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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 04.12.2021

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 2030 UTC OF 04.12.2021 BASED ON 1800 UTC OF 04.12.2021.

SUB : DEEP DEPRESSION REMNANT OF CYCLONIC STORM 'JAWAD' OVER WESTCENTRAL BAY OF BENGAL

THE **CYCLONIC STORM 'JAWAD'** (PRONOUNCED AS JOWAD) OVER WESTCENTRAL BAY OF BENGAL MOVED NORTH-NORTHEASTWARDS WITH A SPEED OF 11 KMPH DURING PAST 06 HOURS, WEAKENED INTO A **DEEP DEPRESSION** AND LAY CENTERED AT 1800 UTC OF 04TH DECEMBER 2021, OVER WESTCENTRAL BAY OF BENGAL NEAR LAT. 17.5°N AND LONG. 85.0°E, ABOUT 180 KM EAST-SOUTHEAST OF VISHAKHAPATNAM (43149), 200 KM SOUTH OF GOPALPUR (43049), 270 KM SOUTH-SOUTHWEST OF PURI (43053) AND 360 KM SOUTH-SOUTHWEST OF PARADIP (42976).

IT IS LIKELY **TO** MOVE NORTH-NORTHEAST WARDS AND **WEAKEN FURTHER INTO A DEPRESSION** BY MORNING OF 5TH DECEMBER. IT IS LIKELY TO REACH ODISHA COAST NEAR PURI (43053) AROUND 0600 UTC OF 5TH DECEMBER. SUBSEQUENTLY, IT IS LIKELY TO CONTINUE TO MOVE NORTH-NORTHEASTWARDS ALONG ODISHA COAST TOWARDS WEST BENGAL COAST AND WEAKEN INTO A WELL MARKED LOW PRESSURE AREA DURING SUBSEQUENT 12 HOURS.

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
04.12.21/1800	17.5/85.0	50-60 GUSTING TO 70	DEEP DEPRESSION
05.12.21/0000	18.4/85.4	40-50 GUSTING TO 60	DEPRESSION
05.12.21/0600	19.3/86.0	40-50 GUSTING TO 60	DEPRESSION
05.12.21/1200	20.0/86.0	35-45 GUSTING TO 55	DEPRESSION
05.12.21/1800	20.8/87.4	30-40 GUSTING TO 50	LOW PRESSURE AREA

AS PER SATELLITE IMAGERY BASED ON 1800 UTC OF 4th DEC, THE INTENSITY OF THE SYSTEM IS CHARACTERIZED AS T2.0. THE AREA OF CONVECTION HAS SHIFTED TO NORTH-EAST SECTOR OF THE SYSTEM DURING LAST 03 HOURS. ASSOCIATED CLOUD MASS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION ARE SEEN OVER NORTH COASTAL ANDHRA PRADESH AND ADJOINIG SOUTH ODISHA, AND MODERATE CONVECTION OVER JHARKHAND, REST ODISHA AND GANGETIC WEST BENGAL. ASSCOAITED BROKEN LOW TO MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER WEST CENTRAL AND NORTHWEST BAY OF BENGAL NORTH OF LATITUDE 16.0^{0}N AND WEST OF LONGITUDE 89.0^{0}E. THE MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEG C.

THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 30 KNOTS GUSTING TO 40 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 1004 HPA. SEA CONDITION IS HIGH OVER WESTCENTRAL BAY OF BENGAL AROUND THE SYSTEM CENTRE.

AT 1800 UTC, A SHIP NEAR 18.2°N/88.3°E REPORTED MAXIMUM SUSTAINED WIND SPEED (MSW) OF 140°/20KTS AND MEAN SEA LEVEL PRESSURE (MSLP) OF 1011 HPA.

