



**India Meteorological Department
(Ministry of Earth Sciences)**

BULLETIN NO. 39 (ARB/01/2023)

TIME OF ISSUE: 0345 HOURS IST

DATED: 11.06.2023

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Sub: Very Severe Cyclonic Storm "Biparjoy" (pronounced as "Biporjoy") over eastcentral Arabian Sea

Cyclone Watch for Saurashtra & Kutch Coast:

The very severe cyclonic storm "Biparjoy" (pronounced as "Biporjoy") over eastcentral Arabian Sea moved northwards with a speed of 5 kmph during past 6-hours and lay centered at 0230 hours IST of 11th June, 2023 over the same region near latitude 17.4°N and longitude 67.3°E, about 600 km west-southwest of Mumbai, 510 km south-southwest of Porbandar, 560 km south-southwest of Dwarka, 650 km south-southwest of Naliya and 810 km south of Karachi.

It is likely to intensify into an extremely severe cyclonic storm during next 06 hours. It is very likely to move nearly northwards and reach near Pakistan and adjoining Saurashtra & Kutch coasts around afternoon of 15th June, 2023 as a very severe cyclonic storm.

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
11.06.23/0230	17.6/67.3	155-165 Gusting To 180	Very Severe Cyclonic Storm
11.06.23/0530	17.9/67.3	165-175 Gusting To 195	Extremely Severe Cyclonic Storm
11.06.23/1130	18.3/67.4	165-175 Gusting To 195	Extremely Severe Cyclonic Storm
11.06.23/1730	18.7/67.5	155-165 Gusting To 180	Very Severe Cyclonic Storm
11.06.23/2330	19.0/67.6	145-155 Gusting To 170	Very Severe Cyclonic Storm
12.06.23/1130	19.5/67.6	145-155 Gusting To 170	Very Severe Cyclonic Storm
12.06.23/2330	20.2/67.6	135-145 Gusting To 160	Very Severe Cyclonic Storm
13.06.23/1130	20.9/67.5	135-145 Gusting To 160	Very Severe Cyclonic Storm
13.06.23/2330	21.5/67.4	125-135 Gusting To 150	Very Severe Cyclonic Storm
14.06.23/1130	22.2/67.3	125-135 Gusting To 150	Very Severe Cyclonic Storm
14.06.23/2330	22.9/67.4	120-130 Gusting To 145	Very Severe Cyclonic Storm
15.06.23/1130	23.6/67.6	120-130 Gusting To 145	Very Severe Cyclonic Storm
15.06.23/2330	24.4/67.9	95-105 Gusting To 115	Severe Cyclonic Storm

(i) Wind warning:

11th June: Gale wind speed reaching 155-165 kmph gusting to 180 kmph is prevailing over eastcentral and adjoining westcentral & northeast Arabian Sea and likely to increase becoming 165-175 kmph gusting to 195 kmph is likely to prevail from morning and becoming 155-165 kmph gusting to 180 kmph over the region from night.

12th June: Gale wind speed reaching 145-155 kmph gusting to 170 kmph is likely to prevail over northeast and adjoining central Arabian Sea and becoming 135-145 kmph gusting to 160 kmph from night.

13th June: Gale wind speed reaching 135-145 kmph gusting to 160 kmph is likely to prevail over northeast and adjoining northwest & central Arabian Sea and decrease thereafter to become 125-135 kmph gusting to 150 kmph from evening.

14th June: Gale wind speed reaching 125-135 kmph gusting to 150 kmph is likely to prevail over northeast Arabian Sea. Gale wind speed reaching 70-80 kmph gusting to 90 kmph over adjoining areas of central & northwest Arabian Sea.

15th June: Gale wind speed reaching 120-130 kmph gusting to 145 kmph is likely to prevail over northeast Arabian Sea and likely to decrease becoming 95-105 kmph gusting to 115 kmph from night over the region. Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely over adjoining areas of central & northwest Arabian Sea.

