



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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 07.05.2022

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0900 UTC OF 07.05.2022 BASED ON 0600 UTC OF 07.05.2022.

SUB: DEPRESSION OVER SOUTHEAST BAY OF BENGAL AND ADJOINING ANDAMAN SEA & IT'S LIKELY INTENSIFICATION INTO A CYCLONIC STORM ON 8TH MAY, 2022

THE WELL MARKED LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL AND ADJOINING ANDAMAN SEA MOVED NORTHWESTWARDS, CONCENTRATED INTO A DEPRESSION AND LAY CENTERED AT 0600 UTC OF TODAY, THE 07TH MAY, OVER THE SAME REGION NEAR LATITUDE 9.4°N AND LONGITUDE 91.3°E, ABOUT 170 KM WEST OF CAR NICOBAR (43367), 300 KM SOUTH-SOUTHWEST OF PORT BLAIR (43333), 1270 KM SOUTHEAST OF VISAKHAPATNAM (43149) AND 1300 KM SOUTH-SOUTHEAST OF PURI (43053).

IT IS VERY LIKELY TO MOVE NORTHWESTWARDS AND INTENSIFY INTO A **CYCLONIC STORM** OVER EASTCENTRAL BAY OF BENGAL ON 8TH MAY. IT IS VERY LIKELY TO CONTINUE TO MOVE NORTHWESTWARDS TILL 1200UTC OF 10TH MAY AND REACH WESTCENTRAL AND ADJOINING NORTHWEST BAY OF BENGAL OFF NORTH ANDHRA PRADESH & ODISHA COASTS. THEREAFTER, IT IS VERY LIKELY TO RECURVE NORTH-NORTHEASTWARDS AND MOVE TOWARDS NORTHWEST BAY OF BENGAL OFF ODISHA COAST.

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

DATE/TIME(UTC)	POSITION (LAT. °N/LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
07.05.22/0600	9.4/91.3	45-55 GUSTING TO 65	DEPRESSION
07.05.22/1800	11.5/89.9	50-60 GUSTING TO 70	DEPRESSION
08.05.22/0600	12.9/88.7	55-65 GUSTING TO 75	DEEP DEPRESSION
08.05.22/1800	14.3/87.3	65-75 GUSTING TO 85	CYCLONIC STORM
09.05.22/0600	15.3/86.3	70-80 GUSTING TO 90	CYCLONIC STORM
09.05.22/1800	16.3/85.7	80-90 GUSTING TO 100	CYCLONIC STORM
10.05.22/0600	17.2/85.2	80-90 GUSTING TO 100	CYCLONIC STORM
10.05.22/1800	17.8/85.1	75-85 GUSTING TO 95	CYCLONIC STORM
11.05.22/0600	18.3/85.2	70-80 GUSTING TO 90	CYCLONIC STORM
11.05.22/1800	18.8/85.5	70-80 GUSTING TO 90	CYCLONIC STORM

THE INTENSITY OF THE SYSTEM IS T1.5. ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER AREA BETWEEN LATITUDE 7.0N & 15.0N AND LONGITUDE 86.0E & 93.0E AND ANDAMAN & NICOBAR ISLANDS. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEG C. CONVECTION HAS FURTHER ORGANISED DURING PAST 3 HOURS OVER SOUTH ANDAMAN SEA AND ADJOINING SOUTHEAST BAY OF BENGAL.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS GUSTING TO 35 KNOTS. THE SEA CONDITION IS ROUGH TO VERY ROUGH OVER SOUTHEAST BAY OF BENGAL & ADJOINING ANDAMAN SEA. THE ESTIMATED CENTRAL PRESSURE IS 1002 HPA.

REMARKS:

THE MADDEN JULIAN OSCILLATION INDEX (MJO) CURRENTLY LIES IN PHASE 2 WITH AMPLITUDE LESS THAN 1. IT WOULD MOVE ACROSS PHASES 3, 4 AND 5 DURING NEXT 5 DAYS WITH GRADUALLY INCREASING AMPLITUDE. HENCE, MJO WILL SUPPORT ENHANCEMENT OF CONVECTIVE ACTIVITY OVER THE BAY OF BENGAL (BOB) DURING NEXT 5 DAYS. BASED ON CFS FORECAST, EQUATORIAL ROSSBY WAVES (ERW), WESTERLY WINDS (3-5 MPS) OVER EQUATORIAL INDIAN OCEAN (EIO) & ADJOINING SOUTH BOB AND STRONG EASTERLY WINDS (5-7 MPS) ARE LIKELY TO PREVAIL OVER CENTRAL BOB DURING NEXT 3 DAYS. THUS, EQUATORIAL WAVES ARE LIKELY TO CONTRIBUTE TOWARDS ENHANCEMENT OF CONVECTIVE ACTIVITY OVER EIO AND ADJOINING SOUTH BOB & CENTRAL BOB DURING NEXT 3-5 DAYS.

