



REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI
TROPICAL CYCLONE ADVISORY NO. 9

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. 9 FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0900 UTC OF 04.12.2021 BASED ON 0600 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 NEARLY NORTHWARDS WITH A SPEED OF 4 KMPH DURING PAST 06 HOURS AND LAY CENTERED AT 0600 UTC OF TODAY, THE 04TH DECEMBER 2021, OVER WESTCENTRAL BAY OF BENGAL NEAR LAT. 16.4°N AND LONG. 84.8°E, ABOUT 210 KM EAST-SOUTHEAST OF VISHAKHAPATNAM (43149), 320 KM SOUTH OF GOPALPUR (43049), 390 KM SOUTH-SOUTHWEST OF PURI (43053) AND 470 KM SOUTH-SOUTHWEST OF PARADIP (42976).

IT IS LIKELY TO MOVE NEARLY NORTHWARDS DURING NEXT 06 HOURS AND THEN MOVE NORTH-NORTHEASTWARDS, WEAKEN GRADUALLY AND REACH NEAR PURI AROUND 5TH 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
04.12.21/0600	16.4/84.8	70-80 gusting to 90	Cyclonic Storm
04.12.21/1200	17.0/84.8	60-70 gusting to 80	Cyclonic Storm
04.12.21/1800	17.8/85.0	55-65 gusting to 75	Deep Depression
05.12.21/0000	18.5/85.4	55-65 gusting to 75	Deep Depression
05.12.21/0600	19.4/86.0	50-60 gusting to 70	Deep Depression
05.12.21/1800	20.4/87.1	40-50 gusting to 60	Depression

AS PER SATELLITE IMAGERY BASED ON 0600 UTC OF 4TH DEC, THE INTENSITY OF THE SYSTEM IS CHARACTERIZED AS T 2.5. THE SYSTEM REMAINED ALMOST STATIONARY IN LAST 03 HRS AND MAXIMUM CONVECTION LIES IN THE NORTHERN SECTOR OF THE SYSTEM CENTER ASSOCIATED CLOUD BANDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION ARE SEEN OVER NORTH COASTAL ANDHRA PRADESH, ODISHA, 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 15.5⁰N & 22.5⁰N AND LONGITUDE 82.0⁰E & 92.0⁰E, ODISHA, JHARKHAND AND SOUTHERN PARTS OF GANGETIC WEST BENGAL. THE MAXIMUM CLOUD TOP TEMPERATURE 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 0600 UTC, A BUOY NEAR 16.2°N/87.9°E REPORTED MAXIMUM SUSTAINED WIND SPEED (MSW) OF 150°/19KTS AND MEAN SEA LEVEL PRESSURE (MSLP) OF 1009 HPA. ANOTHER BOUY NEAR 13.4⁰/84.1⁰ REPORTED MSW OF 270°/16KTS AND MSLP OF 1011 HPA. ANOTHER BOUY NEAR 13.9⁰/87.0⁰ REPORTED MSW OF 210°/20KTS AND MSLP OF 1011 HPA.

REMARKS:

THE SEA SURFACE TEMPERATURE IS 28-29°C OVER WESTCENTRAL BOB AND ABOUT 27-28°C TOWARDS NORTHWEST BOB. TROPICAL CYCLONE HEAT POTENTIAL IS 80-100 KJ/CM² OVER WESTCENTRAL BOB AND IS GRADUALLY DECREASING TOWARDS EXTREME NORTHWEST BOB BECOMING 50-60 KJ/CM². 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 THAT THE SYSTEM WILL START WEAKENING FROM NEXT 12 HOURS, MOVE NORTH-NORTHEASTWARDS OFF ODISHA COAST DURING 5TH/0000 UTC TO 6TH /0000 UTC AND 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 150x10⁻⁶S⁻¹ AROUND THE SYSTEM CENTRE WITH VERTICAL EXTENSION UPTO 500 HPA LEVEL. LOW LEVEL CONVERGENCE IS 15x10⁻⁶S⁻¹ TO THE NORTH-NORTHEAST OF SYSTEM CENTRE. UPPER LEVEL DIVERGENCE IS 30x10⁻⁵S⁻¹ TO THE NORTH-NORTHEAST OF SYSTEM CENTRE. UPPER TROPOSPHERIC RIDGE RUNS ALONG 18°N. THE SYSTEM WILL MOVE NORTHWARDS FOR SOME TIME AND THEN NORTH-NORTHEASTWARDS ALONG ODISHA COAST AS IT IS LYING CLOSE TO THE WESTERN PERIPHERY OF ANTICYCLONE OVER MYANMAR REGION.

