



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI
TROPICAL CYCLONE ADVISORY**

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 16.06.2023

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. 84 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 24 HOURS ISSUED AT 0300 UTC OF 17.06.2023 BASED ON 0000 UTC OF 17.06.2023

SUB: DEEP DEPRESSION (REMNANT OF CYCLONIC STORM 'BIPARJOY') OVER SOUTHWEST RAJASTHAN ADJOINING GUJARAT AND SOUTHEAST PAKISTAN.

THE DEEP DEPRESSION (REMNANT OF CYCLONIC STORM 'BIPARJOY') OVER SOUTHWEST PAKISTAN ADJOINING SOUTHWEST RAJASTHAN AND KUTCH MOVED EAST-NORTHEASTWARDS WITH A SPEED OF 05 KMPH DURING PAST 6-HOURS AND LAY CENTERED AT 0000 UTC OF TODAY, THE 17TH JUNE, 2023 OVER SOUTHWEST RAJASTHAN AND ADJOINING GUJARAT AND SOUTHEAST PAKISTAN NEAR LATITUDE 24.7°N AND LONGITUDE 71.2°E, ABOUT 130 KM NORTHEAST OF DHOLAVIRA (GUJARAT), 120 KM WEST-NORTHWEST OF DEESA (42539) AND 110 KM SOUTH-SOUTHWEST OF BARMER (42435).

IT IS VERY LIKELY TO MOVE EAST-NORTHEASTWARDS AND WEAKEN INTO A DEPRESSION DURING NEXT 6 HOURS. THEREAFTER, IT IS VERY LIKELY TO CONTINUE TO MOVE EAST-NORTHEASTWARDS AND MAINTAIN THE INTENSITY OF DEPRESSION DURING SUBSEQUENT 18 HOURS.

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
17.06.23/0000	24.7/71.2	50-60 GUSTING TO 70	DEEP DEPRESSION
17.06.23/0600	24.9/71.6	45-55 GUSTING TO 65	DEPRESSION
17.06.23/1200	25.2/72.1	40-50 GUSTING TO 60	DEPRESSION
17.06.23/1800	25.5/72.7	35-45 GUSTING TO 55	DEPRESSION
18.06.23/0000	25.8/73.4	30-40 GUSTING TO 50	DEPRESSION

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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AS PER INSAT 3D IMAGERY, ASSOCIATED SCATTERED TO BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTHWEST RAJASTHAN, SOUTH PAKISTAN (MINIMUM CLOUD TOP TEMPERATURE IS MINUS 80°C) AND MODERATE TO INTENSE CONVECTION OVER NORTHEAST ARABIAN SEA, KUTCH, (MINIMUM CLOUD TOP TEMPERATURE IS MINUS 65°C) AND WEAK TO MODERATE CONVECTION OVER REST RAJASTHAN, SAURASHTRA, GUJARAT REGION AND GULF OF KUTCH.

ASSOCIATED MAXIMUM SUSTAINED WIND SPEED (MSW) IS 30 KNOTS GUSTING TO 40 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 990 HPA. SEA CONDITION IS LIKELY TO BE ROUGH OVER NORTHEAST ARABIAN SEA DURING NEXT 12 HOURS.