Along & off Saurashtra & Kutch coasts:

Squally wind speed reaching 40-50 kmph gusting to 60 kmph on 11th June, 45-55 kmph gusting to 65 kmph during 12th and 50-60 kmph gusting to 70 kmph during 13th to 14th June.

Gale wind speed reaching 65-75 kmph gusting to 85 kmph very likely to prevail along & off Kutch districts and Gulf of Kutch on 15th June.

Squally wind speed reaching 55-65 kmph gusting to 75 kmph very likely to prevail along & off Saurashtra coast on 15th June.

(ii) Sea condition

11th June: Sea condition is likely to be phenomenal over eastcentral and adjoining westcentral & northeast Arabian Sea.

12th June: Sea condition is likely to be phenomenal over northeast and adjoining central Arabian Sea.

13th June: Sea condition is likely to be phenomenal over northeast and adjoining northwest & central Arabian Sea

14th June: Sea condition is likely to be phenomenal to very high over northeast and adjoining northwest Arabian Sea and high to very rough sea condition is likely over adjoining areas of central Arabian Sea.

15th June: Sea condition is likely to be very high to high over northeast and adjoining northwest Arabian Sea and very rough to rough sea condition is likely over adjoining areas of central Arabian Sea.

Along & off Saurashtra & Kutch coasts:

Sea conditions likely to be rough to very rough till 14th and very rough to high on 15th June.

(iii) Warning for Fishermen and Offshore & Onshore Industries (Graphics Attached)

- Total suspension of fishing operations over
 - eastcentral and adjoining westcentral Arabian Sea till 15th June.
 - north and adjoining central Arabian Sea during 12th -15th June
- Fishermen are advised not to venture into:
 - Central Arabian Sea till 15th June.
 - North Arabian Sea during 12th -15th June.
 - **Along & off Saurashtra & Kutch coasts till 15th June.**
- Those out at sea are advised to return to coast.
- Judicious regulation of offshore and onshore activities.

The systems are under continuous surveillance and the next message will be issued at 0830 hours IST of 11th June, 2023.

(Shobhit Katiyar)