SEA SURFACE TEMPERATURE (SST) IS AROUND 30-31⁰C OVER ENTIRE BOB. THE OCEAN HEAT CONTENT (OHC) IS >100 KJ/CM² OVER ENTIRE ANDAMAN SEA, CENTRAL BOB, SOUTH BOB & ADJOINING EIO AND 50-70 KJ/CM² OVER NORTHWEST BOB.

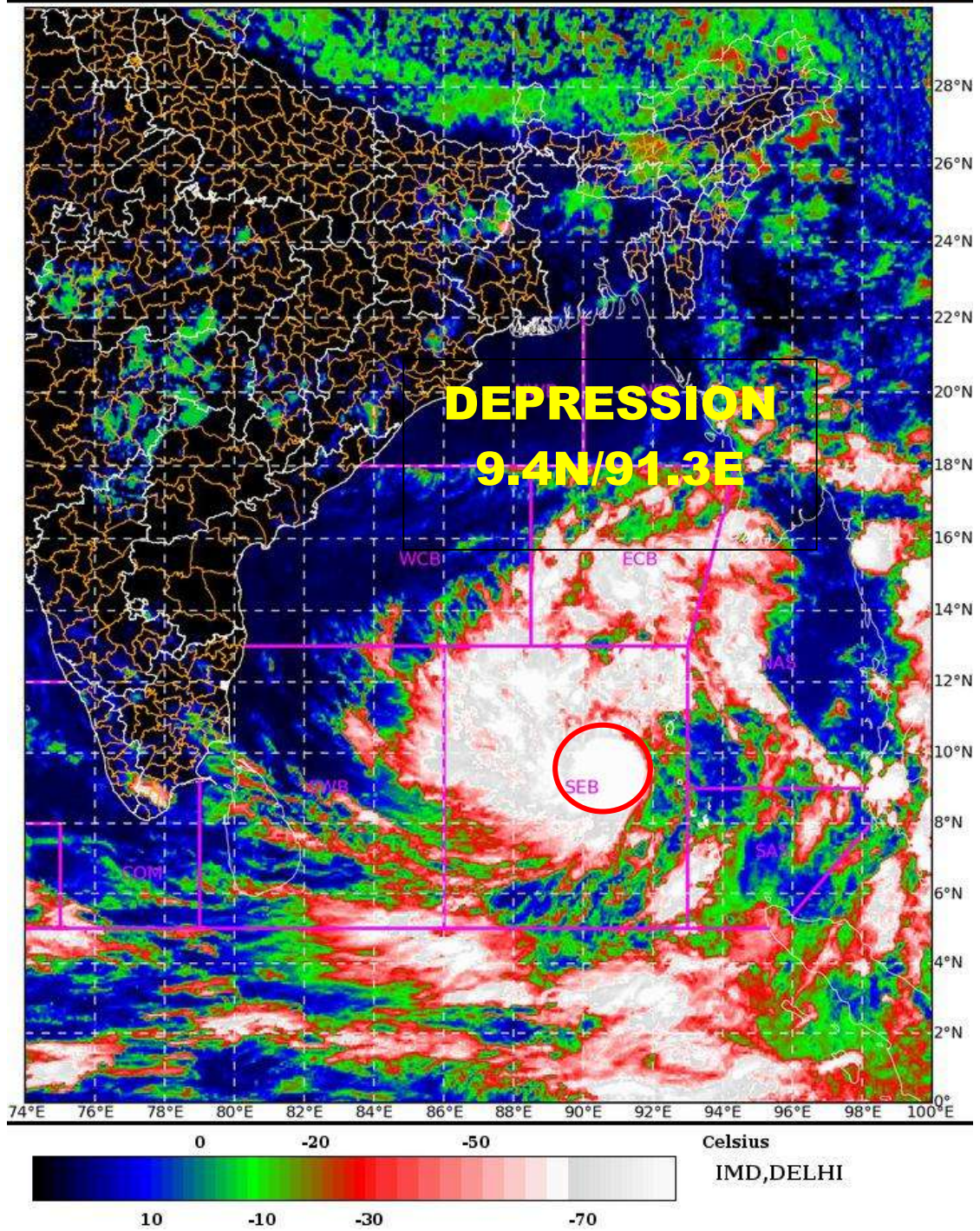
LOW LEVEL VORTICITY IS AROUND 150 X10⁻⁶ S⁻¹ TO THE SOUTHEAST OF SYSTEM CENTRE. VERTICALLY IT IS EXTENDING UPTO 200 HPA LEVEL. LOW LEVEL CONVERGENCE IS AROUND 30 X10⁻⁵ S⁻¹ AROUND SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS AROUND 20 X10⁻⁵ S⁻¹ TO THE NORTHWEST OF SYSTEM CENTRE. STRONG POLEWARD & WESTWARD OUTFLOW IS SEEN OVER THE SYSTEM AREA. WIND SHEAR IS MODERATE (15-20 KNOTS) AROUND THE SYSTEM AREA. IT IS LIKELY TO REMAIN MODERATE (15-20 KNOTS) ALONG THE FORECAST TRACK OVER WESTCENTRAL & NORTHWEST BOB.

