**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 1600 UTC OF 07.05.2022 BASED ON 1200 UTC OF 07.05.2022.**

**SUB: DEEP DEPRESSION OVER SOUTHEAST BAY OF BENGAL & IT'S LIKELY INTENSIFICATION INTO A CYCLONIC STORM IN THE MORNING OF 8TH MAY, 2022**

THE **DEPRESSION** OVER SOUTHEAST BAY OF BENGAL AND ADJOINING ANDAMAN SEA MOVED NORTHWESTWARDS WITH A SPEED OF 20 KMPH, CONCENTRATED INTO A **DEEP DEPRESSION** AND LAY CENTERED AT 1200 UTC OF TODAY, THE 07TH MAY, OVER SOUTHEAST BAY OF BENGAL NEAR LATITUDE 10.2°N AND LONGITUDE 90.5°E, ABOUT 280 KM WEST-NORTHWEST OF CAR NICOBAR (43367), 290 KM SOUTHWEST OF PORT BLAIR (43333), 1140 KM SOUTHEAST OF VISAKHAPATNAM (43149) AND 1180 KM SOUTH-SOUTHEAST OF PURI (43053).

IT IS VERY LIKELY TO MOVE NORTHWESTWARDS AND INTENSIFY INTO A **CYCLONIC STORM** OVER SOUTHEASTL BAY OF BENGAL AT 0000UTC OF 8TH MAY AND INTO A **SEVERE CYCLONIC STORM** OVER EAST CENTRAL BAY OF BENGAL BY 1200UTC OF 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. $^0$N/ LONG. $^0$E) | MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH) | CATEGORY OF CYCLONIC DISTURBANCE |
|---|---|---|---|
| 07.05.22/1200 | 10.2/90.5 | 50-60 GUSTING TO 70 | DEEP DEPRESSION |
| 08.05.22/0000 | 11.6/89.6 | 70-80 GUSTING TO 90 | CYCLONIC STORM |
| 08.05.22/1200 | 13.0/88.6 | 90-100 GUSTING TO 110 | SEVERE CYCLONIC STORM |
| 09.05.22/0000 | 14.4/87.3 | 105-115 GUSTING TO 125 | SEVERE CYCLONIC STORM |
| 09.05.22/1200 | 15.4/86.4 | 105-115 GUSTING TO 125 | SEVERE CYCLONIC STORM |
| 10.05.22/0000 | 16.3/85.8 | 95-105 GUSTING TO 115 | SEVERE CYCLONIC STORM |
| 10.05.22/1200 | 17.2/85.4 | 90-100 GUSTING TO 110 | SEVERE CYCLONIC STORM |
| 11.05.22/0000 | 18.0/85.3 | 80-90 GUSTING TO 100 | CYCLONIC STORM |
| 11.05.22/1200 | 18.5/85.5 | 70-80 GUSTING TO 90 | CYCLONIC STORM |
| 12.05.22/0000 | 18.9/85.7 | 60-70 GUSTING TO 80 | CYCLONIC STORM |
| 12.05.22/1200 | 19.3/86.0 | 50-60 GUSTING TO 70 | DEEP DEPRESSION |

THE INTENSITY OF THE SYSTEM IS T2.0. CENTRE LIES WITHIN THE CONVECTIVE CLOUD MASS MAKING IT A CDO PATTERN SYSTEM. MICROWAVE PASS OF SSMIS AT 1247UTC SHOWS INTENSE CONVECTIVE CLOUD MASS TO THE WEST OF THE SYSTEM CENTRE. ASSOCIATED SCATTERED TO BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER AREA BETWEEN LATITUDE 7.0N & 16.0N AND LONGITUDE 85.0E & 93.0E AND ANDAMAN & NICOBAR ISLANDS. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEG C. CONVECTION HAS FURTHER ORGANISED DURING PAST 3 HOURS OVER SOUTHEAST BAY OF BENGAL.

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 30 KNOTS GUSTING TO 40 KNOTS. THE SEA CONDITION IS ROUGH TO VERY ROUGH OVER SOUTHEAST BAY OF BENGAL & ADJOINING ANDAMAN SEA. THE ESTIMATED CENTRAL PRESSURE IS 1000 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 30-31$^0$C OVER ENTIRE BOB. THE OCEAN HEAT CONTENT (OHC) IS >100 KJ/CM$^2$ OVER ENTIRE ANDAMAN SEA, CENTRAL BOB, SOUTH BOB & ADJOINING EIO AND 50-70 KJ/CM$^2$ OVER NORTHWEST BOB.