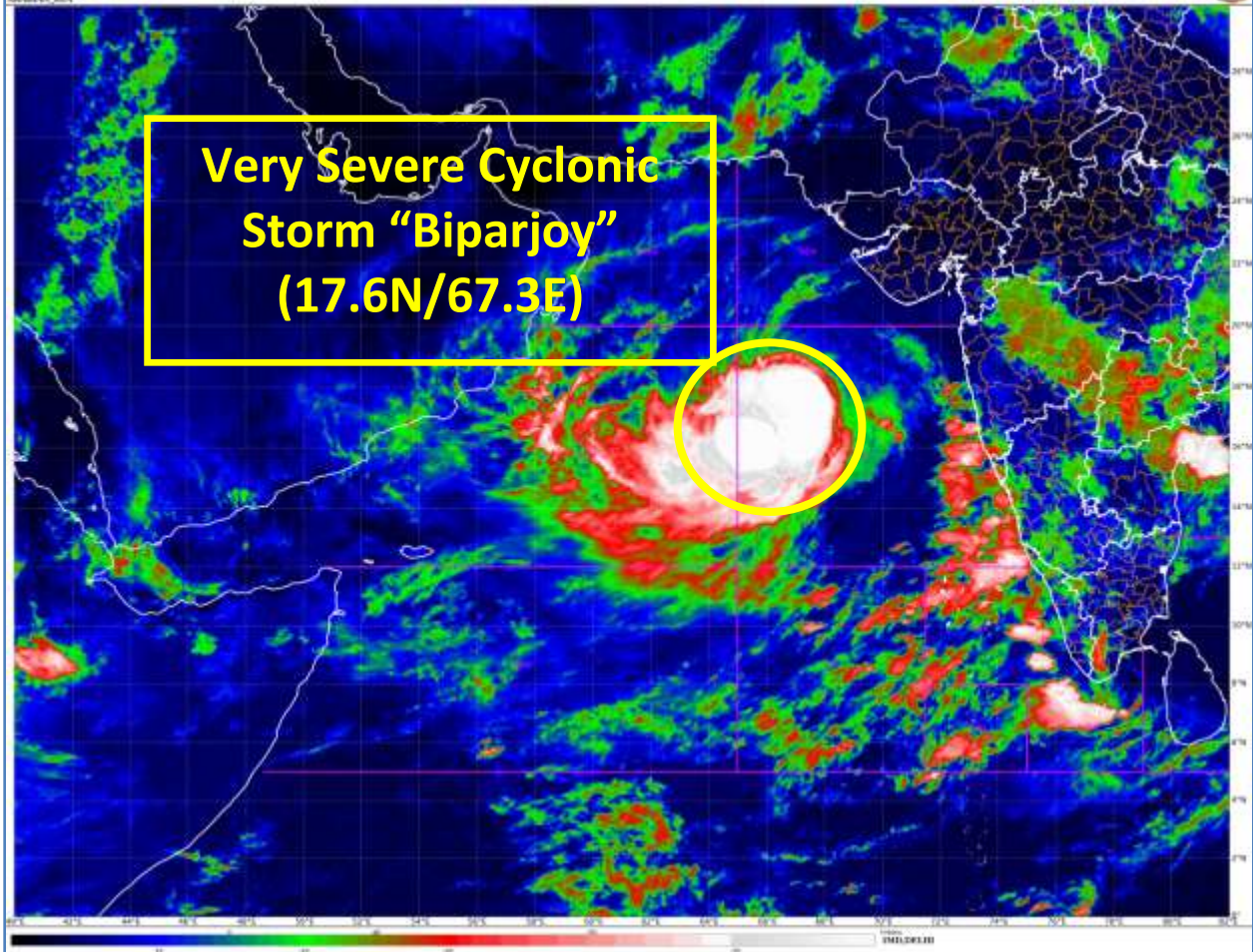
Scientist C, Cyclone Warning Division, New Delhi

Copy to: ACWC Kolkata/ ACWC Chennai/ CWC Bhubaneswar/CWC Visakhapatnam/CWC Ahmedabad/ MO Port Blair/MC Raipur/MC Bhopal/MC Hyderabad/RMC Nagpur

LEGEND: Heavy Rainfall: 64.5 to 115.5mm, **Very Heavy Rainfall:** 115.6 to 204.4mm **Most Places:** more than 76% of total stations, **Isolated Places:** Less than 25% of total