MOST OF THE NUMERICAL MODELS ARE IN GOOD AGREEMENT THAT THE SYSTEM WOULD INTENSIFY INTO A CYCLONIC STORM ON 8TH. MOST OF THE MODELS ARE INDICATING THAT THE SYSTEM WOULD MOVE NORTHWESTWARDS TILL 10TH MAY AND THEREAFTER RECURVE NORTH-NORTHEASTWARDS THEREAFTER.

IN VIEW OF ALL THE ABOVE, IT IS INFERRED THAT IT IS VERY LIKELY TO MOVE NORTHWESTWARDS AND INTENSIFY INTO A CYCLONIC STORM OVER EASTCENTRAL BAY OF BENGAL ON 8TH MAY. IT IS VERY LIKELY TO CONTINUE TO MOVE NORTHWESTWARDS TILL 1200 UTC OF 10TH MAY EVENING AND REACH WESTCENTRAL & ADJOINING NORTHWEST BAY OF BENGAL OFF NORTH ANDHRA PRADESH & ODISHA COASTS. THEREAFTER, IT IS VERY LIKELY TO RECURVE NORTH-NORTHEASTWARDS AND MOVE TOWARDS NORTHWEST BAY OF BENGAL OFF ODISHA COAST.

(MONICA SHARMA)
SCIENTIST-D
RSMC NEW DELHI

SAT : INSAT-3D IMG 07-05-2022/(0830 to 0856) GMT
IMG_TIR1_TEMP 10.8 um 07-05-2022/(1400 to 1426) IST
LIC Mercator





FORECAST TRACK AND INTENSITY ALONGWITH CONE OF UNCERTAINTY OVER SOUTHEAST BAY OF BENGAL AND ADJOINING ANDAMAN SEA BASED ON 0600 UTC OF 7TH MAY 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 (\geq 120 KT)

