



**India Meteorological Department  
(Ministry of Earth Sciences)**

HOURLY UPDATE ON CYCLONIC STORM "MANDOUS"

**BULLETIN NO. 02**

DATE: 09-12-2022

TIME OF ISSUE: 2030 HRS IST

<b>DATE/TIME (IST) OF OBSERVATION</b>	<b>BASED ON 09-12-2022 (1930 HRS IST)</b>
LOCATION LATITUDE/LONGITUDE	THE CYCLONIC STORM " <b>MANDOUS</b> " PRONOUNCED AS "MANDOUS" OVER SOUTHWEST BAY OF BENGAL MOVED NORTHWESTWARDS WITH A SPEED OF 14 KMPH DURING PAST 06 HOURS AND LAY CENTERED AT 1930 HOURS IST OF TODAY, THE 09 <sup>TH</sup> DECEMBER, 2022 OVER SOUTHWEST BAY OF BENGAL OFF NORTH TAMILNADU AND PUDUCHERRY COASTS NEAR LATITUDE 12.15°N AND LONGITUDE 80.65°E, ABOUT 70 KM SOUTHEAST OF MAMALLAPURAM AND ABOUT 110 KM SOUTH-SOUTHEAST OF CHENNAI.
CURRENT INTENSITY NEAR CENTRE	70-80 KMPH GUSTING TO 90 KMPH.
PAST MOVEMENT	MOVED NORTHWESTWARDS WITH A SPEED OF 14 KMPH DURING PAST 06 HOURS.
FORECAST MOVEMENT, INTENSITY AND LANDFALL	IT IS VERY LIKELY TO MOVE NEARLY NORTHWESTWARDS AND CROSS NORTH TAMILNADU, PUDUCHERRY AND ADJOINING SOUTH ANDHRA PRADESH COASTS BETWEEN PUDUCHERRY AND SRIHARIKOTA AROUND MAMALLAPURAM (MAHABALIPURAM) AS A CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 65-75 KMPH GUSTING TO 85 KMPH DURING MIDNIGHT OF TODAY, THE 09 <sup>TH</sup> DECEMBER TO EARLY HOURS OF TOMORROW, THE 10 <sup>TH</sup> DECEMBER. THEREAFTER IT WOULD GRADUALLY WEAKEN INTO A DEEP DEPRESSION BY EARLY MORNING AND INTO A DEPRESSION BY NOON OF 10 <sup>TH</sup> DECEMBER.
FORECAST WIND	<b>ALONG &amp; OFF TAMIL NADU, PUDUCHERRY AND SOUTH ANDHRA PRADESH COASTS:-</b> GALE WIND, SPEED REACHING 65-75 KMPH GUSTING TO 85 KMPH VERY LIKELY TO PREVAIL TILL EARLY HOURS OF 10 <sup>TH</sup> DECEMBER. IT IS LIKELY TO REDUCE GRADUALLY THEREAFTER BECOMING 55-65 KMPH GUSTING TO 75 KMPH BY MORNING OF 10 <sup>TH</sup> DECEMBER AND THEN TO 30-40 KMPH GUSTING TO 50 KMPH BY 10 <sup>TH</sup> DECEMBER EVENING.
FORECAST RAINFALL	<b>09<sup>TH</sup> DECEMBER:</b> - LIGHT TO MODERATE RAINFALL AT MOST PLACES WITH <b>HEAVY TO VERY HEAVY RAINFALL</b> AT A FEW PLACES VERY LIKELY OVER NORTH COASTAL TAMIL NADU, PUDUCHERRY AND ISOLATED <b>HEAVY TO VERY HEAVY RAINFALL</b> LIKELY OVER ADJOINING SOUTH COASTAL ANDHRA PRADESH AND NORTH INTERIOR TAMILNADU AND

	<p>RAYALASEEMA.  <b>10<sup>TH</sup> DECEMBER:-</b> IT IS LIKELY TO REDUCE TO LIGHT TO MODERATE RAINFALL AT MOST PLACES WITH <b>HEAVY TO VERY HEAVY RAINFALL</b> AT ISOLATED PLACES OVER NORTH INTERIOR TAMIL NADU AND RAYALASEEMA AND ADJOINING SOUTH ANDHRA PRADESH.</p>
<p>FORECAST STORM SURGE</p>	<p>THE STORM SURGE OF ABOUT 0.5 M HEIGHT ABOVE THE ASTRONOMICAL TIDE LIKELY TO INUNDATE LOW LYING AREAS OF NORTH COASTAL TAMILNADU AND PUDUCHERRY DURING THE TIME OF LANDFALL.</p>

