



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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 06.06.2023

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND THE ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0930 UTC OF 06.06.2023 BASED ON 0600 UTC OF 06.06.2023.

SUB: DEEP DEPRESSION OVER SOUTHEAST AND ADJOINING EASTCENTRAL ARABIAN SEA

THE DEPRESSION OVER SOUTHEAST ARABIAN SEA MOVED NEARLY NORTHWARDS WITH A SPEED OF 13 KMPH DURING LAST 6 HOURS, INTENSIFIED INTO A DEEP DEPRESSION AND LAY CENTERED AT 0600 UTC OF TODAY, THE 06TH JUNE, 2023 OVER SOUTHEAST AND ADJOINING EASTCENTRAL ARABIAN SEA NEAR LATITUDE 11.9°N AND LONGITUDE 66.0°E, ABOUT 930 KM WEST-SOUTHWEST OF GOA (43192), 1060 KM SOUTHWEST OF MUMBAI (43057), 1150 KM SOUTH-SOUTHWEST OF PORBANDAR (42830) AND 1450 KM SOUTH OF KARACHI (41780).

IT IS LIKELY TO MOVE NEARLY NORTHWARDS AND INTENSIFY INTO A CYCLONIC STORM OVER EASTCENTRAL ARABIAN SEA & ADJOINING SOUTHEAST DURING NEXT 6 HOURS.

AS PER INSAT 3D IMAGERY, THE CLOUDS HAVE FURTHER ORGANIZED DURING PAST 6 HOURS AND VORTEX PATTERN IS SEEN. INTENSITY OF THE SYSTEM IS T 2.0. ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER SOUTH ADJOINING CENTRAL ARABIAN SEA BETWEEN LATITUDE 8.0N & 16.0N LONGITUDE 60.0E & 69.0E. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 90 DEG C.

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
06.06.23/0600	11.9/66.0	50-60 GUSTING TO 70	DEEP DEPRESSION
06.06.23/1800	12.4/66.0	60-70 GUSTING TO 80	CYCLONIC STORM
07.06.23/0600	13.0/65.9	70-80 GUSTING TO 90	CYCLONIC STORM
07.06.23/1800	13.6/65.8	80-90 GUSTING TO 100	CYCLONIC STORM
08.06.23/0600	14.2/65.7	90-100 GUSTING TO 110	SEVERE CYCLONIC STORM
08.06.23/1800	14.8/65.6	95-105 GUSTING TO 115	SEVERE CYCLONIC STORM
09.06.23/0600	15.4/65.5	105-115 GUSTING TO 125	SEVERE CYCLONIC STORM
09.06.23/1800	16.1/65.4	115-125 GUSTING TO 140	VERY SEVERE CYCLONIC STORM
10.06.23/0600	16.9/65.2	125-135 GUSTING TO 150	VERY SEVERE CYCLONIC STORM
10.06.23/1800	17.8/65.0	135-145 GUSTING TO 160	VERY SEVERE CYCLONIC STORM
11.06.23/0600	18.7/64.8	145-155 GUSTING TO 170	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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ASSOCIATED MAXIMUM SUSTAINED WIND SPEED IS 30 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS 999 HPA. SEA CONDITION IS LIKELY TO BE VERY ROUGH OVER SOUTHEAST AND ADJOINING EASTCENTRAL ARABIAN SEA.

AT 0600 UTC, A BUOY(23452) NEAR 12.1°N/68.6°E REPORTED MEAN SEA LEVEL PRESSURE OF 1008.4 HPA AND MAXIMUM SUSTAINED WINDS OF 340°/13.6 KNOTS. ANOTHER BUOY (23497) NEAR 10.51°N/72.3°E REPORTED MEAN SEA LEVEL PRESSURE OF 1009.3 HPA AND MAXIMUM SUSTAINED WINDS OF 320°/7.8 KNOTS

REMARKS: SEA SURFACE TEMPERATURE IS AROUND 30-32°C OVER SOUTH & ADJOINING CENTRAL ARABIAN SEA. THE LOW PRESSURE AREA IS CURRENTLY IN A VERY FAVOURABLE ENVIRONMENT WITH POSITIVE LOW LEVEL VORTICITY ($150 \times 10^{-6} \text{S}^{-1}$) TO THE SOUTH OF SYSTEM CENTRE, LOW LEVEL CONVERGENCE HAS INCREASED AND IS ABOUT $40 \times 10^{-5} \text{S}^{-1}$ TO THE SOUTH OF SYSTEM CENTRE, UPPER LEVEL DIVERGENCE HAS INCREASED AND IS ABOUT $40 \times 10^{-5} \text{S}^{-1}$ TO THE SOUTHWEST 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.

