



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

**DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 15-04-2017**

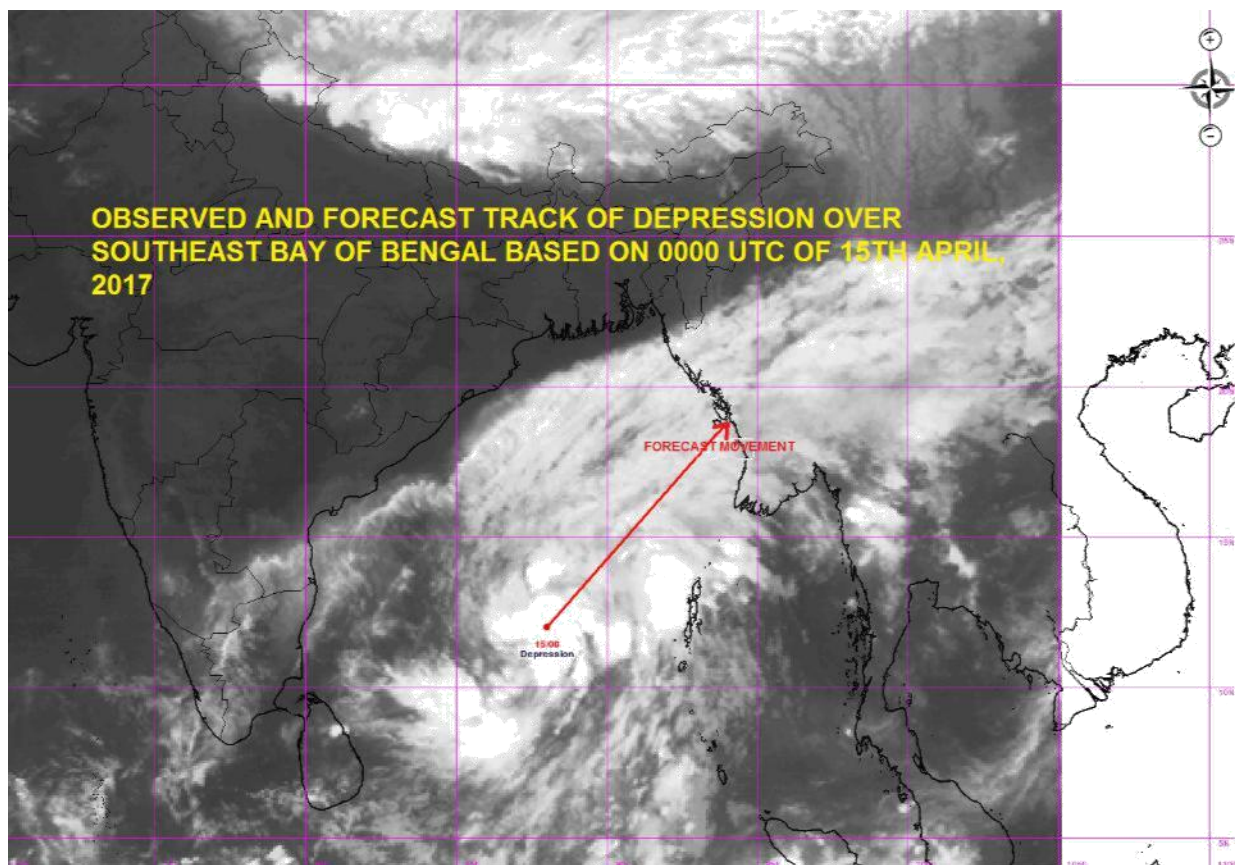
**TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 72 HOURS ISSUED AT 0300 UTC OF 15<sup>TH</sup> APRIL 2017 BASED ON 0000 UTC OF 15<sup>TH</sup> APRIL 2017**

THE WELL MARKED LOW PRESSURE AREA OVER SOUTHEAST BAY OF BENGAL CONCENTRATED INTO A DEPRESSION OVER SOUTHEAST BAY OF BENGAL AND LAY CENTRED AT 0000 HRS UTC OF TODAY, THE 15<sup>TH</sup> APRIL, 2017 NEAR LATITUDE 12.0° N AND LONGITUDE 88.0 °E, ABOUT 540 KM WEST-SOUTHWEST OF MAYA BANDAR (ANDAMAN & NICOBAR ISLANDS) (43309) AND 1010 KM SOUTH-SOUTHWEST OF KYAUKPYU (MYANMAR) (48071). THE SYSTEM IS MOST LIKELY TO INTENSIFY FURTHER INTO A DEEP DEPRESSION DURING NEXT 24 HOURS. IT IS MOST LIKELY TO MOVE NORTH-NORTHEASTWARDS TOWARDS MYANMAR COAST DURING NEXT 72 HOURS.

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T 1.5. THE CONVECTION HAS ORGANISED DURING PAST 12 HRS AND SHOWS CURVED BAND PATTERN WITH WELL DEFINED WRAPPING FROM EASTERN SECTOR. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER SOUTH AND ADJOINING EASTCENTRAL BAY OF BENGAL BETWEEN LATITUDE 6.5 DEGREE NORTH TO 16.0 DEGREE NORTH AND LONGITUDE 83.0 DEGREE EAST TO 93.0 DEGREE EAST. THE LOWEST CLOUD TOP TEMPERATURE IS MINUS 70 DEGREE CELCIUS. A SHIP LOCATED NEAR 11.5/91.5 REPORTED MSLP OF 1002 HPA AND WIND OF 180<sup>0</sup>/08 KTS. AVAILABLE SHIP AND BUOY DATA AROUND THE SYSTEM CENTRE SUGGESTS THE CENTRAL PRESSURE TO BE ABOUT 1001 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED TO BE ABOUT 25 KNOTS. MULTI-SATELLITE DERIVED WIND PRODUCTS SUGGEST HIGHER WINDS IN THE EASTERN SECTOR.

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF DEPRESSION IS 30-32<sup>0</sup>C. IT DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 28-29<sup>0</sup>C. THE OCEAN THERMAL ENERGY IS ABOUT 100 KJ/CM<sup>2</sup>. IT ALSO DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 60-80 KJ/CM<sup>2</sup>. THE VERTICAL WIND SHEAR IS ABOUT 10-20 KNOTS (MODERATE) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY AND CONVERGENCE HAVE INCREASED DURING PAST 12 HRS. IT IS ABOUT  $150 \times 10^{-6} \text{ S}^{-1}$  AND CONVERGENCE IS ABOUT  $30 \times 10^{-5} \text{ S}^{-1}$ . THERE IS FAVOURABLE POLEWARD OUTFLOW IN ASSOCIATION WITH THE ANTI-CYCLONIC CIRCULATION LYING TO THE SOUTHEAST OF THE SYSTEM CENTRE. THE UPPER LEVEL DIVERGENCE IS ABOUT  $40 \times 10^{-5} \text{ S}^{-1}$  THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 10<sup>0</sup>N. MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING INTENSIFICATION OF THE DEPRESSION INTO A DEEP DEPRESSION DURING NEXT 24 HRS. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST INTENSIFICATION OF THE SYSTEM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT NORTH-NORTHEASTWARD MOVEMENT TOWARDS NORTH MYANMAR COAST DURING NEXT 72 HRS.

(M.MOHAPATRA)  
HEAD-RSMC, NEW DELHI





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SPECIAL TROPICAL WEATHER OUTLOOK**

**DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 15-04-2017**

**TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 72 HOURS ISSUED AT 0600 UTC OF 15<sup>TH</sup> APRIL 2017 BASED ON 0300 UTC OF 15<sup>TH</sup> APRIL 2017**

THE DEPRESSION OVER SOUTHEAST BAY OF BENGAL MOVED NORTH-NORTHEASTWARDS WITH A SPEED OF 20 KMPH DURING PAST 3 HOURS AND LAY CENTRED AT 0300 HRS UTC OF TODAY, THE 15<sup>TH</sup> APRIL, 2017 OVER SOUTHEAST AND ADJOINING EASTCENTRAL BAY OF BENGAL NEAR LATITUDE 12.5° N AND LONGITUDE 88.3 °E, ABOUT 500 KM WEST-SOUTHWEST OF MAYA BANDAR (ANDAMAN & NICOBAR ISLANDS) AND 950 KM SOUTH-SOUTHWEST OF KYAUKPYU (MYANMAR). THE SYSTEM IS MOST LIKELY TO INTENSIFY FURTHER INTO A DEEP DEPRESSION DURING NEXT 24 HOURS. IT IS MOST LIKELY TO MOVE NORTH-NORTHEASTWARDS AND CROSS MYANMAR COAST BETWEEN SITTWE (48062) AND SANDWAY (48080) BY FORENOON OF 17<sup>TH</sup>.

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T 1.5. THE CONVECTION HAS ORGANISED DURING PAST 12 HRS AND SHOWS CURVED BAND PATTERN WITH WELL DEFINED WRAPPING FROM EASTERN SECTOR. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER SOUTH AND ADJOINING EASTCENTRAL BAY OF BENGAL BETWEEN LATITUDE 9.0 DEGREE NORTH TO 17.0 DEGREE NORTH AND LONGITUDE 86.5 DEGREE EAST TO 95.0 DEGREE EAST. THE LOWEST CLOUD TOP TEMPERATURE IS MINUS 70 DEGREE CELSIUS. A SHIP LOCATED NEAR 11.4/91.9 REPORTED MSLP OF 1003.8 HPA AND WIND OF 170<sup>0</sup>/14 KTS. AVAILABLE SHIP AND BUOY DATA AROUND THE SYSTEM CENTRE SUGGESTS THE CENTRAL PRESSURE TO BE ABOUT 1001 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED TO BE ABOUT 25 KNOTS. MULTI-SATELLITE DERIVED WIND PRODUCTS SUGGEST HIGHER WINDS IN THE EASTERN SECTOR.

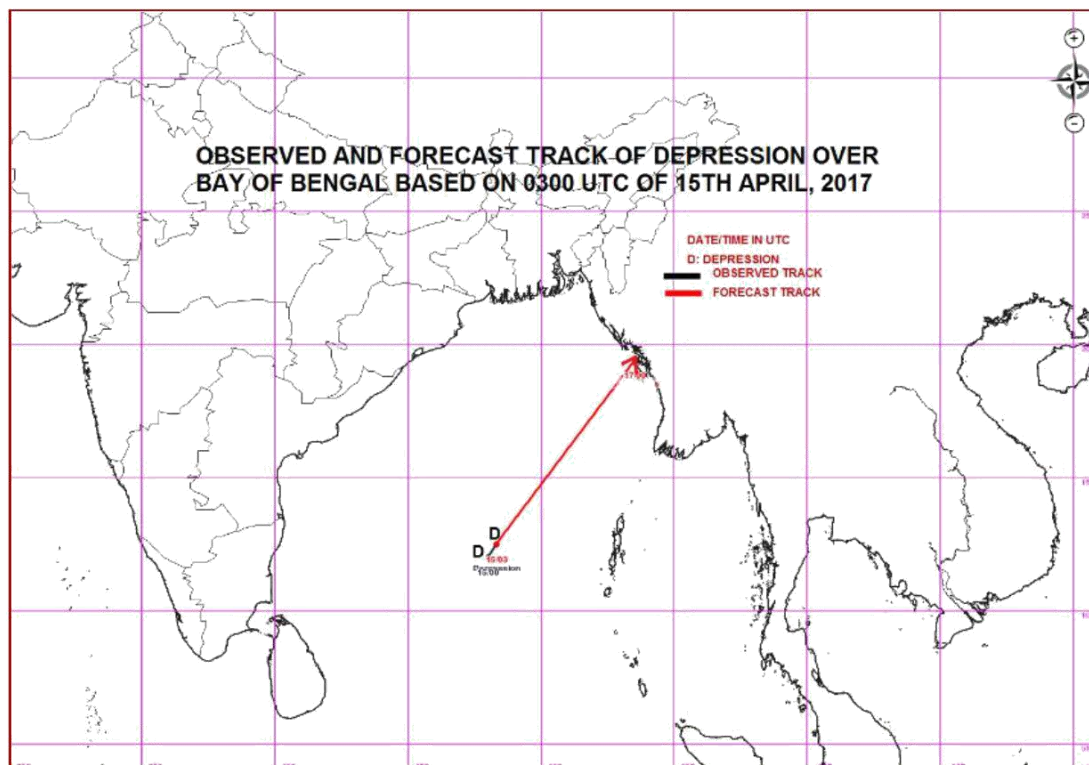
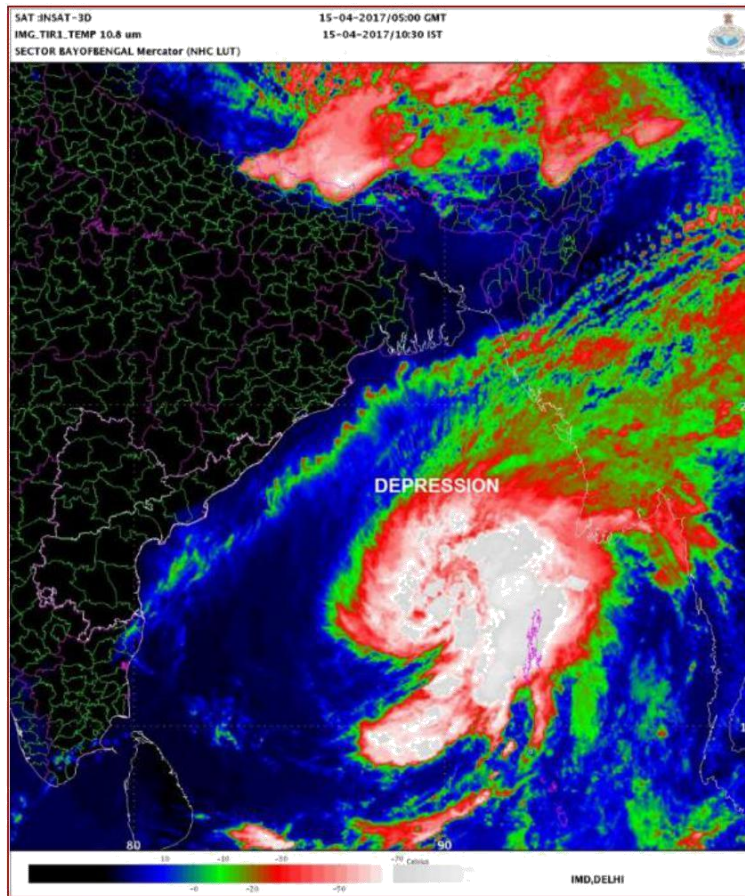
THE SEA SURFACE TEMPERATURE AROUND THE REGION OF DEPRESSION IS 30-32<sup>0</sup>C. IT DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 28-29<sup>0</sup>C. THE OCEAN THERMAL ENERGY IS ABOUT 100 KJ/CM<sup>2</sup>. IT ALSO DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 60-80 KJ/CM<sup>2</sup>. THE VERTICAL WIND SHEAR HAS INCREASED DURING PAST 3 HOURS AND IS ABOUT 20-25 KNOTS (HIGH) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY IS ABOUT  $150 \times 10^{-6} \text{ s}^{-1}$  AND CONVERGENCE IS ABOUT  $30 \times 10^{-5} \text{ s}^{-1}$ . THERE IS FAVOURABLE POLEWARD OUTFLOW IN ASSOCIATION WITH THE ANTI-CYCLONIC CIRCULATION LYING TO THE SOUTHEAST OF THE SYSTEM CENTRE. THE UPPER LEVEL DIVERGENCE IS ABOUT  $40 \times 10^{-5} \text{ s}^{-1}$ . THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 10° N. THE MADDEN JULIAN OSCILLATION INDEX LIES IN PHASE 7 WITH AMPLITUDE LESS THAN 1. IT WILL MOVE TO PHASE 8 DURING NEXT 3 DAYS WITH GRADUALLY INCREASING AMPLITUDE. THE TOTAL PRECIPITABLE WATER (TPW) IMAGERY INDICATE INCURSION OF WARM MOIST AIR TOWARDS THE CORE OF THE SYSTEM. HENCE CONSIDERING ENVIRONMENTAL FEATURES, WHILE OUTFLOW AS WELL AS LOW LEVEL CONVERGENCE, VORTICITY AND TPW ARE FAVOURABLE, MJO AND VERTICAL WIND SHEAR ARE UNFAVOURABLE FOR INTENSIFICATION. UNDER THESE CIRCUMSTANCES, RAPID INTENSIFICATION OF THE SYSTEM IS NOT EXPECTED AND THE SYSTEM MAY REACH UPTO THE INTENSITY OF DEEP DEPRESSION/CYCLONIC STORM.

MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE IN AGREEMENT WITH GRADUAL INTENSIFICATION OF THE DEPRESSION INTO A DEEP DEPRESSION/ CYCLONIC STORM DURING NEXT 24 HRS. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST INTENSIFICATION OF THE SYSTEM DURING NEXT 24 HOURS. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT NORTH-NORTHEASTWARD MOVEMENT TOWARDS NORTH MYANMAR COAST DURING NEXT 48 HRS.

(M.MOHAPATRA)  
HEAD-RSMC, NEW DELHI

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

**DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 15-04-2017**

**TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 72 HOURS ISSUED AT 1200 UTC OF 15<sup>TH</sup> APRIL 2017 BASED ON 0900 UTC OF 15<sup>TH</sup> APRIL 2017**

THE DEPRESSION OVER EASTCENTRAL AND ADJOINING SOUTHEAST BAY OF BENGAL MOVED NORTHEASTWARDS WITH A SPEED OF 28 KMPH DURING PAST 06 HOURS, INTENSIFIED INTO A DEEP DEPRESSION AND LAY CENTRED AT 0900 UTC OF TODAY, THE 15<sup>TH</sup> APRIL, 2017 OVER EASTCENTRAL BAY OF BENGAL NEAR LATITUDE 13.7° N AND LONGITUDE 89.5 °E, ABOUT 350 KM WEST-NORTHWEST OF MAYA BANDAR (ANDAMAN & NICOBAR ISLANDS) AND 740 KM SOUTH-SOUTHWEST OF KYAUKPYU (MYANMAR). THE SYSTEM IS MOST LIKELY TO INTENSIFY FURTHER INTO A CYCLONIC STORM DURING NEXT 12 HOURS. IT IS MOST LIKELY TO MOVE NORTH-NORTHEASTWARDS AND CROSS MYANMAR COAST BETWEEN SITTWE (48062) AND SANDWAY (48080) BY MORNING OF 17<sup>TH</sup> APRIL 2017.

OBSERVED AND FORECAST TRACK POSITIONS AND INTENSITY OF THE SYSTEM ARE GIVEN BELOW.

| DATE/TIME(UTC)  | POSITION<br>(LAT.° N/ LONG.° E) | MAXIMUM SUSTAINED<br>SURFACE WIND SPEED<br>(KMPH) | CATEGORY OF CYCLONIC<br>DISTURBANCE |
|-----------------|---------------------------------|---|-------------------------------------|
| 15.04.2017/0900 | 13.7/89.5                       | 50-60 GUSTING TO 70                               | DEEP DEPRESSION                     |
| 15.04.2017/1200 | 14.1/89.9                       | 55-65 GUSTING TO 75                               | DEEP DEPRESSION                     |
| 15.04.2017/1800 | 15.0/90.8                       | 60-70 GUSTING TO 80                               | CYCLONIC STORM                      |
| 16.04.2017/0000 | 15.9/91.6                       | 70-80 GUSTING TO 90                               | CYCLONIC STORM                      |
| 16.04.2017/0600 | 16.7/92.3                       | 70-80 GUSTING TO 90                               | CYCLONIC STORM                      |
| 16.04.2017/1200 | 17.6/93.1                       | 65-75 GUSTING TO 85                               | CYCLONIC STORM                      |
| 17-04-2016/0000 | 19.2/94.4                       | 60-70 GUSTING TO 80                               | CYCLONIC STORM                      |
| 17-12-2016/1200 | 20.4/95.5                       | 35-45 GUSTING TO 55                               | DEPRESSION                          |

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T 2.0. THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 30 KNOTS GUSTING TO 40 KNOTS. THE CONVECTION HAS CURVED BAND PATTERN WITH WELL DEFINED WRAPPING FROM EASTERN SECTOR. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER SOUTH AND ADJOINING EASTCENTRAL BAY OF BENGAL BETWEEN LATITUDE 10.5 DEGREE NORTH TO 17.0 DEGREE NORTH AND LONGITUDE 87.5 DEGREE EAST TO 95.5 DEGREE EAST. THE LOWEST CLOUD TOP TEMPERATURE IS MINUS 85 DEGREE CELCIUS.

