from today afternoon and gradually increase to 60-70 kmph gusting 80 kmph from today night onwards.

(iii) Sea condition

- The sea condition is very high over westcentral Bay of Bengal around system centre. It is very likely to be phenomenal over westcentral & adjoining north Bay of Bengal and along & off south Odisha and adjoining north Andhra Pradesh coasts from tonight to 11th October 2018 forenoon.

(iv) Storm Surge Warning

- Storm surge of height of about 1.0 meter above astronomical tide is very likely inundate low lying areas of Srikakulam district of Andhra Pradesh; Ganjam, Khurda & Puri districts of Odisha at the time of landfall.

(v) Damage Expected over districts of Visakhapatnam, Vizianagaram and Srikakulam of Andhra Pradesh, Gajapati, Ganjam, Khurda, Nayagarh and Puri districts of Odisha:

- Total destruction of thatched houses/ extensive damage to kutcha houses. Some damage to pucca houses. Potential threat from flying objects.
- Bending/ uprooting of power and communication poles. Breaking of tree branches and uprooting of large avenue trees.
- Major damage to Kutcha and and Pucca roads. Flooding of escape routes. Minor disruption of railway.
- Widespread damage to standing crops, plantations, orchards, falling of green coconuts and tearing of palm fronds. Blowing down of bushy trees.

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.

(vi) Action Suggested:

- Total suspension of fishing operations.
- The fishermen are advised not to venture into westcentral & north Bay of Bengal till 11th October 2018. Those, who are out in deep sea areas are advised return to the coast immediately.
- Evacuation from coastal areas need to be mobilised. People advised to remain indoors.
- Judicious regulation of rail and road traffic needed.

(vii) Post landfall Outlook:

- After the landfall the very severe cyclonic storm, Titli is very likely to maintain the intensity of cyclone till evening of 11th October 2018, while moving northeastwards across Odisha. As a result, the gale wind speed of 60-90 kmph is very likely to prevail over the interior districts adjacent to south coastal Odisha during 11th morning to 11th afternoon and wind speed of 60-70 kmph over the interior districts adjacent to north coastal Odisha from 11th noon to night.
- It may lead to breaking of tree branches, uprooting of trees, minor damage to power and communication lines, Damage to thatched huts, damage to standing crops.

(b) Very Severe Cyclonic Storm, 'LUBAN' over westcentral Arabian Sea:

The Very Severe Cyclonic Storm over westcentral Arabian Sea moved northwestwards with a speed of 07 kmph during past six hours and lay centered at 1430 hrs IST 10th October 2018 over westcentral Arabian Sea, near latitude 14.4°N and longitude 58.7°E, about 570 km east-southeast of Salalah (Oman), 550 km east-northeast of Socotra Islands (Yemen) and 730 km east-southeast of Al-Ghaidah (Yemen). It is very likely to intensify further and move west-northwestwards towards Yemen & South Oman Coasts during next 4 days. Forecast track & intensity are given in the following table:

Date/Time(IST)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
10.10.18/1430	14.4/58.7	135-145 gusting to 160	Very Severe Cyclonic Storm
10.10.18/1730	14.5/58.6	135-145 gusting to 160	Very Severe Cyclonic Storm
10.10.18/2330	14.6/58.3	140-150 gusting to 165	Very Severe Cyclonic Storm
11.10.18/0530	14.7/58.1	140-150 gusting to 165	Very Severe Cyclonic Storm
11.10.18/1130	14.8/57.8	140-150 gusting to 165	Very Severe Cyclonic Storm
11.10.18/2330	14.9/57.1	140-150 gusting to 165	Very Severe Cyclonic Storm
12.10.18/1130	15.0/56.3	140-150 gusting to 165	Very Severe Cyclonic Storm
12.10.18/2330	15.1/55.4	140-150 gusting to 165	Very Severe Cyclonic Storm
13.10.18/1130	15.2/54.4	135-145 gusting to 160	Very Severe Cyclonic Storm
13.10.18/2330	15.2/52.9	120-130 gusting to 145	Very Severe Cyclonic Storm
14.10.18/1130	15.2/51.1	110-120 gusting to 130	Severe Cyclonic Storm
14.10.18/2330	15.0/48.3	90-100 gusting to 110	Severe Cyclonic Storm

Warnings:**(i) Wind warning**

- Gale wind speed reaching 120-130 kmph gusting to 145 kmph is prevailing over westcentral & adjoining southwest Arabian Sea. It is very likely to increase gradually becoming 135-145 kmph gusting to 160 kmph by 11th October 2018 evening over westcentral Arabian Sea around the system centre. The wind speed is very likely to decrease gradually over southwest Arabian Sea from 11th onwards.