LOW LEVEL VORTICITY IS AROUND 150 X10$^{-6}$ S$^{-1}$ AROUND THE SYSTEM CENTRE. VERTICALLY IT IS EXTENDING UPTO 200 HPA LEVEL. LOW LEVEL CONVERGENCE IS AROUND 20 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 BY MORNING OF 8$^{TH}$ AND INTO A **SEVERE CYCLONIC STORM** OVER EAST CENTRAL BAY OF BENGAL BY 1200UTC OF 8$^{TH}$ MAY. MOST OF THE MODELS ARE INDICATING THAT THE SYSTEM WOULD MOVE MOVE NORTHWESTWARDS TILL 10$^{TH}$ MAY AND THEREAFTER RECURVE NORTH-NORTHEASTWARDS THEREAFTER.

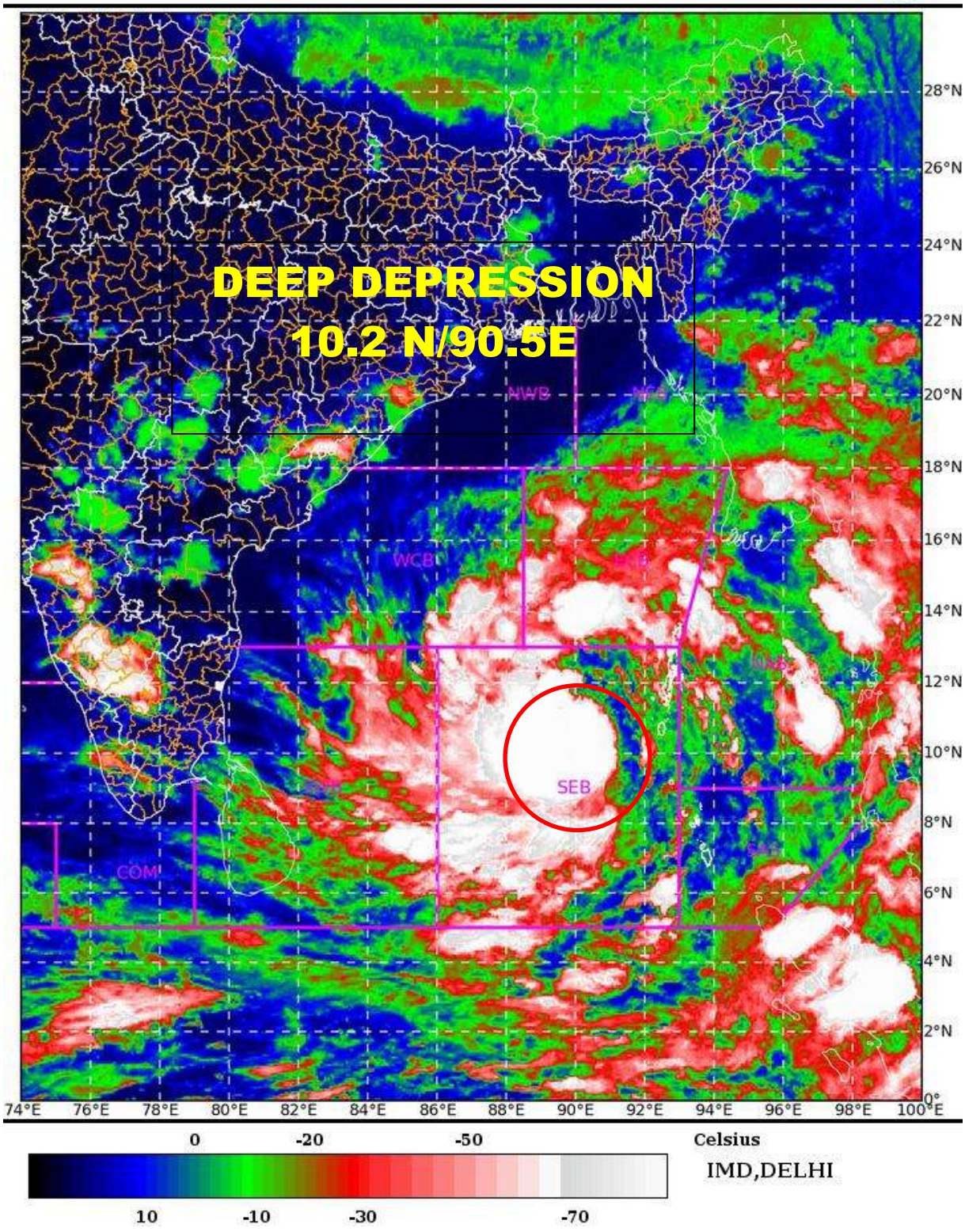
IN VIEW OF ALL THE ABOVE, IT IS INFERRED THAT IT IS VERY LIKELY TO MOVE NORTHWESTWARDS AND INTENSIFY INTO INTO A CYCLONIC STORM BY MORNING OF 8$^{TH}$ AND INTO A **SEVERE CYCLONIC STORM** OVER EAST CENTRAL BAY OF BENGAL BY 1200UTC OF 8$^{TH}$ MAY.IT IS VERY LIKELY TO CONTINUE TO MOVE NORTHWESTWARDS TILL 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.

