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 2000 UTC OF 07.05.2022 BASED ON 1800 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 **DEEP DEPRESSION** OVER SOUTHEAST BAY OF BENGAL MOVED NORTHWESTWARDS WITH A SPEED OF 13 KMPH AND LAY CENTERED AT 1800 UTC OF TODAY, THE 07TH MAY, OVER SOUTHEAST BAY OF BENGAL NEAR LATITUDE 10.8°N AND LONGITUDE 90.1°E, ABOUT 350 KM WEST-NORTHWEST OF CAR NICOBAR (43367), 300 KM WEST-SOUTHWEST OF PORT BLAIR (43333), 1060 KM SOUTHEAST OF VISAKHAPATNAM (43149) AND 1100 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
07.05.22/1800	10.8/90.1	50-60 GUSTING TO 70	DEEP DEPRESSION
08.05.22/0600	12.3/89.1	70-80 GUSTING TO 90	CYCLONIC STORM
08.05.22/1800	13.7/88.0	80-90 GUSTING TO 100	CYCLONIC STORM
09.05.22/0600	14.9/86.9	105-115 GUSTING TO 125	SEVERE CYCLONIC STORM
09.05.22/1800	15.9/86.1	105-115 GUSTING TO 125	SEVERE CYCLONIC STORM
10.05.22/0600	16.8/85.6	95-105 GUSTING TO 115	SEVERE CYCLONIC STORM
10.05.22/1800	17.6/85.3	90-100 GUSTING TO 110	SEVERE CYCLONIC STORM
11.05.22/0600	18.3/85.4	80-90 GUSTING TO 100	CYCLONIC STORM
11.05.22/1800	18.7/85.6	70-80 GUSTING TO 90	CYCLONIC STORM
12.05.22/0600	19.1/85.9	60-70 GUSTING TO 80	CYCLONIC STORM
12.05.22/1800	19.5/86.4	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.

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.

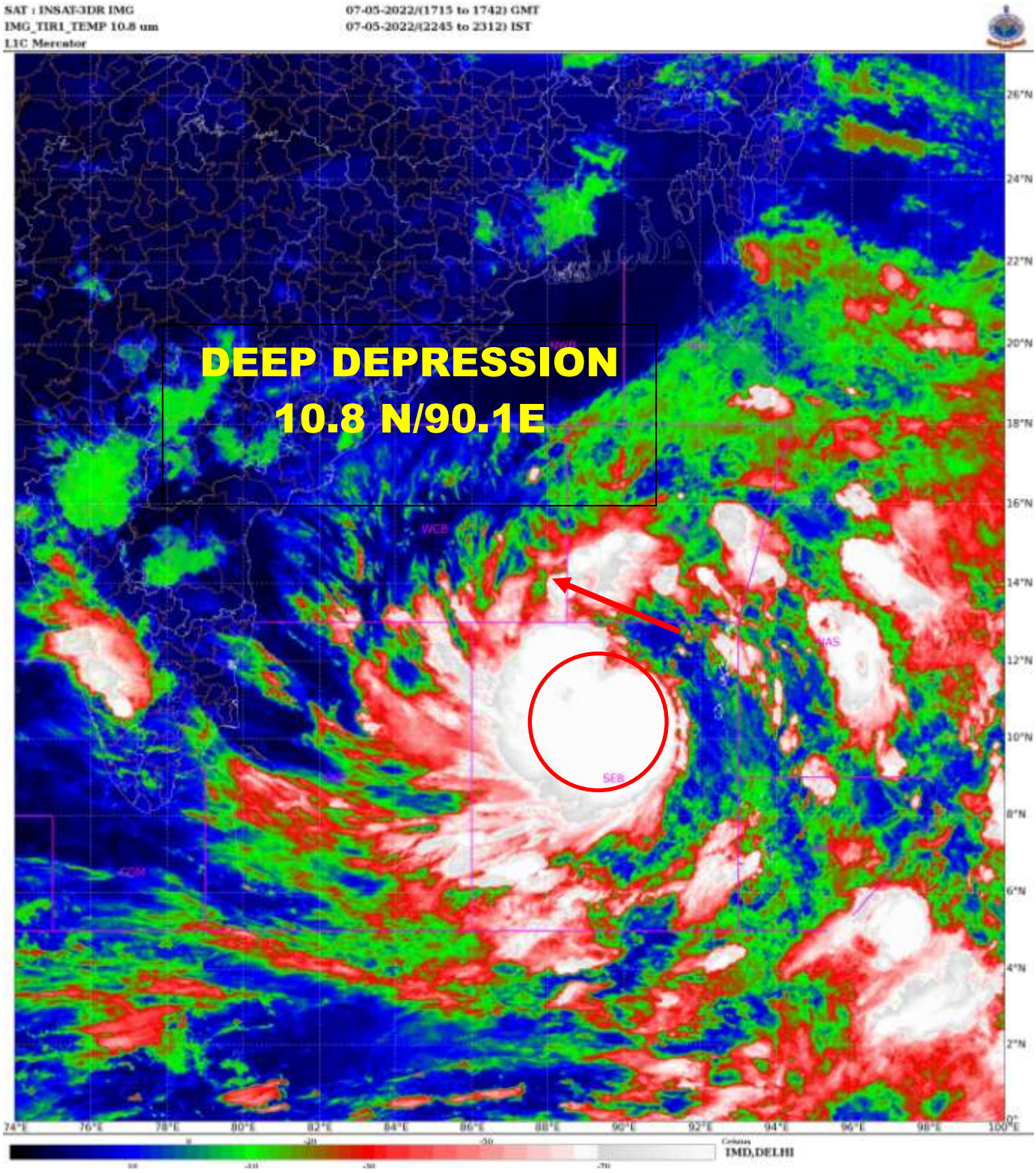
SEA SURFACE TEMPERATURE (SST) IS AROUND 30-31^{0}C OVER ENTIRE BOB. THE OCEAN HEAT CONTENT (OHC) IS >100 KJ/CM^2 OVER ENTIRE ANDAMAN SEA, CENTRAL BOB, SOUTH BOB & ADJOINING EIO AND 50-70 KJ/CM^2 OVER NORTHWEST BOB.

