



### DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 25-10-2014

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 72 HOURS ISSUED AT 0300 UTC of 25<sup>TH</sup> OCTOBER 2014.

YESTERDAY'S WELL MARKED LOW PRESSURE AREA OVER WESTCENTRAL ARABIAN SEA AND ADJOINING EAST-CENTRAL AND SOUTH ARABIAN SEA CONCENTRATED INTO A DEPRESSION AND LAY CENTRED AT 0000 UTC OF TODAY, THE 25<sup>TH</sup> OCTOBER 2014 OVER WEST CENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA NEAR LATITUDE 12.5° NORTH AND LONGITUDE 61.5° EAST, ABOUT 940 KM EASTSOUTHEAST OF SALALAH (41316) AND 1400 KM WESTSOUTHWEST OF MUMBAI (43057). THE SYSTEM WOULD MOVE INITIALLY WESTNORTHWESTWARDS TOWARDS SOUTH OMAN AND ADJOINING YEMEN COAST DURING NEXT 72 HOURS IT WOULD INTENSIFY INTO A DEEP DEPRESSION WITHIN NEXT 24 HOURS AND MAY INTENSIFY FURTHER INTO A CYCLONIC STORM DURING SUBSEQUENT 24 HOURS.

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T 1.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER THE ARABIAN SEA BETWEEN LATITUDE 7.0 DGEREE NORTH TO 16.0 DEGREE NORTH AND LONGITUDE 57 0 DEGREE EAST TO 69.0 DEGREE EAST. THE CONVECTION INCREASED IN PAST 24 HOURS WITH INCREASE IN ORGANISATION. AVAILABLE SHIP AND BUOY DATA AROUND THE LOW LEVEL CIRCULATION CENTRE SUGGESTS THE CENTRAL PRESSURE TO BE ABOUT 1000 HPA AND MAXIMUM SUSTAINED WIND SPEED TO BE ABOUT 25 KNOTS. THE WINDS ARE HIGHER OVER THE NORTHERN SECTOR DUE TO PREVAILING NORTHEAST MONSOON CIRCULATION. SHIP LOCATED NEAR LATITUDE 12.5° NORTH AND LONGITUDE 60.3° EAST REPORTED MEAN SEA LEVEL PRESSURE OF 1001.0 HPA AND SURFACE WIND OF 330/20 KNOTS.

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF WELL MARKED LOW PRESSURE AREA IS 28-30°C. THE OCEAN THERMAL ENERGY IS ABOUT 60-80 KJ/CM². THE VERTICAL WIND SHEAR SHOWS NO SIGNIFICANT CHANGE DURING PAST 24 HRS AND IS ABOUT 10-20 KNOTS (MODERATE) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY AND CONVERGENCE HAVE INCREASED. THERE IS FAVOURABLE POLEWARD OUTFLOW IN ASSOCIATION WITH THE ANTI-CYCLONIC CIRCULATION LYING TO THE EAST-

NORTHEAST OF THE SYSTEM CENTRE. THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 15 N. MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING GRADUAL INTENSIFICATION OF THE DEPRESSION INTO A DEEP DEPRESSION DURING NEXT 24 HRS AND SUBSEQUENTLY INTO A CYCLONIC STORM. DYNAMICAL

STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM INTO A CYCLONIC STORM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL WEST-NORTHWESTWARD TO NORTHWESTWARD MOVEMENT UPTO 72 HRS. THEREAFTER, THERE IS A POSSIBILITY OF RECURVATURE TOWARDS NORTHEAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE DEPRESSION WOULD MOVE WESTNORTHWESTWARDS INITIALLY TOWARDS SOUTH OMAN AND ADJOINING YEMEN COAST. IT WOULD INTENSIFY INTO A DEEP DEPRESSION WITHIN NEXT 24 HRS AND MAY INTENSIFY FURTHER INTO A CYCLONIC STORM DURING SUBSEQUENT 24 HOURS.

(M.MOHAPATRA) SCIENTIST 'E' HEAD-RSMC, NEW DELHI

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 25-10-2014

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 72 HOURS ISSUED AT 0600 UTC of  $25^{TH}$  OCTOBER 2014 BASED ON 0300 UTC

THE DEPRESSION OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA REMAINED PRACTICALLY STATIONARY AND LAY CENTRED AT 0300 UTC OF TODAY, THE 25TH OCTOBER, 2014 NEAR LATITUDE 12.5°N AND LONGITUDE 61.5°E, ABOUT 1400 KM WEST-SOUTHWEST OF MUMBAI (43057) AND 940 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE INITIALLY WEST-NORTHWESTWARDS TOWARDS SOUTH OMAN AND ADJOINING YEMEN COAST DURING NEXT 72 HRS. IT WOULD INTENSIFY INTO A DEEP DEPRESSION WITHIN NEXT 24 HRS AND MAY INTENSIFY FURTHER INTO A CYCLONIC STORM DURING SUBSEQUENT 24 HRS.

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T 1.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER ARABIAN SEA AND ADJOINING INDIAN OCEAN BETWEEN LATITUDE 7.5 DEGREE NORTH TO 16.0 DEGREE NORTH AND LONGITUDE 57.0 DEGREE EAST TO 68.5 DEGREE EAST. THE CONVECTION INCREASED IN PAST 24 HOURS WITH INCREASE IN ORGANISATION. AVAILABLE SHIP AND BUOY DATA AROUND THE LOW LEVEL CIRCULATION CENTRE SUGGESTS THE CENTRAL PRESSURE TO BE ABOUT 1000 HPA AND MAXIMUM SUSTAINED WIND SPEED TO BE ABOUT 25 KNOTS. A BUOY LOCATED NEAR LATITUDE 9.5° NORTH AND LONGITUDE 59.5° EAST REPORTED A MSLP OF 1006.6 HPA. THE WINDS ARE HIGHER OVER THE NORTHERN SECTOR DUE TO PREVAILING NORTHEAST MONSOON CIRCULATION. SHIP LOCATED NEAR LATITUDE 12.5° NORTH AND LONGITUDE 60.3° EAST REPORTED MEAN SEA LEVEL PRESSURE OF 1001.0 HPA AND SURFACE WIND OF 330/20 KNOTS.

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF WELL MARKED LOW PRESSURE AREA IS 28-30°C. THE OCEAN THERMAL ENERGY IS ABOUT 60-80 KJ/CM². THE VERTICAL WIND SHEAR SHOWS NO SIGNIFICANT CHANGE DURING PAST 24 HRS AND IS ABOUT 10-20 KNOTS (MODERATE) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY AND CONVERGENCE HAVE INCREASED. THERE IS FAVOURABLE POLEWARD OUTFLOW IN ASSOCIATION WITH THE ANTI-CYCLONIC CIRCULATION LYING TO THE EAST-NORTHEAST OF THE SYSTEM CENTRE. THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 15°N. MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING GRADUAL INTENSIFICATION OF THE DEPRESSION INTO A DEEP DEPRESSION DURING NEXT 24 HRS AND SUBSEQUENTLY INTO A CYCLONIC STORM. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM INTO A CYCLONIC STORM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL WEST-NORTHWESTWARD TO NORTHWESTWARD MOVEMENT UPTO 72 HRS. THEREAFTER, THERE IS A POSSIBILITY OF RECURVATURE TOWARDS NORTHEAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE DEPRESSION WOULD MOVE WESTNORTHWESTWARDS INITIALLY TOWARDS SOUTH OMAN AND ADJOINING YEMEN COAST. IT WOULD INTENSIFY INTO A DEEP DEPRESSION WITHIN NEXT 24 HRS AND MAY INTENSIFY FURTHER INTO A CYCLONIC STORM DURING SUBSEQUENT 24 HOURS.

(M.MOHAPATRA) SCIENTIST 'E' HEAD-RSMC, NEW DELHI

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 25-10-2014

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 72 HOURS ISSUED AT 0900 UTC of 25<sup>TH</sup> OCTOBER 2014 BASED ON 0600 UTC

THE DEPRESSION OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA REMAINED PRACTICALLY STATIONARY AND LAY CENTRED AT 0600 UTC OF TODAY, THE 25TH OCTOBER, 2014 NEAR LATITUDE 12.5°N AND LONGITUDE 61.5°E, ABOUT 1400 KM WEST-SOUTHWEST OF MUMBAI (43057) AND 940 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE NORTHWESTWARDS TOWARDS SOUTH OMAN AND ADJOINING YEMEN COAST DURING NEXT 72 HRS. IT WOULD INTENSIFY INTO A DEEP DEPRESSION WITHIN NEXT 24 HRS AND MAY INTENSIFY FURTHER INTO A CYCLONIC STORM DURING SUBSEQUENT 24 HRS.

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T 1.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER ARABIAN SEA AND ADJOINING INDIAN OCEAN BETWEEN LATITUDE 8.0° NORTH TO 16.0° NORTH AND LONGITUDE 55.0° EAST TO 70.5° EAST. THE CONVECTION INCREASED IN PAST 24 HOURS WITH INCREASE IN ORGANISATION. AVAILABLE SHIP AND BUOY DATA AROUND THE LOW LEVEL CIRCULATION CENTRE SUGGESTS THE CENTRAL PRESSURE TO BE ABOUT 1000 HPA AND MAXIMUM SUSTAINED WIND SPEED TO BE ABOUT 25 KNOTS. A BUOY LOCATED NEAR LATITUDE 9.5° NORTH AND LONGITUDE 59.5° EAST REPORTED A MSLP OF 1006.6 HPA. THE WINDS ARE HIGHER OVER THE NORTHERN SECTOR DUE TO PREVAILING NORTHEAST MONSOON CIRCULATION. SHIP LOCATED NEAR LATITUDE 12.5° NORTH AND LONGITUDE 60.3° EAST REPORTED MEAN SEA LEVEL PRESSURE OF 1001.0 HPA AND SURFACE WIND OF 330/20 KNOTS.

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF WELL MARKED LOW PRESSURE AREA IS 28-30°C. THE OCEAN THERMAL ENERGY IS ABOUT 60-80 KJ/CM². THE VERTICAL WIND SHEAR SHOWS NO SIGNIFICANT CHANGE DURING PAST 24 HRS AND IS ABOUT 10-20 KNOTS (MODERATE) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY AND CONVERGENCE HAVE INCREASED. THERE IS FAVOURABLE POLEWARD OUTFLOW IN ASSOCIATION WITH THE ANTI-CYCLONIC CIRCULATION LYING TO THE EAST-NORTHEAST OF THE SYSTEM CENTRE. THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 15°N. MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING GRADUAL INTENSIFICATION OF THE DEPRESSION INTO A DEEP DEPRESSION DURING NEXT 24 HRS AND SUBSEQUENTLY INTO A CYCLONIC STORM. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM INTO A CYCLONIC STORM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL WEST-NORTHWESTWARD TO NORTHWESTWARD MOVEMENT UPTO 72 HRS. THEREAFTER, THERE IS A POSSIBILITY OF RECURVATURE TOWARDS NORTHEAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE DEPRESSION WOULD MOVE WESTNORTHWESTWARDS INITIALLY TOWARDS SOUTH OMAN AND ADJOINING YEMEN COAST. IT WOULD INTENSIFY INTO A DEEP DEPRESSION WITHIN NEXT 24 HRS AND MAY INTENSIFY FURTHER INTO A CYCLONIC STORM DURING SUBSEQUENT 24 HOURS.

(M.MOHAPATRA) SCIENTIST 'E' HEAD-RSMC, NEW DELHI

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

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DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 25-10-2014

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 72 HOURS ISSUED AT 1500 UTC of 25<sup>TH</sup> OCTOBER 2014 BASED ON 1200 UTC

THE DEPRESSION OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA MOVED NORTHWESTWARDS AND LAY CENTRED AT 1200 UTC OF TODAY, THE 25TH OCTOBER, 2014 NEAR LATITUDE 13.0°N AND LONGITUDE 61.0°E, ABOUT 1420 KM WEST-SOUTHWEST OF MUMBAI (43057) AND 860 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE NORTHWESTWARDS TOWARDS SOUTH OMAN AND ADJOINING YEMEN COAST DURING NEXT 72 HRS. IT WOULD INTENSIFY INTO A DEEP DEPRESSION WITHIN NEXT 24 HRS AND MAY INTENSIFY FURTHER INTO A CYCLONIC STORM DURING SUBSEQUENT 24 HRS.

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T 1.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA AND ADJOINING INDIAN OCEAN BETWEEN LATITUDE 9.0° NORTH TO 16.0° NORTH AND LONGITUDE 57.0° EAST TO 65.0° EAST. THE CONVECTION REMAINED ALMOST SAME IN PAST 6 HOURS THE ESTIMATED CENTRAL PRESSURE IS 1000 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 25 KNOTS GUSTING TO 35 KNOTS. THE WINDS ARE HIGHER OVER THE NORTHERN SECTOR DUE TO PREVAILING NORTHEAST MONSOON CIRCULATION. SHIPS LOCATED NEAR LATITUDE 13.5° NORTH AND LONGITUDE 56.7° EAST REPORTED MEAN SEA LEVEL PRESSURE OF 1004.1 HPA AND SURFACE WIND OF 340/22 KNOTS AND ANOTHER SHIP NEAR LATITUDE 16.3° NORTH AND LONGITUDE 56.7° EAST REPORTED MEAN SEA LEVEL PRESSURE OF 1008.4 HPA AND SURFACE WIND OF 030/18 KNOTS.

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF DEPRESSION IS 28-30°C. THE OCEAN THERMAL ENERGY IS ABOUT 60-80 KJ/CM². IT IS LESS THAN 50 KJ/CM² NEAR OMAN AND YEMEN COAST. THE VERTICAL WIND SHEAR SHOWS NO SIGNIFICANT CHANGE DURING PAST 24 HRS AND IS ABOUT 10-20 KNOTS (MODERATE) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 6 HOURS. THE ANTI-CYCLONIC CIRCULATION LIES TO THE EAST-NORTHEAST OF THE SYSTEM CENTRE. THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 15°N. MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING GRADUAL INTENSIFICATION OF THE DEPRESSION INTO A DEEP DEPRESSION DURING NEXT 24 HRS AND SUBSEQUENTLY INTO A CYCLONIC STORM. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM INTO A CYCLONIC STORM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTHWESTWARD TO NORTHNORTHWESTWARD MOVEMENT UPTO 72 HRS. THEREAFTER, THERE IS A POSSIBILITY OF RECURVATURE TOWARDS NORTHEAST. THERE IS LARGE DIFFERENCE IN POINT AND TIME OF RECURVATURE OF THE SYSTEM.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE DEPRESSION WOULD MOVE NORTHWESTWARDS INITIALLY TOWARDS SOUTH OMAN AND ADJOINING YEMEN COAST DURING NEXT 72 HOURS. IT WOULD INTENSIFY INTO A DEEP DEPRESSION WITHIN NEXT 24 HRS AND FURTHER INTO A CYCLONIC STORM DURING SUBSEQUENT 24 HOURS.

(M.MOHAPATRA) SCIENTIST 'E' HEAD-RSMC, NEW DELHI

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 25-10-2014

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 72 HOURS ISSUED AT 2000 UTC of 25<sup>TH</sup> OCTOBER 2014 BASED ON 1800 UTC

THE DEPRESSION OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA MOVED NORTHWARDS AND LAY CENTRED AT 1800 UTC OF TODAY, THE 25TH OCTOBER, 2014 NEAR LATITUDE 13.50 N AND LONGITUDE 61.00 E, ABOUT 1390 KM WEST-SOUTHWEST OF MUMBAI AND 840 KM EAST-SOUTHEAST OF SALALAH (OMAN). IT WOULD INITIALLY MOVE NORTHWESTWARDS TOWARDS SOUTH OMAN AND ADJOINING YEMEN COAST DURING NEXT 72 HRS. IT WOULD INTENSIFY INTO A DEEP DEPRESSION WITHIN NEXT 24 HRS AND MAY INTENSIFY FURTHER INTO A CYCLONIC STORM DURING SUBSEQUENT 24 HRS.

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T 1.5. ASSOCIATED BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION OVER AREA BETWEEN LATITUDE 9.0N TO 17.5N LONGITUDE 58.0E TO 68.0E. THE CONVECTION REMAINED ALMOST SAME IN PAST 6 HOURS THE ESTIMATED CENTRAL PRESSURE IS 1000 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 25 KNOTS GUSTING TO 35 KNOTS. THE WINDS ARE HIGHER OVER THE NORTHERN SECTOR DUE TO PREVAILING NORTHEAST MONSOON CIRCULATION. SHIPS LOCATED NEAR LATITUDE 13.5° NORTH AND LONGITUDE 56.3° EAST REPORTED MEAN SEA LEVEL PRESSURE OF 1004.1 HPA AND SURFACE WIND OF 320/25 KNOTS.

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF DEPRESSION IS 28-30°C. THE OCEAN THERMAL ENERGY IS ABOUT 60-80 KJ/CM². IT IS LESS THAN 50 KJ/CM² NEAR OMAN AND YEMEN COAST. THE VERTICAL WIND SHEAR SHOWS NO SIGNIFICANT CHANGE DURING PAST 24 HRS AND IS ABOUT 10-20 KNOTS (MODERATE) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 6 HOURS. THE ANTI-CYCLONIC CIRCULATION LIES TO THE EAST-NORTHEAST OF THE SYSTEM CENTRE. THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 15°N. MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING GRADUAL INTENSIFICATION OF THE DEPRESSION INTO A DEEP DEPRESSION DURING NEXT 24 HRS AND SUBSEQUENTLY INTO A CYCLONIC STORM. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM INTO A CYCLONIC STORM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTHWESTWARD TO NORTHNORTHWESTWARD MOVEMENT UPTO 72 HRS. THEREAFTER, THERE IS A POSSIBILITY OF RECURVATURE TOWARDS NORTHEAST. THERE IS LARGE DIFFERENCE IN POINT AND TIME OF RECURVATURE OF THE SYSTEM.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE DEPRESSION WOULD MOVE NORTHWESTWARDS INITIALLY TOWARDS SOUTH OMAN AND ADJOINING YEMEN COAST DURING NEXT 72 HOURS. IT WOULD INTENSIFY INTO A DEEP DEPRESSION WITHIN NEXT 24 HRS AND FURTHER INTO A CYCLONIC STORM DURING SUBSEQUENT 24 HOURS.

(DUTY OFFICER)

-RSMC, NEW DELHI

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 26-10-2014

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 72 HOURS ISSUED AT 0300 UTC of 26<sup>TH</sup> OCTOBER 2014 BASED ON 0000 UTC

THE DEPRESSION OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA MOVED NORTHEASTWARDS AND LAY CENTRED AT 0000 UTC IST OF 26TH OCTOBER, 2014 NEAR LATITUDE  $14.0^{\circ}$  N AND LONGITUDE  $62.0^{\circ}$  E, ABOUT 1270 KM WEST-SOUTHWEST OF MUMBAI (43057) AND 910 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE INITIALLY NORTHWESTWARDS DURING NEXT 48 HRS AND THEN RECURVE NORTHEASTWARDS SKIRTING OMAN COAST. IT WOULD INTENSIFY INTO A DEEP DEPRESSION WITHIN NEXT 12 HRS AND FURTHER INTO A CYCLONIC STORM DURING SUBSEQUENT 12 HRS.

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T 1.5. ASSOCIATED BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED INTENSIVE TO VERY INTENSIVE CONVECTION LIES OVER ARABIANSEA BETWEEN LATITUDE 10.0°N TO 17.5°N LONGITUDE 59.0°E TO 69.0°E.

THE CONVECTION REMAINED ALMOST SAME IN PAST 6 HOURS. THE ESTIMATED CENTRAL PRESSURE IS 1000 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 25 KNOTS GUSTING TO 35 KNOTS. THE WINDS ARE HIGHER OVER THE NORTHERN SECTOR DUE TO PREVAILING NORTHEAST MONSOON CIRCULATION. SHIPS LOCATED NEAR LATITUDE 13.5° NORTH AND LONGITUDE 56.3° EAST REPORTED MEAN SEA LEVEL PRESSURE OF 1004.1 HPA AND SURFACE WIND OF 320/25 KNOTS.

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF DEPRESSION IS 28-30°C. THE OCEAN THERMAL ENERGY IS ABOUT 60-80 KJ/CM². IT IS LESS THAN 50 KJ/CM² NEAR OMAN AND YEMEN COAST. THE VERTICAL WIND SHEAR SHOWS NO SIGNIFICANT CHANGE DURING PAST 24 HRS AND IS ABOUT 10-20 KNOTS (MODERATE) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 6 HOURS. THE ANTI-CYCLONIC CIRCULATION LIES TO THE EAST-NORTHEAST OF THE SYSTEM CENTRE. THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 14°N. MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING GRADUAL INTENSIFICATION OF THE DEPRESSION INTO A INTO A CYCLONIC STORM DURING NEXT 24 HOURS. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM INTO A CYCLONIC STORM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTHWESTWARD TO NORTH-NORTHWESTWARD MOVEMENT UPTO 48 HRS. THEREAFTER, IT WOULD RE-CURVE TOWARDS NORTHEAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE DEPRESSION WOULD MOVE NORTHWESTWARDS DURING NEXT 48 HOURS AND RE-CURVE NORTHEASTWARDS THEREAFTER. IT WOULD INTENSIFY INTO A DEEP DEPRESSION WITHIN NEXT 12 HRS AND FURTHER INTO A CYCLONIC STORM DURING SUBSEQUENT 12 HOURS.

(M. MOHAPATRA)

Head,-RSMC, NEW DELHI

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 26-10-2014

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 120 HOURS ISSUED AT 0600 UTC of 26<sup>TH</sup> OCTOBER 2014 BASED ON 0300 UTC OF 26<sup>TH</sup> OCTOBER 2014.

THE DEPRESSION OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA REMAINED PRACTICALLY STATIONARY, INTENSIFIED INTO A DEEP DEPRESSION AND LAY CENTRED AT 0300 UTC OF 26<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 14.0° N AND LONGITUDE 62.0° E, ABOUT 1270 KM WEST-SOUTHWEST OF MUMBAI (43057) AND 910 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE INITIALLY NORTH-NORTHWESTWARDS DURING NEXT 48 HRS AND THEN RECURVE NORTHEASTWARDS TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST DURING SUBSEQUENT 72 HRS. IT WOULD INTENSIFY INTO A CYCLONIC STORM DURING NEXT 12 HRS. AND INTO A SEVERE CYCLONIC STORM DURING SUBSEQUENT 24 HRS.

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T 2.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 11.0° NORTH TO 16.5° NORTH AND LONGITUDE 60.0° EAST TO 65.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 °C.

