



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

BULLETIN NO. 31 (ARB/01/2023)

TIME OF ISSUE: 0600 HOURS IST **DATED: 10.06.2023**
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Sub: A) Very Severe Cyclonic Storm "Biparjoy" (pronounced as "Biporjoy") over eastcentral Arabian Sea
B) Well Marked Low Pressure Area over northeast Bay of Bengal

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

The very severe cyclonic storm "Biparjoy" (pronounced as "Biporjoy") over eastcentral Arabian Sea moved nearly northwards with a speed of 11 kmph during past 6-hours and lay centered at 0230 hours IST of today, the 10th June, 2023 over the same region near latitude 16.3°N and longitude 67.4°E, about 690 km west of Goa, 640 km west-southwest of Mumbai, 640 km south-southwest of Porbandar and 950 km south of Karachi.

It is very likely to intensify further and move north-northeastwards gradually during next 24 hours. Then it would move gradually north-northwestwards during subsequent 3 days.

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
10.06.23/0230	16.3/67.4	125-135 Gusting To 150	Very Severe Cyclonic Storm
10.06.23/0530	16.5/67.5	130-140 Gusting To 155	Very Severe Cyclonic Storm
10.06.23/1130	17.0/67.6	135-145 Gusting To 160	Very Severe Cyclonic Storm
10.06.23/1730	17.4/67.6	140-150 Gusting To 165	Very Severe Cyclonic Storm
10.06.23/2330	17.8/67.7	145-155 Gusting To 170	Very Severe Cyclonic Storm
11.06.23/1130	18.4/67.7	135-145 Gusting To 160	Very Severe Cyclonic Storm
11.06.23/2330	19.1/67.5	135-145 Gusting To 160	Very Severe Cyclonic Storm
12.06.23/1130	19.8/67.3	130-140 Gusting To 155	Very Severe Cyclonic Storm
12.06.23/2330	20.4/67.0	130-140 Gusting To 155	Very Severe Cyclonic Storm
13.06.23/1130	21.0/66.7	120-130 Gusting To 145	Very Severe Cyclonic Storm
13.06.23/2330	21.6/66.4	120-130 Gusting To 145	Very Severe Cyclonic Storm
14.06.23/1130	22.1/66.1	105-115 Gusting To 125	Severe Cyclonic Storm
14.06.23/2330	22.6/66.0	95-105 Gusting To 115	Severe Cyclonic Storm

(i) Wind warning:

10th June: Gale wind speed reaching 125-135 kmph gusting to 150 kmph are prevailing over eastcentral & adjoining areas of westcentral Arabian Sea becoming 130-140 kmph gusting to 155 kmph from morning. It is likely to increase further becoming 140-150 kmph gusting to 165 kmph from evening over the same region and 70-80 kmph gusting to 90 kmph likely to prevail over adjoining areas of northeast Arabian Sea.

11th June: Gale wind speed reaching 145-155 kmph gusting to 170 kmph is likely to prevail over eastcentral & adjoining westcentral Arabian Sea and becoming 135-145 kmph gusting to 160 kmph over the region from evening.

12th June: Gale wind speed reaching 130-140 kmph gusting to 155 kmph is likely to prevail over northeast and adjoining central & northwest Arabian Sea and becoming 125-135 kmph gusting to 150 kmph from evening.

13th June: Gale wind speed reaching 120-130 kmph gusting to 145 kmph is likely to prevail over central parts of north and adjoining central Arabian Sea and becoming 115-125 kmph gusting to 140 kmph from evening.

14th June: Gale wind speed reaching 105-115 kmph gusting to 125 kmph is likely to prevail over central parts of north Arabian Sea and becoming 95-105 kmph gusting to 115 kmph from evening and 70-80 kmph gusting to 90 kmph over adjoining areas of central Arabian Sea.

Along & off Saurashtra & Kutch coasts:

Squally wind speed reaching 35-45 kmph gusting to 55 kmph is likely to prevail on 10th June and likely to increase becoming 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 13th and 14th June.

(ii) Sea condition

10th June: Sea condition is likely to be phenomenal over eastcentral Arabian Sea and adjoining areas of westcentral Arabian Sea. Very rough to rough sea condition is likely to prevail over adjoining areas of south Arabian Sea.

11th June: Sea condition is likely to be phenomenal over eastcentral & northwest Arabian Sea.

12th & 13th June: Sea condition is likely to be phenomenal over northeast and adjoining central & northwest Arabian Sea.

14th June: Sea condition is likely to be very high to high over central parts of north Arabian Sea and Rough rough sea condition is likely over adjoining areas of central Arabian Sea.

Along & off Saurashtra & Kutch coasts:

Sea condition is likely to be rough on 10th June and likely to become rough to very rough during 11th to 14th June.