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.

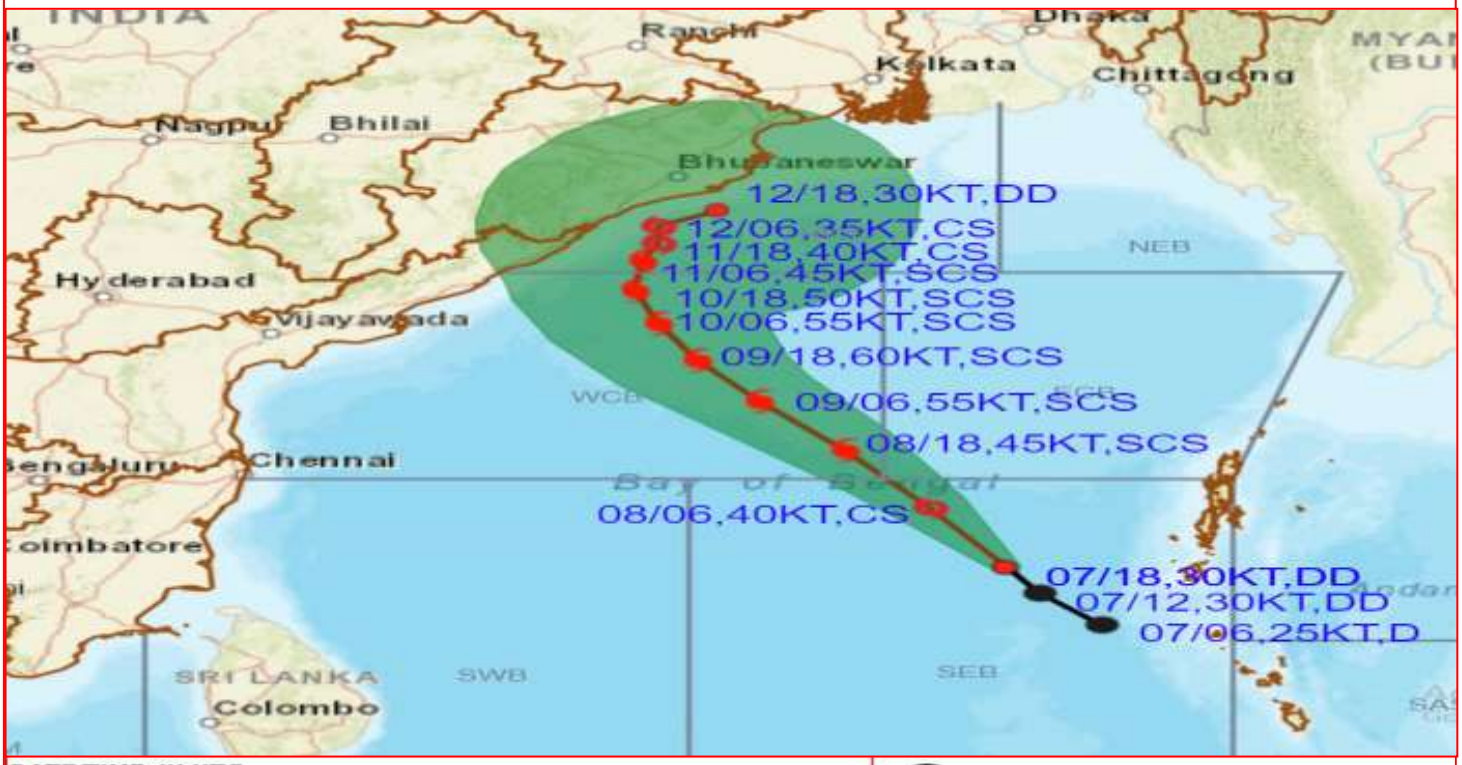
MOST OF THE NUMERICAL MODELS ARE IN GOOD AGREEMENT THAT THE SYSTEM WOULD INTENSIFY INTO A CYCLONIC STORM BY MORNING OF 8TH AND INTO A **SEVERE CYCLONIC STORM** OVER EAST CENTRAL BAY OF BENGAL BY 1200UTC OF 8TH MAY. MOST OF THE MODELS ARE INDICATING THAT THE SYSTEM WOULD MOVE MOVE NORTHWESTWARDS TILL 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 INTO A CYCLONIC STORM BY MORNING OF 8TH 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 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.