IN VIEW OF ALL THE ABOVE, THE SYSTEM IS LIKELY TO MOVE NEARLY NORTHWARDS DURING NEXT 06 HOURS AND THEN MOVE NORTH-NORTHEASTWARDS, WEAKEN GRADUALLY AND REACH NEAR PURI AROUND 5TH 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

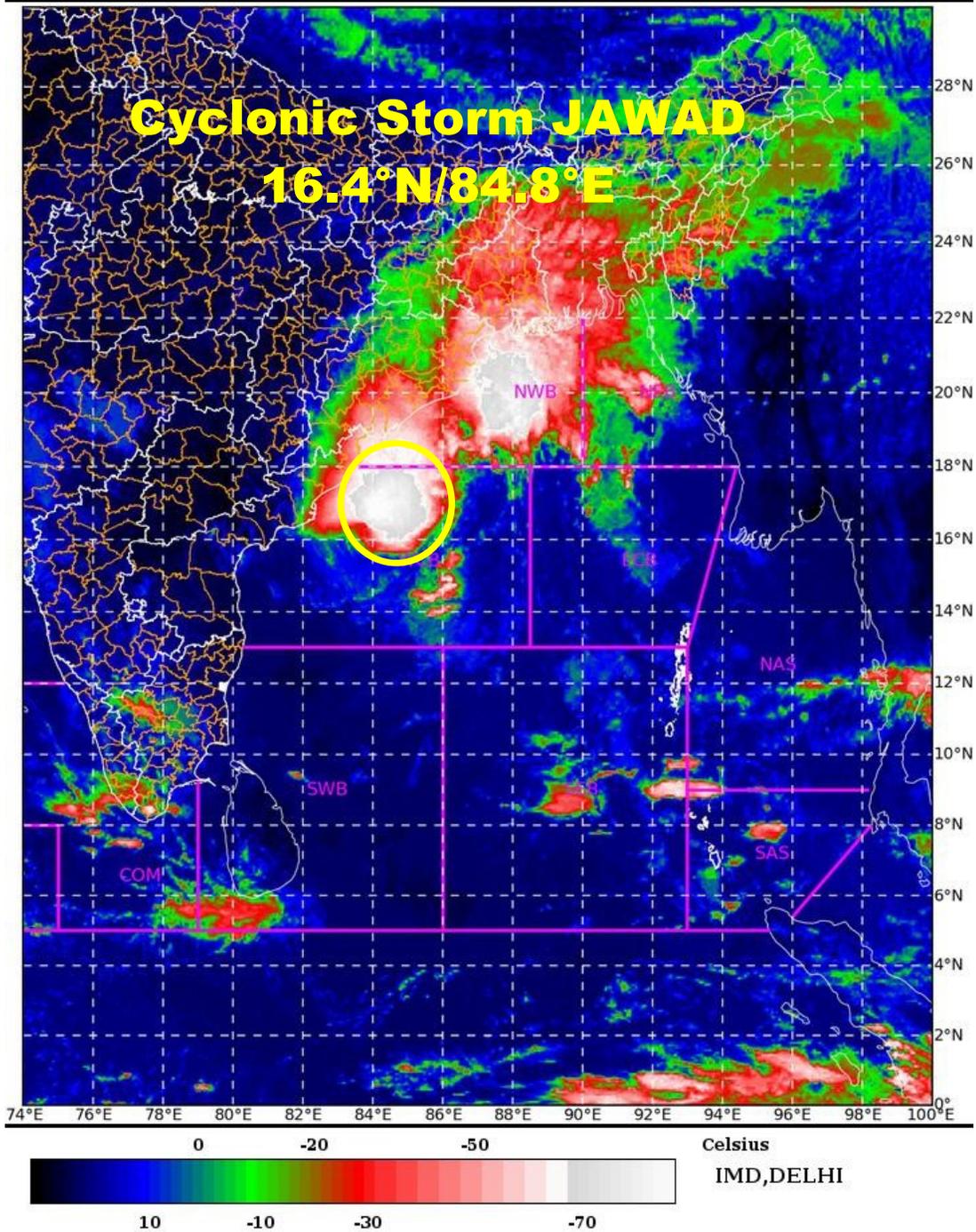
NEXT BULLETIN WILL BE ISSUED AT 1200 UTC OF 4th DECEMBER 2021.