(ii) Sea condition

- The sea condition is phenomenal around the system centre. It is very likely continued to be phenomenal over westcentral Arabian Sea till 13th October 2018 and over Gulf of Aden during 11th to 13th October.

(iii) Fishermen Warning

- The fishermen are advised not to venture into deep sea areas of westcentral Arabian Sea & Gulf of Aden till 14th October and adjoining southwest Arabian Sea till 11th October.

The next bulletin will be issued at 2030 hrs IST of 10th October, 2018.

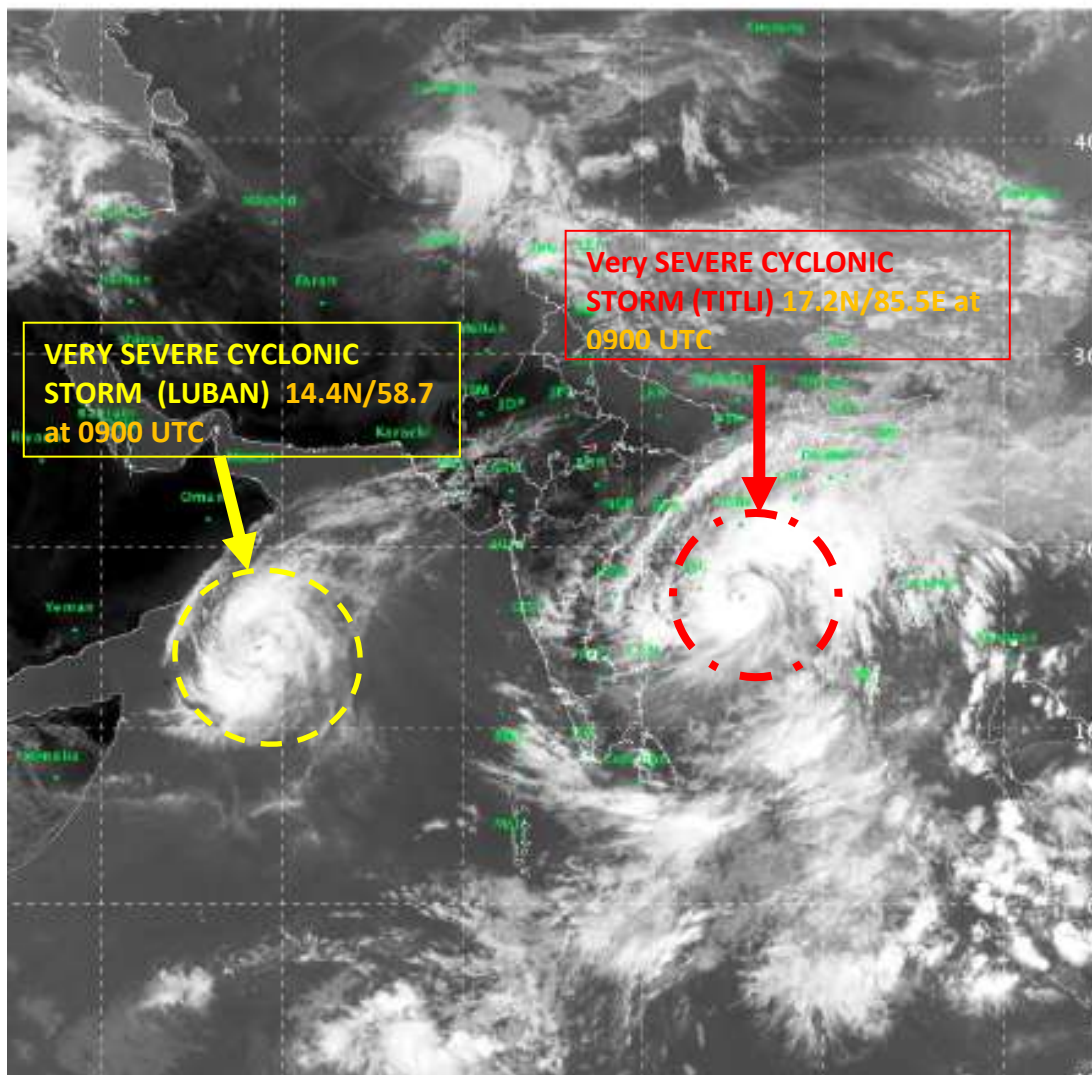
(Sunitha Devi)

