



**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 0330 UTC OF 05.12.2021 BASED ON 0000 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'** (PRONOUNCED AS JOWAD) OVER WESTCENTRAL BAY OF BENGAL MOVED EAST-NORTHEASTWARDS WITH A SPEED OF 15 KMPH DURING PAST 06 HOURS, AND LAY CENTERED AT 0000 UTC OF 05<sup>TH</sup> DECEMBER 2021, OVER NORTHWEST AND ADJOINING WESTCENTRAL BAY OF BENGAL NEAR LAT. 18.2°N AND LONG. 85.4°E, ABOUT 230 KM EAST-SOUTHEAST OF VISHAKHAPATNAM (43149), 130 KM SOUTH-SOUTHEAST OF GOPALPUR (43049), 130 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** AND REACH ODISHA COAST NEAR PURI (43053) AROUND 0600 UTC OF 5<sup>TH</sup> 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:

<b>DATE/TIME (UTC)</b>	<b>POSITION (LAT. °N/ LONG. °E)</b>	<b>MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)</b>	<b>CATEGORY OF CYCLONIC DISTURBANCE</b>
05.12.21/0000	18.2/85.4	50-60 GUSTING TO 70	DEEP DEPRESSION
05.12.21/0600	19.1/85.9	45-55 GUSTING TO 65	DEPRESSION
05.12.21/1200	19.8/86.4	40-50 GUSTING TO 60	DEPRESSION
05.12.21/1800	20.6/87.3	30-40 GUSTING TO 50	LOW PRESSURE AREA

AS PER SATELLITE IMAGERY BASED ON 0000 UTC OF 5<sup>TH</sup> DEC, THE INTENSITY OF THE SYSTEM IS CHARACTERIZED AS T2.0. ASSOCIATED CLOUD MASS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION ARE SEEN OVER EXTRME NORTH COASTAL ANDHRA PRADESH AND EAST ODISHA, AND MODERATE CONVECTION OVER JHARKHAND, WEST 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 17.5<sup>0</sup>N AND WEST OF LONGITUDE 89.0<sup>0</sup>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 0000 UTC, A SHIP NEAR 18.6°N/88.1°E REPORTED MAXIMUM SUSTAINED WIND SPEED (MSW) OF 320°/17KTS AND MEAN SEA LEVEL PRESSURE (MSLP) OF 1010 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<sup>2</sup> OVER WESTCENTRAL BOB AND IS GRADUALLY DECREASING TOWARDS COAST AND OVER EXTREME NORTHWEST BOB BECOMING 50-60 KJ/CM<sup>2</sup>. DEPTH OF 26°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 5<sup>TH</sup>/0000 UTC TO 6<sup>TH</sup> /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 MODERATE 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  $100 \times 10^{-6} \text{S}^{-1}$  AROUND THE SYSTEM CENTRE WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. LOW LEVEL CONVERGENCE IS  $20 \times 10^{-6} \text{S}^{-1}$  TO THE NORTH-NORTHEAST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS  $20 \times 10^{-5} \text{S}^{-1}$  AROUND THE SYSTEM CENTRE. UPPER TROPOSPHERIC RIDGE RUNS ALONG 18°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.

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

NEXT BULLETIN WILL BE ISSUED AT 0600 UTC OF 5<sup>TH</sup> DECEMBER 2021.