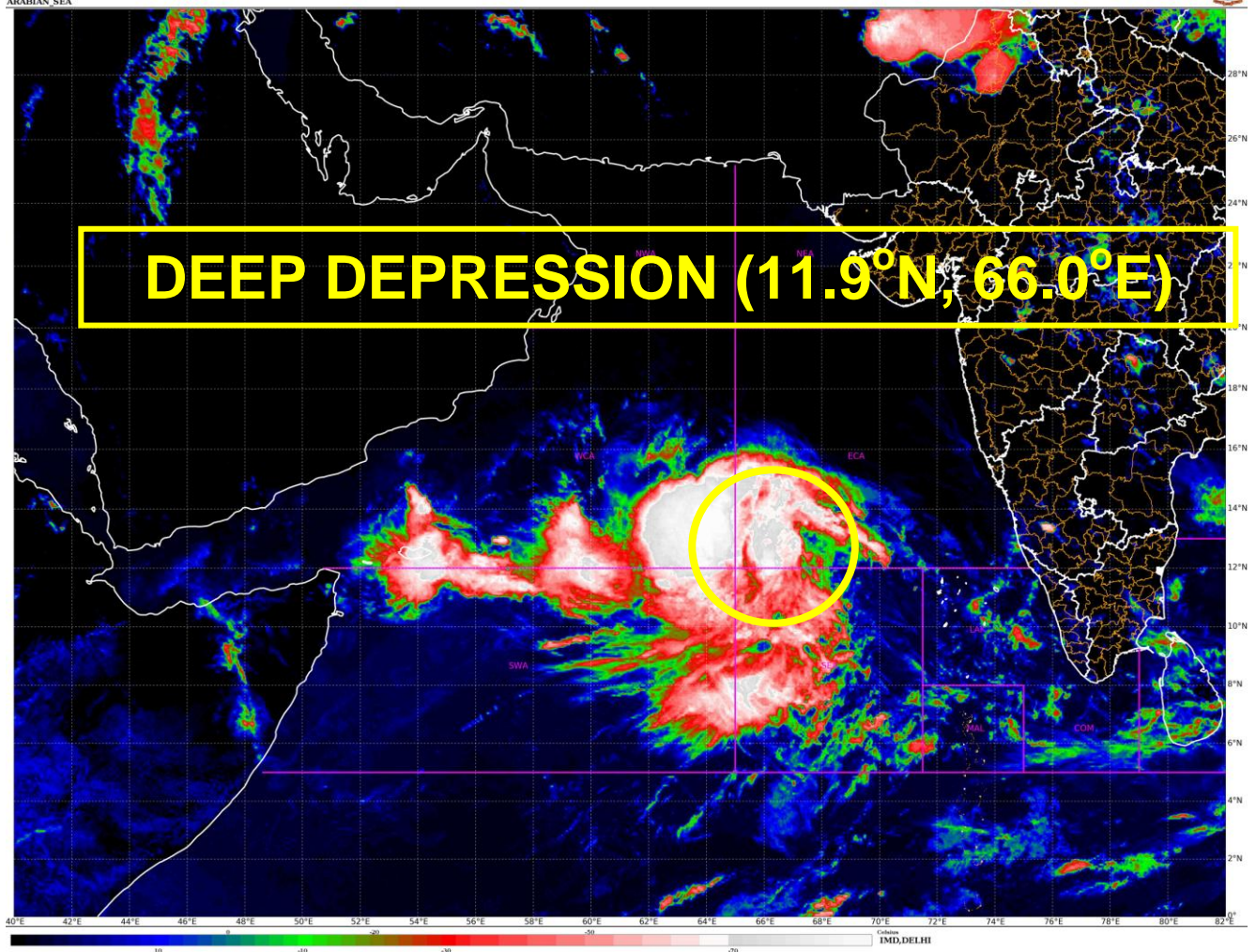
MOST OF THE MODELS SUCH AS ECMWF, IMDGFS, NCEP GFS, NCUM, IMD MME ARE INDICATING FURTHER INTENSIFICATION OF THE SYSTEM INTO A CYCLONIC STORM DURING NEXT 12 HOURS AND NEARLY NORTHWARDS MOVEMENT DURING NEXT 5 DAYS.