THE CONVECTION ORGANISED DURING PAST 3 HOURS. IT IS CURVED BAND PATTERN. THE ESTIMATED CENTRAL PRESSURE IS 999 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 30 KNOTS GUSTING TO 40 KNOTS. THE WINDS ARE HIGHER OVER THE NORTHERN AND EASTERN SECTORS DUE TO PREVAILING NORTHEAST MONSOON CIRCULATION.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position	Maximum sustained surface	Category of cyclonic
	(Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	wind speed (kmph)	disturbance
26-10-2014/0300	14.0/62.0	50-60 gusting to 70	Deep Depression
26-10-2014/0600	14.1/62.0	55-65 gusting to 75	Deep Depression
26-10-2014/1200	14.6/61.8	65-75 gusting to 85	Cyclonic Storm
26-10-2014/1800	15.0/61.6	70-80 gusting to 90	Cyclonic Storm
27-10-2014/0000	15.5/61.3	80-90 gusting to 100	Cyclonic Storm
27-10-2014/1200	16.2/60.8	90-100 gusting to 110	Severe Cyclonic Storm
28-10-2014/0000	16.9/60.1	100-110 gusting to 120	Severe Cyclonic Storm
28-10-2014/1200	17.9/59.9	110-120 gusting to 130	Severe Cyclonic Storm
29-10-2014/0000	18.9/59.9	120-130 gusting to 145	Very Severe Cyclonic Storm
29-10-2014/1200	20.1/61.1	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/0000	21.3/62.3	110-120 gusting to 135	Severe Cyclonic Storm
30-10-2014/1200	22.2/64.4	100-110 gusting to 120	Severe Cyclonic Storm
31-10-2014/0000	23.7/66.5	90-100 gusting to 110	Severe Cyclonic Storm

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF DEEP DEPRESSION IS 28-30°C. THE OCEAN THERMAL ENERGY IS ABOUT 60-80 KJ/CM². IT IS LESS THAN 50 KJ/CM² NEAR OMAN AND YEMEN COAST. THE VERTICAL WIND SHEAR SHOWS NO SIGNIFICANT CHANGE DURING PAST 24 HRS AND IS ABOUT 10-20 KNOTS (MODERATE) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 6 HOURS. THE ANTI-CYCLONIC CIRCULATION LIES TO THE EAST-NORTHEAST OF THE SYSTEM CENTRE. THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 14°N. MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING GRADUAL INTENSIFICATION OF THE DEPRESSION INTO A INTO A CYCLONIC STORM DURING NEXT 24 HOURS. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM INTO A CYCLONIC STORM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT UPTO 48 HRS. THEREAFTER, IT WOULD RE-CURVE TOWARDS NORTHEAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE DEEP DEPRESSION WOULD MOVE NORTH-NORTHWESTWARDS DURING NEXT 48 HOURS AND THEN RECURVE NORTHEASTWARDS TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST DURING SUBSEQUENT 72 HRS. IT WOULD INTENSIFY INTO A CYCLONIC STORM DURING NEXT 12 HRS. AND INTO A SEVERE CYCLONIC STORM DURING SUBSEQUENT 24 HRS.

(M. MOHAPATRA) Head, RSMC NEW DELHI

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

## भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGAON (MYANMAR)

STORM WARNING CENTRE, BANGKOK (THAILAND) STORM WARNING CENTRE, COLOMBO (SRILANKA)

WARNING CENTRE, DHAKA (BANGLADESH)

STORM 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 'NILOFAR' ADVISORY NO. ONE ISSUED AT 0900 UTC OF 26TH OCTOBER 2014 BASED ON 0600 UTC CHARTS OF  $26^{TH}$  OCTOBER 2014.

THE DEEP DEPRESSION OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA MOVED SLIGHTLY NORTHWARDS, INTENSIFIED INTO A CYCLONIC STORM, 'NILOFAR' AND LAY CENTRED AT 0600 UTC OF 26<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 14.1° N AND LONGITUDE 62.0° E, ABOUT 1270 KM WEST-SOUTHWEST OF MUMBAI (43057) AND 910 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE INITIALLY NORTH-NORTHWESTWARDS DURING NEXT 48 HRS AND THEN RECURVE NORTHEASTWARDS TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST DURING SUBSEQUENT 72 HRS. IT WOULD INTENSIFY FURTHER INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HRS.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 2.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 11.0° NORTH TO 16.0° NORTH AND LONGITUDE 59.0° EAST TO 65.0° EAST, MINIMUM CLOUD TOP TEMPERATURE IS MINUS 92 °C.

THE CONVECTION ORGANISED DURING PAST 3 HOURS. IT IS CURVED BAND PATTERN. THE ESTIMATED CENTRAL PRESSURE IS 998 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 35 KNOTS GUSTING TO 45 KNOTS. THE WINDS ARE HIGHER OVER THE NORTHERN AND EASTERN SECTORS DUE TO PREVAILING NORTHEAST MONSOON CIRCULATION.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position	Maximum sustained surface	Category of cyclonic
	(Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	wind speed (kmph)	disturbance
26-10-2014/0600	14.1/62.0	60-70 gusting to 80	Cyclonic storm
26-10-2014/1200	14.6/61.8	70-80 gusting to 90	Cyclonic Storm
26-10-2014/1800	15.0/61.6	80-90 gusting to 100	Cyclonic Storm
27-10-2014/0000	15.5/61.3	90-100 gusting to 110	Severe Cyclonic Storm
27-10-2014/0600	15.9/61.1	100-110 gusting to 120	Severe Cyclonic Storm
27-10-2014/1800	16.5/60.5	105-115 gusting to 125	Severe Cyclonic Storm
28-10-2014/0600	17.4/60.0	110-120 gusting to 135	Severe Cyclonic Storm
28-10-2014/1800	18.4/59.9	120-130 gusting to 145	Very Severe Cyclonic Storm
29-10-2014/0600	19.5/60.5	120-130 gusting to 145	Very Severe Cyclonic Storm
29-10-2014/1800	20.7/61.7	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/0600	21.8/63.3	110-120 gusting to 135	Severe Cyclonic Storm
30-10-2014/1800	23.0/65.4	100-110 gusting to 120	Severe Cyclonic Storm
31-10-2014/0600	24.2/67.7	90-100 gusting to 110	Severe Cyclonic Storm

#### **REMARKS:**

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF SYSTEM IS 28-30°C. THE OCEAN THERMAL ENERGY IS ABOUT 60-80 KJ/CM². IT IS LESS THAN 50 KJ/CM² NEAR OMAN AND YEMEN COAST. THE VERTICAL WIND SHEAR SHOWS NO SIGNIFICANT CHANGE DURING PAST 24 HRS AND IS ABOUT 10-20 KNOTS (MODERATE) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 6 HOURS. THE ANTI-CYCLONIC CIRCULATION LIES TO THE EAST-NORTHEAST OF THE SYSTEM CENTRE. THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 14°N.

## PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING GRADUAL INTENSIFICATION OF THE SYTEM INTO A INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT UPTO 48 HRS. THEREAFTER, IT WOULD RE-CURVE NORTHEASTWARDS.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD MOVE NORTH-NORTHWESTWARDS DURING NEXT 48 HOURS AND THEN RECURVE NORTHEASTWARDS TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST DURING SUBSEQUENT 72 HRS. IT WOULD INTENSIFY INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HRS.

(M. MOHAPATRA) Head, RSMC NEW DELHI

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. TWO ISSUED AT 1200 UTC OF 26TH OCTOBER 2014 BASED ON 0900 UTC CHARTS OF 26<sup>TH</sup> OCTOBER 2014.

THE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA REMAINED PRACTICALLY STATIONARY AND LAY CENTRED AT 0900 UTC OF  $26^{\text{TH}}$  OCTOBER, 2014 NEAR LATITUDE 14.1° N AND LONGITUDE 62.0° E, ABOUT 1250 KM SOUTHWEST OF NALIYA (42631), 1310 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 910 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE INITIALLY NORTH-NORTHWESTWARDS DURING NEXT 48 HRS AND THEN RECURVE NORTHEASTWARDS TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST DURING SUBSEQUENT 72 HRS. IT WOULD INTENSIFY FURTHER INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HRS.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 2.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 11.0° NORTH TO 16.0° NORTH AND LONGITUDE 59.0° EAST TO 65.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 90 °C.

THE CONVECTION SHOWS CURVED BAND PATTERN. THE ESTIMATED CENTRAL PRESSURE IS 996 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 35 KNOTS GUSTING TO 45 KNOTS. THE WINDS ARE HIGHER OVER THE NORTHERN AND EASTERN SECTORS DUE TO PREVAILING NORTHEAST MONSOON CIRCULATION.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position	Maximum sustained surface	Category of cyclonic
	(Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	wind speed (kmph)	disturbance
26-10-2014/0900	14.1/62.0	60-70 gusting to 80	Cyclonic storm
26-10-2014/1200	14.4/62.0	70-80 gusting to 90	Cyclonic Storm
26-10-2014/1800	15.0/61.6	80-90 gusting to 100	Cyclonic Storm
27-10-2014/0000	15.5/61.3	90-100 gusting to 110	Severe Cyclonic Storm
27-10-2014/0600	15.9/61.1	100-110 gusting to 120	Severe Cyclonic Storm
27-10-2014/1800	16.5/60.5	105-115 gusting to 125	Severe Cyclonic Storm
28-10-2014/0600	17.4/60.0	110-120 gusting to 135	Severe Cyclonic Storm
28-10-2014/1800	18.4/59.9	120-130 gusting to 145	Very Severe Cyclonic Storm
29-10-2014/0600	19.5/60.5	120-130 gusting to 145	Very Severe Cyclonic Storm
29-10-2014/1800	20.7/61.7	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/0600	21.8/63.3	110-120 gusting to 135	Severe Cyclonic Storm
30-10-2014/1800	23.0/65.4	100-110 gusting to 120	Severe Cyclonic Storm
31-10-2014/0600	24.2/67.7	90-100 gusting to 110	Severe Cyclonic Storm

### **REMARKS:**

THE SEA SURFACE TEMPERATURE AROUND THE REGION OF SYSTEM IS  $28-30^{\circ}$ C. THE OCEAN THERMAL ENERGY IS ABOUT 60-80 KJ/CM $^2$ . IT IS LESS THAN 50 KJ/CM $^2$  NEAR OMAN COAST. THE

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

VERTICAL WIND SHEAR SHOWS NO SIGNIFICANT CHANGE DURING PAST 24 HRS AND IS ABOUT 10-20 KNOTS (MODERATE) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 6 HOURS. THE ANTI-CYCLONIC CIRCULATION LIES TO THE EAST-NORTHEAST OF THE SYSTEM CENTRE. THE UPPER TROPOSPHERIC RIDGE AT 200 HPA LEVEL RUNS ALONG 14°N. MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING GRADUAL INTENSIFICATION OF THE SYTEM INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTHNORTHWESTWARD MOVEMENT UPTO 48 HRS. THEREAFTER, IT WOULD RE-CURVE NORTHEASTWARDS.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD MOVE NORTH-NORTHWESTWARDS DURING NEXT 48 HOURS AND THEN RECURVE NORTHEASTWARDS TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST DURING SUBSEQUENT 72 HRS. IT WOULD INTENSIFY INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HRS.

(M. MOHAPATRA) Head, RSMC NEW DELHI

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. THREE ISSUED AT 1500 UTC OF 26TH OCTOBER 2014 BASED ON 1200 UTC CHARTS OF 26<sup>TH</sup> OCTOBER 2014.

THE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA MOVED SLIGHTLY NORTHWARDS AND LAY CENTRED AT 1200 HOURS UTC OF 26<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 14.2<sup>0</sup> N AND LONGITUDE 62.0<sup>0</sup> E, ABOUT 1240 KM SOUTHWEST OF NALIYA (42631), 1300 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 900 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD INTENSIFY FURTHER INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HRS. IT WOULD MOVE INITIALLY NORTH-NORTHWESTWARDS DURING NEXT 48 HRS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY 31<sup>ST</sup> OCTOBER MORNING.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 2.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 11.5° NORTH TO 16.5° NORTH AND LONGITUDE 59.0° EAST TO 65.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 89 °C.

THE CONVECTION SHOWS CURVED BAND PATTERN. THE ESTIMATED CENTRAL PRESSURE IS 994 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 40 KNOTS GUSTING TO 50 KNOTS. THE WINDS ARE HIGHER OVER THE NORTHERN AND EASTERN SECTORS DUE TO PREVAILING NORTHEAST MONSOON CIRCULATION.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
26-10-2014/1200	14.2/62.0	70-80 gusting to 90	Cyclonic Storm
26-10-2014/1800	14.6/61.9	75-85 gusting to 95	Cyclonic Storm
27-10-2014/0000	15.0/61.8	80-90 gusting to 100	Cyclonic Storm
27-10-2014/0600	15.5/61.6	90-100 gusting to 110	Severe Cyclonic Storm
27-10-2014/1200	16.0/61.4	100-110 gusting to 120	Severe Cyclonic Storm
28-10-2014/0000	16.7/61.2	110-120 gusting to 135	Severe Cyclonic Storm
28-10-2014/1200	17.7/60.8	120-130 gusting to 145	Very Severe Cyclonic Storm
29-10-2014/0000	19.0/60.6	120-130 gusting to 145	Very Severe Cyclonic Storm
29-10-2014/1200	20.1/61.4	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/0000	21.2/63.1	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/1200	22.4/65.6	110-120 gusting to 135	Severe Cyclonic Storm
31-10-2014/0000	23.7/68.4	90-100 gusting to 110	Severe Cyclonic Storm
31-10-2014/1200	25.0/71.2	55-65 gusting to 75	Deep Depression

#### **REMARKS:**

THE VERTICAL WIND SHEAR HAS DECREASED DURING PAST 12 HRS AND IS ABOUT 05-10 KNOTS

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

(LOW) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 6 HOURS. UNDER THESE CIRCUMSTANCES THE CONVECIVE CLOUD IN ASSOCIATION WITH THE SYSTEM IS ORGANISING FURTHER. THE SYSTEM IS MOVING SLOWLY AS IT LIES VERY CLOSE TO THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EASTSOUTHEAST OF THE SYSTEM. IT WOULD PEAK UP SPEED AFTER 12 HOURS. MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING GRADUAL INTENSIFICATION OF THE SYTEM INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT UPTO 48 HRS. THEREAFTER, IT WOULD RE-CURVE NORTHEASTWARDS.TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HRS. THE SYSTEM WOULD MOVE NORTH-NORTHWESTWARDS DURING NEXT 48 HOURS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY 31<sup>ST</sup> OCTOBER MORNING.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (120-130 KMPH GUSTING TO 145 KMPH) DURING NEXT 48 HOURS. HOWEVER, AFTER THE RECURVATURE OF THE SYSTEM, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM MAY WEAKEN INTO A SEVERE CYCLONIC STORM (90-100 KMPH GUSTING TO 110 KMPH) PRIOR TO LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(M. MOHAPATRA) HEAD, RSMC NEW DELHI

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. FOUR ISSUED AT 1800 UTC OF 26TH OCTOBER 2014 BASED ON 1500 UTC CHARTS OF  $26^{TH}$  OCTOBER 2014.

THE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA MOVED SLIGHTLY NORTHWARDS AND LAY CENTRED AT 1500 HOURS UTC OF 26<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 14.3<sup>0</sup> N AND LONGITUDE 62.0<sup>0</sup> E, ABOUT 1230 KM SOUTHWEST OF NALIYA (42631), 1295 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 900 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD INTENSIFY FURTHER INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HRS. IT WOULD MOVE INITIALLY NORTH-NORTHWESTWARDS DURING NEXT 48 HRS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY 31<sup>ST</sup> OCTOBER MORNING.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 3.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 11.5° NORTH TO 17.0° NORTH AND LONGITUDE 58.5° EAST TO 66.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 84 °C.

THE CONVECTION SHOWS CURVED BAND PATTERN. THE ESTIMATED CENTRAL PRESSURE IS 994 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 40 KNOTS GUSTING TO 50 KNOTS. THE WINDS ARE HIGHER OVER THE NORTHERN AND EASTERN SECTORS DUE TO PREVAILING NORTHEAST MONSOON CIRCULATION.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
26-10-2014/1500	14.3/62.0	70-80 gusting to 90	Cyclonic Storm
26-10-2014/1800	14.6/61.9	75-85 gusting to 95	Cyclonic Storm
27-10-2014/0000	15.0/61.8	80-90 gusting to 100	Cyclonic Storm
27-10-2014/0600	15.5/61.6	90-100 gusting to 110	Severe Cyclonic Storm
27-10-2014/1200	16.0/61.4	100-110 gusting to 120	Severe Cyclonic Storm
28-10-2014/0000	16.7/61.2	110-120 gusting to 135	Severe Cyclonic Storm
28-10-2014/1200	17.7/60.8	120-130 gusting to 145	Very Severe Cyclonic Storm
29-10-2014/0000	19.0/60.6	120-130 gusting to 145	Very Severe Cyclonic Storm
29-10-2014/1200	20.1/61.4	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/0000	21.2/63.1	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/1200	22.4/65.6	110-120 gusting to 135	Severe Cyclonic Storm
31-10-2014/0000	23.7/68.4	90-100 gusting to 110	Severe Cyclonic Storm
31-10-2014/1200	25.0/71.2	55-65 gusting to 75	Deep Depression

#### **REMARKS:**

THE VERTICAL WIND SHEAR HAS DECREASED DURING PAST 12 HRS AND IS ABOUT 05-10 KNOTS

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

(LOW) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 6 HOURS. UNDER THESE CIRCUMSTANCES THE CONVECIVE CLOUD IN ASSOCIATION WITH THE SYSTEM IS ORGANISING FURTHER. THE SYSTEM IS MOVING SLOWLY AS IT LIES VERY CLOSE TO THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EASTSOUTHEAST OF THE SYSTEM. IT WOULD PEAK UP SPEED AFTER 12 HOURS. MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING GRADUAL INTENSIFICATION OF THE SYTEM INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT UPTO 48 HRS. THEREAFTER, IT WOULD RE-CURVE NORTHEASTWARDS.TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HRS. THE SYSTEM WOULD MOVE NORTH-NORTHWESTWARDS DURING NEXT 48 HOURS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY 31 ST OCTOBER MORNING.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (120-130 KMPH GUSTING TO 145 KMPH) DURING NEXT 48 HOURS. HOWEVER, AFTER THE RECURVATURE OF THE SYSTEM, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM MAY WEAKEN INTO A SEVERE CYCLONIC STORM (90-100 KMPH GUSTING TO 110 KMPH) PRIOR TO LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(RANJEET SINGH) SCIENTIST'E' RSMC NEW DELHI

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. FIVE ISSUED AT 2100 UTC OF 26TH OCTOBER 2014 BASED ON 1800 UTC CHARTS OF 26<sup>TH</sup> OCTOBER 2014.

THE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA MOVED SLIGHTLY NORTHWARDS AND LAY CENTRED AT 1800 HOURS UTC OF  $26^{\mathrm{TH}}$  OCTOBER, 2014 NEAR LATITUDE 14.4° N AND LONGITUDE  $62.0^{\circ}$  E, ABOUT 1220 KM SOUTHWEST OF NALIYA (42631), 1285 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 895 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD INTENSIFY FURTHER INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HRS. IT WOULD MOVE INITIALLY NORTH-NORTHWESTWARDS DURING NEXT 24 HRS , THEREAFTER NORTHWARDS DURING SUBSEQUENT 24 HOURS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY  $31^{\mathrm{ST}}$  OCTOBER MORNING.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 3.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 12.0° NORTH TO 16.0° NORTH AND LONGITUDE 59.0° EAST TO 66.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 80 °C.

THE CONVECTION SHOWS CURVED BAND PATTERN. THE ESTIMATED CENTRAL PRESSURE IS 994 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 40 KNOTS GUSTING TO 50 KNOTS. THE WINDS ARE HIGHER OVER THE NORTHERN AND EASTERN SECTORS DUE TO PREVAILING NORTHEAST MONSOON CIRCULATION.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. ⁰N/ long. ⁰E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
26-10-2014/1800	14.4/62.0	70-80 gusting to 90	Cyclonic Storm
27-10-2014/0000	14.6/61.9	75-85 gusting to 95	Cyclonic Storm
27-10-2014/0600	15.0/61.8	80-90 gusting to 100	Cyclonic Storm
27-10-2014/1200	15.5/61.6	90-100 gusting to 110	Severe Cyclonic Storm
27-10-2014/1800	16.0/61.4	100-110 gusting to 120	Severe Cyclonic Storm
28-10-2014/0600	16.7/61.4	110-120 gusting to 135	Severe Cyclonic Storm
28-10-2014/1800	17.7/61.4	120-130 gusting to 145	Very Severe Cyclonic Storm
29-10-2014/0600	19.0/61.8	120-130 gusting to 145	Very Severe Cyclonic Storm
29-10-2014/1800	20.1/62.4	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/0600	21.2/63.1	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/1800	22.4/65.6	110-120 gusting to 135	Severe Cyclonic Storm
31-10-2014/0600	23.8/68.6	90-100 gusting to 110	Severe Cyclonic Storm
31-10-2014/1800	25.0/71.2	55-65 gusting to 75	Deep Depression

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

#### **REMARKS:**

THE VERTICAL WIND SHEAR HAS DECREASED DURING PAST 12 HRS AND IS ABOUT 05-10 KNOTS (LOW) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 6 HOURS. UNDER THESE CIRCUMSTANCES THE CONVECIVE CLOUD IN ASSOCIATION WITH THE SYSTEM IS ORGANISING FURTHER. THE SYSTEM IS MOVING SLOWLY AS IT LIES VERY CLOSE TO THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EASTSOUTHEAST OF THE SYSTEM. IT WOULD PEAK UP SPEED AFTER 12 HOURS. MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING GRADUAL INTENSIFICATION OF THE SYTEM INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT UPTO 48 HRS. THEREAFTER, IT WOULD RE-CURVE NORTHEASTWARDS.TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HRS. THE SYSTEM WOULD INITIALLY MOVE NORTH-NORTHWESTWARDS DURING NEXT 24 HOURS, THEREAFTER, NORTHWARDS DURING SUBSEQUENT 24 HOURS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY 31<sup>ST</sup> OCTOBER MORNING.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (120-130 KMPH GUSTING TO 145 KMPH) DURING NEXT 48 HOURS. HOWEVER, AFTER THE RECURVATURE OF THE SYSTEM, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM MAY WEAKEN INTO A SEVERE CYCLONIC STORM (90-100 KMPH GUSTING TO 110 KMPH) PRIOR TO LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(RANJEET SINGH) SCIENTIST'E' RSMC NEW DELHI

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. SIX ISSUED AT 0000 UTC OF 27TH OCTOBER 2014 BASED ON 2100 UTC CHARTS OF 26<sup>TH</sup> OCTOBER 2014.

