

NATIONAL TRANSPORTATION SAFETY BOARD
Office of Aviation Safety
Washington D.C. 20594

Meteorological Factual Report
DCA08FM002

A. ACCIDENT

Location: Ambrose Light Tower, New York
Date: November 3, 2007
Time: 0540 Coordinated Universal Time (UTC)
Vessel: Tank Vessel Axel Spirit

B. WEATHER GROUP

A Weather Group was not established.

C. SUMMARY

At 0540 UTC (0140 Eastern Daylight Time) on November 3, 2007, the 800-foot tank vessel Axel Spirit, Bahamas flag, carrying a cargo of 441,000 barrels of crude oil, struck the Ambrose Light Tower at the entry to the port of New York/New Jersey. All three legs and the central column of Ambrose Light were damaged, causing the light tower to lean. Preliminary reports indicate that the structure was damaged beyond repair and will need to be replaced. The Axel Spirit suffered a 60-ft crease in the starboard side above the waterline and hull damage at the turn of the bilge. No injuries or release of cargo was reported. The vessel proceeded to Perth Amboy, New Jersey, to offload cargo.

D. DETAILS OF INVESTIGATION

Note: All times are stated as UTC based on the 24-hour clock unless otherwise noted. All heights above mean sea level (MSL) unless otherwise noted. All directions are referenced to true north unless otherwise noted. Z = Coordinated Universal Time. Eastern Daylight Time = Z - 4 hours.

McIDAS - Man computer Interactive Data Access System. McIDAS is an interactive meteorological analysis and data management computer system. McIDAS is administered by personnel at the Space Science and Engineering Center at the University of Wisconsin at Madison. Data are accessed and reviewed on a Windows XP Pro Workstation running McIDAS-X software.

Surface Weather Observations

John F. Kennedy International Airport (KJFK)
KJFK is located at 008 degrees at 11.3 nautical miles from Ambrose Light.

0451Z ... Cloudy skies; visibility 10 miles; temperature 48 degrees F; dew point 33 degrees F; relative humidity 56%; winds 050 degrees at 16 miles per hour (mph) with gusts to 25 mph.

0551Z ... Cloudy skies; visibility 10 miles; temperature 48 degrees F; dew point 35 degrees F; relative humidity 61%; winds 040 degrees at 15 mph.

Data for Ambrose Light, New York.

STATION ID Five-digit WMO [Station Identifier](#) used since 1976. ID's can be reassigned to future deployments within the same 1 degree square.

DATE In UTC (formerly called Greenwich Mean Time - GMT)

TIME In UTC for data files/display. Station pages show current observations in station local time by default, but can be changed by the viewer to UTC. See the Acquisition Time [help topic](#) for a more detailed description of observation times.

Data are classified according to the following groups. Any data field that contains "9 filled" represents missing data for that observation hour. (Example: 999.0 99.0)

Standard Meteorological Data

WDIR Wind direction (the direction the wind is coming from in degrees clockwise from true N) during the same period used for WSPD. See [Wind Averaging Methods](#)

WSPD Wind speed (m/s) averaged over an eight-minute period for buoys and a two-minute period for land stations. Reported Hourly. See [Wind Averaging Methods](#).

GST Peak 5 or 8 second gust speed (m/s) measured during the eight-minute or two-minute period. The 5 or 8 second period can be determined by payload, See the [Sensor Reporting, Sampling, and Accuracy](#) section.

WVHT Significant wave height (meters) is calculated as the average of the highest one-third of all of the wave heights during the 20-minute sampling period. See the [Wave Measurements](#) section.

DPD Dominant wave period (seconds) is the period with the maximum wave energy. See the [Wave Measurements](#) section.

APD Average wave period (seconds) of all waves during the 20-minute period. See the [Wave Measurements](#) section.

MWD Mean wave direction corresponding to energy of the dominant period (DPD). The units are degrees from true North just like wind direction. See the [Wave Measurements](#) section.

- PRES Sea level pressure (hPa). For C-MAN sites and Great Lakes buoys, the recorded pressure is reduced to sea level using the method described in *NWS Technical Procedures Bulletin 291* (11/14/80).
- ATMP Air temperature (Celsius). For sensor heights on buoys, see [Hull Descriptions](#). For sensor heights at C-MAN stations, see [C-MAN Sensor Locations](#)
- WTMP Sea surface temperature (Celsius). For sensor depth, see [Hull Description](#).
- DEWP Dewpoint temperature taken at the same height as the air temperature measurement.
- VIS Station visibility (statute miles). Note that buoy stations are limited to reports from 0 to 1.9 miles.
- PTDY Pressure Tendency is the direction (plus or minus) and the amount of pressure change (hPa) for a three hour period ending at the time of observation.
- TIDE The water level in feet above or below [Mean Lower Low Water \(MLLW\)](#).