CONSIDERING THE LATEST ENVIRONMENTAL FEATURES AND MODEL GUIDANCE, THE DEPRESSION OVER SOUTHEAST ARABIAN SEA IS LIKELY TO MOVE NEARLY NORTHWARDS AND INTENSIFY INTO A CYCLONIC STORM OVER EASTCENTRAL ARABIAN SEA & ADJOINING SOUTHEAST DURING NEXT 6 HOURS.

**M. T. BUSHAIR
SCIENTIST-C
RSMC NEW DELHI**

SAT : INSAT-3D IMG
IMG_TIR1_TEMP 10.8 um
ARABIAN_SEA

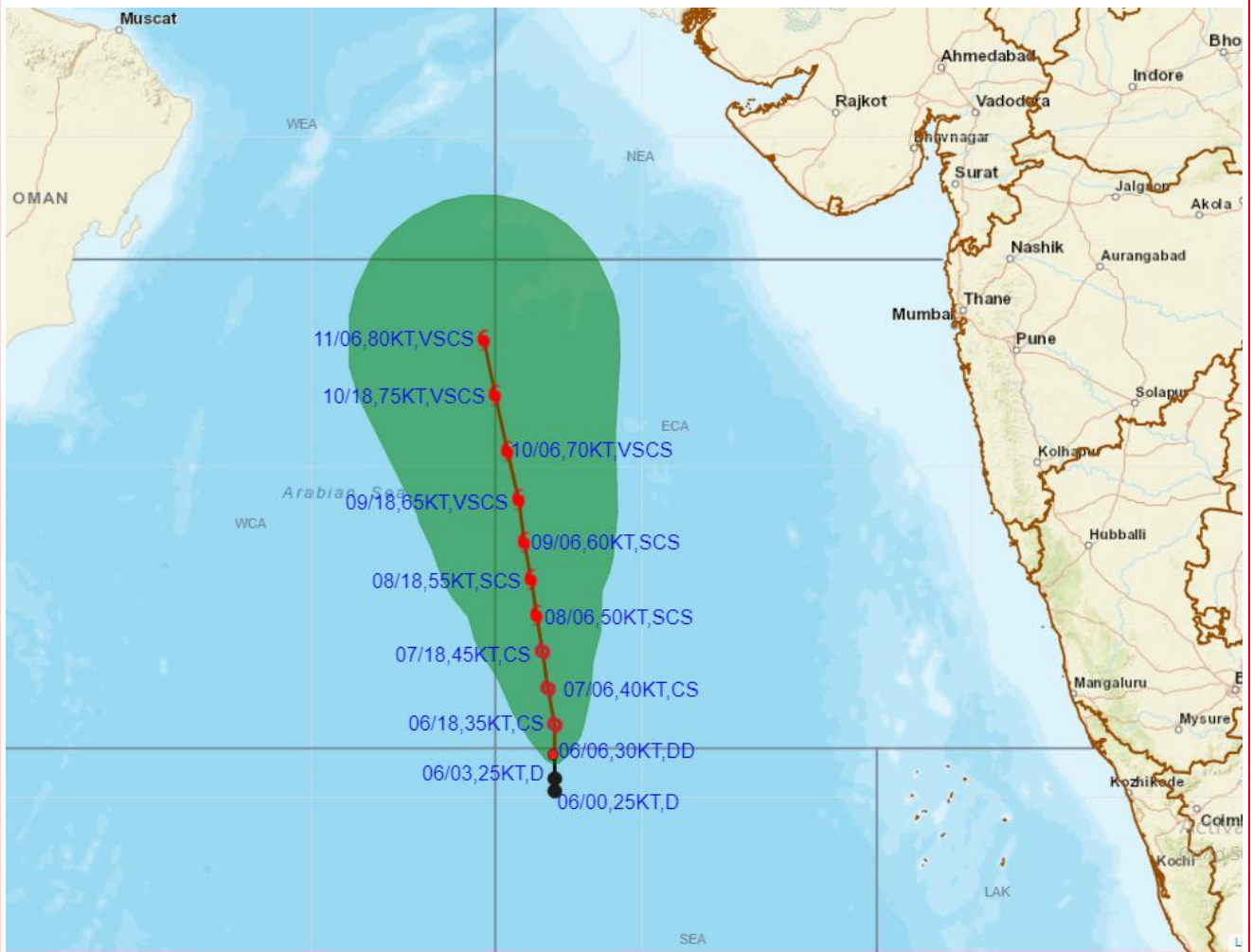
06-06-2023(0830 to 0857) GMT
06-06-2023(11400 to 1427) IST