REMARKS:

THE SEA SURFACE TEMPERATURE IS 28-29°C OVER WESTCENTRAL BOB AND ABOUT 27-28°C TOWARDS NORTHWEST BOB ALONG THE TRACK. TROPICAL CYCLONE HEAT POTENTIAL IS 80-100 KJ/CM^2 OVER WESTCENTRAL BOB AND IS GRADUALLY DECREASING TOWARDS COAST AND OVER EXTREME NORTHWEST BOB BECOMING 50-60 KJ/CM^2. DEPTH OF 26^{0}C ISOTHERM IS 100-120 M OVER WESTCENTRAL & ADJOINING NORTHWEST BOB. THE MADDEN JULIAN OSCILLATION INDEX IS CURRENTLY IN PHASE 6 WITH AMPLITUDE MORE THAN 1 AND WILL NOT SUPPORT ENHANCEMENT OF CONVECTIVE ACTIVITY OVER THE BAY OF BENGAL REGION.

MOST OF THE NUMERICAL MODELS ARE INDICATING WEAKENING OF SYSTEM WITH NORTH-NORTHEASTWARDS MOVEMENT OFF ODISHA COAST DURING 5TH/0000 UTC TO 6TH /0000 UTC. MODELS ARE ALSO INDICATING THE SYSTEM TO REACH CLOSE TO WEST BENGAL –BANGLADESH COAST AS A LOW PRESSURE AREA THEREAFTER.

WIND SHEAR IS MODERTE AND IS ABOUT 10-15 KNOTS OVER THE SYSTEM AREA. IT IS BECOMING HIGH (20-30 KNOTS) OVER NORTHWEST BOB. POSITIVE LOW LEVEL VORTICITY IS ABOUT 100x10^{-6}S^{-1} AROUND THE SYSTEM CENTRE WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. LOW LEVEL CONVERGENCE IS 20x10^{-6}S^{-1} TO THE NORTH-NORTHEAST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS 20x10^{-5}S^{-1} AROUND THE SYSTEM CENTRE. UPPER TROPOSPHERIC RIDGE RUNS ALONG 18^{0}N. THE SYSTEM STARTED RE-CURVING NORTH-NORTHEASTWARDS ALONG ODISHA COAST AS IT IS LYING CLOSE TO THE WESTERN PERIPHERY OF ANTICYCLONE OVER MYANMAR REGION.

THE SYSTEM WILL MOVE NORTH-NORTHEASTWARDS REACH NEAR PURI (43053) AROUND 0600 UTC OF 5TH DECEMBER AND SUBSEQUENTLY MOVE NORTH-NORTHEASTWARDS ALONG ODISHA COAST TOWARDS WEST BENGAL COAST AND WEKEN FURTHER INTO A DEPRESSION DUE TO ADVERNSE ENVIRONMENTAL FACTORS OF ENHANCED VERTICAL WIND SHEAR, LAND INTERACTION AND DECREASING OCEAN THERMAL ENERGY.