#YY	MM	DD	hh	mm	WDIR	WSPD	GST	WVHT	DPD	APD	MWD	PRES	ATMP	WTMP	DEWP	VIS	PTDY	TIDE
#yr	mo	dy	hr	mn	degt	m/s	m/s	m	sec	sec	deg	hPa	degC	degC	degC	m	hPa	ft
2007	11	03	12	00	10	14.9	16.5	MM	MM	MM	MM	MM	8.6	15.7	4.6	MM	MM	MM
2007	11	03	11	00	10	15.4	18.0	MM	MM	MM	MM	MM	8.3	15.7	4.5	MM	MM	MM
2007	11	03	10	00	10	14.4	16.5	MM	MM	MM	MM	MM	8.5	15.8	5.4	MM	MM	MM
2007	11	03	09	00	20	13.9	16.0	MM	MM	MM	MM	MM	9.2	15.8	5.7	MM	MM	MM
2007	11	03	08	00	30	13.4	16.0	MM	MM	MM	MM	MM	9.0	15.7	5.3	MM	MM	MM
2007	11	03	07	00	30	11.8	12.4	MM	MM	MM	MM	MM	9.3	15.7	5.9	MM	MM	MM
2007	11	03	06	00	40	12.9	14.4	MM	MM	MM	MM	MM	9.3	15.8	5.2	MM	MM	MM
2007	11	03	05	00	50	13.4	14.9	MM	MM	MM	MM	MM	9.3	15.9	4.3	MM	MM	MM
2007	11	03	04	00	50	12.4	13.9	MM	MM	MM	MM	MM	9.7	15.8	4.0	MM	MM	MM
2007	11	03	03	00	50	13.9	14.9	MM	MM	MM	MM	MM	10.2	15.7	3.3	MM	MM	MM
2007	11	03	02	00	60	12.9	13.9	MM	MM	MM	MM	MM	10.8	15.7	3.1	MM	MM	MM
2007	11	03	01	00	60	12.4	13.9	MM	MM	MM	MM	MM	11.1	15.8	4.9	MM	MM	MM
2007	11	03	00	00	60	12.4	12.9	MM	MM	MM	MM	MM	11.1	15.9	4.9	MM	MM	MM
2007	11	02	23	00	60	10.8	11.3	MM	MM	MM	MM	MM	11.1	15.9	4.0	MM	MM	MM
2007	11	02	22	00	40	9.3	10.3	MM	MM	MM	MM	MM	11.3	15.9	4.9	MM	MM	MM
2007	11	02	21	00	50	9.8	11.3	MM	MM	MM	MM	MM	11.2	16.0	4.6	MM	MM	MM
2007	11	02	20	00	60	8.2	9.3	MM	MM	MM	MM	MM	11.2	16.0	3.1	MM	MM	MM
2007	11	02	19	00	50	6.7	7.7	MM	MM	MM	MM	MM	11.0	16.0	1.4	MM	MM	MM
2007	11	02	18	00	30	6.7	7.7	MM	MM	MM	MM	MM	10.9	15.9	1.7	MM	MM	MM
2007	11	02	17	00	70	8.8	9.8	MM	MM	MM	MM	MM	10.9	15.9	1.4	MM	MM	MM
2007	11	02	16	00	50	7.7	8.8	MM	MM	MM	MM	MM	10.6	15.8	2.8	MM	MM	MM
2007	11	02	15	00	40	10.8	12.4	MM	MM	MM	MM	MM	9.9	15.8	2.5	MM	MM	MM
2007	11	02	14	00	40	10.3	11.3	MM	MM	MM	MM	MM	9.2	15.7	2.2	MM	MM	MM
2007	11	02	13	00	30	10.8	12.4	MM	MM	MM	MM	MM	8.6	15.6	2.4	MM	MM	MM
2007	11	02	12	00	10	11.3	12.9	MM	MM	MM	MM	MM	8.6	15.6	2.0	MM	MM	MM

Data from www.ndbc.noaa.gov

National Hurricane Center Advisories

ZCZC MIATCPAT1 ALL
 TTAA00 KNHC DDHHMM
 BULLETIN
 HURRICANE NOEL ADVISORY NUMBER 25
 NWS TPC/NATIONAL HURRICANE CENTER MIAMI FL AL162007
 500 PM EDT FRI NOV 02 2007

...NOEL BECOMING A STRONG EXTRATROPICAL CYCLONE...

A GALE WARNING REMAINS IN EFFECT FOR BERMUDA.

INTERESTS ALONG THE U. S. EAST COAST FROM NORTH CAROLINA NORTHWARD SHOULD CONSULT STATEMENTS AND WARNINGS ISSUED BY THEIR LOCAL NWS

FORECAST OFFICE. INTERESTS IN THE CANADIAN MARITIMES SHOULD CONSULT PRODUCTS ISSUED BY THE CANADIAN HURRICANE CENTER OF ENVIRONMENT CANADA.

FOR STORM INFORMATION SPECIFIC TO YOUR AREA...INCLUDING POSSIBLE INLAND WATCHES AND WARNINGS...PLEASE MONITOR PRODUCTS ISSUED BY YOUR LOCAL WEATHER OFFICE.

AT 500 PM EDT...2100Z...THE CENTER OF HURRICANE NOEL WAS LOCATED NEAR LATITUDE 31.4 NORTH...LONGITUDE 72.4 WEST OR ABOUT 450 MILES... 725 KM...WEST OF BERMUDA AND ABOUT 320 MILES...510 KM... SOUTHEAST OF CAPE HATTERAS NORTH CAROLINA.

NOEL IS MOVING TOWARD THE NORTHEAST NEAR 20 MPH...32 KM/HR...AND IT IS EXPECTED TO ACCELERATE TOWARD THE NORTH-NORTHEAST DURING THE NEXT 24 HOURS.

MAXIMUM SUSTAINED WINDS ARE NEAR 80 MPH...130 KM/HR...WITH HIGHER GUSTS. NOEL IS TRANSITIONING TO A STRONG EXTRATROPICAL CYCLONE. LITTLE CHANGE IN STRENGTH IS FORECAST DURING THE NEXT 24 HOURS.

HURRICANE FORCE WINDS EXTEND OUTWARD UP TO 70 MILES...110 KM...FROM THE CENTER...AND TROPICAL STORM FORCE WINDS EXTEND OUTWARD UP TO 345 MILES...555 KM. THE CYCLONE IS EXPECTED TO INCREASE IN SIZE DURING THE NEXT 24 HOURS.

THE MINIMUM CENTRAL PRESSURE ESTIMATED FROM RECONNAISSANCE DATA WAS 980 MB...28.94 INCHES.

NOEL IS EXPECTED TO PRODUCE RAINFALL AMOUNTS OF 2 TO 4 INCHES...WITH ISOLATED MAXIMUM TOTALS TO 6 INCHES ACROSS EASTERN NEW ENGLAND.

REPEATING THE 500 PM EDT POSITION...31.4 N...72.4 W. MOVEMENT TOWARD...NORTHEAST NEAR 20 MPH. MAXIMUM SUSTAINED WINDS...80 MPH. MINIMUM CENTRAL PRESSURE...980 MB.

THIS IS THE LAST PUBLIC ADVISORY ISSUED BY THE NATIONAL HURRICANE CENTER ON THIS SYSTEM.

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FORECASTER LANDSEA/FRANKLIN

ZCZC MIATCMAT1 ALL
TTAA00 KNHC DDHHMM CCA
HURRICANE NOEL FORECAST/ADVISORY NUMBER 25..CORRECTED
NWS TPC/NATIONAL HURRICANE CENTER MIAMI FL AL162007
2100 UTC FRI NOV 02 2007

...CORRECTED TO INDICATE THAT THIS IS THE LAST ADVISORY...

A GALE WARNING REMAINS IN EFFECT FOR BERMUDA.

INTERESTS ALONG THE U. S. EAST COAST FROM NORTH CAROLINA NORTHWARD SHOULD CONSULT STATEMENTS AND WARNINGS ISSUED BY THEIR LOCAL NWS

FORECAST OFFICE. INTERESTS IN THE CANADIAN MARITIMES SHOULD CONSULT PRODUCTS ISSUED BY THE CANADIAN HURRICANE CENTER OF ENVIRONMENT CANADA.