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OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEEP DEPRESSION OVER SOUTHEAST AND ADJOINING EASTCENTRAL ARABIAN SEA BASED ON 0600 UTC (1130 IST) OF 06TH 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

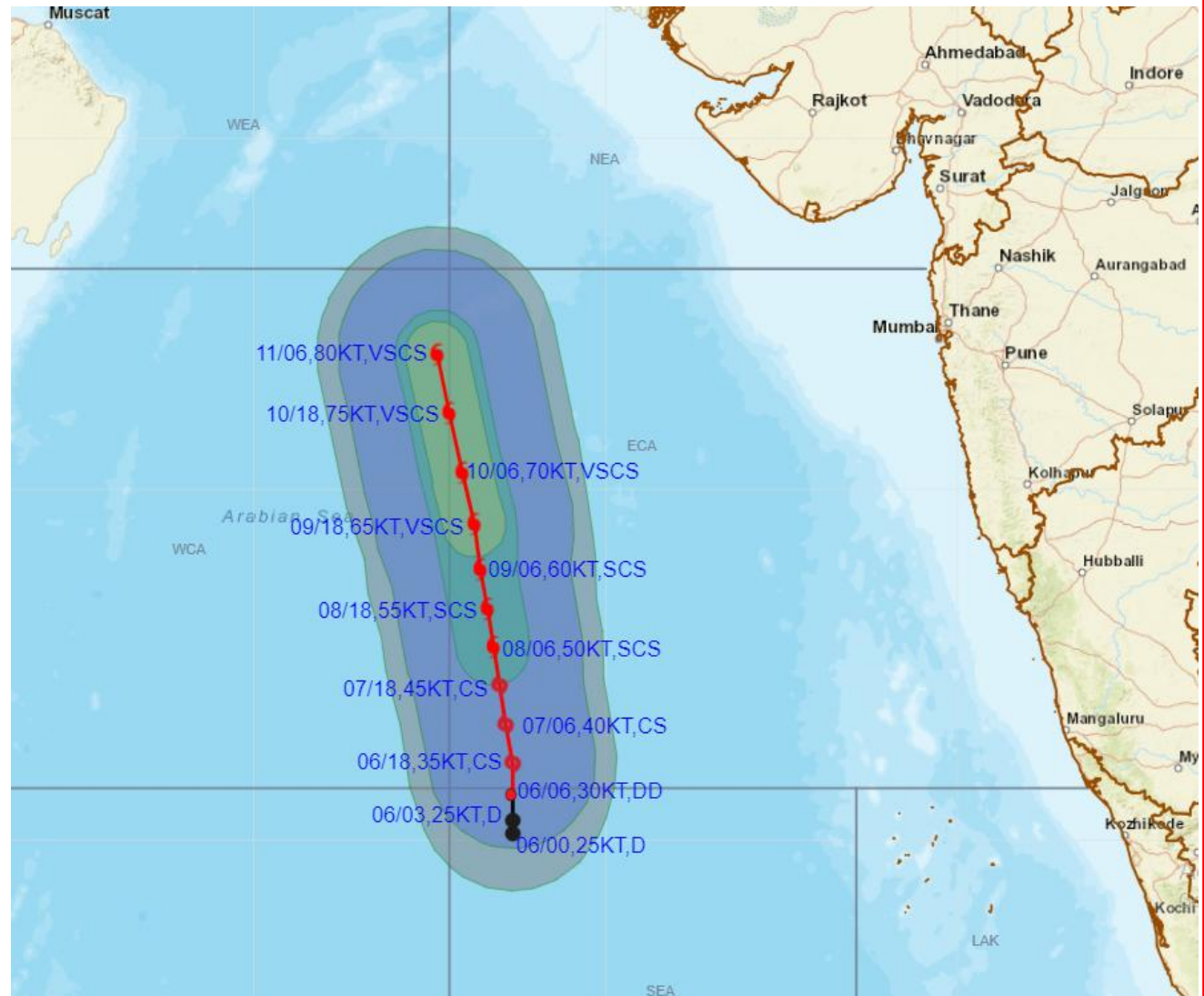
— OBSERVED TRACK

— FORECAST TRACK

▲ CONE OF UNCERTAINTY



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION OVER SOUTHEAST AND ADJOINING EASTCENTRAL ARABIAN SEA BASED ON 0600 UTC (1130 IST) OF 06TH 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)

