



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 0900 UTC OF 05.12.2021 BASED ON 0600 UTC OF 05.12.2021.**

**SUB:DEEP DEPRESSION (REMNANT OF CYCLONIC STORM 'JAWAD') OVER NORTHWEST 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 18 KMPH DURING PAST 06 HOURS, AND LAY CENTERED AT 0600 UTC OF TODAY, THE 05<sup>TH</sup> DECEMBER 2021, OVER NORTHWEST BAY OF BENGAL CLOSE TO ODISHA COAST NEAR LAT. 19.1°N AND LONG. 85.9°E, ABOUT 70 KM SOUTH-SOUTHEAST OF PURI (43053), 100 KM EAST-SOUTHEAST OF GOPALPUR (43049), 150 KM SOUTH-SOUTHWEST OF PARADIP (42976) AND 320 KM EAST-NORTHEAST OF VISHAKHAPATNAM (43149).

IT IS LIKELY TO CONTINUE TO MOVE NORTH-NORTHEASTWARDS AND **WEAKEN FURTHER INTO A DEPRESSION** DURING NEXT 3 HOURS. THEREAFTER, 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 5<sup>TH</sup> DECEMBER 2021.

FORECAST TRACK AND INTENSITY ARE GIVEN IN THE FOLLOWING TABLE:

DATE/TIME (UTC)	POSITION (LAT. °N/ LONG. °E)	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
05.12.21/0600	19.1/85.9	50-60 gusting to 70	Deep Depression
05.12.21/1200	19.8/86.5	40-50 gusting to 60	Depression
05.12.21/1800	20.6/87.3	30-40 gusting to 50	Well Marked Low

AS PER SATELLITE IMAGERY BASED ON 0600 UTC OF 5<sup>TH</sup> DEC, THE INTENSITY OF THE SYSTEM IS CHARACTERIZED AS T1.5/C.I.2.5. ASSOCIATED CLOUD MASS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EAST ODISHA AND MODERATE TO INTENSE CONVECTION IS SEEN OVER JHARKHAND & GANGETIC WEST BENGAL. ASSOCIATED SCATTERED TO BROKEN LOW TO MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WESTCENTRAL & NORTHWEST BOB, NORTH OF LATITUDE 17.5°N AND WEST OF LONGITUDE 89.0°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.

**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 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 MODERATE 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 HAS DECREASED SLIGHTLY AND IS ABOUT 60-80x10<sup>-6</sup>S<sup>-1</sup> TO THE SOUTH OF SYSTEM CENTRE WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. AN EXTENDED ZONE OF POSITIVE LOW LEVEL CONVERGENCE 05-10x10<sup>-6</sup>S<sup>-1</sup> TO THE NORTH-NORTHEAST OF SYSTEM CENTRE (EXTENDING ALONG THE COAST FROM ODISHA COAST TO BANGLADESH COAST). UPPER LEVEL DIVERGENCE IS 20x10<sup>-5</sup>S<sup>-1</sup> OVER NORTHWEST BOB OFF ODISHA COAST AND IS ORIENTED TOWARDS NORTH-NORTHEAST. UPPER TROPOSPHERIC RIDGE RUNS ALONG 18.5°N. THE SYSTEM IS RECURVING 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 6<sup>TH</sup> DECEMBER WITH NORTH-NORTHEASTWARDS MOVEMENT OFF ODISHA COAST ON 5<sup>TH</sup>. MODELS ARE ALSO INDICATING THE SYSTEM TO REACH CLOSE TO WEST BENGAL –BANGLADESH COAST AS A LOW PRESSURE AREA ON 6<sup>TH</sup>.

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 CONTINUE TO MOVE NORTH-NORTHEASTWARDS, WEAKEN FURTHER INTO A DEPRESSION DURING NEXT 3 HOURS. THEREAFTER, 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 5<sup>TH</sup> DECEMBER 2021.