HURRICANE CENTER LOCATED NEAR 31.4N 72.4W AT 02/2100Z
POSITION ACCURATE WITHIN 30 NM

PRESENT MOVEMENT TOWARD THE NORTHEAST OR 40 DEGREES AT 17 KT

ESTIMATED MINIMUM CENTRAL PRESSURE 980 MB
MAX SUSTAINED WINDS 70 KT WITH GUSTS TO 85 KT.
64 KT..... 0NE 0SE 30SW 60NW.
50 KT..... 75NE 90SE 60SW 90NW.
34 KT.....210NE 300SE 90SW 150NW.
12 FT SEAS..540NE 420SE 300SW 420NW.
WINDS AND SEAS VARY GREATLY IN EACH QUADRANT. RADII IN NAUTICAL MILES ARE THE LARGEST RADII EXPECTED ANYWHERE IN THAT QUADRANT.

REPEAT...CENTER LOCATED NEAR 31.4N 72.4W AT 02/2100Z
AT 02/1800Z CENTER WAS LOCATED NEAR 30.3N 73.3W

FORECAST VALID 03/0600Z 34.5N 71.4W...EXTRATROPICAL
MAX WIND 70 KT...GUSTS 85 KT.
64 KT... 60NE 60SE 60SW 60NW.
50 KT...150NE 240SE 180SW 180NW.
34 KT...300NE 420SE 240SW 240NW.

FORECAST VALID 03/1800Z 39.4N 69.3W...EXTRATROPICAL
MAX WIND 75 KT...GUSTS 90 KT.
64 KT... 60NE 60SE 60SW 60NW.
50 KT...240NE 360SE 180SW 180NW.
34 KT...420NE 480SE 300SW 300NW.

FORECAST VALID 04/0600Z 44.7N 65.7W...EXTRATROPICAL
MAX WIND 80 KT...GUSTS 100 KT.
64 KT... 60NE 60SE 60SW 60NW.
50 KT...300NE 300SE 240SW 180NW.
34 KT...480NE 540SE 420SW 240NW.

FORECAST VALID 04/1800Z 50.6N 61.1W...EXTRATROPICAL
MAX WIND 65 KT...GUSTS 80 KT.
50 KT...300NE 240SE 240SW 0NW.
34 KT...480NE 540SE 480SW 180NW.

FORECAST VALID 05/1800Z 61.0N 52.0W...EXTRATROPICAL
MAX WIND 60 KT...GUSTS 75 KT.
50 KT...120NE 240SE 180SW 240NW.
34 KT...240NE 360SE 300SW 360NW.

EXTENDED OUTLOOK. NOTE...ERRORS FOR TRACK HAVE AVERAGED NEAR 225 NM ON DAY 4 AND 300 NM ON DAY 5...AND FOR INTENSITY NEAR 20 KT EACH DAY

OUTLOOK VALID 06/1800Z 68.0N 46.0W...EXTRATROPICAL
MAX WIND 30 KT...GUSTS 40 KT.

OUTLOOK VALID 07/1800Z...DISSIPATED

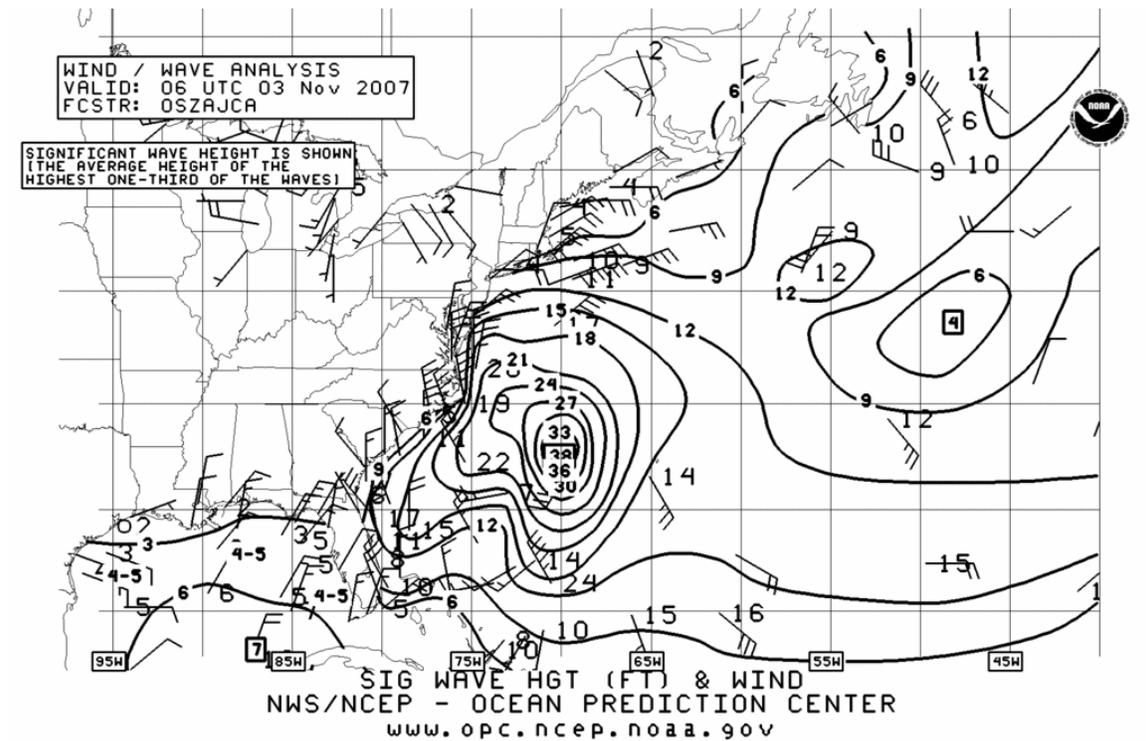
REQUEST FOR 3 HOURLY SHIP REPORTS WITHIN 300 MILES OF 31.4N 72.4W

THIS IS THE LAST FORECAST/ADVISORY ISSUED BY THE NATIONAL HURRICANE CENTER ON THIS SYSTEM.

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FORECASTER LANDSEA/FRANKLIN

Wind and Wave Analysis



Forecasts issued by the National Weather Service Mount Holly, New Jersey.

COASTAL WATERS FORECAST...UPDATED
NATIONAL WEATHER SERVICE MOUNT HOLLY NJ
751 PM EDT FRI NOV 2 2007
SANDY HOOK NJ TO FENWICK ISLAND DE TO 20 NM OFFSHORE AND DELAWARE BAY
ANZ400-031330-

751 PM EDT FRI NOV 2 2007

.SYNOPSIS FOR THE COASTAL WATERS FROM SANDY HOOK NJ TO FENWICK ISLAND DE AND FOR DELAWARE BAY...