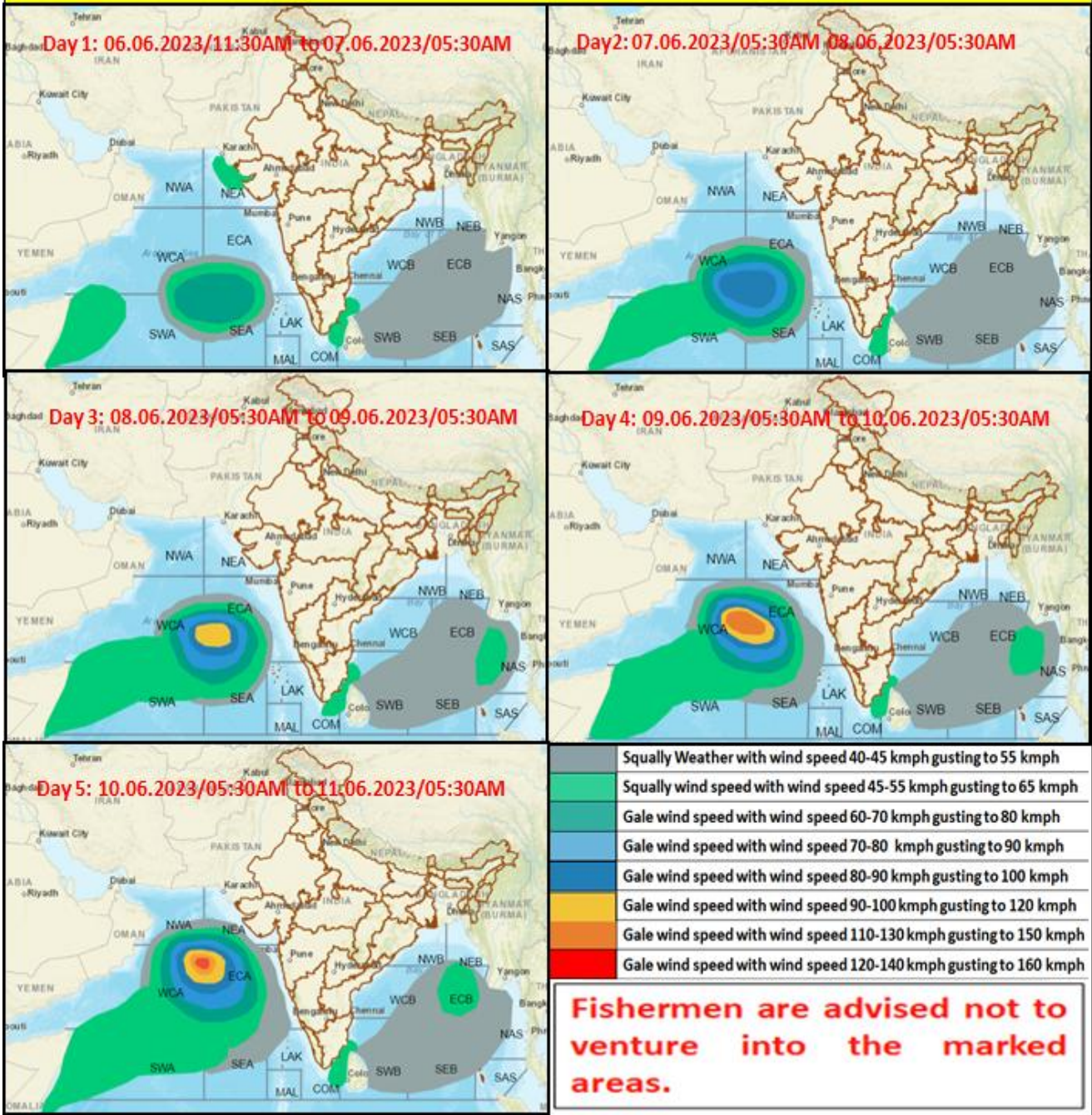
■ ≥ 64 KT (≥118 KMPH)

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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Fishermen warning graphics



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