

## SPECIAL TROPICAL WEATHER OUTLOOK

DEMS-RSMC TROPICAL CYCLONES NEW DELHI 08-10-2013

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 24 HOURS ISSUED AT 0600 UTC OF 08 OCTOBER, 2013 BASED ON 0300 UTC OF 08 OCTOBER, 2013.

LATEST SATELLITE IMAGERY AND OBSERVATIONS INDICATE THAT A DEPRESSION HAS FORMED OVER NORTH ANDAMAN SEA AND LAY CENTRED AT 0300 UTC OF TODAY, THE  $08^{\text{TH}}$  OCTOBER 2013 NEAR LATITUDE 12.0 $^{\text{O}}$ N AND LONGITUDE 96.0 $^{\text{O}}$ E, ABOUT 350 KM EAST-NORTHEAST OF PORT BLAIR (43333), 1450 KM EAST-SOUTHEAST OF PARADIP (42976), 1520 KM EAST-SOUTHEAST OF VISAKHAPATNAM (43149). THE SYSTEM WOULD INTENSIFY INTO A DEEP DEPRESSION AND FURTHER INTO A CYCLONIC STORM BY TOMORROW. IT WOULD MOVE WEST-NORTHWESTWARDS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST DURING NEXT 72 HOURS.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 1.5. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER ANDAMAN SEA ADJOINING AREA BETWEEN LAT  $8.5^{\circ}$ N TO  $14.5^{\circ}$ N AND EAST OF LONG  $88.5^{\circ}$ E TO TENASSERIM COAST. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 24 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT - $70^{\circ}$ C. THE SYSTEM SHOWS SHEAR PATTERN WITH CONVECTION SHIFTED TO THE WEST OF LOW LEVEL CIRCULATION CENTRE.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 25 KNOTS GUSTING TO 35 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS ROUGH TO VERY ROUGH AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 1005 HPA.

## REMARKS:

SCATTEROMETRY DATA INDICATES THE CYCLONIC CIRCULATION OVER THE REGION AND ASSOCIATED WIND SPEED TO BE ABOUT 25-30 KNOTS WIND SPEED IS RELATIVELY HIGHER IN SOUTHERN SECTOR IN ASSOCIATION WITH CROSS EQUATORIAL FLOW.

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 21°N AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED FURTHER IN PAST 24 HRS. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29°C AND OCEAN THERMAL ENERGY IS ABOUT 60-80 KJ/CM SQUARE. THE SEA HEIGHT ANOMALY IS ABOUT 5-10M. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 10-20 KNOTS (LOW TO MODERATE). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX LIES OVER PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST WEST-NORTHWESTWARD TO NORTHWESTWARD MOVEMENT DURING NEXT 72 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST. THE NWP GUIDANCE ALSO SUGGESTS INTENSIFICATION OF THE SYSTEM INTO A SEVERE CYCLONIC STORM. IMD& DYNAMICAL STATISTICAL MODEL SUGGESTS INTENSIFICATION OF THE SYSTEM INTO A CYCLONIC STORM. CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(M.MOHAPATRA)



### SPECIAL TROPICAL WEATHER OUTLOOK

DEMS-RSMC TROPICAL CYCLONES NEW DELHI 08-10-2013

TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 24 HOURS ISSUED AT 1500 UTC OF 08 OCTOBER, 2013 BASED ON 1200 UTC OF 08 OCTOBER, 2013.

THE DEPRESSION OVER NORTH ANDAMAN SEA MOVED WESTWARD WITH A SPEED OF 18 KMPH DURING PAST 6 HOURS AND LAY CENTRED AT 1200 UTC OF TODAY, THE 08<sup>TH</sup> OCTOBER 2013 OVER NORTH ANDAMAN SEA NEAR LATITUDE 12.0°N AND LONGITUDE 94.5°E, ABOUT 200 KM EAST-NORTHEAST OF PORT BLAIR(43333), 1250 KM EAST-SOUTHEAST OF PARADIP (42976), 1350 KM EAST-SOUTHEAST OF VISAKHAPATNAM(43149). THE SYSTEM WOULD INTENSIFY INTO A DEEP DEPRESSION AND FURTHER INTO A CYCLONIC STORM BY TOMORROW. IT WOULD MOVE WEST-NORTHWESTWARDS AND CROSS ANDAMN ISLANDS BETWEEN LONG ISLAND AND MAYABANDAR BY TOMORROW MORNING AS A DEEP DEPRESSION. IT WOULD THEN CONTINUE TO MOVE WEST-NORTHWESTWARDS FOR SOME TIME AND THEN NORTHWESTWARDS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST DURING NEXT 72 HOURS.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 1.5. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER ANDAMAN SEA ADJOINING AREA BETWEEN LAT  $9.0^{\circ}$ N TO  $15.0^{\circ}$ N AND EAST OF LONG  $88.0^{\circ}$ E TO TENASSERIM COAST. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 06 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT  $-80^{\circ}$ C..

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 25 KNOTS GUSTING TO 35 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS ROUGH TO VERY ROUGH AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 1003 HPA.

### **REMARKS:**

SCATTEROMETRY DATA INDICATES ASSOCIATED WIND SPEED TO BE ABOUT 25-30 KNOTS. MAYABANDAR REPORTED LOWEST MSLP OF 1004 HPA AND MAXIMUM PRESSURE FALL OF 4 HPA AT 1200 UTC OF  $08^{TH}$  OCTOBER 2013. SURFACE WINDS ARE OBSERVED 10-15 KNOTS OVER ANDAMAN ISLANDS.

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 20°N AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS REMAINED SAME DURING PASST 6 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29°C AND OCEAN THERMAL ENERGY IS ABOUT 60-80 KJ/CM SQUARE. THE SEA HEIGHT ANOMALY IS ABOUT 5-10M. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-15 KNOTS (LOW TO MODERATE). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX LIES OVER PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST WEST-NORTHWESTWARD TO NORTHWESTWARD MOVEMENT DURING NEXT 72 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST. THE NWP GUIDANCE ALSO SUGGESTS INTENSIFICATION OF THE SYSTEM INTO A SEVERE CYCLONIC STORM. IMD& DYNAMICAL STATISTICAL MODEL SUGGESTS INTENSIFICATION OF THE SYSTEM INTO A CYCLONIC STORM BY TOMMOROW MORNING. CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(M.MOHAPATRA)

TOO:2000 HRS IST



#### INDIA METEOROLOGICAL DEPARTMENT

## SPECIAL TROPICAL WEATHER OUTLOOK

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

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

THE DEPRESSION OVER NORTH ANDAMAN SEA MOVED NORTHWESTWARDS AND INTENSIFIED INTO A DEEP DEPRESSION AND LAY CENTRED AT 0300 UTC OF TODAY, THE  $09^{TH}$  OCTOBER 2013 OVER NORTH ANDAMAN SEA NEAR LATITUDE  $13.0^{0}$ N AND LONGITUDE  $93.5^{0}$ E, ABOUT 50 KM EAST OF MAYABANDAR (43309), 170 KM NORTH-NORTHEAST OF PORT BLAIR (43333), 1100 KM EAST-SOUTHEAST OF PARADIP (42976), 1200 KM EAST-SOUTHEAST OF VISAKHAPATNAM (43149). THE SYSTEM WOULD INTENSIFY INTO A CYCLONIC STORM DURING NEXT 12 HOURS. IT WOULD MOVE WEST-NORTHWESTWARDS AND CROSS ANDAMAN ISLANDS NEAR MAYABANDAR BY AFTERNOON OF TODAY, THE  $9^{TH}$  OCTOBER 2013 AS A CYCLONIC STORM. IT WOULD THEN CONTINUE TO MOVE WEST-NORTHWESTWARDS FOR SOME TIME AND THEN NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP BY NIGHT OF  $12^{TH}$  OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 175-185 KMPH.

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

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

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

ر	TIMATED TRACK AND INTERSTIT OF THE STOTEM ARE GIVEN IN THE TABLE BELOW.				
	Date/Time(UTC)	Position	Sustained maximum	Category	
		(Lat. ⁰N/ Long. ºE)	surface wind speed		
			(kmph)		
ĺ	09-10-2013/0300	13.0/93.5	50-60 gusting to 70	Deep Depression	
ĺ	09-10-2013/0600	13.5/93.0	60/70 gusting to 80	Cyclonic Storm	
ĺ	09-10-2013/1200	14.0/92.5	65-75 gusting to 85	Cyclonic Storm	
	09-10-2013/1800	14.5/92.0	85-95 gusting to 105	Cyclonic Storm	
	10-10-2013/0000	15.0/90.0	95-105 gusting to 115	Severe Cyclonic Storm	
ĺ	10-10-2013/1200	15.5/89.0	115-125 gusting to 140	Severe Cyclonic Storm	
	11-10-2013/0000	16.0/88.0	135-145 gusting to 160	Very Severe Cyclonic Storm	
ĺ	11-10-2013/1200	16.5/87.0	155-165 gusting to 180	Very Severe Cyclonic Storm	
ĺ	12-10-2013/0000	17.0/86.0	175-185 gusting to 200	Very Severe Cyclonic Storm	
ĺ	12-10-2013/1200	18.0/85.0	175-185 gusting to 200	Very Severe Cyclonic Storm	
ĺ	13-10-2013/0000	19.5/84.5	65-75 gusting to 85	Cyclonic Storm	
ĺ	13-10-2013/1200	21.0/84.0	50 . 60 gusting to 70	Deep Depression	
	14-10-2013/0000	23.0/83.5	40 . 50 gusting to 60	Depression	

## **REMARKS:**

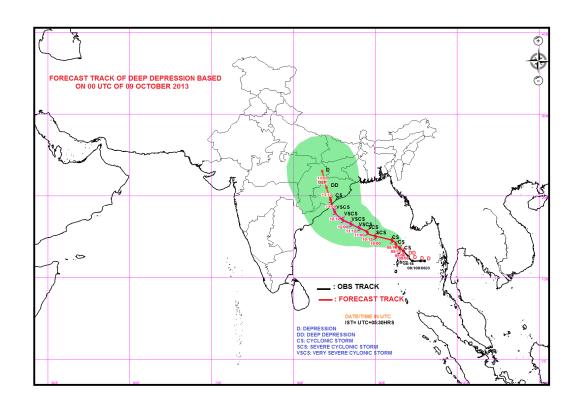
SCATTEROMETRY DATA INDICATES ASSOCIATED WIND SPEED TO BE ABOUT 30 KNOTS. MAYABANDAR REPORTED LOWEST MSLP OF 1002 HPA.

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 19<sup>0</sup>N AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 12 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29<sup>0</sup>C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE SEA HEIGHT ANOMALY IS ABOUT 5-10M. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-15 KNOTS (LOW TO MODERATE). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX LIES OVER PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

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

(KAMALJIT RAY)

TOO:1130 HRS IST





#### INDIA METEOROLOGICAL DEPARTMENT

### SPECIAL TROPICAL WEATHER OUTLOOK

DEMS-RSMC TROPICAL CYCLONES NEW DELHI 09

09-10-2013

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 24 HOURS ISSUED AT 1500 UTC OF 09 OCTOBER, 2013 BASED ON 1200 UTC OF 09 OCTOBER, 2013.

THE DEEP DEPRESSION OVER EAST CENTRAL BAY OF BENGAL REMAINED PRACTICALLY STATIONERY, INTENSIFIED INTO A CYCLONIC STORM, **PHAILIN** AND LAY CENTRED AT 1730 HRS IST OF TODAY, 09<sup>TH</sup> OCTOBER 2013 OVER NEAR LATITUDE 13.5°N AND LONGITUDE 92.5°E, ABOUT 220 KM NORTH-NORTHWEST OF PORT BLAIR, 950KM SOUTHEAST OF PARADIP, 1100 KM EAST-SOUTHEAST OF VISAKHAPATNAM. THE SYSTEM WOULD INTENSIFY INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. IT WOULD CONTINUE TO MOVE WEST-NORTHWESTWARDS FOR SOME TIME AND THEN NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP BY NIGHT OF 12<sup>TH</sup> OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 175-185 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 2.5. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER NORTH ANDAMAN SEA ADJOINING ISLANDS AND AREA BETWEEN LAT 10.0°N TO 15.0°N AND LONG 89.0°E TO 95.0°E AND EAST CENTRAL BAY. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 06 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -80°C.