A STRONG EXTRATROPICAL STORM WHICH WAS ONCE NOEL WILL MOVE NORTH NORTHEAST UP THE ATLANTIC COAST TONIGHT... REACHING A POSITION ABOUT 250 NAUTICAL MILES EAST OF DELMARVA EARLY SATURDAY MORNING...AND CONTINUING TO NOVA SCOTIA SATURDAY NIGHT. ONCE THE STORM HAS MOVED OFF TO THE NORTHEAST, HIGH PRESSURE WILL PUSH IN FROM THE WEST SUNDAY INTO MONDAY. A COLD FRONT IS THEN EXPECTED TO CROSS THE REGION MONDAY NIGHT OR EARLY TUESDAY...FOLLOWED BY HIGH PRESSURE ON WEDNESDAY.

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ANZ450-451-031330-

/O.CON.KPHI.SR.W.0002.000000T0000Z-071103T1800Z/

COASTAL WATERS FROM SANDY HOOK TO MANASQUAN INLET NJ OUT 20 NM-
COASTAL WATERS FROM MANASQUAN INLET TO LITTLE EGG INLET NJ OUT 20 NM-
751 PM EDT FRI NOV 2 2007

...STORM WARNING REMAINS IN EFFECT THROUGH SATURDAY AFTERNOON...

.TONIGHT...NE WINDS 25 TO 30 KT...INCREASING TO 30 TO 35 WITH GUSTS TO 45 KT LATE. SEAS 8 TO 12 FT. A CHANCE OF RAIN.

.SAT...N WINDS 30 TO 40 KT WITH GUSTS UP TO 55 KT. SEAS 10 TO 15 FT. A CHANCE OF RAIN IN THE MORNING.

.SAT NIGHT...NW WINDS 25 TO 30 KT WITH GUSTS UP TO 40 KT...
DECREASING TO 15 TO 20 KT WITH GUSTS UP TO 30 KT AFTER MIDNIGHT.
SEAS 7 TO 10 FT...SUBSIDING TO 5 TO 8 FT AFTER MIDNIGHT.

COASTAL WATERS FORECAST

NATIONAL WEATHER SERVICE MOUNT HOLLY NJ

410 PM EDT FRI NOV 2 2007

SANDY HOOK NJ TO FENWICK ISLAND DE TO 20 NM OFFSHORE AND DELAWARE BAY

ANZ400-031015-

410 PM EDT FRI NOV 2 2007

.SYNOPSIS FOR THE COASTAL WATERS FROM SANDY HOOK NJ TO FENWICK ISLAND DE AND FOR DELAWARE BAY...

NOEL WILL MOVE NORTH NORTHEAST UP THE ATLANTIC COAST TONIGHT... REACHING A POSITION ABOUT 250 NAUTICAL MILES EAST OF DELMARVA EARLY SATURDAY MORNING...AND CONTINUING TO NOVA SCOTIA SATURDAY NIGHT. MARINERS EXPECTING TO VENTURE OUT TO SEA TONIGHT THROUGH SATURDAY SHOULD KEEP UP TO DATE WITH THE LATEST NATIONAL HURRICANE CENTER ADVISORIES ON NOEL. ONCE NOEL HAS MOVED OFF TO THE NORTHEAST, HIGH PRESSURE WILL PUSH IN FROM THE WEST SUNDAY INTO MONDAY. A COLD FRONT IS THEN EXPECTED TO CROSS THE REGION MONDAY NIGHT OR EARLY TUESDAY...FOLLOWED BY HIGH PRESSURE ON WEDNESDAY.

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ANZ450-451-031015-

/O.CON.KPHI.SR.W.0002.000000T0000Z-071103T1800Z/

COASTAL WATERS FROM SANDY HOOK TO MANASQUAN INLET NJ OUT 20 NM-
COASTAL WATERS FROM MANASQUAN INLET TO LITTLE EGG INLET NJ OUT 20 NM-
410 PM EDT FRI NOV 2 2007

...STORM WARNING REMAINS IN EFFECT THROUGH SATURDAY AFTERNOON...

.TONIGHT...NE WINDS 25 TO 30 KT...INCREASING TO 30 TO 35 KT WITH GUSTS TO 50KT LATE. SEAS 8 TO 11 FT. A CHANCE OF RAIN AFTER MIDNIGHT.

.SAT...N WINDS 30 TO 40 KT WITH GUSTS UP TO 60 KT. SEAS 8 TO 13

FT. A CHANCE OF RAIN IN THE MORNING.
.SAT NIGHT...NW WINDS 25 TO 30 KT WITH GUSTS UP TO 40 KT...
DIMINISHING TO 15 TO 20 KT WITH GUSTS UP TO 30 KT AFTER MIDNIGHT.
SEAS 7 TO 10 FT...SUBSIDING TO 5 TO 8 FT AFTER MIDNIGHT.

Forecasts issued by National Weather Service Upton, New York.

COASTAL WATERS FORECAST...UPDATED
NATIONAL WEATHER SERVICE UPTON NY
1232 AM EDT SAT NOV 3 2007
MONTAUK POINT NEW YORK TO SANDY HOOK NEW JERSEY OUT 20 NM OFFSHORE
INCLUDING LONG ISLAND SOUND...LONG ISLAND BAYS AND NEW YORK HARBOR
ANZ300-031630-

1232 AM EDT SAT NOV 3 2007
.SYNOPSIS FOR LONG ISLAND WATERS AND NEW YORK HARBOR...
THE POWERFUL EXTRATROPICAL REMNANTS OF NOEL...LOCATED ABOUT 250 NM
SE OF CAPE HATTERAS...WILL TRACK TO THE NORTH-NORTHEAST AT AROUND
25 KT OVER THE OPEN ATLANTIC WATERS. THE STORM IS FORECAST TO BE
ABOUT 150 NM EAST OF MONTAUK SATURDAY AFTERNOON...AND NEAR NOVA
SCOTIA BEFORE DAWN ON SUNDAY. STRONG WINDS AND HIGH SEAS CAN BE
EXPECTED...AND STORM AND GALE WARNINGS HAVE BEEN POSTED. HIGH PRES
RETURNS WITH SEAS SUBSIDING SUNDAY AND MONDAY. A COLD FRONT THEN
APPROACHES THE AREA TUESDAY.

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ANZ350-353-031630-
/O.CON.KOKX.SR.W.0002.071103T0900Z-071104T0100Z/
MORICHES INLET NY TO MONTAUK POINT NY OUT 20 NM-
FIRE ISLAND INLET NY TO MORICHES INLET NY OUT 20 NM-
1232 AM EDT SAT NOV 3 2007

...STORM WARNING REMAINS IN EFFECT FROM 5 AM EDT EARLY THIS MORNING
THROUGH THIS EVENING...

