



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

DEMS-RSMC TROPICAL CYCLONES NEW DELHI DATED 24.09.2021

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 2100 UTC OF 24.09.2021 BASED ON 1800 UTC OF 24.09.2021.

SUB: DEPRESSION OVER NORTHEAST & ADJOINING EASTCENTRAL BAY OF BENGAL

THE DEPRESSION OVER EASTCENTRAL & ADJOINING NORTHEAST BAY OF BENGAL MOVED WEST-NORTHWEST DIRECTION WITH A SPEED OF 14 KMPH IN LAST 6 HOURS AND LAY CENTERED AT 1800 UTC OF 24TH SEPTEMBER 2021, OVER NORTHEAST AND ADJOINING EAST-CENTRAL BAY OF BENGAL NEAR LAT. 18.4°N AND LONG. 90.4°E, ABOUT 580 KM EAST-SOUTHEAST OF GOPALPUR (43049) & 660 KM EAST OF KALINGAPATNAM (43105).

IT IS LIKELY TO INTENSIFY INTO A DEEP DEPRESSION DURING NEXT 12 HOURS AND INTENSIFY FURTHER THEREAFTER. IT IS LIKELY TO MOVE INITIALLY WEST-NORTHWESTWARDS DURING NEXT 24 HOURS AND WEST-SOUTHWESTWARDS THEREAFTER AND CROSS SOUTH ODISHA-NORTH ANDHRA PRADESH COASTS BETWEEN VISHAKHAPATNAM & GOPALPUR AROUND KALINGAPATNAM BY EVENING OF 26TH SEPTEMBER, 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
24.09.21/1800	18.4/90.4	40-50 GUSTING TO 60	DEPRESSION
25.09.21/0600	18.6/88.5	50-60 GUSTING TO 70	DEEP DEPRESSION
25.09.21/1800	18.6/86.7	60-70 GUSTING TO 80	CYCLONIC STORM
26.09.21/0600	18.5/84.9	70-80 GUSTING TO 90	CYCLONIC STORM
26.09.21/1800	18.5/83.2	50-60 GUSTING TO 70	DEEP DEPRESSION
27.09.21/0600	19.0/81.5	40-50 GUSTING TO 60	DEPRESSION

REMARKS:

AS PER INSAT 3D IMAGERY AT 1800 UTC, ASSOCIATED MINIMUM CLOUD TOP TEMPERATURE IS -85°C. INTENSITY OF THE SYSTEM IS CATEGORISED AS T 1.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LAY OVER NORTHEAST & ADJOINING EAST-CENTRAL BOB .

THE ESTIMATED MAXIMUM SUSTAINED WIND SPEED IS 25 KNOTS GUSTING TO 30 KNOTS. THE SEA CONDITION IS ROUGH TO VERY ROUGH OVER EAST-CENTRAL & ADJOINING NORTHEAST BOB. THE ESTIMATED CENTRAL PRESSURE IS 1000 HPA.