(iii) Fishermen Warning (Graphics Attached)

- Total suspension of fishing operations over
 - eastcentral and adjoining westcentral Arabian Sea till 13th June.
 - north and adjoining central Arabian Sea during 12th -14th June
- Fishermen are advised not to venture into:
 - Central Arabian Sea till 13th June.
 - North Arabian Sea during 12th -15th June.
 - **Along & off Saurashtra & Kutch coasts during 10th to 15th June.**
- Those out at sea are advised to return to coast.

B) Well Marked Low Pressure Area over northeast Bay of Bengal

The well marked low pressure area over the northeast Bay of Bengal persisted over the same region at 0230 hours IST of today, the 10th June, 2023.

(i) Wind warning:

Squally weather with wind speed reaching 40-50 kmph gusting to 60 kmph is likely to prevail over northeast Bay of Bengal on 10th June.

(ii) Sea condition

Sea condition is likely to be rough over northeast Bay of Bengal on 10th June.

(iii) Fishermen Warning (Graphics Attached)

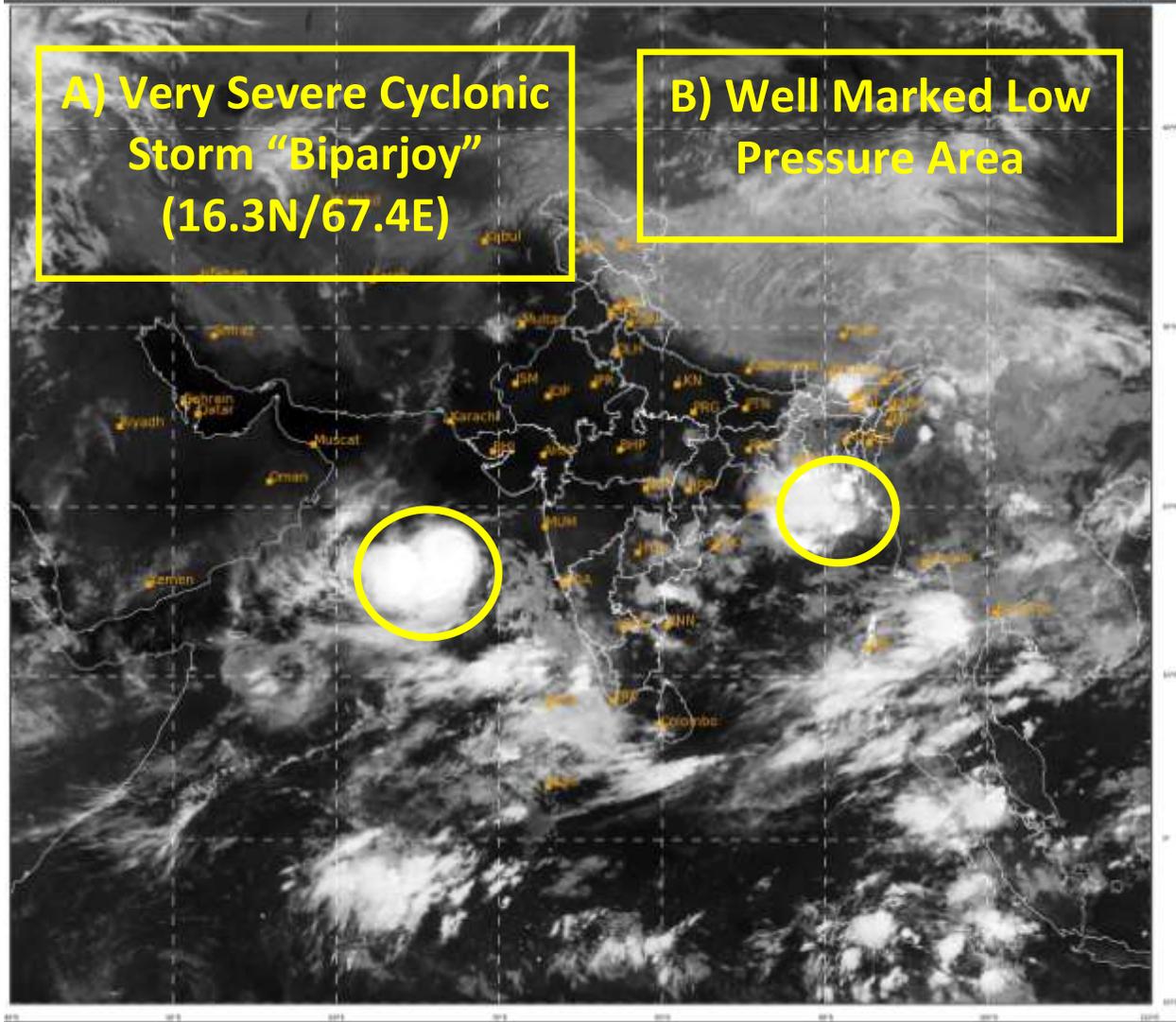
Fishermen are advised not to venture into northeast Bay of Bengal on 10th June.