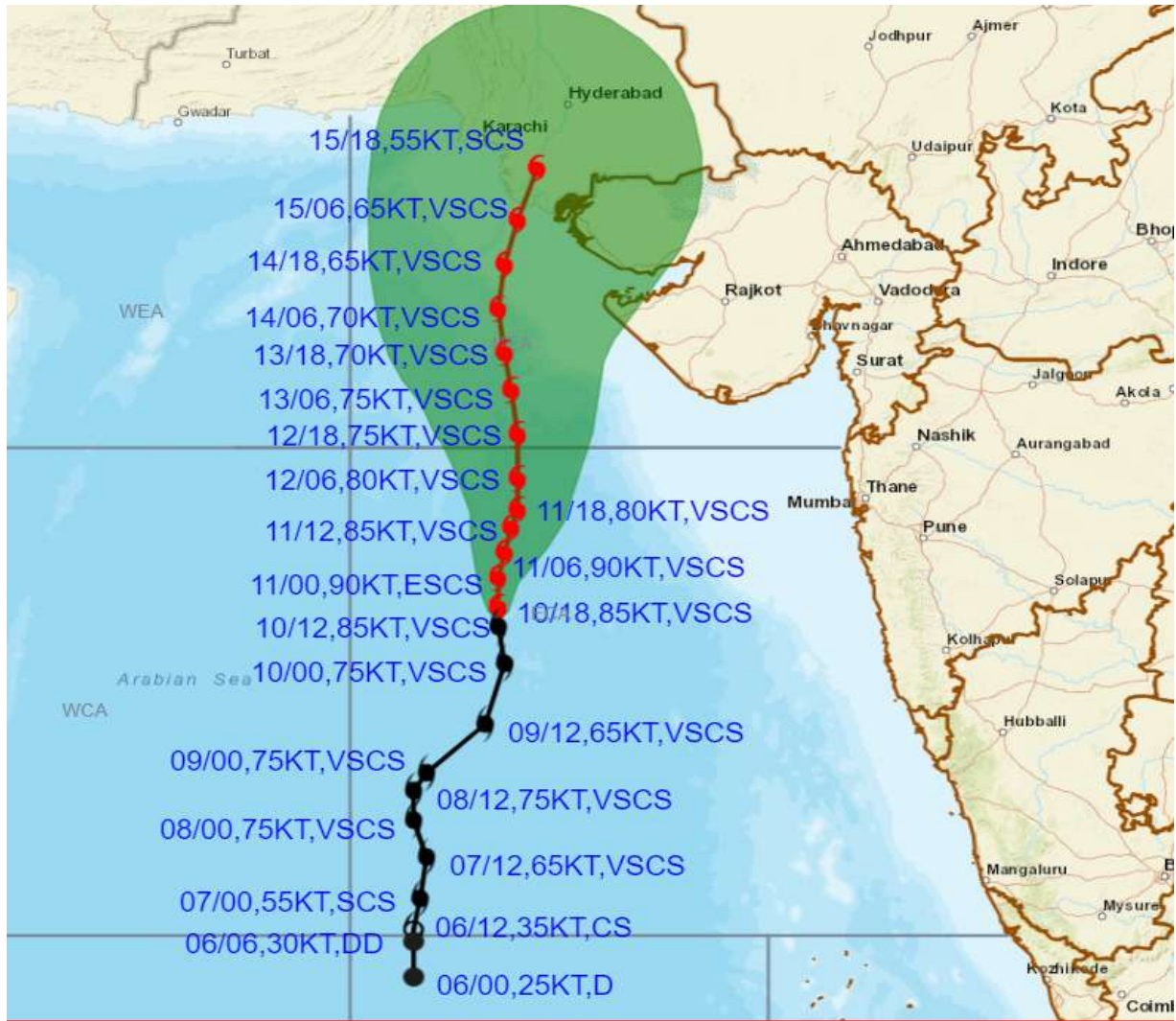


**Very Severe Cyclonic
Storm "Biparjoy"
(17.6N/67.3E)**





OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF VERY SEVERE CYCLONIC STORM "BIPARJOY" OVER EASTCENTRAL ARABIAN SEA BASED ON 1800 UTC (2330 IST) OF 10TH JUNE 2023.