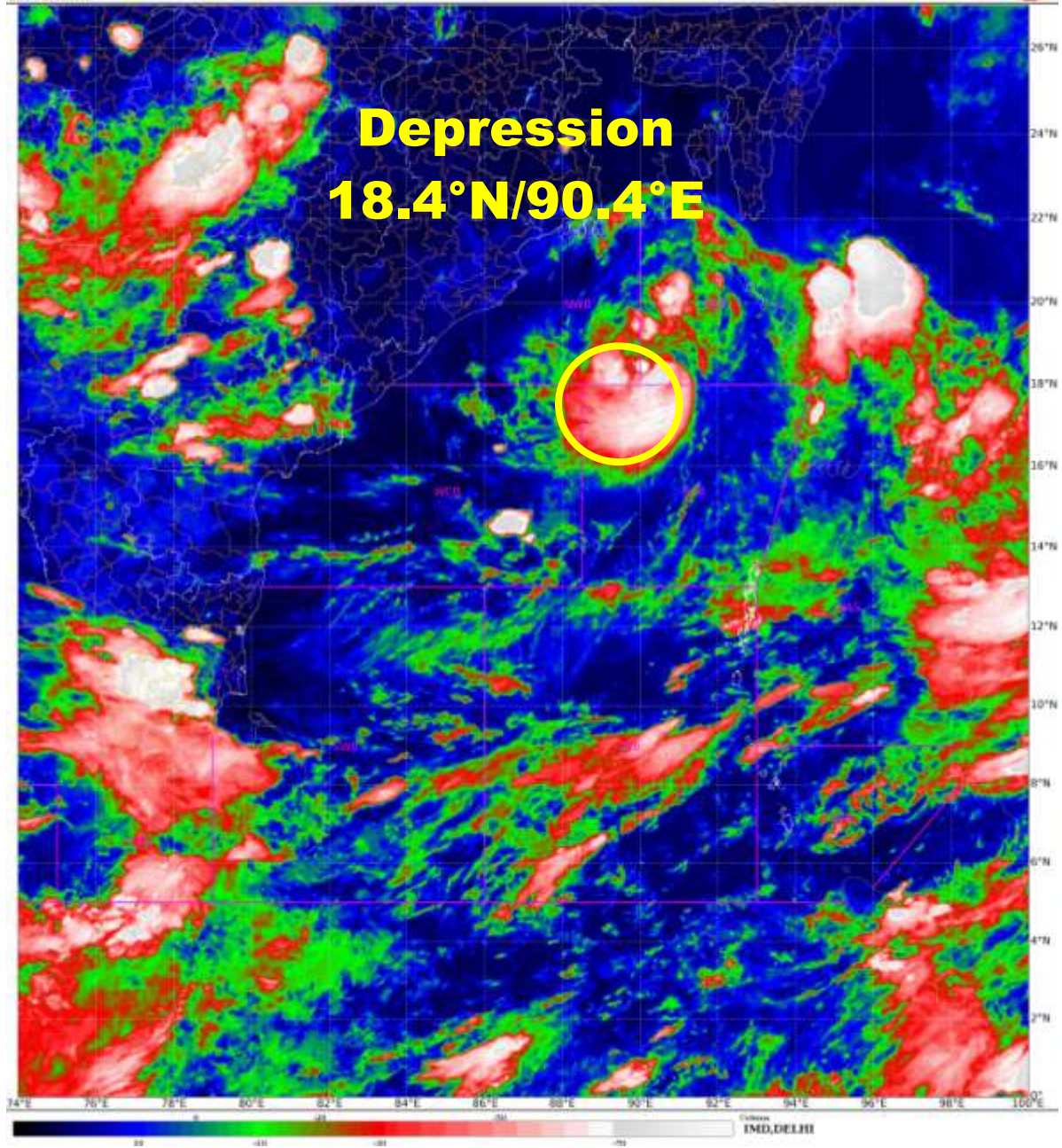
THE FAVOURABLE CONDITIONS LIKE SEA SURFACE TEMPERATURE (SST) OF ABOUT 28-29°C OVER CENTRAL & ADJOINING NORTH BAY OF BENGAL (BOB), TROPICAL CYCLONE HEAT POTENTIAL (TCHP) OF ABOUT 80-100 KJ/CM² OVER THE SAME AREA, FAVOURABLE PHASE OF MADDEN JULIAN OSCILLATION (MJO) INDEX LYING IN PHASE 4 WITH AMPLITUDE CLOSE TO 1, HIGH POSITIVE VORTICITY, LOW VERTICAL WIND SHEAR AND FAVOURABLE UPPER LEVEL DIVERGENCE WILL SUPPORT SYSTEM TO INTENSIFY INTO A DEEP DEPRESSION DURING NEXT 12 HOURS. A ZONE OF POSITIVE LOW LEVEL VORTICITY

($80 \times 10^{-6} \text{S}^{-1}$) LIES TO THE SOUTH OF THE SYSTEM CENTRE. THE POSITIVE VORTICITY ZONE IS EXTENDING UPTO 200 HPA LEVEL. A ZONE OF POSITIVE LOWER LEVEL CONVERGENCE OF $10 \times 10^{-5} \text{S}^{-1}$ IS SEEN TO THE SOUTH OF THE SYSTEM CENTRE. POSITIVE UPPER LEVEL DIVERGENCE OF $10 \times 10^{-5} \text{S}^{-1}$ IS ALSO SEEN OVER THE SOUTH OF THE SYSTEM CENTRE. THE VERTICAL WIND SHEAR (VWS) IS ABOUT (05-10 KTS) OVER NORTH AND ADJOINING CENTRAL BOB . UNDER THESE ENVIRONMENTAL CONDITIONS, THE SYSTEMM IS LIKELY TO TO INTENSIFY INTO A DEEP DEPRESSION DURING NEXT 12 HOURS.