(DR RK JENAMANI)
SCIENTIST-F
RSMC NEW DELHI

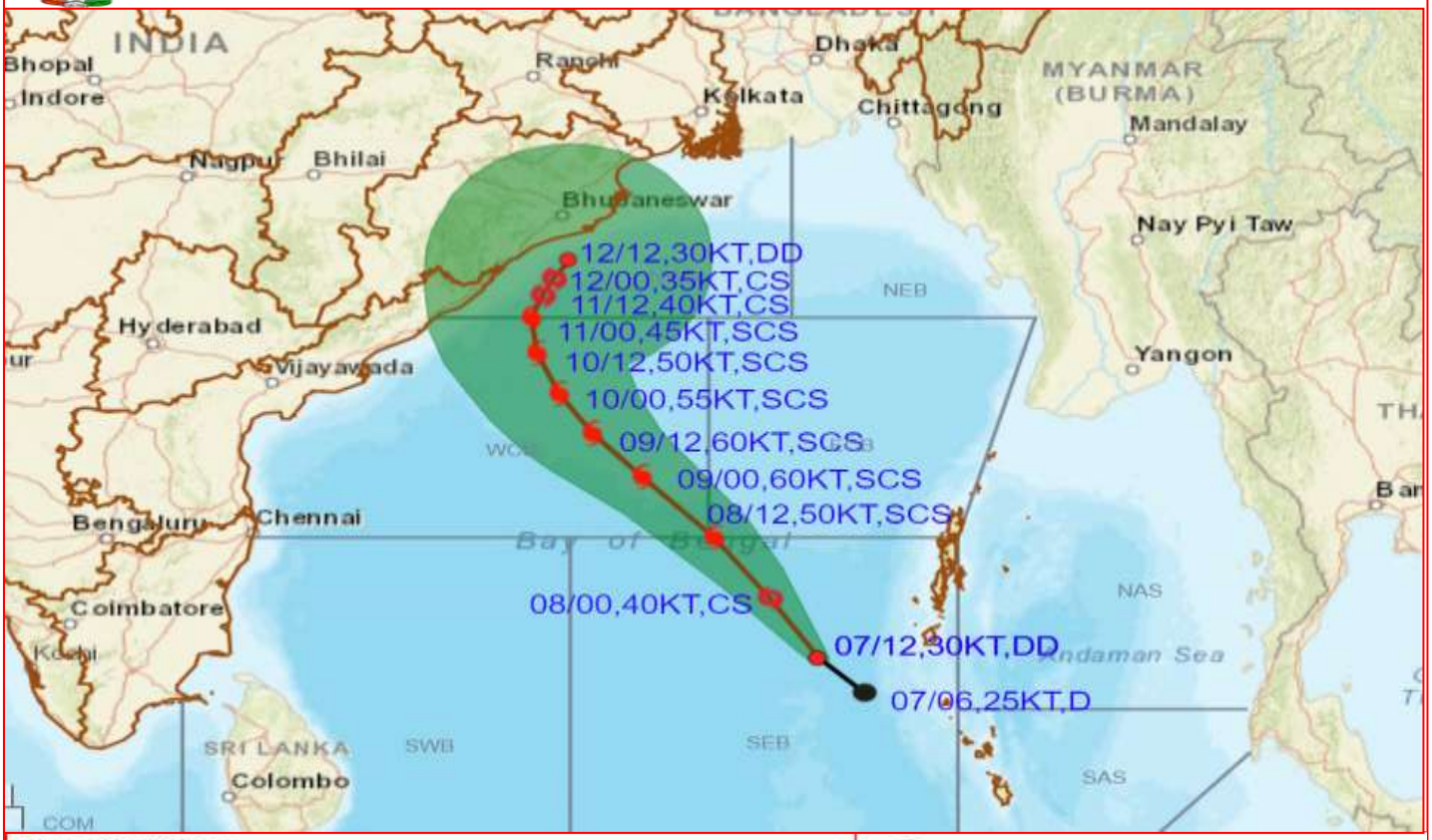
SAT : INSAT-3D IMG 07-05-2022/(1500 to 1526) GMT