(SURENDRA PRATAP SINGH)
SCIENTIST-C
RSMC NEW DELHI



FORECAST TRACK AND INTENSITY ALONGWITH CONE OF UNCERTAINTY OVER SOUTHEAST BAY OF BENGAL BASED ON 1800 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

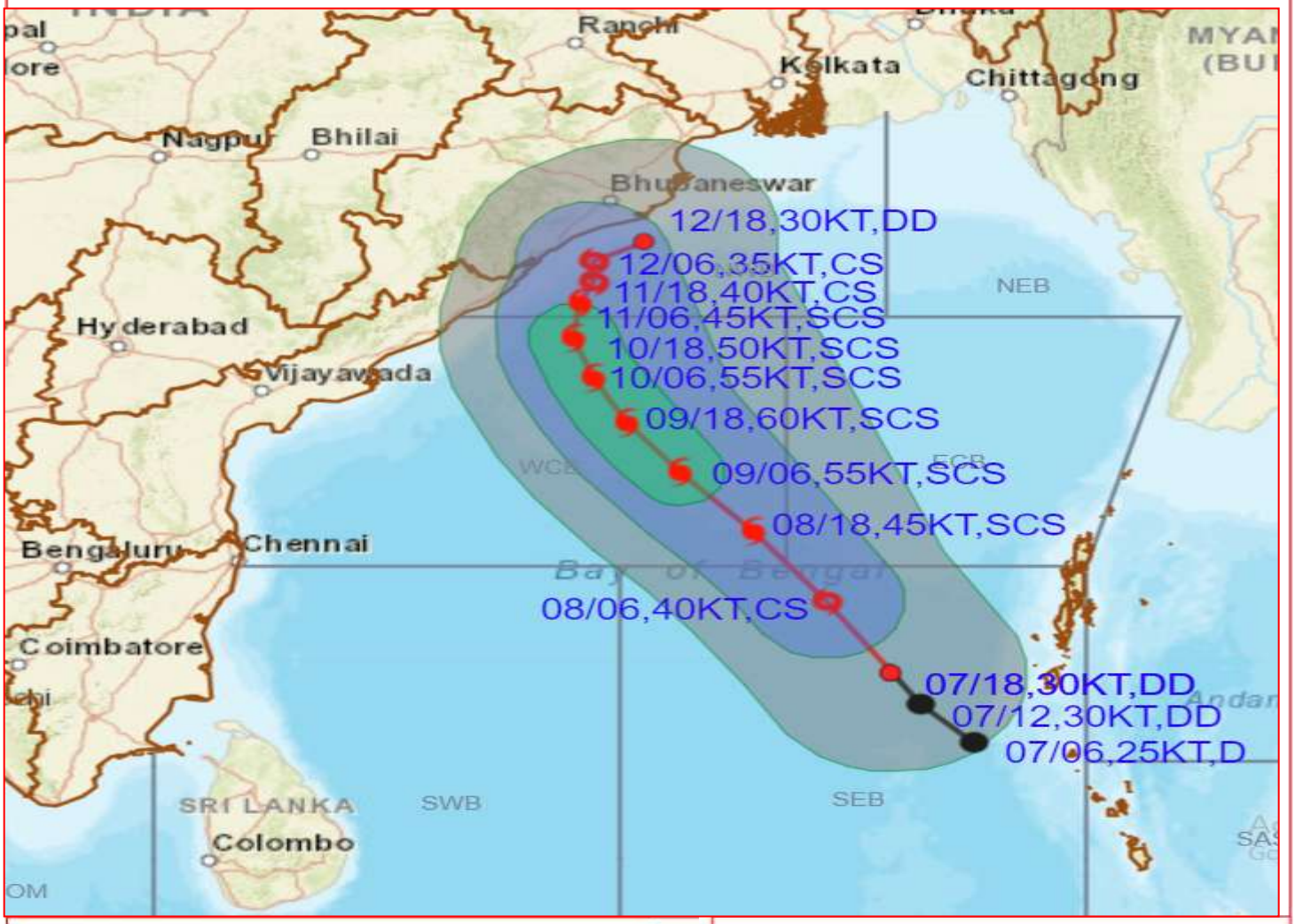
STATIONS	DISTANCE(KM) AND DIRECTION FROM STATIONS		
	07.05.22/1800	08.05.22/1800	09.05.22/1800
CAR NICOBAR	350,WNW	730,NW	1050,NW
PORT BLAIR	300,WSW	560,WNW	860,NW
VISHAKHAPATNAM	1060,SE	670,SE	360,ESE
PURI	1100,SSE	720,SSE	440,S

