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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 05.12.2021

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC OF 05.12.2021 BASED ON 0300 UTC OF 05.12.2021.

SUB:DEEP DEPRESSION (REMNANT OF CYCLONIC STORM 'JAWAD') OVER NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL

THE **DEEP DEPRESSION REMNANT OF CYCLONIC STORM 'JAWAD'** OVER NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL MOVED NORTH-NORTHEASTWARDS WITH A SPEED OF 20 KMPH DURING PAST 06 HOURS, AND LAY CENTERED AT 0300 UTC OF TODAY, THE 05TH DECEMBER 2021, OVER NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL NEAR LAT. 18.7°N AND LONG. 85.6°E, ABOUT 270 KM EAST-NORTHEAST OF VISHAKHAPATNAM (43149), 90 KM EAST-SOUTHEAST OF GOPALPUR (43049), 120 KM SOUTH-SOUTHWEST OF PURI (43053) AND 210 KM SOUTH-SOUTHWEST OF PARADIP (42976).

IT IS LIKELY **TO** MOVE NORTH-NORTHEASTWARDS, **WEAKEN FURTHER INTO A DEPRESSION** AND REACH ODISHA COAST NEAR PURI DURING NEXT 06 HOURS. 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 AROUND 1800 UTC OF 5TH DECEMBER.

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
05.12.21/0300	18.7/85.6	50-60 gusting to 70	Deep Depression
05.12.21/0600	19.2/85.9	50-60 gusting to 70	Deep Depression
05.12.21/1200	19.9/86.5	40-50 gusting to 60	Depression
05.12.21/1800	20.7/87.3	30-40 gusting to 50	Low Pressure Area

AS PER SATELLITE IMAGERY BASED ON 0300 UTC OF 5TH DEC, THE INTENSITY OF THE SYSTEM IS CHARACTERIZED AS T2.0. ASSOCIATED CLOUD MASS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EXTREME NORTH COASTAL ANDHRA PRADESH & EAST ODISHA AND MODERATE CONVECTION IS SEEN OVER JHARKHAND, WEST ODISHA & GANGETIC WEST BENGAL. ASSCOAITED SCATTERED TO BROKEN LOW TO MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WESTCENTRAL & NORTHWEST BOB, NORTH OF LATITUDE 17.5^{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. ESTIMATED CENTRAL PRESSURE IS ABOUT 1004 HPA. SEA CONDITION IS ROUGH TO VERY ROUGH OVER NORTHWEST & ADJOINING WESTCENTRAL BOB AROUND SYSTEM CENTRE.

AT 0300 UTC, THERE IS 24 HOUR PRESSURE FALL OF ABOUT 2 HPA ALONG ODISHA COAST. THE PRESSURE DEPARTURE FROM NORMAL IS ABOT 5-6 HPA ALONG SOUTH ODISHA COAST AND ABOUT 3-5 HPA ALONG NORTH ODISHA COAST.

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 ABOUT 100M OVER NORTHWEST & ADJOINING WESTCENTRAL 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 BOB REGION.

WIND SHEAR IS MODERTE AND IS ABOUT 15-20 KNOTS OVER THE SYSTEM AREA. IT IS BECOMING SLIGHTLY HIGHER (20-25 KNOTS) OVER NORTHWEST BOB. POSITIVE LOW LEVEL VORTICITY IS ABOUT 100x10^{-6}S^{-1} TO THE SOUTH OF SYSTEM CENTRE WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. TWO ZONES OF LOW LEVEL CONVERGENCE IS 10x10^{-6}S^{-1} EACH TO THE NORTH-NORTHEAST OF SYSTEM CENTRE NEAR WEST BENGAL COAST AND ANOTHER TO EAST-NORTHEAST OF SYSTEM CENTRE OVER CENTRAL BOB. UPPER LEVEL DIVERGENCE IS 20x10^{-5}S^{-1} TO THE NORTHEAST OF SYSTEM CENTRE. UPPER TROPOSPHERIC RIDGE RUNS ALONG 18.5^{0}N. THE SYSTEM IS RE-CURVING NORTH-NORTHEASTWARDS ALONG ODISHA COAST AS IT IS LYING CLOSE TO THE WESTERN PERIPHERY OF ANTICYCLONE OVER MYANMAR REGION.