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

Date/Time(UTC)	Position	Sustained maximum	Category
	(Lat. ⁰N/ Long. ºE)	surface wind speed	
		(kmph)	
09-10-2013/1200	13.5/92.5	65-75 gusting to 85	Cyclonic Storm
09-10-2013/1800	13.8/92.0	70-80 gusting to 90	Cyclonic Storm
10-10-2013/0000	14.3/91.0	75-85 gusting to 95	Cyclonic Storm
10-10-2013/0600	14.7/90.4	85-95 gusting to 105	Cyclonic Storm
10-10-2013/1200	15.2/89.8	95-105 gusting to 120	Severe Cyclonic Storm
11-10-2013/0000	15.7/88.3	115-125 gusting to 140	Severe Cyclonic Storm
11-10-2013/1200	16.5/87.1	135-145 gusting to160	Very Severe Cyclonic Storm
12-10-2013/0000	17.3/86.0	155-165 gusting to 180	Very Severe Cyclonic Storm
12-10-2013/1200	18.5/85.2	175-185 gusting to 200	Very Severe Cyclonic Storm
13-10-2013/0000	20.0/84.7	70-80 gusting to 90	Cyclonic Storm
13-10-2013/1200	21.2/84.4	50-60 gusting to 70	Deep Depression
14-10-2013/0000	22.0/84.4	35-45 gusting to 55	Depression

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 19<sup>0</sup>N AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 12 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29<sup>0</sup>C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE SEA HEIGHT ANOMALY IS ABOUT 5-10M. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-15 KNOTS (LOW TO MODERATE). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX LIES OVER PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

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

(Kamaljit Ray)

TOO:2030 HRS IST



## SPECIAL TROPICAL WEATHER OUTLOOK

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

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 24 HOURS ISSUED AT 1800 UTC OF 09 OCTOBER, 2013 BASED ON 1500 UTC OF 09 OCTOBER, 2013.

THE CYCLONIC STORM, **PHAILIN** OVER EAST CENTRAL BAY OF BENGAL REMAINED PRACTICALLY STATIONERY, AND LAY CENTRED AT 2030 HRS IST OF TODAY,  $09^{TH}$  OCTOBER 2013 OVER NEAR LATITUDE  $13.5^{\circ}N$  AND LONGITUDE  $92.5^{\circ}E$ , ABOUT 220 KM NORTH-NORTHWEST OF PORT BLAIR, 950KM SOUTHEAST OF PARADIP, 1100 KM EAST-SOUTHEAST OF VISAKHAPATNAM. THE SYSTEM WOULD INTENSIFY INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. IT WOULD CONTINUE TO MOVE WEST-NORTHWESTWARDS FOR SOME TIME AND THEN NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP BY NIGHT OF  $12^{TH}$  OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 175-185 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 2.5. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER NORTH ANDAMAN SEA ADJOINING ISLANDS AND AREA BETWEEN LAT  $10.0^{\circ}$ N TO  $15.0^{\circ}$ N AND LONG  $89.0^{\circ}$ E TO  $95.0^{\circ}$ E AND EAST CENTRAL BAY. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 06 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -  $80^{\circ}$ C.

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

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

Date/Time(UTC)	Position	Sustained maximum	Category
	(Lat. ⁰N/ Long. ºE)	surface wind speed	
		(kmph)	
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09-10-2013/1800	13.8/92.0	70-80 gusting to 90	Cyclonic Storm
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### **REMARKS:**

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 19<sup>0</sup>N AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 12 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29<sup>0</sup>C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE SEA HEIGHT ANOMALY IS ABOUT 5-10M. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-15 KNOTS (LOW TO MODERATE). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX LIES OVER PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

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

(Ranjeet Singh)

**TOO:2300 HRS IST** 



### INDIA METEOROLOGICAL DEPARTMENT

### SPECIAL TROPICAL WEATHER OUTLOOK

## DEMS-RSMC TROPICAL CYCLONES NEW DELHI

10-10-2013

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 24 HOURS ISSUED AT 2000 UTC OF 09 OCTOBER, 2013 BASED ON 1800 UTC OF 09 OCTOBER, 2013.

THE CYCLONIC STORM, **PHAILIN** OVER EAST CENTRAL BAY OF BENGAL REMAINED PRACTICALLY STATIONERY, AND LAY CENTRED AT 2330 HRS IST OF  $09^{TH}$  OCTOBER 2013 OVER NEAR LATITUDE 13.5°N AND LONGITUDE 92.5°E, ABOUT 220 KM NORTH-NORTHWEST OF PORT BLAIR, 950KM SOUTHEAST OF PARADIP, 1100 KM EAST-SOUTHEAST OF VISAKHAPATNAM. THE SYSTEM WOULD INTENSIFY INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. IT WOULD CONTINUE TO MOVE WEST-NORTHWESTWARDS FOR SOME TIME AND THEN NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP BY NIGHT OF  $12^{TH}$  OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 175-185 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 2.5. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER NORTH ANDAMAN SEA ADJOINING ISLANDS AND AREA BETWEEN LAT  $10.0^{\circ}$ N TO  $15.0^{\circ}$ N AND LONG  $89.0^{\circ}$ E TO  $95.0^{\circ}$ E AND EAST CENTRAL BAY. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 06 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -  $80^{\circ}$ C.

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

Date/Time(UTC)	Position	Sustained maximum	Category
	(Lat. ⁰N/ Long. ºE)	surface wind speed	·
		(kmph)	
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10-10-2013/0000	14.3/91.0	75-85 gusting to 95	Cyclonic Storm
10-10-2013/0600	14.7/90.4	85-95 gusting to 105	Cyclonic Storm
10-10-2013/1200	15.2/89.8	95-105 gusting to 120	Severe Cyclonic Storm
11-10-2013/0000	15.7/88.3	115-125 gusting to 140	Severe Cyclonic Storm
11-10-2013/1200	16.5/87.1	135-145 gusting to160	Very Severe Cyclonic Storm
12-10-2013/0000	17.3/86.0	155-165 gusting to 180	Very Severe Cyclonic Storm
12-10-2013/1200	18.5/85.2	175-185 gusting to 200	Very Severe Cyclonic Storm
13-10-2013/0000	20.0/84.7	70-80 gusting to 90	Cyclonic Storm
13-10-2013/1200	21.2/84.4	50-60 gusting to 70	Deep Depression
14-10-2013/0000	22.0/84.4	35-45 gusting to 55	Depression

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 19<sup>0</sup>N AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 12 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29<sup>0</sup>C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE SEA HEIGHT ANOMALY IS ABOUT 5-10M. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-15 KNOTS (LOW TO MODERATE). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX LIES OVER PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

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

(Ranjeet Singh)

TOO:0130 HRS IST



### INDIA METEOROLOGICAL DEPARTMENT

# SPECIAL TROPICAL WEATHER OUTLOOK

### DEMS-RSMC TROPICAL CYCLONES NEW DELHI

10-10-2013

SPECIAL TROPICAL WEATHER OUTLOOK FOR NORTH INDIAN OCEAN (THE BAY OF BENGAL AND ARABIAN SEA) VALID FOR NEXT 24 HOURS ISSUED AT 2300 UTC OF 09 OCTOBER, 2013 BASED ON 2100 UTC OF 09 OCTOBER, 2013.

THE CYCLONIC STORM, **PHAILIN** OVER EAST CENTRAL BAY OF BENGAL MOVED SLIGHTLY NORTHWEST WARDS AND LAY CENTRED AT 0230 HRS IST OF TODAY 10<sup>TH</sup> OCTOBER 2013 NEAR LATITUDE 14.0<sup>0</sup>N AND LONGITUDE 92.0<sup>0</sup>E, ABOUT 900KM SOUTHEAST OF PARADIP, 950 KM SOUTHEAST OF KALINGAPATNAM, 1000 KM EAST-SOUTHEAST OF VISAKHAPATNAM. THE SYSTEM WOULD INTENSIFY INTO A SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. IT WOULD CONTINUE TO MOVE NORTHWEST WARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP BY NIGHT OF 12<sup>TH</sup> OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 175-185 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 2.5. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER NORTH ANDAMAN SEA ADJOINING ISLANDS AND AREA BETWEEN LAT  $10.0^{\circ}$ N TO  $15.0^{\circ}$ N AND LONG  $89.0^{\circ}$ E TO  $95.0^{\circ}$ E AND EAST CENTRAL BAY. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 06 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -  $80^{\circ}$ C.

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

Date/Time(UTC)	Position	Sustained maximum	Category
	(Lat. <sup>0</sup> N/ Long. <sup>0</sup> E)	surface wind speed	
		(kmph)	
09-10-2013/2100	14.0/92.0	70-80 gusting to 90	Cyclonic Storm
10-10-2013/0000	14.3/91.0	75-85 gusting to 95	Cyclonic Storm
10-10-2013/0600	14.7/90.4	85-95 gusting to 105	Cyclonic Storm
10-10-2013/1200	15.2/89.8	95-105 gusting to 120	Severe Cyclonic Storm
11-10-2013/0000	15.7/88.3	115-125 gusting to 140	Severe Cyclonic Storm
11-10-2013/1200	16.5/87.1	135-145 gusting to160	Very Severe Cyclonic Storm
12-10-2013/0000	17.3/86.0	155-165 gusting to 180	Very Severe Cyclonic Storm
12-10-2013/1200	18.5/85.2	175-185 gusting to 200	Very Severe Cyclonic Storm
13-10-2013/0000	20.0/84.7	70-80 gusting to 90	Cyclonic Storm
13-10-2013/1200	21.2/84.4	50-60 gusting to 70	Deep Depression
14-10-2013/0000	22.0/84.4	35-45 gusting to 55	Depression

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 19<sup>0</sup>N AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 12 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29<sup>0</sup>C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE SEA HEIGHT ANOMALY IS ABOUT 5-10M. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-15 KNOTS (LOW TO MODERATE). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX LIES OVER PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

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

(Ranjeet Singh)

**TOO:0430 HRS IST** 



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 'PHAILIN' ADVISORY NO. FIVE ISSUED AT 0300 UTC OF  $10^{TH}$  OCTOBER 2013 BASED ON 0000 UTC CHARTS.

THE CYCLONIC STORM, **PHAILIN** OVER EAST CENTRAL BAY OF BENGAL MOVED SLIGHTLY NORTHWEST WARDS INTENSIFIED FURTHER AND LAY CENTRED AT 0000UTC OF TODAY THE  $10^{TH}$  OCTOBER 2013 AS CYCLONIC STORM NEAR LATITUDE  $14.5^{\circ}$ N AND LONGITUDE  $91.5^{\circ}$ E, ABOUT 850KM SOUTHEAST OF PARADIP, 900KM EASTSOUTH-EAST OF KALINGAPATNAM, AND 950 KM EAST-SOUTHEAST OF VISAKHAPATNAM. THE SYSTEM WOULD INTENSIFY INTO A SEVERE CYCLONIC STORM DURING NEXT 12 HOURS. IT WOULD CONTINUE TO MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP BY NIGHT OF  $12^{TH}$  OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 175-185 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 3.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EAST CENTRAL BAY AND ADJOINING NORTH ANDAMAN SEA ADJOINING ISLANDS AND AREA BETWEEN LAT  $11.0^{\circ}$ N TO  $16.0^{\circ}$ N AND LONG  $88.0^{\circ}$ E TO  $94.0^{\circ}$ E. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 06 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -  $80^{\circ}$ C.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 40 KNOTS GUSTING TO 50 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS HIGH AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 996 HPA.

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

DATE/TIME(UTC)	POSITION	SUSTAINED MAXIMUM	CATEGORY
	(LAT. <sup>o</sup> N/ LONG.	SURFACE WIND SPEED	
	` °E)	(KMPH)	
10-10-2013/0000	14.5/91.5	75-85 GUSTING TO 95	CYCLONIC STORM
10-10-2013/0600	14.7/90.8	80-90 GUSTING TO 100	SEVERE CYCLONIC STORM
10-10-2013/1200	15.2/90.2	90-100 GUSTING TO 110	SEVERE CYCLONIC STORM
10-10-2013/1800	15.6/89.5	100-110 GUSTING TO 120	SEVERE CYCLONIC STORM
11-10-2013/0000	16.1/88.5	120-130 GUSTING TO 140	SEVERE CYCLONIC STORM
11-10-2013/1200	16.9/87.3	140-150 GUSTING TO165	VERY SEVERE CYCLONIC STORM
12-10-2013/0000	17.5/86.1	160-170 GUSTING TO 180	VERY SEVERE CYCLONIC STORM
12-10-2013/1200	18.7/85.1	175-185 GUSTING TO 200	VERY SEVERE CYCLONIC STORM
13-10-2013/0000	20.0/84.7	90-100 GUSTING TO 110	SEVERE CYCLONIC STORM
13-10-2013/1200	21.2/84.4	50-60 GUSTING TO 70	DEEP DEPRESSION
14-10-2013/0000	22.0/84.4	35-45 GUSTING TO 55	DEPRESSION

#### **REMARKS:**

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 19<sup>0</sup>N AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 12 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29<sup>0</sup>C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE SEA HEIGHT ANOMALY IS ABOUT 5-10M. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-15 KNOTS (LOW TO MODERATE). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX LIES OVER PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 72 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST. IMD& DYNAMICAL STATISTICAL MODEL SUGGESTS INTENSIFICATION OF THE SYSTEM INTO A VERY SEVERE CYCLONIC STORM AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP BY NIGHT OF 12<sup>TH</sup> OCTOBER. CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(KAMALJIT RAY)

TOO:0930 HRS IST



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 'PHAILIN' ADVISORY NO. SIX ISSUED AT  $0600~\rm{UTC}$  OF  $10^{\rm{TH}}$  OCTOBER 2013 BASED ON 0300 UTC CHARTS.