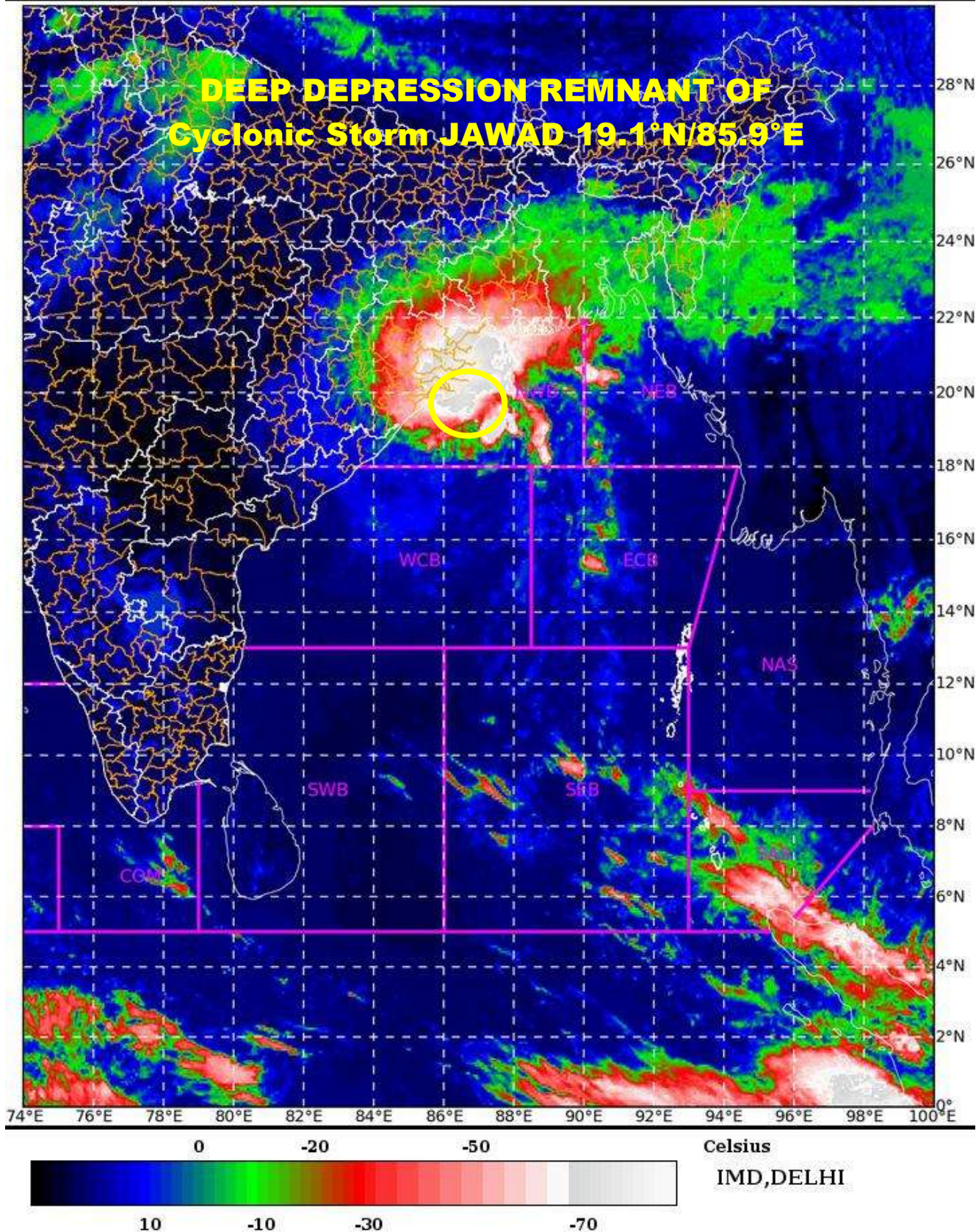
NEXT BULLETIN WILL BE ISSUED AT 1200 UTC OF 5<sup>TH</sup> DECEMBER 2021.