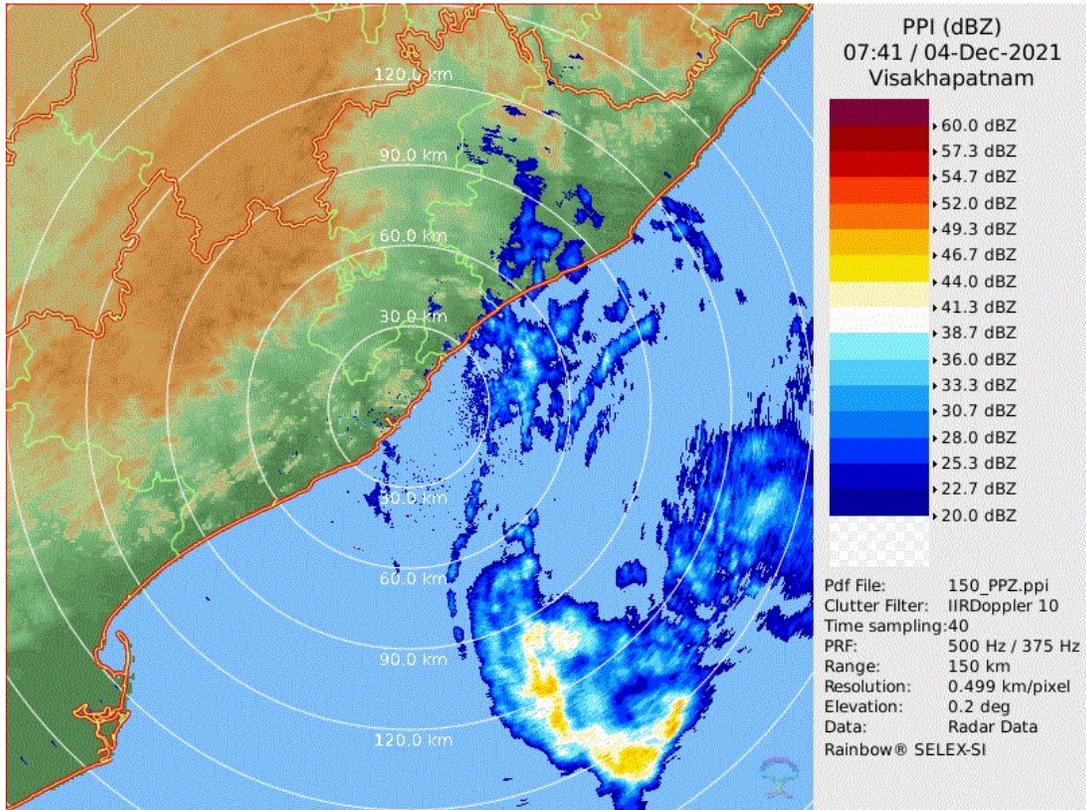
(RK JENAMANI)
Scientist-F, RSMC, New Delhi

SAT : INSAT-3D IMG 04-12-2021/(0700 to 0727) GMT

IMG_TIR1_TEMP 10.8 um 04-12-2021/(1230 to 1257) IST

L1C Mercator





Doppler Weather RADAR imagery from Vishakhapatnam



OBSERVED AND FORECAST TRACK ALONGWITH CONE OF UNCERTAINTY OF CYCLONIC STORM 'JAWAD' OVER WESTCENTRAL BAY OF BENGAL BASED ON 0600 UTC OF 4th DECEMBER, 2021