THE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA MOVED SLIGHTLY NORTHWARDS AND LAY CENTRED AT 2100 UTC OF  $26^{\rm TH}$  OCTOBER, 2014 NEAR LATITUDE 14.5° N AND LONGITUDE 62.0° E, ABOUT 1210 KM SOUTHWEST OF NALIYA (GUJARAT), 1270 KM SOUTH-SOUTHWEST OF KARACHI (PAKISTAN) AND 890 KM EAST-SOUTHEAST OF SALALAH (OMAN). IT WOULD INTENSIFY FURTHER INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HRS. IT WOULD MOVE INITIALLY NORTH-NORTHWESTWARDS DURING NEXT 24 HRS , THEREAFTER NORTHWARDS DURING SUBSEQUENT 24 HOURS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY  $31^{\rm ST}$  OCTOBER MORNING.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 3.0 ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 11.0° NORTH TO 17.0° NORTH AND LONGITUDE 57.0° EAST TO 66.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 77 °C.

THE CONVECTION SHOWS CURVED BAND PATTERN. THE ESTIMATED CENTRAL PRESSURE IS 994 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 40 KNOTS GUSTING TO 50 KNOTS. THE WINDS ARE HIGHER OVER THE NORTHERN AND EASTERN SECTORS DUE TO PREVAILING NORTHEAST MONSOON CIRCULATION.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. ⁰N/ long. ⁰E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
26-10-2014/2100	14.5/62.0	75-85 gusting to 95	Cyclonic Storm
27-10-2014/0000	14.6/61.9	75-85 gusting to 95	Cyclonic Storm
27-10-2014/0600	15.0/61.8	80-90 gusting to 100	Cyclonic Storm
27-10-2014/1200	15.5/61.6	90-100 gusting to 110	Severe Cyclonic Storm
27-10-2014/1800	16.0/61.4	100-110 gusting to 120	Severe Cyclonic Storm
28-10-2014/0600	16.7/61.4	110-120 gusting to 135	Severe Cyclonic Storm
28-10-2014/1800	17.7/61.4	120-130 gusting to 145	Very Severe Cyclonic Storm
29-10-2014/0600	19.0/61.8	120-130 gusting to 145	Very Severe Cyclonic Storm
29-10-2014/1800	20.1/62.4	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/0600	21.2/63.1	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/1800	22.4/65.6	110-120 gusting to 135	Severe Cyclonic Storm
31-10-2014/0600	23.8/68.6	90-100 gusting to 110	Severe Cyclonic Storm

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

31-10-2014/1800	25.0/71.2	55-65 gusting to 75	Deep Depression
31-10-201 <del>-</del> 7/1000	20.0/11.2	1 33-03 gusting to 73	Deep Deplession

### **REMARKS:**

THE VERTICAL WIND SHEAR HAS DECREASED DURING PAST 12 HRS AND IS ABOUT 05-10 KNOTS (LOW) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 6 HOURS. UNDER THESE CIRCUMSTANCES THE CONVECIVE CLOUD IN ASSOCIATION WITH THE SYSTEM IS ORGANISING FURTHER. THE SYSTEM IS MOVING SLOWLY AS IT LIES VERY CLOSE TO THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EASTSOUTHEAST OF THE SYSTEM. IT WOULD PEAK UP SPEED AFTER 12 HOURS. MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING GRADUAL INTENSIFICATION OF THE SYTEM INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT UPTO 48 HRS. THEREAFTER, IT WOULD RE-CURVE NORTHEASTWARDS.TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HRS. THE SYSTEM WOULD INITIALLY MOVE NORTH-NORTHWESTWARDS DURING NEXT 24 HOURS, THEREAFTER, NORTHWARDS DURING SUBSEQUENT 24 HOURS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY 31<sup>ST</sup> OCTOBER MORNING.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (120-130 KMPH GUSTING TO 145 KMPH) DURING NEXT 48 HOURS. HOWEVER, AFTER THE RECURVATURE OF THE SYSTEM, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM MAY WEAKEN INTO A SEVERE CYCLONIC STORM (90-100 KMPH GUSTING TO 110 KMPH) PRIOR TO LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(RANJEET SINGH) SCIENTIST'E' RSMC NEW DELHI

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. SEVEN ISSUED AT 0300 UTC OF 27TH OCTOBER 2014 BASED ON 0000 UTC CHARTS OF 27<sup>TH</sup> OCTOBER 2014.

THE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA MOVED NORTHWARDS, INTENSIFIED INTO A SEVERE CYCLONIC STORM AND LAY CENTRED AT 0000 HOURS UTC OF 27<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 14.8° N AND LONGITUDE 62.0° E, ABOUT 1180 KM SOUTHWEST OF NALIYA (42631), 1245 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 885 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD INTENSIFY FURTHER INTO A VERY SEVERE CYCLONIC STORM DURING NEXT 24 HRS. IT WOULD MOVE INITIALLY NORTHWARDS DURING NEXT 24 HRS AND THEN RECURVE NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 31<sup>ST</sup> OCTOBER MORNING.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 3.5 ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 11.0° NORTH TO 17.0° NORTH AND LONGITUDE 57.0° EAST TO 66.0° EAST.

THE CONVECTION SHOWS EYE PATTERN. THE EYE TEMPERATURE IS  $1.7^{\circ}$  C. THE ESTIMATED CENTRAL PRESSURE IS 990 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 55 KNOTS GUSTING TO 65 KNOTS.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. ⁰N/ long. ⁰E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
27-10-2014/0000	14.8/62.0	100-110 gusting to 120	Severe Cyclonic Storm
27-10-2014/0600	15.0/62.0	105-115 gusting to 125	Severe Cyclonic Storm
27-10-2014/1200	15.5/62.0	110-120 gusting to 130	Severe Cyclonic Storm
27-10-2014/1800	16.0/61.9	115-125 gusting to 135	Very Severe Cyclonic Storm
28-10-2014/0000	16.5/61.7	120-130 gusting to 145	Very Severe Cyclonic Storm
28-10-2014/1200	17.2/61.4	125-135 gusting to 150	Very Severe Cyclonic Storm
29-10-2014/0000	18.4/61.2	130-140 gusting to 155	Very Severe Cyclonic Storm
29-10-2014/1200	19.5/62.5	130-140 gusting to 155	Very Severe Cyclonic Storm
30-10-2014/0000	20.7/63.8	130-140 gusting to 155	Very Severe Cyclonic Storm
30-10-2014/1200	21.9/66.0	110-120 gusting to 135	Severe Cyclonic Storm
31-10-2014/0000	23.2/68.4	100-110 gusting to 125	Severe Cyclonic Storm
31-10-2014/1200	24.6/71.0	70-80 gusting to 90	Cyclonic Storm

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

01-11-2014/0000	25.9/73.6	50-60 gusting to 70	Deep Depression

#### **REMARKS:**

THE VERTICAL WIND SHEAR REMAINED SAME DURING PAST 12 HRS AND IS ABOUT 05-10 KNOTS (LOW) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 6 HOURS. UNDER THESE CIRCUMSTANCES THE CONVECIVE CLOUD IN ASSOCIATION WITH THE SYSTEM IS ORGANISING FURTHER AND IS EYE PATTERN AT PRESENT. THE SYSTEM IS MOVING SLOWLY AS IT LIES VERY CLOSE TO THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EASTSOUTHEAST OF THE SYSTEM AND ANOTHER TO THE NORTHWEST OVER OMAN. THE SPEED OF MOVEMENT OF THE SYSTEM WOULD PEAK UP WITH NORTH-NORTHWESTWARD MOVEMENT GRADUALLY TODAY. MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING GRADUAL INTENSIFICATION OF THE SYTEM INTO A VERY SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-MOVEMENT UPTO THEREAFTER, ΙT **RE-CURVE** NORTHWESTWARD HRS. WOULD 36 NORTHEASTWARDS.TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY INTO A VERY SEVERE CYCLONIC STORM DURING NEXT 24 HRS. THE SYSTEM WOULD INITIALLY MOVE NORTH-NORTHWESTWARDS DURING NEXT 36 HOURS, AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY 31<sup>ST</sup> OCTOBER MORNING.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (130-140 KMPH GUSTING TO 155 KMPH) DURING NEXT 48 HOURS. HOWEVER, AFTER THAT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM MAY WEAKEN INTO A SEVERE CYCLONIC STORM (100-110 KMPH GUSTING TO 125 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(M.MOHAPATRA) HEAD, RSMC-NEW DELHI

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. EIGHT ISSUED AT 0600 UTC OF 27TH OCTOBER 2014 BASED ON 0300 UTC CHARTS OF 27<sup>TH</sup> OCTOBER 2014.

THE SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL AND ADJOINING SOUTHWEST ARABIAN SEA MOVED NORTHWARDS AND LAY CENTRED AT 0300 UTC OF  $27^{\rm TH}$  OCTOBER, 2014 OVER WESTCENTRAL ARABIAN SEA NEAR LATITUDE  $14.9^{\circ}$  N AND LONGITUDE  $62.0^{\circ}$  E, ABOUT 1170 KM SOUTHWEST OF NALIYA (42631), 1230 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 880 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD INTENSIFY FURTHER INTO A VERY SEVERE CYCLONIC STORM DURING NEXT 24 HRS. IT WOULD MOVE INITIALLY NORTH-NORTHWESTWARDS DURING NEXT 24 HRS AND THEN RECURVE NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY  $31^{\rm ST}$  OCTOBER MORNING.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 3.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 11.0° NORTH TO 18.0° NORTH AND LONGITUDE 57.0° EAST TO 65.5° EAST.

THE CONVECTION SHOWS EYE PATTERN. THE EYE TEMPERATURE IS  $1.7^{\circ}$  C. THE ESTIMATED CENTRAL PRESSURE IS 990 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 55 KNOTS GUSTING TO 65 KNOTS. STATE OF SEA IS VERY HIGH.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
27-10-2014/0300	14.9/62.0	100-110 gusting to 120	Severe Cyclonic Storm
27-10-2014/0600	15.0/62.0	105-115 gusting to 125	Severe Cyclonic Storm
27-10-2014/1200	15.5/62.0	110-120 gusting to 130	Severe Cyclonic Storm
27-10-2014/1800	16.0/61.9	115-125 gusting to 135	Very Severe Cyclonic Storm
28-10-2014/0000	16.5/61.7	120-130 gusting to 145	Very Severe Cyclonic Storm
28-10-2014/1200	17.2/61.4	125-135 gusting to 150	Very Severe Cyclonic Storm
29-10-2014/0000	18.4/61.2	130-140 gusting to 155	Very Severe Cyclonic Storm
29-10-2014/1200	19.5/62.5	130-140 gusting to 155	Very Severe Cyclonic Storm
30-10-2014/0000	20.7/63.8	130-140 gusting to 155	Very Severe Cyclonic Storm
30-10-2014/1200	21.9/66.0	110-120 gusting to 135	Severe Cyclonic Storm
31-10-2014/0000	23.2/68.4	100-110 gusting to 125	Severe Cyclonic Storm
31-10-2014/1200	24.6/71.0	70-80 gusting to 90	Cyclonic Storm
01-11-2014/0000	25.9/73.6	50-60 gusting to 70	Deep Depression

#### **REMARKS:**

THE VERTICAL WIND SHEAR REMAINED SAME DURING PAST 12 HRS AND IS ABOUT 05-10 KNOTS (LOW) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING

## PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

PAST 6 HOURS. UNDER THESE CIRCUMSTANCES THE CONVECIVE CLOUD IN ASSOCIATION WITH THE SYSTEM IS ORGANISING FURTHER AND IS EYE PATTERN AT PRESENT. THE SYSTEM IS MOVING SLOWLY AS IT LIES VERY CLOSE TO THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EAST-SOUTHEAST OF THE SYSTEM AND ANOTHER TO THE NORTHWEST OVER OMAN. THE SPEED OF MOVEMENT OF THE SYSTEM WOULD PEAK UP WITH NORTH-NORTHWESTWARD MOVEMENT GRADUALLY TODAY. MOST OF THE NUMERICAL WEATHER PREDICTION MODELS ARE SUGGESTING GRADUAL INTENSIFICATION OF THE SYTEM INTO A VERY SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-MOVEMENT UPTO **NORTHWESTWARD** 36 HRS. THEREAFTER, ΙT WOULD RE-CURVE NORTHEASTWARDS.TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY INTO A VERY SEVERE CYCLONIC STORM DURING NEXT 24 HRS. THE SYSTEM WOULD INITIALLY MOVE NORTH-NORTHWESTWARDS DURING NEXT 36 HOURS, AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY 31<sup>ST</sup> OCTOBER MORNING.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (130-140 KMPH GUSTING TO 155 KMPH) DURING NEXT 48 HOURS. HOWEVER, AFTER THAT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM MAY WEAKEN INTO A SEVERE CYCLONIC STORM (100-110 KMPH GUSTING TO 125 KMPH AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(M.MOHAPATRA) HEAD, RSMC-NEW DELHI

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. NINE ISSUED AT 0900 UTC OF 27TH OCTOBER 2014 BASED ON 0600 UTC CHARTS OF 27<sup>TH</sup> OCTOBER 2014.

THE SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA REMAINED PRACTICALLY STATIONARY, INTENSIFIED INTO A VERY SEVERE CYCLONIC STORM AND LAY CENTRED AT  $0600~\rm UTC$  OF  $27^{\rm TH}$  OCTOBER, 2014 NEAR LATITUDE  $14.9^{\rm O}$  N and longitude  $62.0^{\rm O}$  E, about 1170 km southwest of Naliya (42631), 1230 km south-southwest of Karachi (41780) and 880 km east-southeast of Salalah (41316). It would move initially north-northwestwards and then recurve northeastwards and cross north gujarat and adjoining pakistan coast around naliya by  $31^{\rm ST}$  october morning. However, as the system would come closer to gujarat coast, it would weaken and cross the coast as a severe cyclonic storm.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 4.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 11.0° NORTH TO 18.0° NORTH AND LONGITUDE 57.0° EAST TO 65.5° EAST.

THE CONVECTION SHOWS EYE PATTERN. THE ESTIMATED CENTRAL PRESSURE IS 986 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 65 KNOTS GUSTING TO 75 KNOTS. STATE OF SEA IS PHENOMENAL.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(IST)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
27-10-2014/0600	14.9/62.0	115-125 gusting to 135	Very Severe Cyclonic Storm
27-10-2014/1200	15.5/62.0	120-130 gusting to 145	Very Severe Cyclonic Storm
27-10-2014/1800	16.0/61.9	125-135 gusting to 150	Very Severe Cyclonic Storm
28-10-2014/0000	16.5/61.7	130-140 gusting to 155	Very Severe Cyclonic Storm
28-10-2014/0600	16.8/61.5	130-140 gusting to 155	Very Severe Cyclonic Storm
28-10-2014/1800	17.8/61.3	130-140 gusting to 155	Very Severe Cyclonic Storm
29-10-2014/0600	19.0/61.8	130-140 gusting to 155	Very Severe Cyclonic Storm
29-10-2014/1800	20.1/63.1	125-135 gusting to 150	Very Severe Cyclonic Storm
30-10-2014/0600	21.3/64.9	110-120 gusting to 130	Severe Cyclonic Storm
30-10-2014/1800	22.5/67.2	100-110 gusting to 120	Severe Cyclonic Storm
31-10-2014/0600	23.9/69.7	90-100 gusting to 110	Severe Cyclonic Storm
31-10-2014/1800	25.2/72.8	60-70 gusting to 80	Cyclonic Storm
01-11-2014/0600	26.5/74.9	40-50 gusting to 60	Depression

### **REMARKS:**

THE VERTICAL WIND SHEAR REMAINED SAME DURING PAST 12 HRS AND IS ABOUT 05-10 KNOTS (LOW) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

PAST 6 HOURS. UNDER THESE CIRCUMSTANCES THE CONVECIVE CLOUD IN ASSOCIATION WITH THE SYSTEM IS ORGANISING FURTHER AND IS EYE PATTERN AT PRESENT. THE SYSTEM IS MOVING SLOWLY AS IT LIES VERY CLOSE TO THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EAST-SOUTHEAST OF THE SYSTEM AND ANOTHER TO THE NORTHWEST. THE SPEED OF MOVEMENT OF THE SYSTEM WOULD PEAK UP WITH NORTH-NORTHWESTWARD MOVEMENT GRADUALLY TODAY. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM DURING NEXT 48 HRS AND WEAKENING THEREAFTER. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT AND THEN NORTHEASTWARDS. RE-CURVATURE TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY FURTHER DURING NEXT 24 HRS. THE SYSTEM WOULD INITIALLY MOVE NORTH-NORTHWESTWARDS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY  $31^{\rm ST}$  OCTOBER MORNING.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (130-140 KMPH GUSTING TO 155 KMPH) DURING NEXT 24 HOURS. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A SEVERE CYCLONIC STORM (100-110 KMPH GUSTING TO 120 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(M.MOHAPATRA) HEAD, RSMC-NEW DELHI

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. TEN ISSUED AT 1200 UTC OF 27TH OCTOBER 2014 BASED ON 0900 UTC CHARTS OF 27<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA REMAINED PRACTICALLY STATIONARY, AND LAY CENTRED AT 0900 HOURS UTC OF 27<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 14.9<sup>0</sup> N AND LONGITUDE 62.0<sup>0</sup> E, ABOUT 1170 KM SOUTHWEST OF NALIYA (42631), 1230 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 880 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE INITIALLY NORTH-NORTHWESTWARDS DURING NEXT 24 HRS AND THEN RECURVE NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 31<sup>ST</sup> OCTOBER MORNING. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A SEVERE CYCLONIC STORM.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 4.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 11.5° NORTH TO 18.0° NORTH AND LONGITUDE 58.0° EAST TO 66.0° FAST.

THE CONVECTION SHOWS EYE PATTERN. THE ESTIMATED CENTRAL PRESSURE IS 986 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 65 KNOTS GUSTING TO 75 KNOTS. STATE OF SEA IS PHENOMENAL.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(IST)	Position (Lat. ⁰N/ long. ⁰E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
27-10-2014/0900	14.9/62.0	120-130 gusting to 145	Very Severe Cyclonic Storm
27-10-2014/1200	15.2/62.0	120-130 gusting to 145	Very Severe Cyclonic Storm
27-10-2014/1800	15.5/61.9	125-135 gusting to 150	Very Severe Cyclonic Storm
28-10-2014/0000	16.0/61.7	130-140 gusting to 155	Very Severe Cyclonic Storm
28-10-2014/0600	16.5/61.5	130-140 gusting to 155	Very Severe Cyclonic Storm
28-10-2014/1800	17.5/61.3	130-140 gusting to 155	Very Severe Cyclonic Storm
29-10-2014/0600	18.5/61.8	130-140 gusting to 155	Very Severe Cyclonic Storm
29-10-2014/1800	19.5/63.1	125-135 gusting to 150	Very Severe Cyclonic Storm
30-10-2014/0600	20.5/64.6	110-120 gusting to 130	Severe Cyclonic Storm
30-10-2014/1800	21.7/66.6	100-110 gusting to 120	Severe Cyclonic Storm
31-10-2014/0600	22.9/68.7	90-100 gusting to 110	Severe Cyclonic Storm
31-10-2014/1800	24.0/71.0	60-70 gusting to 80	Cyclonic Storm
01-11-2014/0600	25.1/73.3	40-50 gusting to 60	Depression

#### **REMARKS:**

THE VERTICAL WIND SHEAR REMAINED SAME DURING PAST 12 HRS AND IS ABOUT 05-10 KNOTS (LOW) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 6 HOURS. UNDER THESE CIRCUMSTANCES THE CONVECIVE CLOUD IN ASSOCIATION WITH THE SYSTEM IS ORGANISING FURTHER AND IS EYE PATTERN AT PRESENT. THE SYSTEM IS MOVING SLOWLY

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

AS IT LIES VERY CLOSE TO THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EAST-SOUTHEAST OF THE SYSTEM AND ANOTHER TO THE NORTHWEST. THE SPEED OF MOVEMENT OF THE SYSTEM WOULD PEAK UP WITH NORTH-NORTHWESTWARD MOVEMENT GRADUALLY TODAY. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM DURING NEXT 48 HRS AND WEAKENING THEREAFTER. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT AND THEN NORTHEASTWARDS. RE-CURVATURE TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY FURTHER DURING NEXT 24 HRS. THE SYSTEM WOULD INITIALLY MOVE NORTH-NORTHWESTWARDS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY  $31^{\rm ST}$  OCTOBER MORNING.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (130-140 KMPH GUSTING TO 155 KMPH) DURING NEXT 24 HOURS. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A SEVERE CYCLONIC STORM (100-110 KMPH GUSTING TO 120 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(M.MOHAPATRA) HEAD, RSMC-NEW DELHI

Y OF CYCLOGENESIS (FORMATION OF DEPRESSION)

N 1: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

Phone: (91) 11-24652484 FAX: (91) 11-24623220 e-mail: cwdhq2008@gmail.com



Meteorological Organization

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. ELEVEN ISSUED AT 1500 UTC OF 27TH OCTOBER 2014 BASED ON 1200 UTC CHARTS OF 27<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED SLIGHTLY NORTHWARDS AND LAY CENTRED AT 1200 HOURS UTC OF  $27^{\mathrm{TH}}$  OCTOBER, 2014 NEAR LATITUDE  $15.0^{\mathrm{0}}$  N AND LONGITUDE  $62.0^{\mathrm{0}}$  E, ABOUT 1165 KM SOUTHWEST OF NALIYA (42631), 1220 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 875 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE INITIALLY NORTH-NORTHWESTWARDS DURING NEXT 24 HRS AND THEN RECURVE NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY  $31^{\mathrm{ST}}$  OCTOBER MORNING. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A SEVERE CYCLONIC STORM.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 4.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 11.5° NORTH TO 19.0° NORTH AND LONGITUDE 58.0° EAST TO 67.0° EAST.