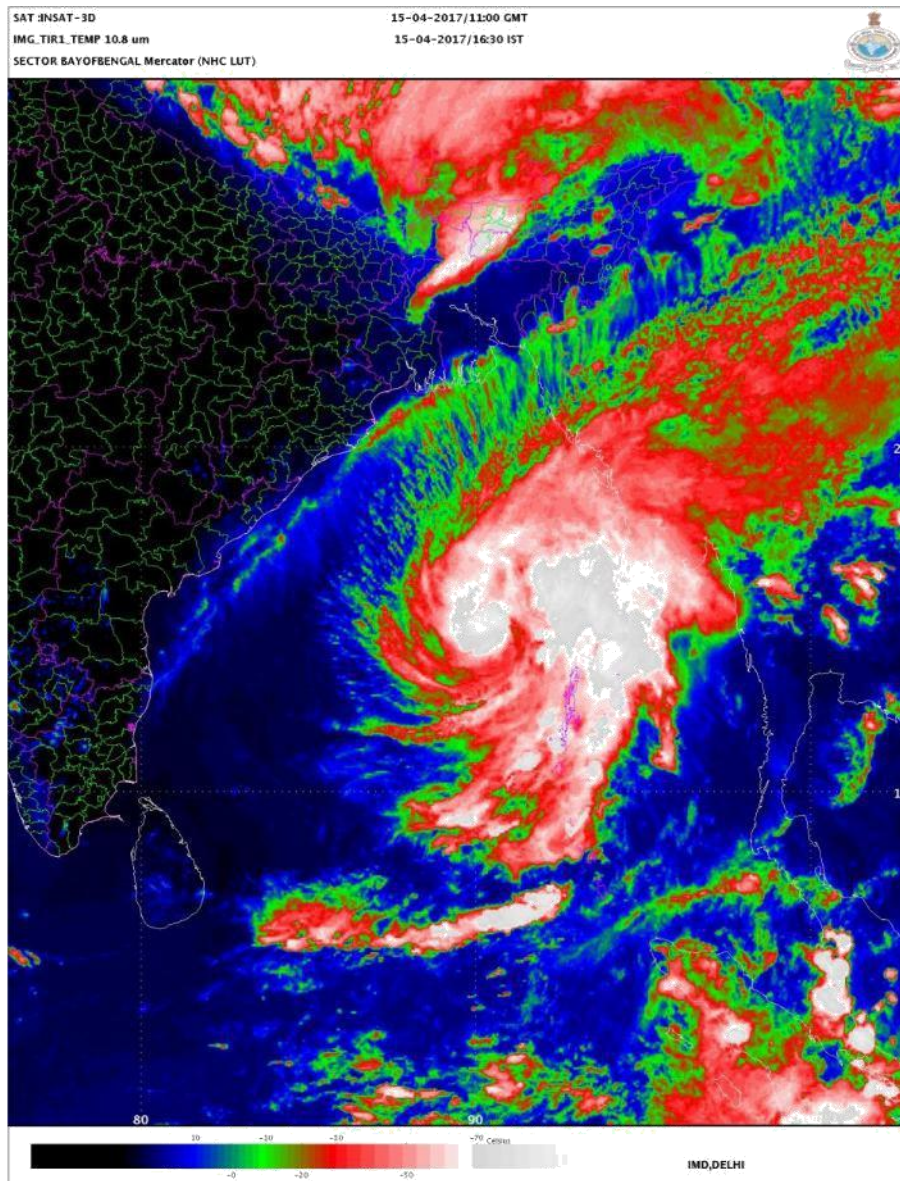
THE SEA SURFACE TEMPERATURE AROUND THE REGION OF DEEP DEPRESSION IS 30-32°C. IT DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 28-29°C. THE OCEAN THERMAL ENERGY IS ABOUT 100 KJ/CM<sup>2</sup>. IT ALSO DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 60-80 KJ/CM<sup>2</sup>. THE VERTICAL WIND SHEAR IS ABOUT 20-25 KNOTS (HIGH) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY IS ABOUT  $150 \times 10^{-6} \text{ S}^{-1}$  AND CONVERGENCE IS ABOUT  $40 \times 10^{-5} \text{ S}^{-1}$ . THERE IS FAVOURABLE POLEWARD OUTFLOW IN ASSOCIATION WITH THE ANTI-CYCLONIC CIRCULATION LYING TO THE SOUTHEAST OF THE SYSTEM CENTRE. THE UPPER LEVEL DIVERGENCE IS ABOUT  $40 \times 10^{-5} \text{ S}^{-1}$ . THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 11°N. THE MADDEN JULIAN OSCILLATION INDEX LIES IN PHASE 7 WITH AMPLITUDE LESS THAN 1. IT WILL MOVE TO PHASE 8 DURING NEXT 3 DAYS WITH GRADUALLY INCREASING AMPLITUDE. THE TOTAL

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PRECIPITABLE WATER (TPW) IMAGERY INDICATES INCURSION OF WARM MOIST AIR TOWARDS THE CORE OF THE SYSTEM. HENCE CONSIDERING ENVIRONMENTAL FEATURES, WHILE OUTFLOW AS WELL AS LOW LEVEL CONVERGENCE, VORTICITY AND TPW ARE FAVOURABLE, MJO AND VERTICAL WIND SHEAR ARE UNFAVOURABLE FOR INTENSIFICATION. UNDER THESE CIRCUMSTANCES, RAPID INTENSIFICATION OF THE SYSTEM IS NOT EXPECTED AND THE SYSTEM MAY REACH UPTO THE INTENSITY OF CYCLONIC STORM.

MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE IN AGREEMENT WITH GRADUAL INTENSIFICATION OF THE DEEP DEPRESSION INTO CYCLONIC STORM DURING NEXT 12 HRS. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST INTENSIFICATION OF THE SYSTEM DURING NEXT 12 HOURS. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT NORTH-NORTHEASTWARD MOVEMENT TOWARDS NORTH MYANMAR COAST DURING NEXT 48 HRS.

(NARESH KUMAR)  
SCIENTIST D,  
RSMC, NEW DELHI







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

**DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 15-04-2017**

**TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 72 HOURS ISSUED AT 1400 UTC OF 15<sup>TH</sup> APRIL 2017 BASED ON 1200 UTC OF 15<sup>TH</sup> APRIL 2017**

THE DEEP DEPRESSION OVER EASTCENTRAL BAY OF BENGAL MOVED FURTHER NORTHEASTWARDS WITH A SPEED OF 28 KMPH DURING PAST 06 HOURS AND LAY CENTRED AT 1200 UTC OF TODAY, THE 15<sup>TH</sup> APRIL, 2017 OVER EASTCENTRAL BAY OF BENGAL NEAR LATITUDE 14.3°N AND LONGITUDE 90.0°E, ABOUT 340 KM WEST-NORTHWEST OF MAYA BANDAR (ANDAMAN & NICOBAR ISLANDS) AND 680 KM SOUTH-SOUTHWEST OF KYAUKPYU (MYANMAR). THE SYSTEM IS MOST LIKELY TO INTENSIFY FURTHER INTO A CYCLONIC STORM DURING NEXT 12 HOURS. IT IS MOST LIKELY TO MOVE NORTH-NORTHEASTWARDS AND CROSS MYANMAR COAST BETWEEN SITTWE (48062) AND SANDOWAY (48080) BY MORNING OF 17<sup>TH</sup> APRIL 2017.

OBSERVED AND FORECAST TRACK POSITIONS AND INTENSITY OF THE SYSTEM ARE GIVEN BELOW.

| DATE/TIME(UTC)  | POSITION<br>(LAT. °N/ LONG.<br>°E) | MAXIMUM SUSTAINED<br>SURFACE WIND SPEED<br>(KMPH) | CATEGORY OF<br>CYCLONIC<br>DISTURBANCE |
|-----------------|------------------------------------|---|--|
| 15.04.2017/1200 | 14.3/90.1                          | 55-65 GUSTING TO 75                               | DEEP DEPRESSION                        |
| 15.04.2017/1800 | 15.2/91.0                          | 60-70 GUSTING TO 80                               | CYCLONIC STORM                         |
| 16.04.2017/0000 | 16.1/91.8                          | 70-80 GUSTING TO 90                               | CYCLONIC STORM                         |
| 16.04.2017/0600 | 16.9/92.5                          | 70-80 GUSTING TO 90                               | CYCLONIC STORM                         |
| 16.04.2017/1200 | 17.7/93.2                          | 65-75 GUSTING TO 85                               | CYCLONIC STORM                         |
| 17-04-2016/0000 | 19.4/94.5                          | 60-70 GUSTING TO 80                               | CYCLONIC STORM                         |
| 17-12-2016/1200 | 20.7/95.8                          | 35-45 GUSTING TO 55                               | DEPRESSION                             |

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T 2.0. THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 30 KNOTS GUSTING TO 40 KNOTS AND ESTIMATED CENTRE PRESSURE IS 998 HPA. THE CONVECTION HAS CURVED BAND PATTERN. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER SOUTH AND ADJOINING EASTCENTRAL BAY OF BENGAL BETWEEN LATITUDE 12.0 DEGREE NORTH TO 16.0 DEGREE NORTH AND LONGITUDE 89.0 DEGREE EAST TO 92.5 DEGREE EAST. THE LOWEST CLOUD TOP TEMPERATURE IS MINUS 85 DEGREE CELCIUS.

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF DEEP DEPRESSION IS 30-32<sup>0</sup>C. IT DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 28-29<sup>0</sup>C. THE OCEAN THERMAL ENERGY IS ABOUT 100 KJ/CM<sup>2</sup>. IT ALSO DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 60-80 KJ/CM<sup>2</sup>. THE VERTICAL WIND SHEAR IS ABOUT 20-25 KNOTS (HIGH) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY IS ABOUT  $150 \times 10^{-6} \text{ S}^{-1}$  AND CONVERGENCE IS ABOUT  $40 \times 10^{-5} \text{ S}^{-1}$ . THERE IS FAVOURABLE POLEWARD OUTFLOW IN ASSOCIATION WITH THE ANTI-CYCLONIC CIRCULATION LYING TO THE SOUHEAST OF THE SYSTEM CENTRE. THE UPPER LEVEL DIVERGENCE IS ABOUT  $40 \times 10^{-5} \text{ S}^{-1}$  THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 11<sup>0</sup>N. THE MADDEN JULIAN OSCILLATION INDEX LIES IN PHASE 7 WITH AMPLITUDE LESS THAN 1. IT WILL MOVE TO PHASE 8 DURING NEXT 3 DAYS WITH GRADUALLY INCREASING AMPLITUDE. THE TOTAL PRECIPITABLE WATER (TPW) IMAGERY INDICATES INCURSION OF WARM MOIST AIR

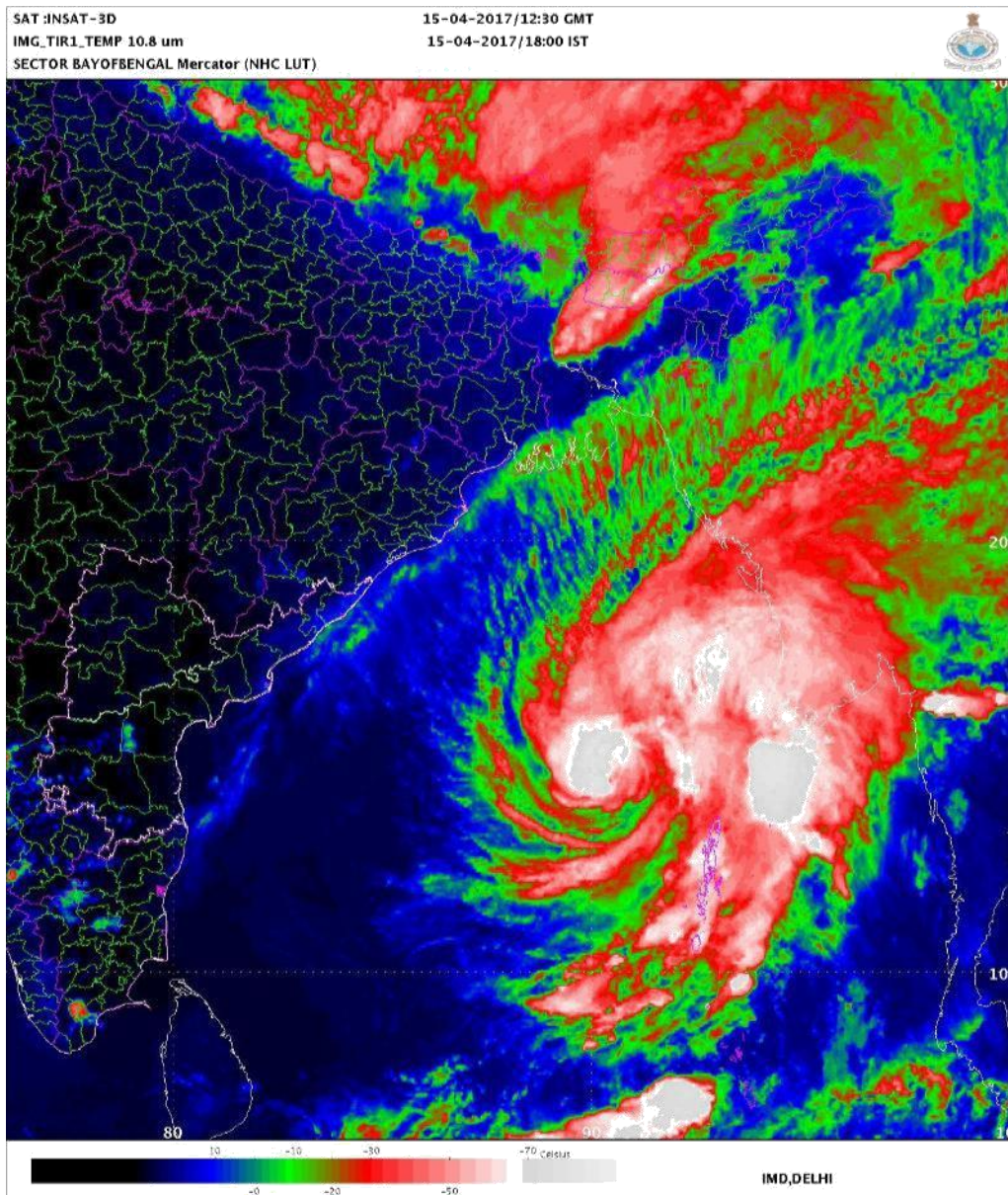
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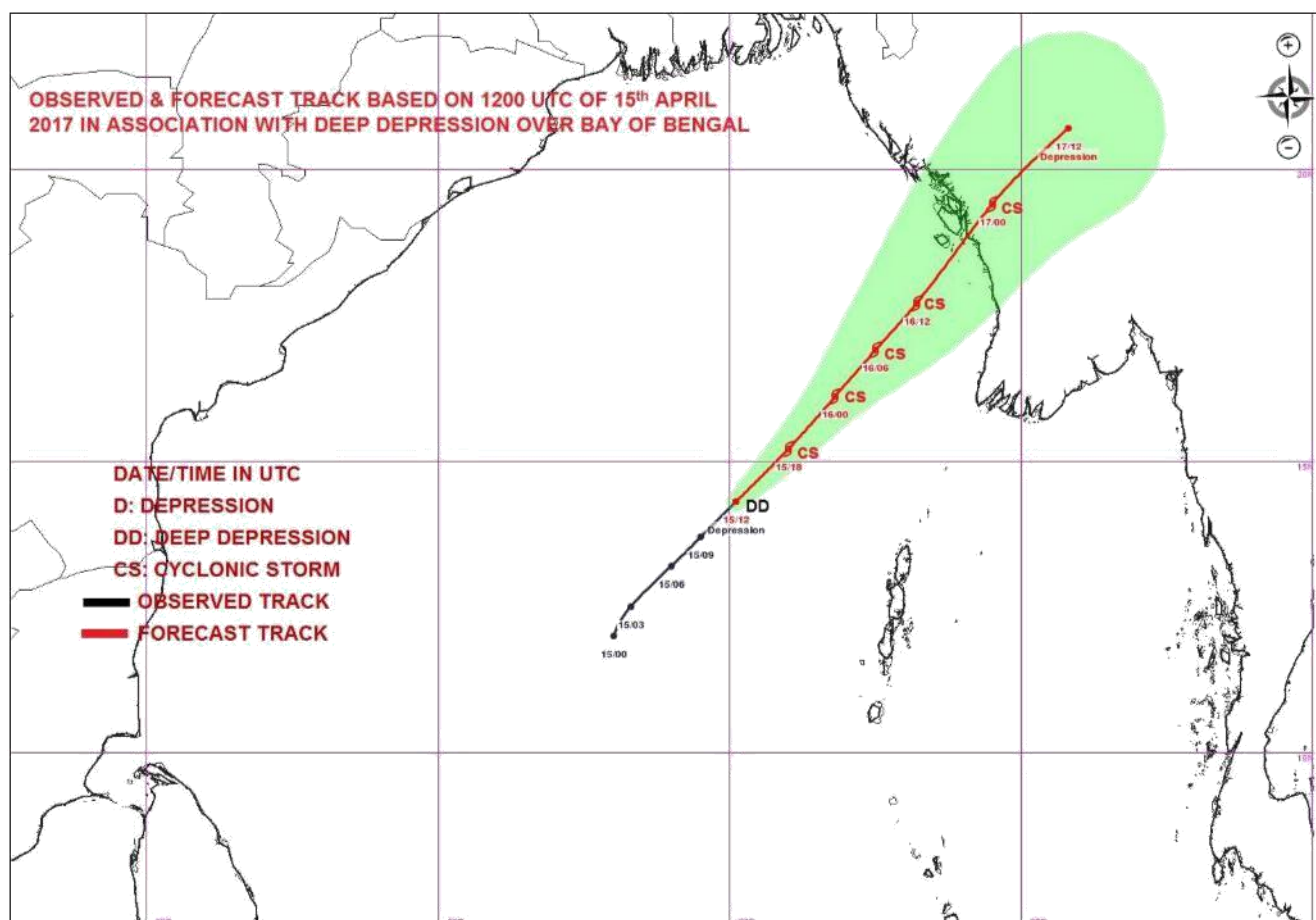


TOWARDS THE CORE OF THE SYSTEM. HENCE CONSIDERING ENVIRONMENTAL FEATURES, WHILE OUTFLOW AS WELL AS LOW LEVEL CONVERGENCE, VORTICITY AND TPW ARE FAVOURABLE, MJO AND VERTICAL WIND SHEAR ARE UNFAVOURABLE FOR INTENSIFICATION. UNDER THESE CIRCUMSTANCES, RAPID INTENSIFICATION OF THE SYSTEM IS NOT EXPECTED AND THE SYSTEM MAY REACH UPTO THE INTENSITY OF CYCLONIC STORM.

MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE IN AGREEMENT WITH GRADUAL INTENSIFICATION OF THE DEEP DEPRESSION INTO CYCLONIC STORM DURING NEXT 12 HRS. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST INTENSIFICATION OF THE SYSTEM DURING NEXT 12 HOURS. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT NORTH-NORTHEASTWARD MOVEMENT TOWARDS NORTH MYANMAR COAST DURING NEXT 48 HRS.