THE SUB-TROPICAL RIDGE IS SEEN ALONG LAT. 20.5 DEG. N. EASTERLY TO EAST-SOUTHEASTERLY WINDS TO THE SOUTH OF THE RIDGE, WOULD STEER THE SYSTEM, WEST-NORTHWESTWARDS DURING NEXT 24 HOURS. NUMERICAL MODEL GUIDANCE IS DIVERGING IN TERMS OF THE INTENSITY AS WELL AS FURTHER INTENSIFICATON OF THE SYSTEM.

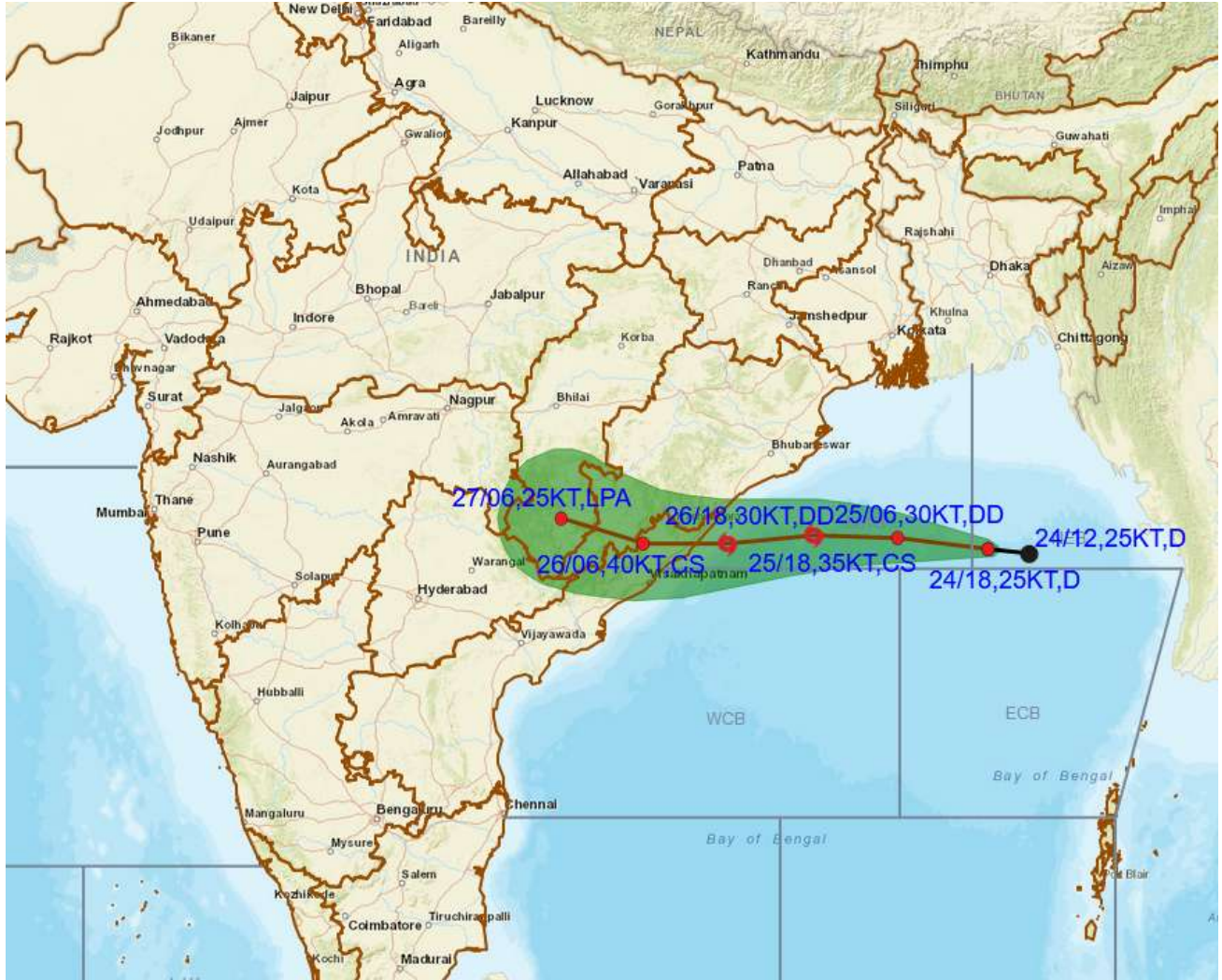
THE NEXT BULLETIN WILL BE ISSUED AT 0300 UTC OF 25TH SEPTEMBER, 2021.