IMG_TIR1_TEMP 10.8 um 07-05-2022/(2030 to 2056) IST

L1C Mercator



# FORECAST TRACK AND INTENSITY ALONGWITH CONE OF UNCERTAINTY OVER SOUTHEAST BAY OF BENGAL BASED ON 1200 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)

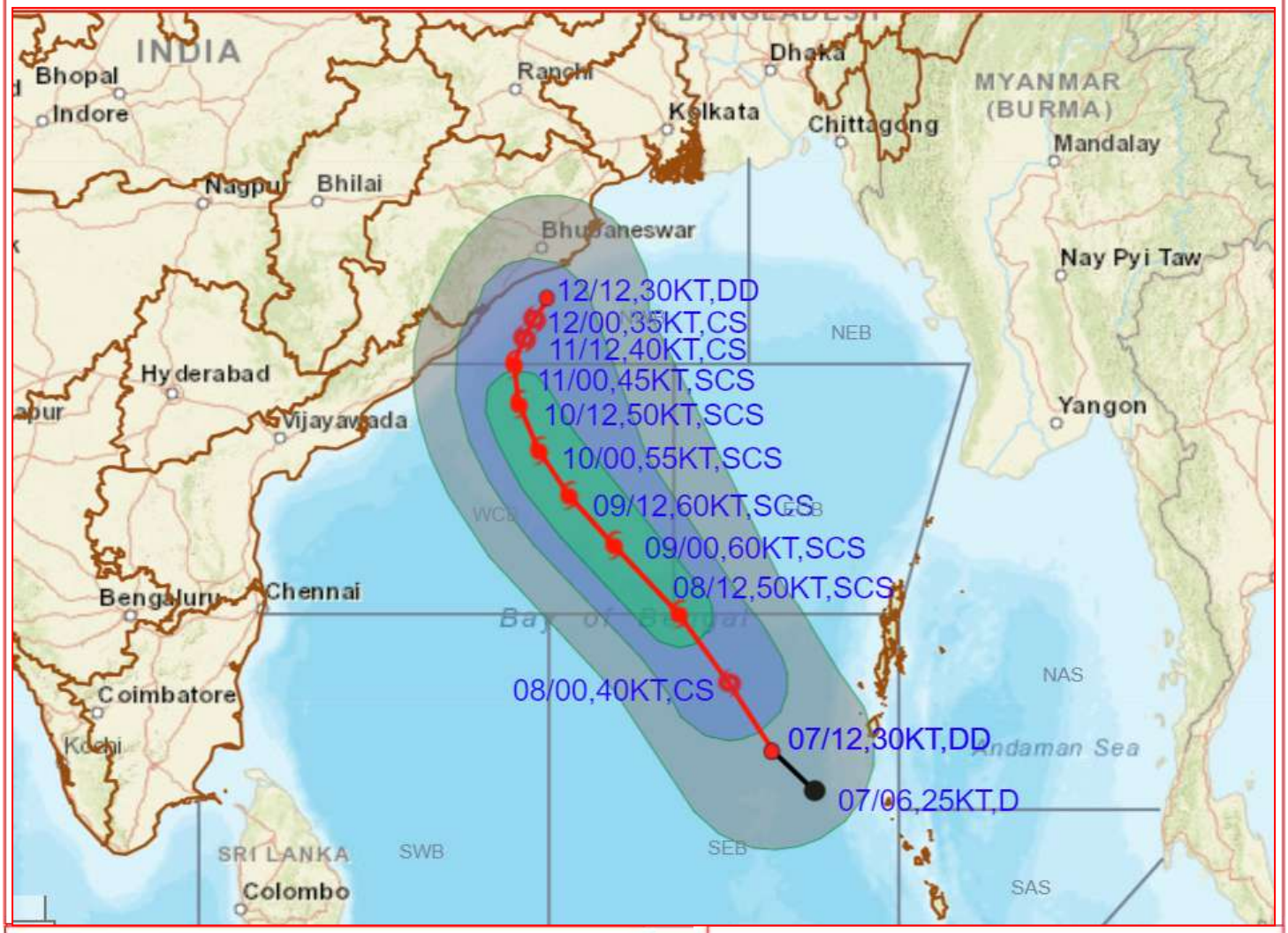
LESS THAN 34 KT
34-47 KT
≥ 48 KT
OBSERVED TRACK
FORECAST TRACK
CONE OF UNCERTAINTY