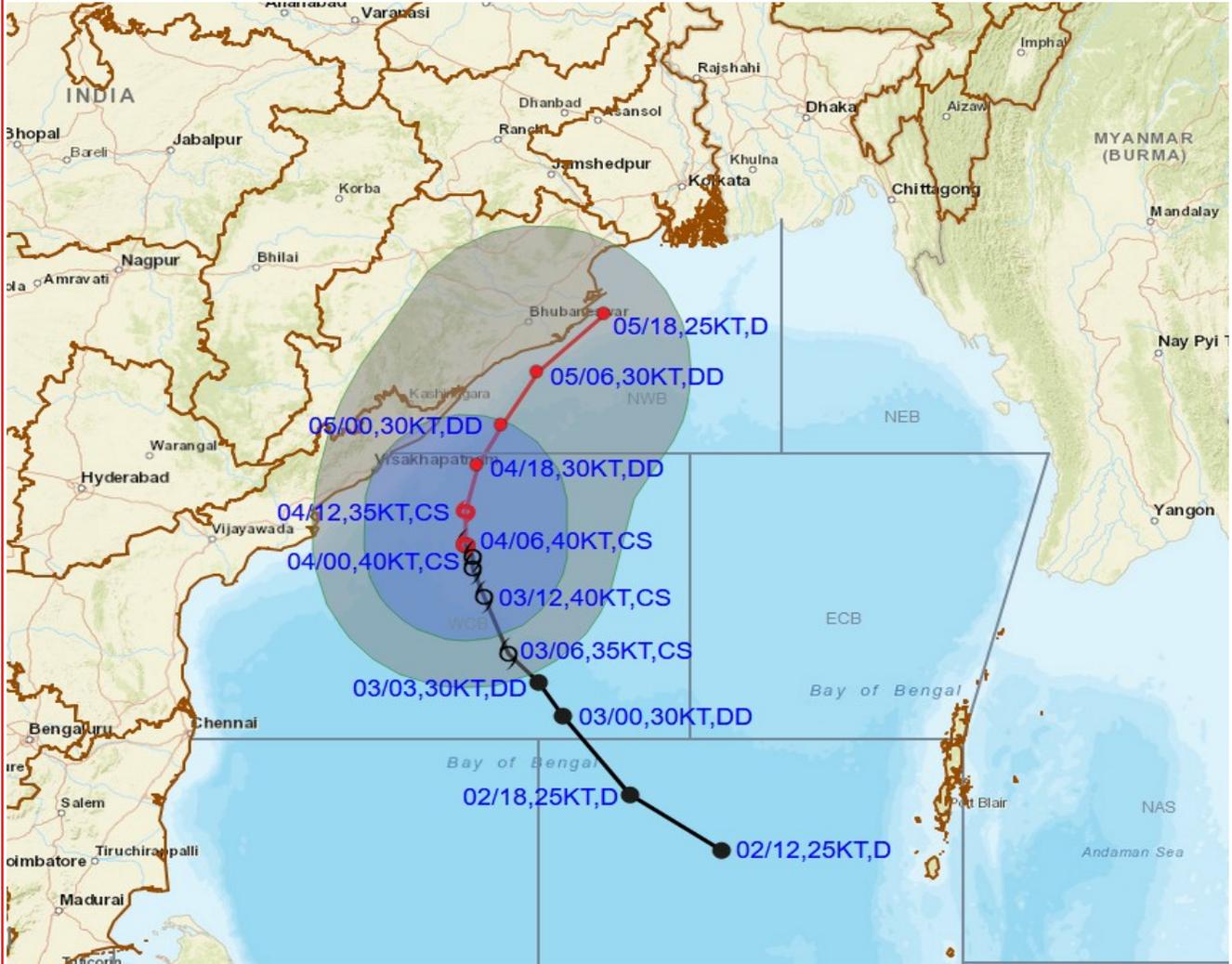


DATE/TIME IN UTC
IST=UTC + 0530
L: LOW PRESSURE AREA
WML: WELL MARKED LOW PRESSURE AREA
D: DEPRESSION (17-27 KT)
DD: DEEP DEPRESSION (28-33 KT)
CS: CYCLONIC STORM (34-47 KT)
SCS: SEVERE CYCLONIC STORM (48-63KT)
VSCS: VERY SEVERE CYCLONIC STORM (64-89 KT)
ESCS: EXTREMELY SEVERE CYCLONIC STORM (90-119 KT)
SuCS: SUPER CYCLONIC STORM (≥ 120 KT)

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



OBSERVED AND FORECAST TRACK ALONGWITH QUADRANT WIND DISTRIBUTION OF CYCLONIC STORM 'JAWAD' OVER WESTCENTRAL BAY OF BENGAL BASED ON 0600 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)

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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