



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI**  
**TROPICAL CYCLONE ADVISORY NO. 7**

**FROM: RSMC –TROPICAL CYCLONES, NEW DELHI**

**TO: STORM WARNING CENTRE, NAYPYI TAW (MYANMAR)**  
**STORM WARNING CENTRE, BANGKOK (THAILAND)**  
**STORM WARNING CENTRE, COLOMBO (SRILANKA)**  
**STORM WARNING CENTRE, DHAKA (BANGLADESH)**  
**STORM WARNING CENTRE, KARACHI (PAKISTAN)**  
**METEOROLOGICAL OFFICE, MALE (MALDIVES)**  
**OMAN METEOROLOGICAL DEPARTMENT, MUSCAT (THROUGH RTH JEDDAH)**  
**YEMEN METEOROLOGICAL SERVICES, REPUBLIC OF YEMEN (THROUGH RTH JEDDAH)**  
**NATIONAL CENTRE FOR METEOROLOGY, UAE (THROUGH RTH JEDDAH)**  
**PRESIDENCY OF METEOROLOGY AND ENVIRONMENT, SAUDI ARABIA (THROUGH RTH JEDDAH)**  
**IRAN METEOROLOGICAL ORGANISATION, (THROUGH RTH JEDDAH)**  
**QATAR METEOROLOGICAL DEPARTMENT (THROUGH RTH JEDDAH)**

**TROPICAL CYCLONE ADVISORY NO. 7 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0300 UTC OF 04.12.2021 BASED ON 0000 UTC OF 04.12.2021**

**SUB: CYCLONIC STORM 'JAWAD' OVER WESTCENTRAL BAY OF BENGAL**

THE **CYCLONIC STORM 'JAWAD'** (PRONOUNCED AS JOWAD) OVER WESTCENTRAL BAY OF BENGAL MOVED SLIGHTLY NORTHWARD WITH A SPEED OF 04 KMPH DURING PAST 06 HOURS AND LAY CENTERED AT 0000 UTC OF TODAY, THE 4<sup>TH</sup> DECEMBER 2021, OVER WESTCENTRAL BAY OF BENGAL NEAR LAT. 16.2°N AND LONG. 84.9°E, ABOUT 230 KM SOUTHEAST OF VISHAKHAPATNAM (43149), 340 KM SOUTH OF GOPALPUR (42049), 410 KM SOUTH-SOUTHWEST OF PURI (42053) AND 490 KM SOUTH-SOUTHWEST OF PARADIP (42976).

IT IS LIKELY TO WEAKEN GRADUALLY AND MOVE NEARLY NORTHWARDS DURING NEXT 12 HOURS AND THEN NORTH-NORTHEASTWARDS ALONG ODISHA COASTS REACHING NEAR PURI AROUND 5<sup>TH</sup> DECEMBER NOON AS A DEEP DEPRESSION. SUBSEQUENTLY, IT IS LIKELY TO WEAKEN FURTHER AND CONTINUE TO MOVE NORTH-NORTHEASTWARDS ALONG ODISHA COAST TOWARDS WEST BENGAL COAST.

Forecast track and intensity are given in the following table:

DATE/TIME(UTC)	POSITION AT. °N/ LONG. °E	MAXIMUM SUSTAINED SURFACE WIND SPEED (KMPH)	CATEGORY OF CYCLONIC DISTURBANCE
04.12.21/0000	16.2/84.9	70-80 gusting to 90	Cyclonic Storm
04.12.21/0600	16.5/84.8	65-75 gusting to 85	Cyclonic Storm
04.12.21/1200	17.2/84.8	60-70 gusting to 80	Cyclonic Storm
04.12.21/1800	17.9/85.0	55-65 gusting to 75	Deep Depression
05.12.21/0000	18.6/85.3	50-60 gusting to 70	Deep Depression
05.12.21/1200	19.6/86.0	45-55 gusting to 65	Depression

**AS PER SATELLITE IMAGERY BASED ON 0000 UTC OF 4<sup>th</sup> DEC, THE INTENSITY OF THE SYSTEM IS CHARACTERIZED AS T 2.5.. MAXIMUM CONVECTION LIES IN THE NORTHERN SECTOR OF**

THE SYSTEM CENTRE. ASSOCIATED CLOUD BANDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION ARE SEEN OVER NORTH COASTAL ODISHA, SOUTH JHARKHAND AND GANGETIC WEST BENGAL. ASSOCIATED BROKEN LOW & MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER WEST CENTRAL AND NORTHWEST BOB BETWEEN LATITUDE 15.5°N & 21.5°N AND LONGITUDE 83.0°E & 89.0°E AND ODISHA SOUTH JHARKHAND SOUTHERN PARTS OF GANGETIC WEST BENGAL. THE MAXIMUM CTT IS MINUS 93 DEG C.

THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 40 KNOTS GUSTING TO 50 KNOTS. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 1000 HPA. SEA CONDITION IS HIGH OVER WESTCENTRAL BAY OF BENGAL AROUND THE SYSTEM CENTRE.

AT 0000 UTC, THREE BUOYS: NEAR 16.3°N/88.0°E, 14.0°N/87.0°E AND 13.4°/84.1° REPORTED MAXIMUM SUSTAINED WIND OF 140°/19KTS , 200°/23KTS AND 300/14KTS , MEAN SEA LEVEL PRESSURE OF 1008 HPA, EACH AND SEA SURFACE TEMPERATURE 28.8°C, 28.8°C and 28.6°C RESPECTIVELY.

**REMARKS:**

THE SEA SURFACE TEMPERATURE IS 28-29°C OVER WESTCENTRAL BOB AND THEN OF 27-28°C TOWARDS NORTHWEST BOB. TROPICAL CYCLONE HEAT POTENTIAL IS 80-100 KJ/CM<sup>2</sup> OVER WESTCENTRAL BOB AND GRADUALLY DECREASING TOWARDS EXTREME NORTHWEST BECOMING 50-60. 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 IS NOT FAVOURABLE FOR INTENSIFICATION. IT WILL CONTINUE IN SAME PHASE DURING NEXT 5 DAYS.

WIND SHEAR IS MODERTE AND IS ABOUT 15 KNOTS OVER THE SYSTEM AREA. IT IS BECOMING HIGHER (15 TO 20 KNOTS) TOWARDS NORTHWEST BOB. POSITIVE LOW LEVEL VORTICITY IS ABOUT  $150 \times 10^{-6} \text{S}^{-1}$  AROUND THE SYSTEM CENTRE WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. LOW LEVEL CONVERGENCE IS  $5-10 \times 10^{-6} \text{S}^{-1}$  TO THE NORTHEAST OF THE SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS  $10-20 \times 10^{-5} \text{S}^{-1}$  TO THE NORTH OF SYSTEM CENTRE. UPPER TROPOSPHERIC RIDGE RUNS ALONG 18°N. AS THE SYSTEM IS NOW CLOSE TO THE WESTERN PERIPHERY OF THE ANTICYCLONE AND IT IS MOVING NORTHWARD AND GRADUALLY WILL MOVE NORTHEASTWARDS ALONG ODISHA.

NEXT BULLETIN WILL BE ISSUED AT 0600 UTC OF 4<sup>th</sup> DECEMBER 2021.

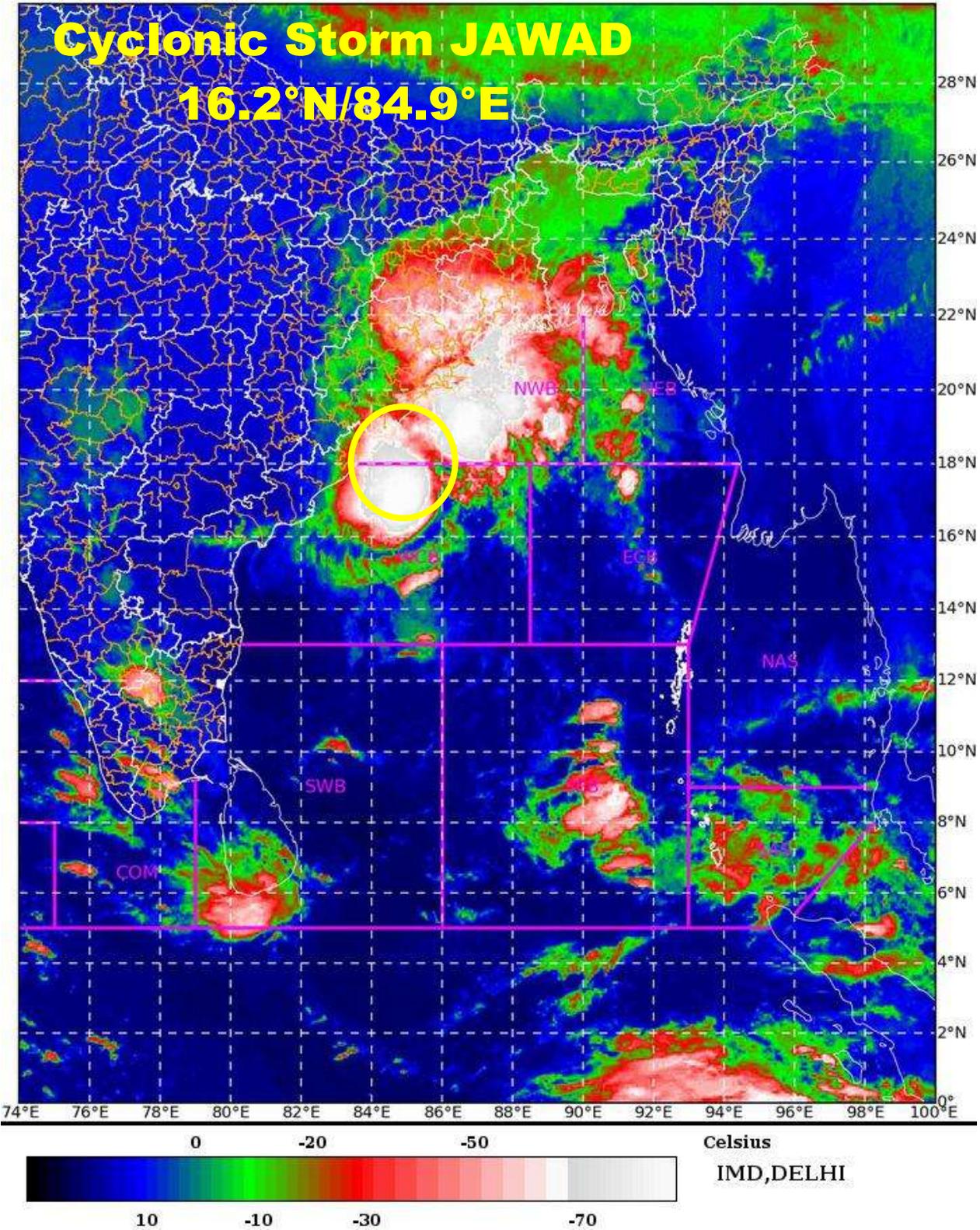
**(D R Pattanaik)**  
**Scientist-F, RSMC, New Delhi**