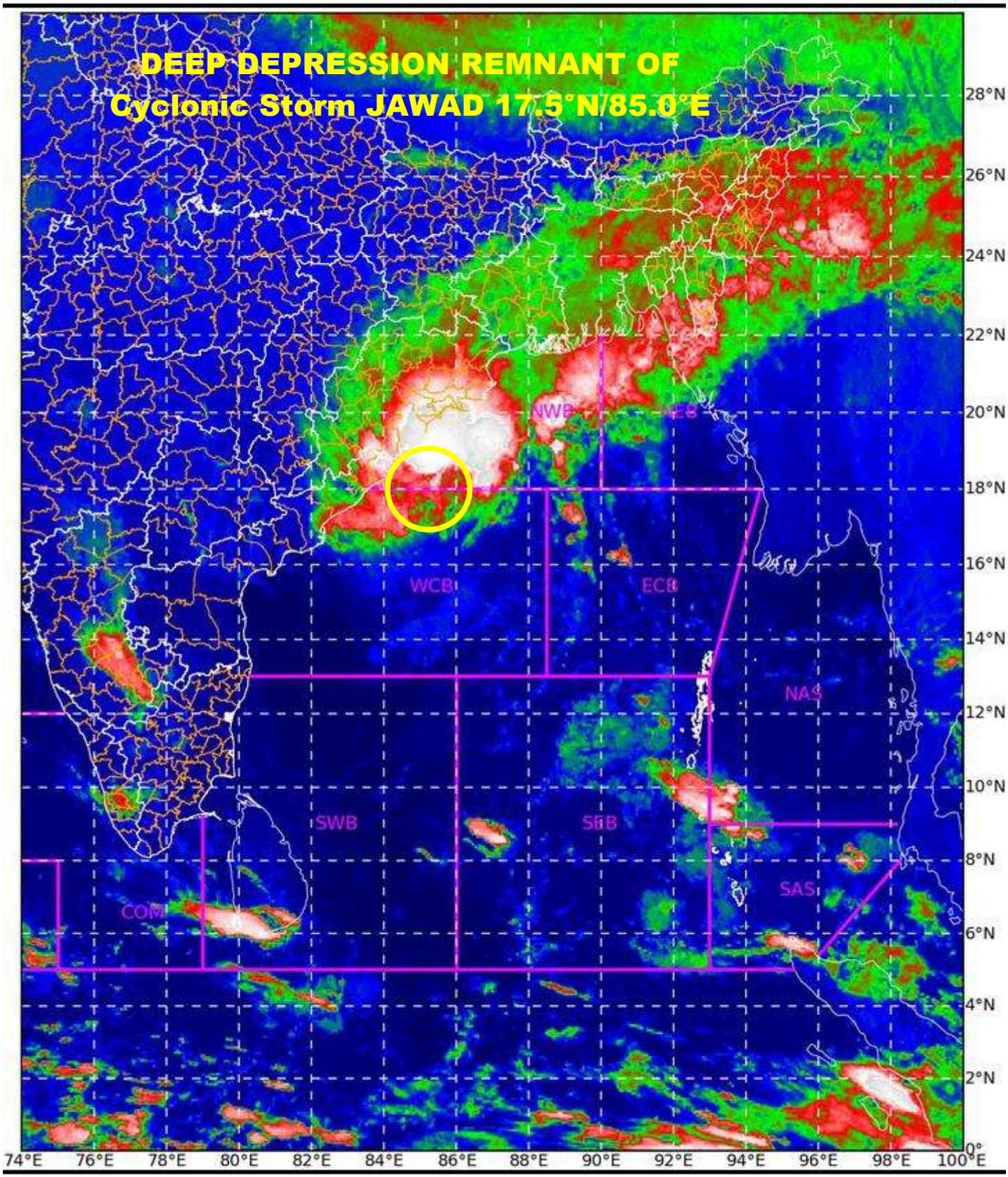
NEXT BULLETIN WILL BE ISSUED AT 0300 UTC OF 5TH DECEMBER 2021.

