



India Meteorological Department
(Ministry of Earth Sciences)

BULLETIN NO. 21 (ARB/01/2023)

TIME OF ISSUE: 2310 HOURS IST DATED: 08.06.2023
FROM: INDIA METEOROLOGICAL DEPARTMENT (FAX NO. 24643965/24699216/24623220)

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Sub: 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 4 kmph during past 6 hours and lay centered at 2030 hours IST of today, the 08th June, 2023 over the same region near latitude 14.5°N and longitude 66.0°E, about 850 km west of Goa, 870 km southwest of Mumbai, 880 km south-southwest of Porbandar and 1160 km south of Karachi.

It would intensify further gradually during next 24 hours and move nearly north-northwestwards during next 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
08.06.23/2030	14.5/66.0	135-145 gusting to 160	Very Severe Cyclonic Storm
08.06.23/2330	14.7/65.9	140-150 gusting to 165	Very Severe Cyclonic Storm
09.06.23/0530	15.0/65.8	145-155 gusting to 170	Very Severe Cyclonic Storm
09.06.23/1130	15.3/65.7	145-155 gusting to 170	Very Severe Cyclonic Storm
09.06.23/1730	15.6/65.6	155-165 gusting to 180	Very Severe Cyclonic Storm

10.06.23/0530	16.2/65.4	155-165 gusting to 180	Very Severe Cyclonic Storm
10.06.23/1730	16.9/65.2	145-155 gusting to 170	Very Severe Cyclonic Storm
11.06.23/0530	17.6/65.0	140-150 gusting to 165	Very Severe Cyclonic Storm
11.06.23/1730	18.3/64.8	135-145 gusting to 160	Very Severe Cyclonic Storm
12.06.23/0530	19.0/64.6	135-145 gusting to 160	Very Severe Cyclonic Storm
12.06.23/1730	19.7/64.4	125-135 gusting to 150	Very Severe Cyclonic Storm
13.06.23/0530	20.4/64.2	120-130 gusting to 145	Very Severe Cyclonic Storm
13.06.23/1730	21.2/64.0	115-125 gusting to 140	Very Severe Cyclonic Storm

(i) Wind warning:

8th June: Gale wind speed reaching 135-145 kmph gusting to 160 kmph is prevailing over eastcentral Arabian Sea and adjoining areas of westcentral Arabian Sea and 90-100 kmph gusting to 110 kmph over the adjoining areas of south Arabian Sea.

Squally weather with wind speed reaching 35-45 kmph gusting to 55 kmph is likely along & off Karnataka-Goa-Maharashtra coasts.

9th June: Gale wind speed reaching 145-155 kmph gusting to 170 kmph is likely to prevail over central Arabian Sea and become 155-160 kmph gusting to 180 kmph from evening of 9th June.

Squally wind speed reaching 50-60 kmph gusting to 70 kmph is likely over adjoining areas of South Arabian Sea and 40-50 kmph gusting to 60 kmph along & off Karnataka-Goa-Maharashtra coasts.

10th June: Gale wind speed reaching 155-160 kmph gusting to 180 kmph is likely to prevail over central Arabian Sea. Gale wind speed reaching 90-100 kmph gusting to 110 kmph is likely to prevail over the adjoining areas of north Arabian Sea.

Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely over adjoining areas of south Arabian Sea and 35-45 kmph gusting to 55 kmph along & off Goa-Maharashtra coasts.

11th June: Gale wind speed reaching 140-150 kmph gusting to 165 kmph is likely to prevail over central & adjoining north Arabian Sea.

Squally weather with wind speed reaching 35-45 kmph gusting to 55 kmph is likely along & off Maharashtra-Gujarat coasts.

12th June: Gale wind speed reaching 125-135 kmph gusting to 150 kmph is likely to prevail over central & adjoining north Arabian Sea and become 120-130 kmph gusting to 145 kmph from evening of 12th June.

Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely over adjoining areas of south Arabian Sea. Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely along & off Maharashtra-Gujarat coasts.

13th June: Gale wind speed reaching 120-130 kmph gusting to 145 kmph is likely to prevail over north & adjoining central Arabian Sea.

Squally wind speed reaching 40-50 kmph gusting to 60 kmph is likely along & off Maharashtra-Gujarat coasts.