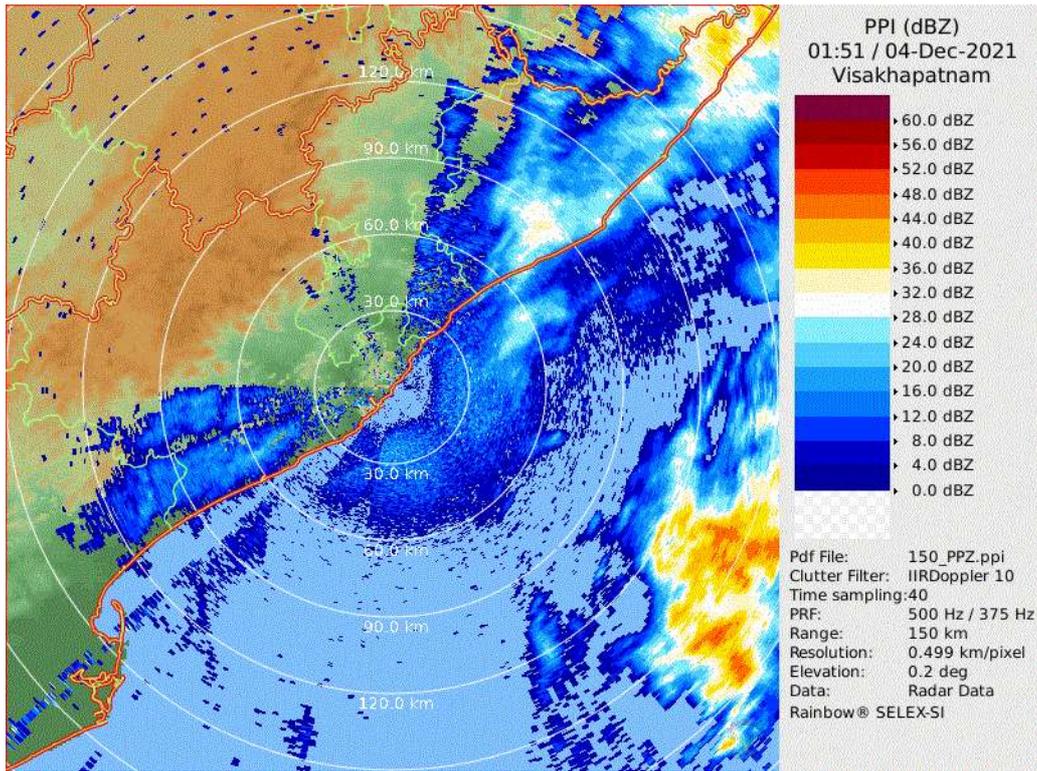
SAT : INSAT-3D IMG 04-12-2021/(0100 to 0126) GMT