THE CONVECTION SHOWS EYE PATTERN. THE ESTIMATED CENTRAL PRESSURE IS 986 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 65 KNOTS GUSTING TO 75 KNOTS. STATE OF SEA IS PHENOMENAL.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(IST)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
27-10-2014/1200	15.0/62.0	120-130 gusting to 145	Very Severe Cyclonic Storm
27-10-2014/1800	15.5/61.9	125-135 gusting to 150	Very Severe Cyclonic Storm
28-10-2014/0000	16.0/61.7	140-150 gusting to 165	Very Severe Cyclonic Storm
28-10-2014/0600	16.5/61.5	140-150 gusting to 165	Very Severe Cyclonic Storm
28-10-2014/1200	17.0/61.4	150-160 gusting to 175	Very Severe Cyclonic Storm
29-10-2014/0000	18.1/61.5	140-150 gusting to 165	Very Severe Cyclonic Storm
29-10-2014/1200	19.3/62.4	125-135 gusting to 150	Very Severe Cyclonic Storm
30-10-2014/0000	20.5/63.8	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/1200	21.7/65.8	110-120 gusting to 135	Severe Cyclonic Storm
31-10-2014/0000	22.9/68.0	100-110 gusting to 120	Severe Cyclonic Storm
31-10-2014/1200	23.9/70.2	60-70 gusting to 80	Cyclonic Storm
01-11-2014/0000	25.0/72.2	50-60 gusting to 70	Deep Depression
01-11-2014/1200	26.1/74.2	40-50 gusting to 60	Depression

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

#### **REMARKS:**

THE VERTICAL WIND SHEAR REMAINED SAME DURING PAST 12 HRS AND IS ABOUT 05-10 KNOTS (LOW) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 6 HOURS. UNDER THESE CIRCUMSTANCES THE CONVECTIVE CLOUD IN ASSOCIATION WITH THE SYSTEM IS ORGANISING FURTHER AND IS EYE PATTERN AT PRESENT. THE SYSTEM IS MOVING SLOWLY AS IT LIES VERY CLOSE TO THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EAST-SOUTHEAST OF THE SYSTEM AND ANOTHER TO THE NORTHWEST. THE SPEED OF MOVEMENT OF THE SYSTEM WOULD PEAK UP WITH NORTH-NORTHWESTWARD MOVEMENT GRADUALLY TODAY. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM DURING NEXT 48 HRS AND WEAKENING THEREAFTER. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT AND THEN NORTHEASTWARDS. RE-CURVATURE TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY FURTHER DURING NEXT 24 HRS. THE SYSTEM WOULD INITIALLY MOVE NORTH-NORTHWESTWARDS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY 31 ST OCTOBER MORNING.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (130-140 KMPH GUSTING TO 155 KMPH) DURING NEXT 24 HOURS. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A SEVERE CYCLONIC STORM (100-110 KMPH GUSTING TO 120 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(M.MOHAPATRA) HEAD, RSMC-NEW DELHI

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. TWELVE ISSUED AT 1800 UTC OF 27TH OCTOBER 2014 BASED ON 1500 UTC CHARTS OF 27<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED FURTHER SLIGHTLY NORTHWARDS AND LAY CENTRED AT 1500 HOURS UTC OF  $27^{TH}$  OCTOBER, 2014 NEAR LATITUDE 15.10 N AND LONGITUDE  $62.0^{\circ}$  E, ABOUT 1155 KM SOUTHWEST OF NALIYA (42631), 1210 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 870 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE INITIALLY NORTH-NORTHWESTWARDS DURING NEXT 24 HRS AND THEN RECURVE NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY  $31^{ST}$  OCTOBER MORNING. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A SEVERE CYCLONIC STORM.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 4.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 12.5° NORTH TO 16.5° NORTH AND LONGITUDE 60.0° EAST TO 65.0° EAST.

THE CONVECTION SHOWS EYE PATTERN. THE ESTIMATED CENTRAL PRESSURE IS 980 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 70 KNOTS GUSTING TO 80 KNOTS. STATE OF SEA IS PHENOMENAL. FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
27-10-2014/1500	15.1/62.0	130-140 gusting to 155	Very Severe Cyclonic Storm
27-10-2014/1800	15.5/61.9	140-150 gusting to 165	Very Severe Cyclonic Storm
28-10-2014/0000	16.0/61.7	150-160 gusting to 175	Very Severe Cyclonic Storm
28-10-2014/0600	16.5/61.5	150-160 gusting to 175	Very Severe Cyclonic Storm
28-10-2014/1200	17.0/61.4	150-160 gusting to 175	Very Severe Cyclonic Storm
29-10-2014/0000	18.1/61.5	140-150 gusting to 165	Very Severe Cyclonic Storm
29-10-2014/1200	19.3/62.4	125-135 gusting to 150	Very Severe Cyclonic Storm
30-10-2014/0000	20.5/63.8	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/1200	21.7/65.8	110-120 gusting to 135	Severe Cyclonic Storm
31-10-2014/0000	22.9/68.0	100-110 gusting to 120	Severe Cyclonic Storm
31-10-2014/1200	23.9/70.2	60-70 gusting to 80	Cyclonic Storm
01-11-2014/0530	25.0/72.2	50-60 gusting to 70	Deep Depression
01-11-2014/0000	26.1/74.2	40-50 gusting to 60	Depression

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

### **REMARKS:**

THE VERTICAL WIND SHEAR REMAINED SAME DURING PAST 12 HRS AND IS ABOUT 05-10 KNOTS (LOW) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 6 HOURS. UNDER THESE CIRCUMSTANCES THE CONVECTIVE CLOUD IN ASSOCIATION WITH THE SYSTEM IS ORGANISING FURTHER AND IS EYE PATTERN AT PRESENT. THE SYSTEM IS MOVING SLOWLY AS IT LIES VERY CLOSE TO THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EAST-SOUTHEAST OF THE SYSTEM AND ANOTHER TO THE NORTHWEST. THE SPEED OF MOVEMENT OF THE SYSTEM WOULD PEAK UP WITH NORTH-NORTHWESTWARD MOVEMENT GRADUALLY TODAY. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM DURING NEXT 48 HRS AND WEAKENING THEREAFTER. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT AND THEN NORTHEASTWARDS. RE-CURVATURE TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY FURTHER DURING NEXT 24 HRS. THE SYSTEM WOULD INITIALLY MOVE NORTH-NORTHWESTWARDS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY  $31^{\rm ST}$  OCTOBER MORNING.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (150-160 KMPH GUSTING TO 175 KMPH) DURING NEXT 24 HOURS. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A SEVERE CYCLONIC STORM (100-110 KMPH GUSTING TO 120 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(NARESH KUMAR) SCIENTIST 'D'

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. THIRTEEN ISSUED AT 2100 UTC OF 27TH OCTOBER 2014 BASED ON 1800 UTC CHARTS OF 27<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA FURTHER MOVED NORTHWARDS AND LAY CENTRED AT 1800 HOURS UTC OF 27<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 15.3<sup>0</sup> N AND LONGITUDE 62.0<sup>0</sup> E, ABOUT 1140 KM SOUTHWEST OF NALIYA (42631), 1190 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 870 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE INITIALLY NORTH-NORTHWESTWARDS DURING NEXT 24 HRS AND THEN RECURVE NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 31<sup>ST</sup> OCTOBER MORNING. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A SEVERE CYCLONIC STORM.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 4.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 12.5° NORTH TO 17.5° NORTH AND LONGITUDE 60.0° EAST TO 64.0° EAST.

THE CONVECTION SHOWS EYE PATTERN. THE ESTIMATED CENTRAL PRESSURE IS 980 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 70 KNOTS GUSTING TO 80 KNOTS. STATE OF SEA IS PHENOMENAL. FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
27-10-2014/1800	15.3/62.0	130-140 gusting to 155	Very Severe Cyclonic Storm
28-10-2014/0000	15.8/61.7	140-150 gusting to 165	Very Severe Cyclonic Storm
28-10-2014/0600	16.3/61.5	150-160 gusting to 175	Very Severe Cyclonic Storm
28-10-2014/1200	16.9/61.4	150-160 gusting to 175	Very Severe Cyclonic Storm
28-10-2014/1800	17.5/61.4	140-150 gusting to 165	Very Severe Cyclonic Storm
29-10-2014/0600	18.7/62.0	135-145 gusting to 160	Very Severe Cyclonic Storm
29-10-2014/1800	19.9/63.1	125-135 gusting to 150	Very Severe Cyclonic Storm
30-10-2014/0600	21.1/64.8	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/1800	22.3/66.9	110-120 gusting to 135	Severe Cyclonic Storm
31-10-2014/0600	23.4/69.1	80-90 gusting to 100	Cyclonic Storm
31-10-2014/1800	24.4/71.2	55-65 gusting to 75	Deep Depression
01-11-2014/0600	25.5/73.2	45-55 gusting to 65	Depression

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

### **REMARKS:**

THE VERTICAL WIND SHEAR REMAINED SAME DURING PAST 18 HRS AND IS ABOUT 05-10 KNOTS (LOW) AROUND THE SYSTEM CENTRE. THE LOW LEVEL RELATIVE VORTICITY IS VERY HIGH AROUND SYSTEM CENTRE. UNDER THESE CIRCUMSTANCES, THE CONVECTIVE CLOUD IN ASSOCIATION WITH THE SYSTEM IS ORGANISED AND IS EYE PATTERN AT PRESENT. THE SYSTEM IS MOVING SLOWLY AS IT LIES VERY CLOSE TO THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EAST-SOUTHEAST OF THE SYSTEM AND ANOTHER TO THE NORTHWEST. THE SPEED OF MOVEMENT OF THE SYSTEM WOULD PEAK UP WITH NORTH-NORTHWESTWARD MOVEMENT GRADUALLY TODAY. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM DURING NEXT 48 HRS AND WEAKENING THEREAFTER. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT AND THEN NORTHEASTWARDS. RECURVATURE TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY FURTHER DURING NEXT 24 HRS. THE SYSTEM WOULD INITIALLY MOVE NORTH-NORTHWESTWARDS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY  $31^{\rm ST}$  OCTOBER MORNING.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (150-160 KMPH GUSTING TO 175 KMPH) DURING NEXT 24 HOURS. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A SEVERE CYCLONIC STORM (100-110 KMPH GUSTING TO 120 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(NARESH KUMAR) SCIENTIST 'D'

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. FOURTEEN ISSUED AT 0000 UTC OF 28TH OCTOBER 2014 BASED ON 2100 UTC CHARTS OF 27<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED NORTH-NORTHWESTWARDS AND LAY CENTRED AT 2100 UTC OF 27TH OCTOBER, 2014 NEAR LATITUDE 15.6° N AND LONGITUDE 61.8° E, ABOUT 1120 KM SOUTHWEST OF NALIYA (42631), 1170 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 840 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE NORTH-NORTHWESTWARDS DURING NEXT 18 HRS AND THEN RECURVE NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 31ST OCTOBER MORNING. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A SEVERE CYCLONIC STORM.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 4.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 13.0° NORTH TO 18.0° NORTH AND LONGITUDE 60.0° EAST TO 64.0° EAST.

THE ESTIMATED CENTRAL PRESSURE IS 980 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 70 KNOTS GUSTING TO 80 KNOTS. STATE OF SEA IS PHENOMENAL.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
27-10-2014/2100	15.6/61.8	130-140 gusting to 155	Very Severe Cyclonic Storm
28-10-2014/0000	15.8/61.7	140-150 gusting to 165	Very Severe Cyclonic Storm
28-10-2014/0600	16.3/61.5	150-160 gusting to 175	Very Severe Cyclonic Storm
28-10-2014/1200	16.9/61.4	150-160 gusting to 175	Very Severe Cyclonic Storm
28-10-2014/1800	17.5/61.4	140-150 gusting to 165	Very Severe Cyclonic Storm
29-10-2014/0600	18.7/62.0	135-145 gusting to 160	Very Severe Cyclonic Storm
29-10-2014/1800	19.9/63.1	125-135 gusting to 150	Very Severe Cyclonic Storm
30-10-2014/0600	21.1/64.8	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/1800	22.3/66.9	110-120 gusting to 135	Severe Cyclonic Storm
31-10-2014/0600	23.4/69.1	80-90 gusting to 100	Cyclonic Storm
31-10-2014/1800	24.4/71.2	55-65 gusting to 75	Deep Depression
01-11-2014/0600	25.5/73.2	45-55 gusting to 65	Depression

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

#### **REMARKS:**

THE VERTICAL WIND SHEAR IS ABOUT 10 KNOTS (LOW) AND LOW LEVEL RELATIVE VORTICITY IS VERY HIGH AROUND THE SYSTEM CENTRE. THE SYSTEM IS MOVING SLOWLY AS IT LIES VERY CLOSE TO THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EAST-SOUTHEAST OF THE SYSTEM AND ANOTHER TO THE NORTHWEST. THE SPEED OF MOVEMENT OF THE SYSTEM WOULD PEAK UP WITH NORTH-NORTHWESTWARD MOVEMENT GRADUALLY TODAY. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM DURING NEXT 24 HRS AND WEAKENING THEREAFTER. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT AND THEN NORTHEASTWARDS. RE-CURVATURE TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY FURTHER DURING NEXT 24 HRS. THE SYSTEM WOULD INITIALLY MOVE NORTH-NORTHWESTWARDS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY  $31^{\rm ST}$  OCTOBER MORNING.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (150-160 KMPH GUSTING TO 175 KMPH) DURING NEXT 24 HOURS. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A SEVERE CYCLONIC STORM (100-110 KMPH GUSTING TO 120 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(NARESH KUMAR) SCIENTIST 'D'

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. FIFTEEN ISSUED AT 0300 UTC OF 28TH OCTOBER 2014 BASED ON 0000 UTC CHARTS OF  $28^{TH}$  OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED NORTH-NORTHWESTWARDS IN PAST 06 HOURS AND LAY CENTRED AT 0000 HOURS UTC OF 28<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 15.7° N AND LONGITUDE 61.8° E, ABOUT 1120 KM SOUTHWEST OF NALIYA (42631), 1160 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 840 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE NORTH-NORTHWESTWARDS DURING NEXT 18 HRS AND THEN RECURVE NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 01<sup>ST</sup> NOVEMBER FORENOON. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A CYCLONIC STORM.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 4.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 13.0° NORTH TO 18.0° NORTH AND LONGITUDE 60.0° EAST TO 65.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 93 DEG C.

THE ESTIMATED CENTRAL PRESSURE IS 980 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 75 KNOTS GUSTING TO 85 KNOTS. STATE OF SEA IS PHENOMENAL.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
28-10-2014/0000	15.7/61.8	130-140 gusting to 155	Very Severe Cyclonic Storm
28-10-2014/0600	16.3/61.5	135-145 gusting to 160	Very Severe Cyclonic Storm
28-10-2014/1200	16.8/61.2	140-150 gusting to 165	Very Severe Cyclonic Storm
28-10-2014/1800	17.5/61.2	140-150 gusting to 165	Very Severe Cyclonic Storm
29-10-2014/0000	18.0/61.2	140-150 gusting to 165	Very Severe Cyclonic Storm
29-10-2014/1200	19.1/61.8	140-150 gusting to 165	Very Severe Cyclonic Storm
30-10-2014/0000	19.7/62.8	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/1200	20.4/64.3	110-120 gusting to 135	Severe Cyclonic Storm
31-10-2014/0000	21.1/65.8	100-110 gusting to 120	Severe Cyclonic Storm
31-10-2014/1200	21.8/66.9	90-100 gusting to 110	Severe Cyclonic Storm
01-11-2014/0000	22.5/68.0	80-90 gusting to 100	Cyclonic Storm
01-11-2014/1200	23.2/69.1	50-60 gusting to 70	Deep Depression
02-11-2014/0000	23.7/70.2	35-45 gusting to 55	Depression

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

#### **REMARKS:**

THE VERTICAL WIND SHEAR IS ABOUT 5-10 KNOTS (LOW). THERE IS NO CHANGE AROUND SYSTEM CENTRE. AND THERE IS DECREASE IN WIND SHEAR TO THE NORTHEAST OF THE SYSTEM CENTRE TOWARDS GUJARAT COAST. LOW LEVEL RELATIVE VORTICITY IS VERY HIGH AROUND THE SYSTEM CENTRE. THE SYSTEM IS MOVING SLOWLY (NORTH-NORTWESTWARDS) AS IT LIES VERY CLOSE TO THE SOUTH OF THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EAST-SOUTHEAST OF THE SYSTEM. THE SPEED OF MOVEMENT OF THE SYSTEM HAS SLIGHTLY INCREASED DURING PAST 12 HOURS AND WOULD FURTHER INCREASE GRADUALLY TODAY. THE UPPER LEVEL DIVERGENCE IS NOW ORIENTED FROM SOUTHWEST TO NORTHEAST TOWARDS GUJARAT COAST. THERE IS BOTH POLEWARD AND EQUATORWARD OUTFLOW FAVOURING THE INTENSIFICATION OF THE SYSTEM.DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM DURING NEXT 24 HRS AND WEAKENING THEREAFTER. CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT AND THEN NORTHEASTWARD, RE-CURVATURE TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY FURTHER DURING NEXT 24 HRS. THE SYSTEM WOULD INITIALLY MOVE NORTH-NORTHWESTWARDS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY  $1^{\rm ST}$  NOVEMBER .

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (140-150 KMPH GUSTING TO 165 KMPH) DURING NEXT 24 HOURS. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A CYCLONIC STORM (80-90 KMPH GUSTING TO 100 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(M.MOHAPATRA) HEAD, RSMC-NEW DELHI

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. SIXTEEN ISSUED AT 0600 UTC OF 28TH OCTOBER 2014 BASED ON 0300 UTC CHARTS OF 28<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED NORTH-NORTHWESTWARDS IN PAST 06 HOURS AND LAY CENTRED AT 0300 UTC OF 28<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 15.8° N AND LONGITUDE 61.7° E, ABOUT 1110 KM SOUTHWEST OF NALIYA (42631), 1150 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 820 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE NORTH-NORTHWESTWARDS DURING NEXT 12 HRS AND THEN GRADUALLY RECURVE NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 01<sup>ST</sup> NOVEMBER FORENOON. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST. IT WOULD WEAKEN AND CROSS THE COAST AS A CYCLONIC STORM.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 4.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 13.0° NORTH TO 19.0° NORTH AND LONGITUDE 59.0° EAST TO 66.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 87 DEG C. THE SHIP LOCATED NEAR LATITUDE 21.2° NORTH AND LONGITUDE 62.2° EAST REPORTED MSLP OF 1010 HPA AND SURFACE WIND OF 090/30 KTS. ANOTHER SHIP LOCATED NEAR LATITUDE 21.3° NORTH AND LONGITUDE 64.0° EAST REPORTED MSLP OF 1011.5 HPA AND SURFACE WIND OF 100/22 KTS.

THE ESTIMATED CENTRAL PRESSURE IS 980 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 75 KNOTS GUSTING TO 85 KNOTS. STATE OF SEA IS PHENOMENAL.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. ⁰N/ long. ⁰E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
28-10-2014/0300	15.8/61.7	130-140 gusting to 155	Very Severe Cyclonic Storm
28-10-2014/0600	16.3/61.5	135-145 gusting to 160	Very Severe Cyclonic Storm
28-10-2014/1200	16.8/61.2	140-150 gusting to 165	Very Severe Cyclonic Storm
28-10-2014/1800	17.5/61.2	140-150 gusting to 165	Very Severe Cyclonic Storm
29-10-2014/0000	18.0/61.2	140-150 gusting to 165	Very Severe Cyclonic Storm
29-10-2014/1200	19.1/61.8	140-150 gusting to 165	Very Severe Cyclonic Storm
30-10-2014/0000	19.7/62.8	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/1200	20.4/64.3	110-120 gusting to 135	Severe Cyclonic Storm
31-10-2014/0000	21.1/65.8	100-110 gusting to 120	Severe Cyclonic Storm
31-10-2014/1200	21.8/66.9	90-100 gusting to 110	Severe Cyclonic Storm
01-11-2014/0000	22.5/68.0	80-90 gusting to 100	Cyclonic Storm
01-11-2014/1200	23.2/69.1	50-60 gusting to 70	Deep Depression
02-11-2014/0000	23.7/70.2	35-45 gusting to 55	Depression

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

#### **REMARKS:**

THE SEA SURFACE TEMPERATURE AROUND THE SYSTEM CENTRE IS 29°C AND IT IS ABOUT 28°C NEAR NORTH GUJARAT COAST. THE OCEAN THERMAL ENERGY IS LESS THAN 50KJ/CM2 NEAR NORTH GUJARAT COAST. THE VERTICAL WIND SHEAR IS ABOUT 5-10 KNOTS (LOW). THERE IS NO CHANGE AROUND SYSTEM CENTRE. AND THERE IS DECREASE IN WIND SHEAR TO THE NORTHEAST OF THE SYSTEM CENTRE TOWARDS GUJARAT COAST. LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 12HRS. THE SYSTEM IS MOVING SLOWLY (NORTH-NORTWESTWARDS) AS IT LIES CLOSE TO THE SOUTH OF THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EAST-SOUTHEAST OF THE SYSTEM. THE UPPER LEVEL DIVERGENCE IS NOW ORIENTED FROM SOUTHWEST TO NORTHEAST TOWARDS GUJARAT COAST. THERE IS BOTH POLEWARD AND EQUATORWARD OUTFLOW FAVOURING THE INTENSIFICATION OF THE SYSTEM. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM DURING NEXT 24 HRS AND WEAKENING THEREAFTER. HOWEVER, THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATE GRADUAL INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM REACHING UPTO SOUTHWEST SECTOR. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS SLOWLY DECREASING. WITH EXPECTED CONTINUANCE OF THIS FEATURE, THE SYSTEM WOULD START WEAKENING AFTER 24 HRS.

CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT AND THEN NORTHEASTWARD RE-CURVATURE TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY FURTHER DURING NEXT 24 HRS. THE SYSTEM WOULD INITIALLY MOVE NORTH-NORTHWESTWARDS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY  $1^{\rm ST}$  NOVEMBER.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (140-150 KMPH GUSTING TO 165 KMPH) DURING NEXT 12 HOURS. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A CYCLONIC STORM (80-90 KMPH GUSTING TO 100 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(M.MOHAPATRA) HEAD RSMC, NEW DELHI

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. SEVENTEEN ISSUED AT 0900 UTC OF 28TH OCTOBER 2014 BASED ON 0600 UTC CHARTS OF 28<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED SLOWLY NORTHWESTWARDS IN PAST 06 HOURS AND LAY CENTRED AT 0600 UTC OF 28<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 15.9° N AND LONGITUDE 61.6° E, ABOUT 1110 KM SOUTHWEST OF NALIYA (42631), 1150 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 810 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE NORTH-NORTHWESTWARDS DURING NEXT 12 HRS AND THEN GRADUALLY RECURVE NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 01<sup>ST</sup> NOVEMBER FORENOON. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A CYCLONIC STORM.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 4.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 13.0° NORTH TO 20.0° NORTH AND LONGITUDE 59.0° EAST TO 66.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 84 DEG C.