THE CYCLONIC STORM, **PHAILIN** OVER EAST CENTRAL BAY OF BENGAL MOVED SLIGHTLY WEST WARDS, INTENSIFIED INTO A SEVERE CYCLONIC STORM AND LAY CENTRED AT 0300 UTC OF TODAY THE 10<sup>TH</sup> OCTOBER 2013 NEAR LATITUDE 14.5°N AND LONGITUDE 91.0°E, ABOUT 820KM SOUTHEAST OF PARADIP (42976), 870KM EAST-SOUTHEAST OF KALINGAPATNAM (43105), AND 900 KM EAST-SOUTHEAST OF VISAKHAPATNAM (43149). THE SYSTEM WOULD INTENSIFY INTO A VERY SEVERE CYCLONIC STORM DURING NEXT 24 HOURS. IT WOULD CONTINUE TO MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (43049) BY EVENING OF 12<sup>TH</sup> OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 175-185 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 3.5. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EAST CENTRAL BAY AND ADJOINING NORTH ANDAMAN SEA ISLANDS AND AREA BETWEEN LAT 11.0°N TO 17.0°N AND LONG 86.0°E TO 95.0°E. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 03 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -80°C. THE SYSTEM IS EYE PATTERN. IT IS RAGGED EYE WITH DIAMETER OF ABOUT 15 KM.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 55KNOTS GUSTING TO 65 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS HIGH TO VERY HIGH AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 990 HPA.

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

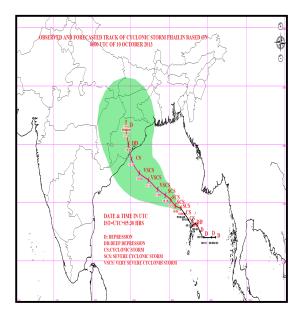
DATE/TIME(UTC)	POSITION	SUSTAINED MAXIMUM SURFACE	CATEGORY
	(LAT. <sup>0</sup> N/ LONG. <sup>0</sup> E)	WIND SPEED (KMPH)	
10-10-2013/0300	14.5/91.0	90-100 GUSTING TO 110	SEVERE CYCLONIC STORM
10-10-2013/0600	15.0/90.4	100-110 GUSTING TO 120	SEVERE CYCLONIC STORM
10-10-2013/1200	15.4/89.7	120-130 GUSTING TO 140	VERY SEVERE CYCLONIC STORM
10-10-2013/1800	15.8/89.0	140-150 GUSTING TO 165	VERY SEVERE CYCLONIC STORM
11-10-2013/0000	16.2/88.2	160-170 GUSTING TO 185	VERY SEVERE CYCLONIC STORM
11-10-2013/1200	17.0/86.8	170-180 GUSTING TO 200	VERY SEVERE CYCLONIC STORM
12-10-2013/0000	17.8/85.8	175-185 GUSTING TO 200	VERY SEVERE CYCLONIC STORM
12-10-2013/1200	19.2/84.9	175-185 GUSTING TO 200	VERY SEVERE CYCLONIC STORM
13-10-2013/0000	20.6/84.6	75-85 GUSTING TO 95	CYCLONIC STORM
13-10-2013/1200	22.0/84.2	50-60 GUSTING TO 70	DEEP DEPRESSION

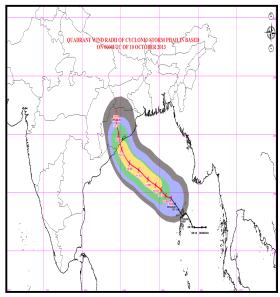
## **REMARKS:**

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 19<sup>0</sup>N AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 12 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29<sup>0</sup>C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE SEA HEIGHT ANOMALY IS ABOUT 5-10M. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-15 KNOTS (LOW TO MODERATE). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX LIES OVER PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 72 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST. IMD& DYNAMICAL STATISTICAL MODEL SUGGESTS INTENSIFICATION OF THE SYSTEM INTO A VERY SEVERE CYCLONIC STORM AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP BY NIGHT OF 12<sup>TH</sup> OCTOBER. CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(M.MOHAPATRA) TOO:1300 HRS IST







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 'PHAILIN' ADVISORY NO. SEVEN ISSUED AT 0900 UTC OF  $10^{TH}$  OCTOBER 2013 BASED ON 0600 UTC CHARTS.

THE SEVERE CYCLONIC STORM, **PHAILIN** OVER EAST CENTRAL BAY OF BENGAL MOVED NORTHWEST WARDS, INTENSIFIED INTO A VERY SEVERE CYCLONIC STORM AND LAY CENTRED AT 1130 HRS IST OF TODAY THE  $10^{\rm TH}$  OCTOBER 2013 NEAR LATITUDE 15.0°N AND LONGITUDE 90.5°E, ABOUT 800KM SOUTHEAST OF PARADIP (42976), 850KM EAST-SOUTHEAST OF KALINGAPATNAM (43105), AND 870 KM EAST-SOUTHEAST OF VISAKHAPATNAM (43149). IT WOULD CONTINUE TO MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (43049) BY EVENING OF  $12^{\rm TH}$  OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 175-185 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 4.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EAST CENTRAL BAY AND ADJOINING NORTH ANDAMAN SEA ISLANDS AND AREA BETWEEN LAT 13.0°N TO 16.5°N AND LONG 89.0°E TO 92.5°E. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 03 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -80°C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 15 KM. EYE TEMPERATURE IS -42°C.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 60KNOTS GUSTING TO 70 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS VERY HIGH AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 984 HPA.

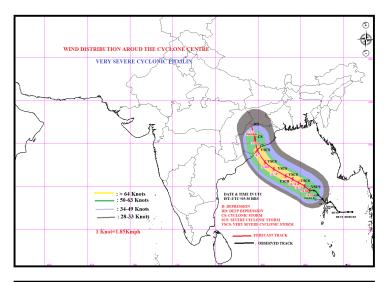
Date/Time(UTC)	Position	Sustained maximum surface	Category
	(Lat. ⁰N/ Long. ⁰E)	wind speed (kmph)	
10-10-2013/0600	15.0/90.5	120-130 gusting to 140	Very Severe Cyclonic Storm
10-10-2013/1200	15.4/89.7	130-140 gusting to 150	Very Severe Cyclonic Storm
10-10-2013/1800	15.8/89.0	140-150 gusting to 160	Very Severe Cyclonic Storm
11-10-2013/0000	16.2/88.2	150-160 gusting to 170	Very Severe Cyclonic Storm
11-10-2013/0600	16.6/87.5	160-170 gusting to 185	Very Severe Cyclonic Storm
11-10-2013/1800	17.4/86.3	170-180 gusting to 200	Very Severe Cyclonic Storm
12-10-2013/0600	18.5/85.4	175-185 gusting to 200	Very Severe Cyclonic Storm
12-10-2013/1800	19.9/84.7	175-185 gusting to 200	Very Severe Cyclonic Storm
13-10-2013/0600	20.6/84.6	75-85 gusting to 95	Cyclonic storm
13-10-2013/1800	22.0/84.2	50-60 gusting to 70	Deep Depression

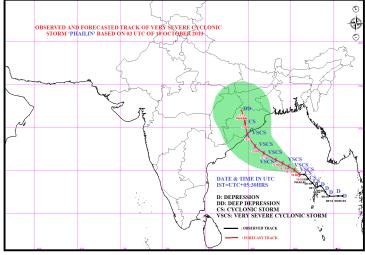
THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 20<sup>0</sup>N AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 06 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29<sup>0</sup>C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE SEA HEIGHT ANOMALY IS ABOUT 5-10M. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-10 KNOTS (LOW TO MODERATE). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 72 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST. IMD& DYNAMICAL STATISTICAL MODEL SUGGESTS INTENSIFICATION OF THE SYSTEM INTO A VERY SEVERE CYCLONIC STORM AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP BY EVENING OF 12<sup>TH</sup> OCTOBER. CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(KAMALJIT RAY)

TOO:1530 HRS IST







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 'PHAILIN' ADVISORY NO. EIGHT ISSUED AT 1200 UTC OF  $10^{TH}$  OCTOBER 2013 BASED ON 0900 UTC CHARTS.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER EAST CENTRAL BAY OF BENGAL REMAINED PRACTICALLY STATIONARY AND LAY CENTRED AT 0900 UTC OF TODAY THE 10<sup>TH</sup> OCTOBER 2013 NEAR LATITUDE 15.0°N AND LONGITUDE 90.5°E, ABOUT 800KM SOUTHEAST OF PARADIP (42976), 850KM EAST-SOUTHEAST OF KALINGAPATNAM (43105), AND 870 KM EAST-SOUTHEAST OF VISAKHAPATNAM (43149). IT WOULD CONTINUE TO MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (43049) BY EVENING OF 12<sup>TH</sup> OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 175-185 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 4.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EAST CENTRAL BAY AND ADJOINING NORTH ANDAMAN SEA ISLANDS AND AREA BETWEEN LAT 13.0°N TO 16.5°N AND LONG 88.0°E TO 92.0°E. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 03 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -77°C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 15 KM. EYE TEMPERATURE IS -19°C.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 60 KNOTS GUSTING TO 70 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS VERY HIGH AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 982 HPA.

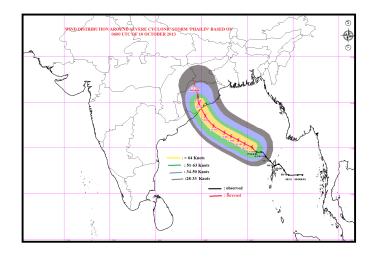
DATE/TIME(UTC)	POSITION	SUSTAINED MAXIMUM SURFACE	CATEGORY
	(LAT. ⁰N/ LONG. ºE)	WIND SPEED (KMPH)	
10-10-2013/0900	15.0/90.5	120-130 GUSTING TO 140	VERY SEVERE CYCLONIC STORM
10-10-2013/1200	15.4/89.7	130-140 GUSTING TO 150	VERY SEVERE CYCLONIC STORM
10-10-2013/1800	15.8/89.0	140-150 GUSTING TO 160	VERY SEVERE CYCLONIC STORM
11-10-2013/0000	16.2/88.2	150-160 GUSTING TO 170	VERY SEVERE CYCLONIC STORM
11-10-2013/0600	16.6/87.5	160-170 GUSTING TO 185	VERY SEVERE CYCLONIC STORM
11-10-2013/1800	17.4/86.3	170-180 GUSTING TO 200	VERY SEVERE CYCLONIC STORM
12-10-2013/0600	18.5/85.4	175-185 GUSTING TO 200	VERY SEVERE CYCLONIC STORM
12-10-2013/1800	19.9/84.7	175-185 GUSTING TO 200	VERY SEVERE CYCLONIC STORM
13-10-2013/0600	20.6/84.6	75-85 GUSTING TO 95	CYCLONIC STORM
13-10-2013/1800	22.0/84.2	50-60 GUSTING TO 70	DEEP DEPRESSION

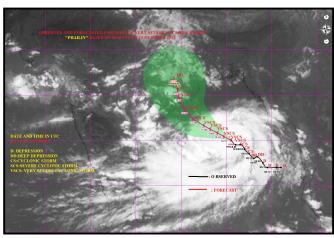
THE UPPER TROPOSPHERIC RIDGE RUNS ALONG  $20^{\circ}N$  AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 06 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT  $28-29^{\circ}C$  AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE SEA HEIGHT ANOMALY IS ABOUT 5-10M. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-10 KNOTS (LOW TO MODERATE). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 72 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST. IMD& DYNAMICAL STATISTICAL MODEL SUGGESTS INTENSIFICATION OF THE SYSTEM INTO A VERY SEVERE CYCLONIC STORM AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP BY EVENING OF 12<sup>TH</sup> OCTOBER. CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(M.MOHAPATRA)

#### TOO:1730 HRS IST







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 'PHAILIN' ADVISORY NO. NINE ISSUED AT 1500 UTC OF  $10^{TH}$  OCTOBER 2013 BASED ON 1200 UTC CHARTS.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER EAST CENTRAL BAY OF BENGAL MOVED NORTHWESTWARDS, SLIGHTLY INTENSIFIED FURTHER AND LAY CENTRED AT 1200 HRS IST OF TODAY THE 10<sup>TH</sup> OCTOBER 2013 NEAR LATITUDE 15.5°N AND LONGITUDE 90.0°E, ABOUT 650KM SOUTHEAST OF PARADIP(42976), 700KM SOUTHEAST OF GOPALPUR(43049), AND 700 KM EAST-SOUTHEAST OF KALINGAPATNAM(43105). IT WOULD CONTINUE TO MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (ODISHA) BY EVENING OF 12<sup>TH</sup> OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 175-185 KMPH

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 4.5. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EAST CENTRAL BAY AND ADJOINING NORTH ANDAMAN SEA ISLANDS AND AREA BETWEEN LAT 13.0°N TO 16.5°N AND LONG 88.0°E TO 92.0°E. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 03 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -80°C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 15 KM.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 75 KNOTS GUSTING TO 85 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 976 HPA.