**(ANANDA KUMAR DAS)**  
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SAT : INSAT-3D IMG

05-12-2021/(0130 to 0156) GMT

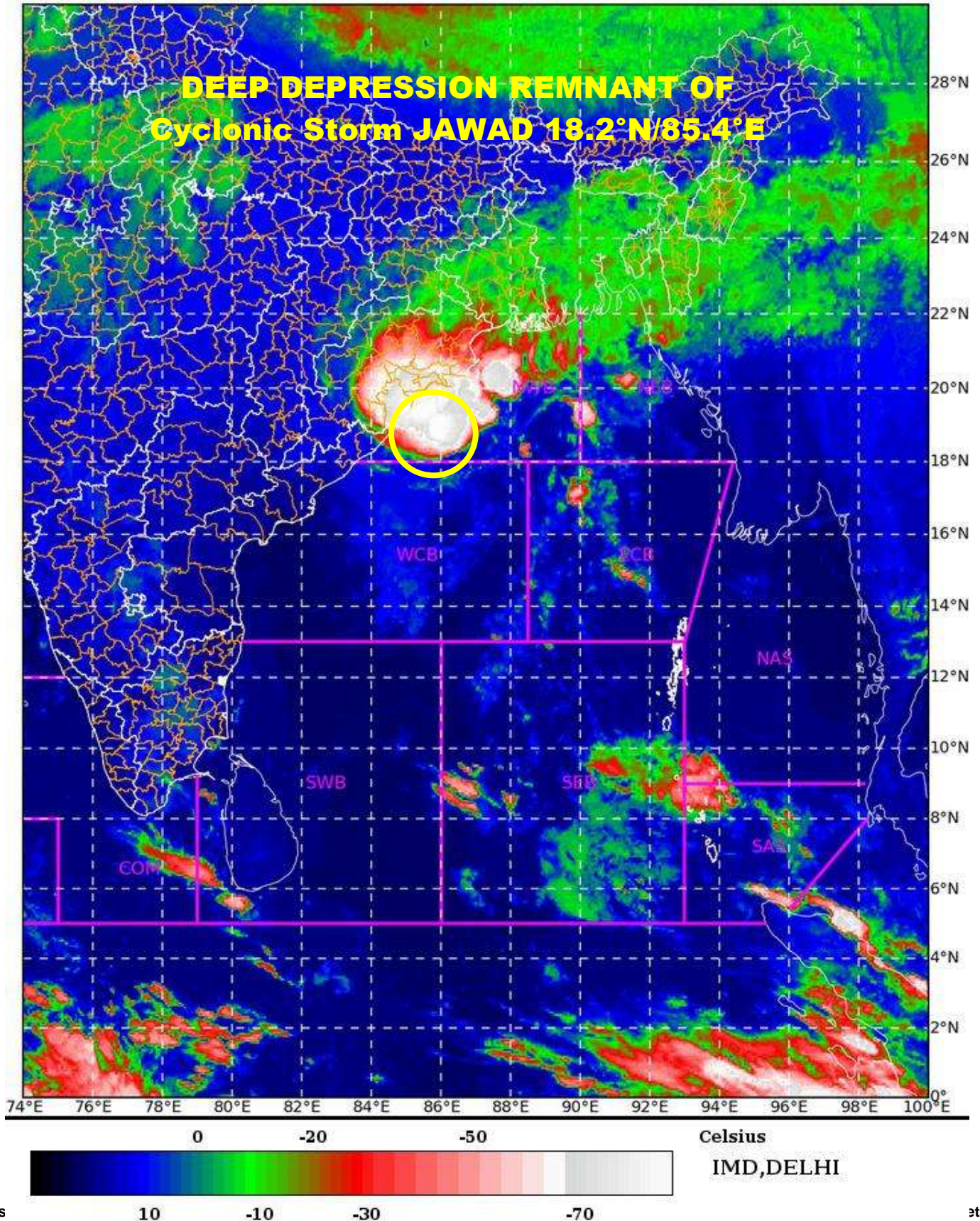
IMG\_TIR1\_TEMP 10.8 um

05-12-2021/(0700 to 0726) IST

L1C Mercator



**DEEP DEPRESSION REMNANT OF  
Cyclonic Storm JAWAD 18.2°N/85.4°E**



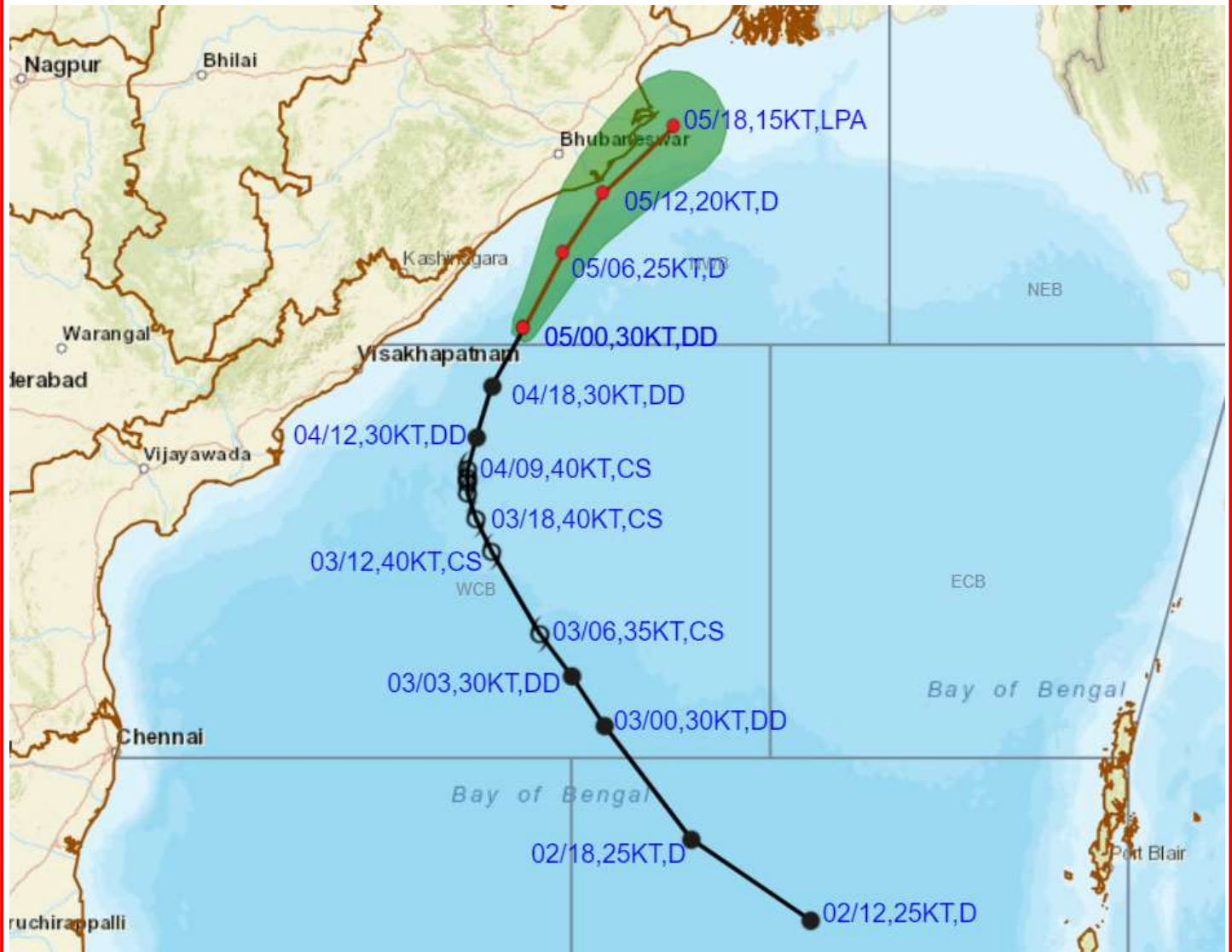
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10 -10 -30 -70

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# 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 0000 UTC OF 5<sup>th</sup> 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 ( $\geq$  120 KT)**

- LESS THAN 34 KT
- 34-47 KT
- $\geq$  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 0000 UTC OF 5<sup>th</sup> 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 (≥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