(NARESH KUMAR)  
SCIENTIST D,  
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**DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 15-04-2017**

**TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 72 HOURS ISSUED AT 2100 UTC OF 15<sup>TH</sup> APRIL 2017 BASED ON 1800 UTC OF 15<sup>TH</sup> APRIL 2017.**

THE DEEP DEPRESSION OVER EASTCENTRAL BAY OF BENGAL MOVED NORTH-NORTHEASTWARDS WITH A SPEED OF 26 KMPH DURING PAST 06 HOURS, INTENSIFYING FURTHER INTO A CYCLONIC STORM (MAARUTHA) AND LAY CENTRED AT 1800 HRS UTC OF TODAY, THE 15<sup>TH</sup> APRIL, 2017 OVER EASTCENTRAL BAY OF BENGAL NEAR LATITUDE 15.3° N AND LONGITUDE 91.0°E, ABOUT 330 KM WEST-NORTHWEST OF MAYA BANDAR (ANDAMAN & NICOBAR ISLANDS) AND 530 KM SOUTH-SOUTHWEST OF KYAUKPYU (MYANMAR). THE SYSTEM IS VERY LIKELY TO INTENSIFY AND MOVE NORTH-NORTHEASTWARDS AND CROSS MYANMAR COAST BETWEEN SITTWE (48062) AND SANDOWAY (48080) BY MORNING OF 17<sup>TH</sup> APRIL 2017.

OBSERVED AND FORECAST TRACK POSITIONS AND INTENSITY OF THE SYSTEM ARE GIVEN BELOW.

| DATE/TIME(UTC)  | POSITION<br>(LAT. °N/ LONG.<br>°E) | MAXIMUM SUSTAINED<br>SURFACE WIND SPEED<br>(KMPH) | CATEGORY OF<br>CYCLONIC<br>DISTURBANCE |
|-----------------|------------------------------------|---|--|
| 15.04.2017/1800 | 15.3/91.0                          | 60-70 gusting to 80                               | Cyclonic Storm                         |
| 16.04.2017/0000 | 16.2/91.9                          | 65-75 gusting to 85                               | Cyclonic Storm                         |
| 16.04.2017/0600 | 17.1/92.7                          | 70-80 gusting to 90                               | Cyclonic Storm                         |
| 16.04.2017/1200 | 17.9/93.4                          | 75-85 gusting to 95                               | Cyclonic Storm                         |
| 16-04-2017/1800 | 18.7/94.1                          | 75-85 gusting to 95                               | Cyclonic Storm                         |
| 17-04-2017/0600 | 20.4/95.4                          | 60-70 gusting to 80                               | Cyclonic Storm                         |
| 17-04-2017/1800 | 21.7/96.7                          | 35-45 gusting to 55                               | Depression                             |

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T2.5. THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 35 KNOTS GUSTING TO 45 KNOTS AND ESTIMATED CENTRE PRESSURE IS 996 HPA. THE CONVECTION HAS CURVED BAND PATTERN. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER SOUTH AND ADJOINING EASTCENTRAL BAY OF BENGAL BETWEEN LATITUDE 13.5 DEGREE NORTH TO 18.5 DEGREE NORTH AND LONGITUDE 88.8 DEGREE EAST TO 93.0 DEGREE EAST. THE LOWEST CLOUD TOP TEMPERATURE IS MINUS 90 DEGREE CELSIUS.

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF DEEP DEPRESSION IS 30-32<sup>0</sup>C. IT DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 28-29<sup>0</sup>C. THE OCEAN THERMAL ENERGY IS ABOUT 100 KJ/CM<sup>2</sup>. IT ALSO DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 60-80 KJ/CM<sup>2</sup>. THE VERTICAL WIND SHEAR IS ABOUT 10-15 KNOTS (MODERATE) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY IS ABOUT 220 X 10<sup>-6</sup> S<sup>-1</sup> AND CONVERGENCE IS ABOUT 40 X 10<sup>-5</sup> S<sup>-1</sup>. THERE IS FAVOURABLE POLEWARD OUTFLOW IN ASSOCIATION WITH THE ANTI-CYCLONIC CIRCULATION LYING TO THE SOUTHEAST OF THE SYSTEM CENTRE. THE UPPER LEVEL DIVERGENCE IS ABOUT 40 X 10<sup>-5</sup> S<sup>-1</sup> THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 11<sup>0</sup>N. THE

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MADDEN JULIAN OSCILLATION INDEX LIES IN PHASE 7 WITH AMPLITUDE LESS THAN 1. IT WILL MOVE TO PHASE 8 DURING NEXT 3 DAYS WITH GRADUALLY INCREASING AMPLITUDE. THE TOTAL PRECIPITABLE WATER (TPW) IMAGERY INDICATES INCURSION OF WARM MOIST AIR TOWARDS THE CORE OF THE SYSTEM. HENCE CONSIDERING ENVIRONMENTAL FEATURES, WHILE OUTFLOW AS WELL AS LOW LEVEL CONVERGENCE, VORTICITY AND TPW ARE FAVOURABLE, MJO AND VERTICAL WIND SHEAR ARE UNFAVOURABLE FOR INTENSIFICATION. UNDER THESE CIRCUMSTANCES, RAPID INTENSIFICATION OF THE SYSTEM IS NOT EXPECTED AND THE SYSTEM MAY REACH UPTO THE INTENSITY OF CYCLONIC STORM.

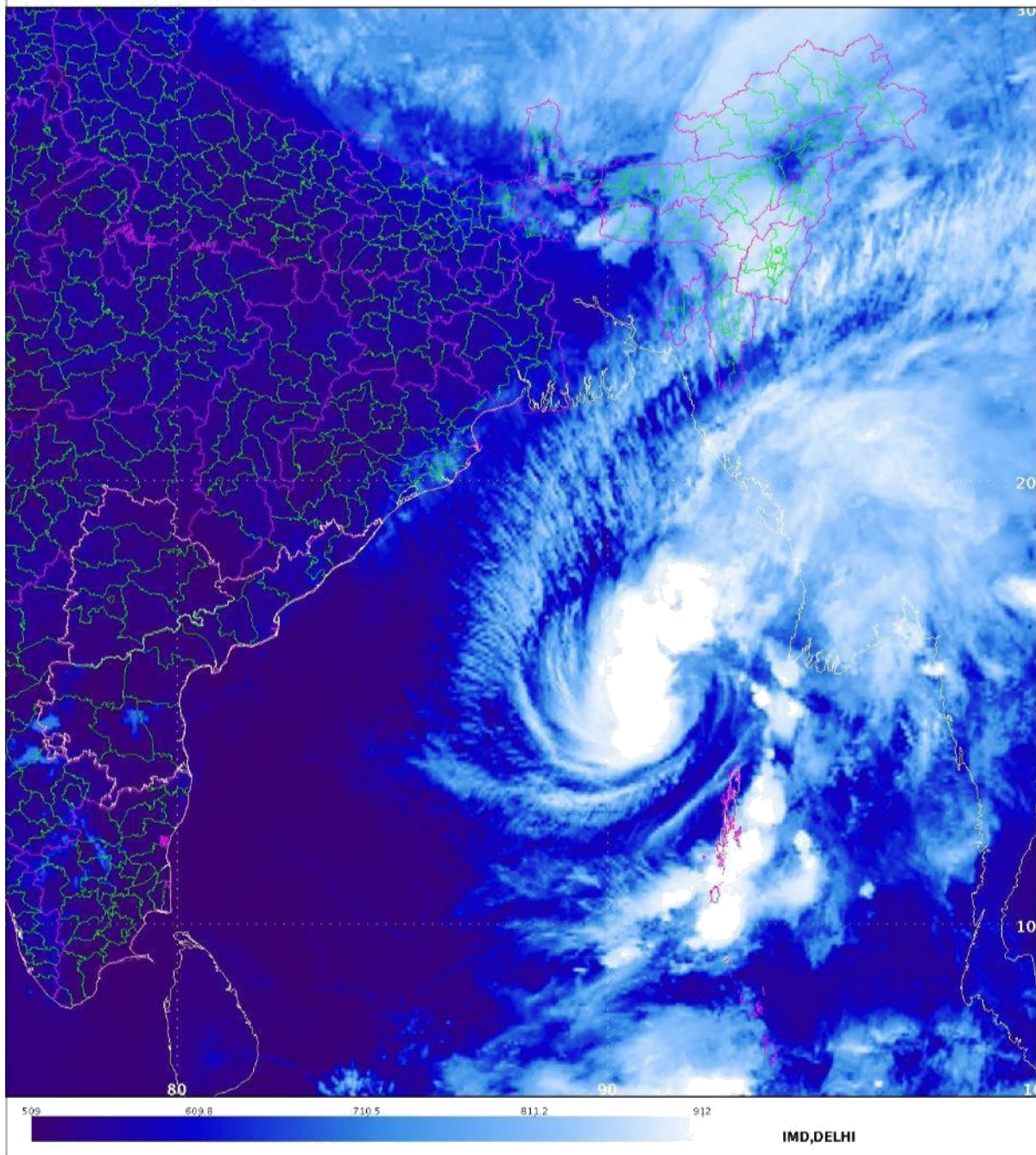
MOST OF THE MODELS ARE UNANIMOUS ABOUT NORTH-NORTHEASTWARD MOVEMENT TOWARDS NORTH MYANMAR COAST DURING NEXT 48 HRS.

**(D.R. Pattanaik)**

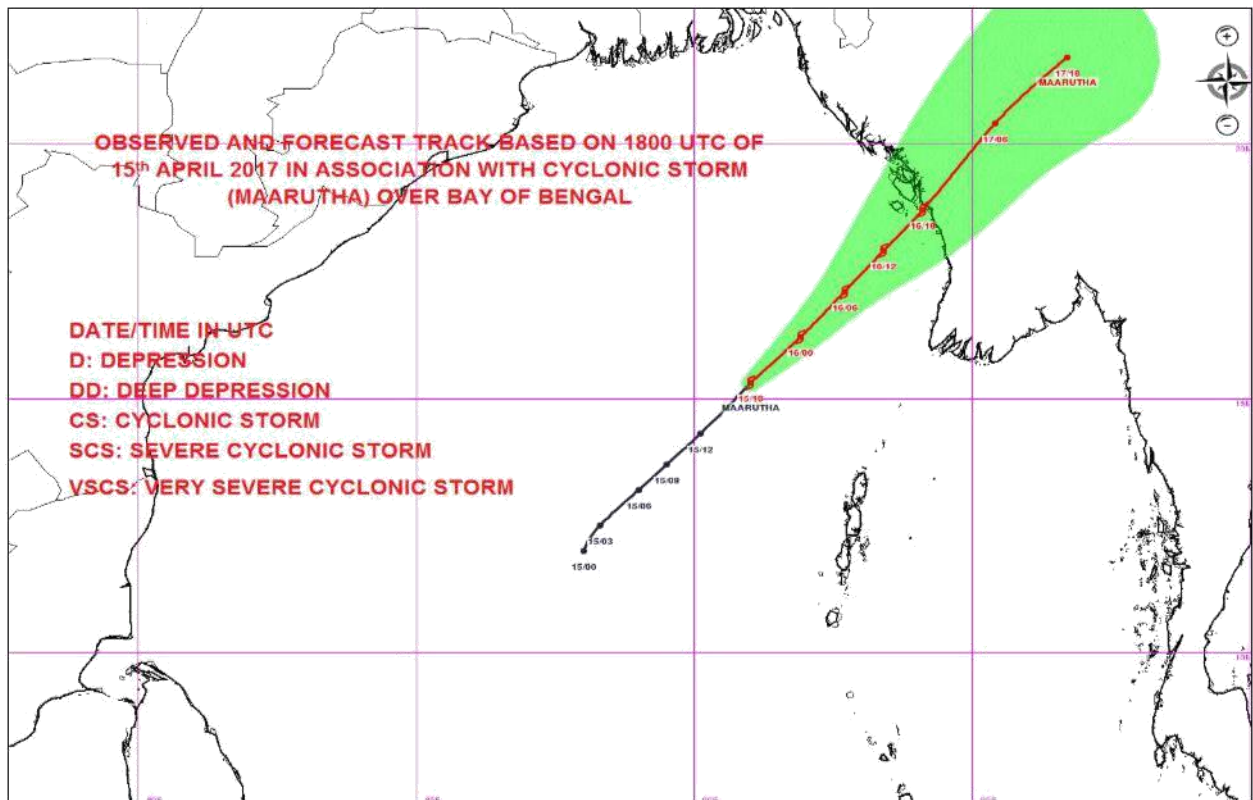
**Scientist-E**  
RSMC, NEW DELHI

SAT :INSAT-3D  
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SECTOR BAYOFBENGAL Mercator (Blue LUT)

15-04-2017/17:00 GMT  
15-04-2017/22:30 IST

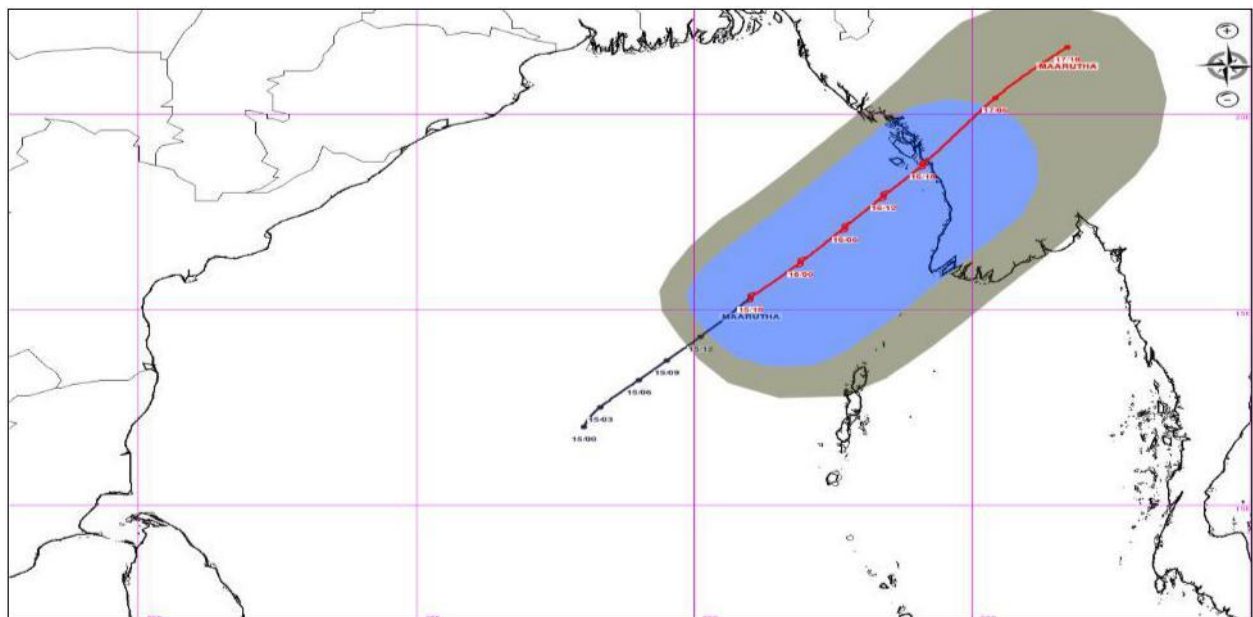


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#### AREA OF MAXIMUM SUSTAINED WIND

- 28-33 KTS
- 34-49 KTS
- 50-63 KTS
- $\geq 64$  KTS





**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI**

**TROPICAL CYCLONE ADVISORY BULLETIN**

**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) TROPICAL CYCLONE ADVISORY  
RSMC – TROPICAL CYCLONES, NEW DELHI**

**TROPICAL STORM 'MAARUTHA' ADVISORY NO. TWO ISSUED AT 0000 UTC OF 16<sup>TH</sup> APRIL 2017  
BASED ON 2100 UTC CHARTS OF 15<sup>TH</sup> APRIL 2017.**

THE CYCLONIC STORM (MAARUTHA) OVER EASTCENTRAL BAY OF BENGAL MOVED NORTHEASTWARDS WITH A SPEED OF 22 KMPH DURING PAST 06 HOURS AND LAY CENTRED AT 2100 HRS UTC OF YESTERDAY, THE 15<sup>TH</sup> APRIL, 2017 OVER EASTCENTRAL BAY OF BENGAL NEAR LATITUDE 15.5° N AND LONGITUDE 91.2°E, ABOUT 340 KM WEST-NORTHWEST OF MAYA BANDAR (ANDAMAN & NICOBAR ISLANDS) AND 500 KM SOUTH-SOUTHWEST OF KYAUKPYU (MYANMAR). THE SYSTEM IS VERY LIKELY TO INTENSIFY AND MOVE NORTH-NORTHEASTWARDS AND CROSS MYANMAR COAST BETWEEN SITTWE (48062) AND SANDOWAY (48080) BY MORNING OF 17<sup>TH</sup> APRIL 2017.

OBSERVED AND FORECAST TRACK POSITIONS AND INTENSITY OF THE SYSTEM ARE GIVEN BELOW.

| DATE/TIME(UTC)  | POSITION<br>(LAT. °N/ LONG.<br>°E) | MAXIMUM SUSTAINED<br>SURFACE WIND SPEED<br>(KMPH) | CATEGORY OF<br>CYCLONIC<br>DISTURBANCE |
|-----------------|------------------------------------|---|--|
| 15.04.2017/2100 | 15.5/91.2                          | 60-70 gusting to 80                               | Cyclonic Storm                         |
| 16.04.2017/0000 | 16.2/91.9                          | 65-75 gusting to 85                               | Cyclonic Storm                         |
| 16.04.2017/0600 | 17.1/92.7                          | 70-80 gusting to 90                               | Cyclonic Storm                         |
| 16.04.2017/1200 | 17.9/93.4                          | 75-85 gusting to 95                               | Cyclonic Storm                         |
| 16-04-2017/1800 | 18.7/94.1                          | 75-85 gusting to 95                               | Cyclonic Storm                         |
| 17-04-2017/0600 | 20.4/95.4                          | 60-70 gusting to 80                               | Cyclonic Storm                         |
| 17-04-2017/1800 | 21.7/96.7                          | 35-45 gusting to 55                               | Depression                             |

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T2.5. THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 35 KNOTS GUSTING TO 45 KNOTS AND ESTIMATED CENTRE PRESSURE IS 996 HPA. THE CONVECTION HAS CURVED BAND PATTERN. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER SOUTH AND ADJOINING EASTCENTRAL BAY OF BENGAL BETWEEN LATITUDE 13.5 DEGREE NORTH TO 18.5 DEGREE NORTH AND LONGITUDE 88.8 DEGREE EAST

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TO 93.0 DEGREE EAST. THE LOWEST CLOUD TOP TEMPERATURE IS MINUS 82 DEGREE CELCIUS.

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF CYCLONIC STORM IS 30-32<sup>0</sup>C. IT DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 28-29<sup>0</sup>C. THE OCEAN THERMAL ENERGY IS ABOUT 100 KJ/CM<sup>2</sup>. IT ALSO DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 60-80 KJ/CM<sup>2</sup>. THE VERTICAL WIND SHEAR IS ABOUT 10-15 KNOTS (MODERATE) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY IS ABOUT  $220 \times 10^{-6} \text{ S}^{-1}$  AND CONVERGENCE IS ABOUT  $40 \times 10^{-5} \text{ S}^{-1}$ . THERE IS FAVOURABLE POLEWARD OUTFLOW IN ASSOCIATION WITH THE ANTI-CYCLONIC CIRCULATION LYING TO THE SOUHEAST OF THE SYSTEM CENTRE. THE UPPER LEVEL DIVERGENCE IS ABOUT  $40 \times 10^{-5} \text{ S}^{-1}$  THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 11<sup>0</sup>N. THE MADDEN JULIAN OSCILLATION INDEX LIES IN PHASE 7 WITH AMPLITUDE LESS THAN 1. IT WILL MOVE TO PHASE 8 DURING NEXT 3 DAYS WITH GRADUALLY INCREASING AMPLITUDE. THE TOTAL PRECIPITABLE WATER (TPW) IMAGERY INDICATES INCURSION OF WARM MOIST AIR TOWARDS THE CORE OF THE SYSTEM. HENCE CONSIDERING ENVIRONMENTAL FEATURES, WHILE OUTFLOW AS WELL AS LOW LEVEL CONVERGENCE, VORTICITY AND TPW ARE FAVOURABLE, MJO AND VERTICAL WIND SHEAR ARE UNFAVOURABLE FOR INTENSIFICATION. UNDER THESE CIRCUMSTANCES, RAPID INTENSIFICATION OF THE SYSTEM IS NOT EXPECTED AND THE SYSTEM MAY REACH UPTO THE INTENSITY OF CYCLONIC STORM.