.OVERNIGHT...NE WINDS 25 TO 30 KT...INCREASING TO 30 TO 40 KT WITH
GUSTS UP TO 50 KT LATE. SEAS 8 TO 11 FT. RAIN LATE. VSBY 1 TO 3 NM
LATE.

.SAT...N WINDS 30 TO 40 KT WITH GUSTS UP TO 60 KT. SEAS 9 TO 14
FT. RAIN IN THE MORNING...THEN A CHANCE OF RAIN IN THE AFTERNOON.
VSBY 1 TO 3 NM.

.SAT NIGHT...NW WINDS 25 TO 35 KT WITH GUSTS UP TO 50 KT...
DIMINISHING TO 20 TO 25 KT WITH GUSTS UP TO 35 KT AFTER MIDNIGHT.
SEAS 8 TO 11 FT...SUBSIDING TO 5 TO 8 FT AFTER MIDNIGHT.

ANZ355-031630-
/O.CON.KOKX.SR.W.0002.071103T0900Z-071103T2200Z/
SANDY HOOK NJ TO FIRE ISLAND INLET NY OUT 20 NM-
1232 AM EDT SAT NOV 3 2007

...STORM WARNING REMAINS IN EFFECT FROM 5 AM EDT EARLY THIS MORNING
THROUGH THIS AFTERNOON...

.OVERNIGHT...NE WINDS 25 TO 35 KT. GUSTS UP TO 50 KT LATE. SEAS 7 TO 10
FT. A CHANCE OF RAIN LATE. VSBY 1 TO 3 NM LATE.

.SAT...N WINDS 30 TO 40 KT WITH GUSTS UP TO 50 KT. SEAS 8 TO 11 FT.
A CHANCE OF RAIN. VSBY 1 TO 3 NM IN THE MORNING.

.SAT NIGHT...NW WINDS 25 TO 30 KT WITH GUSTS UP TO 45 KT...
DIMINISHING TO 15 TO 20 KT WITH GUSTS UP TO 30 KT AFTER MIDNIGHT.
SEAS 5 TO 8 FT...SUBSIDING TO 4 TO 6 FT AFTER MIDNIGHT.

ANZ338-031630-
/O.CON.KOKX.GL.W.0025.071103T0600Z-071104T0400Z/
NEW YORK HARBOR-
1232 AM EDT SAT NOV 3 2007
...GALE WARNING REMAINS IN EFFECT THROUGH THIS EVENING...
.OVERNIGHT...NE WINDS 15 TO 20 KT...BECOMING N 20 TO 25 KT
LATE. GUSTS UP TO 35 KT. WAVES 2 TO 4 FT. A CHANCE OF RAIN LATE.
.SAT...N WINDS 25 TO 30 KT...BECOMING NW 20 TO 25 KT IN THE
AFTERNOON. WAVES 2 TO 4 FT. A CHANCE OF RAIN IN THE MORNING.
.SAT NIGHT...NW WINDS 20 TO 25 KT...DIMINISHING TO 10 TO 15 KT AFTER
MIDNIGHT. GUSTS UP TO 35 KT. WAVES 2 TO 4 FT.

COASTAL WATERS FORECAST
NATIONAL WEATHER SERVICE UPTON NY
438 PM EDT FRI NOV 2 2007
MONTAUK POINT NEW YORK TO SANDY HOOK NEW JERSEY OUT 20 NM OFFSHORE
INCLUDING LONG ISLAND SOUND...LONG ISLAND BAYS AND NEW YORK HARBOR
ANZ300-030815-
438 PM EDT FRI NOV 2 2007
.SYNOPSIS FOR LONG ISLAND WATERS AND NEW YORK HARBOR...
HURRICANE NOEL...LOCATED ABOUT 270 NM SE OF CAPE HATTERAS...WILL
BECOME EXTRATROPICAL OVERNIGHT AND TRACK TO THE NE AT AROUND 25 KT
OVER THE OPEN ATLANTIC WATERS. THE STORM SHOULD BE ABOUT 150 NM
EAST OF MONTAUK SATURDAY AFTERNOON...AND NEAR NOVA SCOTIA BEFORE
DAWN ON SUNDAY. STRONG WINDS AND HIGH SEAS CAN BE EXPECTED...AND
STORM AND GALE WARNINGS HAVE BEEN POSTED. HIGH PRES RETURNS WITH
SEAS SUBSIDING SUNDAY AND MONDAY. A COLD FRONT THEN APPROACHES THE
AREA TUESDAY.

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ANZ350-353-030815-
/O.CAN.KOKX.SC.Y.0070.000000T0000Z-071102T2200Z/
/O.EXT.KOKX.SR.W.0002.071103T0900Z-071104T0100Z/
MORICHES INLET NY TO MONTAUK POINT NY OUT 20 NM-
FIRE ISLAND INLET NY TO MORICHES INLET NY OUT 20 NM-
438 PM EDT FRI NOV 2 2007
...STORM WARNING NOW IN EFFECT FROM LATE TONIGHT THROUGH SATURDAY
EVENING...
.TONIGHT...NE WINDS 25 TO 30 KT WITH GUSTS UP TO 40 KT...INCREASING
TO 30 TO 40 KT WITH GUSTS UP TO 50 KT LATE. SEAS 8 TO 11 FT. RAIN
AFTER MIDNIGHT. VSBY 1 TO 3 NM AFTER MIDNIGHT.
.SAT...N WINDS 35 TO 45 KT WITH GUSTS UP TO 55 KT. SEAS 9 TO 14 FT.
RAIN IN THE MORNING...THEN A CHANCE OF RAIN IN THE AFTERNOON. VSBY
1 TO 3 NM.
.SAT NIGHT...NW WINDS 25 TO 35 KT WITH GUSTS UP TO 50 KT...
DIMINISHING TO 20 TO 25 KT WITH GUSTS UP TO 35 KT AFTER MIDNIGHT.
SEAS 8 TO 11 FT...SUBSIDING TO 5 TO 8 FT AFTER MIDNIGHT.

ANZ355-030815-
/O.CAN.KOKX.SC.Y.0071.000000T0000Z-071102T2200Z/
/O.EXT.KOKX.SR.W.0002.071103T0900Z-071103T2200Z/
SANDY HOOK NJ TO FIRE ISLAND INLET NY OUT 20 NM-
438 PM EDT FRI NOV 2 2007
...STORM WARNING NOW IN EFFECT FROM LATE TONIGHT THROUGH SATURDAY
AFTERNOON...

.TONIGHT...NE WINDS 20 TO 25 KT WITH GUSTS UP TO 35 KT...INCREASING TO 25 TO 30 KT WITH GUSTS UP TO 45 KT AFTER MIDNIGHT. SEAS 7 TO 10 FT. A CHANCE OF RAIN AFTER MIDNIGHT. VSBY 1 TO 3 NM AFTER MIDNIGHT.

.SAT...N WINDS 30 TO 40 KT WITH GUSTS UP TO 50 KT. SEAS 8 TO 11 FT. A CHANCE OF RAIN. VSBY 1 TO 3 NM IN THE MORNING.

.SAT NIGHT...NW WINDS 25 TO 30 KT WITH GUSTS UP TO 45 KT... DIMINISHING TO 15 TO 20 KT WITH GUSTS UP TO 30 KT AFTER MIDNIGHT. SEAS 5 TO 8 FT...SUBSIDING TO 4 TO 6 FT AFTER MIDNIGHT.

ANZ338-030815-

/O.CAN.KOKX.SC.Y.0070.071102T2200Z-071103T0600Z/

/O.EXT.KOKX.GL.W.0025.071103T0600Z-071104T0400Z/

NEW YORK HARBOR-

438 PM EDT FRI NOV 2 2007

...GALE WARNING NOW IN EFFECT FROM 2 AM EDT SATURDAY THROUGH SATURDAY EVENING...

.TONIGHT...NE WINDS 15 TO 20 KT WITH GUSTS UP TO 30 KT...INCREASING TO 20 TO 25 KT WITH GUSTS UP TO 40 KT AFTER MIDNIGHT. WAVES 2 TO 4 FT. A CHANCE OF RAIN AFTER MIDNIGHT.

.SAT...N WINDS 25 TO 30 KT...BECOMING NW 20 TO 25 KT IN THE AFTERNOON. GUSTS UP TO 40 KT. WAVES 2 TO 4 FT. A CHANCE OF RAIN IN THE MORNING.

.SAT NIGHT...NW WINDS 20 TO 25 KT...DIMINISHING TO 10 TO 15 KT AFTER MIDNIGHT. GUSTS UP TO 35 KT. WAVES 2 TO 4 FT.

Marine Weather Statement issued by the National Weather Service Upton, New York.

MARINE WEATHER STATEMENT

NATIONAL WEATHER SERVICE UPTON NY

534 AM EDT FRI NOV 2 2007

ANZ335-338-022100-

/X.EXB.KOKX.MA.S.0023.071102T2200Z-071104T1000Z/

LONG ISLAND SOUND WEST OF NEW HAVEN CT/PORT JEFFERSON NY-

NEW YORK HARBOR-

534 AM EDT FRI NOV 2 2007

...INTENSIFYING EXTRATROPICAL LOW EXPECTED TO AFFECT THE WATERS FRIDAY NIGHT INTO THE WEEKEND...

HURRICANE NOEL...LOCATED ABOUT 470 NAUTICAL MILES SOUTH OF CAPE HATTERAS THIS MORNING...IS FORECAST BY THE NATIONAL HURRICANE CENTER TO LOSE TROPICAL CHARACTERISTICS THIS AFTERNOON AND BECOME EXTRATROPICAL. HOWEVER...THE STORM WILL STILL CONTINUE TO REMAIN INTENSE AND INCREASE IN SIZE AS AN EXTRATROPICAL CYCLONE...RACING NORTH-NORTHEAST OFF THE EAST COAST TONIGHT THROUGH SATURDAY NIGHT. NORTHEAST WINDS BETWEEN THE STORM AND STRONG HIGH PRESSURE BUILDING EAST ACROSS NEW ENGLAND SHOULD INCREASE TO GALE FORCE ACROSS THE WATERS LATE TONIGHT. THESE STRONG WINDS WILL CONTINUE DURING THE DAY SATURDAY.

THESE WINDS WILL LIKELY GENERATE SEAS OF AT LEAST 5 TO 8 FT ON LONG ISLAND SOUND. ROUGH WAVES WILL ALSO LIKELY BE FUNNELED INTO NEW YORK HARBOR. THE WATERS WILL LIKELY REMAIN ROUGH INTO SATURDAY NIGHT...AS WINDS GRADUALLY SUBSIDE AS THE LOW RACES INTO THE CANADIAN MARITIMES.

THERE IS STILL A BIT OF UNCERTAINTY ON THE EXACT TRACK AND STRENGTH OF THE STORM...SO PLEASE STAY TUNED FOR FURTHER UPDATES ON THIS IMPENDING STORM.

STAY TUNED TO NOAA ALL HAZARDS WEATHER RADIO OR VISIT OUR WEB SITE AT WEATHER.GOV/NYC FOR FURTHER DETAILS AND UPDATES.

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ANZ330-340-345-350-353-355-022100-

/X.EXT.KOKX.MA.S.0023.071102T2200Z-071104T1000Z/

LONG ISLAND SOUND EAST OF NEW HAVEN CT/PORT JEFFERSON NY-
PECONIC AND GARDINERS BAYS-

SOUTH SHORE BAYS FROM JONES INLET THROUGH SHINNECOCK BAY-

MORICHES INLET NY TO MONTAUK POINT NY OUT 20 NM-

FIRE ISLAND INLET NY TO MORICHES INLET NY OUT 20 NM-

SANDY HOOK NJ TO FIRE ISLAND INLET NY OUT 20 NM-

534 AM EDT FRI NOV 2 2007

...INTENSIFYING EXTRATROPICAL LOW EXPECTED TO AFFECT THE WATERS
FRIDAY NIGHT INTO THE WEEKEND...

HURRICANE NOEL...LOCATED ABOUT 470 NAUTICAL MILES SOUTH OF CAPE
HATTERAS THIS MORNING...IS FORECAST BY THE NATIONAL HURRICANE CENTER
TO LOSE TROPICAL CHARACTERISTICS THIS AFTERNOON AND BECOME
EXTRATROPICAL. HOWEVER...THE STORM WILL STILL CONTINUE TO REMAIN
INTENSE AND INCREASE IN SIZE AS AN EXTRATROPICAL CYCLONE...RACING
NORTH-NORTHEAST OFF THE EAST COAST TONIGHT THROUGH SATURDAY NIGHT.
NORTHEAST WINDS BETWEEN THE STORM AND STRONG HIGH PRESSURE
BUILDING EAST ACROSS NEW ENGLAND SHOULD INCREASE TO STORM FORCE
ACROSS THE OCEAN WATERS...EASTERN LONG ISLAND SOUND...AND PECONIC
AND GARDINERS BAY...AND TO GALE FORCE ACROSS THE SOUTH SHORE BAYS
LATE TONIGHT. THESE STRONG WINDS WILL CONTINUE DURING THE DAY
SATURDAY.

THESE WINDS WILL LIKELY GENERATE OCEAN SEAS OF 12 TO 16 FEET ON
SATURDAY...POSSIBLY HIGHER. EVEN SEAS ON LONG ISLAND SOUND COULD
BUILD TO AT LEAST 5 TO 8 FT. SEAS WOULD LIKELY REMAIN HIGH INTO
SATURDAY NIGHT AND POSSIBLY SUNDAY...AS WINDS GRADUALLY SUBSIDE AS
THE LOW RACES INTO THE CANADIAN MARITIMES. CONSEQUENTLY...CHAOTIC
CONDITIONS AROUND AREA INLETS WILL BE EXPERIENCED BY MARINERS
TONIGHT AND WELL INTO THE WEEKEND.

THERE IS STILL A BIT OF UNCERTAINTY ON THE EXACT TRACK AND
STRENGTH OF THE STORM...SO PLEASE STAY TUNED FOR FURTHER UPDATES
ON THIS IMPENDING STORM.

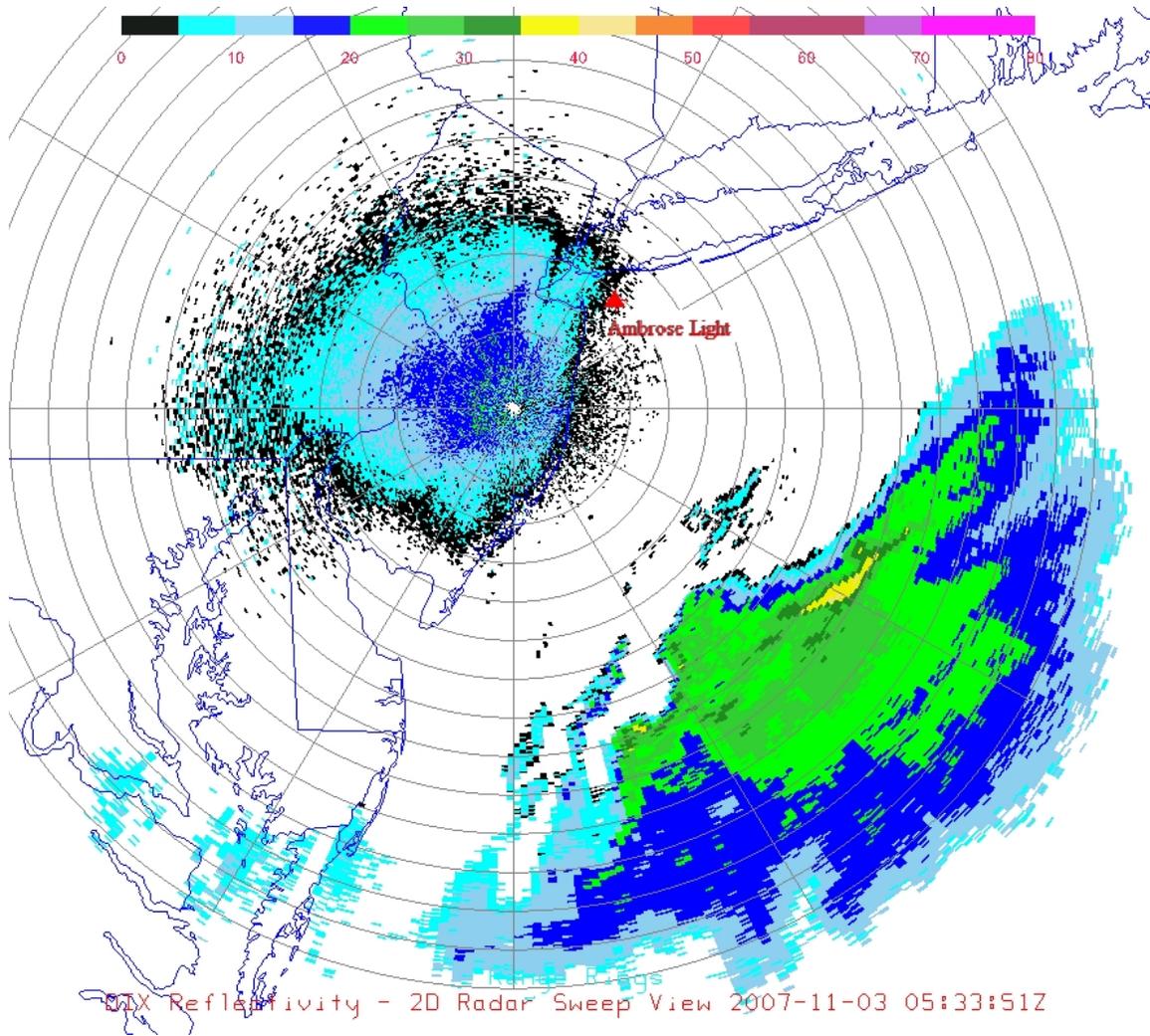
STAY TUNED TO NOAA ALL HAZARDS WEATHER RADIO OR VISIT OUR WEB
SITE AT WEATHER.GOV/NYC FOR FURTHER DETAILS AND UPDATES.

Weather Radar Data

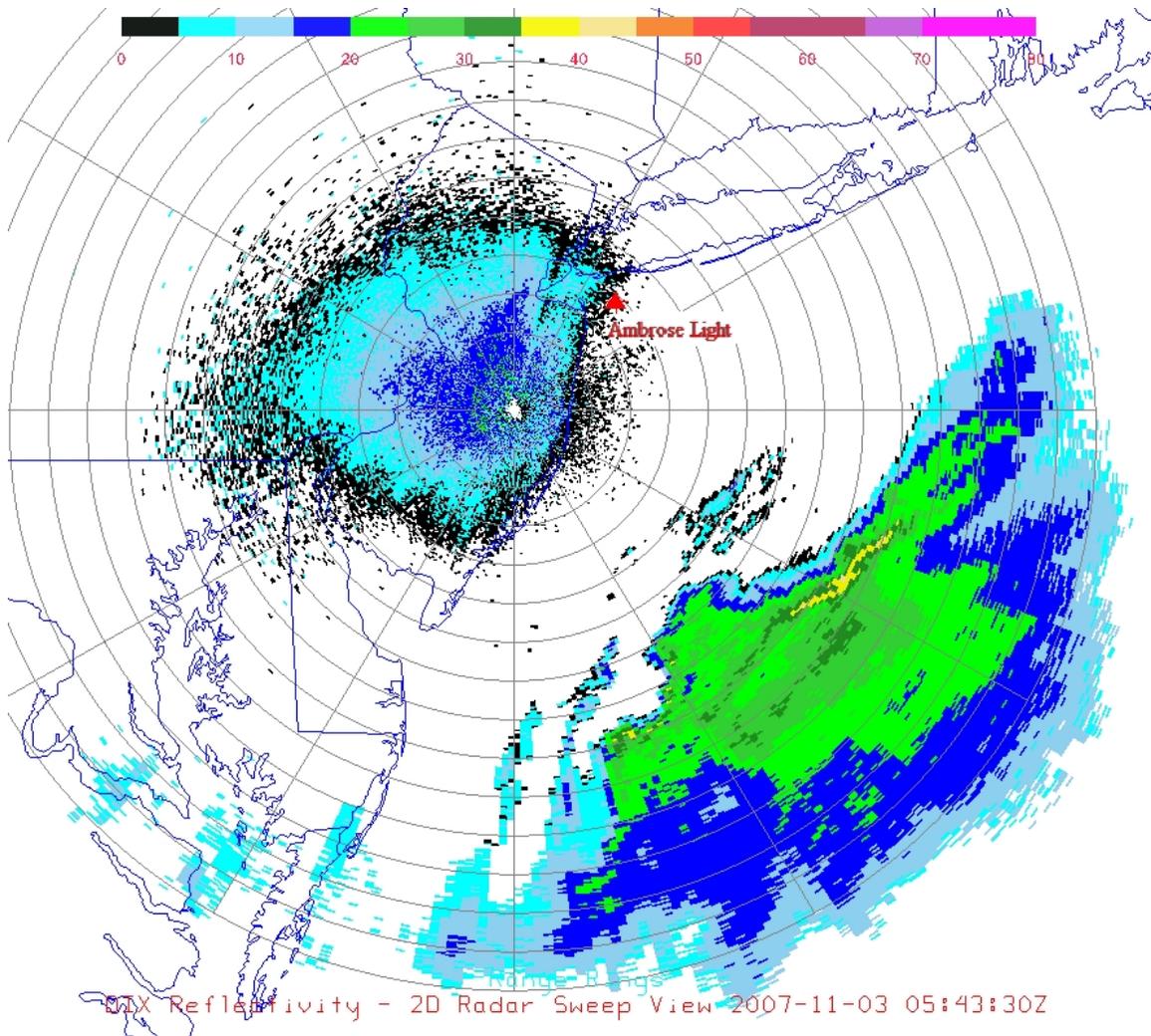
Level II Doppler weather radar data for Mount Holly, New Jersey (DIX) were reviewed using IDV**. These data were from the National Weather Service.

<http://hurricane.ncdc.noaa.gov/pls/plhas/has.dsselect>

Murray, D., J. McWhirter, S. Wier, S. Emmerson, 2003: The Integrated Data Viewer: a Web-enabled application for scientific analysis and visualization. Preprints, 19th Intl Conf. on IIPS for Meteorology, Oceanography and Hydrology.



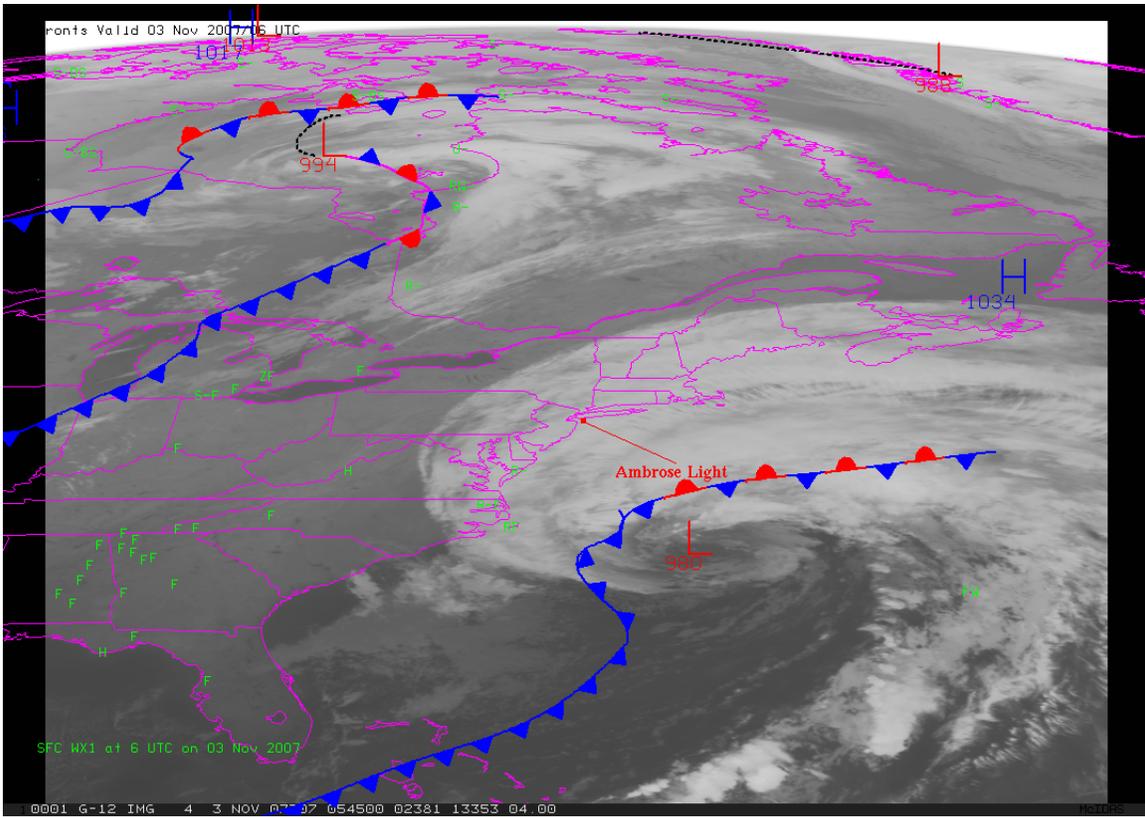
DIX Base Reflectivity Image for 0533:51Z. The elevation angle is 0.5 degree. Weather radar echo intensities are in dBZ (see the color bar at the top of the image). Range rings are every 20 kilometers. The location of Ambrose Light is noted. Weak weather radar echoes are noted in the Ambrose Light area.



DIX Base Reflectivity Image for 0543:30Z. The elevation angle is 0.5 degree. Weather radar echo intensities are in dBZ (see the color bar at the top of the image). Range rings are every 20 kilometers. The location of Ambrose Light is noted. Weak weather radar echoes are noted in the Ambrose Light area.

Satellite Data

Geostationary Operational Environmental Satellite (GOES)-12 data were reviewed using McIDAS.



GOES-12 infrared satellite image for 0545Z with weather features for 0600Z plotted. The location of Ambrose Light is noted.

Gregory D. Salottolo
 National Resource Specialist
 Meteorology
 January 8, 2008