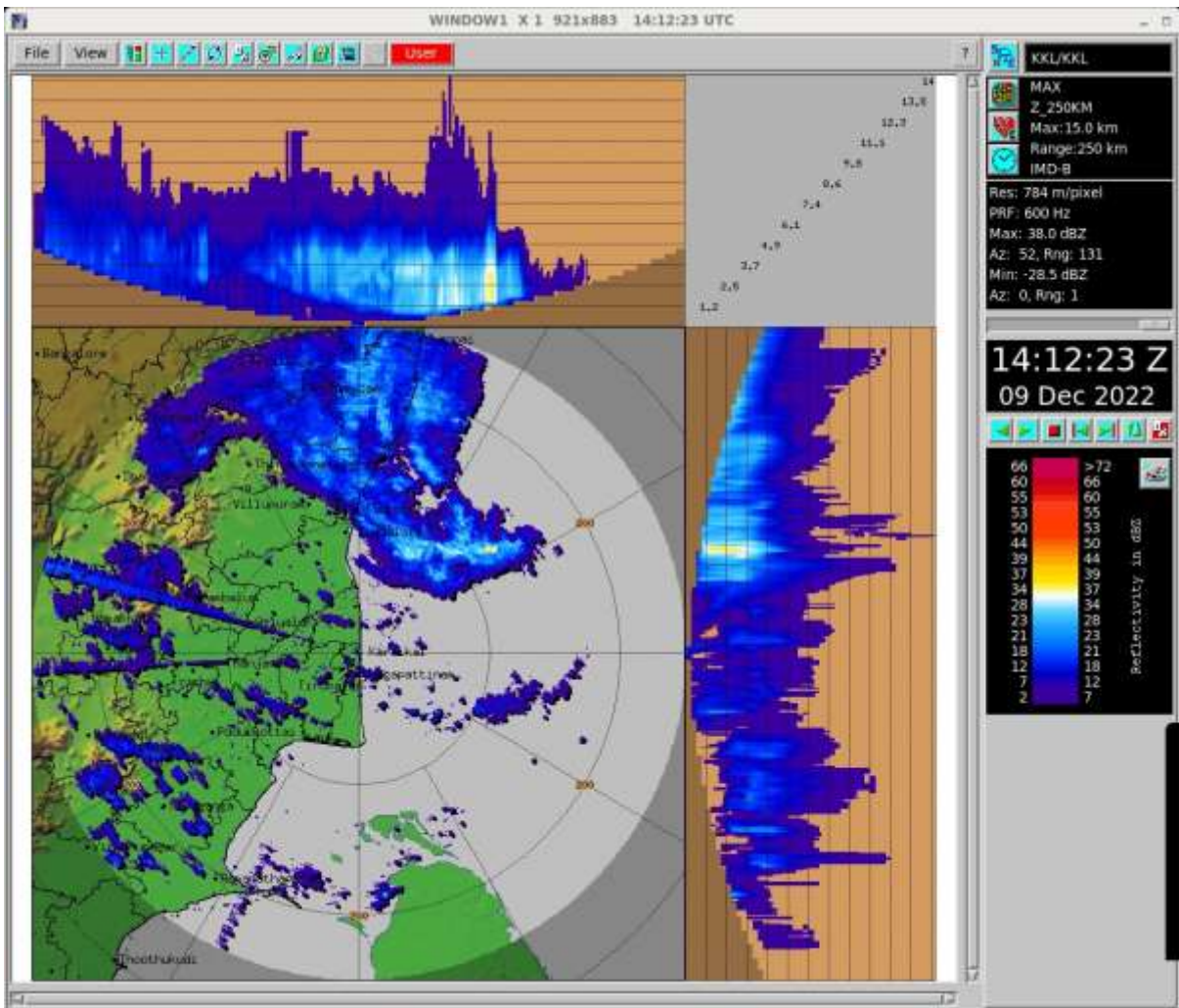
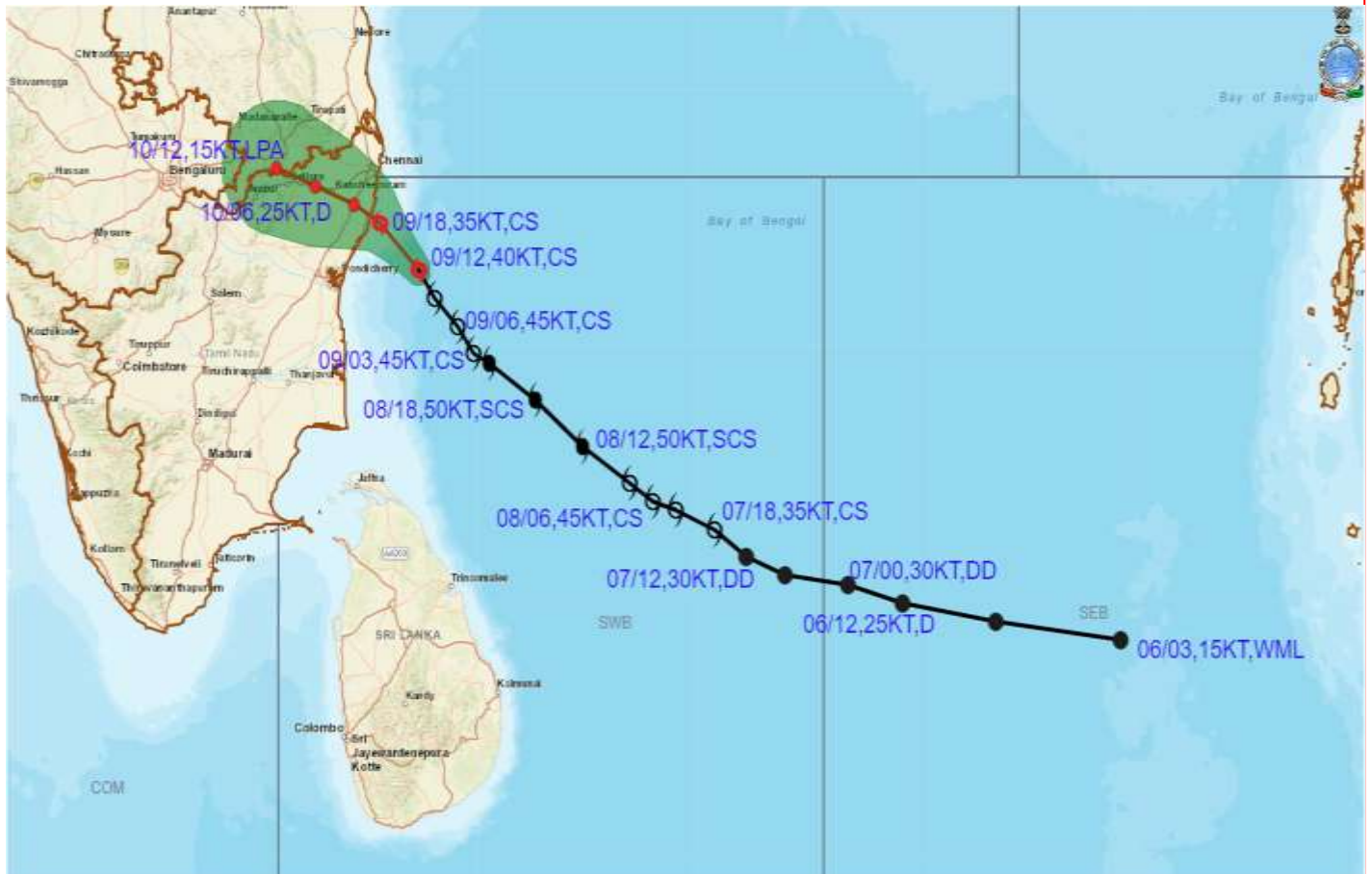