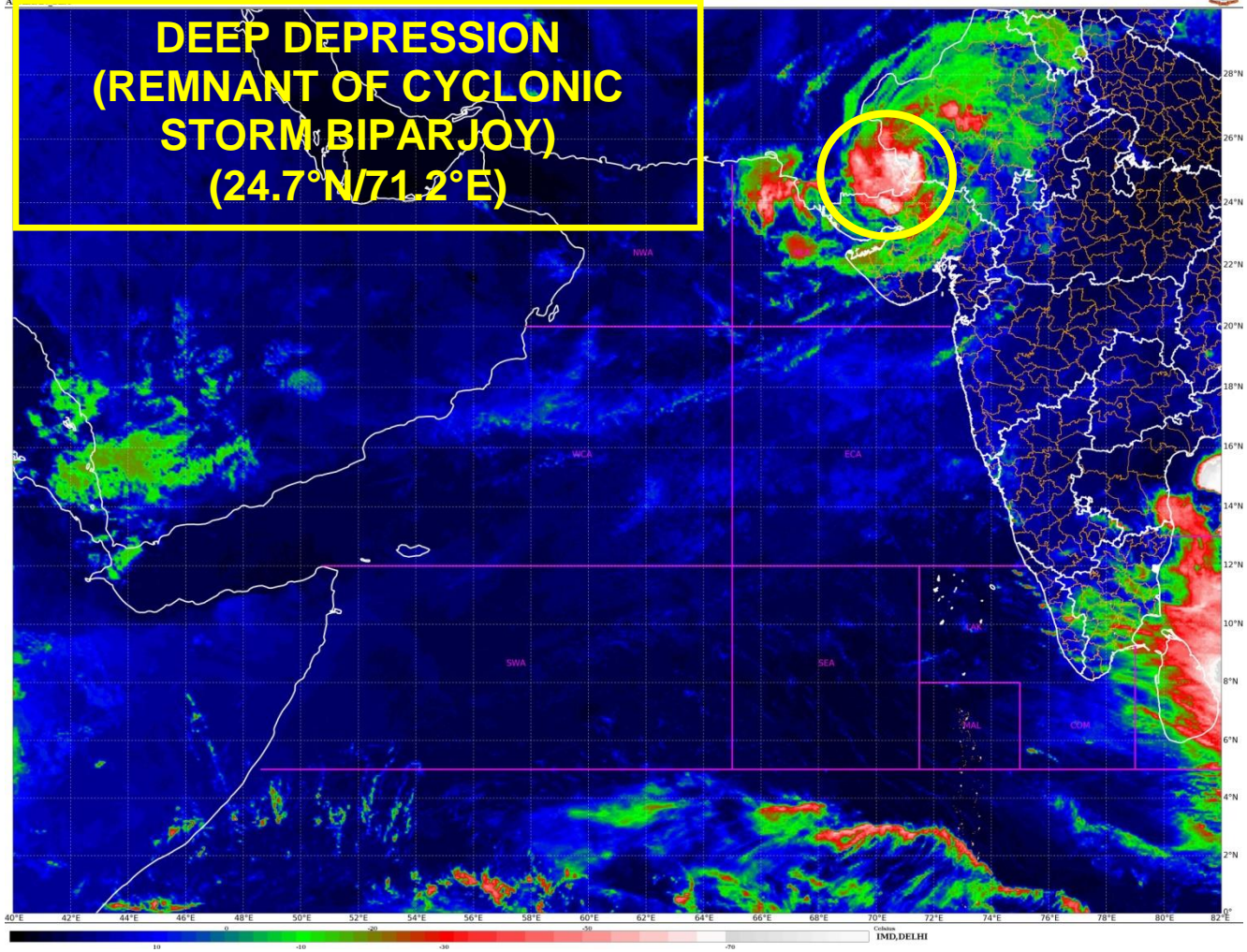
AT 0000 UTC, CHHOR (41768) MEAN SEA LEVEL PRESSURE (MSLP) OF 995.4 HPA, AND MAXIMUM SUSTAINED WIND SPEED (MSW) OF 360°/4.1KT. BARMER (42435) REPORTED MSLP OF 991.4 HPA AND MSW OF 50°/12.1KT. DEESA (42539) REPORTED MSLP OF 994.3 HPA AND MSW OF 140°/23KT. BHUJ (42634) REPORTED MSLP OF 998.8 HPA AND MSW OF 230°/6.0KT.

REMARKS:

THE LOW LEVEL VORTICITY IS AROUND $200 \times 10^{-6} \text{S}^{-1}$ & IS LOCATED TO THE SOUTHWEST OF THE SYSTEM CENTRE. LOW LEVEL CONVERGENCE IS ABOUT $20\text{-}30 \times 10^{-5} \text{S}^{-1}$ TO THE SOUTHWEST OF THE SYSTEM CENTRE AND UPPER LEVEL DIVERGENCE IS ABOUT $20 \times 10^{-5} \text{S}^{-1}$ TO THE SOUTHWEST OF SYSTEM CENTRE. VERTICAL WIND SHEAR IS MODERATE (10-20 KNOTS) OVER THE SYSTEM AREA. THE RIDGE RUNS ALONG 24.5°N. THE SYSTEM IS MOVING NEARLY EAST-NORTHEASTWARDS UNDER THE INFLUENCE OF WEST-SOUTHWESTERLY WINDS PREVAILING TO THE NORTH OF THE RIDGE. SYSTEM IS STILL IN A MODERATELY FAVOURABLE ENVIRONMENT, THUS IT IS WEAKENING GRADUALLY.