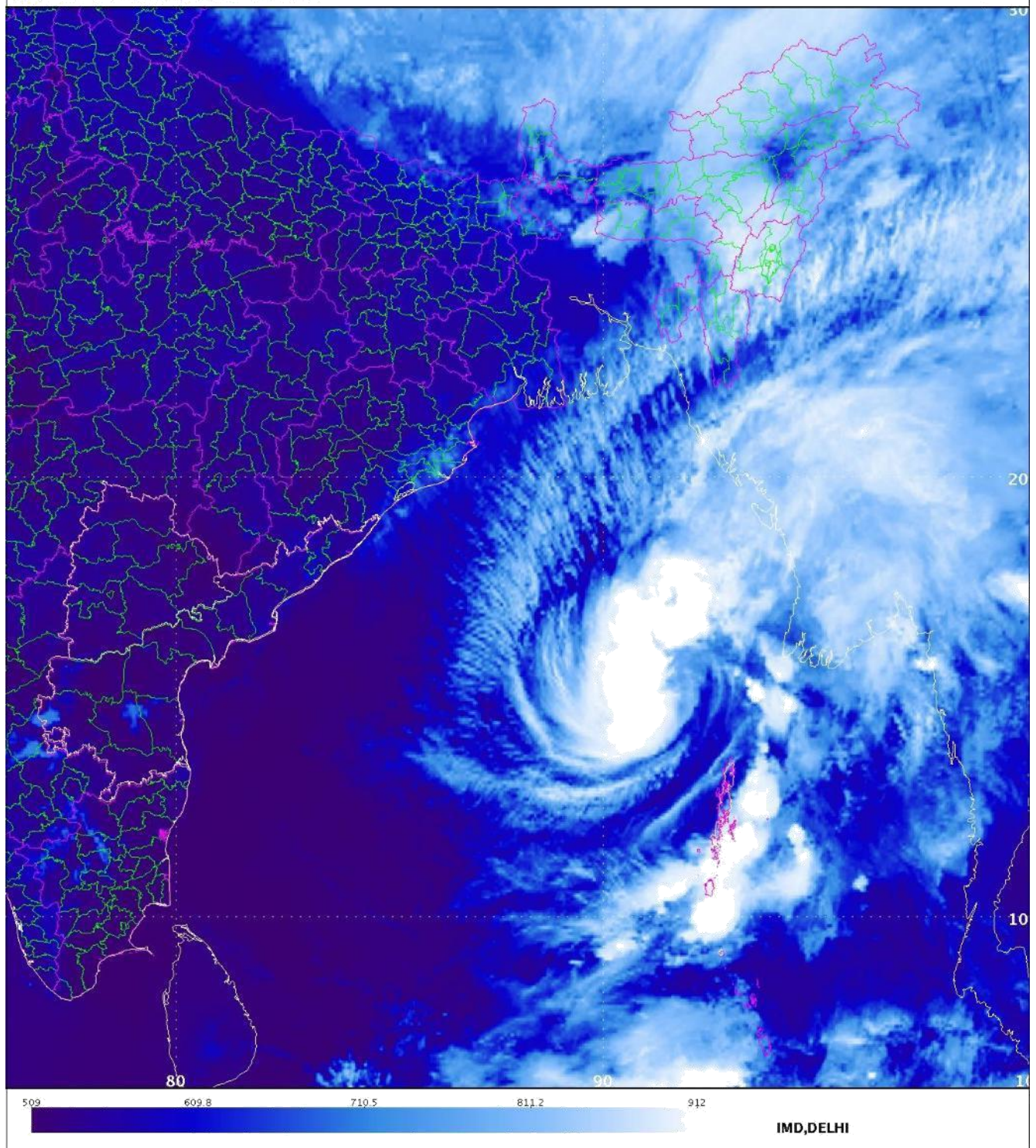
MOST OF THE MODELS ARE UNANIMOUS ABOUT NORTH-NORTHEASTWARD MOVEMENT TOWARDS NORTH MYANMAR COAST DURING NEXT 48 HRS.

**(D.R. Pattanaik)**

**Scientist-E**  
RSMC, NEW DELHI

SAT :INSAT-3D  
IMG\_TIR1 10.8 um  
SECTOR BAYOFBENGAL Mercator (Blue LUT)

15-04-2017/17:00 GMT  
15-04-2017/22:30 IST



Contact: Phone: (91) 11-246524844 FAX: (91) 11-24623220 e-mail :cwdhq2008@gmail.com



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI**

**TROPICAL CYCLONE ADVISORY BULLETIN**

**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)**

**TROPICAL CYCLONE ADVISORY**

**RSMC – TROPICAL CYCLONES, NEW DELHI**

**TROPICAL STORM ‘MAARUTHA’ ADVISORY NO. THREE ISSUED AT 0300 UTC OF 16<sup>TH</sup> APRIL 2017 BASED ON 0000 UTC CHARTS OF 16<sup>TH</sup> APRIL 2017.**

THE CYCLONIC STORM (MAARUTHA) OVER EASTCENTRAL BAY OF BENGAL MOVED NORTHEASTWARDS WITH A SPEED OF 24 KMPH DURING PAST 06 HOURS AND LAY CENTRED AT 0000 UTC OF TODAY, THE 16<sup>TH</sup> APRIL, 2017 OVER EASTCENTRAL BAY OF BENGAL NEAR LATITUDE 16.2° N AND LONGITUDE 92.0°E, ABOUT 380 KM NORTH-NORTHWEST OF MAYA BANDAR (ANDAMAN & NICOBAR ISLANDS) AND 350 KM SOUTHWEST OF SANDOWAY (48080). THE SYSTEM IS LIKELY TO MOVE NORTHEASTWARDS AND CROSS MYANMAR COAST NEAR SANDOWAY AROUND MID-NIGHT OF TODAY, THE 16<sup>TH</sup> APRIL 2017.

OBSERVED AND FORECAST TRACK POSITIONS AND INTENSITY OF THE SYSTEM ARE GIVEN BELOW.

| DATE/TIME(UTC)  | POSITION<br>(LAT. °N/ LONG.<br>°E) | MAXIMUM SUSTAINED<br>SURFACE WIND SPEED (KMPH) | CATEGORY OF CYCLON<br>DISTURBANCE |
|-----------------|------------------------------------|--|-----------------------------------|
| 16.04.2017/0000 | 16.2/92.0                          | 65-75 GUSTING TO 85                            | CYCLONIC STORM                    |
| 16.04.2017/0600 | 17.1/92.9                          | 65-75 GUSTING TO 85                            | CYCLONIC STORM                    |
| 16.04.2017/1200 | 18.0/93.8                          | 65-75 GUSTING TO 85                            | CYCLONIC STORM                    |
| 16-04-2017/1800 | 18.8/94.6                          | 50-60 GUSTING TO 70                            | DEEP DEPRESSION                   |
| 17-04-2017/0000 | 19.6/95.4                          | 35-45 GUSTING TO 55                            | DEPRESSION                        |

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T2.5. THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 35 KNOTS GUSTING TO 45 KNOTS AND ESTIMATED CENTRE PRESSURE IS 996 HPA. THE CONVECTION HAS CURVED BAND PATTERN, HOWEVER IT SHOWS SIGN OF WEAKENING WITH TENDENCY OF DISORGANISATION. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER SOUTH AND ADJOINING EASTCENTRAL BAY OF BENGAL BETWEEN LATITUDE 13.5 DEGREE NORTH TO 17.5 DEGREE NORTH AND LONGITUDE 89.0 DEGREE EAST TO 93.5 DEGREE EAST. THE LOWEST CLOUD TOP TEMPERATURE IS MINUS 85 DEGREE CELCIUS.

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF CYCLONIC STORM IS 30-31<sup>0</sup>C. IT DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 28-29<sup>0</sup>C. THE OCEAN THERMAL ENERGY IS ABOUT 100 KJ/CM<sup>2</sup>. IT ALSO DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 60-80 KJ/CM<sup>2</sup>. THE VERTICAL WIND SHEAR IS ABOUT 10-20 KNOTS (MODERATE) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY IS

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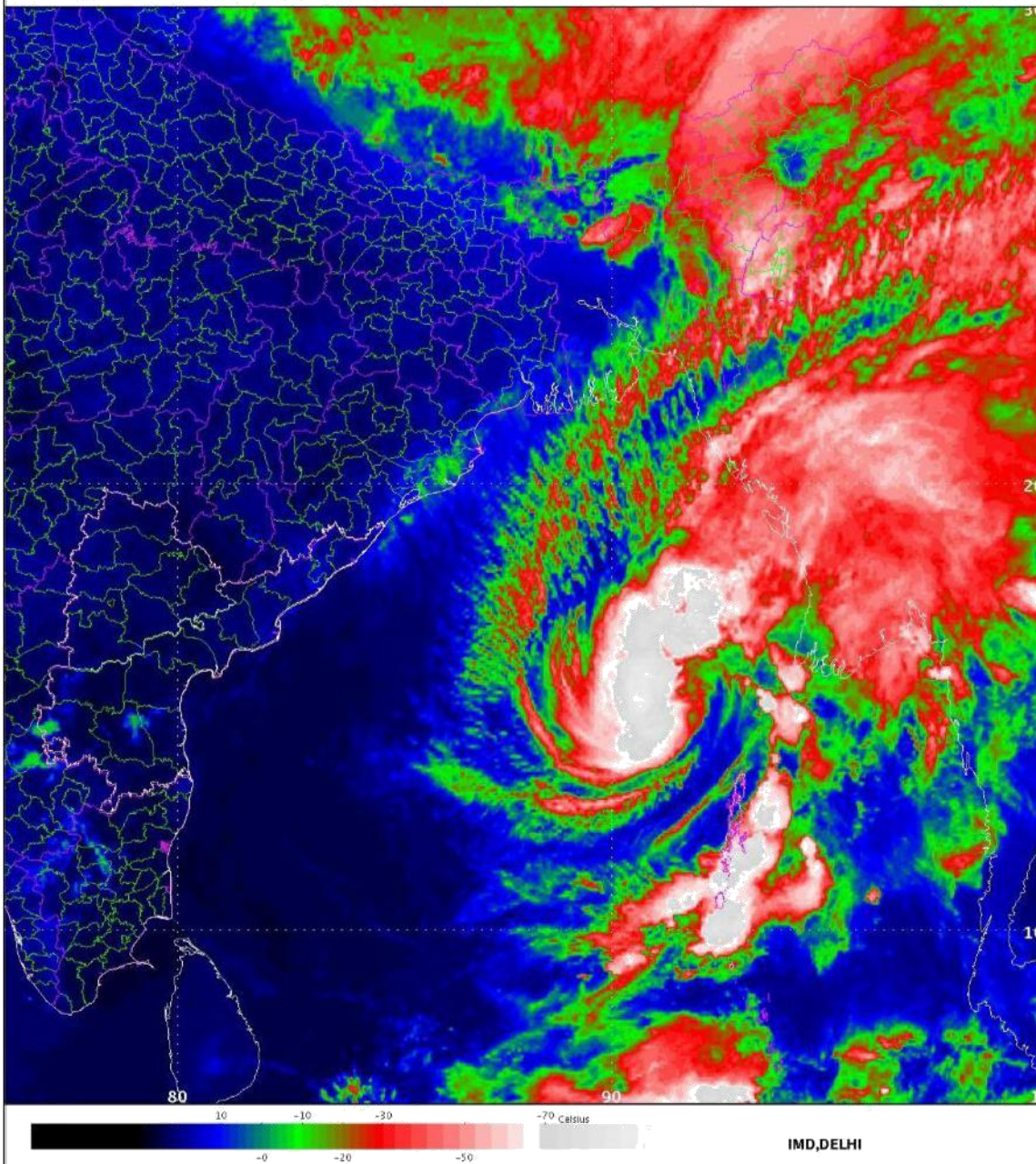
ABOUT  $200 \times 10^{-6} \text{ S}^{-1}$ . THE CONVERGENCE HAS DECREASED IN PAST 12 HOURS AND IS OF THE ORDER OF ABOUT  $20 \times 10^{-5} \text{ S}^{-1}$ . THE UPPER LEVEL DIVERGENCE HAS ALSO DECREASED IN PAST 12 HOURS AND IS OF ORDER ABOUT  $20 \times 10^{-5} \text{ S}^{-1}$ . THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG  $11^{\circ}\text{N}$ . THE MADDEN JULIAN OSCILLATION INDEX LIES IN PHASE 7 WITH AMPLITUDE LESS THAN 1. IT WILL MOVE TO PHASE 8 DURING NEXT 3 DAYS WITH GRADUALLY INCREASING AMPLITUDE. HENCE CONSIDERING ALL ENVIRONMENTAL FEATURES, IT IS UNLIKELY FOR FURTHER INTENSIFICATION OF THE SYSTEM.

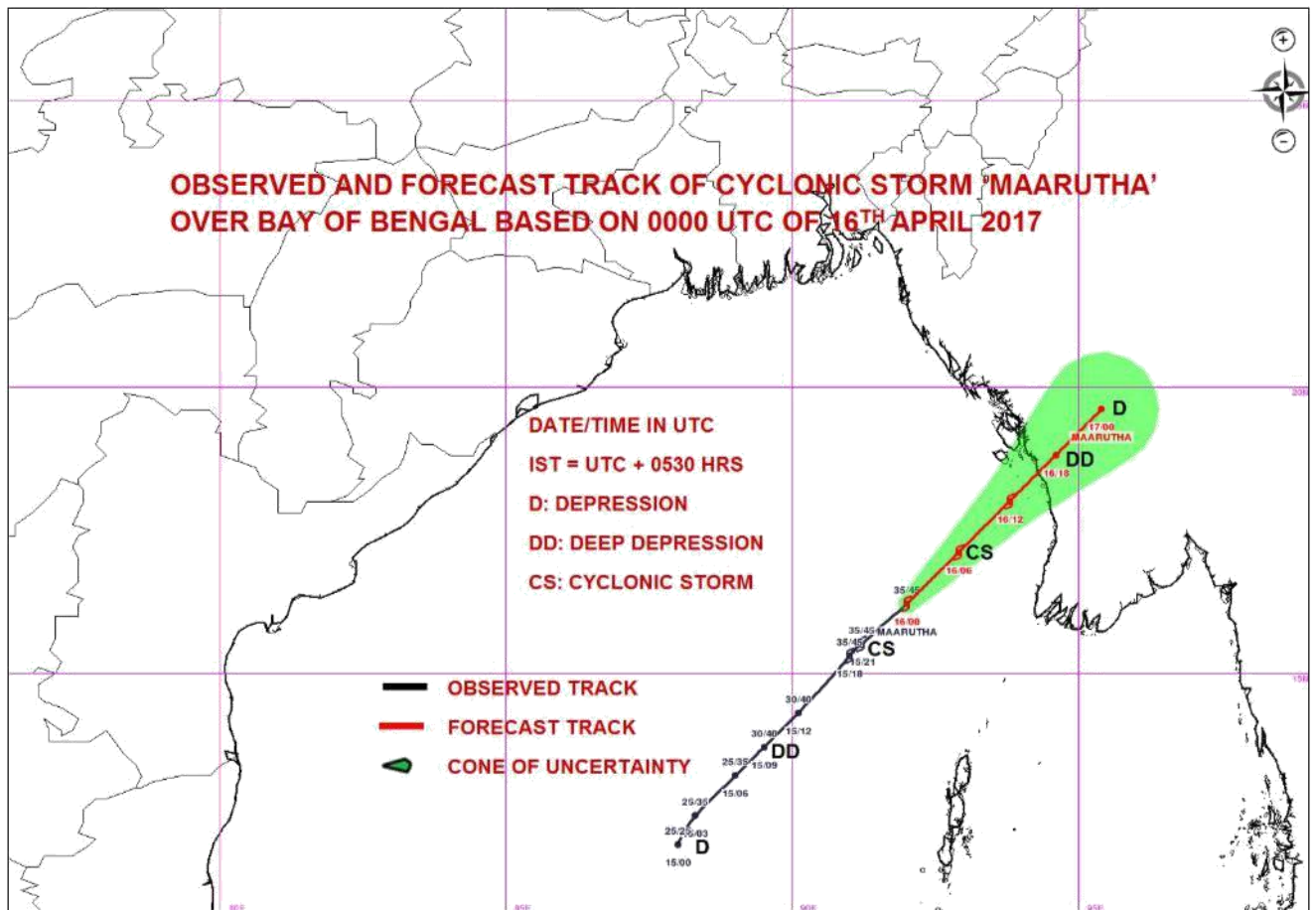
**(D.R. PATTANAİK)**  
**SCIENTIST-E**  
**RSMC, NEW DELHI**



SAT :INSAT-3D  
IMG\_TIR1\_TEMP 10.8 um  
SECTOR BAYOFBENGAL Mercator (NHC LUT)

15-04-2017/17:00 GMT  
15-04-2017/22:30 IST







**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI**

**TROPICAL CYCLONE ADVISORY BULLETIN**

**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)**

**TROPICAL CYCLONE ADVISORY**

**RSMC – TROPICAL CYCLONES, NEW DELHI**

**TROPICAL STORM ‘MAARUTHA’ ADVISORY NO. FOUR ISSUED AT 0600 UTC OF 16<sup>TH</sup> APRIL 2017 BASED ON 0300 UTC CHARTS OF 16<sup>TH</sup> APRIL 2017.**

THE CYCLONIC STORM (MAARUTHA) OVER EASTCENTRAL BAY OF BENGAL FURTHER MOVED NORTHEASTWARDS WITH A SPEED OF 32 KMPH DURING PAST 06 HOURS AND LAY CENTRED AT 0300 UTC OF TODAY, THE 16<sup>TH</sup> APRIL, 2017 OVER EASTCENTRAL BAY OF BENGAL NEAR LATITUDE 16.7° N AND LONGITUDE 92.5°E, ABOUT 420 KM NEARLY NORTH OF MAYA BANDAR (ANDAMAN & NICOBAR ISLANDS) AND 280 KM SOUTHWEST OF SANDOWAY (48080). THE SYSTEM IS LIKELY TO MOVE NORTHEASTWARDS AND CROSS MYANMAR COAST NEAR SANDOWAY AROUND MID-NIGHT OF TODAY, THE 16<sup>TH</sup> APRIL 2017.

OBSERVED AND FORECAST TRACK POSITIONS AND INTENSITY OF THE SYSTEM ARE GIVEN BELOW.

| DATE/TIME(UTC)  | POSITION<br>(LAT. °N/ LONG.<br>°E) | MAXIMUM SUSTAINED<br>SURFACE WIND SPEED (KMPH) | CATEGORY OF CYCLON<br>DISTURBANCE |
|-----------------|------------------------------------|--|-----------------------------------|
| 16.04.2017/0300 | 16.7/92.5                          | 65-75 GUSTING TO 85                            | CYCLONIC STORM                    |
| 16.04.2017/0600 | 17.1/92.9                          | 65-75 GUSTING TO 85                            | CYCLONIC STORM                    |
| 16.04.2017/1200 | 18.0/93.8                          | 65-75 GUSTING TO 85                            | CYCLONIC STORM                    |
| 16-04-2017/1800 | 18.8/94.6                          | 50-60 GUSTING TO 70                            | DEEP DEPRESSION                   |
| 17-04-2017/0000 | 19.6/95.4                          | 35-45 GUSTING TO 55                            | DEPRESSION                        |

**STORM SURGE: THE STORM SURGE OF ABOUT ONE METER HEIGHT ABOVE THE ASTRONOMICAL TIDE IS VERY LIKELY TO INUNDATE THE LOW LYING AREAS OF MYANMAR COAST NEAR LANDFALL POINT AT THE TIME OF LANDFALL.**

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T2.5. THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 35 KNOTS GUSTING TO 45 KNOTS AND ESTIMATED CENTRE PRESSURE IS 996 HPA. THE CONVECTION HAS CURVED BAND PATTERN, HOWEVER IT SHOWS SIGN OF WEAKENING WITH TENDENCY OF DISORGANISATION. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER EASTCENTRAL BAY OF BENGAL BETWEEN LATITUDE 14.0 DEGREE NORTH TO 18.5 DEGREE NORTH AND LONGITUDE 90.0 DEGREE EAST TO 94.5 DEGREE EAST. THE LOWEST CLOUD TOP TEMPERATURE IS MINUS 80 DEGREE CELCIUS.