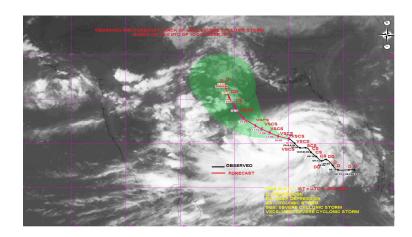
DATE/TIME(UTC)	POSITION (LAT. <sup>0</sup> N/ LONG. <sup>0</sup> E)	SUSTAINED MAXIMUM SURFACE WIND SPEED (KMPH)	CATEGORY
10-10-2013/1200	15.5/90.0	135-145 gusting to 160	Very Severe Cyclonic Storm
10-10-2013/1800	15.8/89.0	145-155 gusting to 170	Very Severe Cyclonic Storm
11-10-2013/0000	16.2/88.2	155-165 gusting to 180	Very Severe Cyclonic Storm
11-10-2013/0600	16.6/87.5	165-175 gusting to 190	Very Severe Cyclonic Storm
11-10-2013/1200	17.0/86.9	175-185 gusting to 200	Very Severe Cyclonic Storm
12-10-2013/0000	17.9/85.8	175-185 gusting to 200	Very Severe Cyclonic Storm
12-10-2013/1200	19.2/85.0	175-185 gusting to 200	Very Severe Cyclonic Storm
13-10-2013/0000	20.2/84.5	80-90 gusting to 100	Cyclonic Storm
13-10-2013/1200	21.2/84.2	50-60 gusting to 70	Deep Depression
14-10-2013/0000	22.2/83.8	40-50 gusting to 60	Depression

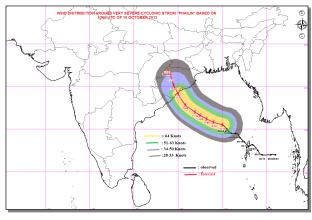
THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 18°N AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 06 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29°C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-10 KNOTS (LOW). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD MOVE TO PHASE 7 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 48 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP NEAR GOPALPUR BY EVENING OF 12<sup>TH</sup> OCTOBER.. IMD& DYNAMICAL STATISTICAL MODEL SUGGESTS FURTHER INTENSIFICATION OF THE SYSTEM CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(M.MOHAPATRA)

TOO:1930 HRS IST







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 'PHAILIN' ADVISORY NO. TEN ISSUED AT 1800 UTC OF 10<sup>TH</sup> OCTOBER 2013 BASED ON 1500 UTC CHARTS.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER EAST CENTRAL BAY OF BENGAL REMAINED PRACTICALLY STATIONARY SLIGHTLY INTENSIFIED FURTHER AND LAY CENTRED AT 1500 HRS IST OF TODAY THE 10<sup>TH</sup> OCTOBER 2013 NEAR LATITUDE 15.5°N AND LONGITUDE 90.0°E, ABOUT 650KM SOUTHEAST OF PARADIP(42976), 700KM SOUTHEAST OF GOPALPUR(43049), AND 700 KM EAST-SOUTHEAST OF KALINGAPATNAM(43105). IT WOULD CONTINUE TO MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (ODISHA) BY EVENING OF 12<sup>TH</sup> OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 190-200 KMPH

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 5.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EAST CENTRAL BAY AND ADJOINING NORTH ANDAMAN SEA ISLANDS AND AREA BETWEEN LAT 13.0°N TO 16.5°N AND LONG 88.0°E TO 91.0°E. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 03 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -80°C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 15 KM.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 75 KNOTS GUSTING TO 85 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 966 HPA.

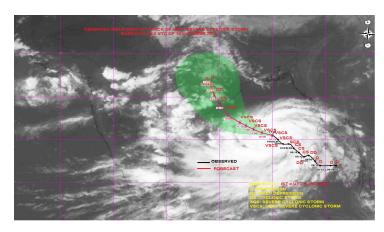
DATE/TIME(UTC)	POSITION (LAT. <sup>0</sup> N/ LONG. <sup>0</sup> E)	SUSTAINED MAXIMUM SURFACE WIND SPEED (KMPH)	CATEGORY
10-10-2013/1500	15.5/90.0	160-170 gusting to 185	Very Severe Cyclonic Storm
10-10-2013/1800	15.8/89.0	165-175 gusting to 190	Very Severe Cyclonic Storm
11-10-2013/0000	16.2/88.2	175-185 gusting to 200	Very Severe Cyclonic Storm
11-10-2013/0600	16.6/87.5	175-185 gusting to 200	Very Severe Cyclonic Storm
11-10-2013/1200	17.0/86.9	185-195 gusting to 210	Very Severe Cyclonic Storm
12-10-2013/0000	17.9/85.8	190-200 gusting to 215	Very Severe Cyclonic Storm
12-10-2013/1200	19.2/85.0	190-200 gusting to 215	Very Severe Cyclonic Storm
13-10-2013/0000	20.2/84.5	80-90 gusting to 100	Cyclonic Storm
13-10-2013/1200	21.2/84.2	50-60 gusting to 70	Deep Depression
14-10-2013/0000	22.2/83.8	40-50 gusting to 60	Depression

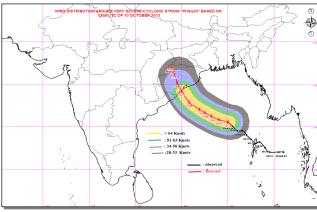
THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 18<sup>0</sup>N AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 06 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29<sup>0</sup>C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-10 KNOTS (LOW). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD MOVE TO PHASE 7 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 48 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP NEAR GOPALPUR BY EVENING OF 12<sup>TH</sup> OCTOBER.. IMD& DYNAMICAL STATISTICAL MODEL SUGGESTS FURTHER INTENSIFICATION OF THE SYSTEM CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(D.R.PATTANAIK)

TOO:2330 HRS IST







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 'PHAILIN' ADVISORY NO. ELEVEN ISSUED AT 2100 UTC OF 10<sup>TH</sup> OCTOBER 2013 BASED ON 1800 UTC CHARTS.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER EAST CENTRAL BAY OF BENGAL MOVED WESTWARDS AND LAY CENTRED AT 1800 HRS UTC OF TODAY THE  $10^{\rm TH}$  OCTOBER 2013 NEAR LATITUDE 15.5°N AND LONGITUDE 89.50°E, ABOUT 625KM SOUTH-SOUTHEAST OF PARADIP(42976), 650KM SOUTHEAST OF GOPALPUR(43049), AND 650 KM EAST-SOUTHEAST OF KALINGAPATNAM(43105). IT WOULD CONTINUE TO MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (ODISHA) BY EVENING OF  $12^{\rm TH}$  OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 190-200 KMPH

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 5.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EAST CENTRAL BAY AND ADJOINING NORTH ANDAMAN SEA ISLANDS AND AREA BETWEEN LAT 13.0°N TO 16.5°N AND LONG 88.0°E TO 91.0°E. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 03 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -70°C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 15 KM.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 90 KNOTS GUSTING TO 100 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 966 HPA.

Date/Time(IST)	Position (Lat. <sup>0</sup> N/ Long. <sup>0</sup> E)	Sustained maximum surface wind speed (kmph)	Category
10-10-2013/2330	15.5/89.5	165-175 gusting to 190	Very Severe Cyclonic Storm
11-10-2013/0530	16.0/88.7	175-185 gusting to 200	Very Severe Cyclonic Storm
11-10-2013/1130	16.4/87.7	175-185 gusting to 200	Very Severe Cyclonic Storm
11-10-2013/1730	17.0/86.9	185-195 gusting to 210	Very Severe Cyclonic Storm
11-10-2013/2330	17.4/86.3	185-195 gusting to 210	Very Severe Cyclonic Storm
12-10-2013/0530	17.9/85.8	190-200 gusting to 215	Very Severe Cyclonic Storm
12-10-2013/1730	19.2/85.0	190-200 gusting to 215	Very Severe Cyclonic Storm
13-10-2013/0530	20.2/84.5	80-90 gusting to 100	Cyclonic Storm
13-10-2013/1730	21.2/84.2	50-60 gusting to 70	Deep Depression
14-10-2013/0530	22.2/83.8	40-50 gusting to 60	Depression

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 18<sup>0</sup>N AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 06 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29<sup>0</sup>C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-10 KNOTS (LOW). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD MOVE TO PHASE 7 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 48 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP NEAR GOPALPUR BY EVENING OF 12<sup>TH</sup> OCTOBER.. IMD& DYNAMICAL STATISTICAL MODEL SUGGESTS FURTHER INTENSIFICATION OF THE SYSTEM CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(D.R.PATTANAIK)

TOO:0230 HRS IST



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 'PHAILIN' ADVISORY NO. TWELVE ISSUED AT  $0000~\rm{UTC}$  OF  $11^{\rm{TH}}$  OCTOBER 2013 BASED ON 2100 UTC CHARTS of 10th OCTOBER.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER EAST CENTRAL BAY OF BENGAL MOVED WESTWARDS SLIGHTLY INTENSIFIED FURTHER AND LAY CENTRED AT 2100 HRS UTC OF TODAY THE  $10^{\text{TH}}$  OCTOBER 2013 NEAR LATITUDE  $15.5^{\circ}$ N AND LONGITUDE  $89.00^{\circ}$ E, ABOUT 590KM SOUTH-SOUTHEAST OF PARADIP(42976), 600KM SOUTHEAST OF GOPALPUR(43049), AND 600 KM EAST-SOUTHEAST OF KALINGAPATNAM(43105). IT WOULD MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (ODISHA) BY EVENING OF  $12^{\text{TH}}$  OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 205-215 KMPH

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 5.5. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EAST CENTRAL BAY AND ADJOINING NORTH ANDAMAN SEA ISLANDS AND AREA BETWEEN LAT 13.0°N TO 17.0°N AND LONG 86.0°E TO 91.0°E. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 03 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -83°C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 15 KM.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 100 KNOTS GUSTING TO 110 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 955 HPA.

