



India Meteorological Department  
Earth System Science Organisation  
(Ministry of Earth Sciences)

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**Sub: Very Severe Cyclonic Storm 'VAYU' over East-central Arabian:  
Cyclone Warning for Gujarat Coast: Orange Message**

The Very **Severe Cyclonic Storm 'VAYU'** (pronounced as **VAA'YU**) over Eastcentral Arabian Sea moved northwestwards with a speed of about 14 kmph in last six hours and lay centred at 1130 hrs IST of 12<sup>th</sup> June, 2019 near latitude 18.4°N and longitude 70.0°E over Eastcentral Arabian Sea, about 310 km west-southwest of Mumbai (Maharashtra), 280 km nearly south of Veraval (Gujarat) and 360 km nearly south of Porbandar (Gujarat).

**It is very likely to move nearly northwards and cross Gujarat coast between Dwarka and Veraval as a Very Severe Cyclonic Storm with wind speed 155-165 kmph gusting to 180 kmph around afternoon of 13<sup>th</sup> June 2019.**

**After crossing, the system is likely to move along & parallel to Saurashtra & Kutch Coast affecting Amreli, Gir Somnath, Diu, Junagarh, Porbandar, Rajkot, Jamnagar, Devbhoomi Dwarka and Kutch.**

Forecast track and intensity are given in the following table:

| Date/Time(IST) | Position<br>(Lat. °N/ long. °E) | Maximum sustained<br>surface wind speed (Kmph) | Category of cyclonic<br>disturbance |
|----------------|---------------------------------|--|-------------------------------------|
| 12.06.19/1130  | 18.4/70.0                       | 140-150 gusting to 165                         | Very Severe Cyclonic Storm          |
| 12.06.19/1730  | 19.2/69.9                       | 140-150 gusting to 165                         | Very Severe Cyclonic Storm          |
| 12.06.19/2330  | 20.0/69.8                       | 145-155 gusting to 170                         | Very Severe Cyclonic Storm          |
| 13.06.19/0530  | 20.9/69.8                       | 150-160 gusting to 175                         | Very Severe Cyclonic Storm          |
| 13.06.19/1130  | 21.2/69.8                       | 155-165 gusting to 180                         | Very Severe Cyclonic Storm          |
| 13.06.19/2330  | 21.9/69.6                       | 130-140 gusting to 155                         | Very Severe Cyclonic Storm          |
| 14.06.19/1130  | 22.3/69.3                       | 120-130 gusting to 145                         | Very Severe Cyclonic Storm          |
| 14.06.19/2330  | 22.7/68.8                       | 110-120 gusting to 135                         | Severe Cyclonic Storm               |
| 15.06.19/1130  | 22.9/68.3                       | 100-110 gusting to 125                         | Severe 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) Heavy rainfall warning:

| Sub-Divisions        | 12 June 2019*   | 13 June 2019*   | 14 June 2019*  |
|----------------------|---|---|--|
| Konkan & Goa         | Widespread rainfall with heavy to very heavy falls at isolated places | Fairly widespread rainfall with heavy falls at isolated places  | Fairly widespread rainfall   |
| Saurashtra & Kutch   | Fairly widespread rainfall with heavy falls at isolated places        | Widespread rainfall with heavy to very heavy falls at few places and extremely heavy falls at isolated places | Fairly widespread rainfall with heavy to very heavy falls at isolated places |
| South Gujarat Region | Fairly widespread rainfall with heavy falls at isolated places        | Rainfall at a few places with heavy falls at isolated places  | Rainfall at a few places   |

Note: \* Rainfall till 0830 IST of next day.

Legends:

**Yellow: Be Updated; Orange- Be prepared; Red- Take action, 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

- **12<sup>th</sup> June:** Gale wind speed reaching **140-150 kmph gusting to 165 kmph** prevails over eastcentral & adjoining northeast Arabian Sea and become **145-155 kmph gusting to 170 kmph** by 12<sup>th</sup> night. Gale wind speed reaching 60-70 kmph gusting to 80 kmph prevails over Gujarat Coast and become gale wind speed reaching **100-110 kmph gusting to 125 kmph** by 12<sup>th</sup> night. It is very likely to be 50-60 kmph gusting to 70 kmph over Maharashtra Coast.
- **13<sup>th</sup> June:** Gale wind speed of the order of **155-165 kmph gusting to 180 kmph** very likely over north Arabian Sea & Gujarat coast till afternoon and decrease gradually thereafter. It is very likely to be 50-60 kmph gusting to 70 kmph over north Maharashtra Coasts & northern parts of eastcentral Arabian Sea.