(iii) Sea condition

8th June: Phenomenal sea condition is prevailing over eastcentral & adjoining westcentral Arabian Sea. Very rough to high sea condition is prevailing over the adjoining areas of south Arabian Sea and rough along & off Karnataka-Goa-Maharashtra coasts.

9th June: Sea condition is likely to be phenomenal over central Arabian Sea. Very rough to rough sea condition is likely to prevail over the adjoining areas of south Arabian Sea. Sea condition is likely to be rough along & off Karnataka-Goa- Maharashtra coasts.

10th June: Sea condition is likely to be phenomenal over central Arabian Sea. Sea condition is likely to be rough to very rough over adjoining areas of north Arabian Sea and rough along & off Goa- Maharashtra coasts.

11th June & 12th June: Sea condition is likely to be phenomenal to very high over central & adjoining north Arabian Sea. Sea condition is likely to be rough to very rough along & off Maharashtra-Gujarat coasts.

13th June: Sea condition is likely to be phenomenal to very high over north & adjoining central Arabian Sea. Sea condition is likely to be rough to very rough along & off Maharashtra-Gujarat coasts.

(iv) Fishermen Warning (Graphics Attached)

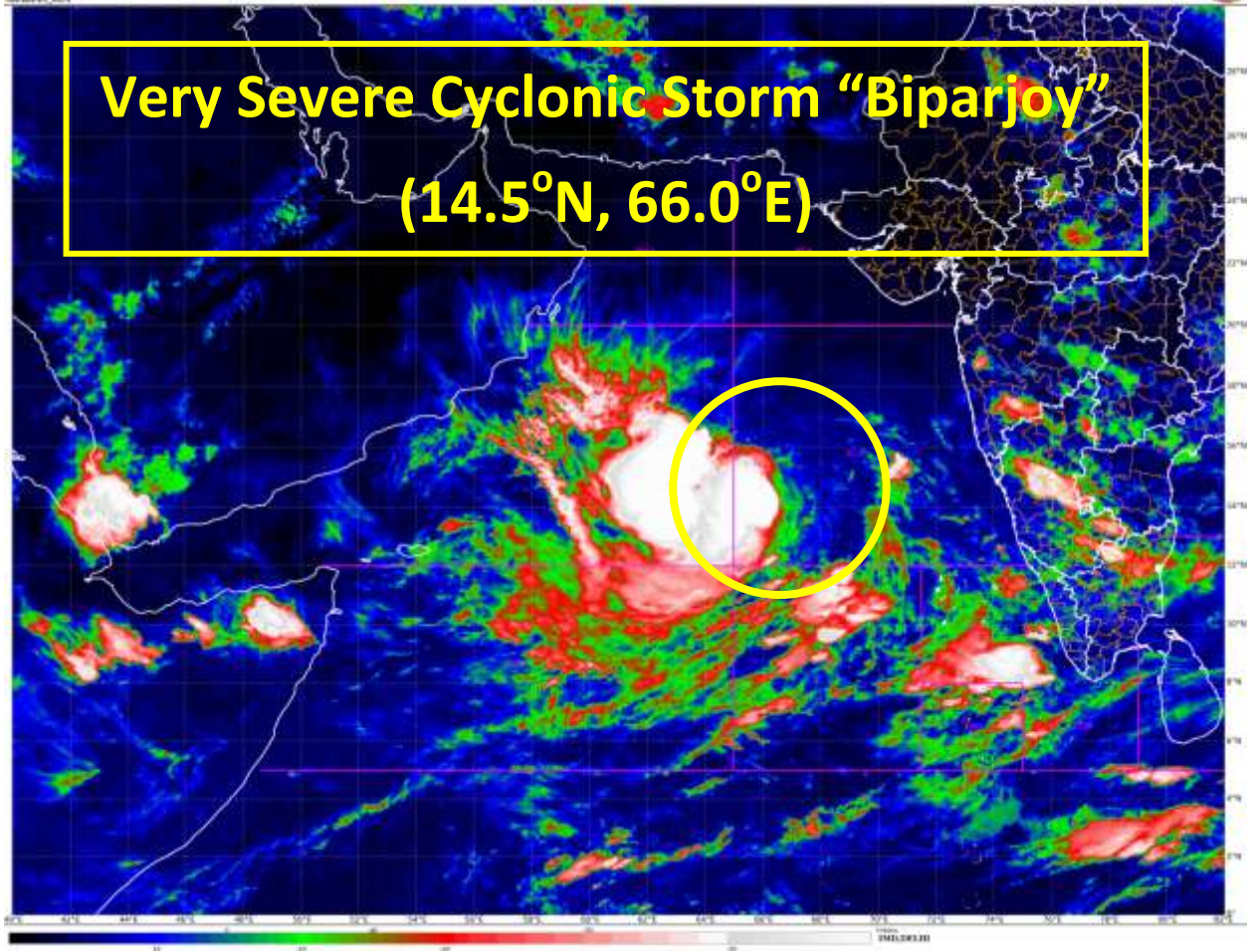
- Total suspension of fishing operations over
 - eastcentral and adjoining westcentral & south Arabian Sea till 12th June.
 - north and adjoining central Arabian Sea during 12th -14th June
- Fishermen are advised not to venture into:
 - Central Arabian Sea till 13th June.
 - Adjoining areas of north Arabian Sea during 12th -14th June.
- Those out at sea are advised to return to coast.

The system is under continuous surveillance and the next message will be issued at 0230 hours IST of tomorrow, the 9th June, 2023.

(M. T. Bushair)
Scientist C, Cyclone Warning Division, New Delhi

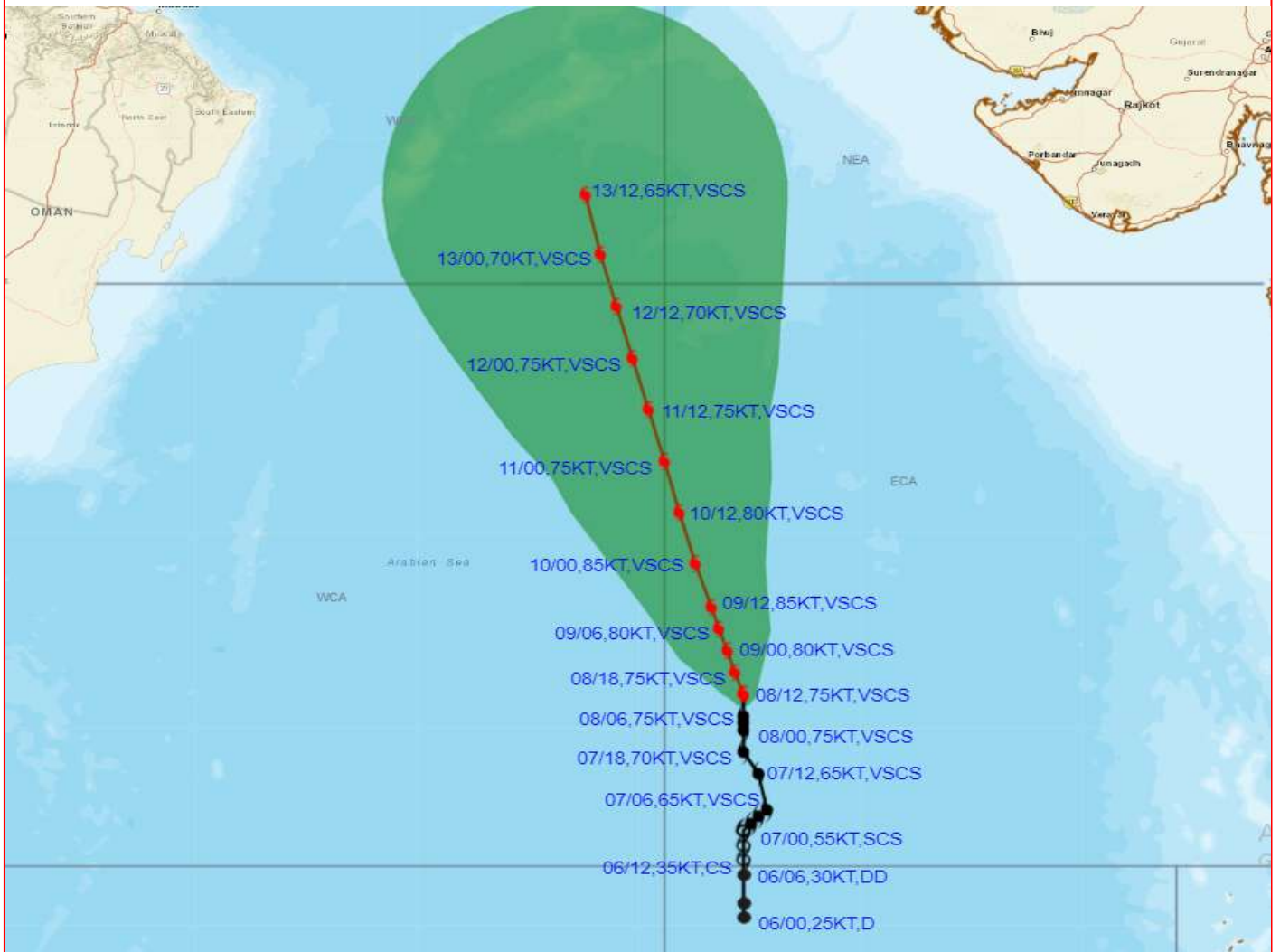
Copy to: ACWC Kolkata/ ACWC Chennai/ CWC Bhubaneswar/CWCVisakhapatnam/CWC Ahmedabad/ MO Port Blair/MC Raipur/MC Bhopal/MC Hyderabad/RMC Nagpur

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 1200 UTC (1730 IST) OF 08TH JUNE 2023.



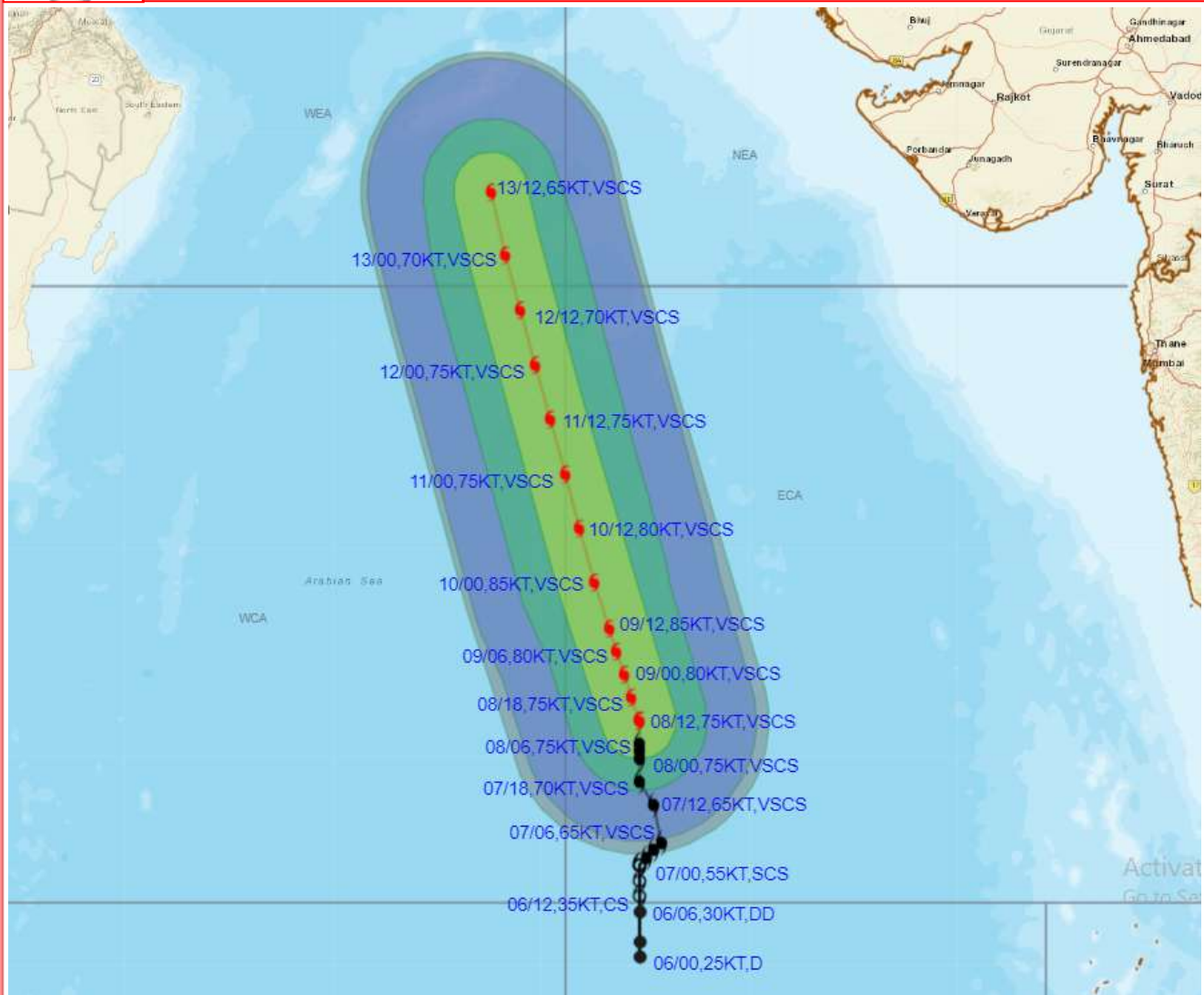
DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34.47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM (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		
	09.06.23/1200	10.06.23/1200	11.06.23/1200
PORBANDAR	790, SSW	700, SW	630, SW
BOMBAY / COLABA	850, WSW	840, WSW	840, W
GOA/PANJIM	890, W	940, W	1010, WNW
KARACHI AIRPORT	1040, S	910, SSW	770, SSW
MASIRAH	900, SE	780, ESE	670, ESE



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 08TH JUNE 2023.



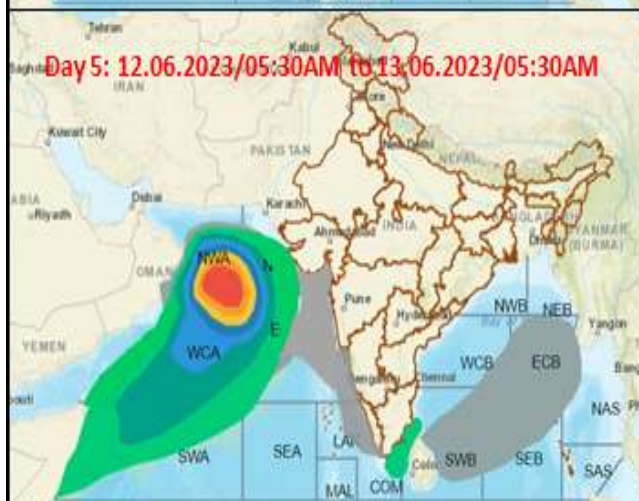
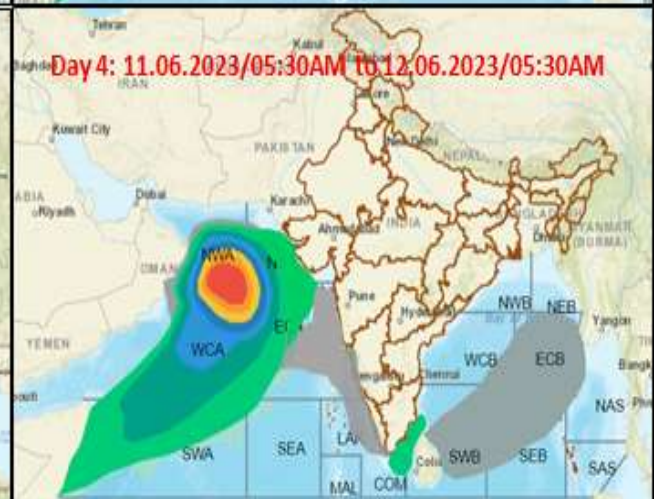
DATE/TIME IN UTC
 IST=UTC + 0530
 L: LOW PRESSURE AREA
 WML: WELL MARKED LOW PRESSURE AREA
 D: DEPRESSION (17-27 KT)
 DD: DEEP DEPRESSION (28-33 KT)
 CS: CYCLONIC STORM (34-47 KT)
 SCS: SEVERE CYCLONIC STORM (48-63KT)
 VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
 ESCS: EXTREMELY SEVERE CYCLONIC STORM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



	Squally Weather with wind speed 40-45 kmph gusting to 55 kmph
	Squally wind speed with wind speed 45-55 kmph gusting to 65 kmph
	Gale wind speed with wind speed 60-70 kmph gusting to 80 kmph
	Gale wind speed with wind speed 70-80 kmph gusting to 90 kmph
	Gale wind speed with wind speed 80-90 kmph gusting to 100 kmph
	Gale wind speed with wind speed 90-100 kmph gusting to 120 kmph
	Gale wind speed with wind speed 100-120 kmph gusting to 135 kmph
	Gale wind speed with wind speed 120-140 kmph gusting to 155 kmph
	Gale wind speed with wind speed 140-160 kmph gusting to 175 kmph

Fishermen are advised not to venture into the marked areas.