BASED ON ENVIRONMENTAL CONDITIONS AND NWP MULTI-MODEL FORECASTS THE SYSTEM IS VERY LIKELY TO MOVE NEARLY EAST-NORTHEASTWARDS AND WEAKEN GRADUALLY INTO A DEPRESSION DURING NEXT 06 HOURS.

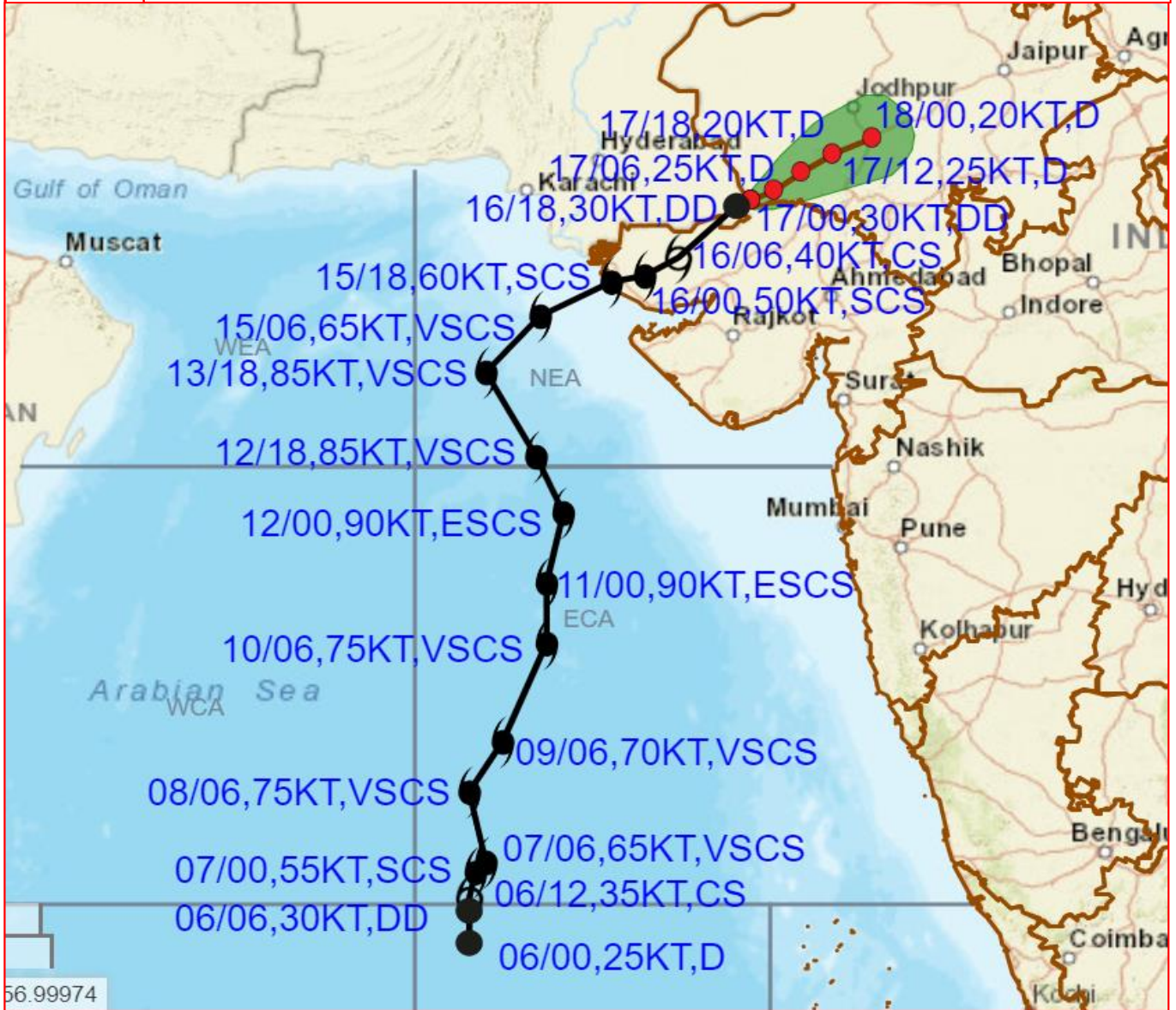
**AKHIL SRIVASTAVA
SCIENTIST C
RSMC NEW DELHI**



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OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEEP DEPRESSION (REMANANT OF CYCLONIC STORM BIPARJOY) OVER SOUTHWEST RAJASTHAN ADJOINING GUJARAT AND SOUTHEAST PAKISTAN BASED ON 0000 UTC (0530 IST) OF 17TH JUNE 2022