The systems are under continuous surveillance and the next message will be issued at 0830 hours IST of today, the 10th June, 2023.

(Arulalan T)
Scientist C, Cyclone Warning Division, New Delhi

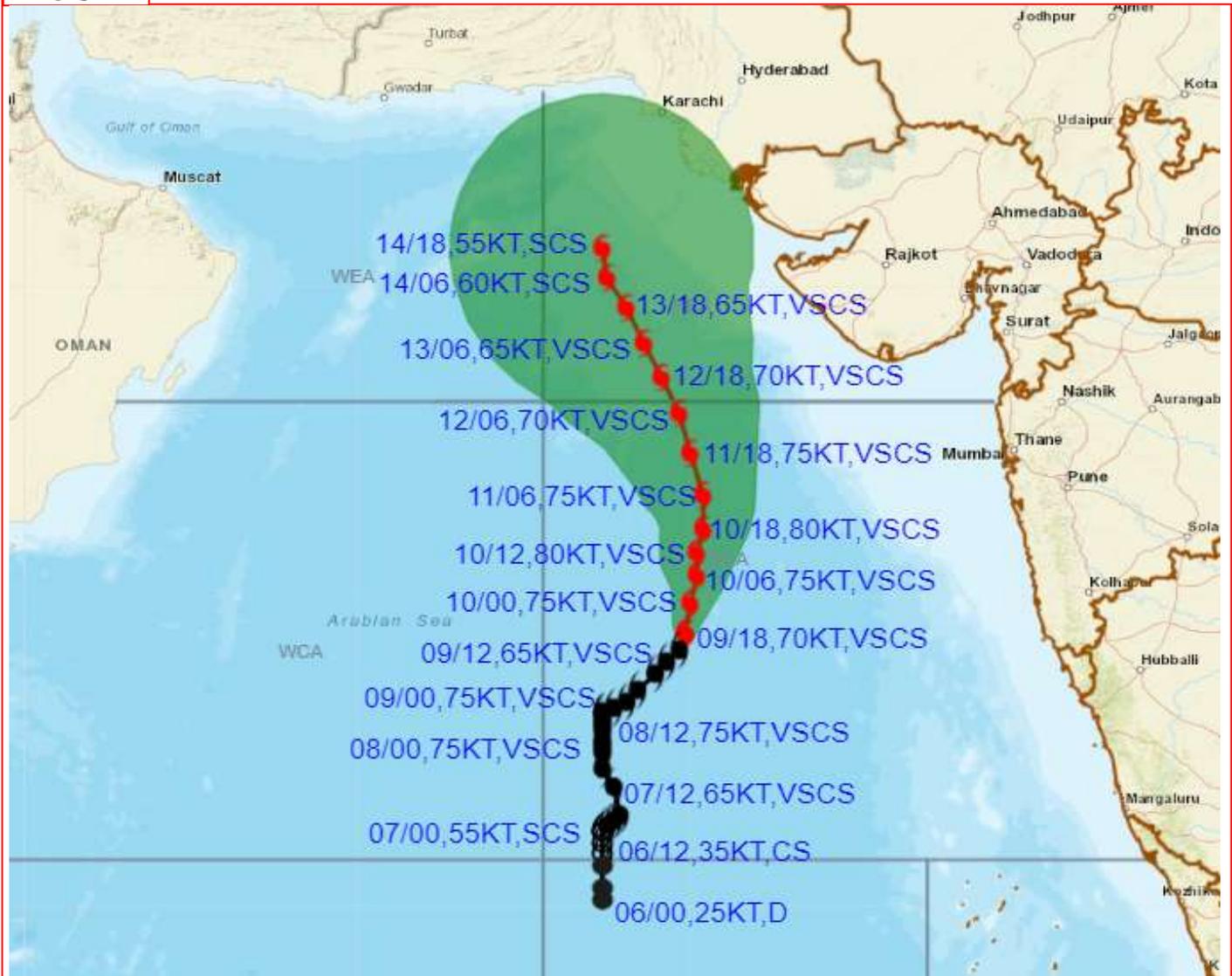
Copy to: ACWC Kolkata/ ACWC Chennai/ CWC Bhubaneswar/CWCVisakhapatnam/CWC Ahmedabad/ MO Port Blair/MC Raipur/MC Bhopal/MC Hyderabad/RMC Nagpur