Forecast distance (km) and direction of the centre from nearest 5 coastal stations

Forecast Date and Time	Lead Period	Lat	Lon	Station 1	Station 2	Station 3	Station 4	Station 5
07.05.22/1800	0	10.8	90.1	HUT BAY (269,W)	PORT BLAIR (302,WSW)	CAR NICOBAR (351,WNW)	LONG ISLAND (358,WSW)	MAYA BANDAR (387,SW)
08.05.22/0600	12	12.3	89.1	PORT BLAIR (400,W)	CAR NICOBAR (417,NW)	LONG ISLAND (420,W)	MAYA BANDAR (422,W)	NANCOWRY (537,NW)
08.05.22/1800	24	13.7	88	CAR NICOBAR (540,NW)	LONG ISLAND (554,WNW)	MAYA BANDAR (560,W)	NANCOWRY (605,NW)	KONDUL (661,NW)
09.05.22/0600	36	14.9	86.9	LONG ISLAND (483,WNW)	MAYA BANDAR (494,WNW)	NANCOWRY (496,NW)	KONDUL (531,NW)	PATHEIN (539,WSW)
09.05.22/1800	48	15.9	86.1	MAYA BANDAR (342,WNW)	NANCOWRY (358,NW)	KONDUL (360,NW)	PATHEIN (396,W)	YANGON (412,W)
10.05.22/0600	60	16.8	85.6	NANCOWRY (231,NW)	KONDUL (264,NW)	PATHEIN (265,W)	YANGON (285,W)	BICTORIA POINT (330,WNW)
10.05.22/1800	72	17.6	85.3	KONDUL (148,NW)	PATHEIN (191,W)	YANGON (212,W)	BICTORIA POINT (213,WNW)	MERGUI (251,WNW)
11.05.22/0600	84	18.3	85.4	PATHEIN (121,W)	YANGON (134,W)	BICTORIA POINT (173,NW)	MERGUI (222,WNW)	PHUKET AIRPORT (232,NW)
11.05.22/1800	96	18.7	85.6	YANGON (98,WNW)	BICTORIA POINT (125,NW)	MERGUI (160,WNW)	PHUKET AIRPORT (174,NW)	DAWEI (200,WNW)
12.05.22/0600	108	19.1	85.6	BICTORIA POINT (78,NW)	MERGUI (81,WNW)	PHUKET AIRPORT (130,NW)	DAWEI (156,WNW)	SANDOWAY (175,W)
12.05.22/1800	120	19.5	86.4	MERGUI (70,WNW	PHUKET AIRPORT (94,NW)	DAWEI (102,WNW)	SANDOWAY (118,W)	YE (147,WNW)