THE ESTIMATED CENTRAL PRESSURE IS 976 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 80 KNOTS GUSTING TO 90 KNOTS. STATE OF SEA IS PHENOMENAL.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position	Maximum sustained surface	Category of cyclonic
	(Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	wind speed (kmph)	disturbance
28-10-2014/0600	15.9/61.6	140-150 gusting to 165	Very Severe Cyclonic Storm
28-10-2014/1200	16.3/61.3	150-160 gusting to 175	Very Severe Cyclonic Storm
28-10-2014/1800	16.8/61.0	160-170 gusting to 185	Very Severe Cyclonic Storm
29-10-2014/0000	17.4/61.1	160-170 gusting to 185	Very Severe Cyclonic Storm
29-10-2014/0600	18.0/61.3	150-160 gusting to 175	Very Severe Cyclonic Storm
29-10-2014/1800	19.3/62.2	150-160 gusting to 175	Very Severe Cyclonic Storm
30-10-2014/0600	19.9/63.5	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/1800	20.7/64.9	110-120 gusting to 135	Severe Cyclonic Storm
31-10-2014/0600	21.4/66.3	100-110 gusting to 120	Severe Cyclonic Storm
31-10-2014/1800	22.2/67.5	90-100 gusting to 110	Severe Cyclonic Storm
01-11-2014/0600	23.1/68.8	80-90 gusting to 100	Cyclonic Storm
01-11-2014/1800	23.8/70.2	50-60 gusting to 70	Deep Depression
02-11-2014/0600	24.4/70.6	35-45 gusting to 55	Depression

# **REMARKS:**

THE SEA SURFACE TEMPERATURE AROUND THE SYSTEM CENTRE IS 29°C AND IT IS ABOUT 28°C

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

NEAR NORTH GUJARAT COAST. THE OCEAN THERMAL ENERGY IS LESS THAN 50KJ/CM² NEAR NORTH GUJARAT COAST. THE VERTICAL WIND SHEAR IS ABOUT 5-10 KNOTS (LOW). THERE IS NO CHANGE AROUND SYSTEM CENTRE. AND THERE IS DECREASE IN WIND SHEAR TO THE NORTHEAST OF THE SYSTEM CENTRE TOWARDS GUJARAT COAST. LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 12HRS. THE SYSTEM IS MOVING SLOWLY (NORTH-NORTWESTWARDS) AS IT LIES CLOSE TO THE SOUTH OF THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EAST-SOUTHEAST OF THE SYSTEM. THE UPPER LEVEL DIVERGENCE IS NOW ORIENTED FROM SOUTHWEST TO NORTHEAST TOWARDS GUJARAT COAST. THERE IS BOTH POLEWARD AND EQUATORWARD OUTFLOW FAVOURING THE INTENSIFICATION OF THE SYSTEM. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM DURING NEXT 24 HRS AND WEAKENING THEREAFTER. HOWEVER, THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATE GRADUAL INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM REACHING UPTO SOUTHWEST SECTOR. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS SLOWLY DECREASING. WITH EXPECTED CONTINUANCE OF THIS FEATURE, THE SYSTEM WOULD START WEAKENING AFTER 24 HRS.

CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT AND THEN NORTHEASTWARD RE-CURVATURE TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY FURTHER DURING NEXT 24 HRS. THE SYSTEM WOULD INITIALLY MOVE NORTH-NORTHWESTWARDS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY  $1^{\rm ST}$  NOVEMBER

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (140-150 KMPH GUSTING TO 165 KMPH) DURING NEXT 12 HOURS. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A CYCLONIC STORM (80-90 KMPH GUSTING TO 100 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(M.MOHAPATRA) HEAD RSMC, NEW DELHI

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:





FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. EIGHTEEN ISSUED AT 1200 UTC OF 28TH OCTOBER 2014 BASED ON 0900 UTC CHARTS OF  $28^{TH}$  OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED NORTH-NORTHWESTWARDS IN PAST 06 HOURS, INTENSIFIED FURTHER AND LAY CENTRED AT 0900 UTC OF 28<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 16.3<sup>0</sup> N AND LONGITUDE 61.6<sup>0</sup> E, ABOUT 1080 KM SOUTHWEST OF NALIYA (42631), 1110 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 800 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE NORTH-NORTHWESTWARDS DURING NEXT 12 HRS AND THEN GRADUALLY RECURVE NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 01<sup>ST</sup> NOVEMBER FORENOON. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A CYCLONIC STORM.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 5.0. THE CONVECTION WITH THIS SYSTEM HAS BEEN FURTHER ORGANISED WITH WELL DEFINED EYE. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 13.5° NORTH TO 22.5° NORTH AND LONGITUDE 59.0° EAST TO 68.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 83 DEG C.

THE ESTIMATED CENTRAL PRESSURE IS 966 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 90 KNOTS GUSTING TO 100 KNOTS. STATE OF SEA IS PHENOMENAL.

A SHIP LOCATED NEAR LAT 19.8 N AND LONG 65.0 E REPORTED MSLP OF 1010.0 HPA AND SURFACE WIND OF 140 / 35 KNOTS AT 0900 UTC OF  $28^{TH}$  OCT.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. ⁰N/ long. ⁰E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
28-10-2014/0900	16.3/61.6	160-170 gusting to 185	Very Severe Cyclonic Storm
28-10-2014/1200	16.6/61.4	165-175 gusting to 190	Very Severe Cyclonic Storm
28-10-2014/1800	17.1/61.2	170-180 gusting to 195	Very Severe Cyclonic Storm
29-10-2014/0000	17.6/61.2	175-185 gusting to 200	Very Severe Cyclonic Storm
29-10-2014/0600	18.1/61.4	175-185 gusting to 200	Very Severe Cyclonic Storm
29-10-2014/1800	19.3/62.6	150-160 gusting to 175	Very Severe Cyclonic Storm
30-10-2014/0600	19.9/63.8	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/1800	20.7/64.9	110-120 gusting to 135	Severe Cyclonic Storm
31-10-2014/0600	21.4/66.3	100-110 gusting to 120	Severe Cyclonic Storm
31-10-2014/1800	22.2/67.5	90-100 gusting to 110	Severe Cyclonic Storm
01-11-2014/0600	23.1/68.8	80-90 gusting to 100	Cyclonic Storm
01-11-2014/1800	23.8/70.2	50-60 gusting to 70	Deep Depression
02-11-2014/0600	24.4/71.6	35-45 gusting to 55	Depression

# **REMARKS:**

THE SEA SURFACE TEMPERATURE AROUND THE SYSTEM CENTRE IS 29°C AND IT IS ABOUT 28°C

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

NEAR NORTH GUJARAT COAST. THE OCEAN THERMAL ENERGY IS LESS THAN 50KJ/CM² NEAR NORTH GUJARAT COAST. THE VERTICAL WIND SHEAR IS ABOUT 5-10 KNOTS (LOW). THERE IS NO CHANGE AROUND SYSTEM CENTRE. AND THERE IS DECREASE IN WIND SHEAR TO THE NORTHEAST OF THE SYSTEM CENTRE TOWARDS GUJARAT COAST. LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 12HRS. THE SYSTEM IS MOVING SLOWLY (NORTH-NORTWESTWARDS) AS IT LIES CLOSE TO THE SOUTH OF THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EAST-SOUTHEAST OF THE SYSTEM. THE UPPER LEVEL DIVERGENCE IS NOW ORIENTED FROM SOUTHWEST TO NORTHEAST TOWARDS GUJARAT COAST. THERE IS BOTH POLEWARD AND EQUATORWARD OUTFLOW FAVOURING THE INTENSIFICATION OF THE SYSTEM. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM DURING NEXT 24 HRS AND WEAKENING THEREAFTER. HOWEVER, THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATE GRADUAL INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM REACHING UPTO SOUTHWEST SECTOR. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS SLOWLY DECREASING. WITH EXPECTED CONTINUANCE OF THIS FEATURE, THE SYSTEM WOULD START WEAKENING AFTER 24 HRS.

CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT INITIAL NORTH-NORTHWESTWARD MOVEMENT AND THEN NORTHEASTWARD RE-CURVATURE TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY FURTHER DURING NEXT 24 HRS. THE SYSTEM WOULD INITIALLY MOVE NORTH-NORTHWESTWARDS AND THEN RECURVE NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY  $1^{\rm ST}$  NOVEMBER

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (175-185 KMPH GUSTING TO 200 KMPH) DURING NEXT 12 HOURS. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A CYCLONIC STORM (80-90 KMPH GUSTING TO 100 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(M.MOHAPATRA) HEAD RSMC, NEW DELHI





Particular of CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. NINETEEN ISSUED AT 1500 UTC OF 28TH OCTOBER 2014 BASED ON 1200 UTC CHARTS OF  $28^{TH}$  OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED NEARLY NORTHWARD IN PAST 06 HOURS, INTENSIFIED FURTHER AND LAY CENTRED AT 1200 UTC OF 28TH OCTOBER, 2014 NEAR LATITUDE 16.7° N AND LONGITUDE 61.8° E, ABOUT 1030 KM SOUTHWEST OF NALIYA (42631), 1070 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 820 KM EAST-SOUTHEAST OF SALALAH (41316). IT WOULD MOVE NORTH-NORTHEASTWARDS DURING NEXT 24 HRS AND THEN NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 01ST NOVEMBER FORENOON. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A CYCLONIC STORM.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 5.5. THE CONVECTION IS EYE PATTERN. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 14.0° NORTH TO 22.0° NORTH AND LONGITUDE 59.0° EAST TO 67.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 84 DEG. C.

THE ESTIMATED CENTRAL PRESSURE IS 952 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 100 KNOTS GUSTING TO 115 KNOTS. STATE OF SEA IS PHENOMENAL.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
28-10-2014/1200	16.7/61.8	180-190 gusting to 210	Very Severe Cyclonic Storm
28-10-2014/1800	17.4/62.0	190-210 gusting to 220	Very Severe Cyclonic Storm
29-10-2014/0000	18.1/62.3	200-210 gusting to 230	Very Severe Cyclonic Storm
29-10-2014/0600	18.8/62.5	200-210 gusting to 230	Very Severe Cyclonic Storm
29-10-2014/1200	19.4/62.8	180-190 gusting to 210	Very Severe Cyclonic Storm
30-10-2014/0000	20.1/63.5	160-170 gusting to 185	Very Severe Cyclonic Storm
30-10-2014/1200	20.8/64.7	135-145 gusting to 160	Very Severe Cyclonic Storm
31-10-2014/0000	21.5/65.9	120-135 gusting to 145	Severe Cyclonic Storm
31-10-2014/1200	22.2/67.2	100-110 gusting to 120	Severe Cyclonic Storm
01-11-2014/0000	22.9/68.5	80-90 gusting to 100	Cyclonic Storm
01-11-2014/1200	23.6/70.0	55-65 gusting to 75	Deep Depression
02-11-2014/0000	24.3/71.5	40-50 gusting to 60	Depression
02-11-2014/1200	25.0/73.0	30-40 gusting to 50	Low

#### **REMARKS:**

THE SEA SURFACE TEMPERATURE AROUND THE SYSTEM CENTRE IS 29°C AND IT IS ABOUT 28°C NEAR NORTH GUJARAT COAST. THE OCEAN THERMAL ENERGY IS LESS THAN 50KJ/CM² NEAR NORTH GUJARAT COAST. THE VERTICAL WIND SHEAR IS ABOUT 5-10 KNOTS (LOW) TO THE SOUTH AND MODERATE TO HIGH 10-20 KTS TO THE NORTH. LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 12HRS. THE SYSTEM IS MOVING SLOWLY (NEARLY NORTHWARDS) AS IT LIES CLOSE TO THE RIDGE IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EAST OF THE SYSTEM. IT WILL

# PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

MOVE TO THE NORTH OF THE RIDGE DURING NEXT 24 HOURS LEADING TO GRADUAL INCREASE IN THE EASTERLY COMPONENET OF THE MOVEMENT. THE UPPER LEVEL DIVERGENCE AS WELL AS THE LOW LEVEL CONVERGENCE HAVE INCREASED DURING PAST SIX HOURS. DIVERGENCE IS ORIENTED FROM SOUTHWEST TO NORTHEAST TOWARDS GUJARAT COAST. THERE IS BOTH POLEWARD AND EQUATORWARD OUTFLOW FAVOURING THE INTENSIFICATION OF THE SYSTEM. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM DURING NEXT 12 HRS AND WEAKENING THEREAFTER. HOWEVER, THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES GRADUAL INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM REACHING UPTO SOUTHWEST SECTOR. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS SLOWLY DECREASING. WITH EXPECTED CONTINUANCE OF THIS FEATURE, THE SYSTEM WOULD START WEAKENING AFTER 24 HRS.

CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT NORTHEASTWARD RE-CURVATURE TOWARDS NORTH GUJARAT COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD INTENSIFY FURTHER DURING NEXT 12 HRS. THE SYSTEM WOULD INITIALLY MOVE NORTH-NORTHEASTWARDS DURING NEXT 24 HOURS AND THEN NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY 1<sup>ST</sup> NOVEMBER FORENOON.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (200-210 KMPH GUSTING TO 230 KMPH) DURING NEXT 12 HOURS. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A CYCLONIC STORM (80-90 KMPH GUSTING TO 100 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(M.MOHAPATRA) HEAD RSMC, NEW DELHI





PINDERPLIE Y OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. TWENTY ISSUED AT 1800 UTC OF 28TH OCTOBER 2014 BASED ON 1500 UTC CHARTS OF 28<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED NEARLY NORTHWARD IN PAST NINE HOURS, AND LAY CENTRED AT 1500 UTC OF 28TH OCTOBER, 2014 NEAR LATITUDE 17.2° N AND LONGITUDE 61.8° E, ABOUT 1000 KM SOUTHWEST OF NALIYA (42631), 1020 KM SOUTHWEST OF KARACHI (41780) AND 490 KM SOUTHEAST OF MASIRAH (41288). IT WOULD MOVE NORTH-NORTHEASTWARDS DURING NEXT 24 HRS AND THEN NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 01<sup>ST</sup> NOVEMBER FORENOON. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A CYCLONIC STORM.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 5.5. THE CONVECTION IS EYE PATTERN. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 14.0° NORTH TO 22.0° NORTH AND LONGITUDE 58.5° EAST TO 66.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 79 DEG. C.

THE ESTIMATED CENTRAL PRESSURE IS 952 HPA AND MAXIMUM SUSTAINED WIND SPEED IS ABOUT 100 KNOTS GUSTING TO 115 KNOTS. STATE OF SEA IS PHENOMENAL.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. ⁰N/ long. ⁰E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
28-10-2014/1500	17.2/61.8	180-190 gusting to 210	Very Severe Cyclonic Storm
28-10-2014/1800	17.4/61.9	190-210 gusting to 220	Very Severe Cyclonic Storm
29-10-2014/0000	18.1/62.3	200-210 gusting to 230	Very Severe Cyclonic Storm
29-10-2014/0600	18.8/62.5	200-210 gusting to 230	Very Severe Cyclonic Storm
29-10-2014/1200	19.4/62.8	180-190 gusting to 210	Very Severe Cyclonic Storm
30-10-2014/0000	20.1/63.5	160-170 gusting to 185	Very Severe Cyclonic Storm
30-10-2014/1200	20.8/64.7	135-145 gusting to 160	Very Severe Cyclonic Storm
31-10-2014/0000	21.5/65.9	120-135 gusting to 145	Severe Cyclonic Storm
31-10-2014/1200	22.2/67.2	100-110 gusting to 120	Severe Cyclonic Storm
01-11-2014/0000	22.9/68.5	80-90 gusting to 100	Cyclonic Storm
01-11-2014/1200	23.6/70.0	55-65 gusting to 75	Deep Depression
02-11-2014/0000	24.3/71.5	40-50 gusting to 60	Depression
02-11-2014/1200	25.0/73.0	30-40 gusting to 50	Low

# **REMARKS:**

THE SEA SURFACE TEMPERATURE AROUND THE SYSTEM CENTRE IS 29°C AND IT IS ABOUT 28°C NEAR NORTH GUJARAT AND SOUTH PAKISTAN COASTS. THE OCEAN THERMAL ENERGY IS LESS THAN 50KJ/CM² NEAR NORTH GUJARAT COAST. THE VERTICAL WIND SHEAR IS ABOUT 5-10 KNOTS (LOW) TO THE SOUTH AND MODERATE TO HIGH 10-20 KTS TO THE NORTH. LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 12 HRS. THE SYSTEM IS MOVING SLOWLY (NEARLY NORTHWARDS) AS IT LIES CLOSE TO THE RIDGE WHICH RUNS ROUGHLY ALONG LATTITUDE 18.0°N AND IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EAST OF THE SYSTEM. IT WILL MOVE TO THE NORTH OF THE RIDGE DURING NEXT 24 HOURS LEADING TO GRADUAL INCREASE IN THE EASTERLY COMPONENET OF

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

THE MOVEMENT. THE UPPER LEVEL DIVERGENCE AS WELL AS THE LOW LEVEL CONVERGENCE HAVE INCREASED DURING PAST NINE HOURS. DIVERGENCE IS ORIENTED FROM SOUTHWEST TO NORTHEAST TOWARDS GUJARAT COAST. THERE IS BOTH POLEWARD AND EQUATORWARD OUTFLOW FAVOURING THE SLIGHT INTENSIFICATION OF THE SYSTEM. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM DURING NEXT 12 HRS AND WEAKENING THEREAFTER. HOWEVER, THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES GRADUAL INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM REACHING UPTO SOUTHWEST SECTOR. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS SLOWLY DECREASING. WITH EXPECTED CONTINUANCE OF THIS FEATURE, THE SYSTEM WOULD START WEAKENING AFTER 24 HRS.

CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT NORTHEASTWARD RE-CURVATURE TOWARDS NORTH GUJARAT COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD SLIGHTLY INTENSIFY FURTHER DURING NEXT 12 HRS. THE SYSTEM WOULD MOVE NORTH-NORTHEASTWARDS DURING NEXT 24 HOURS AND THEN NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY  $1^{\rm ST}$  NOVEMBER FORENOON.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (200-210 KMPH GUSTING TO 230 KMPH) DURING NEXT 12 HOURS. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A CYCLONIC STORM (80-90 KMPH GUSTING TO 100 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(CHARAN SINGH) HEAD RSMC, NEW DELHI





PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. TWENTY ONE ISSUED AT 1930 UTC OF 28TH OCTOBER 2014 BASED ON 1800 UTC CHARTS OF 28<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED NEARLY NORTHWARD IN PAST 12 HOURS, AND LAY CENTRED AT 1800 UTC OF  $28^{TH}$  OCTOBER, 2014 NEAR LATITUDE  $17.6^{\circ}$  N AND LONGITUDE  $61.8^{\circ}$  E, ABOUT 970 KM SOUTHWEST OF NALIYA (42631), 980 KM SOUTHWEST OF KARACHI (41780) AND 450 KM SOUTHEAST OF MASIRAH (41288). IT WOULD MOVE NORTH-NORTHEASTWARDS DURING NEXT 24 HRS AND THEN NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY  $01^{ST}$  NOVEMBER FORENOON. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A CYCLONIC STORM.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 5.5. THE SYSTEM IS EYE PATTERN. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 15.0° NORTH TO 22.0° NORTH AND LONGITUDE 58.5° EAST TO 66.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 79 DEG. C.

THE ESTIMATED CENTRAL PRESSURE IS 952 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 100 KNOTS GUSTING TO 115 KNOTS. STATE OF SEA IS PHENOMENAL.

Date/Time(UTC)	Position (Lat. ⁰N/ long. ºE)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
28-10-2014/1800	17.6/61.8	180-190 gusting to 210	Very Severe Cyclonic Storm
29-10-2014/0000	18.0/61.9	190-210 gusting to 220	Very Severe Cyclonic Storm
29-10-2014/0600	18.6/62.2	200-210 gusting to 230	Very Severe Cyclonic Storm
29-10-2014/1200	19.4/62.8	200-210 gusting to 230	Very Severe Cyclonic Storm
29-10-2014/1800	20.1/63.5	180-190 gusting to 210	Very Severe Cyclonic Storm
30-10-2014/0600	20.8/64.7	160-170 gusting to 185	Very Severe Cyclonic Storm
30-10-2014/1800	21.5/65.9	135-145 gusting to 160	Very Severe Cyclonic Storm
31-10-2014/0600	22.2/67.2	120-135 gusting to 145	Severe Cyclonic Storm
31-10-2014/1800	22.9/68.5	100-110 gusting to 120	Severe Cyclonic Storm
01-11-2014/0600	23.6/70.0	80-90 gusting to 100	Cyclonic Storm
01-11-2014/1800	24.3/71.5	55-65 gusting to 75	Deep Depression
02-11-2014/0600	25.0/73.0	40-50 gusting to 60	Depression

## **REMARKS:**

THE SEA SURFACE TEMPERATURE AROUND THE SYSTEM CENTRE IS 29°C AND IT IS ABOUT 28°C NEAR NORTH GUJARAT AND SOUTH PAKISTAN COASTS. THE OCEAN THERMAL ENERGY IS LESS THAN 50KJ/CM² NEAR NORTH GUJARAT COAST. THE VERTICAL WIND SHEAR IS ABOUT 5-10 KNOTS (LOW) TO THE SOUTH AND MODERATE TO HIGH 10-20 KTS TO THE NORTH. LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 12 HRS. THE SYSTEM IS MOVING SLOWLY (NEARLY NORTHWARDS) AS IT LIES CLOSE TO THE RIDGE WHICH RUNS ROUGHLY ALONG LATTITUDE 18.0°N AND IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EAST OF THE SYSTEM. IT WILL MOVE TO THE NORTH OF THE RIDGE DURING NEXT 24 HOURS LEADING TO GRADUAL INCREASE IN THE EASTERLY COMPONENET OF THE MOVEMENT. THE UPPER LEVEL DIVERGENCE AS WELL AS THE LOW LEVEL CONVERGENCE HAVE INCREASED DURING PAST NINE HOURS. DIVERGENCE IS ORIENTED FROM SOUTHWEST TO NORTHEAST

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

TOWARDS GUJARAT COAST. THERE IS BOTH POLEWARD AND EQUATORWARD OUTFLOW FAVOURING THE SLIGHT INTENSIFICATION OF THE SYSTEM. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM DURING NEXT 12 HRS AND WEAKENING THEREAFTER. HOWEVER, THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES GRADUAL INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM REACHING UPTO SOUTHWEST SECTOR. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS SLOWLY DECREASING. WITH EXPECTED CONTINUANCE OF THIS FEATURE, THE SYSTEM WOULD START WEAKENING AFTER 24 HRS.

CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT NORTHEASTWARD RE-CURVATURE TOWARDS NORTH GUJARAT COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD SLIGHTLY INTENSIFY FURTHER DURING NEXT 12 HRS. THE SYSTEM WOULD MOVE NORTH-NORTHEASTWARDS DURING NEXT 24 HOURS AND THEN NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY  $1^{\rm ST}$  NOVEMBER FORENOON.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (200-210 KMPH GUSTING TO 230 KMPH) DURING NEXT 12 HOURS. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A CYCLONIC STORM (80-90 KMPH GUSTING TO 100 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(CHARAN SINGH) .....SCIENTIST-E





REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. TWENTY TWO ISSUED AT 0000 UTC OF 29TH OCTOBER 2014 BASED ON 2100 UTC CHARTS OF 28<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED NEARLY NORTHWARD IN PAST 12 HOURS, AND LAY CENTRED AT 2100 UTC OF THE 28<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 18.0° N AND LONGITUDE 61.8° E, ABOUT 930 KM SOUTHWEST OF NALIYA (42631), 940 KM SOUTHWEST OF KARACHI (41780) AND 420 KM SOUTHEAST OF MASIRAH (41288). IT WOULD MOVE NORTH-NORTHEASTWARDS DURING NEXT 12 HRS AND THEN NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 01<sup>ST</sup> NOVEMBER FORENOON. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A CYCLONIC STORM.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 5.5. THE SYSTEM IS EYE PATTERN. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 15.0° NORTH TO 23.0° NORTH AND LONGITUDE 58.0° EAST TO 65.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 77 DEG. C.