(ANANDA KUMAR DAS)
Scientist-E, RSMC, New Delhi

SAT : INSAT-3D IMG 04-12-2021/(1900 to 1926) GMT

IMG_TIR1_TEMP 10.8 um 05-12-2021/(0030 to 0056) IST

L1C Mercator



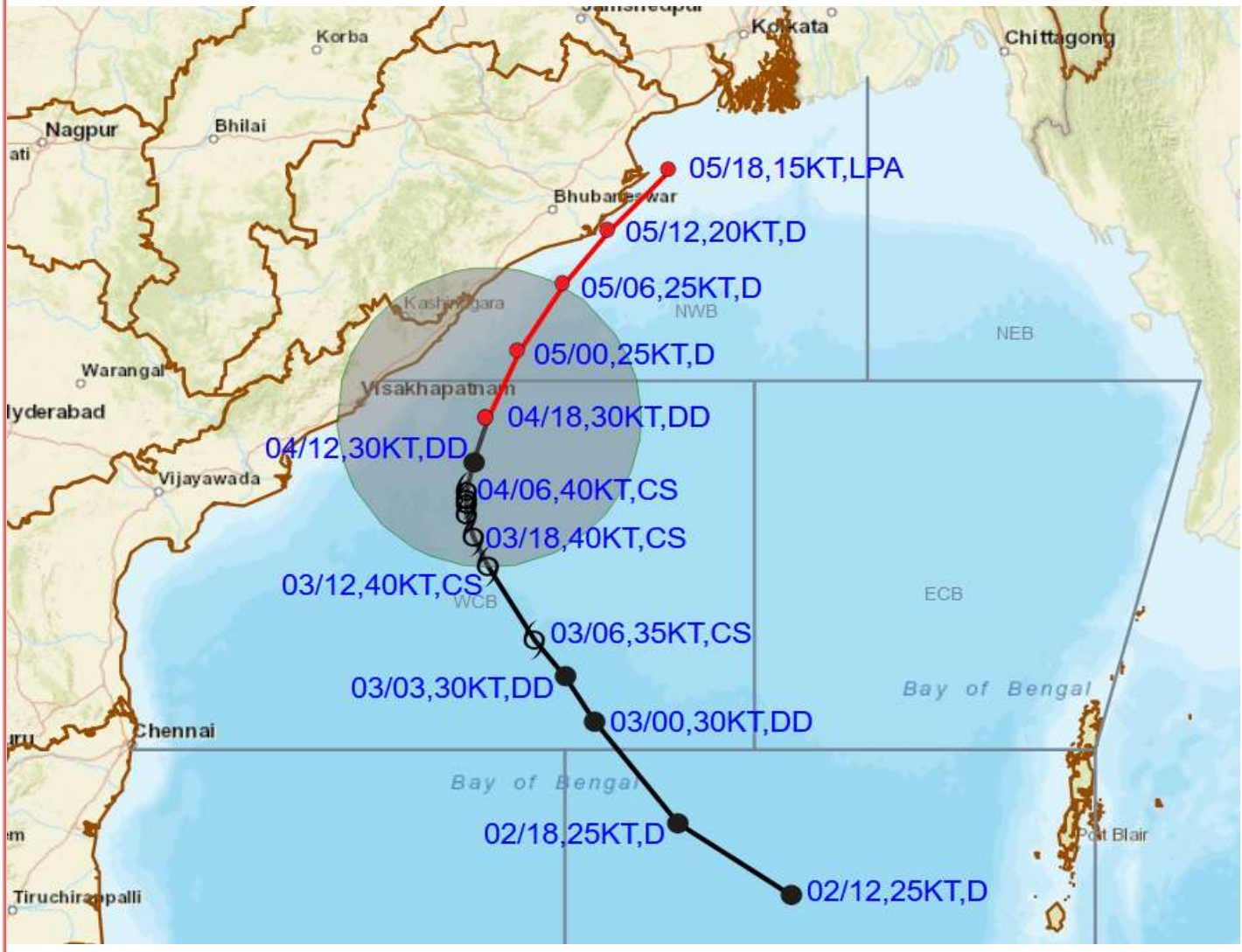
0 -20 -50 Celsius

10 -10 -30 -70

IMD,DELHI

This is

OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION (REMANANT OF CYCLONIC STORM 'JAWAD') OVER WESTCENTRAL BAY OF BENGAL BASED ON 1800 UTC OF 4th DECEMBER, 2021



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)