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF CYCLONIC STORM IS 30-31<sup>0</sup>C. IT DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 28-29<sup>0</sup>C. THE OCEAN  
**Contact: Phone: (91) 11-246524844 FAX: (91) 11-24623220 e-mail :cwdhq2008@gmail.com**

THERMAL ENERGY IS ABOUT  $100 \text{ KJ/CM}^2$ . IT ALSO DECREASES TOWARDS NORTH MYANMAR COAST BECOMING  $60\text{-}80 \text{ KJ/CM}^2$ . THE VERTICAL WIND SHEAR IS ABOUT 10-20 KNOTS (MODERATE) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY IS ABOUT  $200 \times 10^{-6} \text{ S}^{-1}$ . THE CONVERGENCE HAS DECREASED IN PAST 12 HOURS AND IS OF THE ORDER OF ABOUT  $20 \times 10^{-5} \text{ S}^{-1}$ . THE UPPER LEVEL DIVERGENCE HAS ALSO DECREASED IN PAST 12 HOURS AND IS OF ORDER ABOUT  $20 \times 10^{-5} \text{ S}^{-1}$ . THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG  $11^{\circ}\text{N}$ . THE MADDEN JULIAN OSCILLATION INDEX LIES IN PHASE 7 WITH AMPLITUDE LESS THAN 1. IT WILL MOVE TO PHASE 8 DURING NEXT 3 DAYS WITH GRADUALLY INCREASING AMPLITUDE. HENCE CONSIDERING ALL ENVIRONMENTAL FEATURES, IT IS UNLIKELY FOR FURTHER INTENSIFICATION OF THE SYSTEM.

**(NARESH KUMAR)**  
**SCIENTIST-D**  
**RSMC, NEW DELHI**



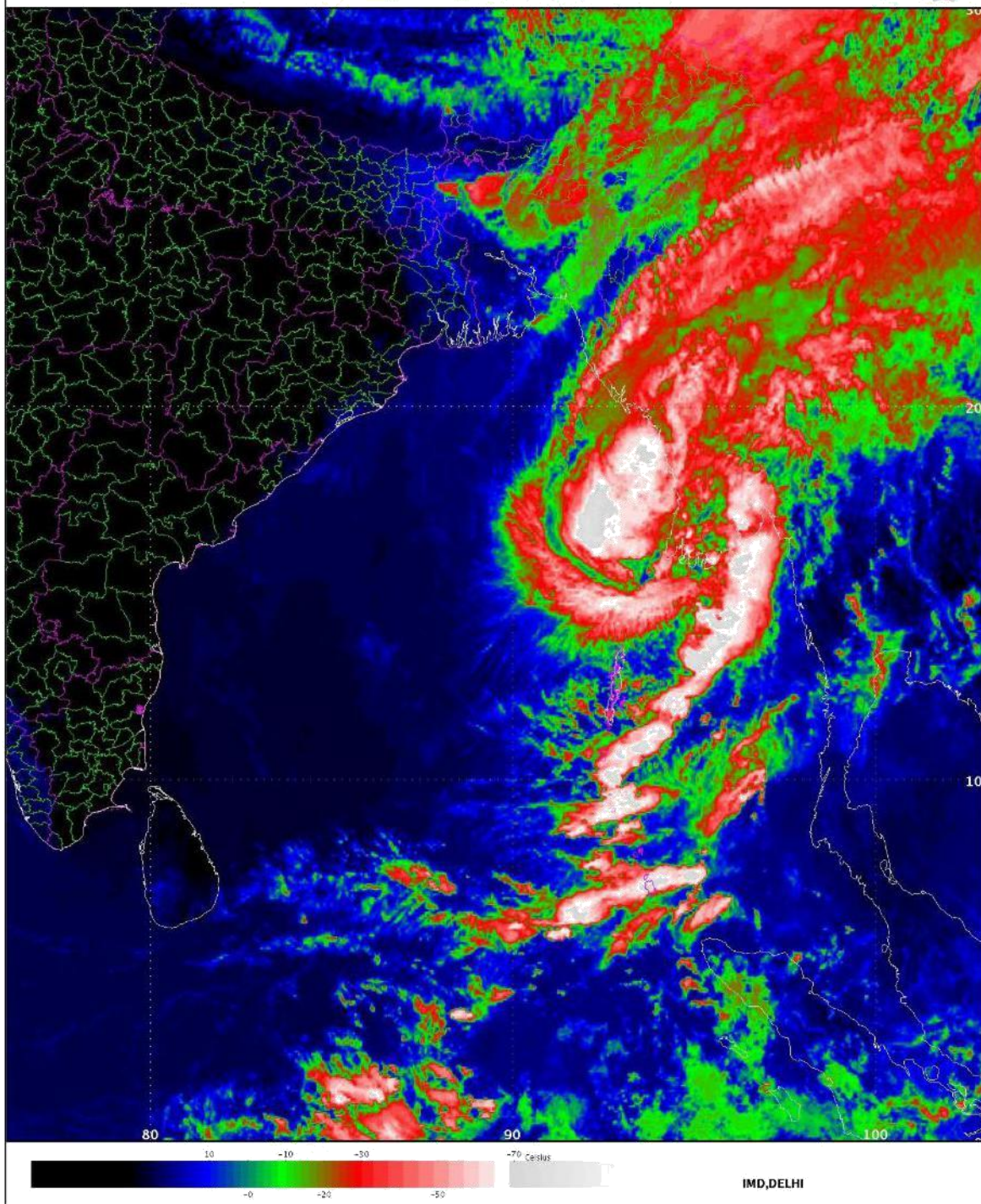
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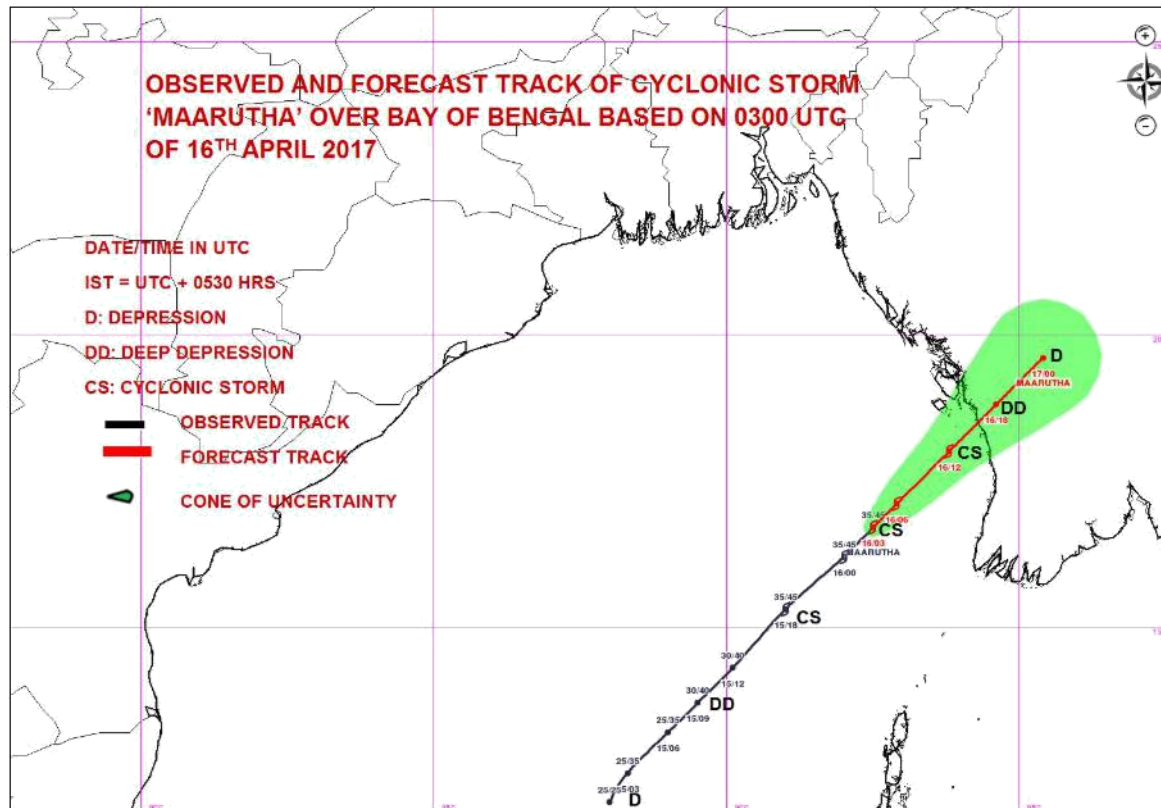
SECTOR BAYOFBENGAL Mercator (NHC LUT)

16-04-2017/04:30 GMT

16-04-2017/10:00 IST



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**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI**

**TROPICAL CYCLONE ADVISORY BULLETIN**

**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)**

**TROPICAL CYCLONE ADVISORY**  
**RSMC – TROPICAL CYCLONES, NEW DELHI**

**TROPICAL STORM ‘MAARUTHA’ ADVISORY NO. FIVE ISSUED AT 0900 UTC OF 16<sup>TH</sup> APRIL 2017 BASED ON 0600 UTC CHARTS OF 16<sup>TH</sup> APRIL 2017.**

THE CYCLONIC STORM (MAARUTHA) OVER EASTCENTRAL BAY OF BENGAL FURTHER MOVED NORTHEASTWARDS WITH A SPEED OF 22 KMPH DURING PAST 06 HOURS AND LAY CENTRED AT 0600 UTC OF TODAY, THE 16<sup>TH</sup> APRIL, 2017 OVER EASTCENTRAL BAY OF BENGAL NEAR LATITUDE 17.0° N AND LONGITUDE 92.9°E, ABOUT 450 KM NEARLY NORTH OF MAYA BANDAR (43309) AND 220 KM SOUTHWEST OF SANDOWAY(THANDWE)(48080). THE SYSTEM IS LIKELY TO MOVE NORTHEASTWARDS AND CROSS MYANMAR COAST NEAR SANDOWAY(THANDWE) AROUND MID-NIGHT OF TODAY, THE 16<sup>TH</sup> APRIL 2017.

OBSERVED AND FORECAST TRACK POSITIONS AND INTENSITY OF THE SYSTEM ARE GIVEN BELOW:

| DATE/TIME(UTC)  | POSITION<br>(LAT. °N/ LONG.<br>°E) | MAXIMUM SUSTAINED<br>SURFACE WIND SPEED (KMPH) | CATEGORY OF CYCLON<br>DISTURBANCE |
|-----------------|------------------------------------|--|-----------------------------------|
| 16.04.2017/0600 | 17.0/92.9                          | 70-80 GUSTING TO 90                            | CYCLONIC STORM                    |
| 16.04.2017/1200 | 17.9/93.8                          | 70-80 GUSTING TO 90                            | CYCLONIC STORM                    |
| 16-04-2017/1800 | 18.8/94.6                          | 60-70 GUSTING TO 80                            | CYCLONIC STORM                    |
| 17-04-2017/0000 | 19.6/95.4                          | 50-60 GUSTING TO 70                            | DEEP DEPRESSION                   |
| 17-04-2017/0600 | 20.4/96.2                          | 35-45 GUSTING TO 55                            | DEPRESSION                        |

**STORM SURGE: THE STORM SURGE OF ABOUT ONE METER HEIGHT ABOVE THE ASTRONOMICAL TIDE IS VERY LIKELY TO INUNDATE THE LOW LYING AREAS OF MYANMAR COAST NEAR LANDFALL POINT AT THE TIME OF LANDFALL.**

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T2.5. THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 40 KNOTS GUSTING TO 50 KNOTS AND ESTIMATED CENTRE PRESSURE IS 996 HPA. SEA CONDITION AROUND THE SYSTEM CENTRE IS HIGH. THE CONVECTION HAS CURVED BAND PATTERN, HOWEVER IT SHOWS SIGN OF WEAKENING WITH TENDENCY OF DISORGANISATION. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER EASTCENTRAL BAY OF BENGAL BETWEEN LATITUDE 14.0 DEGREE NORTH TO 20.0 DEGREE NORTH AND EAST OF LONGITUDE 90.0 DEGREE & ARAKAN COAST, GULF OF MARTABAN. THE LOWEST CLOUD TOP TEMPERATURE IS MINUS 80 DEGREE CELCIUS.

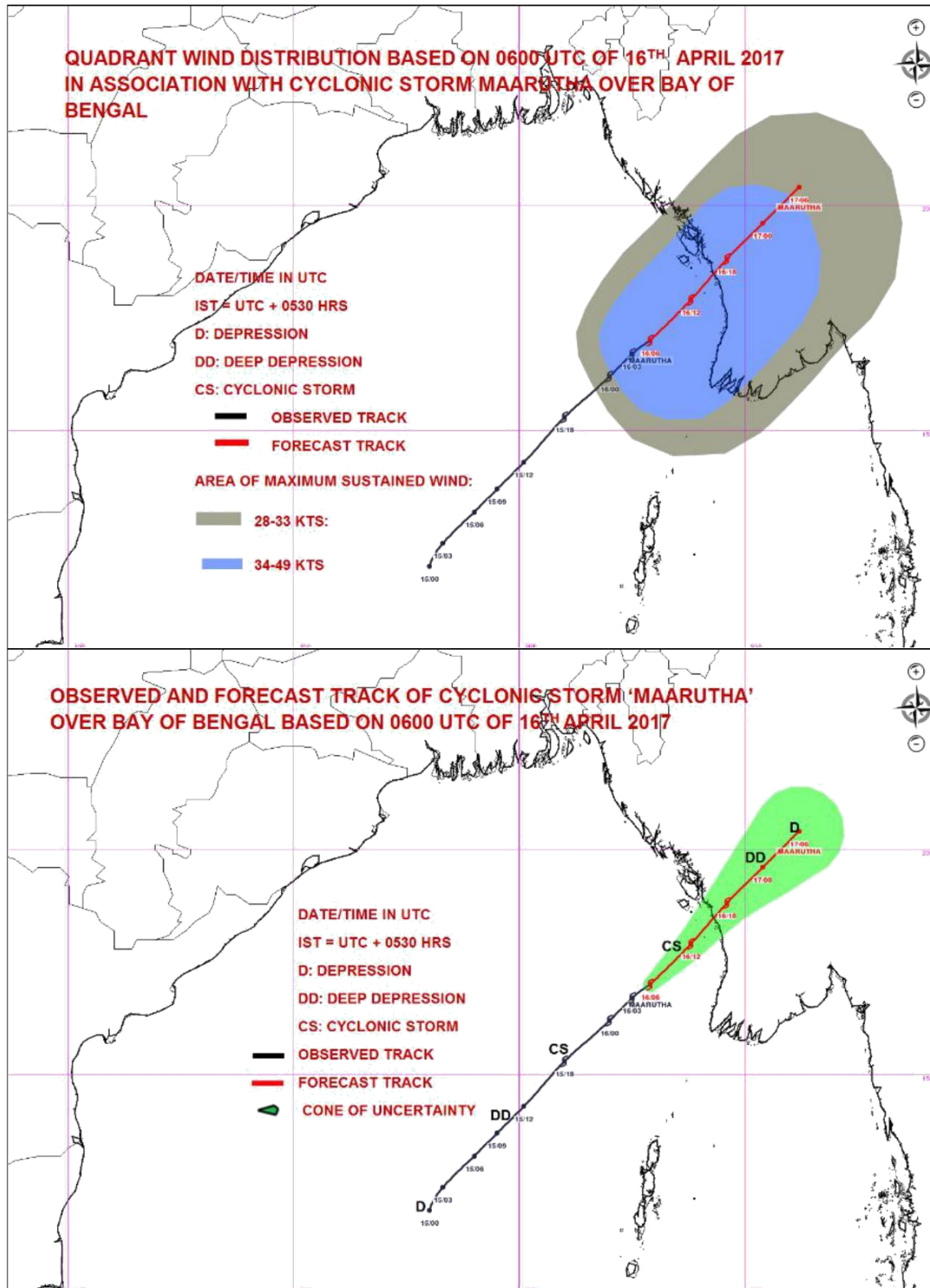
THE SEA SURFACE TEMPERATURE AROUND THE REGION OF CYCLONIC STORM IS 30-

**Contact: Phone: (91) 11-246524844 FAX: (91) 11-24623220 e-mail :cwdhq2008@gmail.com**

31<sup>0</sup>C. IT DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 28-29<sup>0</sup>C. THE OCEAN THERMAL ENERGY IS ABOUT 100 KJ/CM<sup>2</sup>. IT ALSO DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 60-80 KJ/CM<sup>2</sup>. THE VERTICAL WIND SHEAR IS ABOUT 15-25 KNOTS AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY IS ABOUT  $200 \times 10^{-6} \text{ S}^{-1}$ . THE CONVERGENCE HAS DECREASED IN PAST 12 HOURS AND IS OF THE ORDER OF ABOUT  $20 \times 10^{-5} \text{ S}^{-1}$ . THE UPPER LEVEL DIVERGENCE HAS ALSO DECREASED IN PAST 12 HOURS AND IS OF ORDER ABOUT  $20 \times 10^{-5} \text{ S}^{-1}$ . THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 11<sup>0</sup>N. THE MADDEN JULIAN OSCILLATION INDEX LIES IN PHASE 7 WITH AMPLITUDE LESS THAN 1. IT WILL MOVE TO PHASE 8 DURING NEXT 3 DAYS WITH GRADUALLY INCREASING AMPLITUDE. HENCE CONSIDERING ALL ENVIRONMENTAL FEATURES, IT IS UNLIKELY FOR FURTHER INTENSIFICATION OF THE SYSTEM.