THE ESTIMATED CENTRAL PRESSURE IS 952 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 100 KNOTS GUSTING TO 115 KNOTS. STATE OF SEA IS PHENOMENAL.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. ⁰N/ long. ⁰E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
28-10-2014/2100	18.0/61.8	190-210 gusting to 220	Very Severe Cyclonic Storm
29-10-2014/0000	18.2/61.9	190-210 gusting to 220	Very Severe Cyclonic Storm
29-10-2014/0600	18.6/62.2	190-210 gusting to 220	Very Severe Cyclonic Storm
29-10-2014/1200	19.4/62.8	190-210 gusting to 220	Very Severe Cyclonic Storm
29-10-2014/1800	20.1/63.5	180-190 gusting to 210	Very Severe Cyclonic Storm
30-10-2014/0600	20.8/64.7	160-170 gusting to 185	Very Severe Cyclonic Storm
30-10-2014/1800	21.5/65.9	135-145 gusting to 160	Very Severe Cyclonic Storm
31-10-2014/0600	22.2/67.2	120-135 gusting to 145	Severe Cyclonic Storm
31-10-2014/1800	22.9/68.5	100-110 gusting to 120	Severe Cyclonic Storm
01-11-2014/0600	23.6/70.0	80-90 gusting to 100	Cyclonic Storm
01-11-2014/1800	24.3/71.5	55-65 gusting to 75	Deep Depression
02-11-2014/0600	25.0/73.0	40-50 gusting to 60	Depression

#### **REMARKS:**

THE SEA SURFACE TEMPERATURE AROUND THE SYSTEM CENTRE IS 29°C AND IT IS ABOUT 28°C NEAR NORTH GUJARAT AND SOUTH PAKISTAN COASTS. THE OCEAN THERMAL ENERGY IS LESS THAN 50KJ/CM² NEAR NORTH GUJARAT COAST. THE VERTICAL WIND SHEAR IS ABOUT 5-10 KNOTS (LOW) TO THE SOUTH AND MODERATE TO HIGH 10-20 KTS TO THE NORTH. LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 12 HRS. THE SYSTEM IS MOVING SLOWLY (NEARLY NORTHWARDS) AS IT LIES VERY CLOSE TO THE RIDGE WHICH RUNS ROUGHLY ALONG LATTITUDE 18.0°N AND IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE EAST OF THE SYSTEM. IT WILL MOVE TO THE NORTH OF THE RIDGE DURING NEXT 12 HOURS LEADING TO GRADUAL INCREASE IN THE EASTERLY COMPONENET OF THE MOVEMENT. THE UPPER LEVEL DIVERGENCE AS WELL AS THE LOW LEVEL CONVERGENCE HAVE INCREASED DURING PAST NINE HOURS. DIVERGENCE IS ORIENTED FROM SOUTHWEST TO NORTHEAST TOWARDS GUJARAT COAST. THERE IS BOTH POLEWARD AND EQUATORWARD OUTFLOW SUGGESTS THE SYSTEM TO MAINTAIN THE SAME INTENSITY FOR SOME MORE TIME. DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE GRADUAL INTENSIFICATION OF THE SYSTEM DURING NEXT 12 HRS AND

# PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

WEAKENING THEREAFTER. HOWEVER, THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES GRADUAL INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM REACHING UPTO SOUTHWEST SECTOR. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS SLOWLY DECREASING. WITH EXPECTED CONTINUANCE OF THIS FEATURE, THE SYSTEM WOULD START WEAKENING AFTER 24 HRS.

CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT NORTHEASTWARD RE-CURVATURE TOWARDS NORTH GUJARAT COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD SLIGHTLY INTENSIFY FURTHER DURING NEXT 12 HRS. THE SYSTEM WOULD MOVE NORTH-NORTHEASTWARDS DURING NEXT 24 HOURS AND THEN NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY 1<sup>ST</sup> NOVEMBER FORENOON.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (190-210 KMPH GUSTING TO 220 KMPH) DURING NEXT 12 HOURS. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A CYCLONIC STORM (80-90 KMPH GUSTING TO 100 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(CHARAN SINGH)
.....SCIENTIST-E





REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI
TO: STORM WARNING CENTRE, YANGOON (MYANMAR)
STORM WARNING CENTRE, BANGKOK (THAILAND)

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

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

TROPICAL STORM 'NILOFAR' ADVISORY NO. TWENTY THREE ISSUED AT 0300 UTC OF 29TH OCTOBER 2014 BASED ON 0000 UTC CHARTS OF 29<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED NEARLY NORTHWARD IN PAST 12 HOURS, AND LAY CENTRED AT 0000 UTC OF THE  $29^{\mathrm{TH}}$  OCTOBER, 2014 NEAR LATITUDE 18.2° N AND LONGITUDE 62.0° E, ABOUT 900 KM SOUTHWEST OF NALIYA (42631), 910 KM SOUTHWEST OF KARACHI (41780) AND 420 KM SOUTHEAST OF MASIRAH (41288). IT WOULD MOVE NORTH-NORTHEASTWARDS DURING NEXT 12 HRS AND THEN NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY  $01^{\mathrm{ST}}$  NOVEMBER FORENOON. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A CYCLONIC STORM.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 5.5. THE SYSTEM IS EYE PATTERN. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 16.0° NORTH TO 23.0° NORTH AND LONGITUDE 59.0° EAST TO 65.5° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 79 DEG. C.

THE ESTIMATED CENTRAL PRESSURE IS 950 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 100 KNOTS GUSTING TO 115 KNOTS. STATE OF SEA IS PHENOMENAL.

A SHIP LOCATED NEAR 16.8° N AND 63.7° E REPORTED MSLP OF 1005.0 HPA AND SURFACE WIND OF 190/30 KTS. A BUOY LOCATED NEAR 18.8° N AND 67.0°E REPORTED MSLP OF 1010.4 HPA AND SURFACE WIND OF 140/14 KTS. CONSIDERING 24 HRS PRESSURE CHANGE ALONG WEST COAST OF INDIA AND ADJOINING PAKISTAN MAXIMUM 24 HRS PRSSURE FALL OF MINUS 1.3 HPA HAS BEEN REPORTED BY NALIYA AT 0000 UTC OF 29<sup>TH</sup> OCT 2014.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
29-10-2014/0000	18.2/62.0	190-210 gusting to 220	Very Severe Cyclonic Storm
29-10-2014/0600	18.4/62.2	190-210 gusting to 220	Very Severe Cyclonic Storm
29-10-2014/1200	18.8/62.3	190-210 gusting to 220	Very Severe Cyclonic Storm
29-10-2014/1800	19.4/62.8	180-190 gusting to 210	Very Severe Cyclonic Storm
30-10-2014/0000	20.1/63.5	170-180 gusting to 200	Very Severe Cyclonic Storm
30-10-2014/1200	20.9/64.7	160-170 gusting to 185	Very Severe Cyclonic Storm
31-10-2014/0000	21.5/65.8	135-145 gusting to 160	Very Severe Cyclonic Storm
31-10-2014/1200	22.3/67.1	100-120 gusting to 130	Severe Cyclonic Storm
01-11-2014/0000	23.0/68.3	80-90 gusting to 100	Cyclonic Storm
01-11-2014/1200	23.7/69.8	55-65 gusting to 75	Deep Depression
02-11-2014/0000	24.4/71.5	40-50 gusting to 60	Depression

# REMARKS:

THE SEA SURFACE TEMPERATURE AROUND THE SYSTEM CENTRE IS 29°C AND IT IS ABOUT 28°C NEAR NORTH GUJARAT AND SOUTH PAKISTAN COASTS. THE OCEAN THERMAL ENERGY IS LESS THAN 50 KJ/CM² NEAR NORTH GUJARAT COAST. THE VERTICAL WIND SHEAR IS ABOUT 10-15 KNOTS (LOW TO MODERATE )TO THE SOUTH AND 15-25 KTS (MODERATE TO HIGH) TO THE NORTH. LOW LEVEL RELATIVE VORTICITY REMAINED SAME DURING PAST 12 HRS. THE SYSTEM IS MOVING SLOWLY (NEARLY NORTHWARDS). THE SYSTEM PRESENTLY LIES TO THE NORTH OF RIDGE WHICH RUNS ROUGHLY ALONG LATTITUDE 17.0°N AND IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE SOUTHEAST OF THE SYSTEM.

NO SIGNIFICANT CHANGE IN UPPER LEVEL DIVERGENCE AS WELL AS THE LOW LEVEL CONVERGENCE DURING PAST SIX HOURS. DIVERGENCE IS ORIENTED FROM SOUTHWEST TO NORTHEAST TOWARDS GUJARAT COAST. THERE IS BOTH POLEWARD AND EQUATORWARD OUTFLOW SUGGESTS THE SYSTEM TO MAINTAIN THE SAME INTENSITY DURING NEXT 12 HOURS. DYNAMICAL

# PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

STATISTICAL MODELS ALSO SUGGEST THE GRADUAL WEAKING OF THE SYSTEM AFTER 12 HRS. HOWEVER, THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES GRADUAL INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM REACHING UPTO SOUTHEAST SECTOR. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS SLOWLY DECREASING. WITH EXPECTED CONTINUANCE OF THIS FEATURE, THE SYSTEM WOULD START WEAKENING AFTER 12 HRS.

CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT NORTHEASTWARD RE-CURVATURE TOWARDS NORTH GUJARAT COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD MOVE NORTH-NORTHEASTWARDS DURING NEXT 12 HOURS AND THEN NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY 1<sup>ST</sup> NOVEMBER FORENOON.

THE SYSTEM WILL HAVE PEAK INTENSITY OF VERY SEVERE CYCLONIC STORM (190-210 KMPH GUSTING TO 220 KMPH) DURING NEXT 12 HOURS. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A CYCLONIC STORM (80-90 KMPH GUSTING TO 100 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(CHARAN SINGH)
.....SCIENTIST-E





REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI
TO: STORM WARNING CENTRE, YANGOON (MYANMAR)
STORM WARNING CENTRE, BANGKOK (THAILAND)

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

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

TROPICAL STORM 'NILOFAR' ADVISORY NO. TWENTY FOUR ISSUED AT 0600 UTC OF 29TH OCTOBER 2014 BASED ON 0300 UTC CHARTS OF  $29^{TH}$  OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED NORTH-NORTHEASTWARDS WITH A SPEED OF 15 KMPH DURING PAST 6 HOURS AND LAY CENTRED AT 0300 UTC OF TODAY, THE 29<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 18.7° N AND LONGITUDE 62.0° E, ABOUT 870 KM WEST-SOUTHWEST OF NALIYA (42631), 870 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 390 KM EAST-SOUTHEAST OF MASIRAH (41288). IT WOULD MOVE NORTH-NORTHEASTWARDS DURING NEXT 12 HOURS AND THEN NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 31<sup>ST</sup> OCTOBER NIGHT/EARLY HOURS OF 01<sup>ST</sup> NOVEMBER. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A MARGINAL CYCLONIC STORM WITH A WIND SPEED OF 60-70 KMPH GUSTING TO 80 KMPH.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 5.0. THE CYCLONE HAS RAGGED EYE PATTERN. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 16.0° NORTH TO 23.0° NORTH AND LONGITUDE 59.0° EAST TO 65.5° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 79°C.

THE ESTIMATED CENTRAL PRESSURE IS 960 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 90 KNOTS GUSTING TO 100 KNOTS. STATE OF SEA IS PHENOMENAL.

A SHIP LOCATED NEAR 18.1° N AND 65.1° E REPORTED MSLP OF 1009.5 HPA AND SURFACE WIND OF 160°/31 KTS, A SHIP LOCATED NEAR 15.0° N AND 63.6° E REPORTED MSLP OF 1007.7 HPA AND SURFACE WIND OF 180°/40 AND ANOTHER SHIP LOCATED NEAR 13.2° N AND 63.6° E REPORTED MSLP OF 1009.9 HPA AND SURFACE WIND OF 190°/30 KTS A BUOY LOCATED NEAR 18.8° N AND 67.1°E REPORTED MSLP OF 1012.5 HPA AND SURFACE WIND OF 140°/12 KTS.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
29-10-2014/0300	18.7/62.0	170-180 gusting to 195	Very Severe Cyclonic Storm
29-10-2014/0600	19.0/62.2	160-170 gusting to 185	Very Severe Cyclonic Storm
29-10-2014/1200	19.3/62.4	140-150 gusting to 165	Very Severe Cyclonic Storm
29-10-2014/1800	19.6/63.0	130-140 gusting to 155	Very Severe Cyclonic Storm
30-10-2014/0000	20.1/63.8	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/1200	20.8/65.0	100-110 gusting to 120	Severe Cyclonic Storm
31-10-2014/0000	21.8/66.2	90-100 gusting to 110	Severe Cyclonic Storm
31-10-2014/1200	22.7/67.5	70-80 gusting to 90	Cyclonic Storm
01-11-2014/0000	23.5/68.8	60-70 gusting to 80	Cyclonic Storm
01-11-2014/1730	24.4/70.1	40-50 gusting to 60	Depression

#### **REMARKS:**

THE SEA SURFACE TEMPERATURE AROUND THE SYSTEM CENTRE IS 29°C AND IT IS ABOUT 28°C NEAR NORTH GUJARAT AND ADJOINING PAKISTAN COAST. THE OCEAN THERMAL ENERGY IS LESS THAN 50 KJ/CM² NEAR NORTH GUJARAT COAST. THE VERTICAL WIND SHEAR HAS INCREASED AND IS ABOUT 20-30 KNOTS (MODERATE TO HIGH). LOW LEVEL RELATIVE VORTICITY HAS DECREASED SLIGHTLY DURING PAST 6 HRS. THE SYSTEM IS MOVING NORTH-NORTHEASTWARDS. THE SYSTEM LIES TO THE NORTH OF RIDGE WHICH RUNS ROUGHLY ALONG LATTITUDE 17.0°N IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE SOUTH OF THE SYSTEM.

UPPER LEVEL DIVERGENCE AS WELL AS THE LOW LEVEL CONVERGENCE HAS DECREASED SLIGHTLY DURING PAST SIX HOURS. DIVERGENCE IS ORIENTED FROM SOUTHWEST TO NORTHEAST

# PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

TOWARDS GUJARAT COAST. AS A RESULT, THE SYSTEM WOULD WEAKEN AND BECOME A CYCLONIC STORM BEFORE LANDFALL. THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES GRADUAL INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM REACHING UPTO NORTHEAST SECTOR. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS SLOWLY DECREASING. WITH EXPECTED CONTINUANCE OF THIS FEATURE, THE SYSTEM WOULD CONTINUE WEAKENING. NWP DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE WEAKENINNG OF THE SYSTEM BEFORE LANDFALL.

CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT NORTHEASTWARD RE-CURVATURE TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD MOVE NORTH-NORTHEASTWARDS DURING NEXT 12 HOURS AND THEN NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY 31 ST OCTOBER NIGHT/EARLY HOURS OF 1 ST NOVEMBER. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD CONTINUE TO EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR, LOW OCEAN THERMAL ENERGY AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A CYCLONIC STORM (60-70 KMPH GUSTING TO 80 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(KAMALJIT RAY) .....SCIENTIST-E





REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI
TO: STORM WARNING CENTRE, YANGOON (MYANMAR)

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

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

TROPICAL STORM 'NILOFAR' ADVISORY NO. TWENTY FIVE ISSUED AT 0900 UTC OF 29TH OCTOBER 2014 BASED ON 0600 UTC CHARTS OF 29<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED SLIGHTLY NORTH- WARDS WITH A SPEED OF 13 KMPH DURING PAST 6 HOURS AND LAY CENTRED AT 0600 UTC OF TODAY, THE  $29^{TH}$  OCTOBER, 2014 NEAR LATITUDE  $18.9^{\circ}$  N AND LONGITUDE  $62.0^{\circ}$  E, ABOUT 860 KM WESTSOUTHWEST OF NALIYA (42631), 860 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 380 KM EASTSOUTHEAST OF MASIRAH (41288). IT WOULD MOVE NORTH-NORTHEASTWARDS DURING NEXT 12 HOURS AND THEN NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY  $31^{ST}$  OCTOBER NIGHT/EARLY HOURS OF  $01^{ST}$  NOVEMBER. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A MARGINAL CYCLONIC STORM WITH A WIND SPEED OF 60-70 KMPH GUSTING TO 80 KMPH.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 5.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 16.5° NORTH TO 22.0° NORTH AND LONGITUDE 59.5° EAST TO 67.5° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 81°C.

THE ESTIMATED CENTRAL PRESSURE IS 960 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 90 KNOTS GUSTING TO 100 KNOTS. STATE OF SEA IS PHENOMENAL.

A SHIP LOCATED NEAR 18.1° N AND 65.1° E REPORTED MSLP OF 1009.5 HPA AND SURFACE WIND OF 160°/31 KTS, A SHIP LOCATED NEAR 15.0° N AND 63.6° E REPORTED MSLP OF 1007.7 HPA AND SURFACE WIND OF 180°/40 AND ANOTHER SHIP LOCATED NEAR 13.2° N AND 63.6° E REPORTED MSLP OF 1009.9 HPA AND SURFACE WIND OF 190°/30 KTS A BUOY LOCATED NEAR 18.8° N AND 67.1°E REPORTED MSLP OF 1012.5 HPA AND SURFACE WIND OF 140°/12 KTS.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
29-10-2014/0600	18.9/62.0	160-170 gusting to 185	Very Severe Cyclonic Storm
29-10-2014/1200	19.3/62.3	150-160 gusting to 175	Very Severe Cyclonic Storm
29-10-2014/1800	19.6/62.6	140-150 gusting to 165	Very Severe Cyclonic Storm
30-10-2014/0000	20.1/63.1	130-140 gusting to 155	Very Severe Cyclonic Storm
30-10-2014/0600	20.6/64.0	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/1800	21.5/65.4	100-110 gusting to 120	Severe Cyclonic Storm
31-10-2014/0600	22.4/66.7	80-90 gusting to 100	Cyclonic Storm
31-10-2014/1800	23.2/68.1	60-70 gusting to 80	Cyclonic Storm
01-10-2014/0600	24.1/69.4	40-50 gusting to 60	Depression

#### **REMARKS:**

THE SEA SURFACE TEMPERATURE AROUND THE SYSTEM CENTRE IS 29°C AND IT IS ABOUT 28°C NEAR NORTH GUJARAT AND ADJOINING PAKISTAN COAST. THE OCEAN THERMAL ENERGY IS LESS THAN 50 KJ/CM² NEAR NORTH GUJARAT COAST. THE VERTICAL WIND SHEAR HAS INCREASED AND IS ABOUT 20-30 KNOTS (MODERATE TO HIGH). LOW LEVEL RELATIVE VORTICITY HAS DECREASED SLIGHTLY DURING PAST 6 HRS. THE SYSTEM IS MOVING NORTH-NORTHEASTWARDS. THE SYSTEM LIES TO THE NORTH OF RIDGE WHICH RUNS ROUGHLY ALONG LATTITUDE 17.0°N IN ASSOCIATION WITH ANTICYCLONIC CIRCULATION TO THE SOUTH OF THE SYSTEM.

UPPER LEVEL DIVERGENCE AS WELL AS THE LOW LEVEL CONVERGENCE HAS DECREASED SLIGHTLY DURING PAST SIX HOURS. DIVERGENCE IS ORIENTED FROM SOUTHWEST TO NORTHEAST TOWARDS GUJARAT COAST. AS A RESULT, THE SYSTEM WOULD WEAKEN AND BECOME A CYCLONIC STORM BEFORE LANDFALL. THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES

# PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

INDICATES GRADUAL INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM REACHING UPTO NORTHEAST SECTOR. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS SLOWLY DECREASING. WITH EXPECTED CONTINUANCE OF THIS FEATURE, THE SYSTEM WOULD CONTINUE WEAKENING. NWP DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE WEAKENING OF THE SYSTEM BEFORE LANDFALL.

CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT NORTHEASTWARD RE-CURVATURE TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD MOVE NORTH-NORTHEASTWARDS DURING NEXT 12 HOURS AND THEN NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY 31<sup>ST</sup> OCTOBER NIGHT/EARLY HOURS OF 1<sup>ST</sup> NOVEMBER. HOWEVER, DURING NORTHEASTWARD MOVEMENT, IT WOULD CONTINUE TO EXPERIENCE HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR, LOW OCEAN THERMAL ENERGY AND ALSO IT MAY INTERACT WITH LAND SURFACE. AS A RESULT, THE SYSTEM WOULD WEAKEN INTO A CYCLONIC STORM (60-70 KMPH GUSTING TO 80 KMPH) AT THE TIME OF LANDFALL OVER NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

(KAMALJIT RAY) .....SCIENTIST-E





REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI
TO: STORM WARNING CENTRE, YANGOON (MYANMAR)

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

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

TROPICAL STORM 'NILOFAR' ADVISORY NO. TWENTY SIX ISSUED AT 1200 UTC OF 29TH OCTOBER 2014 BASED ON 0900 UTC CHARTS OF 29<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED SLIGHTLY NORTHWARDS WITH A SPEED OF 13 KMPH DURING PAST 6 HOURS AND LAY CENTRED AT 0900 UTC OF TODAY, THE 29<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 19.0° N AND LONGITUDE 62.0° E, ABOUT 850 KM WEST-SOUTHWEST OF NALIYA (42631), 840 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 380 KM EAST-SOUTHEAST OF MASIRAH (41288). IT WOULD MOVE NORTH-NORTHEASTWARDS DURING NEXT 12 HOURS AND THEN NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 31<sup>ST</sup> OCTOBER NIGHT/EARLY HOURS OF 01<sup>ST</sup> NOVEMBER. HOWEVER, AS THE SYSTEM WOULD COME CLOSER TO GUJARAT COAST, IT WOULD WEAKEN AND CROSS THE COAST AS A MARGINAL CYCLONIC STORM WITH A WIND SPEED OF 60-70 KMPH GUSTING TO 80 KMPH.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 5.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 17.5° NORTH TO 24.0° NORTH AND LONGITUDE 59.5° EAST TO 68.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 82°C.

THE ESTIMATED CENTRAL PRESSURE IS 960 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 90 KNOTS GUSTING TO 100 KNOTS. STATE OF SEA IS PHENOMENAL.