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 1800 UTC OF 7TH MAY 2022



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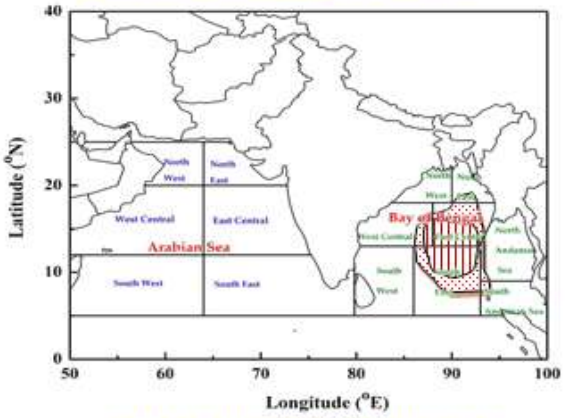
LESS THAN 34 KT
34-47 KT
≥ 48 KT
OBSERVED TRACK
FORECAST TRACK
CONE OF UNCERTAINTY
AREA OF MAXIMUM SUSTAINED WIND SPEED:
28-33 KT (52-61 KMPH)
34-49 KT (62-91 KMPH)
50-63 KT (92-117 KMPH)
≥ 64 KT (≥118 KMPH)

IMPACT OVER THE SEA

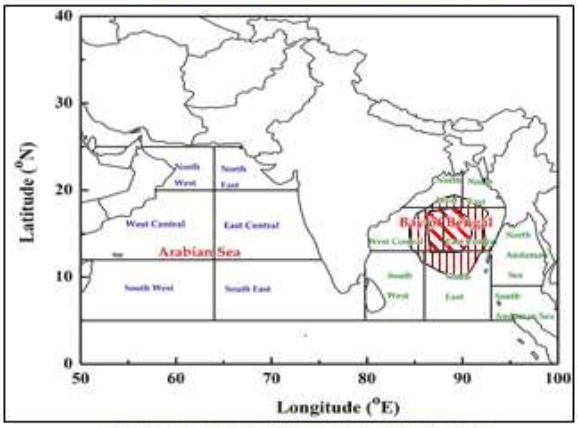
MSW (knot/kmph)	Impact	Action
28-33 (52-61)	Very rough seas	Total suspension of fishing operations
34-49 (62-91)	High to very high seas	Total suspension of fishing operations
50-63 (92-117)	Very high seas	Total suspension of fishing operations
≥ 64 (≥118)	Phenomenal	Total suspension of fishing operations

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

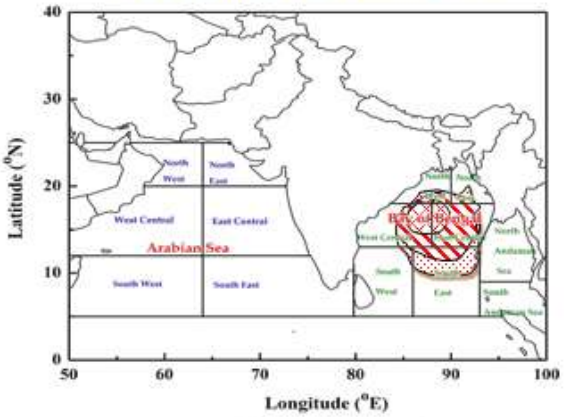
DAY-1: 07.05.2022/0600 UTC TO 08.05.2022/0600 UTC



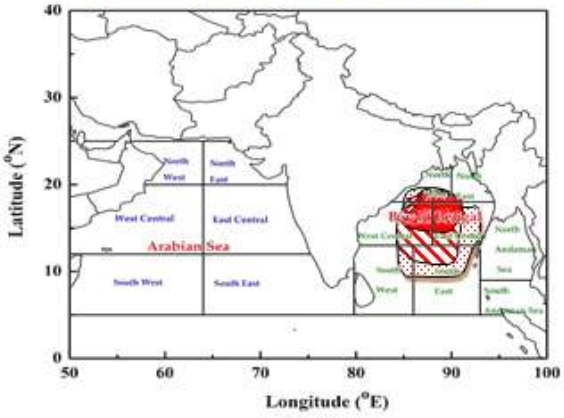
DAY-2: 08.05.2022/0600 UTC TO 09.05.2022/0600 UTC



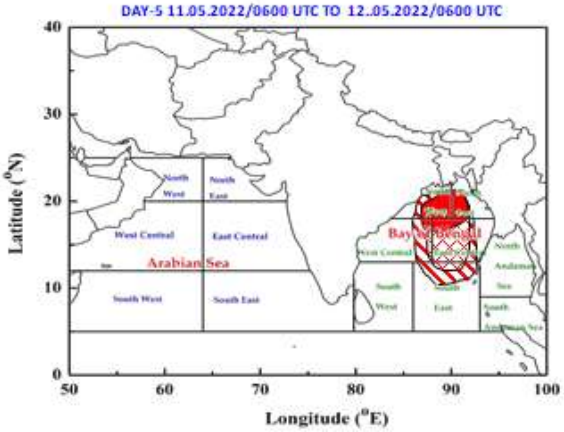
DAY-3-: 09.05.2022/0600 UTC TO 10.05.2022/0600 UTC



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