### (iii) Sea condition

- The sea condition is phenomenal over eastcentral & adjoining northeast Arabian Sea & Gujarat coast on 12<sup>th</sup> & 13<sup>th</sup> June 2019.
- The Sea condition is very likely to very rough to high along & off Maharashtra Coast on 12<sup>th</sup> & 13<sup>th</sup> June, 2019.

### (iv) Fishermen Warning

- The fishermen are advised not to venture into Eastcentral Arabian Sea and along & off Maharashtra Coast on 12<sup>th</sup>; north Arabian sea and along & off Gujarat coast on 12<sup>th</sup> & 13<sup>th</sup>.

### (iv) Storm Surge Warning

Storm surge of height of about 1.5-2.0 m above the astronomical tides likely to inundate the low lying coastal areas of Kutch, Devbhoomi, Dwarka, Porbandar, Junagarh, Diu, Gir Somnath, Amreli and Bhavnagar districts at the time of landfall.

### (v) Damage Expected and Action suggested for Amreli, Gir Somnath, Diu, Junagarh, Porbandar, Rajkot, Jamnagar, Devbhoomi Dwarka and Kutch:

- (i) Total destruction of thatched houses/extensive damage to Kutcha houses. Some damage to pucca houses. Potential threat from flying objects.(ii) Bending/uprooting of power and communication poles. (iii) Major damage to Kutcha and Pucca roads. Flooding of escape routes. Minor disruption of railways, overhead power lines and signalling systems.

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(iv) Widespread damage to standing crops, plantation, orchards, falling of green coconuts and tearing of palm fronds. Blowing down bushy trees like mango.(v) Small boats, country crafts may get detached from moorings.(vi) Visibility severe affected.

**Action suggested:**

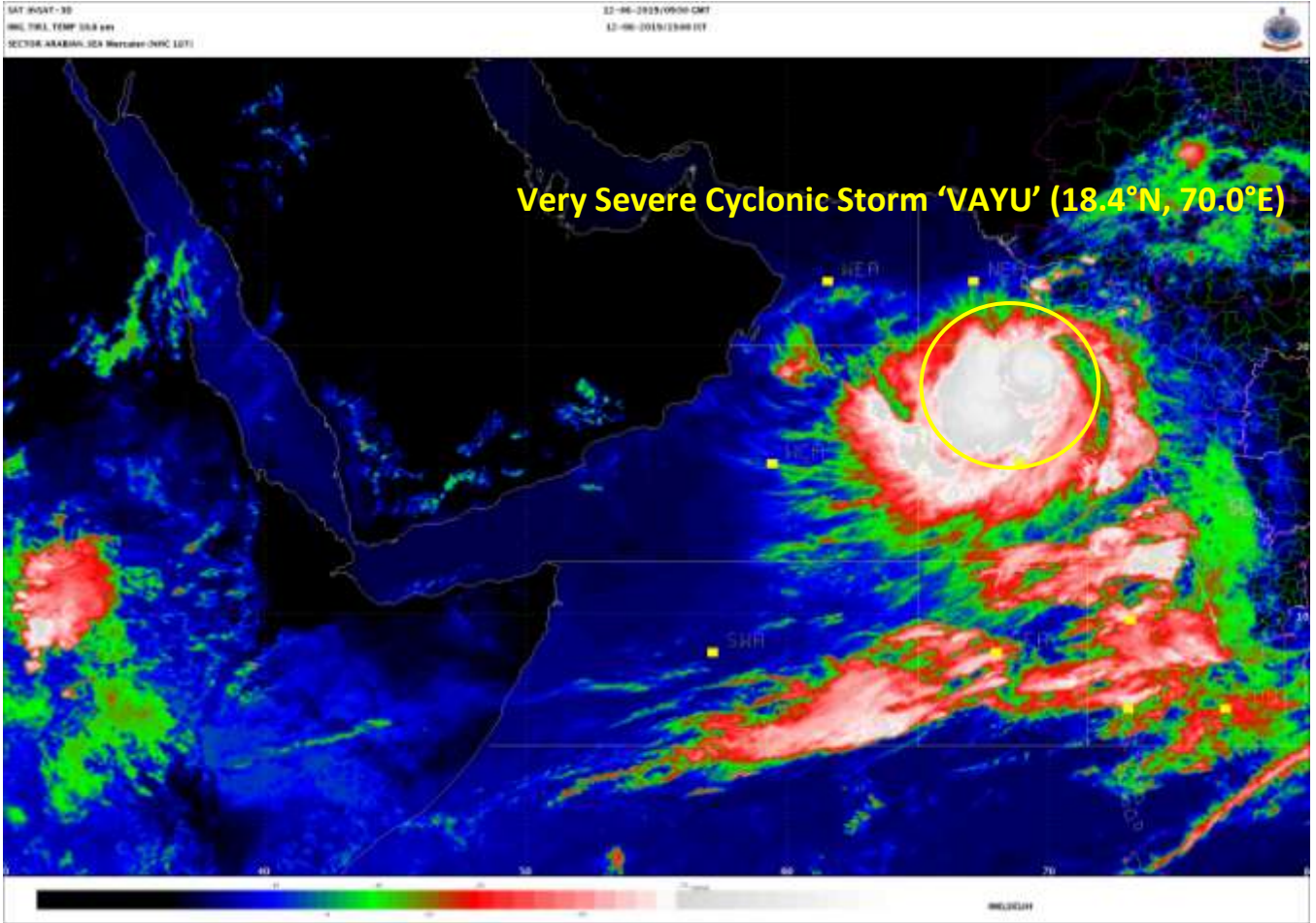
(i) Regulate road & rail traffic (ii) Total suspension of fishing operations. (iii) Evacuation from low lying areas of the above mentioned Districts, coastal Hutment dwellers, urban slum dwellers and people staying in unsafe house to safer places. People in affected areas to remain indoors.(iv) Movement in motor boats & small ships unsafe.(v) Inundation of low lying areas in the along the coasts due to heavy rainfall and storm surge.

*The next bulletin will be issued at 1730 hrs IST of 12<sup>th</sup> June, 2019.*

**(Naresh Kumar)**  
**Scientist-E, RSMC, New Delhi**

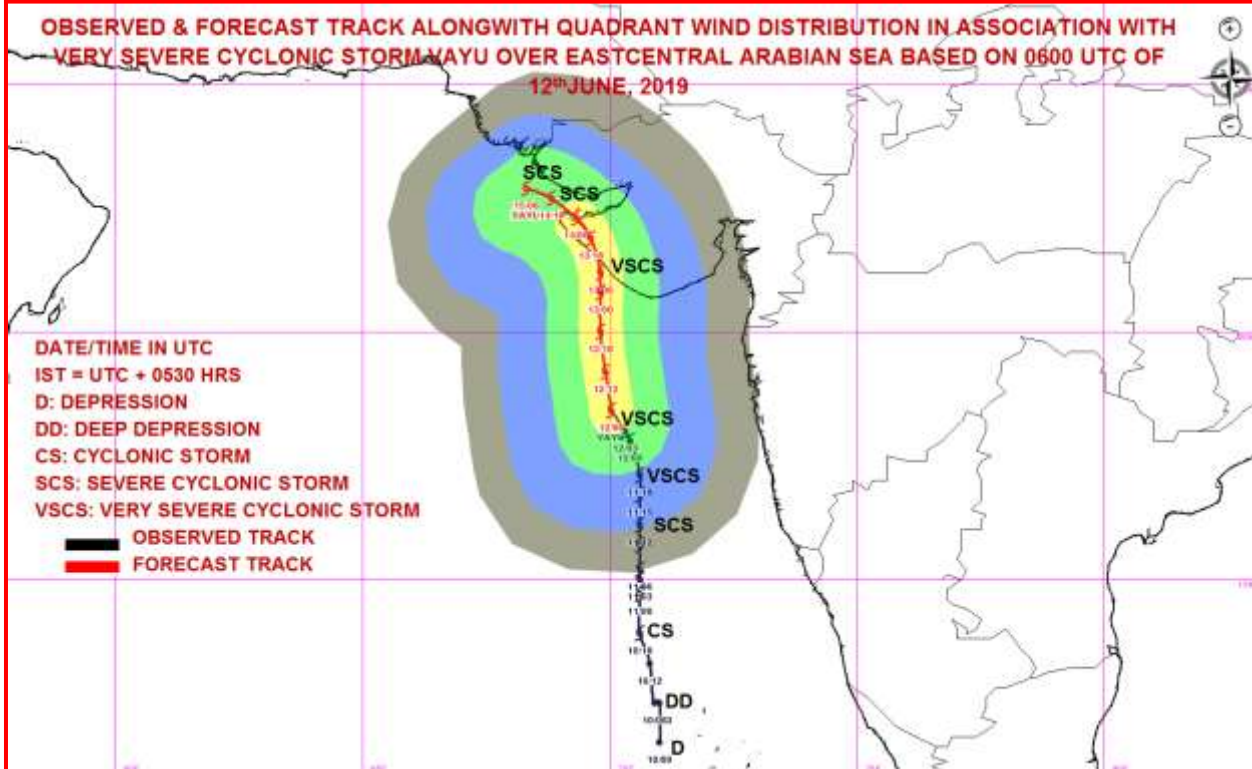
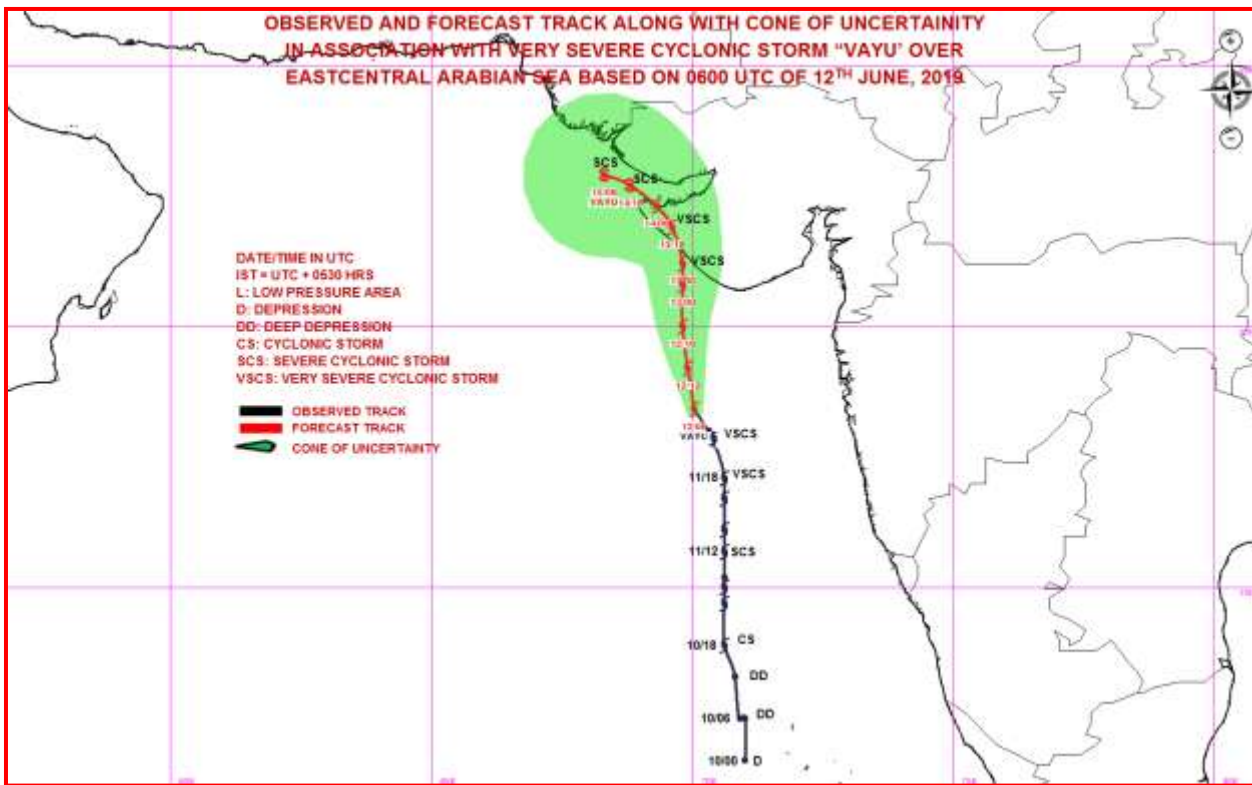
**Copy to: CRS, Pune/ ACWC Chennai/ ACWC Mumbai/MC Goa/ MC Bengaluru/CWC Ahmedabad/Thiruvananthapuram.**

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| MSW(knot/kmph) | Impact                 | Action                                 |
|----------------|------------------------|--|
| 28-33(51-62)   | Very rough seas        | Total suspension of fishing operations |
| 64-89(63-91)   | Very to very High seas | Total suspension of fishing operations |
| 64-89(92-117)  | Very High seas         | Total suspension of fishing operations |
| 64-89(118-166) | Very High seas         | Total suspension of fishing operations |

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