Scientist-E, RSMC, New Delhi

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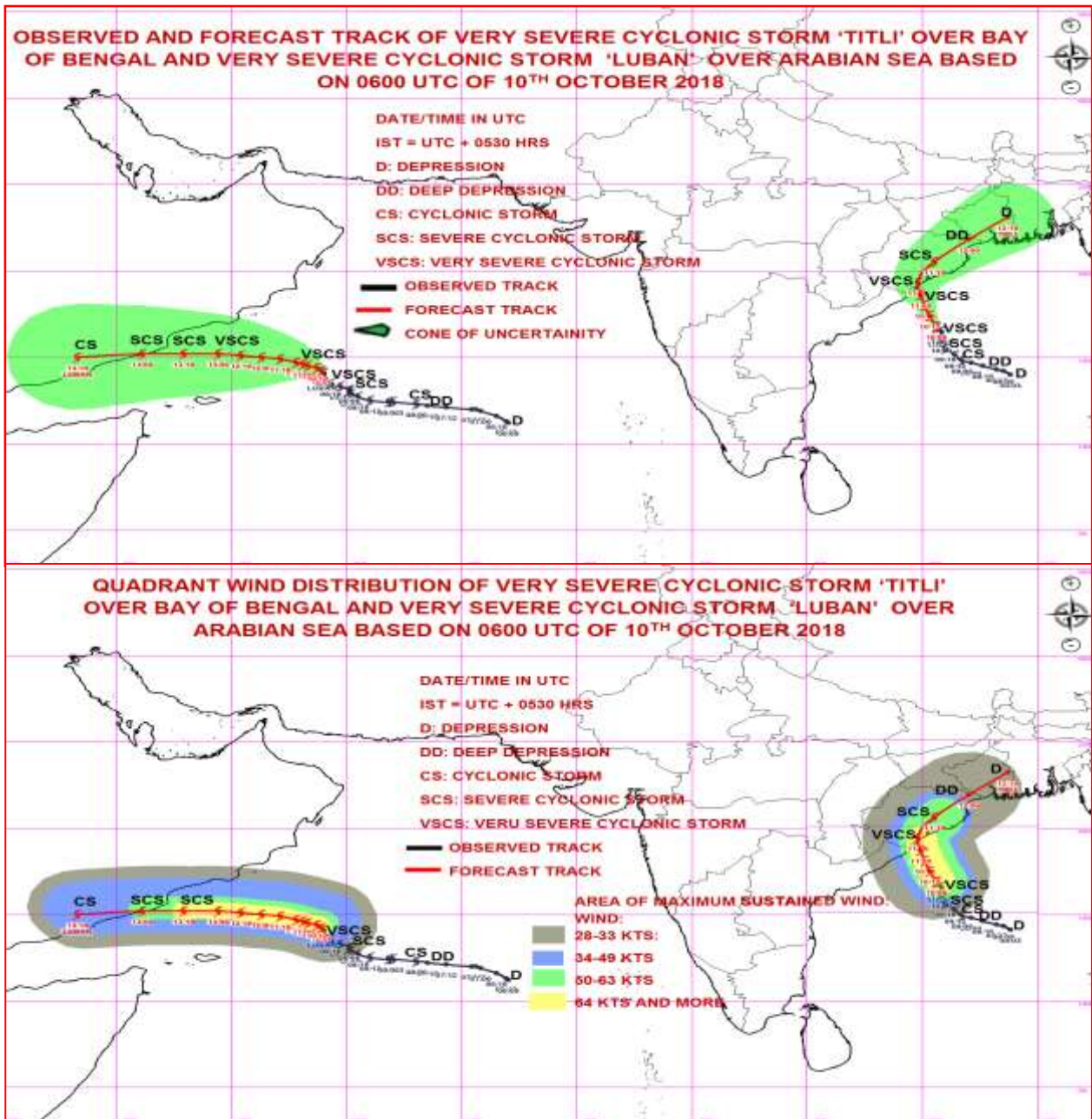
Spatial rainfall distribution: Isolated: <25%, A few: 26-50%, Many: 51-75%, Most: 76-100%

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