A SHIP LOCATED NEAR 16.3° N AND 62.0° E REPORTED SURFACE WIND OF 230°/25 KTS, A SHIP LOCATED NEAR 14.1° N AND 63.16° E REPORTED MSLP OF 1009.7 HPA AND SURFACE WIND OF 180°/27 AND ANOTHER SHIP LOCATED NEAR 19.4° N AND 66.5° E REPORTED MSLP OF 1011.5 HPA AND SURFACE WIND OF 140°/20 KTS.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
29-10-2014/0900	19.0/62.0	160-170 gusting to 185	Very Severe Cyclonic Storm
29-10-2014/1200	19.3/62.3	150-160 gusting to 175	Very Severe Cyclonic Storm
29-10-2014/1800	19.6/62.6	140-150 gusting to 165	Very Severe Cyclonic Storm
30-10-2014/0000	20.1/63.1	130-140 gusting to 155	Very Severe Cyclonic Storm
30-10-2014/0600	20.6/64.0	120-130 gusting to 145	Very Severe Cyclonic Storm
30-10-2014/1800	21.5/65.4	100-110 gusting to 120	Severe Cyclonic Storm
31-10-2014/0600	22.4/66.7	80-90 gusting to 100	Cyclonic Storm
31-10-2014/1800	23.2/68.1	60-70 gusting to 80	Cyclonic Storm
01-11-2014/0600	24.1/69.4	40-50 gusting to 60	Depression

# REMARKS:

THE SEA SURFACE TEMPERATURE AROUND THE SYSTEM CENTRE IS 29°C AND IT IS ABOUT 28°C NEAR NORTH GUJARAT AND ADJOINING PAKISTAN COAST. THE OCEAN THERMAL ENERGY IS LESS THAN 50 KJ/CM² NEAR NORTH GUJARAT COAST. THE VERTICAL WIND SHEAR IS ABOUT 20-30 KNOTS (MODERATE TO HIGH). THE SYSTEM IS MOVING NORTH-NORTHEASTWARDS. THE SYSTEM LIES TO THE NORTH OF RIDGE WHICH RUNS ROUGHLY ALONG LATTITUDE 17.0°N IN ASSOCIATION WITH ANTICYCLONIC CIRCULATION TO THE SOUTH OF THE SYSTEM.

THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES GRADUAL INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM REACHING UPTO NORTHEAST SECTOR. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS SLOWLY DECREASING. WITH EXPECTED CONTINUANCE OF THIS FEATURE, THE SYSTEM WOULD CONTINUE WEAKENING. NWP DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE WEAKENINNG OF THE SYSTEM BEFORE LANDFALL.

# PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

CONSIDERING THE MOVEMENT, MOST OF THE MODELS ARE UNANIMOUS ABOUT NORTHEASTWARD RE-CURVATURE TOWARDS NORTH GUJARAT AND ADJOINING PAKISTAN COAST.

CONSIDERING ABOVE DIAGNOSIS AND PROGNOSIS, THE SYSTEM WOULD MOVE NORTH-NORTHEASTWARDS DURING NEXT 12 HOURS AND THEN NORTHEASTWARDS REACHING NORTH GUJARAT AND ADJOINING PAKISTAN COAST BY 31<sup>ST</sup> OCTOBER NIGHT/EARLY HOURS OF 1<sup>ST</sup> NOVEMBER. HOWEVER, THE SYSTEM WOULD WEAKEN INTO A CYCLONIC STORM (60-70 KMPH GUSTING TO 80 KMPH) AT THE TIME OF LANDFALL DUE TO HIGHER VERTICAL WIND SHEAR, ENTRAINMENT OF DRY AIR, LOW OCEAN THERMAL ENERGY AND ALSO IT MAY INTERACT WITH LAND SURFACE.

(KAMALJIT RAY) .....SCIENTIST-E





REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW DELHI

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI
TO: STORM WARNING CENTRE, YANGOON (MYANMAR)

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

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

TROPICAL STORM 'NILOFAR' ADVISORY NO.TWENTY SEVEN ISSUED AT 1500 UTC OF 29TH OCTOBER 2014 BASED ON 1200 UTC CHARTS OF 29<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED SLIGHTLY NORTH-NORTHEAST WARDS WITH A SPEED OF 6 KMPH DURING PAST 6 HOURS AND LAY CENTRED AT 1200 UTC OF TODAY, THE 29<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 19.2<sup>0</sup> N AND LONGITUDE 62.2<sup>0</sup> E, ABOUT 820 KM WEST-SOUTHWEST OF NALIYA (42631), 810 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 380 KM EAST-SOUTHEAST OF MASIRAH (41288). IT WOULD MOVE NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 31<sup>ST</sup> OCTOBER NIGHT. HOWEVER, AS THE SYSTEM COMES CLOSER TO GUJARAT COAST, IT WOULD WEAKEN INTO A DEPRESSION NEAR NORTH GUJARAT COAST.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM HAS DECREASED WITH THE T No. T4.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 18.5° NORTH TO 24.5° NORTH AND LONGITUDE 60.0° EAST TO 69.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 78°C.

THE ESTIMATED CENTRAL PRESSURE IS 976 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 80 KNOTS GUSTING TO 90 KNOTS. STATE OF SEA IS PHENOMENAL.

A SHIP LOCATED NEAR 23.0° N AND 63.0° E REPORTED MSLP OF 1010.5 AND SURFACE WIND OF 090°/20 KTS.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position	Maximum sustained surface	Category of cyclonic
	(Lat. ⁰N/ long. ⁰E)	wind speed (kmph)	disturbance
29-10-2014/1200	19.2/62.2	140-150 gusting to 160	Very Severe Cyclonic Storm
29-10-2014/1800	19.6/62.6	120-130 gusting to 140	Very Severe Cyclonic Storm
30-10-2014/0000	20.1/63.1	110-120 gusting to 130	Severe Cyclonic Storm
30-10-2014/0600	20.6/63.7	100-110 gusting to 120	Severe Cyclonic Storm
30-10-2014/1200	21.2/64.6	80-90 gusting to 100	Cyclonic Storm
31-10-2014/0000	22.2/66.2	60-70 gusting to 80	Cyclonic Storm
31-10-2014/1200	23.2/67.9	40-50 gusting to 60	Depression
01-11-2014/0000	24.2/69.7	35-45 gusting to 55	Depression

#### REMARKS:

DUE TO CONTINUOUSLY INCREASING VERTICAL WIND SHEAR, THE SYSTEM WOULD CONTINUE TO WEAKEN RAPIDLY DURING NEXT 48 HOURS BECOMING A DEPRESSION BY 31 ST EVENING NEAR NORTH GUJARAT COAST. THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS DECREASING. NWP AND DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE WEAKENINNG OF THE SYSTEM BEFORE LANDFALL. THE UPPER TROPOSPHERIC RIDGE RUNS ALONG LATITUDE 16 DEGREE NORTH IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE SOUTH OF THE SYSTEM. IT WOULD STEER THE SYSTEM NORTHEASTWARDS WITH INCREASING TRANSLATIONAL SPEED.

.....SCIENTIST-E

(KAMALJIT RAY)





PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO.TWENTY EIGHT ISSUED AT 1800 UTC OF 29TH OCTOBER 2014 BASED ON 1500 UTC CHARTS OF 29<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED NEARLY NORTHEASTWARDS DURING PAST 6 HOURS AND LAY CENTRED AT 1500 UTC OF TODAY, THE 29TH OCTOBER, 2014 NEAR LATITUDE 19.4° N AND LONGITUDE 62.5° E, ABOUT 780 KM WEST-SOUTHWEST OF NALIYA (42631), 770 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 400 KM EAST-SOUTHEAST OF MASIRAH (41288). IT WOULD MOVE NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 31ST OCTOBER NIGHT. HOWEVER, AS THE SYSTEM COMES CLOSER TO GUJARAT COAST, IT WOULD WEAKEN INTO A DEPRESSION NEAR NORTH GUJARAT COAST.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM HAS FURTHER DECREASED WITH THE T No. T4.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 18.0° NORTH TO 24.5° NORTH AND LONGITUDE 61.5° EAST TO 70.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 68°C.

THE ESTIMATED CENTRAL PRESSURE IS 980 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 70 KNOTS GUSTING TO 80 KNOTS. STATE OF SEA IS PHENOMENAL.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
29-10-2014/1500	19.4/62.5	130-140 gusting to 150	Very Severe Cyclonic Storm
29-10-2014/1800	19.6/62.6	120-130 gusting to 140	Very Severe Cyclonic Storm
30-10-2014/0000	20.1/63.1	110-120 gusting to 130	Severe Cyclonic Storm
30-10-2014/0600	20.6/63.7	100-110 gusting to 120	Severe Cyclonic Storm
30-10-2014/1200	21.2/64.6	80-90 gusting to 100	Cyclonic Storm
31-10-2014/0000	22.2/66.2	60-70 gusting to 80	Cyclonic Storm
31-10-2014/1200	23.2/67.9	40-50 gusting to 60	Depression
01-11-2014/0000	24.2/69.7	35-45 gusting to 55	Depression

#### **REMARKS:**

DUE TO CONTINUOUSLY INCREASING VERTICAL WIND SHEAR, THE SYSTEM WOULD CONTINUE TO WEAKEN RAPIDLY DURING NEXT 48 HOURS BECOMING A DEPRESSION BY 31<sup>ST</sup> EVENING NEAR NORTH GUJARAT COAST. THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS DECREASING. NWP AND DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE WEAKENINNG OF THE SYSTEM BEFORE LANDFALL. THE UPPER TROPOSPHERIC RIDGE RUNS ALONG LATITUDE 16 DEGREE NORTH IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE SOUTH OF THE SYSTEM. IT WOULD STEER THE SYSTEM NORTHEASTWARDS WITH INCREASING

TRANSLATIONAL SPEED.



(NARESH KUMAR) .....SCIENTIST-D

Meteorological Organization

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO.TWENTY NINE ISSUED AT 2100 UTC OF 29TH OCTOBER 2014 BASED ON 1800 UTC CHARTS OF 29<sup>TH</sup> OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED EAST-NORTHEASTWARDS DURING PAST 6 HOURS AND LAY CENTRED AT 1800 UTC OF TODAY, THE 29TH OCTOBER, 2014 NEAR LATITUDE 19.4° N AND LONGITUDE 62.8° E, ABOUT 760 KM WEST-SOUTHWEST OF NALIYA (42631), 760 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 430 KM EAST-SOUTHEAST OF MASIRAH (41288). IT WOULD MOVE NORTHEASTWARDS AND CROSS NORTH GUJARAT AND ADJOINING PAKISTAN COAST AROUND NALIYA BY 31ST OCTOBER NIGHT. HOWEVER, AS THE SYSTEM COMES CLOSER TO GUJARAT COAST, IT WOULD WEAKEN INTO A DEPRESSION NEAR NORTH GUJARAT COAST.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM HAS FURTHER DECREASED WITH THE T No. T4.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA NORTH OF LATITUDE 18.0° NORTH AND EAST OF LONGITUDE 62.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 65°C.

THE ESTIMATED CENTRAL PRESSURE IS 982 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 65 KNOTS GUSTING TO 75 KNOTS. STATE OF SEA IS PHENOMENAL.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
29-10-2014/1800	19.4/62.8	120-130 gusting to 140	Very Severe Cyclonic Storm
30-10-2014/0000	19.9/63.3	110-120 gusting to 130	Severe Cyclonic Storm
30-10-2014/0600	20.4/63.8	100-110 gusting to 120	Severe Cyclonic Storm
30-10-2014/1200	21.1/64.7	80-90 gusting to 100	Cyclonic Storm
30-10-2014/1800	21.7/65.6	70-80 gusting to 90	Cyclonic Storm
31-10-2014/0600	22.7/67.1	50-60 gusting to 70	Deep Depression
31-10-2014/1800	23.7/68.8	40-50 gusting to 60	Depression
01-11-2014/0600	24.7/70.6	25-35 gusting to 45	Low

#### **REMARKS:**

DUE TO CONTINUOUSLY INCREASING VERTICAL WIND SHEAR, THE SYSTEM WOULD CONTINUE TO WEAKEN RAPIDLY DURING NEXT 48 HOURS BECOMING A DEPRESSION BY 31 ST EVENING NEAR NORTH GUJARAT COAST. THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS DECREASING. NWP AND DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE WEAKENINNG OF THE SYSTEM BEFORE LANDFALL. THE UPPER TROPOSPHERIC RIDGE RUNS ALONG LATITUDE 16 DEGREE NORTH IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE SOUTH OF THE SYSTEM. IT WOULD STEER THE SYSTEM NORTHEASTWARDS WITH INCREASING

TRANSLATIONAL SPEED.

(NARESH KUMAR) .....SCIENTIST-D

> World Meteorological Organization

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO.THIRTY ISSUED AT 0000 UTC OF 30TH OCTOBER 2014 BASED ON 2100 UTC CHARTS OF  $29^{TH}$  OCTOBER 2014.

THE VERY SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA MOVED EASTWARDS DURING PAST 6 HOURS, WEAKENED INTO A SEVERE CYCLONIC STORM AND LAY CENTRED AT 0230 HOURS IST OF TODAY, THE 30TH OCTOBER, 2014 OVER WESTCENTRAL ARABIAN SEA & NEIGHBOURHOOD NEAR LATITUDE 19.4° N AND LONGITUDE 63.1° E, ABOUT 730 KM SOUTHWEST OF NALIYA (42631) AND 740 KM SOUTHSOUTHWEST OF KARACHI (41780) AND 460 KM EAST-SOUTHEAST OF MASIRAH (41288). IT WOULD MOVE NORTHEASTWARDS AND CROSS NORTH GUJARAT & ADJOINING PAKISTAN COAST AROUND NALIYA BY 31<sup>ST</sup> OCTOBER NIGHT. HOWEVER, AS THE SYSTEM COMES CLOSER TO GUJARAT COAST, IT WOULD WEAKEN INTO A DEPRESSION NEAR NORTH GUJARAT COAST.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM HAS FURTHER DECREASED WITH THE T NO. T3.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA NORTH OF LATITUDE 18.5° NORTH AND EAST OF LONGITUDE 62.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 78°C.

THE ESTIMATED CENTRAL PRESSURE IS 987 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 60 KNOTS GUSTING TO 70 KNOTS. STATE OF SEA IS VERY HIGH.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
21-10-2014/2100	19.4/63.1	110-120 gusting to 130	severe cyclonic storm
30-10-2014/0000	19.7/63.5	110-120 gusting to 130	severe cyclonic storm
30-10-2014/0600	20.3/64.0	100-110 gusting to 120	severe cyclonic storm
30-10-2014/1200	21.0/64.8	80-90 gusting to 100	cyclonic storm
30-10-2014/1800	21.6/65.7	70-80 gusting to 90	cyclonic storm
31-10-2014/0600	22.7/67.1	50-60 gusting to 70	deep depression
31-10-2014/1800	23.7/68.8	40-50 gusting to 60	depression
01-11-2014/0600	24.7/70.6	25-35 gusting to 45	low

#### **REMARKS:**

DUE TO CONTINUOUSLY INCREASING VERTICAL WIND SHEAR, THE SYSTEM WOULD CONTINUE TO WEAKEN RAPIDLY DURING NEXT 36 HOURS BECOMING A DEPRESSION BY 31 ST EVENING NEAR NORTH GUJARAT COAST. THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS DECREASING. NWP AND DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE WEAKENINNG OF THE SYSTEM BEFORE LANDFALL. THE UPPER TROPOSPHERIC



RIDGE RUNS ALONG LATITUDE 16 DEGREE NORTH IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE SOUTH OF THE SYSTEM. IT WOULD STEER THE SYSTEM NORTHEASTWARDS WITH INCREASING TRANSLATIONAL SPEED.

(NARESH KUMAR)
.....SCIENTIST-D



PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO.THIRTY ONE ISSUED AT 0300 UTC OF 30TH OCTOBER 2014 BASED ON 0000 UTC CHARTS OF 30<sup>TH</sup> OCTOBER 2014.

THE SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA & NEIGHBOURHOOD MOVED NEARLY EAST-NORTHEASTWARDS DURING PAST 6 HOURS AND LAY CENTRED AT 0000 UTC OF TODAY, THE 30TH OCTOBER, 2014 NEAR LATITUDE 19.5° N AND LONGITUDE 63.6° E, ABOUT 680 KM SOUTHWEST OF NALIYA (42631), 700 KM SOUTH-SOUTHWEST OF KARACHI (41780) AND 510 KM EAST-SOUTHEAST OF MASIRAH (41288). IT WOULD MOVE NORTHEASTWARDS AND RAPIDLY WEAKEN INTO A DEPRESSION OVER NORTHEAST ARABIAN SEA OFF NORTH GUJARAT COAST BY 31ST OCTOBER EVENING.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM HAS FURTHER DECREASED. IT IS T 3.0/CI 4.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA TO THE NORTH OF LATITUDE 18.5° NORTH AND EAST OF LONGITUDE 62.0° EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 78°C.

THE ESTIMATED CENTRAL PRESSURE IS 990 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 55 KNOTS GUSTING TO 65 KNOTS. STATE OF SEA IS VERY HIGH.A SHIP LOCATED NEAR LATITUDE 23.0° NORTH AND LONGITUDE 65.1° EAST REPORTED MSLP OF 1011.5 HPA AND SURFACE WIND OF 100 DEGREE/18 KT. A BOUY LOCATED NEAR LATITUDE 18.8° NORTH AND LONGITUDE 67.1° EAST REPORTED MSLP OF 1008.7 HPA AND SURFACE WIND OF 160 DEGREE/19 KT.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. ⁰N/ long. ⁰E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
30-10-2014/0000	19.5/63.6	100-110 gusting to 120	Severe Cyclonic Storm
30-10-2014/0600	19.8/64.3	90-100 gusting to 110	Severe Cyclonic Storm
30-10-2014/1200	20.3/65.0	80-90 gusting to 100	Cyclonic Storm
30-10-2014/1800	20.8/65.7	70-80 gusting to 90	Cyclonic Storm
31-10-2014/0000	21.3/66.4	60-70 gusting to 80	Cyclonic Storm
31-10-2014/1200	22.5/67.8	40-50 gusting to 60	Depression

#### **REMARKS:**

THE CONVECTION CONTINUES TO BE DISORGANISED. AT 0000 UTC OF TODAY, THE 30<sup>TH</sup> OCTOBER 2014, THE CONVECTION LIES TO THE NORTH OF THE LOW LEVEL CIRCULATION CENTRE .DUE TO CONTINUOUSLY INCREASING VERTICAL WIND SHEAR, THE SYSTEM WOULD CONTINUE TO WEAKEN RAPIDLY DURING NEXT 36 HOURS BECOMING A DEPRESSION OVER NORTHEAST ARABIAN SEA OFF NORTH GUJARAT COAST BY 31<sup>ST</sup> EVENING . THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS DECREASING. NWP AND DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE WEAKENINNG OF THE SYSTEM BEFORE LANDFALL. THE UPPER TROPOSPHERIC RIDGE RUNS ALONG LATITUDE 16 DEGREE NORTH IN ASSOCIATION WITH ANTI-

CYCLONIC CIRCULATION TO THE SOUTH OF THE SYSTEM. IT WOULD STEER THE SYSTEM NORTHEASTWARDS.

(M. MOHAPATRA) HEAD, RSMC, NEW DELHI



PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. THIRTY TWO ISSUED AT 0600 UTC OF 30TH OCTOBER 2014 BASED ON 0300 UTC CHARTS OF 30<sup>TH</sup> OCTOBER 2014.

THE SEVERE CYCLONIC STORM, 'NILOFAR' OVER WESTCENTRAL ARABIAN SEA & NEIGHBOURHOOD MOVED EAST-NORTHEASTWARDS DURING PAST 6 HOURS AND LAY CENTRED AT 0300 UTC OF TODAY, THE 30<sup>TH</sup> OCTOBER, 2014 OVER CENTRAL AND ADJOINING NORTHEAST ARABIAN SEA NEAR LATITUDE 19.8° N AND LONGITUDE 64.1° E, ABOUT 620 KM WEST-SOUTHWEST OF NALIYA (42631) AND 650 KM SOUTH-SOUTHWEST OF KARACHI (41780). IT WOULD MOVE NORTHEASTWARDS AND RAPIDLY WEAKEN INTO A DEPRESSION OVER NORTHEAST ARABIAN SEA OFF NORTH GUJARAT COAST BY 31<sup>ST</sup> OCTOBER EVENING.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 3.0/ CI 4.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 19.0° NORTH TO 24.0° NORTH AND LONGITUDE 63.0° EAST TO 69.0°EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 92°C.

THE ESTIMATED CENTRAL PRESSURE IS 990 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 55 KNOTS GUSTING TO 65 KNOTS. STATE OF SEA IS VERY HIGH. A BUOY LOCATED NEAR LATITUDE 19.0° NORTH AND LONGITUDE 67.5° EAST REPORTED SURFACE WIND OF 160 DEGREE/21 KT. FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(IST)	Position (Lat. ⁰N/ long. ⁰E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
30-10-2014/0300	19.8/64.1	100-110 gusting to 120	Severe Cyclonic Storm
30-10-2014/0600	20.1/64.3	90-100 gusting to 110	Severe Cyclonic Storm
30-10-2014/1200	20.6/65.0	80-90 gusting to 100	Cyclonic Storm
30-10-2014/1800	21.0/65.7	70-80 gusting to 90	Cyclonic Storm
31-10-2014/0000	21.5/66.4	60-70 gusting to 80	Cyclonic Storm
31-10-2014/1200	22.5/67.8	40-50 gusting to 60	Depression

# **REMARKS:**

THE CONVECTION CONTINUES TO BE DISORGANISED .DUE TO CONTINUOUSLY INCREASING VERTICAL WIND SHEAR, THE SYSTEM WOULD CONTINUE TO WEAKEN RAPIDLY DURING NEXT 36 HOURS BECOMING A DEPRESSION OVER NORTHEAST ARABIAN SEA OFF NORTH GUJARAT COAST BY 31<sup>ST</sup> EVENING. THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS DECREASING. NWP AND DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE WEAKENINNG OF THE SYSTEM BEFORE LANDFALL. THE UPPER TROPOSPHERIC RIDGE RUNS ALONG

LATITUDE 16 DEGREE NORTH IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE SOUTH OF THE SYSTEM. IT WOULD STEER THE SYSTEM NORTHEASTWARDS.

(KAMALJIT RAY) Sc. E, NEW DELHI



PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. THIRTY THREE ISSUED AT 0900 UTC OF 30TH OCTOBER 2014 BASED ON 0600 UTC CHARTS OF  $30^{TH}$  OCTOBER 2014.

THE SEVERE CYCLONIC STORM, 'NILOFAR' OVER CENTRAL AND ADJOINING NORTHEAST ARABIAN SEA MOVED EAST-NORTHEASTWARDS DURING PAST 6 HOURS AND LAY CENTRED AT 0600 UTC OF TODAY, THE  $30^{TH}$  OCTOBER, 2014 NEAR LATITUDE  $20.2^{0}$  N AND LONGITUDE  $64.5^{0}$  E, ABOUT 560 KM SOUTHWEST OF NALIYA (GUJARAT) AND 590 KM SOUTH-SOUTHWEST OF KARACHI (PAKISTAN). IT WOULD MOVE NORTHEASTWARDS AND RAPIDLY WEAKEN INTO A DEPRESSION OVER NORTHEAST ARABIAN SEA OFF NORTH GUJARAT COAST BY  $31^{ST}$  OCTOBER EVENING.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 3.0/ CI 4.0. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 19.0° NORTH TO 24.0° NORTH AND LONGITUDE 63.0° EAST TO 69.0°EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 86°C.