Date/Time(IST)	Position	Sustained maximum surface	Category
	(Lat. <sup>0</sup> N/ Long. <sup>0</sup> E)	wind speed (kmph)	
11-10-2013/0230	15.5/89.0	185-195 gusting to 210	Very Severe Cyclonic Storm
11-10-2013/0530	16.0/88.5	190-200 gusting to 215	Very Severe Cyclonic Storm
11-10-2013/1130	16.4/87.7	200-210 gusting to 225	Very Severe Cyclonic Storm
11-10-2013/1730	17.0/86.9	200-210 gusting to 225	Very Severe Cyclonic Storm
11-10-2013/2330	17.4/86.3	205-215 gusting to 230	Very Severe Cyclonic Storm
12-10-2013/0530	17.9/85.8	205-215 gusting to 230	Very Severe Cyclonic Storm
12-10-2013/1730	19.2/85.0	205-215 gusting to 230	Very Severe Cyclonic Storm
13-10-2013/0530	20.2/84.5	80-90 gusting to 100	Cyclonic Storm
13-10-2013/1730	21.2/84.2	50-60 gusting to 70	Deep Depression
14-10-2013/0530	22.2/83.8	40-50 gusting to 60	Depression

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 18<sup>0</sup>N AND IS PROVIDING POLEWARD OUT FLOW IN ASSOCIATION WITH THE ANTICYCLONIC CIRCULATION OVER CENTRAL INDIA. HENCE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 06 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29<sup>0</sup>C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-10 KNOTS (LOW). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD MOVE TO PHASE 7 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 48 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP NEAR GOPALPUR BY EVENING OF 12<sup>TH</sup> OCTOBER.. IMD& DYNAMICAL STATISTICAL MODEL SUGGESTS FURTHER INTENSIFICATION OF THE SYSTEM CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(D.R.PATTANAIK)

TOO:0600 HRS IST



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 'PHAILIN' ADVISORY NO. THIRTEEN ISSUED AT 0300 UTC OF 11<sup>TH</sup> OCTOBER 2013 BASED ON 0000 UTC CHARTS of 11th OCTOBER.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER EAST CENTRAL BAY OF BENGAL MOVED WEST-NORTHWESTWARDS WITH A SPEED OF 15 KMPH AND LAY CENTRED AT 0530 HRS IST OF  $11^{TH}$  OCTOBER 2013 NEAR LATITUDE  $16.0^{\circ}$ N AND LONGITUDE  $88.5^{\circ}$ E, ABOUT 520KM SOUTH-SOUTHEAST OF PARADIP (42976), 530KM SOUTHEAST OF GOPALPUR (43049), AND 530KM EAST-SOUTHEAST OF KALINGAPATNAM (43105). IT WOULD MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (ODISHA) BY EVENING OF  $12^{TH}$  OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 205-215 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 5.5. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EAST CENTRAL BAY AND ADJOINING NORTH ANDAMAN SEA ISLANDS AND AREA BETWEEN LAT  $14.0^{\circ}$ N TO  $17.0^{\circ}$ N AND LONG  $86.0^{\circ}$ E TO  $90.0^{\circ}$ E. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO HEIGHT AND ORGANISATION DURING PAST 03 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT - $86^{\circ}$ C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 15 KM. EYE TEMP MINUS 6 DEG C

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 100 KNOTS GUSTING TO 110 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 955 HPA.

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

DATE/TIME(UTC)	POSITION	SUSTAINED MAXIMUM SURFACE	CATEGORY
	(LAT. ⁰N/ LONG. ºE)	WIND SPEED (KMPH)	
11-10-2013/0000	16.0/88.5	185-195 GUSTING TO 210	VERY SEVERE CYCLONIC STORM
11-10-2013/0600	16.4/87.7	190-200 GUSTING TO 215	VERY SEVERE CYCLONIC STORM
11-10-2013/1200	17.0/86.9	200-210 GUSTING TO 225	VERY SEVERE CYCLONIC STORM
11-10-2013/1800	17.4/86.3	205-215 GUSTING TO 230	VERY SEVERE CYCLONIC STORM
12-10-2013/0000	17.9/85.8	205-215 GUSTING TO 230	VERY SEVERE CYCLONIC STORM
12-10-2013/1200	19.2/85.0	205-215 GUSTING TO 230	VERY SEVERE CYCLONIC STORM
13-10-2013/0000	20.2/84.5	80-90 GUSTING TO 100	CYCLONIC STORM
13-10-2013/1200	21.2/84.2	90-100 GUSTING TO 110	DEEP DEPRESSION
14-10-2013/0000	22.2/83.8	40-50 GUSTING TO 60	DEPRESSION

## **REMARKS:**

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 20<sup>0</sup>N AND IS PROVIDING POLEWARD OUT FLOW. PHAILIN IS TRACKING ALONG THE SOUTHERN PERIPHERY OF THE SUB-TROPICAL RIDGE LYING IN THE NORTHEAST SECTOR. THE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION.

THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 06 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29°C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-10 KNOTS (LOW). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD MOVE TO PHASE 7 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 48 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP NEAR GOPALPUR BY EVENING OF 12<sup>TH</sup> OCTOBER.. IMD& DYNAMICAL STATISTICAL MODEL SUGGESTS FURTHER INTENSIFICATION OF THE SYSTEM CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(KAMALJIT RAY)

TOO:0930 HRS IST



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 'PHAILIN' ADVISORY NO. FOURTEEN ISSUED AT 0600 UTC OF 11<sup>TH</sup> OCTOBER 2013 BASED ON 0300 UTC CHARTS of 11th OCTOBER.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER EAST CENTRAL BAY OF BENGAL REMAINED STATIONERY AND LAY CENTRED AT 0300 UTC OF  $11^{TH}$  OCTOBER 2013 NEAR LATITUDE  $16.0^{\circ}$ N AND LONGITUDE  $88.5^{\circ}$ E, ABOUT 520KM SOUTH-SOUTHEAST OF PARADIP (42976), 530KM SOUTHEAST OF GOPALPUR (43049), AND 530KM EAST-SOUTHEAST OF KALINGAPATNAM (43105). IT WOULD MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (ODISHA) BY EVENING OF  $12^{TH}$  OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 205-215 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 6.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EAST CENTRAL BAY AND ADJOINING NORTH ANDAMAN SEA ISLANDS AND AREA BETWEEN LAT 14.0°N TO 17.0°N AND LONG 87.0°E TO 90.0°E. THE ASSOCIATED CONVECTION HAS INCREASED GRADUALLY WITH RESPECT TO ORGANISATION DURING PAST 03 HRS. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -81°C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 15 KM. EYE TEMP MINUS 6 DEG C

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 100 KNOTS GUSTING TO 110 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 940 HPA.

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

DATE/TIME(UTC)	POSITION	SUSTAINED MAXIMUM SURFACE	CATEGORY
	(LAT. <sup>0</sup> N/ LONG. <sup>0</sup> E)	WIND SPEED (KMPH)	
11-10-2013/0300	16.0/88.5	200-210 GUSTING TO 225	VERY SEVERE CYCLONIC STORM
11-10-2013/0600	16.4/88.0	205-215 GUSTING TO 230	VERY SEVERE CYCLONIC STORM
11-10-2013/1200	17.0/87.2	210-220 GUSTING TO 235	VERY SEVERE CYCLONIC STORM
11-10-2013/1800	17.4/86.5	210-220 GUSTING TO 235	VERY SEVERE CYCLONIC STORM
12-10-2013/0000	17.9/85.8	210-220 GUSTING TO 235	VERY SEVERE CYCLONIC STORM
12-10-2013/1200	19.2/85.0	210-220 GUSTING TO 235	VERY SEVERE CYCLONIC STORM
13-10-2013/0000	20.2/84.5	90-100 GUSTING TO 110	CYCLONIC STORM
13-10-2013/1200	21.2/84.2	50-60 GUSTING TO 70	DEEP DEPRESSION
14-10-2013/0000	22.2/83.8	40-50 GUSTING TO 60	DEPRESSION

#### REMARKS:

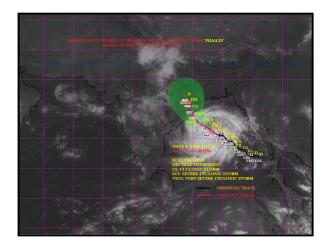
THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 20°N AND IS PROVIDING POLEWARD OUT FLOW. PHAILIN IS TRACKING ALONG THE SOUTHERN PERIPHERY OF THE SUB-TROPICAL RIDGE LYING IN

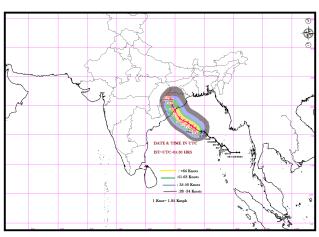
THE NORTHEAST SECTOR. THE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION. THE LOW LEVEL CONVERGENCE ALONG WITH LOW LEVEL RELATIVE VORTICITY HAS INCREASED DURING PAST 06 HOURS.. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29°C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND HAS DECREASED AND IS ABOUT 5-10 KNOTS (LOW). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD MOVE TO PHASE 7 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 48 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP NEAR GOPALPUR BY EVENING OF 12<sup>TH</sup> OCTOBER.. IMD& DYNAMICAL STATISTICAL MODEL SUGGESTS FURTHER INTENSIFICATION OF THE SYSTEM CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(KAMALJIT RAY)

## TOO:1130 HRS IST







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 'PHAILIN' ADVISORY NO. FIFTEEN ISSUED AT 0900 UTC OF 11<sup>TH</sup> OCTOBER 2013 BASED ON 0600 UTC CHARTS of 11th OCTOBER.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER EAST CENTRAL BAY OF BENGAL MOVED NORTHWESTWARDS AND LAY CENTRED AT 0600 UTC OF 11<sup>TH</sup> OCTOBER 2013 OVER WEST CENTRAL AND ADJOINING BAY OF BENGAL NEAR LATITUDE 16.2°N AND LONGITUDE 88.3°E, ABOUT 500 KM SOUTH-SOUTHEAST OF PARADIP (42976),, 490 KM SOUTHEAST OF GOPALPUR (43049),, AND 500 KM EAST-SOUTHEAST OF KALINGAPATNAM (43105). IT WOULD MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (ODISHA) BY EVENING OF 12<sup>TH</sup> OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 210-220 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 6.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EAST CENTRAL BAY AND ADJOINING NORTH ANDAMAN SEA ISLANDS AND AREA BETWEEN LAT 14.0°N TO 17.0°N AND LONG 86.0°E TO 89.0°E. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -76°C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 15 KM. EYE TEMP MINUS 6 DEG C. CLOUD FEATURES SUGGESTS NO FURTHER INTENSIFICATION OF THE SYSTEM(.)

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 105 KNOTS GUSTING TO 120 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 940 HPA.

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

Date/Time(UTC)	Position	Sustained maximum surface	Category
	(Lat. <sup>0</sup> N/ Long. <sup>0</sup> E)	wind speed (kmph)	·
11-10-2013/0600	16.2/88.3	210-220 gusting to 235	Very Severe Cyclonic Storm
11-10-2013/1200	17.0/87.6	210-220 gusting to 235	Very Severe Cyclonic Storm
11-10-2013/1800	17.6/86.7	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/0000	18.2/85.8	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/0600	18.7/85.3	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/1800	19.8/84.3	210-220 gusting to 235	Very Severe Cyclonic Storm
13-10-2013/0600	20.8/84.0	90-100 gusting to 110	Cyclonic Storm
13-10-2013/1800	21.6/83.8	50-60 gusting to 70	Deep Depression

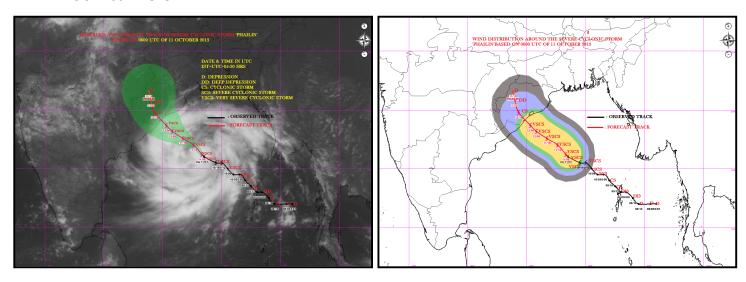
### **REMARKS:**

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 20°N AND IS PROVIDING POLEWARD OUT FLOW. PHAILIN IS TRACKING ALONG THE SOUTHERN PERIPHERY OF THE SUB-TROPICAL RIDGE LYING IN THE NORTHEAST SECTOR. THE UPPER LEVEL DIVERGENCE IS FAVOURABLE FOR INTENSIFICATION... THE SEA SURFACE TEMPERATURE IS ABOUT 28-29°C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND IS ABOUT 5-10 KNOTS (LOW). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 48 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP NEAR GOPALPUR BY EVENING OF 12<sup>TH</sup> OCTOBER.. IMD& DYNAMICAL STATISTICAL MODEL SUGGESTS FURTHER INTENSIFICATION OF THE SYSTEM CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(KAMALJIT RAY)

TOO:1400 HRS IST





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 'PHAILIN' ADVISORY NO. SIXTEEN ISSUED AT 1200 UTC OF 11<sup>TH</sup> OCTOBER 2013 BASED ON 0900 UTC CHARTS of 11th OCTOBER.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER EAST CENTRAL BAY OF BENGAL MOVED NORTHWESTWARDS AND LAY CENTRED AT 0900 UTC OF  $11^{TH}$  OCTOBER 2013 OVER WEST CENTRAL AND ADJOINING BAY OF BENGAL NEAR LATITUDE  $16.5^{\circ}N$  AND LONGITUDE  $88.0^{\circ}E$ , ABOUT 440 KM SOUTH-SOUTHEAST OF PARADIP, 450 KM SOUTHEAST OF GOPALPUR, AND 448 KM EAST-SOUTHEAST OF KALINGAPATNAM. IT WOULD MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (ODISHA) BY EVENING OF  $12^{TH}$  OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 210-220 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 6.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EAST CENTRAL BAY AND ADJOINING NORTH ANDAMAN SEA ISLANDS AND AREA BETWEEN LAT 14.0°N TO 17.0°N AND LONG 86.0°E TO 89.0°E. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -76°C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 15 KM. EYE TEMP MINUS 6 DEG C. CLOUD FEATURES SUGGESTS NO FURTHER INTENSIFICATION OF THE SYSTEM(.)

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 105 KNOTS GUSTING TO 120 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 940 HPA.

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

Date/Time(UTC)	Position	Sustained maximum surface	Category
	(Lat. <sup>0</sup> N/ Long. <sup>0</sup> E)	wind speed (kmph)	
11-10-2013/0900	16.5/88.0	210-220 gusting to 235	Very Severe Cyclonic Storm
11-10-2013/1200	17.0/87.6	210-220 gusting to 235	Very Severe Cyclonic Storm
11-10-2013/1800	17.6/86.9	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/0000	18.2/86.2	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/0600	18.6/85.5	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/1200	19.1/84.8	210-220 gusting to 235	Very Severe Cyclonic Storm
13-10-2013/0000	19.8/84.4	90-100 gusting to 110	Severe Cyclonic Storm
13-10-2013/1200	20.5/84.0	50-60 gusting to 70	Deep Depression

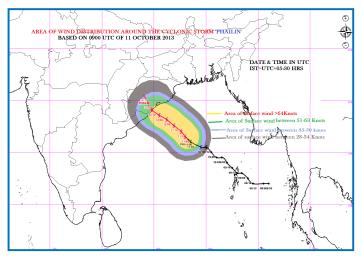
### **REMARKS:**

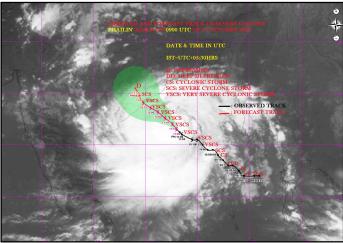
THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 20 °N AND IS PROVIDING POLEWARD OUT FLOW. PHAILIN IS TRACKING ALONG THE SOUTHERN PERIPHERY OF THE SUB-TROPICAL RIDGE LYING IN THE NORTHEAST SECTOR. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29°C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND IS ABOUT 5-10 KNOTS (LOW). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 48 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP NEAR GOPALPUR BY EVENING OF 12<sup>TH</sup> OCTOBER.. CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(KAMALJIT RAY)

TOO:1700 HRS IST







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 'PHAILIN' ADVISORY NO. SEVENTEEN ISSUED AT 1500 UTC OF 11<sup>TH</sup> OCTOBER 2013 BASED ON 1200 UTC CHARTS of 11th OCTOBER 2013.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER EASTCENTRAL BAY OF BENGAL MOVED NORTHWESTWARDS AND LAY CENTRED AT 1200 UTC OF 11<sup>TH</sup> OCTOBER 2013 OVER WESTCENTRAL AND ADJOINING EASTCENTRAL4 BAY OF BENGAL NEAR LATITUDE 16.8°N AND LONGITUDE 87.7°E, ABOUT 400 KM SOUTH-SOUTHEAST OF PARADIP (42976), 400 KM SOUTHEAST OF GOPALPUR (43049), AND 410 KM EAST-SOUTHEAST OF KALINGAPATNAM (43105). IT WOULD MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COAST BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (ODISHA) BY EVENING OF 12<sup>TH</sup> OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 210-220 KMPH.

. ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 6.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EASTCENTRAL BAY AND ADJOINING NORTH ANDAMAN SEA ISLANDS AND AREA BETWEEN LAT 14.0°N TO 18.0°N AND LONG 86.0°E TO 89.0°E. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -81°C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 15 KM. EYE TEMP -27°C. CLOUD FEATURES SUGGESTS NO FURTHER INTENSIFICATION OF THE SYSTEM(.)

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 105 KNOTS GUSTING TO 120 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 940 HPA.

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

	TO THE THE THE TABLE BELOW.			
		USTAINED MAXIMUM SURFA(	CATEGORY	
DATE/TIME(UTC)	(LAT. <sup>0</sup> N/ LONG. <sup>0</sup> E)	WIND SPEED (KMPH)		
11-10-2013/1200	16.8/87.7	210-220 GUSTING TO 235	VERY SEVERE CYCLONIC STORM	
11-10-2013/1800	17.4/87.0	210-220 GUSTING TO 235	VERY SEVERE CYCLONIC STORM	
12-10-2013/0000	18.1/86.2	210-220 GUSTING TO 235	VERY SEVERE CYCLONIC STORM	
12-10-2013/0600	18.6/85.5	210-220 GUSTING TO 235	VERY SEVERE CYCLONIC STORM	
12-10-2013/1200	19.2/85.0	210-220 GUSTING TO 235	VERY SEVERE CYCLONIC STORM	
13-10-2013/0000	19.8/84.4	90-100 GUSTING TO 110	SEVERE CYCLONIC STORM	
13-10-2013/1200	20.5/84.0	50-60 GUSTING TO 70	DEEP DEPRESSION	

14.10.2013/0000 21.5/83.7	40-50 GUSTING TO 60	DEPRESSION
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#### **REMARKS:**

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 20 °N AND IS PROVIDING POLEWARD OUT FLOW. PHAILIN IS TRACKING ALONG THE SOUTHERN PERIPHERY OF THE SUB-TROPICAL RIDGE LYING IN THE NORTHEAST SECTOR. THE SEA SURFACE TEMPERATURE IS ABOUT 28-29°C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND IS ABOUT 5-10 KNOTS (LOW). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 48 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP NEAR GOPALPUR BY EVENING OF 12<sup>TH</sup> OCTOBER.. CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(Charan Singh)

TOO:2030 HRS IST



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 'PHAILIN' ADVISORY NO. EIGHTEEN ISSUED AT 1800 UTC OF 11<sup>TH</sup> OCTOBER 2013 BASED ON 1500 UTC CHARTS of 11th OCTOBER 2013.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER WESTCENTRAL AND ADJOINING EASTCENTRAL BAY OF BENGAL MOVED WEST-NORTHWESTWARDS AND LAY CENTRED AT 1500 UTC OF  $11^{\text{TH}}$  OCTOBER 2013 OVER WESTCENTRAL AND ADJOINING EASTCENTRAL BAY OF BENGAL NEAR LATITUDE  $16.9^{\circ}$ N AND LONGITUDE  $87.2^{\circ}$ E, ABOUT 380 KM SOUTH-SOUTHEAST OF PARADIP (42976), 360 KM SOUTHEAST OF GOPALPUR (43049), AND 360 KM EAST-SOUTHEAST OF KALINGAPATNAM (43105). IT WOULD MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COASTS BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (ODISHA) BY EVENING OF  $12^{\text{TH}}$  OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 210-220 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 6.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EASTCENTRAL BAY AND ADJOINING AREAS BETWEEN LAT  $14.0^{\circ}$ N TO  $18.0^{\circ}$ N AND LONG  $85.5^{\circ}$ E TO  $89.0^{\circ}$ E. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT  $-84^{\circ}$ C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 15 km. EYE TEMP  $-31^{\circ}$ C.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 105 KNOTS GUSTING TO 120 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 938 HPA.

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

	Position	Sustained maximum surface	Category
Date/Time(UTC)	(Lat. <sup>0</sup> N/ Long. <sup>0</sup> E)	wind speed (kmph)	·
11-10-2013/1500	16.9/87.2	210-220 gusting to 235	Very Severe Cyclonic Storm
11-10-2013/1800	17.3/87.0	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/0000	18.1/86.2	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/0600	18.6/85.5	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/1200	19.2/85.0	210-220 gusting to 235	Very Severe Cyclonic Storm
13-10-2013/0000	19.8/84.4	90-100 gusting to 110	Severe Cyclonic Storm
13-10-2013/1200	20.5/84.0	50-60 gusting to 70	Deep Depression
14.10.2013/0000	21.5/83.7	40-50 gusting to 60	Depression

# **REMARKS:**

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 20 °N AND IS PROVIDING POLEWARD OUT FLOW. PHAILIN IS TRACKING ALONG THE SOUTHERN PERIPHERY OF THE SUB-TROPICAL RIDGE LYING IN THE NORTHEAST SECTOR. THE SEA SURFACE TEMPERATURE IS ABOUT 29-31°C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE VERTICAL WIND

SHEAR OF HORIZONTAL WIND IS ABOUT 5-10 KNOTS (LOW). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 36 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP NEAR GOPALPUR BY EVENING OF  $12^{\rm TH}$  OCTOBER. CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(Charan Singh)

TOO:2330 HRS IST



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 'PHAILIN' ADVISORY NO. NINETEEN ISSUED AT 2100 UTC OF 11<sup>TH</sup> OCTOBER 2013 BASED ON 1800 UTC CHARTS of 11th OCTOBER 2013.

THE VERY SEVERE CYCLONIC STORM **PHAILIN**' OVER WESTCENTRAL AND ADJOINING EASTCENTRAL BAY OF BENGAL MOVED WEST-NORTHWESTWARDS DURING PAST 6 HOURS WITH THE SPEED ABOUT 07 KTS AND LAY CENTRED AT 1800 UTC OF 11<sup>TH</sup> OCTOBER 2013 OVER WESTCENTRAL AND ADJOINING EASTCENTRAL BAY OF BENGAL NEAR LATITUDE 16.9° N AND LONGITUDE 87.0° E, ABOUT 375 KM SOUTH-SOUTHEAST OF PARADIP, 345 KM SOUTHEAST OF GOPALPUR, AND 340 KM EAST-SOUTHEAST OF KALINGAPATNAM. IT WOULD MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COASTS BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (ODISHA) BY EVENING OF TODAY, THE 12<sup>TH</sup> OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 210-220 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 6.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EASTCENTRAL BAY AND ADJOINING AREAS BETWEEN LAT  $14.0^{\circ}$ N TO  $18.0^{\circ}$ N AND LONG  $85.0^{\circ}$ E TO  $89.0^{\circ}$ E. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT  $-84^{\circ}$ C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 15 KM. EYE TEMP  $-31^{\circ}$ C.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 105 KNOTS GUSTING TO 120 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 938 HPA.

ESTIMATED 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)	Sustained maximum surface wind speed (kmph)	Category
11-10-2013/1800	, ,	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/0000	17.5/86.3	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/0600	18.3/85.6	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/1200	19.1/84.9	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/1800	19.8/84.5	100-110 gusting to 120	Severe Cyclonic Storm
13-10-2013/0600	20.5/84.1	50-60 gusting to 70	Deep Depression
13.10.2013/1800	21.5/83.7	40-50 gusting to 60	Depression

#### **REMARKS:**

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 20°N AND IS PROVIDING POLEWARD OUT FLOW. PHAILIN IS TRACKING ALONG THE SOUTHERN PERIPHERY OF THE SUB-TROPICAL RIDGE LYING IN THE NORTHEAST SECTOR. THE SEA SURFACE TEMPERATURE IS ABOUT 29-31°C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE VERTICAL WIND

SHEAR OF HORIZONTAL WIND IS ABOUT 5-10 KNOTS (LOW). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 36 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP NEAR GOPALPUR BY EVENING OF TODAY THE  $12^{\text{TH}}$  OCTOBER. CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(Charan Singh)

TOO:0230 HRS IST



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 'PHAILIN' ADVISORY NO. TWENTY ISSUED AT 0000 UTC OF 12<sup>TH</sup> OCTOBER 2013 BASED ON 2100 UTC CHARTS of 11th OCTOBER 2013.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER WESTCENTRAL AND ADJOINING EASTCENTRAL BAY OF BENGAL MOVED NORTHWESTWARDS DURING PAST 6 HOURS AND LAY CENTRED AT 2100 UTC OF 11<sup>TH</sup> OCTOBER 2013 OVER WESTCENTRAL AND ADJOINING EASTCENTRAL BAY OF BENGAL NEAR LATITUDE 17.1° N AND LONGITUDE 86.8° E, ABOUT 355 KM SOUTH-SOUTHEAST OF PARADIP (42976), 320 KM SOUTHEAST OF GOPALPUR (43049), AND 315 KM EAST-SOUTHEAST OF KALINGAPATNAM (43105). IT WOULD MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COASTS BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (ODISHA) BY EVENING OF TODAY I.E. THE 12<sup>TH</sup> OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 210-220 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 6.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EASTCENTRAL BAY AND ADJOINING AREAS BETWEEN LAT  $13.0^{\circ}$ N TO  $20.0^{\circ}$ N AND LONG  $83.0^{\circ}$ E TO  $89.0^{\circ}$ E. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT  $-84^{\circ}$ C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 15 KM. EYE TEMP  $-28^{\circ}$ C.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 105 KNOTS GUSTING TO 120 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 936 HPA.

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

		Sustained maximum surface	Category
Date/Time(UTC)	(Lat. <sup>0</sup> N/ Long. <sup>0</sup> E)	wind speed (kmph)	·
11-10-2013/2100	17.1/86.8	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/0000	17.4/86.4	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/0600	18.3/85.5	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/1200	19.1/84.9	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/1800	19.8/84.5	100-110 gusting to 120	Severe Cyclonic Storm
13-10-2013/0600	20.5/84.1	50-60 gusting to 70	Deep Depression
13.10.2013/1800	21.5/83.7	40-50 gusting to 60	Depression

#### **REMARKS:**

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 20°N AND IS PROVIDING POLEWARD OUT FLOW. PHAILIN IS TRACKING ALONG THE SOUTHERN PERIPHERY OF THE SUB-TROPICAL RIDGE LYING IN THE NORTHEAST SECTOR. THE SEA SURFACE TEMPERATURE IS ABOUT 29-31°C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE VERTICAL WIND

SHEAR OF HORIZONTAL WIND IS ABOUT 5-10 KNOTS (LOW). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 36 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP NEAR GOPALPUR BY EVENING OF TODAY THE 12<sup>TH</sup> OCTOBER. CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(Charan Singh)

**TOO:0545 HRS IST** 



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 'PHAILIN' ADVISORY NO. TWENTY ONE ISSUED AT 0300 UTC OF 12<sup>TH</sup> OCTOBER 2013 BASED ON 0000 UTC CHARTS of 12th OCTOBER 2013.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER WESTCENTRAL AND ADJOINING EASTCENTRAL BAY OF BENGAL MOVED NORTHWESTWARDS DURING PAST 6 HOURS AND LAY CENTRED AT 2100 UTC OF 11<sup>TH</sup> OCTOBER 2013 OVER WESTCENTRAL AND ADJOINING EASTCENTRAL BAY OF BENGAL NEAR LATITUDE 17.1° N AND LONGITUDE 86.8° E, ABOUT 355 KM SOUTH-SOUTHEAST OF PARADIP (42976), 320 KM SOUTHEAST OF GOPALPUR (43049), AND 315 KM EAST-SOUTHEAST OF KALINGAPATNAM (43105). IT WOULD MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COASTS BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (ODISHA) BY EVENING OF TODAY I.E. THE 12<sup>TH</sup> OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 210-220 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 6.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EASTCENTRAL BAY AND ADJOINING AREAS BETWEEN LAT  $13.0^{\circ}$ N TO  $20.0^{\circ}$ N AND LONG  $83.0^{\circ}$ E TO  $89.0^{\circ}$ E. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT  $-84^{\circ}$ C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 15 KM. EYE TEMP  $-28^{\circ}$ C.

DWR VISAKHAPANAM IS TRACKING THE SYSTEMAND REPORTED CENTRE AS LATITUDE  $17.6^{\circ}$ N AND  $86.2^{\circ}$ E AT 0100 utc WITH A CLOSED AND WELL DEFINED EYE. GOPALPUR (43049) HAS REPORTED LOWEST MEAN SEA LEVEL OF 934 HPA,

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 105 KNOTS GUSTING TO 120 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 936 HPA.

### ESTIMATED 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)	Sustained maximum surface wind speed (kmph)	Category
11-10-2013/2100		210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/0000	17.4/86.4	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/0600	18.3/85.5	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/1200	19.1/84.9	210-220 gusting to 235	Very Severe Cyclonic Storm
12-10-2013/1800	19.8/84.5	100-110 gusting to 120	Severe Cyclonic Storm
13-10-2013/0600	20.5/84.1	50-60 gusting to 70	Deep Depression
13.10.2013/1800	21.5/83.7	40-50 gusting to 60	Depression

#### **REMARKS:**

THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 20°N AND IS PROVIDING POLEWARD OUT FLOW. PHAILIN IS TRACKING ALONG THE SOUTHERN PERIPHERY OF THE SUB-TROPICAL RIDGE LYING IN THE NORTHEAST SECTOR. THE SEA SURFACE TEMPERATURE IS ABOUT 29-31°C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND IS ABOUT 5-10 KNOTS (LOW). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 36 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP NEAR GOPALPUR BY EVENING OF TODAY THE 12<sup>TH</sup> OCTOBER. CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(Charan Singh)

**TOO:0545 HRS IST** 



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 '**PHAILIN**' ADVISORY NO. TWENTY TWO ISSUED AT 0600 UTC OF 12<sup>TH</sup> OCTOBER 2013 BASED ON 0300 UTC CHARTS of 12th OCTOBER 2013.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER WESTCENTRAL & ADJOINING NORTHWEST BAY OF BENGAL MOVED NORTHWESTWARDS DURING PAST 6 HOURS WITH A SPEED OF 15 KMPH AND LAY CENTRED AT 0830 HRS IST OF TODAY, THE  $12^{\text{TH}}$  OCTOBER 2013 OVER WESTCENTRAL & ADJOINING NORTHWEST BAY OF BENGAL NEAR LATITUDE 17.8° N AND LONGITUDE 86.0° E, ABOUT 200 KM SOUTHEAST OF GOPALPUR, 200 KM EAST-SOUTHEAST OF KALINGAPATNAM (43105) AND 280 KM SOUTHEAST OF PARADIP (42976). IT WOULD MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COASTS BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (43049) (ODISHA) BY EVENING OF TODAY I.E. THE  $12^{\text{TH}}$  OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 210-220 KMPH GUSTING TO 240 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 6.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EASTCENTRAL BAY AND ADJOINING AREAS BETWEEN LAT  $14.5^{\circ}$  N TO  $20.5^{\circ}$  N AND WEST OF LONG  $89.0^{\circ}$  E. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -84 $^{\circ}$ C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 20 KM. EYE TEMP IS -18 $^{\circ}$ C. CONVECTION IS ORGANISED FURTHER DURING PAST SIX HOURS.

DWR VISAKHAPATNAM IS TRACKING THE SYSTEM AND REPORTED CENTRE AS LATITUDE 17.9 N and 85.8 e at 0418 UTC with a closed and well defined eye. Gopalpur (43049) has reported lowest mean sea level of 991.5 hpa with maximum 24 hours pressure fall of 11.9 hpa, maximum wind speed of 30 knots from Eastsoutheast direction has been reported over paradip.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 105 KNOTS GUSTING TO 120 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 936 HPA.

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

Date/Time(UTC)	Position	Sustained maximum surface	Category
	(Lat. <sup>0</sup> N/ Long. <sup>0</sup> E)	wind speed (kmph)	
12-10-2013/0300	17.8/86.0	210-220 gusting to 240	Very Severe Cyclonic Storm
12-10-2013/0600	18.3/85.5	210-220 gusting to 240	Very Severe Cyclonic Storm
12-10-2013/1200	19.1/84.9	210-220 gusting to 240	Very Severe Cyclonic Storm
12-10-2013/1800	19.8/84.5	170-180 gusting to 200	Very Severe Cyclonic Storm
13-10-2013/0000	20.5/83.9	80-90 gusting to 100	Severe Cyclonic Storm
13-10-2013/1200	21.0/84.1	50-60 gusting to 70	Deep Depression
14.10.2013/0000	22.0/83.5	40-50 gusting to 60	Depression

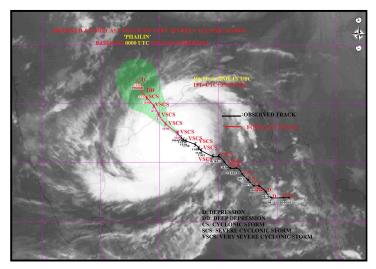
# **REMARKS:**

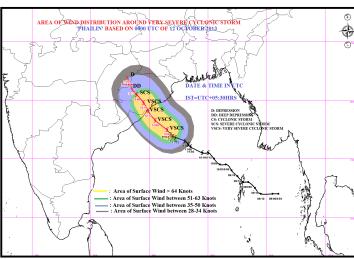
THE UPPER TROPOSPHERIC RIDGE RUNS ALONG 20°N AND IS PROVIDING POLEWARD OUT FLOW. PHAILIN IS TRACKING ALONG THE SOUTHERN PERIPHERY OF THE SUB-TROPICAL RIDGE LYING IN THE NORTHEAST SECTOR. THE SEA SURFACE TEMPERATURE IS ABOUT 29-31°C AND OCEAN THERMAL ENERGY IS ABOUT 80-100 KJ/CM SQUARE. THE VERTICAL WIND SHEAR OF HORIZONTAL WIND IS ABOUT 5-10 KNOTS (LOW). THE MADDEN JULLIAN OSCILLATION (MJO) INDEX IS IN PHASE 6 WITH AMPLITUDE GREATER THAN 1. NWP MODELS SUGGEST THAT MJO WOULD CONTINUE IN PHASE 6 DURING NEXT 3 DAYS.

MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 36 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST AND ITS LIKELY LANDFALL BETWEEN KALINGAPATNAM AND PARADIP NEAR GOPALPUR BY EVENING OF TODAY THE 12<sup>TH</sup> OCTOBER. CURRENT FORECAST IS BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(KAMALJIT RAY)

TOO:1140 HRS IST







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 'PHAILIN' ADVISORY NO. TWENTY THREE ISSUED AT 0900 UTC OF 12<sup>TH</sup> OCTOBER 2013 BASED ON 0600 UTC CHARTS of 12th OCTOBER 2013.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER WESTCENTRAL & ADJOINING NORTHWEST BAY OF BENGAL MOVED NORTHWESTWARDS DURING PAST 6 HOURS WITH A SPEED OF 15 KMPH AND LAY CENTRED AT 0600 UTC OF TODAY, THE 12<sup>TH</sup> OCTOBER 2013 OVER WESTCENTRAL & ADJOINING NORTHWEST BAY OF BENGAL NEAR LATITUDE 18.1° N AND LONGITUDE 85.7° E, ABOUT 150 KM SOUTHEAST OF GOPALPUR, 160 KM EAST-SOUTHEAST OF KALINGAPATNAM (43105) AND 260 KM SOUTHEAST OF PARADIP (42976). IT WOULD MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COASTS BETWEEN KALINGAPATNAM AND PARADIP, CLOSE TO GOPALPUR (43049) (ODISHA) BY EVENING OF TODAY I.E. THE 12<sup>TH</sup> OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 210-220 KMPH GUSTING TO 240 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 6.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EASTCENTRAL BAY AND ADJOINING AREAS BETWEEN LAT  $10.0^{\circ}$  N TO  $20.5^{\circ}$  N AND WEST OF LONG  $89.0^{\circ}$  E ALONG ODISHA AND NORTH COASTAL AP. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT  $-79^{\circ}$ C. THE SYSTEM IS EYE PATTERN. EYE IS CIRCULAR WITH DIAMETER OF ABOUT 20 KM. EYE TEMP IS  $-22^{\circ}$ C.

DWR VISAKHAPATNAM IS TRACKING THE SYSTEM AND REPORTED CENTRE AS LATITUDE  $18.1\,^{\circ}$ N AND  $85.7^{\circ}$ E AT  $0640\,$  UTC WITH A CLOSED AND WELL DEFINED EYE. GOPALPUR (43049) HAS REPORTED MAXIMUM 24 HOURS PRESSURE FALL OF 15.0 HPA, MAXIMUM WIND SPEED OF 30 KNOTS FROM EASTNORTHEAST DIRECTION HAS BEEN REPORTED OVER GOPALPUR.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 105 KNOTS GUSTING TO 120 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 936 HPA.

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

Date/Time(UTC)		Sustained maximum surface	Category
	(Lat. <sup>o</sup> N/ Long. <sup>o</sup> E)	wind speed (kmph)	
12-10-2013/0600	18.1/85.7	210-220 gusting to 240	Very Severe Cyclonic Storm
12-10-2013/1200	18.9/84.9	210-220 gusting to 240	Very Severe Cyclonic Storm
12-10-2013/1800	19.4/84.5	170-180 gusting to 200	Very Severe Cyclonic Storm
13-10-2013/0000	20.5/84.1	80-90 gusting to 100	Severe Cyclonic Storm
13-10-2013/0600	21.0/83.8	50-60 gusting to 70	Deep Depression
13-10.2013/1800	22.0/83.4	40-50 gusting to 60	Depression

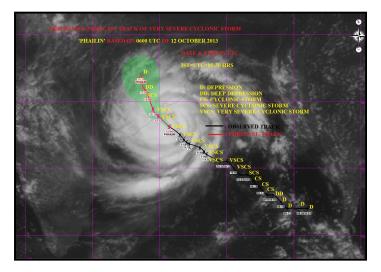
# **REMARKS:**

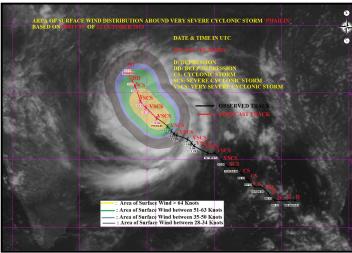
MOST OF THE NWP MODELS SUGGEST NORTHWESTWARD MOVEMENT DURING NEXT 12 HRS TOWARDS NORTH ANDHRA PRADESH AND ODISHA COAST AND ITS LIKELY LANDFALL NEAR GOPALPUR BY EVENING OF TODAY THE  $12^{\text{TH}}$  OCTOBER. CURRENT FORECAST IS

BASED ON CONSENSUS NWP AND DYNAMICAL STATISTICAL GUIDANCE AND SYNOPTIC ANALYSIS.

(KAMALJIT RAY)

TOO:1400 HRS IST







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 'PHAILIN' ADVISORY NO. TWENTY FOUR ISSUED AT 1200 UTC OF  $12^{TH}$  OCTOBER 2013 BASED ON 0900 UTC CHARTS of 12th OCTOBER 2013.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER WESTCENTRAL & ADJOINING NORTHWEST BAY OF BENGAL MOVED NORTH-NORTHWESTWARDS DURING PAST 3 HOURS WITH A SPEED OF 20 KMPH AND LAY CENTRED AT 1430 HRS IST OF TODAY, THE  $12^{\mathrm{TH}}$  OCTOBER 2013 OVER WESTCENTRAL & ADJOINING NORTHWEST BAY OF BENGAL NEAR LATITUDE  $18.6^{\circ}$  N AND LONGITUDE  $85.4^{\circ}$  E, ABOUT 90 KM SOUTHEAST OF GOPALPUR (43049). IT WOULD MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COASTS CLOSE TO GOPALPUR (ODISHA) DURING 12-14 HRS.UTC OF TODAY I.E. THE  $12^{\mathrm{TH}}$  OCTOBER, 2013 AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 210-220 KMPH GUSTING TO 240 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 6.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN OVER EASTCENTRAL BAY AND ADJOINING AREAS BETWEEN LAT  $12.5^{\circ}$  N TO  $21.0^{\circ}$  N AND WEST OF LONG  $90.0^{\circ}$  E ALONG ODISHA AND NORTH COASTAL AP. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -74°C. EYE TEMP IS -51°C.

DWR VISAKHAPATNAM IS TRACKING THE SYSTEM AND REPORTED CENTRE AS LATITUDE  $18.6~^\circ$ N AND  $85.4^\circ$ E AT 0900~UTC WITH A CLOSED AND WELL DEFINED EYE. GOPALPUR (43049) HAS REPORTED MAXIMUM 24 HOURS PRESSURE FALL OF 20.0 HPA, MAXIMUM WIND SPEED OF 70 KNOTS FROM EASTNORTHEAST DIRECTION HAS BEEN REPORTED OVER GOPALPUR.

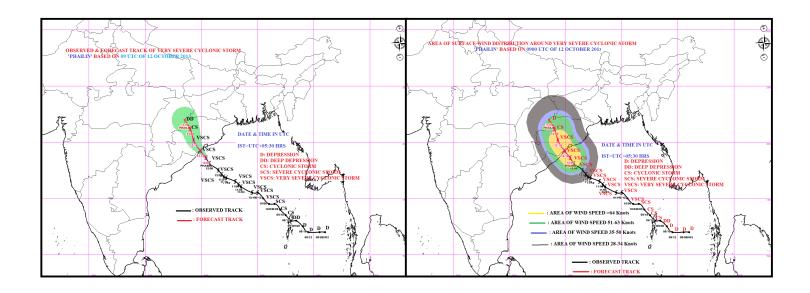
MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 105 KNOTS GUSTING TO 120 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 936 HPA.

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

Date/Time(UTC)		Sustained maximum surface	Category
	(Lat. <sup>0</sup> N/ Long. <sup>0</sup> E)	wind speed (kmph)	
12-10-2013/0900	18.6/85.4	210-220 gusting to 240	Very Severe Cyclonic Storm
12-10-2013/1200	19.2/84.9	210-220 gusting to 240	Very Severe Cyclonic Storm
12-10-2013/1800	20.2/84.3	170-180 gusting to 200	Very Severe Cyclonic Storm
13-10-2013/0000	21.2/84.0	80-90 gusting to 100	Cyclonic Storm
13-10-2013/0600	22.0/83.5	50-60 gusting to 70	Deep Depression

(KAMALJIT RAY)

TOO:1700 HRS IST





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 'PHAILIN' ADVISORY NO. TWENTY FIVE ISSUED AT 1400 UTC OF  $12^{TH}$  OCTOBER 2013 BASED ON 1200 UTC CHARTS of  $12^{TH}$  OCTOBER 2013.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER WESTCENTRAL & ADJOINING NORTHWEST BAY OF BENGAL MOVED WEST-NORTHWESTWARDS DURING PAST 3 HOURS WITH A SPEED OF 20 KMPH AND LAY CENTRED AT 1200 UTC OF TODAY, THE  $12^{\rm TH}$  OCTOBER 2013 OVER WESTCENTRAL & ADJOINING NORTHWEST BAY OF BENGAL NEAR LATITUDE  $18.7^{\rm O}$  N AND LONGITUDE  $85.2^{\rm O}$  E, ABOUT 65 KM SOUTHEAST OF GOPALPUR (43049). IT WOULD MOVE NORTHWESTWARDS AND CROSS NORTH ANDHRA PRADESH AND ODISHA COASTS CLOSE TO GOPALPUR (ODISHA) WITHIN FEW HOURS AS A VERY SEVERE CYCLONIC STORM WITH A MAXIMUM SUSTAINED WIND SPEED OF 210-220 KMPH GUSTING TO 240 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 6.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN BETWEEN LAT  $12.5^{\circ}$  N TO  $21.0^{\circ}$  N AND WEST OF LONG  $90.0^{\circ}$  E ALONG ODISHA AND NORTH COASTAL ANDHRA PRADESH. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT  $-74^{\circ}$ C.

DWR VISAKHAPATNAM IS TRACKING THE SYSTEM AND REPORTED CENTRE AS LATITUDE  $18.7\,^{\circ}$ N AND LONGITUDE  $85.2^{\circ}$ E AT  $1200\,$  UTC. GOPALPUR (43049) HAS REPORTED MAXIMUM 24 HOURS PRESSURE FALL OF 24.4 HPA, MAXIMUM WIND SPEED OF 90 KNOTS FROM EASTERLY DIRECTION HAS BEEN REPORTED OVER PURI (ODISHA).

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 105 KNOTS GUSTING TO 120 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 936 HPA.

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

Ī	DATE/TIME(UTC)	POSITION	SUSTAINED MAXIMUM	CATEGORY
		(LAT. N/ LONG. E)	SURFACE WIND SPEED (KMPH)	
	12-10-2013/1200	18.7/85.2	210-220 GUSTING TO 240	VERY SEVERE CYCLONIC STORM
	12-10-2013/1800	20.2/84.3	170-180 GUSTING TO 200	VERY SEVERE CYCLONIC STORM
ĺ	13-10-2013/0000	21.2/84.0	80-90 GUSTING TO 100	CYCLONIC STORM
	13-10-2013/0600	22.0/83.5	50-60 GUSTING TO 70	DEEP DEPRESSION

(NARESH KUMAR)

TOO:1830 HRS IST



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 'PHAILIN' ADVISORY NO. TWENTY SIX ISSUED AT 1700 UTC OF 12<sup>TH</sup> OCTOBER 2013 BASED ON 1500 UTC CHARTS of 12<sup>TH</sup> OCTOBER 2013.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER WESTCENTRAL & ADJOINING NORTHWEST BAY OF BENGAL MOVED NORTH-NORTHWESTWARDS DURING PAST 3 HOURS WITH A SPEED OF 15 KMPH AND LAY CENTRED AT 1500 UTC OF TODAY, THE 12TH OCTOBER 2013 OVER NORTHWEST ADJOINING WESTCENTRAL BAY OF BENGAL NEAR LATITUDE 19.1°N AND LONGITUDE 85.0° E, CLOSE TO GOPALPUR. LATEST OBSERVATIONS INDICATE THAT LANDFALL PROCESS HAS STARTED AND IT WILL BE COMPLETED WITHIN NEXT ONE HOUR. AT THE TIME OF LANDFALL, MAXIMUM SUSTAINED WIND SPEED WOULD BE 200-210 KMPH.

ACCORDING TO SATELLITE IMAGERIES, THE INTENSITY OF THE SYSTEM IS T 6.0. INTENSE TO VERY INTENSE CONVECTION IS SEEN NORTH OF LAT 15.0° N AND WEST OF LONG 88.0° E ALONG ODISHA AND NORTH COASTAL ANDHRA PRADESH. THE LOWEST CLOUD TOP TEMPERATURE (CTT) IS ABOUT -78°C.

DWR VISAKHAPATNAM IS TRACKING THE SYSTEM AND REPORTED CENTRE AS LATITUDE  $19.1~^{\circ}$ N AND LONGITUDE  $85.0^{\circ}$ E AT 1500~UTC. GOPALPUR (43049) HAS REPORTED MAXIMUM 24 HOURS PRESSURE FALL OF 24.4 HPA, MAXIMUM WIND SPEED OF 98 KNOTS FROM NORTHEASTERLY DIRECTION HAS BEEN REPORTED OVER GOPALPUR (ODISHA).

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 105 KNOTS GUSTING TO 120 KNOTS AROUND THE SYSTEM CENTRE. THE STATE OF THE SEA IS PHENOMENAL AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 940 HPA.

ESTIMATED 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)	SUSTAINED MAXIMUM SURFACE WIND SPEED (KMPH)	CATEGORY
İ	12-10-2013/1500	19.1/85.0	200-210 GUSTING TO 230	VERY SEVERE CYCLONIC STORM
	12-10-2013/1800	20.2/84.3	170-180 GUSTING TO 200	VERY SEVERE CYCLONIC STORM
ĺ	13-10-2013/0000	21.2/84.0	80-90 GUSTING TO 100	CYCLONIC STORM
	13-10-2013/0600	22.0/83.5	50-60 GUSTING TO 70	DEEP DEPRESSION

(NARESH KUMAR)

TOO:2130 HRS IST

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 'PHAILIN' ADVISORY NO. TWENTY SEVEN ISSUED AT 2100 UTC OF 12<sup>TH</sup> OCTOBER 2013 BASED ON 1800 UTC CHARTS of 12<sup>TH</sup> OCTOBER 2013.

THE VERY SEVERE CYCLONIC STORM, **PHAILIN** OVER NORTHWEST ADJOINING WESTCENTRAL BAY OF BENGAL MOVED NORTH-NORTHWESTWARDS DURING PAST 3 HOURS WITH A SPEED OF 15 KMPH AND CROSSED ODISHA & ADJOINING NORTH COASTAL ANDHRA PRADESH NEAR GOPALPUR BETWEEN 1500 TO 1600 UTC OF 12TH OCTOBER 2013 AND LAY CENTRED AT 1800 UTC OF 12TH OCTOBER 2013 NEAR LATITUDE 19.5° N AND LONGITUDE 84.8° E, 25 KM NORTHWEST OF GOPALPUR OVER SOUTH COASTAL ODISHA. THE SYSTEM WOULD MOVE IN NORTH-NORTHWESTWARDS AND WEAKEN GRADUALLY.

MAXIMUM SUSTAINED SURFACE WIND SPEED IS ESTIMATED TO BE ABOUT 105 KNOTS GUSTING TO 120 KNOTS AROUND THE SYSTEM CENTRE. THE ESTIMATED CENTRAL PRESSURE IS ABOUT 940 HPA.

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

DATE/TIME(UTC)		USTAINED MAXIMUM SURFAC	CATEGORY
	(LAT. <sup>0</sup> N/ LONG. <sup>0</sup> E)	WIND SPEED (KMPH)	
12-10-2013/1800	19.5/84.8	200-210 GUSTING TO 230	VERY SEVERE CYCLONIC STORM
13-10-2013/0000	20.5/84.1	80-90 GUSTING TO 100	CYCLONIC STORM
13-10-2013/0600	21.5/83.5	50-60 GUSTING TO 70	DEEP DEPRESSION
13-10-2013/1200	22.5/83.0	40-50 GUSTING TO 60	DEPRESSION
13-10-2013/1800	23.5/82.5	35-45 GUSTING TO 55	DEPRESSION

This is the last bulletin for this system.

(NARESH KUMAR)

TOO:0200 HRS IST