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

DUE TO UNFAVOURABLE ENVIRONMENTAL FEATURES INCLUDING ENHANCED VERTICAL WIND SHEAR, LAND INTERACTIONS, DECREASED OCEAN THERMAL ENERGY OVER NORTHWEST BOB AND UNFAVOURABLE MJO PHASE, THE SYSTEM WILL DISSIPATE GRADUALLY.

IN VIEW OF ABOVE, THE SYSTEM IS LIKELY TO MOVE NORTH-NORTHEASTWARDS, WEAKEN FURTHER INTO A DEPRESSION AND REACH ODISHA COAST NEAR PURI (43053) DURING NEXT 06 HOURS. 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 AROUND 1800 UTC OF 5TH DECEMBER..

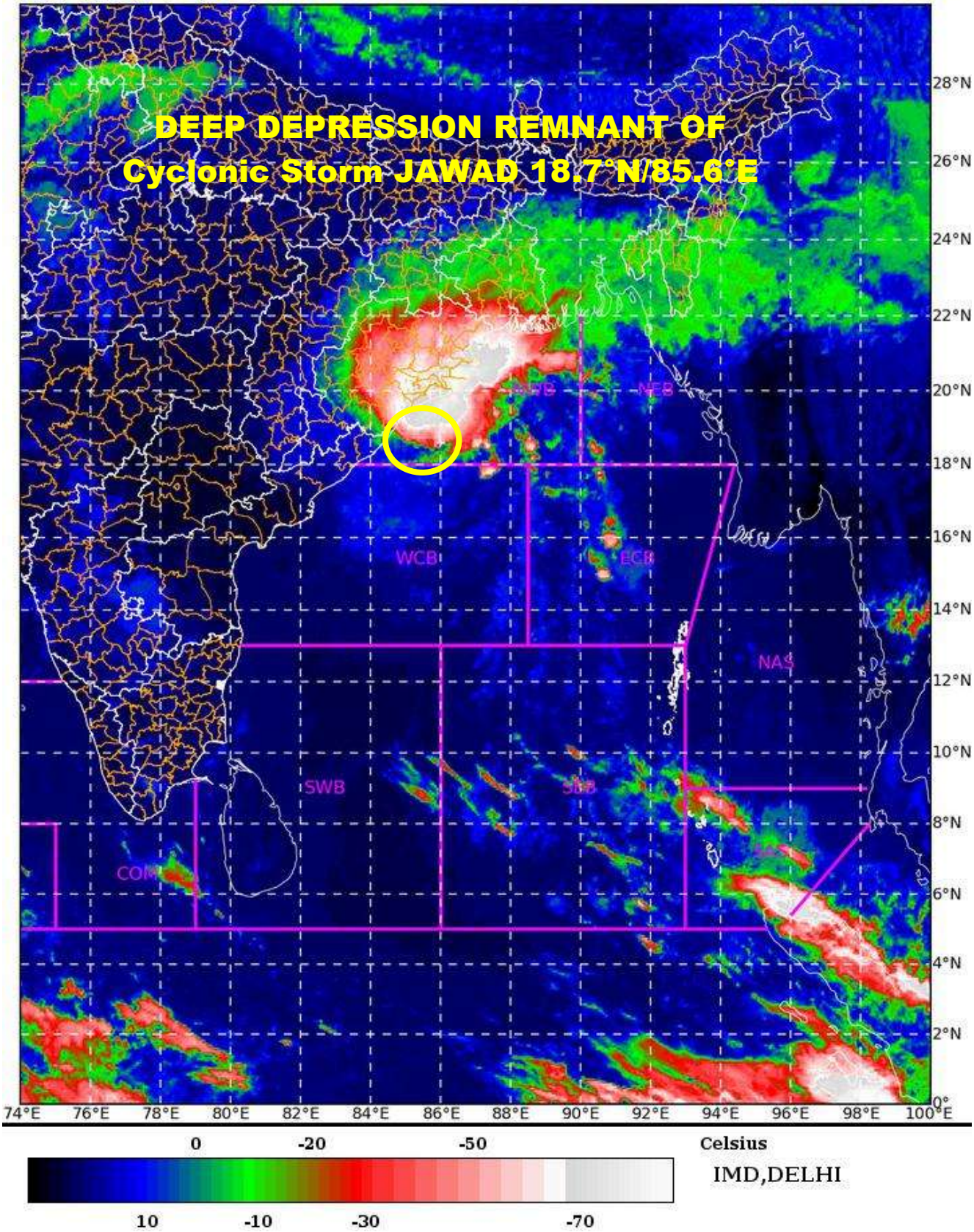
NEXT BULLETIN WILL BE ISSUED AT 0900 UTC OF 5TH DECEMBER 2021.