| STATIONS | DISTANCE(KM) AND DIRECTION FROM STATIONS | | |
|---|---|---|---|
| | 07.05.22/1200 | 08.05.22/1200 | 09.05.22/1200 |
| CAR NICOBAR | 280,WNW | 630,NW | 990,NW |
| PORT BLAIR | 290,SW | 470,WNW | 800,WNW |
| VISHAKHAPATNAM | 1140,SE | 770,SE | 420,SE |
| PURI | 1180,SSE | 810,SSE | 490,S |

| Forecast Date and Time | Lead Period | Lat | Lon | Station 1 | Station 2 | Station 3 | Station 4 | Station 5 |
|---|---|---|---|---|---|---|---|---|
| 07.05.22/1200 | 0 | 10.2 | 90.5 | HUT BAY (228,W) | CAR NICOBAR (281,WNW) | PORT BLAIR (292,SW) | LONG ISLAND (363,SW) | MAYA BANDAR (401,SW) |
| 08.05.22/0000 | 12 | 11.6 | 89.6 | CAR NICOBAR (340,NW) | PORT BLAIR (342,W) | LONG ISLAND (374,WSW) | MAYA BANDAR (389,WSW) | NANCOWRY (446,NW) |
| 08.05.22/1200 | 24 | 13 | 88.6 | PORT BLAIR (468,WNW) | LONG ISLAND (472,W) | MAYA BANDAR (475,W) | NANCOWRY (508,NW) | KONDUL (629,NW) |
| 09.05.22/0000 | 36 | 14.4 | 87.3 | LONG ISLAND (553,WNW) | MAYA BANDAR (563,WNW) | NANCOWRY (565,NW) | KONDUL (600,NW) | PATHEIN (605,WSW) |
| 09.05.22/1200 | 48 | 15.4 | 86.4 | MAYA BANDAR (406,WNW) | NANCOWRY (417,NW) | KONDUL (419,NW) | PATHEIN (460,W) | BICTORIA POINT (465,WNW) |
| 10.05.22/0000 | 60 | 16.3 | 85.8 | NANCOWRY (287,NW) | KONDUL (307,NW) | PATHEIN (309,W) | BICTORIA POINT (344,WNW) | PHUKET AIRPORT (365,NW) |
| 10.05.22/1200 | 72 | 17.2 | 85.4 | KONDUL (184,NW) | PATHEIN (229,W) | BICTORIA POINT (230,WNW) | PHUKET AIRPORT (236,NW) | MERGUI (293,WNW) |
| 11.05.22/0000 | 84 | 18 | 85.3 | PATHEIN (129,W) | BICTORIA POINT (148,WNW) | PHUKET AIRPORT (208,NW) | MERGUI (214,WNW) | DAWEI (215,WNW) |
| 11.05.22/1200 | 96 | 18.5 | 85.5 | BICTORIA POINT (107,NW) | PHUKET AIRPORT (146,NW) | MERGUI (148,WNW) | DAWEI (198,WNW) | YANGON (224,WNW) |
| 12.05.22/0000 | 108 | 18.9 | 85.7 | PHUKET AIRPORT (95,NW) | MERGUI (101,WNW) | DAWEI (151,WNW) | YANGON (176,WNW) | YE (177,WNW) |
| 12.05.22/1200 | 120 | 19.3 | 86 | MERGUI (59,WNW | DAWEI (107,WNW) | YANGON (117,WNW) | YE (130,WNW) | SANDOWAY (132,W) |

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 BASED ON 1200 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)

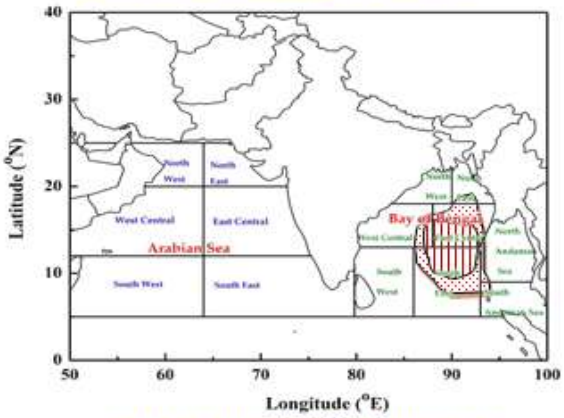
LESS THAN 34 KT
34-47 KT
≥ 48 KT
OBSERVED TRACK
FORECAST TRACK
CONE OF UNCERTAINTY
AREA OF MAXIMUM SUSTAINED WIND SPEED:
28-33 KT (52-61 KMPH)
34-49 KT (62-91 KMPH)
50-63 KT (92-117 KMPH)
≥ 64 KT (≥118 KMPH)