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

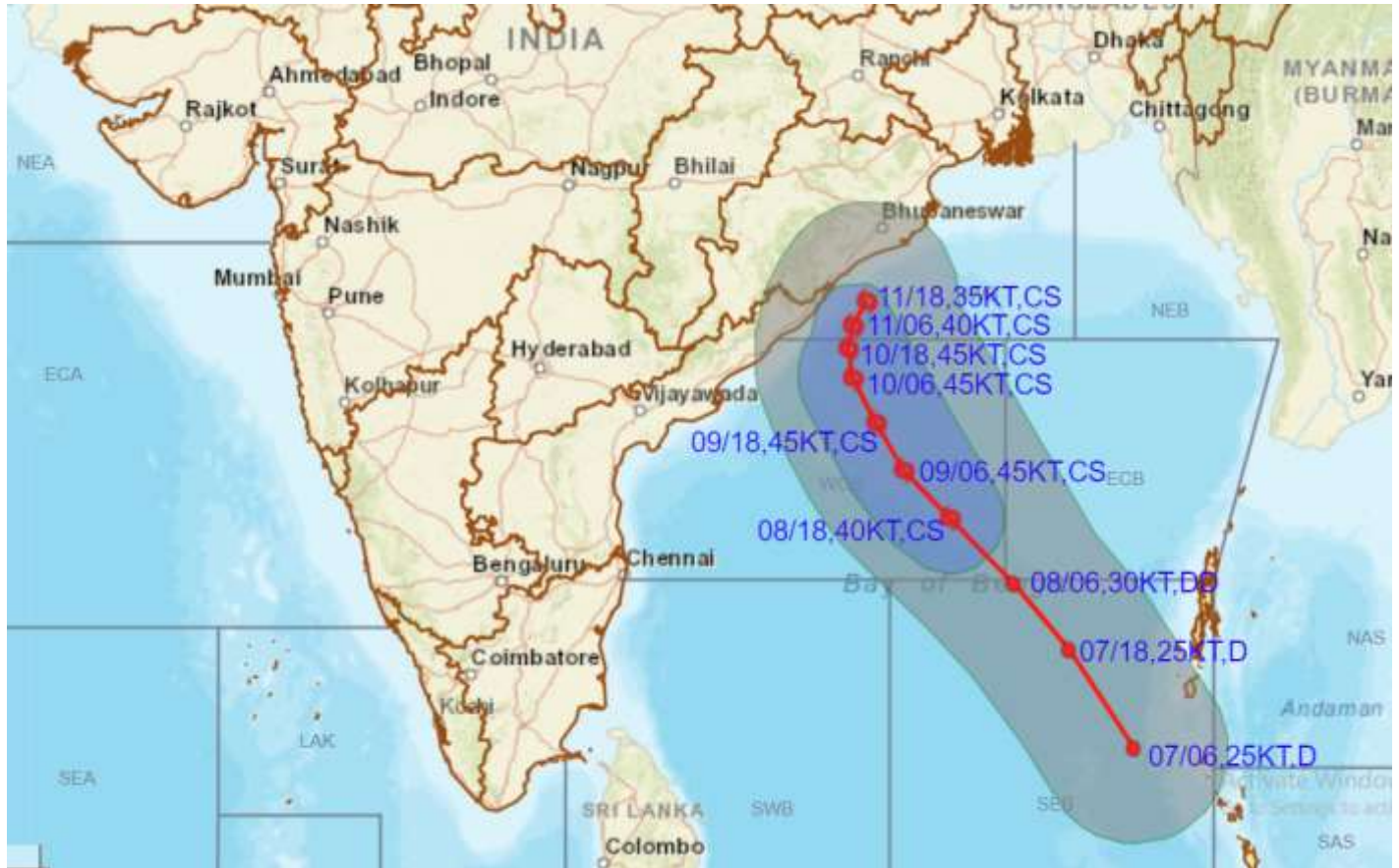
DISTANCE(KM) AND DIRECTION FROM STATIONS

Forecast Date and Time	Lead Period	CAR NICOBAR	PORT BLAIR	VISHAKH APATNA M	PURI
07.05.22/0600		0 170,W	300,SSW	1270,SE	1300,SSE
08.05.22/0600		24 610,NW	460,WNW	790,SE	830,SSE
09.05.22/0600		48 930,NW	750,WNW	470,SE	550,S

N:NORTH, NNE:NORTH-NORTHEAST, NE:NORTHEAST, ENE:EAST-NORTHEAST, E:EAST, SE:SOUTHEAST, SSE:SOUTH-SOUTHEAST, S:SOUTH, SSW:SOUTH-SOUTHWEST, SW:SOUTHWEST, WSW:WEST-SOUTHWEST, W:WEST, WNW:WEST-NORTHWEST, NW:NORTHWEST, NNW:NORTH-NORTHWEST



FORECAST TRACK AND INTENSITY ALONGWITH QUADRANT WIND DISTRIBUTION OVER SOUTHEAST BAY OF BENGAL AND ADJOINING ANDAMAN SEA BASED ON 0600 UTC OF 7TH MAY 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

AREA OF MAXIMUM SUSTAINED WIND SPEED:

■ 28-33 KT (52-61 KMPH)

■ 34-49 KT (62-91 KMPH)

■ 50-63 KT (92-117 KMPH)

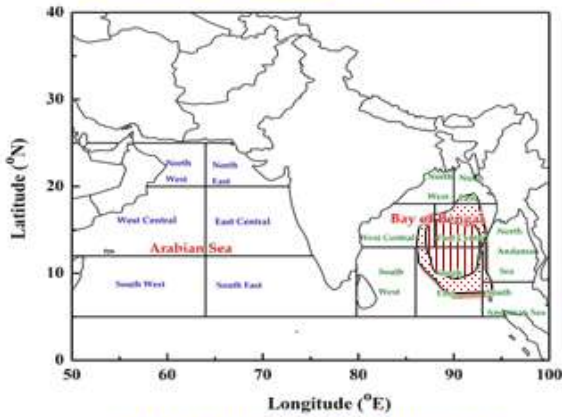
■ ≥ 64 KT (≥118 KMPH)

