



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

BULLETIN NO. : 11 (ARB/01/2019)

TIME OF ISSUE: 1930 HOURS IST

DATED: 11.06.2019

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Sub: Cyclonic Storm 'VAYU' over Eastcentral Arabian Sea intensified into Severe Cyclonic Storm:

Cyclone Warning for Gujarat Coast: Orange Message

The **Cyclonic Storm 'VAYU'** (pronounced as **VAA'YU**) over Eastcentral Arabian Sea moved further northwards with a speed of about 17 kmph in last six hours, intensified into **Severe Cyclonic Storm** and lay centred at 1730 hrs IST of today, the 11th June, 2019 near latitude 16.1°N and longitude 70.6°E over Eastcentral Arabian Sea, about 350 km west-northwest of Goa, 410 km south-southwest of Mumbai (Maharashtra) and 530 km nearly south of Veraval (Gujarat).

It is very likely to move nearly northwards and cross Gujarat coast between Porbandar and Mahuva around Veraval & Diu region as a Severe Cyclonic Storm with wind speed 110-120 kmph gusting to 135 kmph during early morning of 13th June 2019.

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
11.06.19/1730	16.1/70.6	90-100 gusting to 115	Severe Cyclonic Storm
11.06.19/2330	16.7/70.6	95-105 gusting to 120	Severe Cyclonic Storm
12.06.19/0530	17.5/70.5	100-110 gusting to 125	Severe Cyclonic Storm
12.06.19/1130	18.4/70.5	105-115 gusting to 130	Severe Cyclonic Storm
12.06.19/1730	19.3/70.4	110-120 gusting to 135	Severe Cyclonic Storm
13.06.19/0530	20.7/70.3	110-120 gusting to 135	Severe Cyclonic Storm
13.06.19/1730	21.7/70.1	80-90 gusting to 110	Cyclonic Storm
14.06.19/0530	22.2/69.8	55-65 gusting to 75	Deep Depression
14.06.19/1730	22.8/69.5	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.

Warnings:

(i) Heavy rainfall warning:

Sub-Divisions	11 June 2019*	12 June 2019*	13 June 2019*	14 June 2019*
Konkan & Goa	Fairly widespread rainfall with heavy falls at isolated places	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	Rainfall at isolated places	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	Rainfall at isolated places	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

- **11th June:** Gale Wind speed reaching 90-100 kmph gusting to 115 kmph is likely to prevail over Eastcentral Arabian Sea and 70-80 kmph gusting to 90 kmph along & off North Maharashtra coast from 11th evening. It is very likely to be 40-50 kmph gusting to 60 kmph over Lakshadweep area, Kerala, Karnataka & south Maharashtra Coasts.
- **12th June:** Wind speed is very likely to increase further becoming gale wind speed reaching **110-120 kmph gusting to 135 kmph** over eastcentral & adjoining northeast Arabian Sea by 12th night. It is very likely to be 60-70 kmph gusting to 80 kmph over Gujarat Coast from 12th morning and become gale wind speed reaching **110-120 kmph gusting to 135 kmph** by 12th night. It is very likely to be 50-60 kmph gusting to 70 kmph over Maharashtra Coast.
- **13th June:** Gale wind speed of the order of **110-120 kmph gusting to 135 kmph** very likely over north Arabian Sea & Gujarat coast in morning hours 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 very likely to be high to very high over eastcentral Arabian Sea on 11th. The sea condition is very likely to become very high to phenomenal over eastcentral & adjoining northeast Arabian Sea & Gujarat coast from 12th evening and over north Arabian Sea on 13th June 2019.
- The Sea condition is very likely to be rough over Lakshadweep area, along & off Kerala, Karnataka & south Maharashtra Coasts on 11th; very rough to high along & off Maharashtra Coast on 12th & 13th June, 2019.

(iv) Fishermen Warning

- The fishermen are advised not to venture into Southeast Arabian Sea, Lakshadweep area, along & off Kerala and Karnataka coasts on 11th; Eastcentral Arabian Sea and along & off Maharashtra Coast on 11th & 12th; northeast Arabian sea and along & off Gujarat coast on 12th & 13th.

(iv) Storm Surge Warning

Storm surge of height of about 1.0- 1.5 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.

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.

(v) Damage Expected and Action suggested for Kutch, Devbhoomi Dwarka, Porbandar, Rajkot, Junagarh, Diu, Gir Somnath, Amreli and Bhavnagar districts of Gujarat:

(i) Damage to thatched houses/ huts. Roof tops may blow off. Unattached metal sheets may fly. (ii) Damage to power and communication lines. (iii) Major damage to Kutcha and some damage to Pucca roads. Flooding of escape routes. (iv) Breaking of tree branches, uprooting of large avenue trees. Damage to banana and papaya trees. Large dead limbs blown from trees. (v) Major damage to coastal crops. (vi) Damage to embankments/ salt pans.

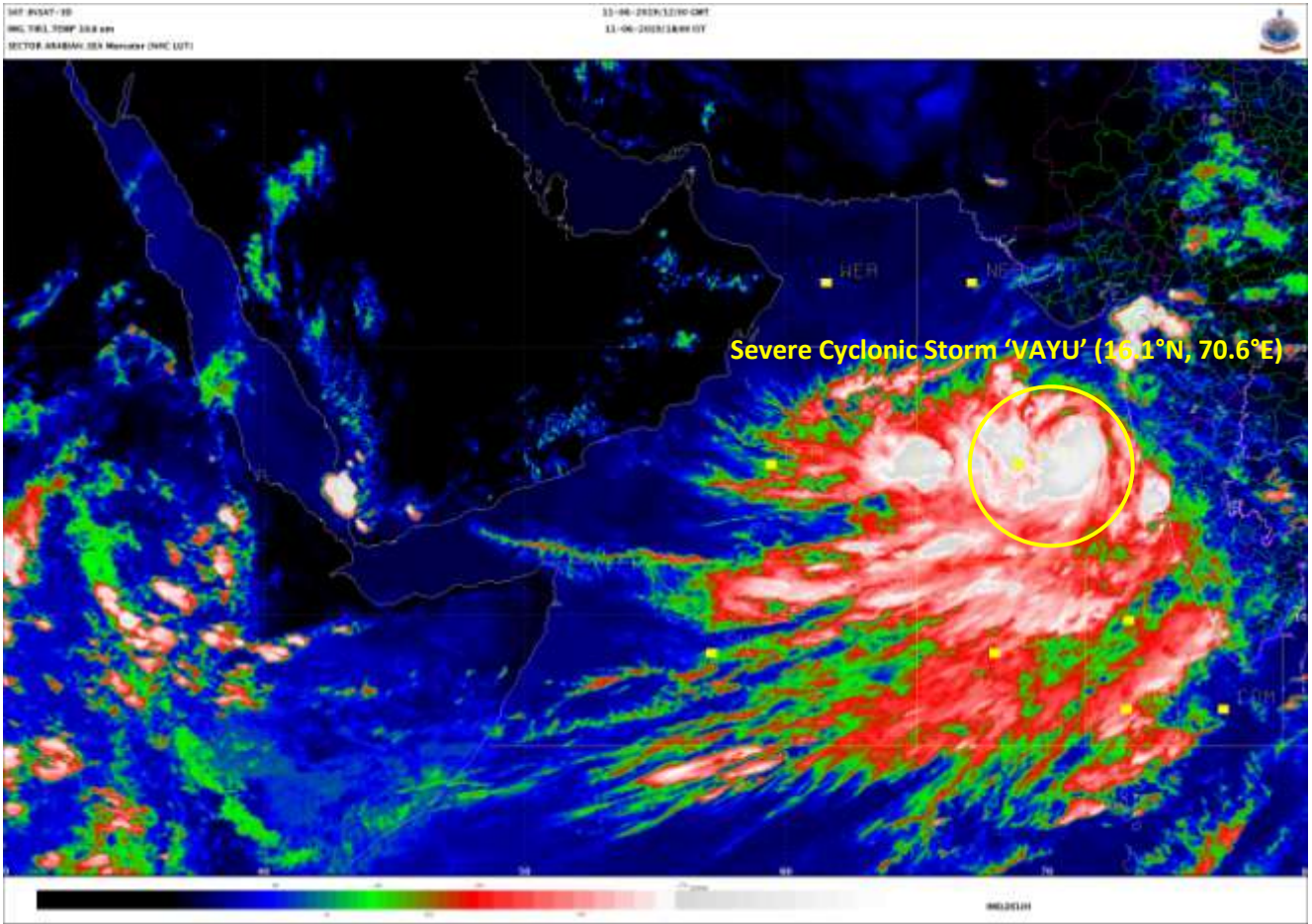
Action suggested:

(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 unsafe. (v) Inundation of low lying areas in the along the coasts due to heavy rainfall and storm surge.

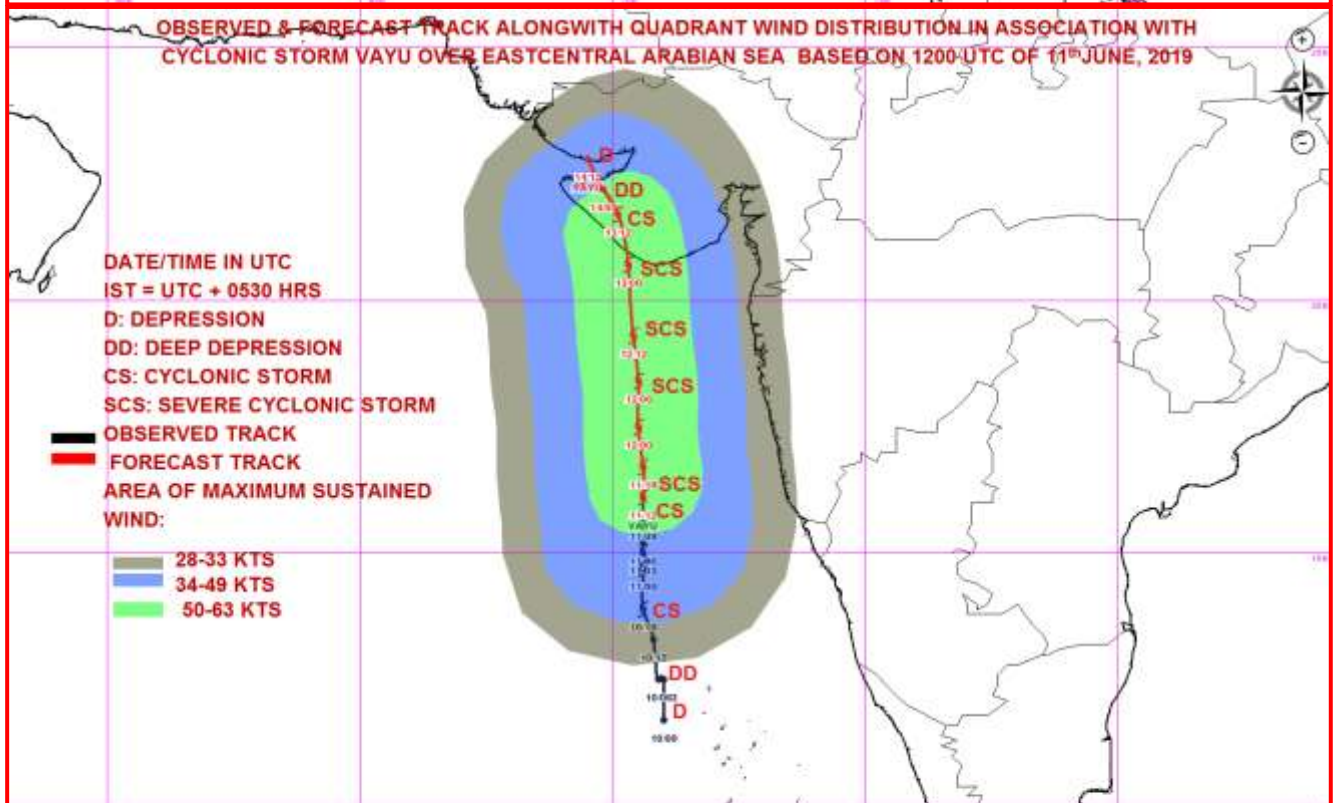
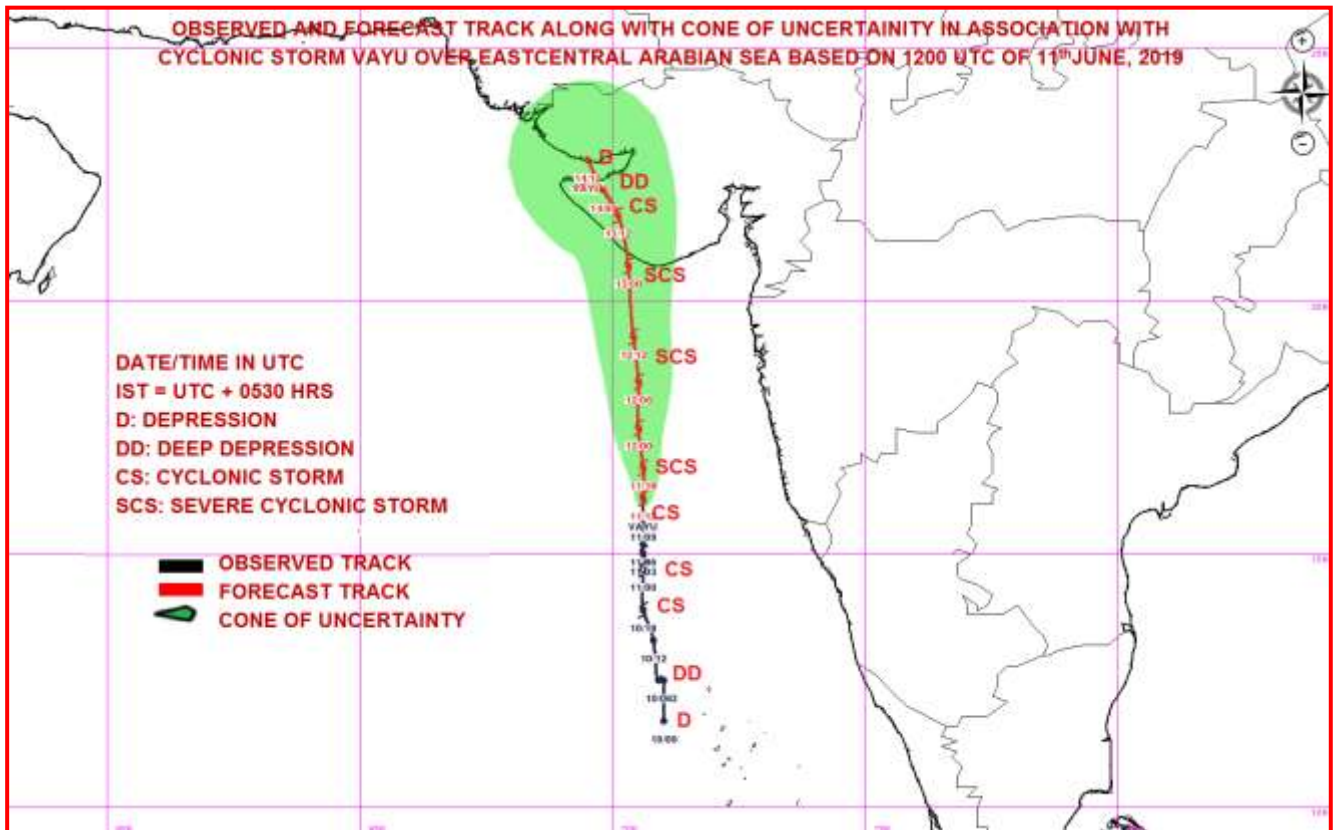
The next bulletin will be issued at 2330 hrs IST of 11th June, 2019.

**(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
34-49 / (63-91)	High to very high seas	Total suspension of fishing operations
50-63 / (92-117)	Very High seas	Total suspension of fishing operations

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