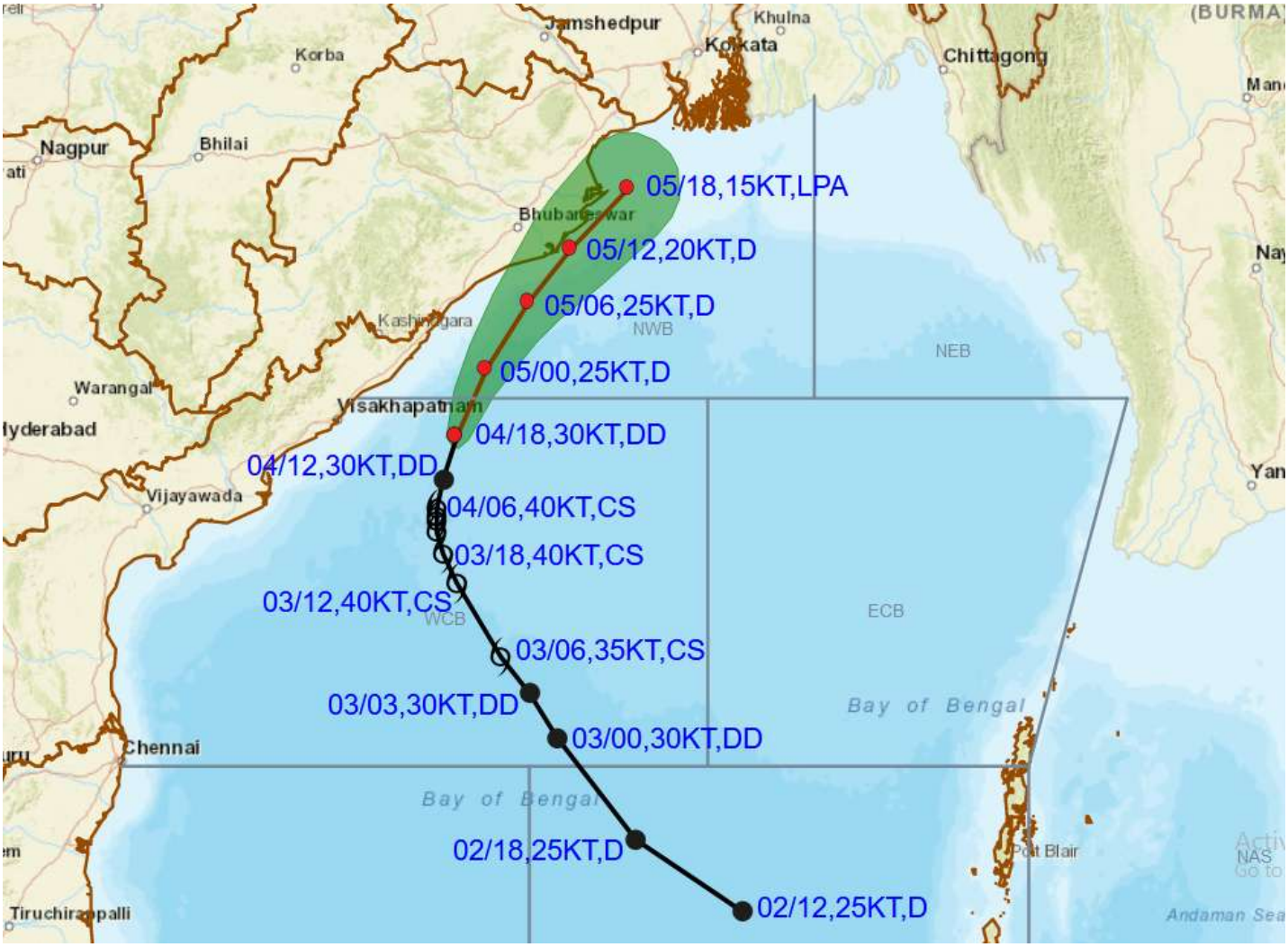
- LESS THAN 34 KT
- 34-47 KT
- ≥ 48 KT
- OBSERVED TRACK
- FORECAST TRACK
- CONE OF UNCERTAINTY

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

OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEEP DEPRESSION (REMANANT OF CYCLONIC STORM 'JAWAD') OVER WESTCENTRAL BAY OF BENGAL BASED ON 1800 UTC OF 4th DECEMBER, 2021



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