

SPECIAL TROPICAL WEATHER OUTLOOK

DEMS-RSMC TROPICAL CYCLONES NEW DELHI 09-10-2013

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 24 HOURS ISSUED AT 0600 UTC OF 09 OCTOBER, 2013 BASED ON 0300 UTC OF 09 OCTOBER, 2013.

THE DEPRESSION OVER NORTH ANDAMAN SEA MOVED NORTHWESTWARDS AND INTENSIFIED INTO A DEEP DEPRESSION AND LAY CENTRED AT 0300 UTC OF TODAY, THE 09TH OCTOBER 2013 OVER NORTH ANDAMAN SEA NEAR LATITUDE 13.0°N AND LONGITUDE 93.5°E, ABOUT 50 KM EAST OF MAYABANDAR (43309), 170 KM NORTH-NORTHEAST OF PORT BLAIR (43333), 1100 KM EAST-SOUTHEAST OF PARADIP (42976), 1200 KM EAST-SOUTHEAST OF VISAKHAPATNAM (43149). THE SYSTEM WOULD INTENSIFY INTO A CYCLONIC STORM DURING NEXT 12 HOURS. IT WOULD MOVE WEST-NORTHWESTWARDS AND CROSS ANDAMAN ISLANDS NEAR MAYABANDAR BY AFTERNOON OF TODAY, THE 9TH OCTOBER 2013 AS A CYCLONIC STORM. IT WOULD THEN CONTINUE TO MOVE WEST-NORTHWESTWARDS FOR SOME TIME AND THEN NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP BY NIGHT OF 12TH OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 175-185 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 2.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER NORTH ANDAMAN SEA ADJOINING ISLANDS AND AREA BETWEEN LAT 10.0°N TO 15.0°N AND LONG 89.0°E TO 95.0°E AND EAST CENTRAL BAY. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 06 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -80°C.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 30 KNOTS GUSTING TO 40 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS ROUGH TO VERY ROUGH AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 1002 HPA.

BASED ON LATEST ANALYSIS WITH NWP MODELS AND OTHER CONVENTIONAL TECHNIQUES, ESTIMATED TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. °N/ Long. °E)	Sustained maximum surface wind speed (kmph)	Category
09-10-2013/0300	13.0/93.5	50-60 gusting to 70	Deep Depression
09-10-2013/0600	13.5/93.0	60/70 gusting to 80	Cyclonic Storm
09-10-2013/1200	14.0/92.5	65-75 gusting to 85	Cyclonic Storm
09-10-2013/1800	14.5/92.0	85-95 gusting to 105	Cyclonic Storm
10-10-2013/0000	15.0/90.0	95-105 gusting to 115	Severe Cyclonic Storm
10-10-2013/1200	15.5/89.0	115-125 gusting to 140	Severe Cyclonic Storm
11-10-2013/0000	16.0/88.0	135-145 gusting to 160	Very Severe Cyclonic Storm
11-10-2013/1200	16.5/87.0	155-165 gusting to 180	Very Severe Cyclonic Storm
12-10-2013/0000	17.0/86.0	175-185 gusting to 200	Very Severe Cyclonic Storm
12-10-2013/1200	18.0/85.0	175-185 gusting to 200	Very Severe Cyclonic Storm
13-10-2013/0000	19.5/84.5	65-75 gusting to 85	Cyclonic Storm
13-10-2013/1200	21.0/84.0	50 – 60 gusting to 70	Deep Depression
14-10-2013/0000	23.0/83.5	40 – 50 gusting to 60	Depression

REMARKS:

SCATTEROMETRY DATA INDICATES ASSOCIATED WIND SPEED TO BE ABOUT 30 KNOTS. MAYABANDAR REPORTED LOWEST MSLP OF 1002 HPA.

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 19°N AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 12 HOURS.. THE

SEA SURFACE TEMPERATURE IS ABOUT 28-29°C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE SEA HEIGHT ANOMALY IS ABOUT 5-10M. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-15 KNOTS (LOW TO MODERATE). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX LIES OVER PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST WEST-NORTHWESTWARD TO NORTHWESTWARD MOVEMENT DURING NEXT 72 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST. IMD'S DYNAMICAL STATISTICAL MODEL SUGGESTS INTENSIFICATION OF THE SYSTEM INTO A CYCLONIC STORM BY TODAY AFTERNOON. THE NWP GUIDANCE ALSO SUGGESTS INTENSIFICATION OF THE SYSTEM INTO A SEVERE CYCLONIC STORM AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP BY NIGHT OF 12TH OCTOBER. CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.