



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

BULLETIN NO. 28 (ARB/01/2023)

TIME OF ISSUE: 2130 HOURS IST **DATED: 09.06.2023**
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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 northeastwards with a speed of 13 kmph during past 6-hours and lay centered at 1730 hours IST of today, the 09th June, 2023 over the same region near latitude 15.5°N and longitude 67.1°E, about 720 km west of Goa, 720 km west-southwest of Mumbai, 740 km south-southwest of Porbandar and 1050 km south of Karachi.

It would intensify further gradually during next 36 hours. It is very likely to move north-northeastwards during next 24 hours and then 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
09.06.23/1730	15.5/67.1	120-130 gusting to 145	Very Severe Cyclonic Storm
09.06.23/2330	16.0/67.5	125-135 gusting to 150	Very Severe Cyclonic Storm
10.06.23/0530	16.5/67.6	130-140 gusting to 155	Very Severe Cyclonic Storm
10.06.23/1130	17.0/67.7	135-145 gusting to 160	Very Severe Cyclonic Storm
10.06.23/1730	17.4/67.7	140-150 gusting to 165	Very Severe Cyclonic Storm
11.06.23/0530	18.0/67.7	145-155 gusting to 170	Very Severe Cyclonic Storm
11.06.23/1730	18.7/67.6	135-145 gusting to 160	Very Severe Cyclonic Storm
12.06.23/0530	19.4/67.4	130-140 gusting to 155	Very Severe Cyclonic Storm
12.06.23/1730	20.1/67.1	125-135 gusting to 150	Very Severe Cyclonic Storm
13.06.23/0530	20.7/66.8	120-130 gusting to 145	Very Severe Cyclonic Storm
13.06.23/1730	21.3/66.5	115-125 gusting to 140	Very Severe Cyclonic Storm
14.06.23/0530	21.8/66.2	105-115 gusting to 125	Severe Cyclonic Storm
14.06.23/1730	22.3/66.0	95-105 gusting to 115	Severe Cyclonic Storm

(i) Wind warning:

9th June: Gale wind speed reaching 120-130 kmph gusting to 145 kmph is likely to prevail over eastcentral Arabian Sea and adjoining areas of westcentral Arabian Sea.

10th June: Gale wind speed reaching 130-140 kmph gusting to 155 kmph is likely to prevail over eastcentral & adjoining areas of westcentral Arabian Sea becoming 140-150 kmph gusting to 165 kmph 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

9th & 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 1730 hours IST of today, the 9th 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 9th & 10th June.

(ii) Sea condition

Sea condition is likely to be rough over northeast Bay of Bengal on 9th & 10th June.

(iii) Fishermen Warning (Graphics Attached)