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OBSERVED AND FORECAST TRACK OF DEPRESSION OVER NORTHEAST AND ADJOINING EASTCENTRAL BAY OF BENGAL BASED ON 1800 UTC OF 24TH SEPTEMBER, 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

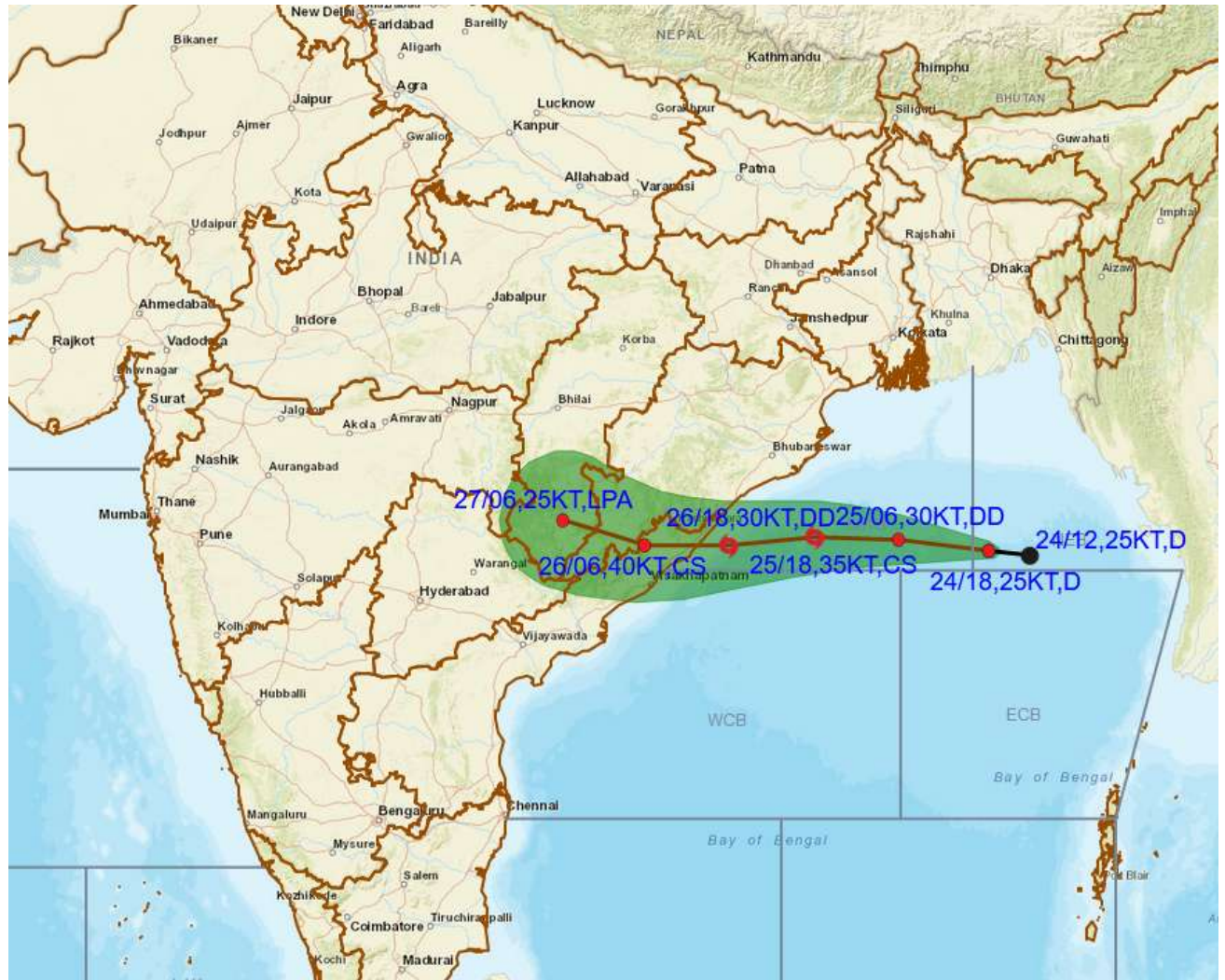
— OBSERVED TRACK

— FORECAST TRACK