(SUNITHA DEVI S)
Scientist-F, RSMC, New Delhi

SAT : INSAT-3D IMG 05-12-2021/(0500 to 0527) GMT

IMG_TIR1_TEMP 10.8 um 05-12-2021/(1030 to 1057) IST

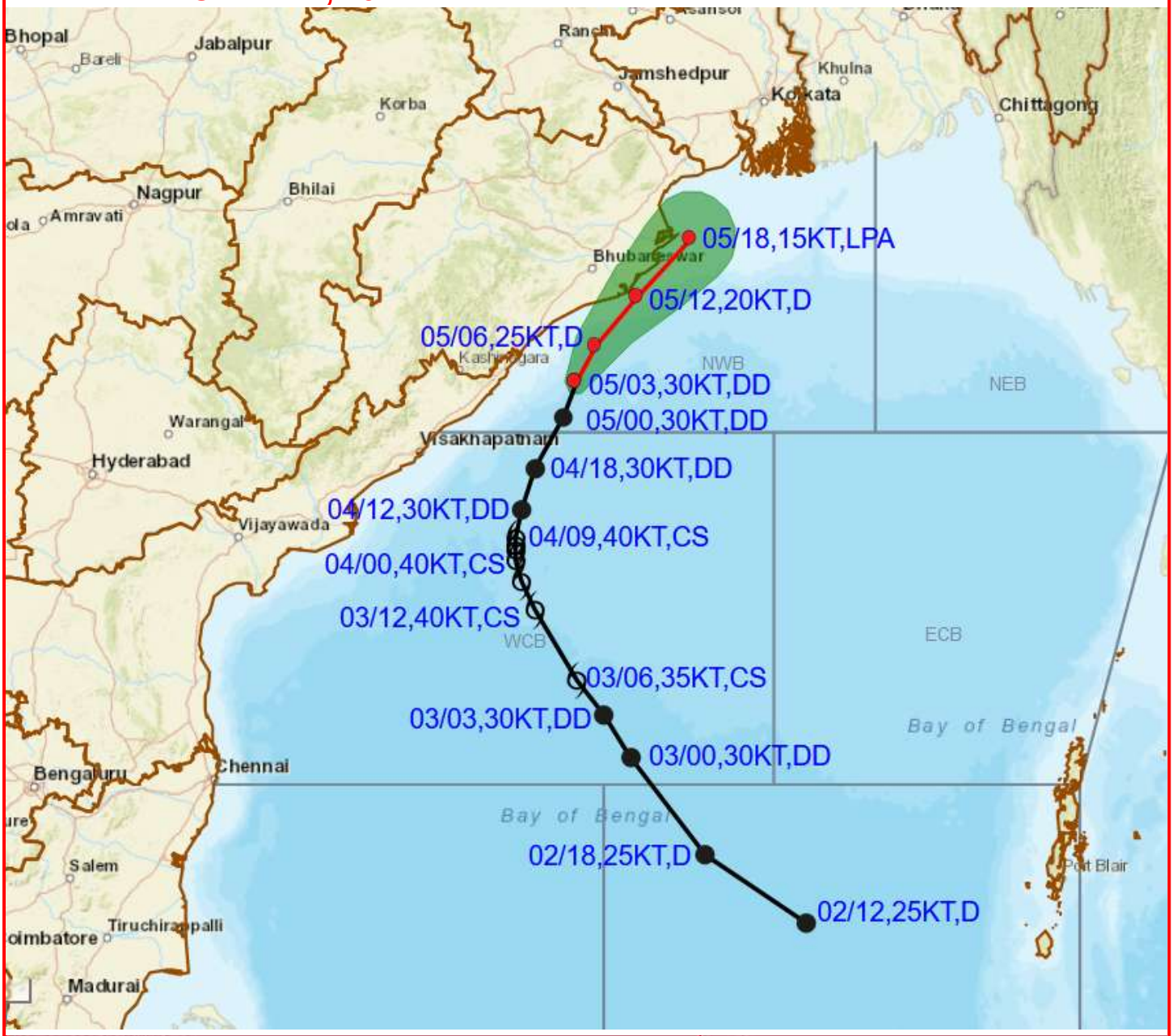
L1C Mercator



Celsius

IMD,DELHI

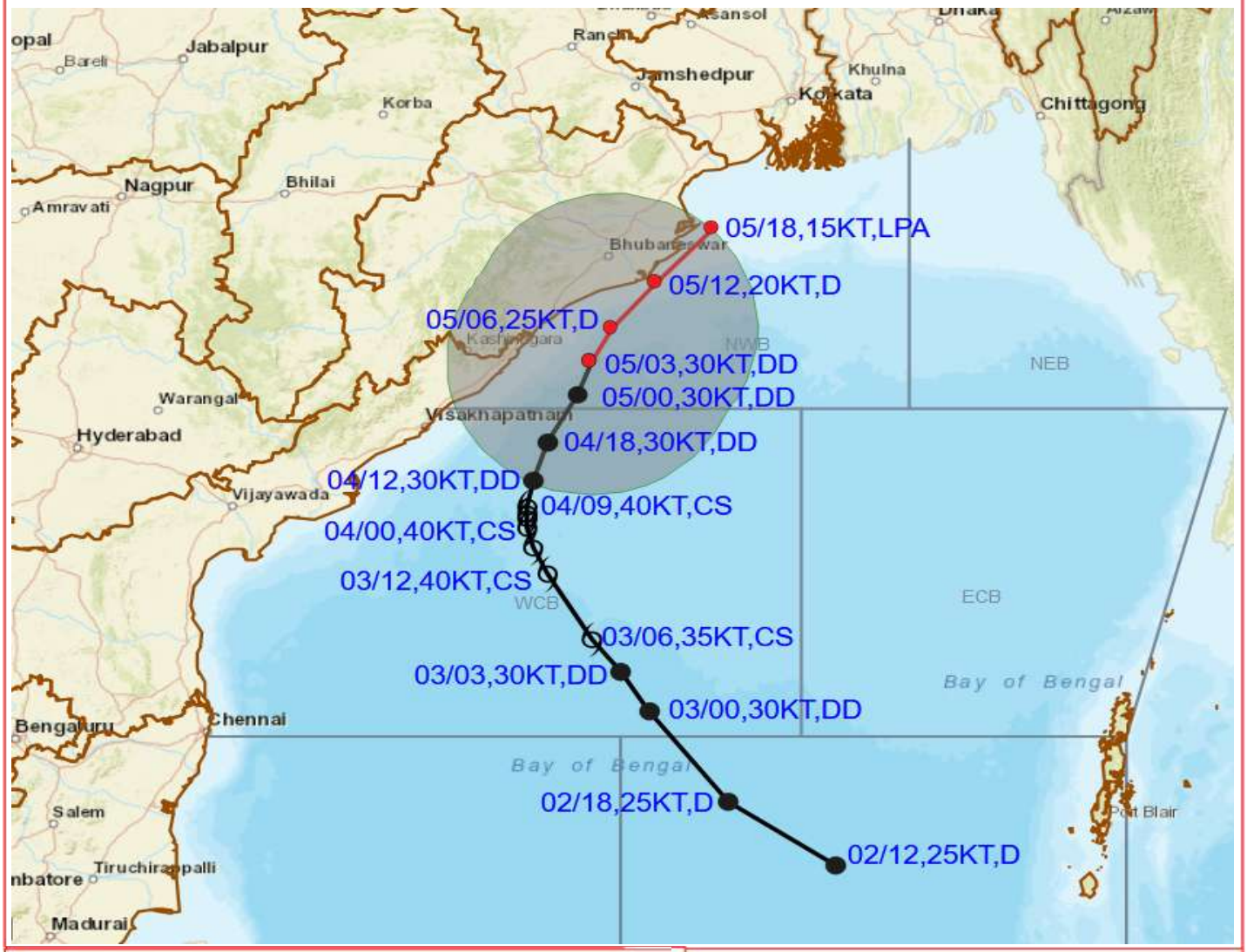
OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEEP DEPRESSION (REMANANT OF CYCLONIC STORM 'JAWAD') OVER NORTHWEST & ADJOINING WESTCENTRAL BAY OF BENGAL BASED ON 0300 UTC OF 5th DECEMBER, 2021



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

OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION (REMANANT OF CYCLONIC STORM 'JAWAD') OVER NORTHWEST & ADJOINING WESTCENTRAL BAY OF BENGAL BASED ON 0300 UTC OF 5th 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