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

SAT : INSAT-3D IMG 05-12-2021/(0700 to 0727) GMT

IMG\_TIR1\_TEMP 10.8 um 05-12-2021/(1230 to 1257) IST

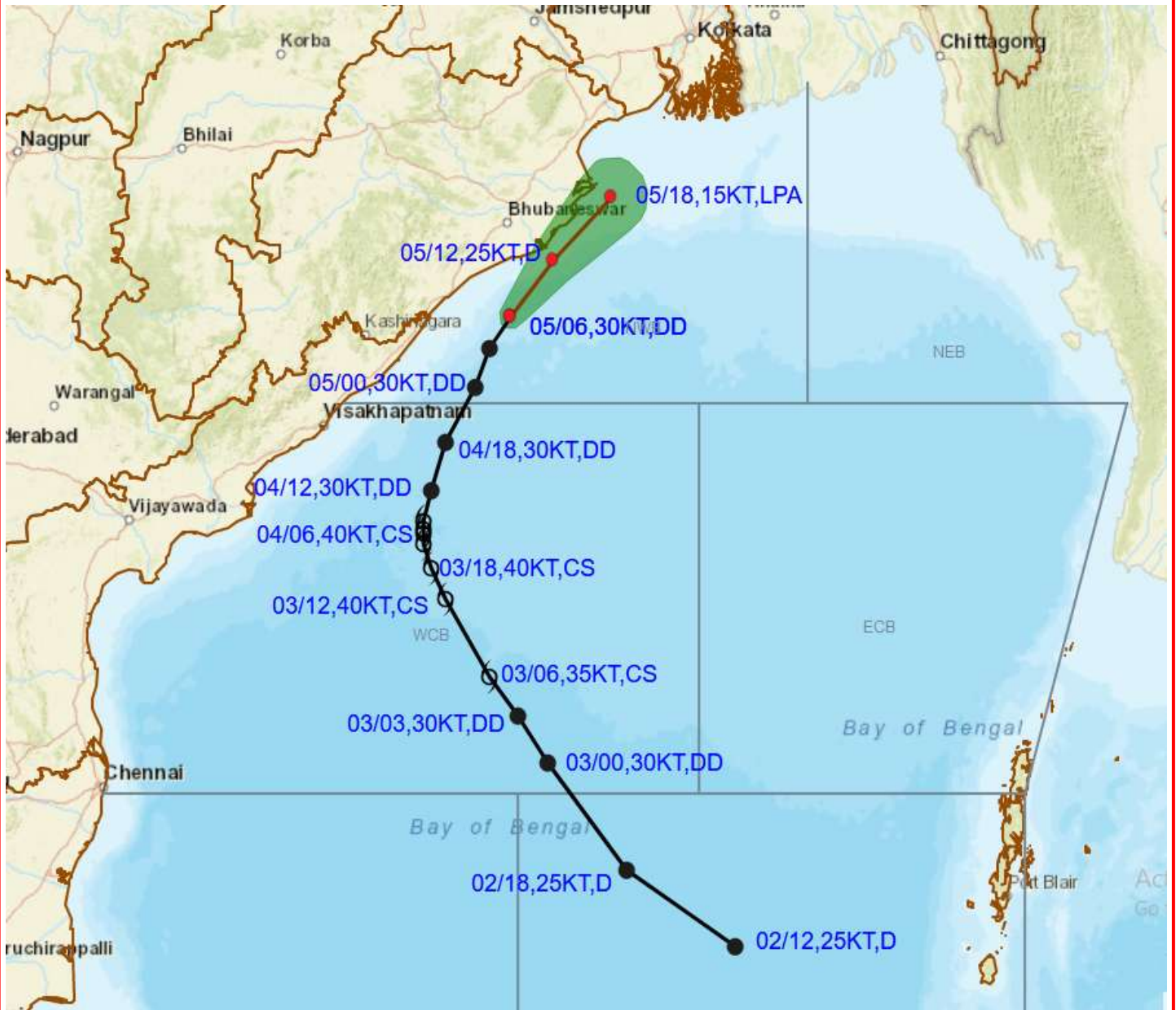
L1C Mercator



This is a guidance Bulletin for the WMO/ESCAP Panel Member countries,. Please visit respective National websites for Country specific Bulletins



# OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF DEEP DEPRESSION (REMANANT OF CYCLONIC STORM 'JAWAD') OVER NORTHWEST BAY OF BENGAL NEAR ODISHA COAST BASED ON 0600 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



## OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF DEEP DEPRESSION (REMANANT OF CYCLONIC STORM 'JAWAD') OVER NORTHWEST BAY OF BENGAL NEAR ODISHA COAST BASED ON 0600 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 ( $\geq$  120 KT)

● LESS THAN 34 KT

○ 34-47 KT

●  $\geq$  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)

■  $\geq$  64 KT ( $\geq$ 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
$\geq$ 64 ( $\geq$ 118)	Phenomenal	Total suspension of fishing operations