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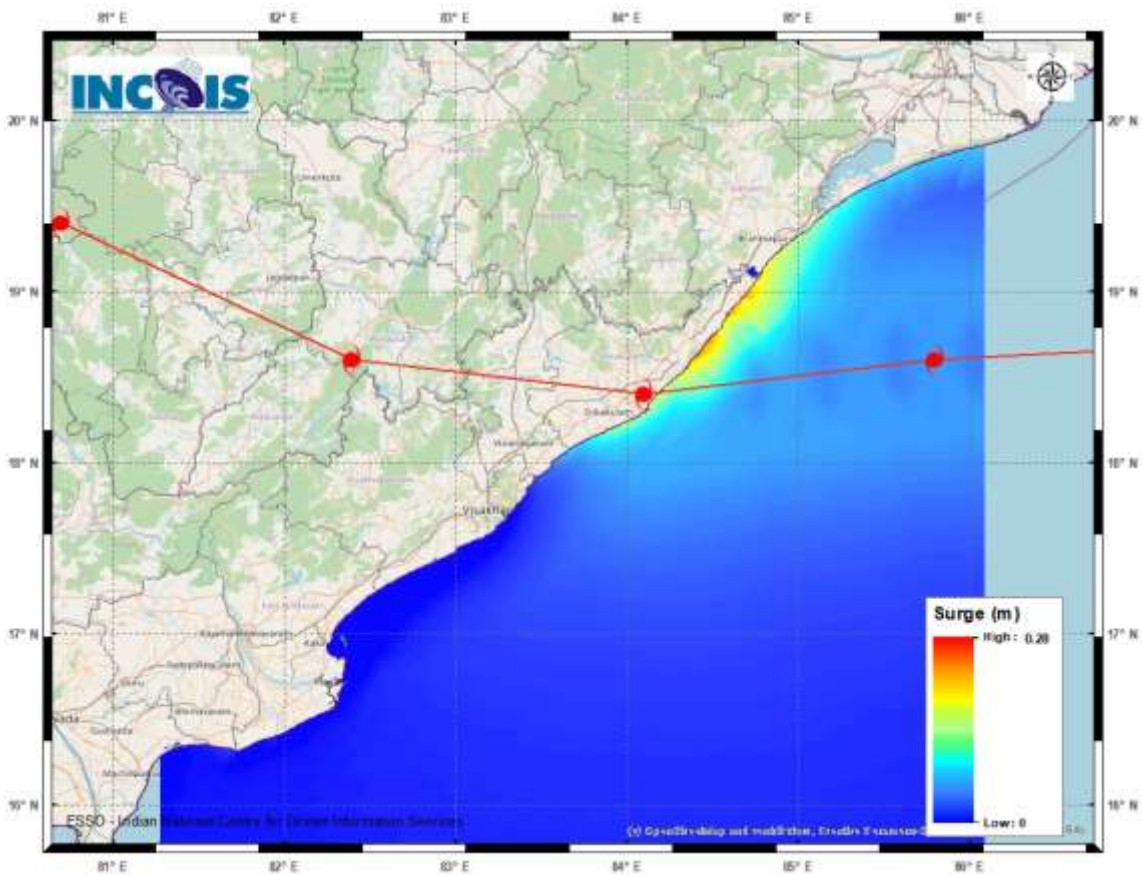
34-47 KT

≥ 48 KT

OBSERVED TRACK

FORECAST TRACK

CONE OF UNCERTAINTY



STORM SURGE GRAPHIC FROM INCOIS FOR THE CURRENT DEPRESSION (BOB/04/2021)
 PEAK STORM SURGE OF 0.28M OVER AND ABOVE THE ASTRONOMICAL TIDE NEAR
 TEKKALI, SRIKAKULAM, ANDHRA PRADESH.