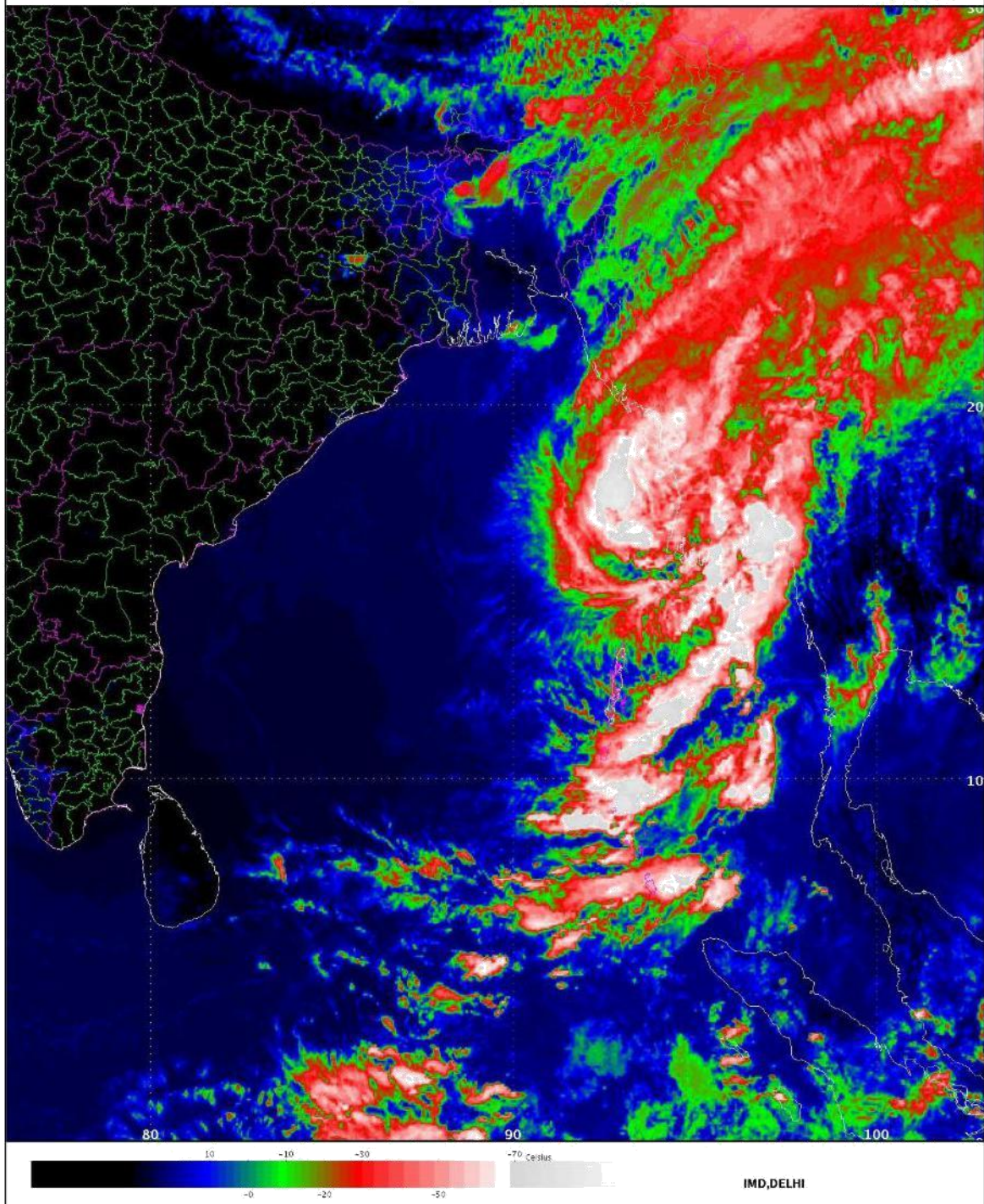
**(NARESH KUMAR)**  
**SCIENTIST-D**  
**RSMC, NEW DELHI**





SAT :INSAT-3D  
IMG\_TIR1\_TEMP 10.8 um  
SECTOR BAYOFBENGAL Mercator (NHC LUT)

16-04-2017/07:00 GMT  
16-04-2017/12:30 IST





**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI**

**TROPICAL CYCLONE ADVISORY BULLETIN**

**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)**

**TROPICAL CYCLONE ADVISORY**  
**RSMC – TROPICAL CYCLONES, NEW DELHI**

**TROPICAL STORM ‘MAARUTHA’ ADVISORY NO. SIX ISSUED AT 1100 UTC OF 16<sup>TH</sup> APRIL 2017 BASED ON 0900 UTC CHARTS OF 16<sup>TH</sup> APRIL 2017.**

THE CYCLONIC STORM (MAARUTHA) OVER EASTCENTRAL BAY OF BENGAL FURTHER MOVED NORTHEASTWARDS WITH A SPEED OF 19 KMPH DURING PAST 06 HOURS AND LAY CENTRED AT 0900 UTC OF TODAY, THE 16<sup>TH</sup> APRIL, 2017 OVER EASTCENTRAL BAY OF BENGAL NEAR LATITUDE 17.5°N AND LONGITUDE 93.2°E, ABOUT 510 KM NEARLY NORTH OF MAYA BANDAR (43309) AND 160 KM SOUTHWEST OF SANDOWAY(THANDWE)(48080). THE SYSTEM IS LIKELY TO MOVE NORTHEASTWARDS AND CROSS MYANMAR COAST NEAR SANDOWAY(THANDWE) AROUND MID-NIGHT OF TODAY, THE 16<sup>TH</sup> APRIL 2017.

OBSERVED AND FORECAST TRACK POSITIONS AND INTENSITY OF THE SYSTEM ARE GIVEN BELOW:

| DATE/TIME(UTC)  | POSITION<br>(LAT. °N/ LONG.<br>°E) | MAXIMUM SUSTAINED<br>SURFACE WIND SPEED (KMPH) | CATEGORY OF CYCLON<br>DISTURBANCE |
|-----------------|------------------------------------|--|-----------------------------------|
| 16.04.2017/0900 | 17.5/93.2                          | 70-80 GUSTING TO 90                            | CYCLONIC STORM                    |
| 16.04.2017/1200 | 17.9/93.8                          | 70-80 GUSTING TO 90                            | CYCLONIC STORM                    |
| 16-04-2017/1800 | 18.8/94.6                          | 60-70 GUSTING TO 80                            | CYCLONIC STORM                    |
| 17-04-2017/0000 | 19.6/95.4                          | 50-60 GUSTING TO 70                            | DEEP DEPRESSION                   |
| 17-04-2017/0600 | 20.4/96.2                          | 35-45 GUSTING TO 55                            | DEPRESSION                        |

**STORM SURGE: THE STORM SURGE OF ABOUT ONE METER HEIGHT ABOVE THE ASTRONOMICAL TIDE IS VERY LIKELY TO INUNDATE THE LOW LYING AREAS OF MYANMAR COAST NEAR LANDFALL POINT AT THE TIME OF LANDFALL.**

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T2.5. THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 40 KNOTS GUSTING TO 50 KNOTS AND ESTIMATED CENTRE PRESSURE IS 996 HPA. SEA CONDITION AROUND THE SYSTEM CENTRE IS HIGH. THE CONVECTION HAS CURVED BAND PATTERN. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER EASTCENTRAL BAY OF BENGAL BETWEEN LATITUDE 14.0 DEGREE NORTH TO 20.0 DEGREE NORTH AND EAST OF LONGITUDE 91.0 DEGREE & ARAKAN COAST, GULF OF MARTABAN ADJOINING SOUTH MYANMAR . THE LOWEST CLOUD TOP TEMPERATURE IS MINUS 90 DEGREE CELCIUS.

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF CYCLONIC STORM IS 30-

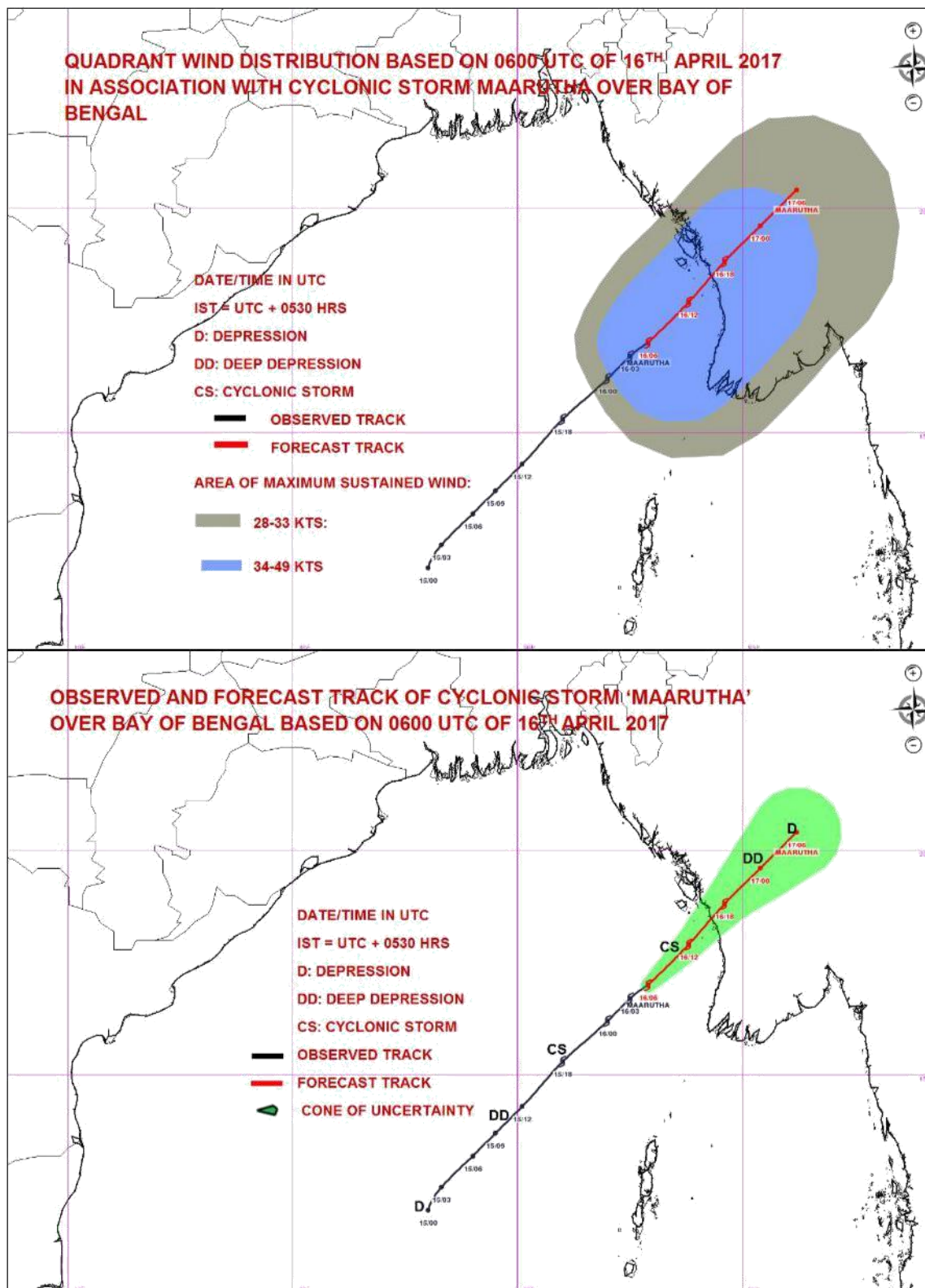
**Contact: Phone: (91) 11-246524844 FAX: (91) 11-24623220 e-mail :cwdhq2008@gmail.com**



31<sup>0</sup>C. IT DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 28-29<sup>0</sup>C. THE OCEAN THERMAL ENERGY IS ABOUT 100 KJ/CM<sup>2</sup>. IT ALSO DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 60-80 KJ/CM<sup>2</sup>. THE VERTICAL WIND SHEAR IS ABOUT 15-25 KNOTS AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY IS ABOUT  $200 \times 10^{-6} \text{ S}^{-1}$ . THE CONVERGENCE IS OF THE ORDER OF ABOUT  $20 \times 10^{-5} \text{ S}^{-1}$ . THE UPPER LEVEL DIVERGENCE IS ALSO OF THE ORDER ABOUT  $20 \times 10^{-5} \text{ S}^{-1}$ . THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 11<sup>0</sup>N. THE MADDEN JULIAN OSCILLATION INDEX LIES IN PHASE 7 WITH AMPLITUDE LESS THAN 1. IT WILL MOVE TO PHASE 8 DURING NEXT 3 DAYS WITH GRADUALLY INCREASING AMPLITUDE. HENCE CONSIDERING ALL ENVIRONMENTAL FEATURES, IT IS UNLIKELY FOR FURTHER INTENSIFICATION OF THE SYSTEM.

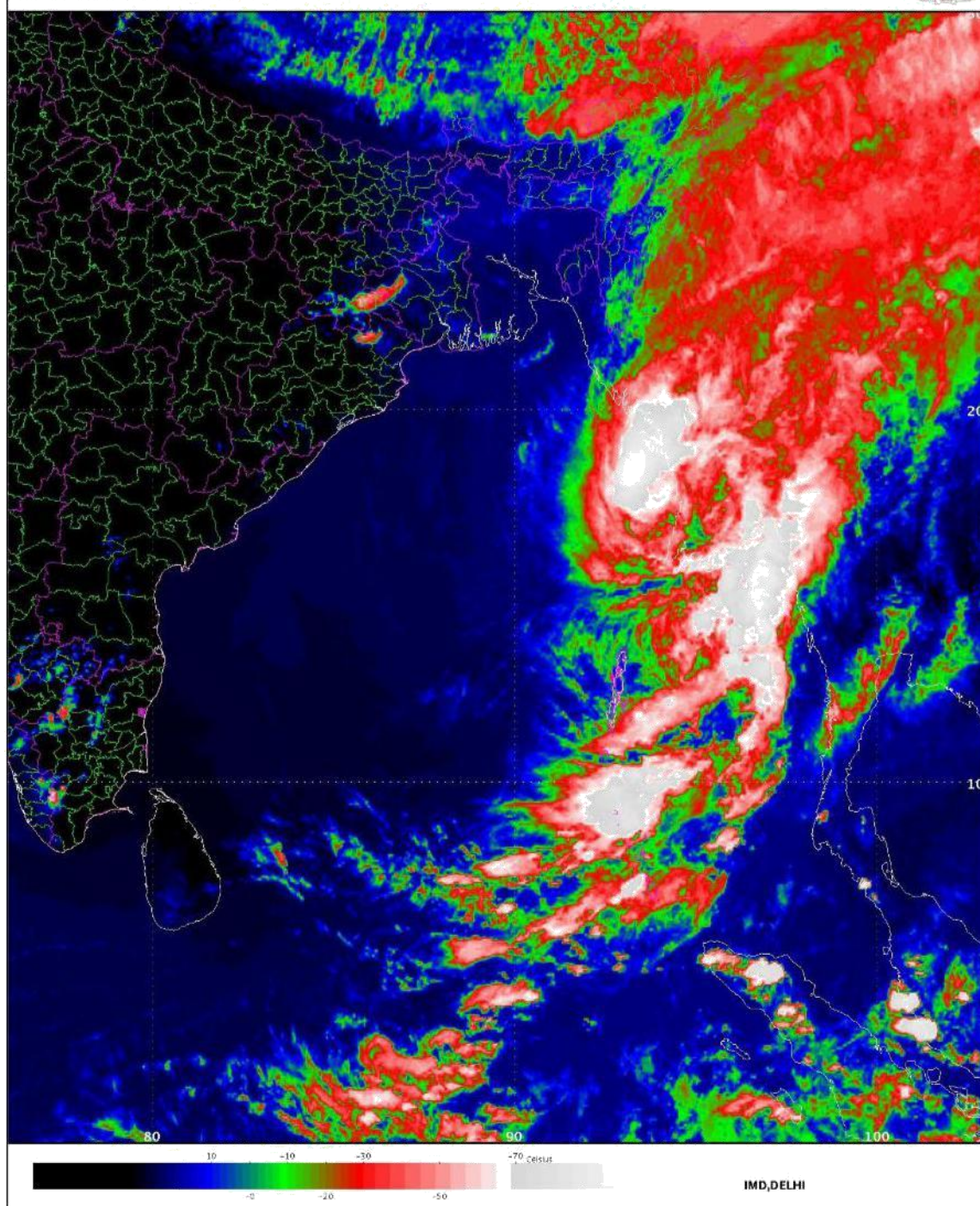
**(NARESH KUMAR)**  
**SCIENTIST-D**  
**RSMC, NEW DELHI**





SAT :INSAT-3D  
IMG\_TIR1\_TEMP 10.8 um  
SECTOR BAYOFBENGAL Mercator (NHC LUT)

16-04-2017/09:30 GMT  
16-04-2017/15:00 IST



Contact: Phone: (91) 11-246524844 FAX: (91) 11-24623220 e-mail :cwdhq2008@gmail.com



**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI**

**TROPICAL CYCLONE ADVISORY**

**BULLETIN 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)**

**TROPICAL CYCLONE ADVISORY**

**RSMC – TROPICAL CYCLONES, NEW DELHI**

**TROPICAL STORM 'MAARUTHA' ADVISORY NO. SEVEN ISSUED AT 1400 UTC OF 16<sup>TH</sup> APRIL 2017  
BASED ON 1200 UTC CHARTS OF 16<sup>TH</sup> APRIL 2017.**

THE CYCLONIC STORM (MAARUTHA) OVER EASTCENTRAL BAY OF BENGAL FURTHER MOVED NORTHEASTWARDS WITH A SPEED OF 19 KMPH DURING PAST 06 HOURS AND LAY CENTRED AT 1200 UTC OF TODAY, THE 16<sup>TH</sup> APRIL, 2017 OVER EASTCENTRAL BAY OF BENGAL NEAR LATITUDE 17.8° N AND LONGITUDE 93.6°E, ABOUT 550 KM NORTH-NORTHEAST OF MAYA BANDAR(43309) AND 110 KM SOUTHWEST OF SANDOWAY(THANDWE)(48080).THE SYSTEM IS LIKELY TO MOVE NORTHEASTWARDS AND CROSS MYANMAR COAST NEAR SANDOWAY(THANDWE) AROUND MID-NIGHT OF TODAY, THE 16<sup>TH</sup> APRIL 2017. OBSERVED AND FORECAST TRACK POSITIONS AND INTENSITY OF THE SYSTEM ARE GIVEN BELOW:

| DATE/TIME(UTC)  | POSITION<br>(LAT.°N/ LONG.°E) | MAXIMUM SUSTAINED<br>SURFACE WIND SPEED(KMPH) | CATEGORY OF CYCLON<br>DISTURBANCE |
|-----------------|-------------------------------|---|-----------------------------------|
| 16.04.2017/1200 | 17.8/93.6                     | 70-80 GUSTING TO 90                           | CYCLONIC STORM                    |
| 16-04-2017/1800 | 18.8/94.5                     | 60-70 GUSTING TO 80                           | CYCLONIC STORM                    |
| 17-04-2017/0000 | 19.6/95.3                     | 50-60 GUSTING TO 70                           | DEEP DEPRESSION                   |
| 17-04-2017/0600 | 20.4/96.1                     | 35-45 GUSTING TO 55                           | DEPRESSION                        |

**STORM SURGE: THE STORM SURGE OF ABOUT ONE TO TWO METER HEIGHT ABOVE THE ASTRONOMICAL TIDE IS VERY LIKELY TO INUNDATE THE LOW LYING AREAS OF MYANMAR COAST NEAR LANDFALL POINT AT THE TIME OF LANDFALL.**

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T2.5. THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 40 KNOTS GUSTING TO 50 KNOTS AND ESTIMATED CENTRE PRESSURE IS 996 HPA. SEA CONDITION AROUND THE SYSTEM CENTRE IS HIGH. THE CONVECTION HAS CURVED BAND PATTERN. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER EASTCENTRAL BAY OF BENGAL BETWEEN LATITUDE 14.0 DEGREE NORTH TO 20.0 DEGREE NORTH AND EAST OF LONGITUDE 91.0 DEGREE & ARAKAN COAST, GULF OF MARTABAN ADJOINING SOUTH MYANMAR. THE LOWEST CLOUD TOP TEMPERATURE IS MINUS 90 DEGREE CELCIUS.

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF CYCLONIC STORM IS 30-31<sup>0</sup>C. IT DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 28-29<sup>0</sup>C. THE OCEAN THERMAL ENERGY IS ABOUT 100 KJ/CM<sup>2</sup>. IT ALSO DECREASES TOWARDS NORTH MYANMAR COAST BECOMING 60-80 KJ/CM<sup>2</sup>.

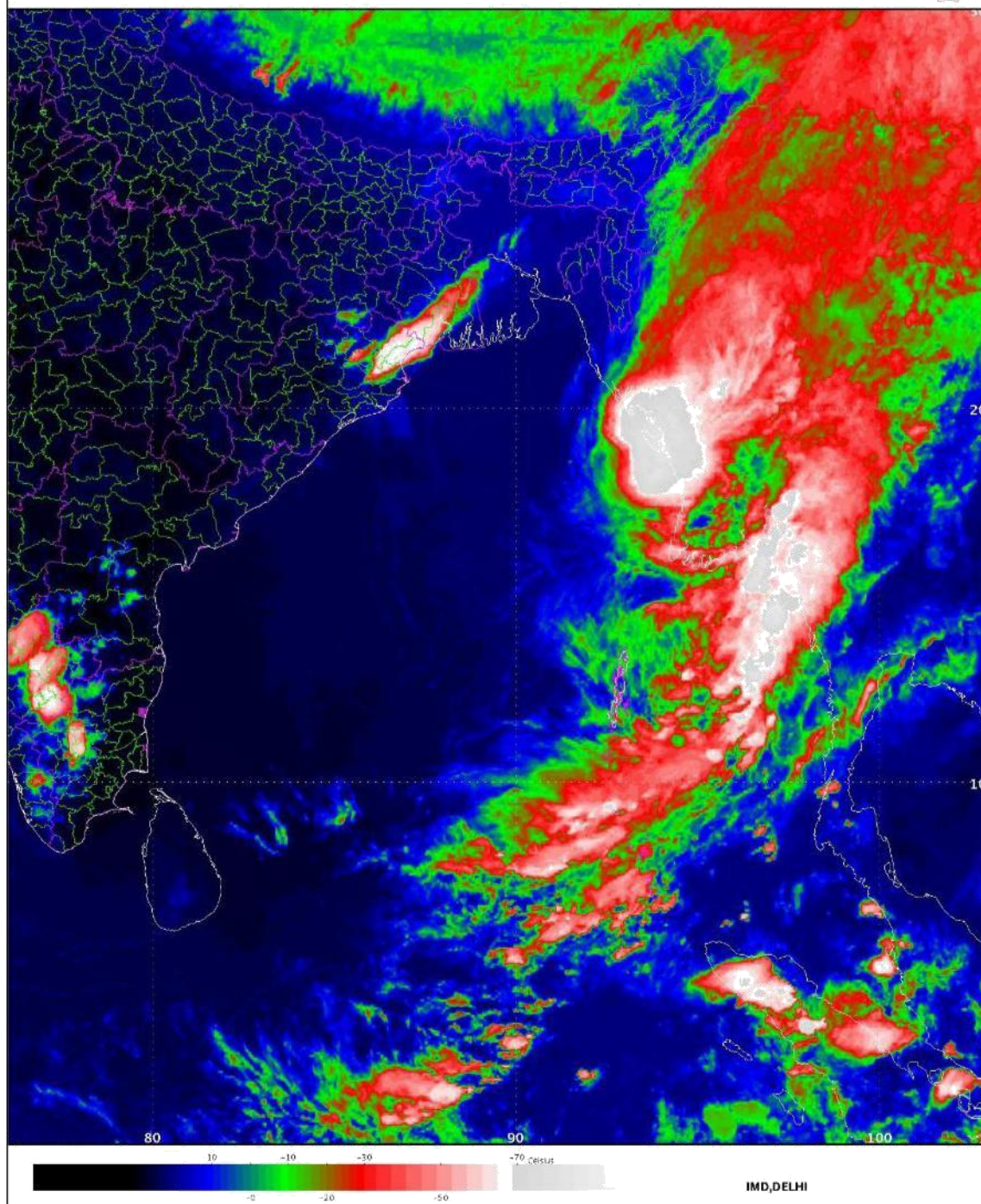
**(NARESH KUMAR)  
SCIENTIST-D  
RSMC, NEW DELHI**

**Contact: Phone: (91) 11-246524844 FAX: (91) 11-24623220 e-mail :cwdhq2008@gmail.com**



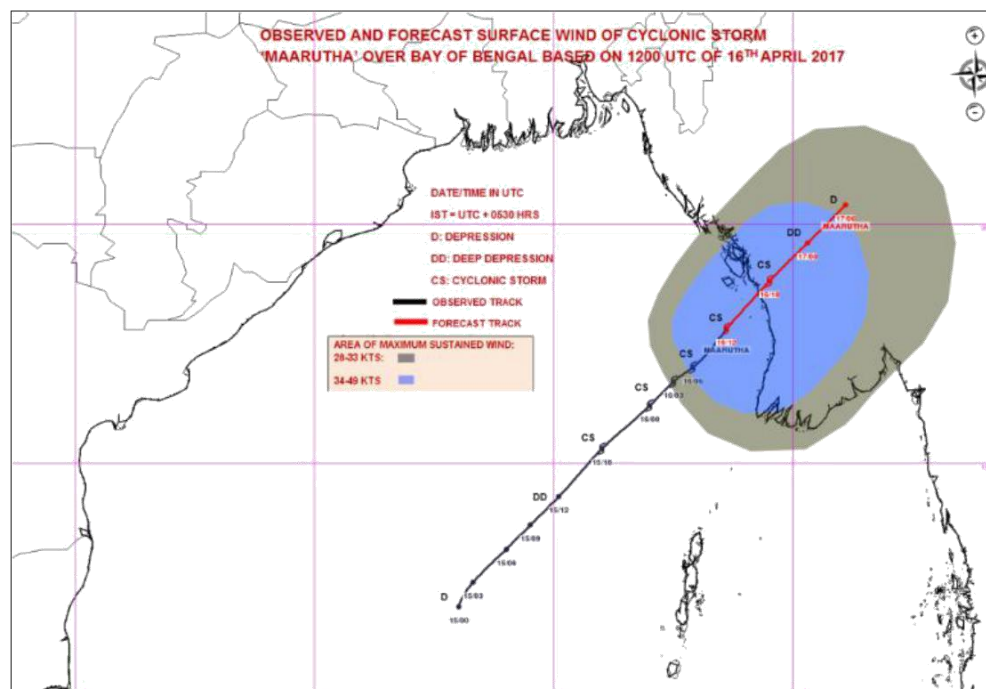
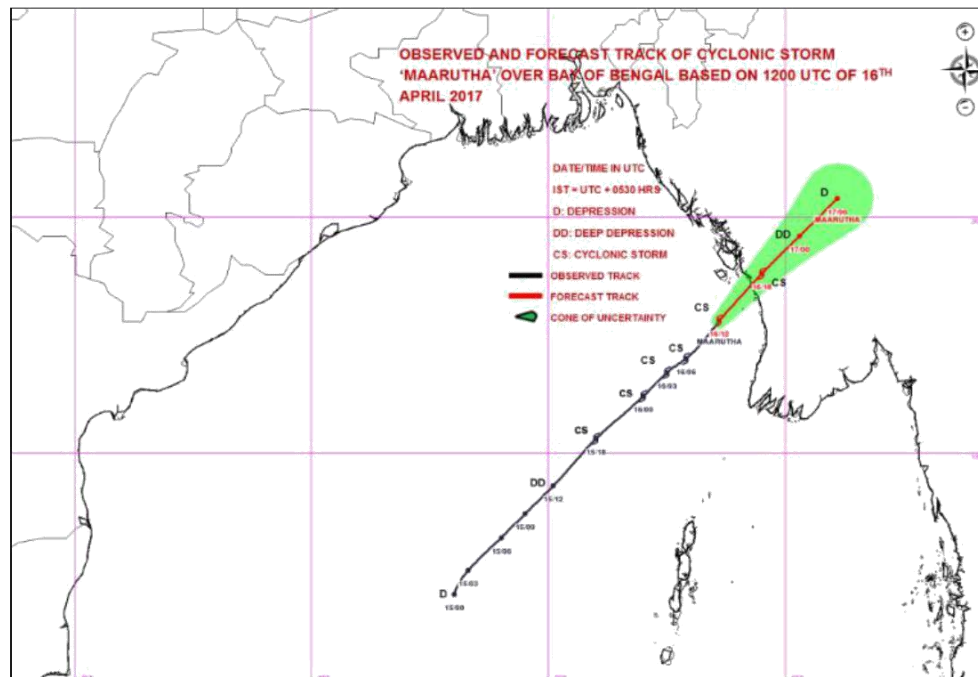
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IMG.TIR1. TEMP 10.8 um  
SECTOR BAYOFBENGAL Mercator (NHC LUT)

16-04-2017/13:00 GMT  
16-04-2017/18:30 IST



Contact: Phone: (91) 11-246524844 FAX: (91) 11-24623220 e-mail :cwdhq2008@gmail.com







**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI**

**TROPICAL CYCLONE ADVISORY**

**BULLETIN 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)**

**TROPICAL CYCLONE ADVISORY**

**RSMC – TROPICAL CYCLONES, NEW DELHI**

**TROPICAL STORM 'MAARUTHA' ADVISORY NO. EIGHT ISSUED AT 1700 UTC OF 16<sup>TH</sup> APRIL 2017  
BASED ON 1500 UTC CHARTS OF 16<sup>TH</sup> APRIL 2017.**

THE CYCLONIC STORM (MAARUTHA) OVER EASTCENTRAL BAY OF BENGAL FURTHER MOVED NORTHEASTWARDS WITH A SPEED OF 18 KMPH DURING PAST 06 HOURS AND LAY CENTRED AT 1500 UTC OF TODAY, THE 16<sup>TH</sup> APRIL, 2017 OVER EASTCENTRAL BAY OF BENGAL NEAR LATITUDE 18.2° N AND LONGITUDE 93.9°E, ABOUT 55 KM WEST-SOUTHWEST OF SANDOWAY(THANDWE), MYANMAR. THE SYSTEM IS LIKELY TO MOVE NORTH-NORTHEASTWARDS AND CROSS MYANMAR COAST NEAR SANDOWAY(THANDWE) DURING NEXT THREE HOURS.

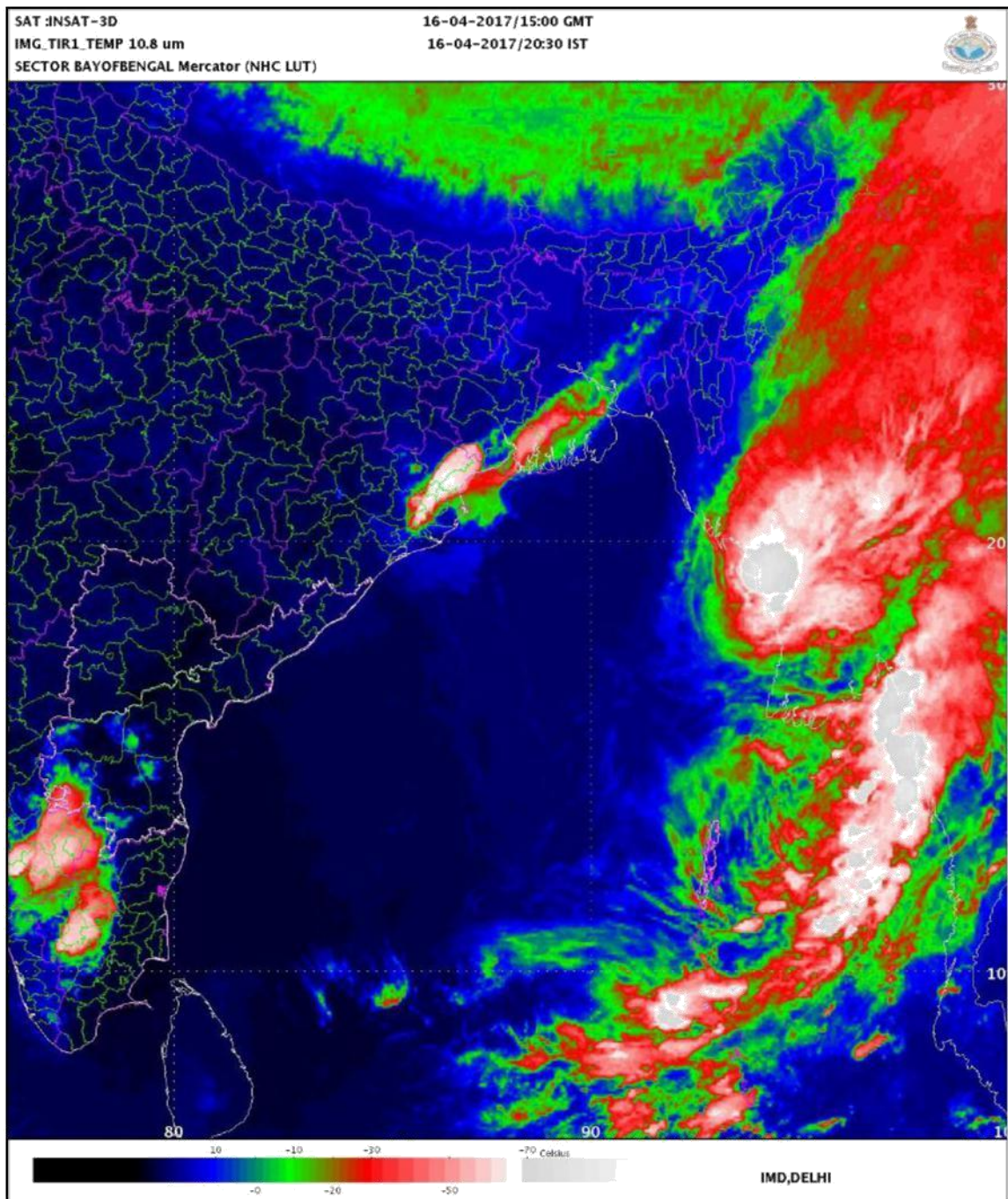
OBSERVED AND FORECAST TRACK POSITIONS AND INTENSITY OF THE SYSTEM ARE GIVEN BELOW:

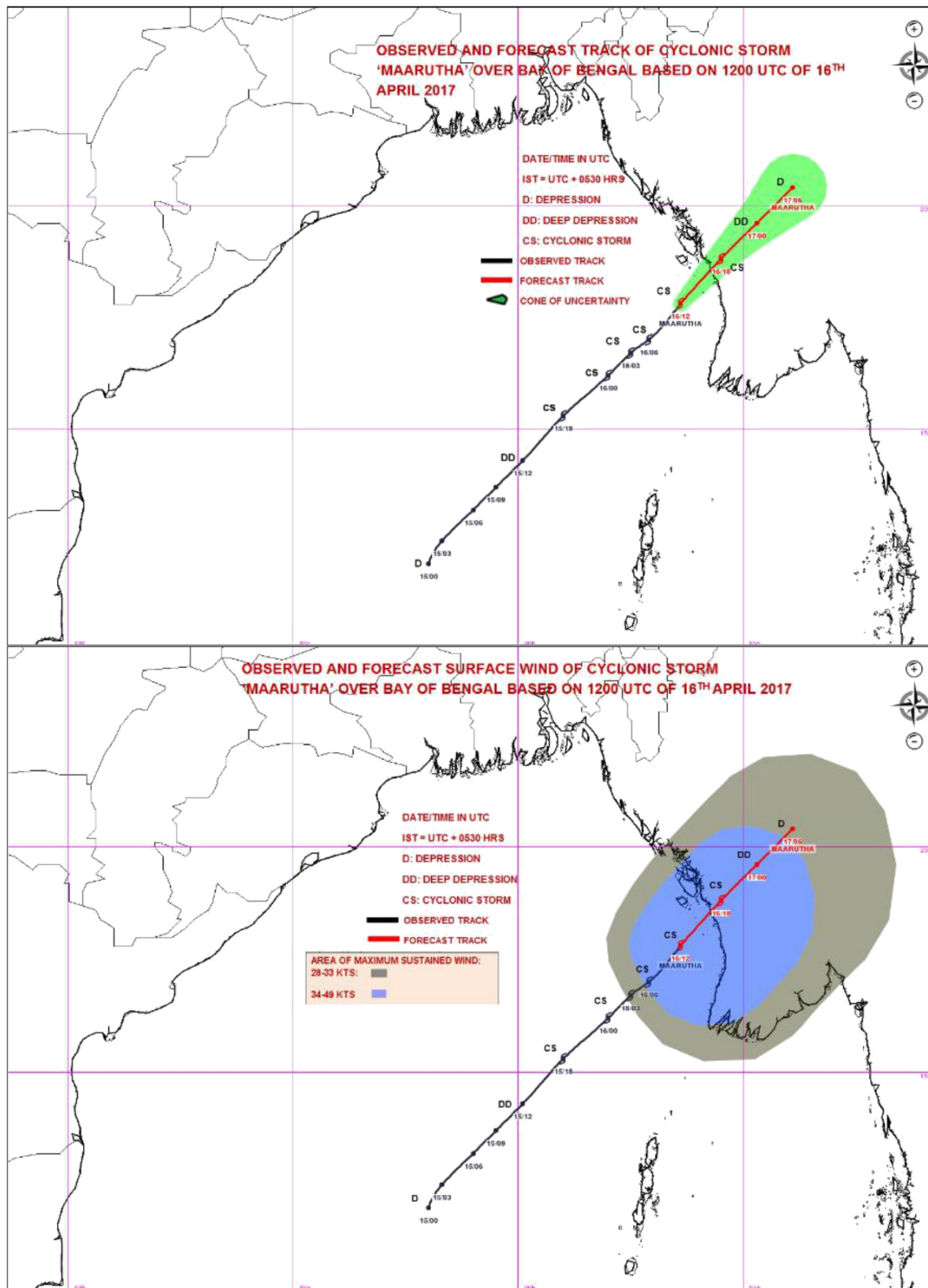
| DATE/TIME(UTC)  | POSITION<br>(LAT. °N/ LONG.<br>°E) | MAXIMUM SUSTAINED<br>SURFACE WIND SPEED (KMPH) | CATEGORY OF CYCLON<br>DISTURBANCE |
|-----------------|------------------------------------|--|-----------------------------------|
| 16.04.2017/1500 | 18.2/93.9                          | 70-80 GUSTING TO 90                            | CYCLONIC STORM                    |
| 16-04-2017/1800 | 18.8/94.5                          | 60-70 GUSTING TO 80                            | CYCLONIC STORM                    |
| 17-04-2017/0000 | 19.6/95.3                          | 50-60 GUSTING TO 70                            | DEEP DEPRESSION                   |
| 17-04-2017/0600 | 20.4/96.1                          | 35-45 GUSTING TO 55                            | DEPRESSION                        |

**STORM SURGE: THE STORM SURGE OF ABOUT ONE TO TWO METER HEIGHT ABOVE THE ASTRONOMICAL TIDE IS VERY LIKELY TO INUNDATE THE LOW LYING AREAS OF MYANMAR COAST NEAR LANDFALL POINT AT THE TIME OF LANDFALL.**

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T2.5. THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 40 KNOTS GUSTING TO 50 KNOTS AND ESTIMATED CENTRE PRESSURE IS 996 HPA. SEA CONDITION AROUND THE SYSTEM CENTRE IS HIGH. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARAKAN COAST ADJOINING EASTCENTRAL BAY OF BENGAL & SOUTH MYANMAR. THE LOWEST CLOUD TOP TEMPERATURE IS MINUS 90 DEGREE CELCIUS. THE SYSTEM IS INTERACTING WITH LAND SURFACE, MAJOR PARTS OF THE CONVECTION ARE LYING OVER THE LAND AND SHOWS SIGN OF DISORGANISATION.

**(NARESH KUMAR)  
SCIENTIST-D  
RSMC, NEW DELHI**









**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI**

**TROPICAL CYCLONE ADVISORY**

**BULLETIN 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)**

**TROPICAL CYCLONE ADVISORY**

**RSMC – TROPICAL CYCLONES, NEW DELHI**

**TROPICAL STORM 'MAARUTHA' ADVISORY NO. NINE ISSUED AT 2000 UTC OF 16<sup>TH</sup> APRIL 2017  
BASED ON 1800 UTC CHARTS OF 16<sup>TH</sup> APRIL 2017.**

THE CYCLONIC STORM (MAARUTHA) OVER EASTCENTRAL BAY OF BENGAL FURTHER MOVED NORTHEASTWARDS AND LAY CENTRED AT 1800 UTC OF TODAY, THE 16<sup>TH</sup> APRIL, 2017 OVER EASTCENTRAL BAY OF BENGAL, NEAR LATITUDE 18.4° N AND LONGITUDE 94.3°E, CLOSE TO SANDOWAY(THANDWE)(48080).LATEST OBSERVATIONS INDICATE THAT THE SYSTEM IS CROSSING THE COAST NEAR SANDOWAY(THANDWE). THE SYSTEM IS LIKELY TO MOVE NORTHEASTWARDS AND WEAKEN INTO A DEEP DEPRESSION DURING NEXT 06 HOURS.

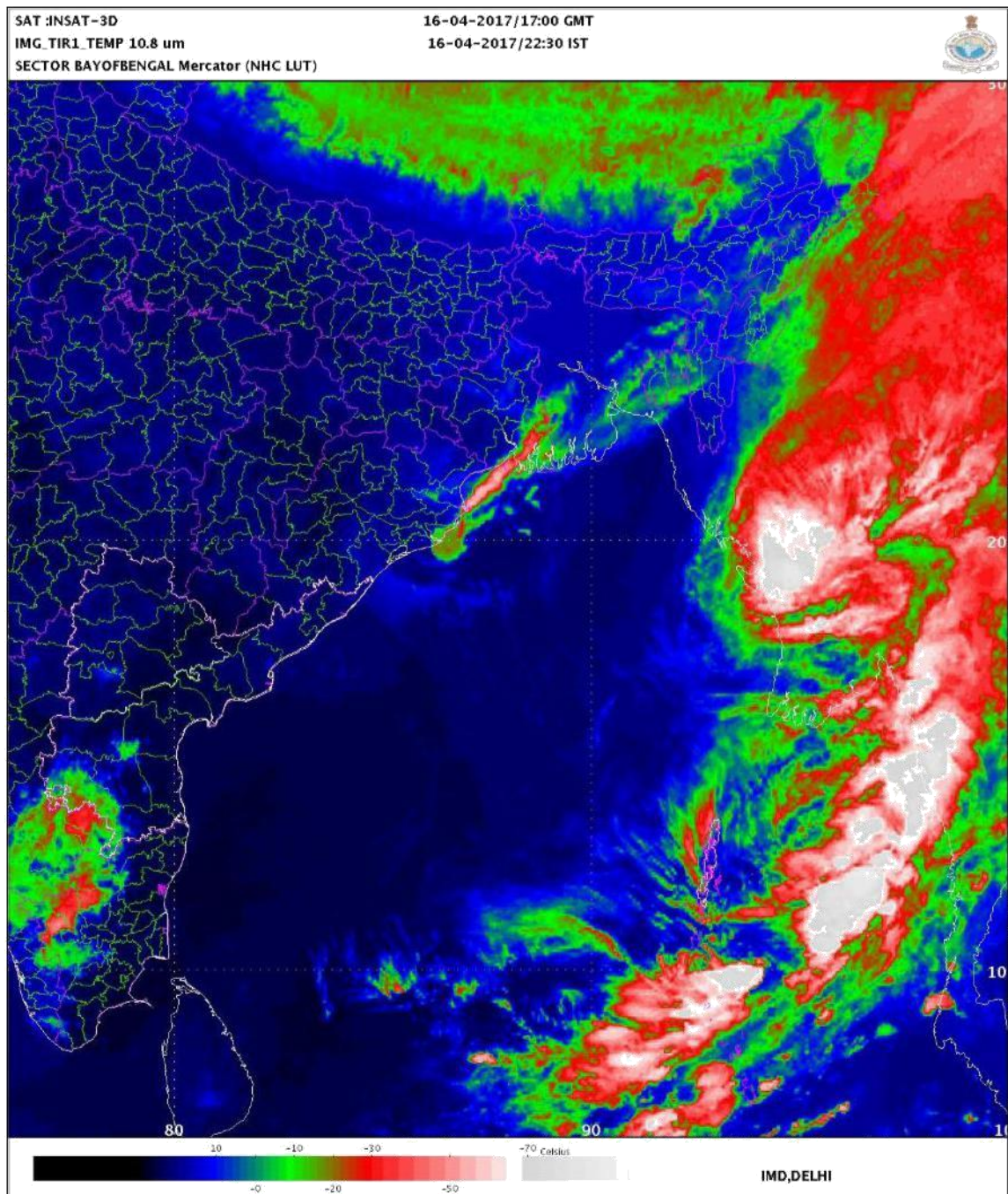
OBSERVED AND FORECAST TRACK POSITIONS AND INTENSITY OF THE SYSTEM ARE GIVEN BELOW:

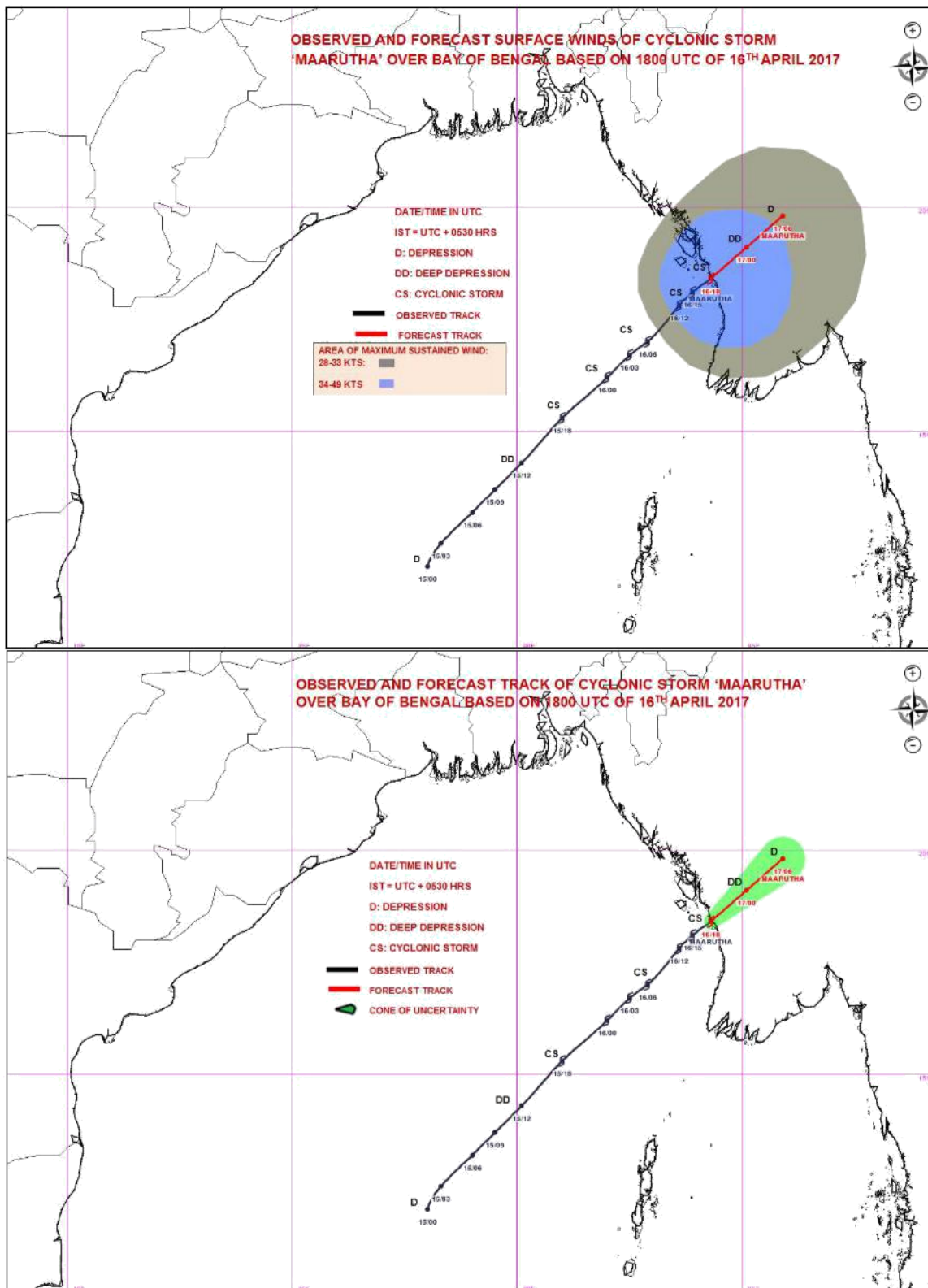
| DATE/TIME(UTC)  | POSITION<br>(LAT. °N/ LONG. °E) | MAXIMUM SUSTAINED<br>SURFACE WIND SPEED (KMPH) | CATEGORY OF CYCLON<br>DISTURBANCE |
|-----------------|---------------------------------|--|-----------------------------------|
| 16-04-2017/1800 | 18.4/94.3                       | 60-70 GUSTING TO 80                            | CYCLONIC STORM                    |
| 17-04-2017/0000 | 19.1/95.1                       | 50-60 GUSTING TO 70                            | DEEP DEPRESSION                   |
| 17-04-2017/0600 | 19.8/95.9                       | 35-45 GUSTING TO 55                            | DEPRESSION                        |

**STORM SURGE: THE STORM SURGE OF ABOUT ONE TO TWO METER HEIGHT ABOVE THE ASTRONOMICAL TIDE IS VERY LIKELY TO INUNDATE THE LOW LYING AREAS OF MYANMAR COAST NEAR LANDFALL POINT AT THE TIME OF LANDFALL.**

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T2.5. THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 35 KNOTS GUSTING TO 45 KNOTS AND ESTIMATED CENTRE PRESSURE IS 996 HPA. SEA CONDITION AROUND THE SYSTEM CENTRE IS HIGH. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARAKAN COAST AND SOUTH MYANMAR. THE SYSTEM IS INTERACTING WITH LAND SURFACE, MAJOR PARTS OF THE CONVECTION ARE LYING OVER THE LAND AND SHOWS SIGN OF DISORGANISATION.

**(NARESH KUMAR)  
SCIENTIST-D  
RSMC, NEW DELHI**







**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI**

**TROPICAL CYCLONE ADVISORY BULLETIN**

**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)**

**TROPICAL CYCLONE ADVISORY  
RSMC – TROPICAL CYCLONES, NEW DELHI**

**TROPICAL STORM 'MAARUTHA' ADVISORY NO. TEN ISSUED AT 2200 UTC OF 16<sup>TH</sup> APRIL 2017  
BASED ON 2100 UTC CHARTS OF 16<sup>TH</sup> APRIL 2017.**

THE CYCLONIC STORM (MAARUTHA) OVER EASTCENTRAL BAY OF BENGAL FURTHER MOVED NORTHEASTWARDS AND CROSSED MYANMAR COAST NEAR SANDOWAY(THANDWE) DURING 1800 UTC AND 1900 UTC OF TODAY THE 16<sup>TH</sup> APRIL, 2017 . IT CONTINUE TO MOVE NORTHEASTWARDS, WEAKENED INTO A DEEP DEPRESSION AND LAY CENTRED AT 2100 UTC OF TODAY THE 16<sup>TH</sup> APRIL, 2017, 2017 OVER MYANMAR NEAR LATITUDE 19.0° N AND LONGITUDE 95.0°E, ABOUT 90 KM NORTHEAST OF SANDOWAY(THANDWE), MYANMAR. THE SYSTEM IS LIKELY TO CONTINUE TO MOVE NORTHEASTWARDS AND WEAKEN FURTHER INTO A DEPRESSION DURING NEXT 12 HOURS.

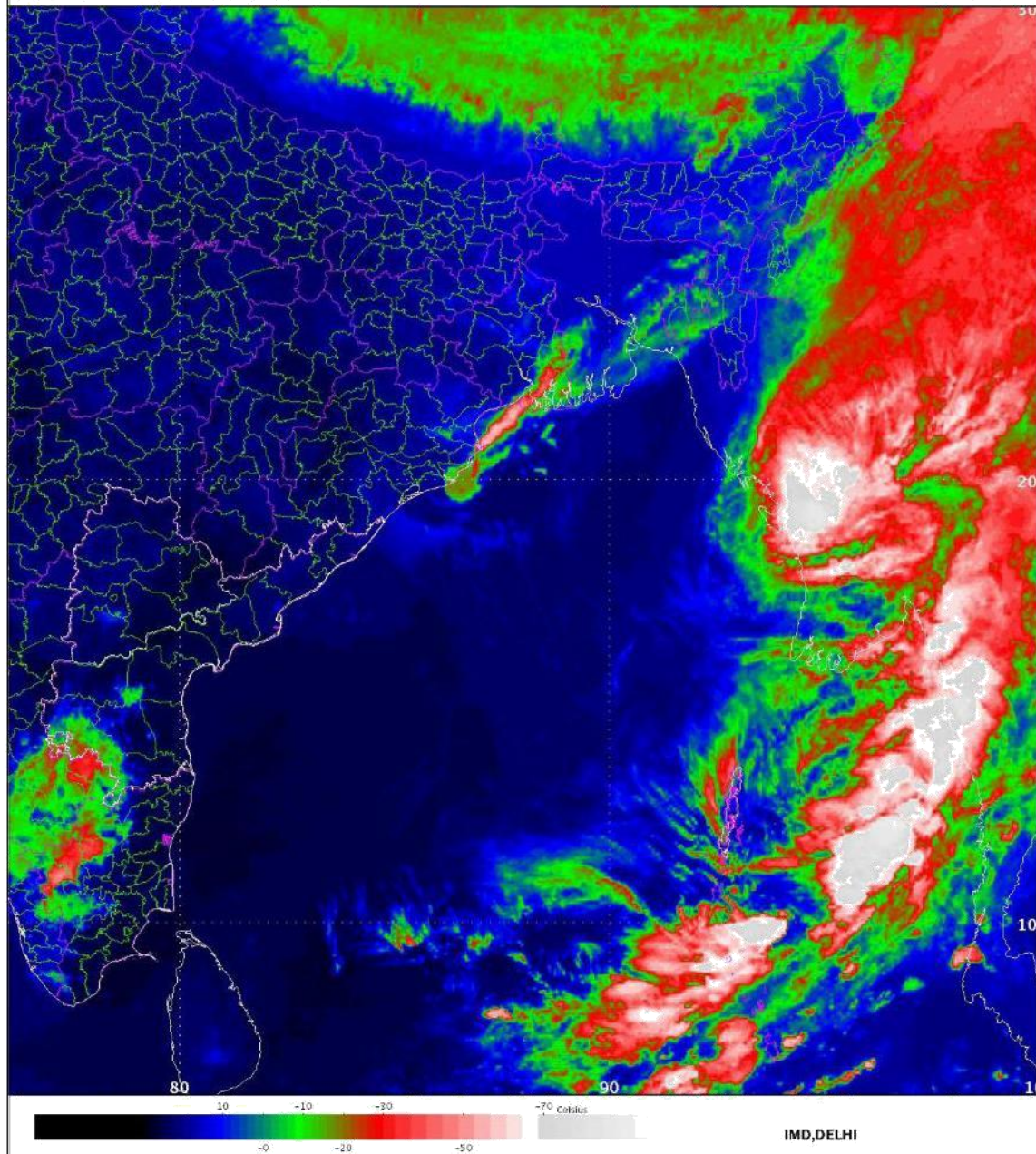
THE MAXIMUM SUSTAINED SURFACE WIND SPEED IS 30 KNOTS GUSTING TO 40 KNOTS. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARAKAN COAST AND SOUTH MYANMAR. THE SYSTEM IS INTERACTING WITH LAND SURFACE, MAJOR PARTS OF THE CONVECTION ARE LYING OVER THE LAND AND SHOWS SIGN OF DISORGANISATION.

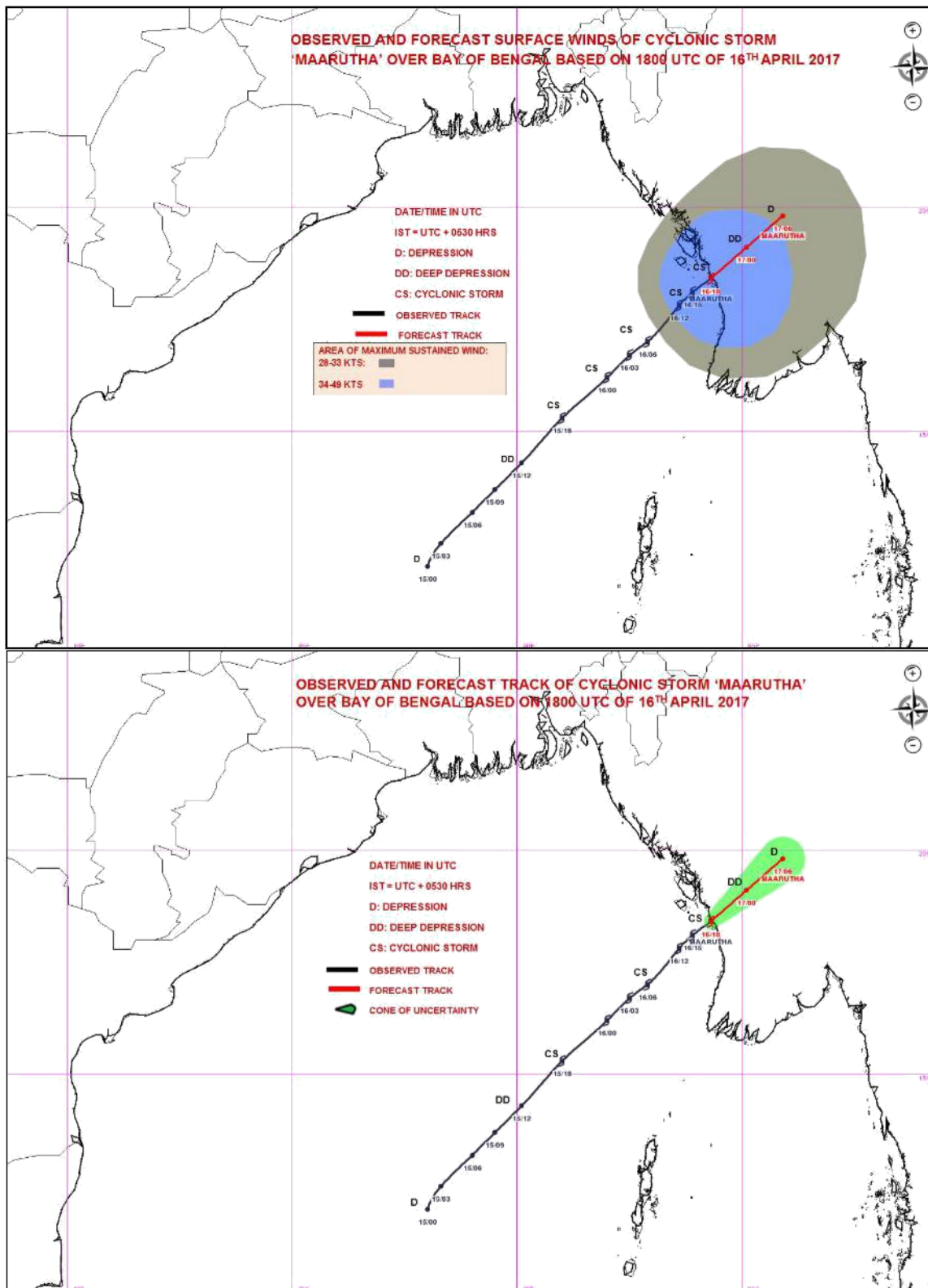
**(SHOBHIT KATIYAR)  
SCIENTIST-B RSMC,  
NEW DELHI**



SAT :INSAT-3D  
IMG\_TIR1\_TEMP 10.8 um  
SECTOR BAYOFBENGAL Mercator (NHC LUT)

16-04-2017/17:00 GMT  
16-04-2017/22:30 IST







**REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI**

**TROPICAL CYCLONE ADVISORY BULLETIN**

**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)**

**TROPICAL CYCLONE ADVISORY  
RSMC – TROPICAL CYCLONES, NEW DELHI**

**TROPICAL STORM 'MAARUTHA' ADVISORY NO. ELEVEN ISSUED AT 0200 UTC OF 17<sup>TH</sup> APRIL 2017 BASED ON 0000 UTC CHARTS OF 17<sup>TH</sup> APRIL 2017.**

THE DEEP DEPRESSION OVER MAYANMAR MOVED NORTHEAST WARDS AND WEAKEND FURTHER INTO A DEPRESSION AND LAY CENTRED AT 00UTC OF TODAY, THE 17<sup>TH</sup> APRIL 2017 OVER MAYANMAR NEAR LATTITUDE 19.5°N AND LONGITUDE 95.5°E. IT WOULD MOVE EAST-NORTHEASTWARD AND WEAKEN FURTHER INTO A WELL MARKED LOW PRESSURE AREA DURING NEXT 12 HOURS.

**(CHARAN SINGH)  
SCIENTIST-E  
NWFC, NEW DELHI**



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

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**DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 17-04-2017**

**TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 72 HOURS ISSUED AT 0600 UTC OF 17<sup>TH</sup> APRIL 2017 BASED ON 0300 UTC OF 17<sup>TH</sup> APRIL 2017**

THE DEPRESSION OVER MYANMAR MOVED NORTHEAST WARDS AND WEAKEND FURTHER INTO A WELL MARKED LOW PRESSURE AREA AND LAY OVER CENTRAL MYNMAR AND NEIGHBOURHOOD AT 0300 UTC OF TODAY, THE 17<sup>TH</sup> APRIL 2017. ASSOCIATED BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTION LIES OVER MYNMAR.

**THIS IS THE LAST BULLETIN FOR THIS SYSTEM.**

**(K.SATHI DEVI)  
SCIENTIST-F**