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

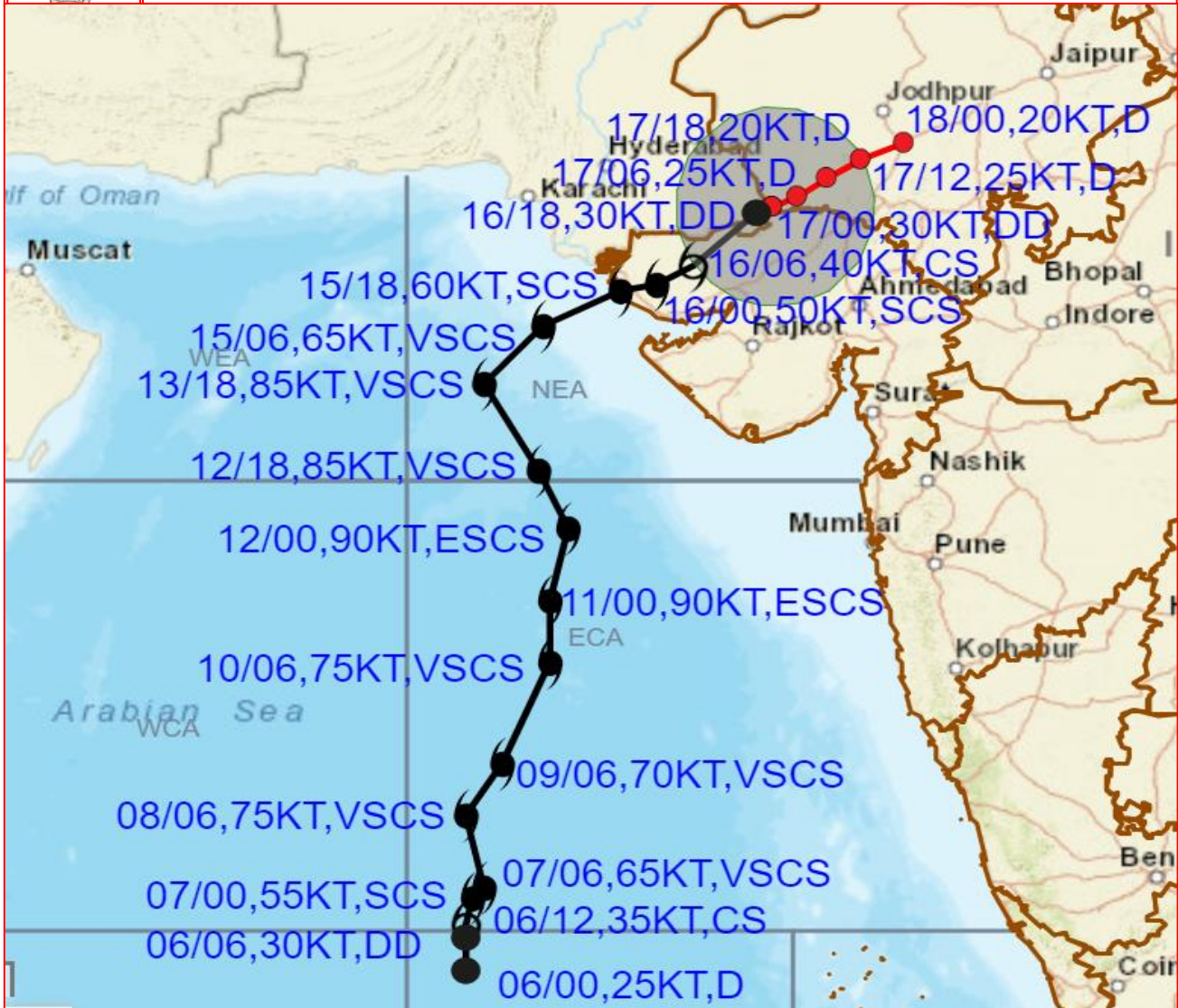
— FORECAST TRACK

▲ CONE OF UNCERTAINTY

56.99974



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION (REMANANT OF CYCLONIC STORM BIPARJOY) OVER SOUTHWEST RAJASTHAN ADJOINING GUJARAT AND SOUTHEAST PAKISTAN BASED ON 0000 UTC (0530 IST) OF 17TH JUNE 2023..



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— 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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