IMG\_TIR1\_TEMP 10.8 um 04-12-2021/(0630 to 0656) IST



L1C Mercator





**Doppler Weather RADAR imagery from Vishakhapatnam, depicting convective clouds over north Coastal Andhra Pradesh and south Odisha.**



# OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF CYCLONIC STORM 'JAWAD' OVER WESTCENTRAL BAY OF BENGAL BASED ON 0000 UTC OF 4<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

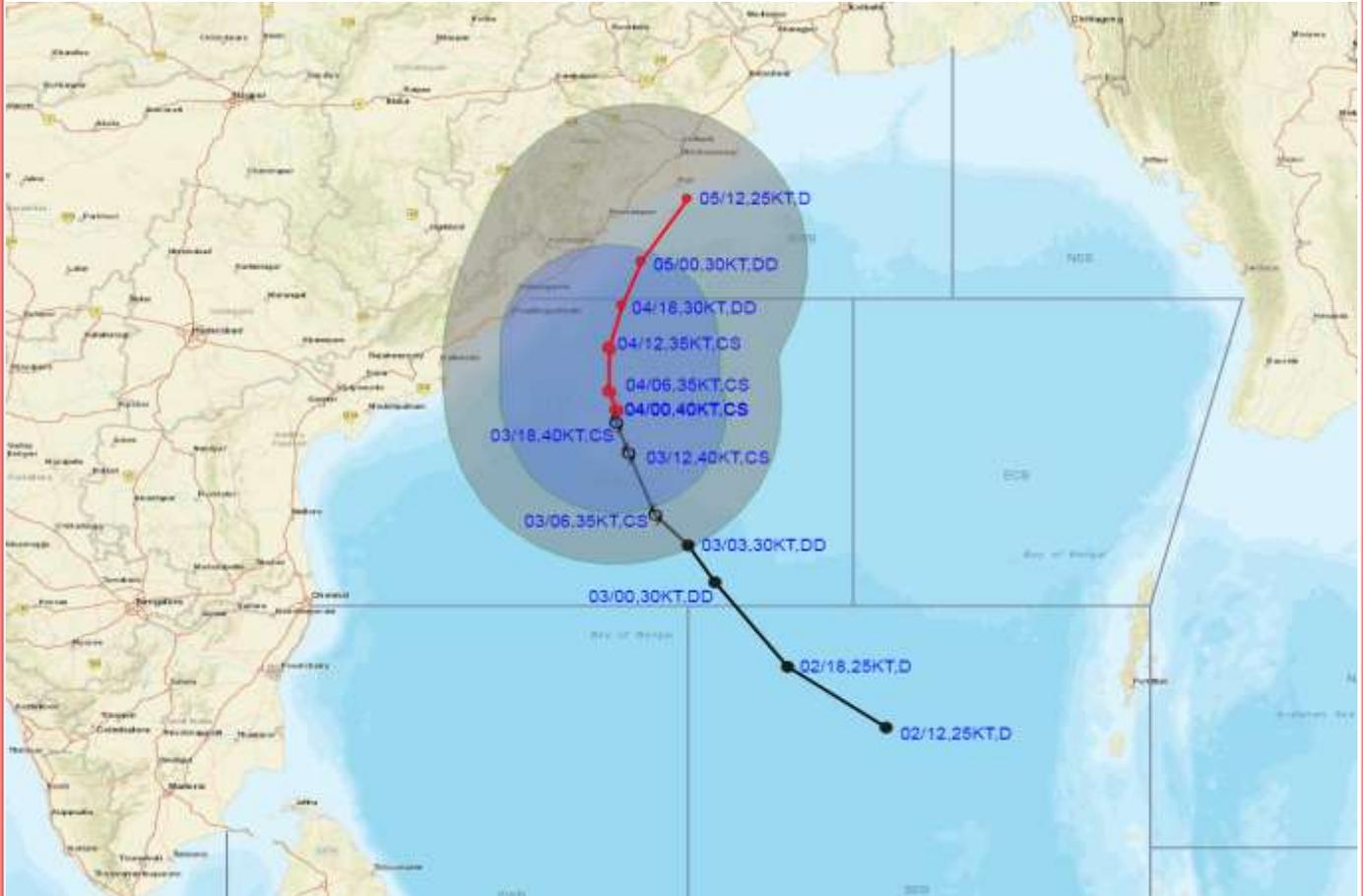
— OBSERVED TRACK

— FORECAST TRACK

▲ CONE OF UNCERTAINTY



## OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM 'JAWAD' OVER WESTCENTRAL BAY OF BENGAL BASED ON 0000 UTC OF 4<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 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

|