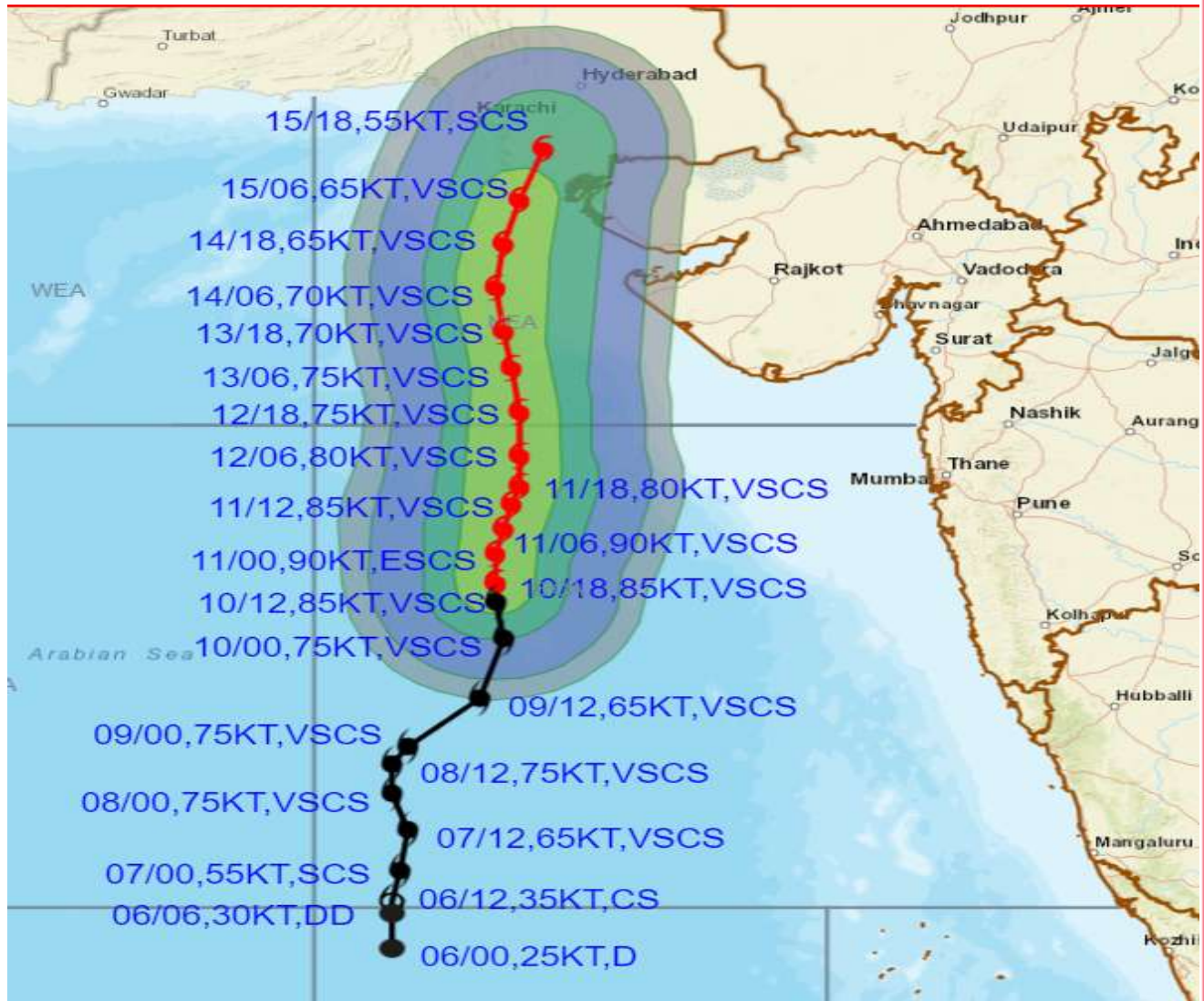
DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM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

- LESS THAN 34 KT
- 34-47 KT
- \geq 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

STATIONS	DISTANCE(KM) AND DIRECTION FROM STATIONS				
	11.06.23/1800	12.06.23/1800	13.06.23/1800	14.06.23/1800	15.06.23/1800
PORBANDAR	360, SW	260, SW	240, W	280, WNW	350, NNW
BOMBAY / COLABA	550, W	570, WNW	640, WNW	720, NW	790, NW
GOA/PANJIM	770, WNW	850, NW	960, NW	1070, NW	1160, NNW
KARACHI AIRPORT	650, S	520, S	370, S	220, S	90, SE
DWARKA	400, SSW	280, SSW	190, WSW	190, WNW	250, NNW



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF VERY SEVERE CYCLONIC STORM "BIPARJOY" OVER EASTCENTRAL ARABIAN SEA BASED ON 1800 UTC (2330 IST) OF 10TH JUNE 2023.



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

Fishermen warning graphics