THE ESTIMATED CENTRAL PRESSURE IS 992 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 55 KNOTS GUSTING TO 65 KNOTS. STATE OF SEA IS VERY HIGH. A SHIP LOCATED NEAR LATITUDE 21.6 NORTH AND LONGITUDE 61.9 EAST REPORTED MSLP 1010.3 HPA AND SURFACE WIND OF 040 DEGREE / 24 KT. ANOTHER SHIP LOCATED NEAR LATITUDE 21.0 NORTH AND LONGITUDE 68.7 EAST REPORTED MSLP 1012.6 HPA AND SURFACE WIND OF 110 DEGREE / 27 KT. ANOTHER SHIP LOCATED NEAR LATITUDE 19.6 NORTH AND LONGITUDE 67.9 EAST REPORTED MSLP 1110.5 HPA AND SURFACE WIND OF 130 DEGREE / 21 KT. ANOTHER SHIP LOCATED NEAR LATITUDE 23.8 NORTH AND LONGITUDE 63.5 EAST REPORTED MSLP 1111.3 HPA AND SURFACE WIND OF 080 DEGREE / 13 KT.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(IST)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
30-10-2014/0600	20.2/64.5	90-100 gusting to 110	Severe Cyclonic Storm
30-10-2014/1200	20.6/65.0	80-90 gusting to 100	Cyclonic Storm
30-10-2014/1800	21.0/65.7	70-80 gusting to 90	Cyclonic Storm
31-10-2014/0000	21.5/66.4	60-70 gusting to 80	Cyclonic Storm
31-10-2014/0600	22.0/67.0	50-60 gusting to 70	Deep Depression
31-10-2014/1800	23.0/68.0	40-50 gusting to 60	Depression

#### **REMARKS:**

THE CONVECTION CONTINUES TO BE DISORGANISED .DUE TO CONTINUOUSLY INCREASING VERTICAL WIND SHEAR, THE SYSTEM WOULD CONTINUE TO WEAKEN RAPIDLY DURING NEXT 36 HOURS BECOMING A DEPRESSION OVER NORTHEAST ARABIAN SEA OFF NORTH GUJARAT COAST BY 31<sup>ST</sup> EVENING. THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM. THE FEEDING OF WARM AND MOIST AIR FROM SOUTHEAST SECTOR IS DECREASING. NWP AND DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE WEAKENINNG OF THE SYSTEM BEFORE LANDFALL. THE UPPER TROPOSPHERIC RIDGE RUNS ALONG LATITUDE 16 DEGREE NORTH

IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE SOUTH OF THE SYSTEM. IT WOULD STEER THE SYSTEM NORTHEASTWARDS.

(KAMALJIT RAY) Sc. E, NEW DELHI





NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. THIRTY FOUR ISSUED AT 1200 UTC OF 30TH OCTOBER 2014 BASED ON 0900 UTC CHARTS OF 30<sup>TH</sup> OCTOBER 2014.

THE SEVERE CYCLONIC STORM, 'NILOFAR' OVER NORTHEAST AND ADJOINING CENTRAL ARABIAN SEA REMAINED PRACTICALLY STATIONARY DURING PAST 3 HOURS, WEAKENED INTO A CYCLONIC STORM AND LAY CENTRED AT 0900 UTC OF TODAY, THE 30<sup>TH</sup> OCTOBER, 2014 NEAR LATITUDE 20.2<sup>0</sup> N AND LONGITUDE 64.5<sup>0</sup> E, ABOUT 560 KM SOUTHWEST OF NALIYA (42631) AND 590 KM SOUTH-SOUTHWEST OF KARACHI (41780). IT WOULD MOVE NORTHEASTWARDS AND WEAKEN INTO A DEPRESSION OVER NORTHEAST ARABIAN SEA OFF NORTH GUJARAT COAST BY 31<sup>ST</sup> OCTOBER EVENING.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 2.5/ CI 3.5. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 19.0° NORTH TO 24.0° NORTH AND LONGITUDE 63.5° EAST TO 69.5°EAST. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 89°C.

THE ESTIMATED CENTRAL PRESSURE IS 994 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 45 KNOTS GUSTING TO 55 KNOTS. STATE OF SEA IS VERY HIGH.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position	Maximum sustained surface wind	Category of cyclonic
	(Lat. ⁰N/ long. ⁰E)	speed (kmph)	disturbance
30-10-2014/0900	20.2/64.5	80-90 gusting to 100	Cyclonic Storm
30-10-2014/1200	20.5/64.8	75-85 gusting to 95	Cyclonic Storm
30-10-2014/1800	21.0/65.5	70-80 gusting to 90	Cyclonic Storm
31-10-2014/0000	21.5/66.0	60-70 gusting to 80	Cyclonic Storm
31-10-2014/0600	22.0/66.5	50-60 gusting to 70	Deep Depression
31-10-2014/1800	23.0/67.5	40-50 gusting to 60	Depression

## **REMARKS:**

THE CONVECTION CONTINUES TO BE DISORGANISED .DUE TO CONTINUOUSLY INCREASING VERTICAL WIND SHEAR, THE SYSTEM WOULD CONTINUE TO WEAKEN RAPIDLY DURING NEXT 24 HOURS BECOMING A DEPRESSION OVER NORTHEAST ARABIAN SEA OFF NORTH GUJARAT COAST BY 31<sup>ST</sup> EVENING. THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM. NWP AND DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE WEAKENINNG OF THE SYSTEM BEFORE LANDFALL. THE UPPER TROPOSPHERIC RIDGE RUNS ALONG LATITUDE 16 DEGREE NORTH IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE SOUTH OF THE SYSTEM. IT WOULD STEER THE SYSTEM NORTHEASTWARDS.

(KAMALJIT RAY) Sc. E, NEW DELHI



P. ..... Y OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. THIRTY FIVE ISSUED AT 1500 UTC OF 30TH OCTOBER 2014 BASED ON 1200 UTC CHARTS OF  $30^{TH}$  OCTOBER 2014.

THE CYCLONIC STORM, 'NILOFAR' OVER CENTRAL AND ADJOINING NORTHEAST ARABIAN SEA MOVED NORTH-NORTHEASTWARDS DURING PAST 6 HOURS, AND LAY CENTRED AT 1200 UTC OF TODAY, THE 30<sup>TH</sup> OCTOBER, 2014 OVER NORTHEAST ARABIAN SEA NEAR LATITUDE 20.5<sup>0</sup> N AND LONGITUDE 64.6<sup>0</sup> E, ABOUT 530 KM SOUTHWEST OF NALIYA (42631) AND 550 KM SOUTH-SOUTHWEST OF KARACHI (41780). IT WOULD MOVE NORTHEASTWARDS AND WEAKEN INTO A DEPRESSION OVER NORTHEAST ARABIAN SEA OFF NORTH GUJARAT COAST BY 31<sup>ST</sup> OCTOBER EVENING.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 2.5/ CI 3.5.. THE SYSTEM HAS SHEAR PATTERN. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 19.5° NORTH TO 24.5° NORTH AND LONGITUDE 64.0° EAST TO GULF OF KUTCH. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 85°C.

THE ESTIMATED CENTRAL PRESSURE IS 996 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 45 KNOTS GUSTING TO 55 KNOTS. STATE OF SEA IS VERY HIGH. A SHIP LOCATED NEAR LATITUDE 20.5° NORTH AND LONGITUDE 62.4° EAST REPORTED MSLP OF 1006.1 HPA AND SURFACE WIND OF 360 DEGREE/25 KT. A BOUY LOCATED NEAR LATITUDE 19.0° NORTH AND LONGITUDE 67.1° EAST REPORTED MSLP OF 1006.8 HPA AND SURFACE WIND OF 180 DEGREE/21 KT.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
30-10-2014/1200	20.5/64.6	75-85 gusting to 95	Cyclonic Storm
30-10-2014/1800	21.0/65.3	70-80 gusting to 90	Cyclonic Storm
31-10-2014/0000	21.5/66.0	60-70 gusting to 80	Cyclonic Storm
31-10-2014/0600	22.0/66.5	50-60 gusting to 70	Deep Depression
31-10-2014/1200	22.5/67.0	40-50 gusting to 60	Depression

#### **REMARKS:**

THE CONVECTION CONTINUES TO BE DISORGANISED .DUE TO CONTINUOUSLY INCREASING VERTICAL WIND SHEAR, THE SYSTEM WOULD CONTINUE TO WEAKEN RAPIDLY DURING NEXT 24 HOURS BECOMING A DEPRESSION OVER NORTHEAST ARABIAN SEA OFF NORTH GUJARAT COAST BY 31<sup>ST</sup> EVENING. THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM. NWP AND DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE WEAKENINNG OF THE SYSTEM BEFORE LANDFALL. THE UPPER TROPOSPHERIC RIDGE RUNS ALONG LATITUDE 16 DEGREE NORTH IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE SOUTH OF THE SYSTEM. IT WOULD STEER THE SYSTEM NORTHEASTWARDS.

(M.MOHAPATRA)

HEAD(RSMC, NEW DELHI)



World Meteorological Organization

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. THIRTY SIX ISSUED AT 1700 UTC OF 30TH OCTOBER 2014 BASED ON 1500 UTC CHARTS OF  $30^{TH}$  OCTOBER 2014.

THE CYCLONIC STORM, 'NILOFAR' OVER CENTRAL AND ADJOINING NORTHEAST ARABIAN SEA REMAINED PRACTICALLY STATIONARY DURING PAST THREE HOURS, AND LAY CENTRED AT 1500 UTC OF TODAY, THE  $30^{\rm TH}$  OCTOBER, 2014 OVER NORTHEAST ARABIAN SEA NEAR LATITUDE  $20.5^{\rm O}$  N and Longitude  $64.6^{\rm O}$  E, about 530 km southwest of Naliya (42631) and 550 km south-southwest of Karachi (41780). It would move northeastwards and weaken into a depression over northeast arabian sea off north gujarat coast by  $31^{\rm ST}$  october evening.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 2.5/ CI 3.5.. THE SYSTEM HAS SHEAR PATTERN. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 19.5° NORTH TO 24.5° NORTH AND LONGITUDE 64.0° EAST TO GULF OF KUTCH. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 75°C.

THE ESTIMATED CENTRAL PRESSURE IS 996 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 45 KNOTS GUSTING TO 55 KNOTS. STATE OF SEA IS VERY HIGH. A SHIP LOCATED NEAR LATITUDE 20.5° NORTH AND LONGITUDE 62.4° EAST REPORTED MSLP OF 1006.1 HPA AND SURFACE WIND OF 360 DEGREE/25 KT. A BOUY LOCATED NEAR LATITUDE 19.0° NORTH AND LONGITUDE 67.1° EAST REPORTED MSLP OF 1006.8 HPA AND SURFACE WIND OF 180 DEGREE/21 KT.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position	Maximum sustained surface wind	Category of cyclonic
	(Lat. ⁰N/ long. ⁰E)	speed (kmph)	disturbance
30-10-2014/1500	20.5/64.6	75-85 gusting to 95	Cyclonic Storm
30-10-2014/1800	21.0/65.3	70-80 gusting to 90	Cyclonic Storm
31-10-2014/0000	21.5/66.0	60-70 gusting to 80	Cyclonic Storm
31-10-2014/0600	22.0/66.5	50-60 gusting to 70	Deep Depression
31-10-2014/1200	22.5/67.0	40-50 gusting to 60	Depression

#### **REMARKS:**

THE CONVECTION CONTINUES TO BE DISORGANISED .DUE TO CONTINUOUSLY INCREASING VERTICAL WIND SHEAR, THE SYSTEM WOULD CONTINUE TO WEAKEN RAPIDLY DURING NEXT 24 HOURS BECOMING A DEPRESSION OVER NORTHEAST ARABIAN SEA OFF NORTH GUJARAT COAST BY 31<sup>ST</sup> EVENING. THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM. NWP AND DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE WEAKENINNG OF THE SYSTEM BEFORE LANDFALL. THE UPPER TROPOSPHERIC RIDGE RUNS ALONG LATITUDE 16 DEGREE NORTH IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE SOUTH OF THE SYSTEM. IT WOULD STEER THE SYSTEM NORTHEASTWARDS.



(RANJEET SINGH) (SCIENTIST E)



PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. THIRTY SEVEN ISSUED AT 2000 UTC OF 30TH OCTOBER 2014 BASED ON 1800 UTC CHARTS OF 30<sup>TH</sup> OCTOBER 2014.

THE CYCLONIC STORM, '**NILOFAR**' OVER CENTRAL AND ADJOINING NORTHEAST ARABIAN SEA MOVED NORTHEAST WARDS DURING PAST THREE HOURS, AND LAY CENTRED AT 1800 UTC OF TODAY, THE  $30^{\mathrm{TH}}$  OCTOBER, 2014 OVER NORTHEAST ARABIAN SEA NEAR LATITUDE  $20.6^{\mathrm{O}}$  N AND LONGITUDE  $64.7^{\mathrm{O}}$  E, ABOUT 520 KM SOUTHWEST OF NALIYA (42631) AND 540 KM SOUTH-SOUTHWEST OF KARACHI (41780). IT WOULD MOVE NORTHEASTWARDS AND WEAKEN INTO A DEPRESSION OVER NORTHEAST ARABIAN SEA OFF NORTH GUJARAT COAST BY  $31^{\mathrm{ST}}$  OCTOBER EVENING.

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 2.5/ CI 3.5.. THE SYSTEM HAS SHEAR PATTERN. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 20.0° NORTH TO 24.5° NORTH AND LONGITUDE 65.5° EAST TO GULF OF KUTCH. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 64°C.

THE ESTIMATED CENTRAL PRESSURE IS 996 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 40 KNOTS GUSTING TO 50 KNOTS. STATE OF SEA IS VERY HIGH.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. ⁰N/ long. ºE)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
30-10-2014/1800	20.6/64.7	70-80 gusting to 90	Cyclonic Storm
31-10-2014/0000	21.1/65.3	60-70 gusting to 80	Cyclonic Storm
31-10-2014/0600	21.6/65.9	50-60 gusting to 70	Deep Depression
31-10-2014/1200	22.5/67.0	40-50 gusting to 60	Depression

#### **REMARKS:**

THE CONVECTION CONTINUES TO BE DISORGANISED .DUE TO CONTINUOUSLY INCREASING VERTICAL WIND SHEAR, THE SYSTEM WOULD CONTINUE TO WEAKEN RAPIDLY DURING NEXT 24 HOURS BECOMING A DEPRESSION OVER NORTHEAST ARABIAN SEA OFF NORTH GUJARAT COAST BY 31<sup>ST</sup> EVENING. THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM. NWP AND DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE WEAKENINNG OF THE SYSTEM. THE UPPER TROPOSPHERIC RIDGE RUNS ALONG LATITUDE 16 DEGREE NORTH IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE SOUTH OF THE SYSTEM. IT WOULD STEER THE SYSTEM NORTHEASTWARDS.

(RANJEET SINGH) (SCIENTIST E)





PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

FROM: RSMC -TROPICAL CYCLONES, NEW DELHI

TO: STORM WARNING CENTRE, YANGOON (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

TROPICAL STORM 'NILOFAR' ADVISORY NO. THIRTY EIGHT ISSUED AT 0000 UTC OF 31TH OCTOBER 2014 BASED ON 2100 UTC CHARTS OF 30<sup>TH</sup> OCTOBER 2014.

THE CYCLONIC STORM, 'NILOFAR' OVER CENTRAL AND ADJOINING NORTHEAST ARABIAN SEA WEAKENED INTO DEEP DEPRESSION AND MOVED NORTHEASTWARDS DURING PAST 6 HOURS, AND LAY CENTRED AT 2100 HOURS UTC OF THE  $30^{\mathrm{TH}}$  OCTOBER, 2014 OVER NORTHEAST ARABIAN SEA NEAR LATITUDE  $20.7^{\mathrm{O}}$  N and longitude  $65.0^{\mathrm{O}}$  E, about 490 km southwest of Naliya (42631) and 520 km south-southwest of Karachi (41780). It would continue to move northeastwards and weaken into a depression over northeast arabian sea off north gujarat coast during Next 12 hours .

ACCORDING TO SATELLITE IMAGERY, THE INTENSITY OF THE SYSYTEM IS T 2.0.. THE SYSTEM HAS SHEAR PATTERN. ASSOCIATED BROKEN LOW AND MEDIUM CLOUDS WITH EMBEDDED INTENSE TO VERY INTENSE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 20.0° NORTH TO 24.5° NORTH AND LONGITUDE 64.5° EAST TO GULF OF KUTCH. MINIMUM CLOUD TOP TEMPERATURE IS MINUS 64°C.

THE ESTIMATED CENTRAL PRESSURE IS 1000 HPA AND MAXIMUM SUSTAINED SURFACE WIND SPEED IS ABOUT 30 KNOTS GUSTING TO 45 KNOTS, STATE OF SEA IS VERY ROUGH.

FORECAST TRACK AND INTENSITY OF THE SYSTEM ARE GIVEN IN THE TABLE BELOW:

Date/Time(UTC)	Position (Lat. <sup>0</sup> N/ long. <sup>0</sup> E)	Maximum sustained surface wind speed (kmph)	Category of cyclonic disturbance
30-10-2014/2100	20.7/65.0	55-65 GUSTING TO 75	DEEP DEPRESSION
31-10-2014/0000	21.0/65.3	50-60 GUSTING TO 70	DEEP DEPRESSION
31-10-2014/0600	21.4/66.0	40-50 GUSTING TO 60	DEPRESSION
31-10-2014/1200	21.9/67.1	35-45 GUSTING TO 55	DEPRESSION

## **REMARKS:**

THE CONVECTION CONTINUES TO BE DISORGANISED .DUE TO CONTINUOUSLY INCREASING VERTICAL WIND SHEAR, THE SYSTEM WOULD CONTINUE TO WEAKEN RAPIDLY DURING NEXT 12 HOURS BECOMING A DEPRESSION OVER NORTHEAST ARABIAN SEA OFF NORTH GUJARAT COAST DURING NEXT 12 HOURS. THE ANIMATION OF TOTAL PRECIPITABLE WATER (TPW) IMAGERIES INDICATES INTRUSION OF DRY AND COLD AIR TOWARDS THE CORE OF THE SYSTEM. NWP AND DYNAMICAL STATISTICAL MODELS ALSO SUGGEST THE WEAKENINNG OF THE SYSTEM. THE UPPER TROPOSPHERIC RIDGE RUNS ALONG LATITUDE 16 DEGREE NORTH IN ASSOCIATION WITH ANTI-CYCLONIC CIRCULATION TO THE SOUTH OF THE SYSTEM. IT WOULD STEER THE SYSTEM NORTHEASTWARDS.

(RANJEET SINGH) (SCIENTIST E )





PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

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

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 31-10-2014

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 72 HOURS ISSUED AT 0200 UTC of 31<sup>ST</sup> OCTOBER 2014 BASED ON 0000 UTC

THE DEEP DEPRESSION OVER NORTHEAST ARABIAN SEA WEAKENED INTO DEPRESSION AND MOVED NORTHEASTWARDS DURING PAST 6 HOURS, AND LAY CENTRED AT 0000 UTC OF TODAY, THE 31<sup>TH</sup> OCTOBER, 2014 OVER NORTHEAST ARABIAN SEA NEAR LATITUDE 20.7° N AND LONGITUDE 65.1° E, ABOUT 480 KM SOUTHWEST OF NALIYA (GUJARAT) AND 510 KM SOUTH-SOUTHWEST OF KARACHI (PAKISTAN). IT WOULD CONTINUE TO MOVE NORTHEASTWARDS AND WEAKEN INTO A WELL MARKED LOW PRESSURE AREA OVER NORTHEAST ARABIAN SEA OFF NORTH GUJARAT COAST DURING NEXT 12 HOURS

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T 1.5. ASSOCIATED BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED ISOLATED MODERATE TO INTENSE CONVECTION OVER ARABIAN SEA BETWEEN LATITUDE 19.0°N TO 24.5°N E OF LONG 64.0°E AND GULF OF KUTCH. THE CENTRAL PRESSURE TO BE ABOUT 1002 HPA AND MAXIMUM SUSTAINED WIND SPEED TO BE ABOUT 25 KNOTS...

(RANJEET SINGH) SCIENTIST 'E' RSMC, NEW DELHI





REGIONAL SPECIALISED METEOROLOGICAL CENTRE-TROPICAL CYCLONES, NEW

PROBABILITY OF CYCLOGENESIS (FORMATION OF DEPRESSION)

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact:

# DELHI SPECIAL TROPICAL WEATHER OUTLOOK

DEMS-RSMC SPECIAL TROPICAL CYCLONES NEW DELHI DATED 31-10-2014
TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA)

VALID FOR NEXT 72 HOURS ISSUED AT 0600 UTC of 31<sup>ST</sup> OCTOBER 2014 BASED ON 0300 UTC

ARABIAN SEA:-

THE DEPRESSION OVER NORTHEAST ARABIAN SEA MOVED NORTHEASTWARDS AND WEAKENED INTO A WELL-MARKED LOW PRESSURE AREA OVER NORTHEAST ARABIAN SEA AT 0830 HOURS IST OF TODAY, THE 31<sup>TH</sup> OCTOBER, 2014.

ACCORDING TO SATELLITE IMAGERY, INTENSITY IS T 1.0 WITH SHEAR PATTERN. ASSOCIATED BROKEN LOW/MEDIUM CLOUDS WITH EMBEDDED WEAK TO MODERATE CONVECTION LIES OVER ARABIAN SEA BETWEEN LATITUDE 19.0°NORTH TO 24.5°NORTH AND LONGITUDE 62.5°EAST TO 66.5° EAST AND GULF OF KUTCH.

BKN LOW AND MEDIUM CLOUDS WITH EMEBEDDED MODERATE TO INTENSE CONVECTION OVER SOUTHEAST ARABIAN SEA ADJOINING INDIAN OCEAN BETWEEN LATITUDE  $3.0^{\circ}$ NORTH TO  $11.5^{\circ}$ NORTH AND EAST OF LONGITUDE  $67.0^{\circ}$  EAST.

## **BAY OF BENGAL:-**

SCATTERED LOW AND MEDIUM CLOUDS WITH EMBEDDED MODERATE TO INTENSE CONVECTIONN OVER SOUTHWEST BAY AND SOUTH BAY SOUTH OF 10.5°NORTH ALSO OVER WESTCENTRAL BAY & SOUTH ANDAMAN SEA.

**PROBABILITY OF CYCLOGENESIS DURING NEXT 72 HOURS:** 

24 HOURS	24-48 HOURS	48-72 HOURS
NIL	NIL	NIL

(KAMALJIT RAY) SCIENTIST'E', RSMC-NEWDELHI

NIL: 0%, LOW: 1-25%, FAIR: 26-50%, MODERATE: 51-75% AND HIGH: 76-100%Contact: