



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI
SPECIAL TROPICAL WEATHER OUTLOOK**

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 07.06.2023

FROM: RSMC –TROPICAL CYCLONES, NEW DELHI

**TO: STORM WARNING CENTRE, NAYPYI TAW (MYANMAR)
STORM WARNING CENTRE, BANGKOK (THAILAND)
STORM WARNING CENTRE, COLOMBO (SRILANKA)
STORM WARNING CENTRE, DHAKA (BANGLADESH)
STORM WARNING CENTRE, KARACHI (PAKISTAN)
METEOROLOGICAL OFFICE, MALE (MALDIVES)
OMAN METEOROLOGICAL DEPARTMENT, MUSCAT (THROUGH RTH JEDDAH)
YEMEN METEOROLOGICAL SERVICES, REPUBLIC OF YEMEN (THROUGH RTH JEDDAH)
NATIONAL CENTRE FOR METEOROLOGY, UAE (THROUGH RTH JEDDAH)
PRESIDENCY OF METEOROLOGY AND ENVIRONMENT, SAUDI ARABIA (THROUGH RTH JEDDAH)
IRAN METEOROLOGICAL ORGANISATION, (THROUGH RTH JEDDAH)
QATAR METEOROLOGICAL DEPARTMENT (THROUGH RTH JEDDAH)**

TROPICAL CYCLONE ADVISORY NO. 5 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0330 UTC OF 07.06.2023 BASED ON 0000 UTC OF 07.06.2023

SUB: THE CYCLONIC STORM “BIPARJOY” (PRONOUNCED AS “BIPORJOY”) INTENSIFIED INTO SEVERE CYCLONIC STORM OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA

THE CYCLONIC STORM “BIPARJOY” (PRONOUNCED AS “BIPORJOY”) OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA MOVED NEARLY NORTHWARDS WITH A SPEED OF 2 KMPH DURING LAST 6 HOURS, INTENSIFIED INTO A SEVERE CYCLONIC STORM AND LAY CENTERED AT 0000 UTC OF 07TH JUNE, 2023 OVER THE SAME REGION NEAR LATITUDE 12.6°N AND LONGITUDE 66.1 °E, ABOUT 890 KM WEST-SOUTHWEST OF GOA(43192), 1000 KM SOUTHWEST OF MUMBAI(43057), 1070 KM SOUTH-SOUTHWEST OF PORBANDAR(42830) AND 1370 KM SOUTH OF KARACHI(41780).

IT IS LIKELY TO MOVE NEARLY NORTHWARDS DURING NEXT 24 HOURS AND INTENSIFY INTO A VERY SEVERE CYCLONIC STORM. IT WOULD THEN MOVE NORTH-NORTHWESTWARDS DURING SUBSEQUENT 3 DAYS.

Forecast track and intensity are given below:

Date/Time(UTC)	Position (Lat. °N/ long. °E)	Maximum sustained surface wind speed (Kmph)	Category of cyclonic disturbance
07.06.23/0000	12.6/66.1	95-105 gusting to 115	Severe Cyclonic Storm
07.06.23/0600	12.8/66.2	105-115 gusting to 125	Severe Cyclonic Storm
07.06.23/1200	13.0/66.3	115-125 gusting to 140	Very Severe Cyclonic Storm
07.06.23/1800	13.3/66.3	125-135 gusting to 150	Very Severe Cyclonic Storm
08.06.23/0000	13.9/66.2	130-140 gusting to 155	Very Severe Cyclonic Storm
08.06.23/1200	14.5/66.0	135-145 gusting to 160	Very Severe Cyclonic Storm

Cloud distribution: (a) Isolated: <25%, Scattered:25-50%, Broken: 51-75%, Solid:>75%, Convection Intensity: (a) Weak: Cloud Top Temperature (CTT) >-25°C, (b) Moderate: CTT: - 25°C to -40°C, (c) Intense: CTT: - 41°C to -70°C and (d) Very Intense: : Less than -70°C
PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION): NIL: 0%, LOW: 1-33%, , MODERATE: 34-66% AND HIGH: 67-100%
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09.06.23/0000	15.1/65.8	135-145 gusting to 160	Very Severe Cyclonic Storm
09.06.23/1200	15.8/65.5	145-155 gusting to 170	Very Severe Cyclonic Storm
10.06.23/0000	16.5/65.2	145-155 gusting to 170	Very Severe Cyclonic Storm
10.06.23/1200	17.4/64.8	145-155 gusting to 170	Very Severe Cyclonic Storm
11.06.23/0000	18.3/64.4	135-145 gusting to 160	Very Severe Cyclonic Storm
11.06.23/1200	19.2/64.0	130-140 gusting to 155	Very Severe Cyclonic Storm
12.06.23/0000	19.8/63.7	125-135 gusting to 150	Very Severe Cyclonic Storm

AS PER INSAT 3D IMAGERY INTENSITY OF THE SYSTEM IS T 3.5. ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER CENTRAL AND ADJOINING SOUTH ARABIAN SEA BETWEEN LATITUDE 10.0N & 15.0N LONGITUDE 60.0E & 67.5E. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93DEG C.

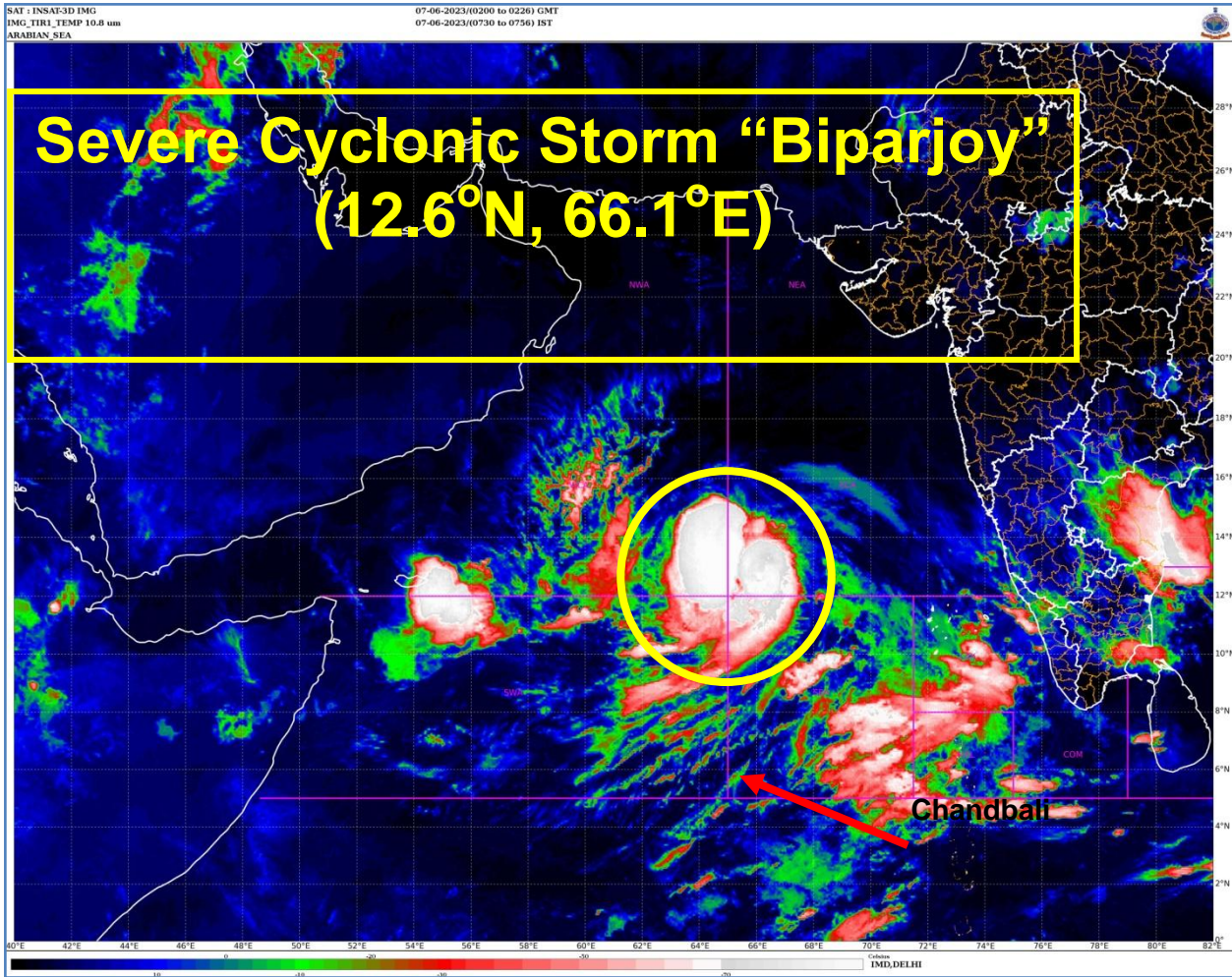
ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 55 KNOTS GUSTING TO 65 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 990 HPA. SEA CONDITION IS LIKELY TO BE VERY HIGH OVER EASTCENTRAL AND ADJOINING EASTCENTRAL ARABIAN SEA.

REMARKS: SEA SURFACE TEMPERATURE IS AROUND 30-32°C OVER SOUTH & ADJOINING CENTRAL ARABIAN SEA. THE CYCLONIC STORM "BIPARJOY" (PRONOUNCED AS "BIPORJOY") IS CURRENTLY IN A VERY FAVOURABLE ENVIROMENT WITH POSITIVE LOW LEVEL VORTICITY ($190 \times 10^{-6} \text{S}^{-1}$) TO THE SOUTH WEST OF SYSTEM CENTRE, LOW LEVEL CONVERGENCE IS ABOUT $50-60 \times 10^{-5} \text{S}^{-1}$ OVER THE AREA, UPPER LEVEL DIVERGENCE IS ABOUT $50 \times 10^{-5} \text{S}^{-1}$ TO THE SOUTH OF SYSTEM CENTRE. WIND SHEAR IS MODERATE OVER SYSTEM AREA (15-20 KNOTS). MJO IS IN PHASE 2 WITH AMPLITUDE CLOSE TO 1 AND EQUATORIAL ROSSBY WAVES, KELVIN WAVES ALONGWITH WESTERLY WINDS (5-7 MPS) ARE ALSO PREVAILING OVER SOUTH AND CENTRAL ARABIAN SEA. TOTAL PRECEIPITABLE WATER IMAGERY INDICATE THE WARM MOIST AIR INCURSION INTO THE SYSTEM.

MOST OF THE MODELS SUCH AS ECMWF, IMDGFS, NCEP GFS, NCUM, IMD MME ARE INDICATING FURTHER INTESIFICATION OF THE SYSTEM. MOST OF THE MODELS SUCH AS ECMWF, NCEP GFS, NCUM, IMD MME ALSO ARE INDICATING NEARLY NORTHWARDS MOVEMENT OF THE SYSTEM DURING NEXT 3 DAYS AND THERE IS LARGE VARIATION THEREAFTER. ECMWF INDICATING WEAKENING OVER EASTCENTRAL ARABIAN SEA, IMD GFS INDICATING WEAKENING OVER NORTHEAST ARABIAN SEA, NCEP GFS INDICATING LIKELY MOVEMENT TOWARDS OMAN COAST AND NCUM INDICATING MOVEMENT TOWARDS PAKISTAN-IRAN COASTS.

CONSIDERING THE LATEST ENVIRONMENTAL FEATURES AND MODEL GUIDANCE, THE CYCLONIC STORM "BIPARJOY" (PRONOUNCED AS "BIPORJOY") IS LIKELY TO MOVE NEARLY NORTHWARDS DURING NEXT 24 HOURS AND INTENSIFY INTO A VERY SEVERE CYCLONIC STORM. IT WOULD THEN MOVE NORTH-NORTHWESTWARDS DURING SUBSEQUENT 3 DAYS.

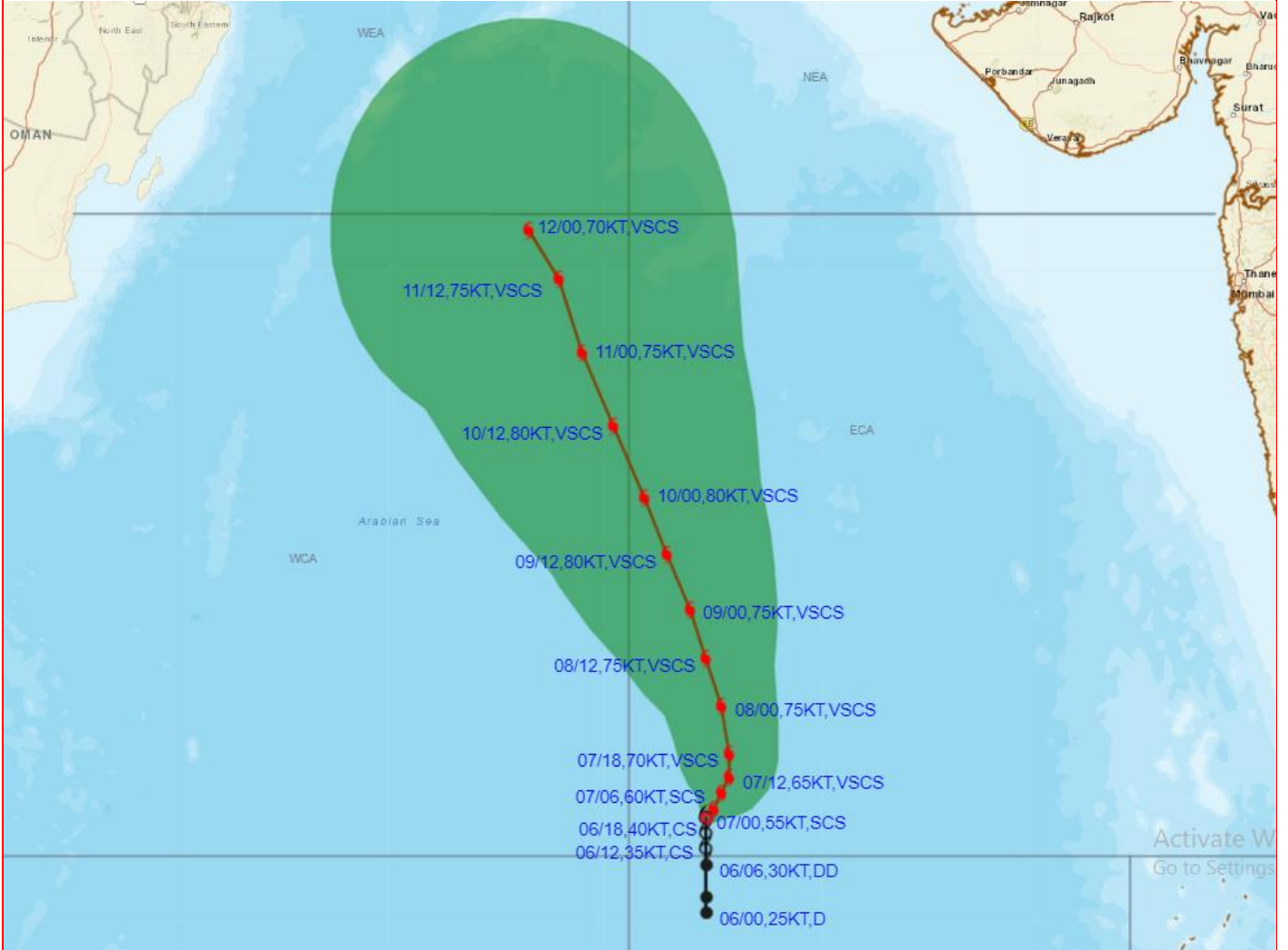
DR JOHNY C J
SC-D
RSMC NEW DELHI



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OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF SEVERE CYCLONIC STORM "BIPARJOY" OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA BASED ON 0000 UTC (0530 IST) OF 07TH 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)

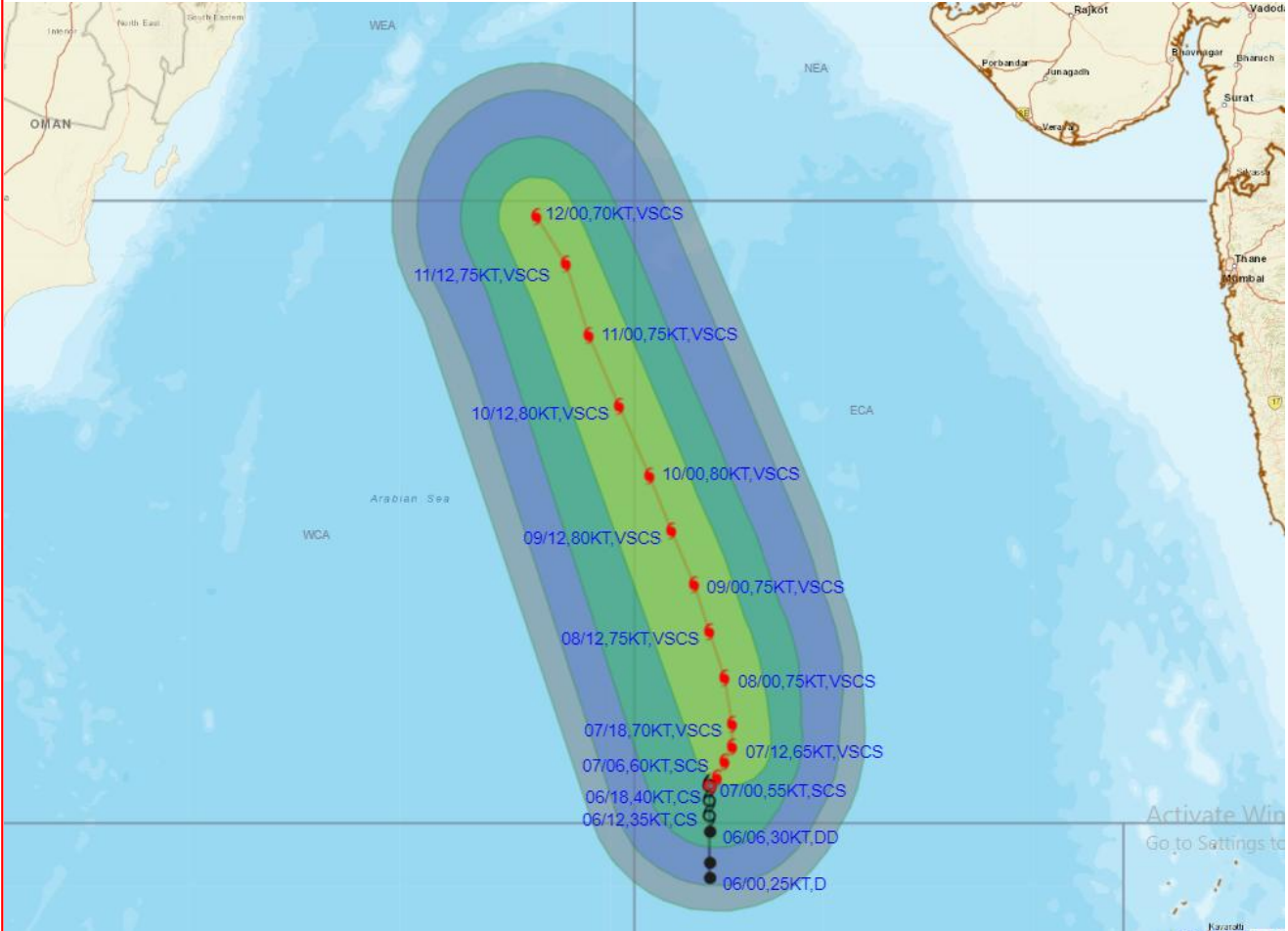
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)

SuCS: SUPER CYCLONIC STORM (\geq 120 KT)

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



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF SEVERE CYCLONIC STORM "BIPARJOY" OVER EASTCENTRAL AND ADJOINING SOUTHEAST ARABIAN SEA BASED ON 0000 UTC (0530 IST) OF 07TH 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

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