Image from Doppler Weather Radar Karaikal from 14 UTC of 9<sup>th</sup> December 2022



## OBSERVED AND FORECAST TRACK OF CYCLONIC STORM 'MANDOUS' OVER SOUTHWEST BAY OF BENGAL BASED ON 1200 UTC OF 09<sup>th</sup> DECEMBER, 2022.



**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 'MANDOUS' OVER SOUTHWEST BAY OF BENGAL BASED ON 1200 UTC OF 09<sup>th</sup> DECEMBER, 2022.**



**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 (≥20 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

**Forecast distance (km) and direction of the centre from nearest 5 coastal stations**

Forecast Date and Time	Lead Period	Lat	Lon	Station 1	Station 2	Station 3	Station 4	Station 5
09.12.22/0600	0	11.4	81.3	PARANGIPETTAI (170,E)	MAMALLAPURAM (180, SE)	CUDDALORE (170,ESE)	NAGAPPATTINAM (175,ENE)	MO PONDICHERRY (175,ESE)
09.12.22/1200	6	12.0	80.7	MO PONDICHERRY (95,E)	MAMALLAPURAM (85, SE)	PARANGIPETTAI (115,ENE)	MINAMBAKKAM (125,SSE)	NUMGAMBAKKAM (130,SSE)
09.12.22/1800	12	12.4	80.3	MINAMBAKKAM (70,S)	MAMALLAPURAM (25, SSE)	NUMGAMBAKKAM (75,S)	CUDDALORE (90,NE)	PARANGIPETTAI (115,NNE)
10.12.22/0000	18	12.7	80.0	MINAMBAKKAM (40,SSW)	MAMALLAPURAM (20, WNW)	TIRUTTANI (70,SE)	MO PONDICHERRY (85,NNE)	VELLORE (95,ESE)
10.12.22/0600	24	12.9	79.7	TIRUTTANI (35,SSE)	MAMALLAPURAM (60, WNW)	NUMGAMBAKKAM (85,WSW)	VELLORE (60,E)	TIRUPATHI (85,S)