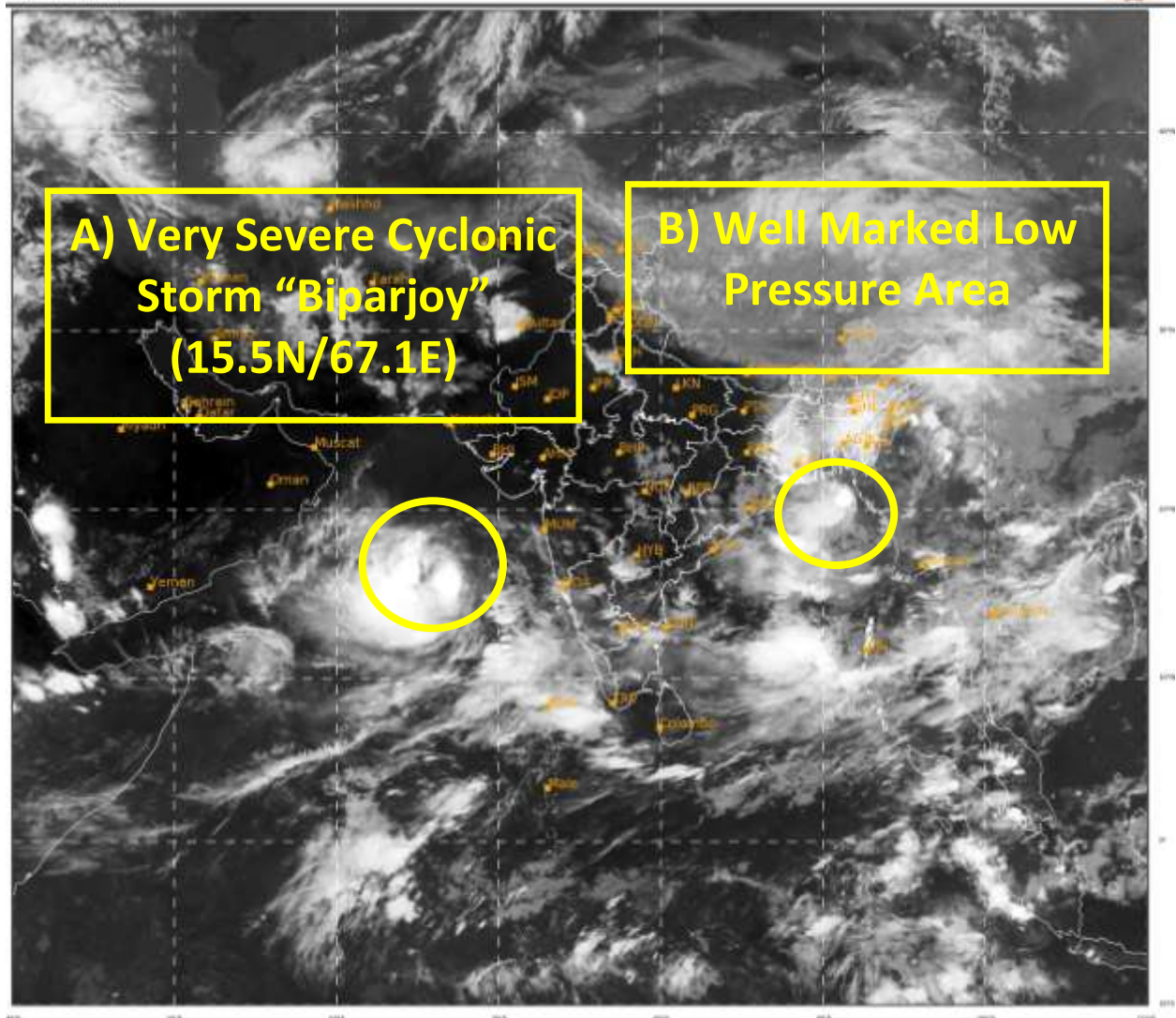
Fishermen are advised not to venture into northeast Bay of Bengal on 9th and 10th June.

The systems are under continuous surveillance and the next message will be issued at 2330 hours IST of today, the 9th June, 2023.

(Ananda Kumar Das)
Scientist F, 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



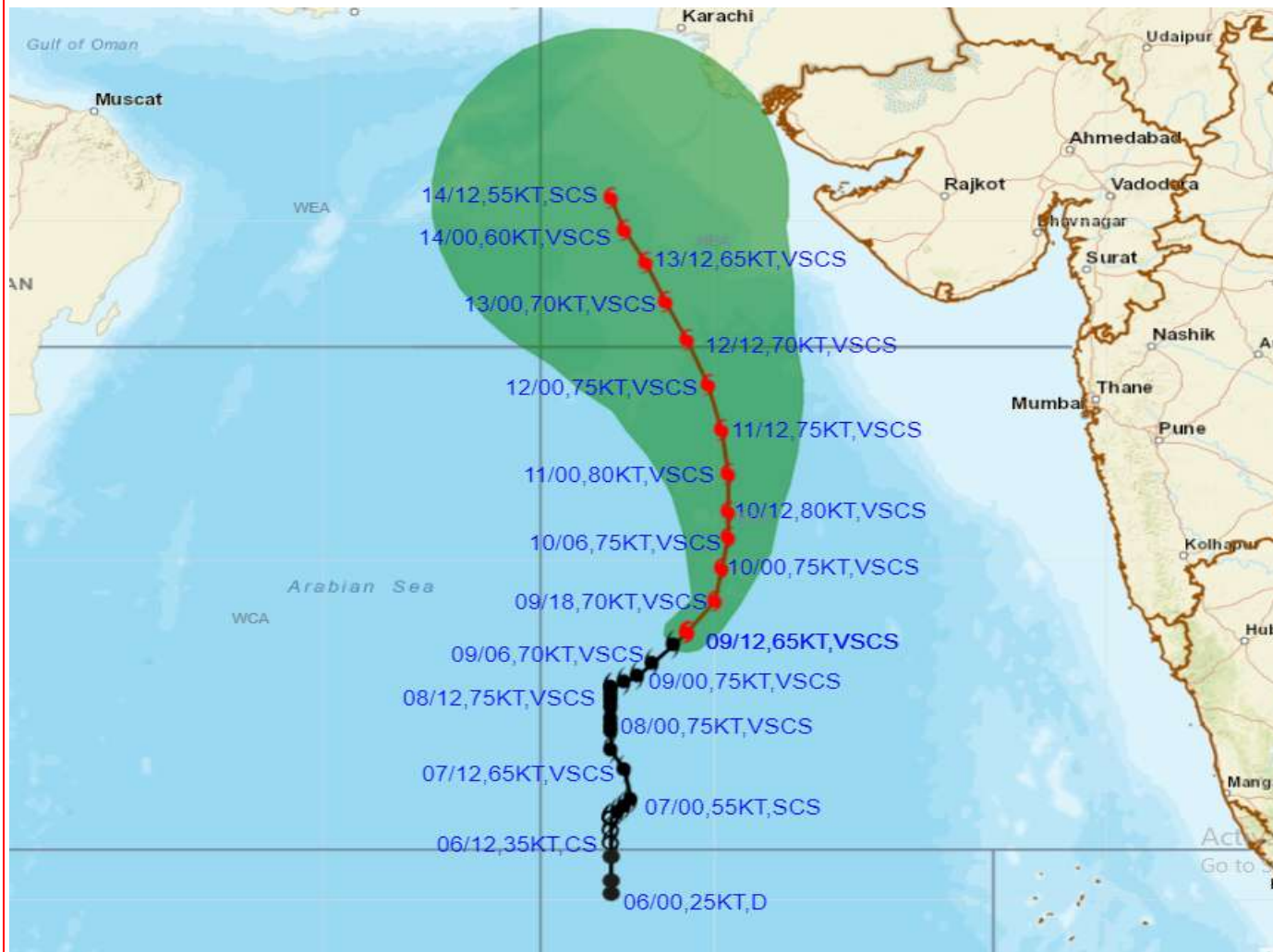
888

946

IMD, DELHI



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF VERY SEVERE CYCLONIC STORM “BIPARJOY” OVER EASTCENTRAL ARABIAN SEA BASED ON 1200 UTC (1730 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

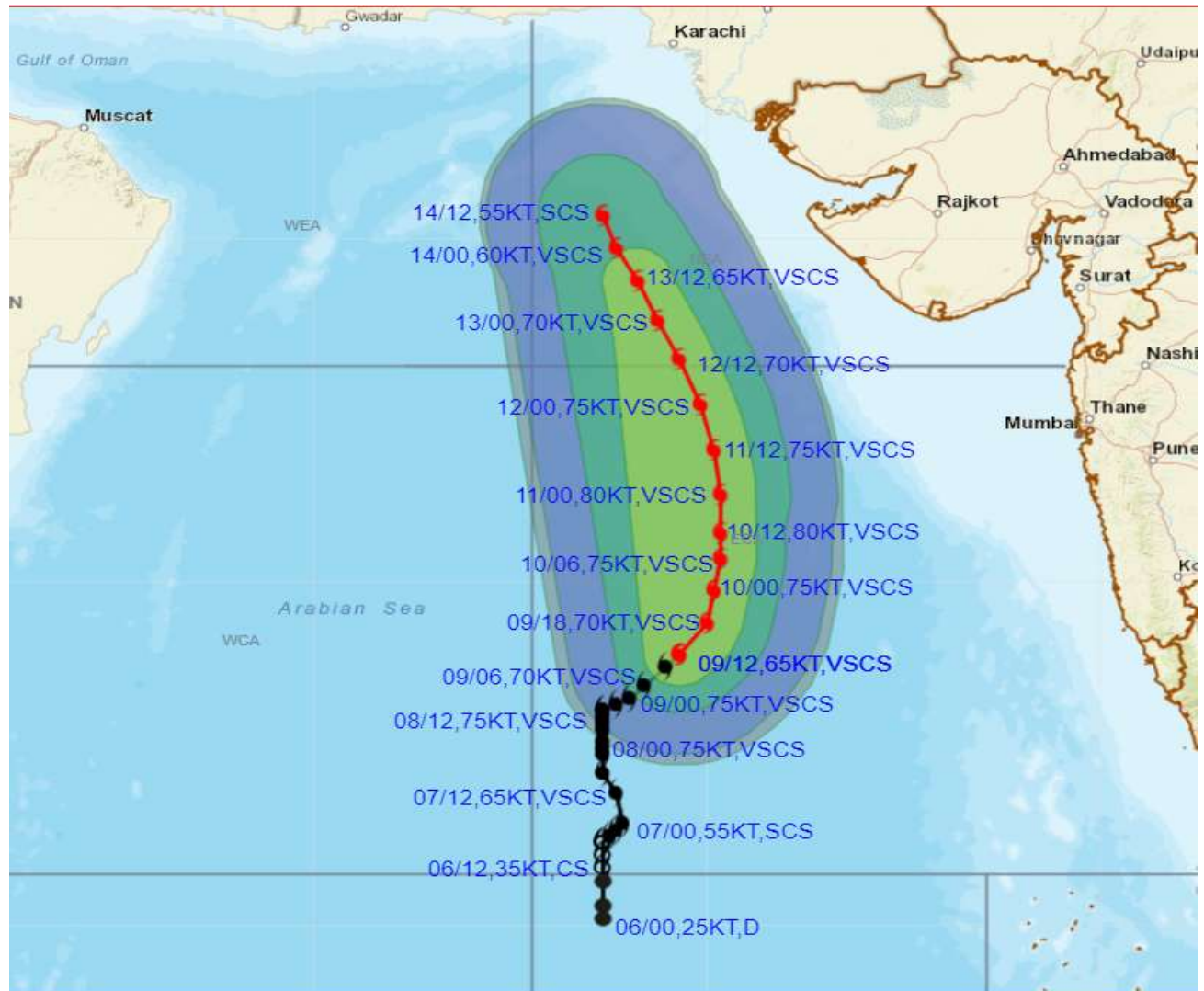
— FORECAST TRACK

▲ CONE OF UNCERTAINTY

Forecast	DISTANCE(KM) AND DIRECTION FROM STATIONS				
	PORBANDAR	BOMBAY / COLABA	GOA/PANJIM	KARACHI AIRPORT	MASIRAH
10.06.23/1200	510, SSW	560, WSW	690, WNW	830, S	990, ESE
11.06.23/1200	390, SSW	560, W	760, WNW	690, S	930, ESE
12.06.23/1200	320, WSW	620, WNW	880, NW	530, S	850, E
13.06.23/1200	340, W	720, WNW	1010, NW	400, S	790, E
14.06.23/1200	380, WNW	800, WNW	1110, NW	310, SSW	750, ENE



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF VERY SEVERE CYCLONIC STORM "BIPARJOY" OVER EASTCENTRAL ARABIAN SEA BASED ON 1200 UTC (1730 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 (\geq 120 KT)

● LESS THAN 34 KT

○ 34-47 KT

● \geq 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)

— \geq 64 KT (\geq 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
\geq 64 (\geq 118)	Phenomenal	Total suspension of fishing operations

Fishermen warning graphics