IMPACT OVER THE SEA

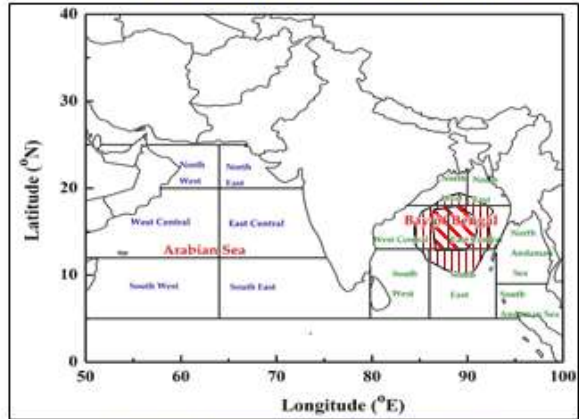
MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

INDIA METEOROLOGICAL DEPARTMENT FISHERMAN WARNING FOR BAY OF BENGAL AND ARABIAN SEA

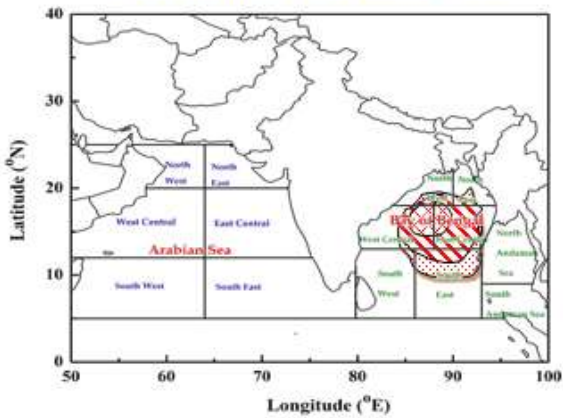
DAY-1: 07.05.2022/0600 UTC TO 08.05.2022/0600 UTC



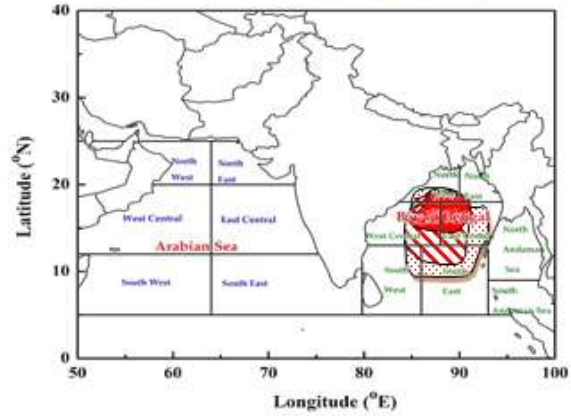
DAY-2: 08.05.2022/0600 UTC TO 09.05.2022/0600 UTC



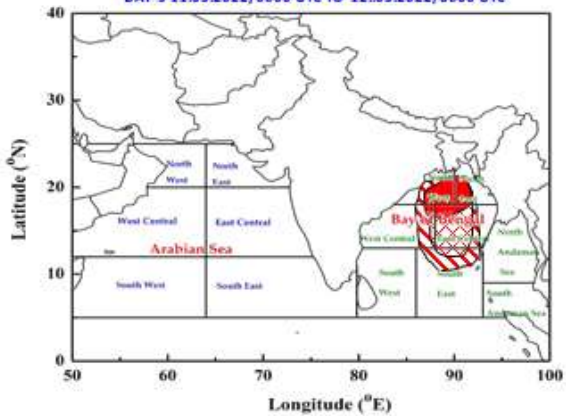
DAY-3: 09.05.2022/0600 UTC TO 10.05.2022/0600 UTC



DAY-4: 10.05.2022/0600 UTC TO 11.05.2022/0600 UTC



DAY-5: 11.05.2022/0600 UTC TO 12.05.2022/0600 UTC



AREA UNDER FISHERMEN WARNING

- 40-50 KMPH GUSTING TO 60 KMPH (SQUALLY WEATHER)
- 45-55 KMPH GUSTING TO 65 KMPH (SQUALLY WEATHER)
- 55-65 KMPH GUSTING TO 75 KMPH
- 65-75 KMPH GUSTING TO 85 KMPH
- 70-80 KMPH GUSTING TO 90 KMPH
- 80-90 KMPH GUSTING TO 100 KMPH