IMPACT OVER THE SEA

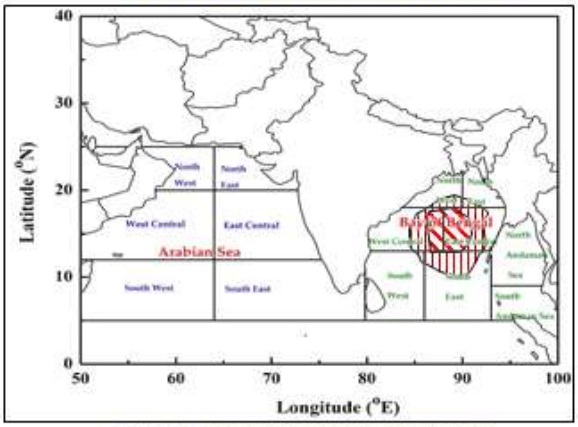
| MSW (knot/kmph) | Impact | Action |
|---|---|---|
| 28-33 (52-61) | Very rough seas | Total suspension of fishing operations |
| 34-49 (62-91) | High to very high seas | Total suspension of fishing operations |
| 50-63 (92-117) | Very high seas | Total suspension of fishing operations |
| ≥ 64 (≥118)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

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

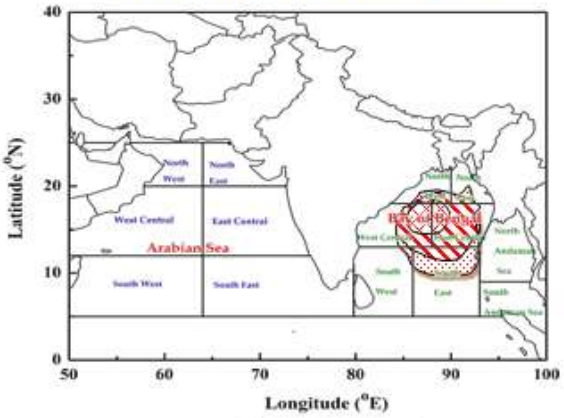
DAY-1: 07.05.2022/0600 UTC TO 08.05.2022/0600 UTC



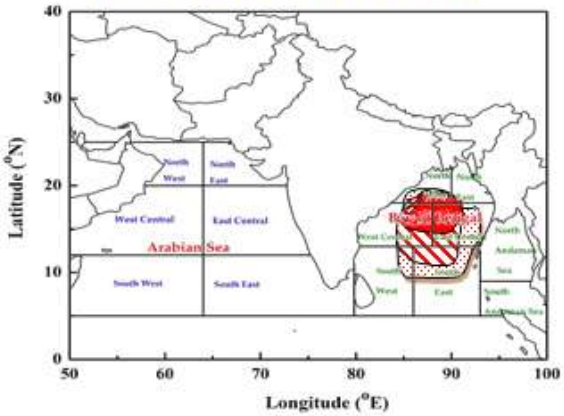

DAY-2: 08.05.2022/0600 UTC TO 09.05.2022/0600 UTC



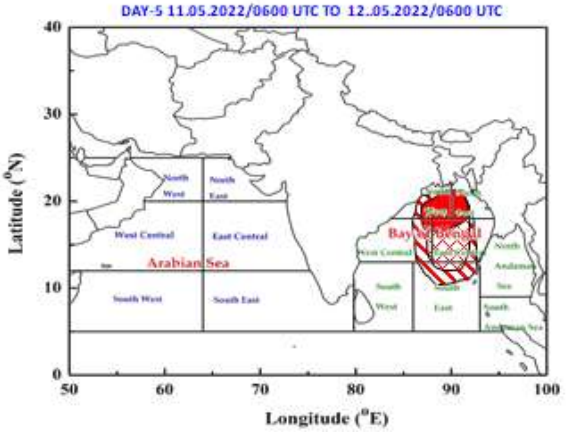

DAY-3-: 09.05.2022/0600 UTC TO 10.05.2022/0600 UTC




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