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





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 09TH 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

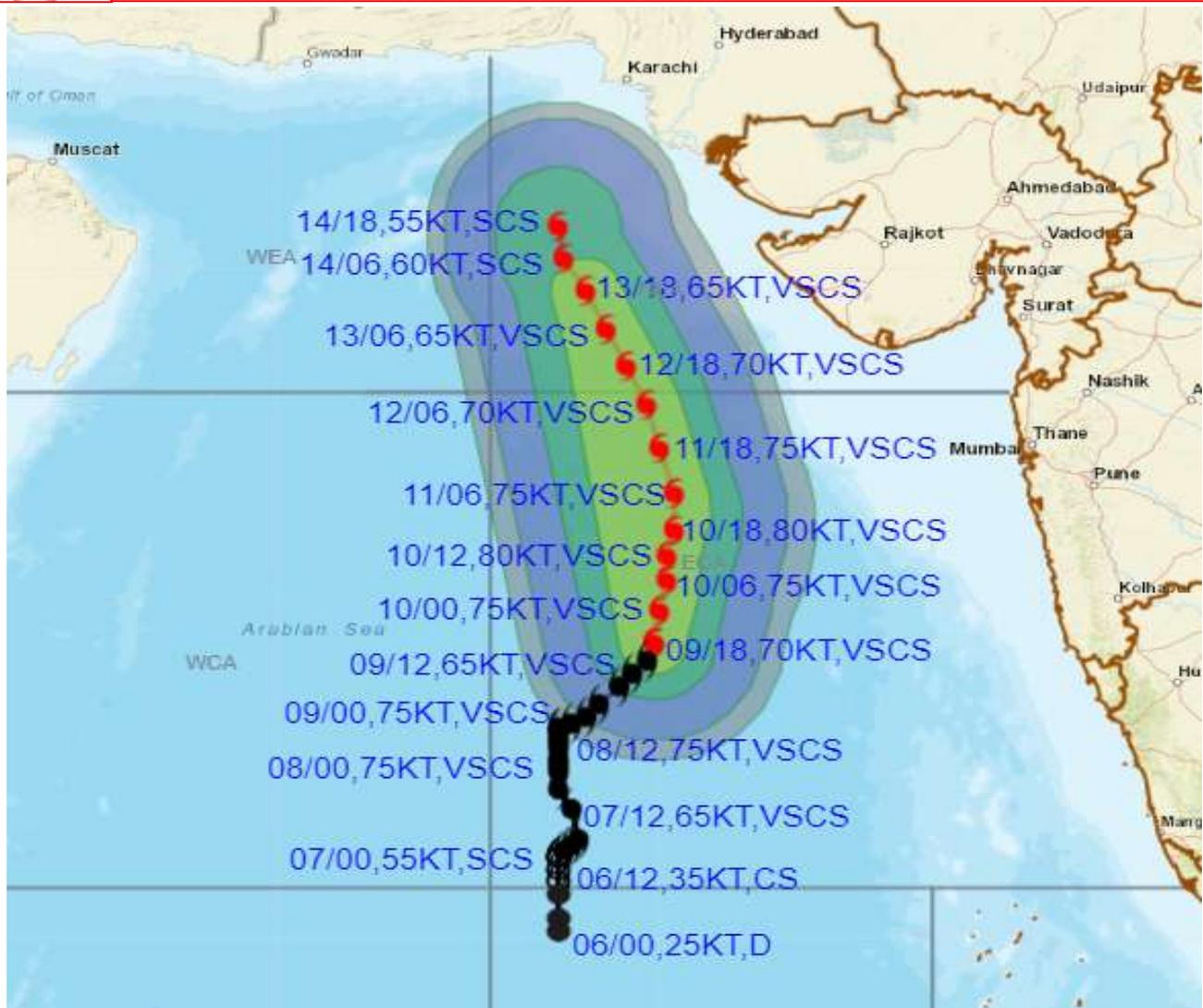
■ FORECAST TRACK

▲ CONE OF UNCERTAINTY

Forecast	DISTANCE(KM) AND DIRECTION FROM STATIONS				
	PORBANDAR	BOMBAY / COLABA	GOA/PANJIM	KARACHI AIRPORT	MASIRAH
10.06.23/1800	470, SSW	560, WSW	710, WNW	790, S	970, ESE
11.06.23/1800	360, SW	570, W	790, WNW	640, S	910, E
12.06.23/1800	320, WSW	640, WNW	910, NW	500, S	840, E
13.06.23/1800	340, W	740, WNW	1040, NW	370, S	780, E
14.06.23/1800	390, WNW	820, WNW	1140, NW	280, SSW	760, ENE



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 09TH 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

