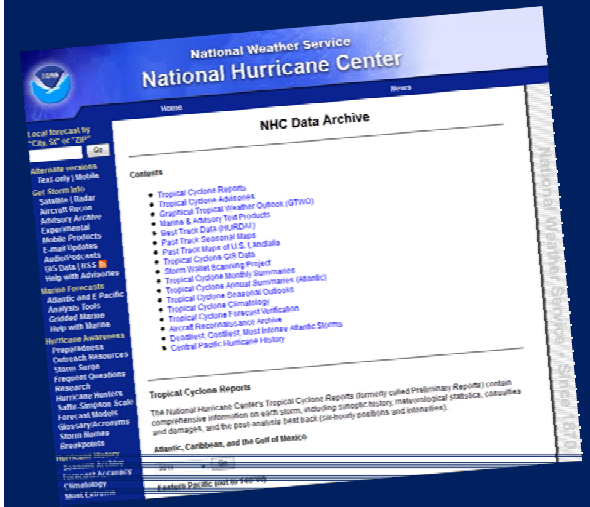
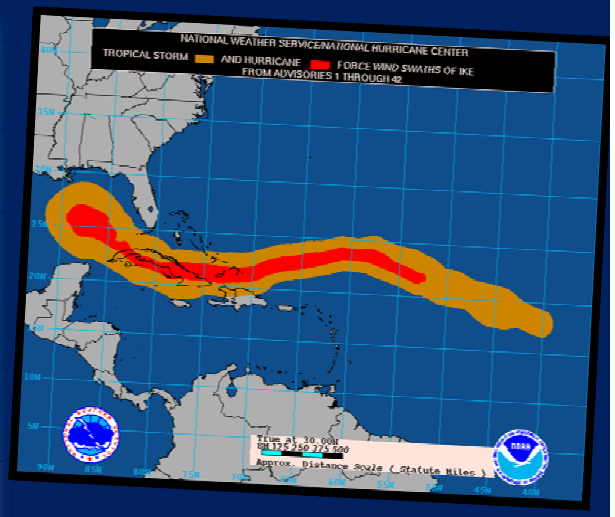
National Hurricane Center and Weather Forecast Office Products





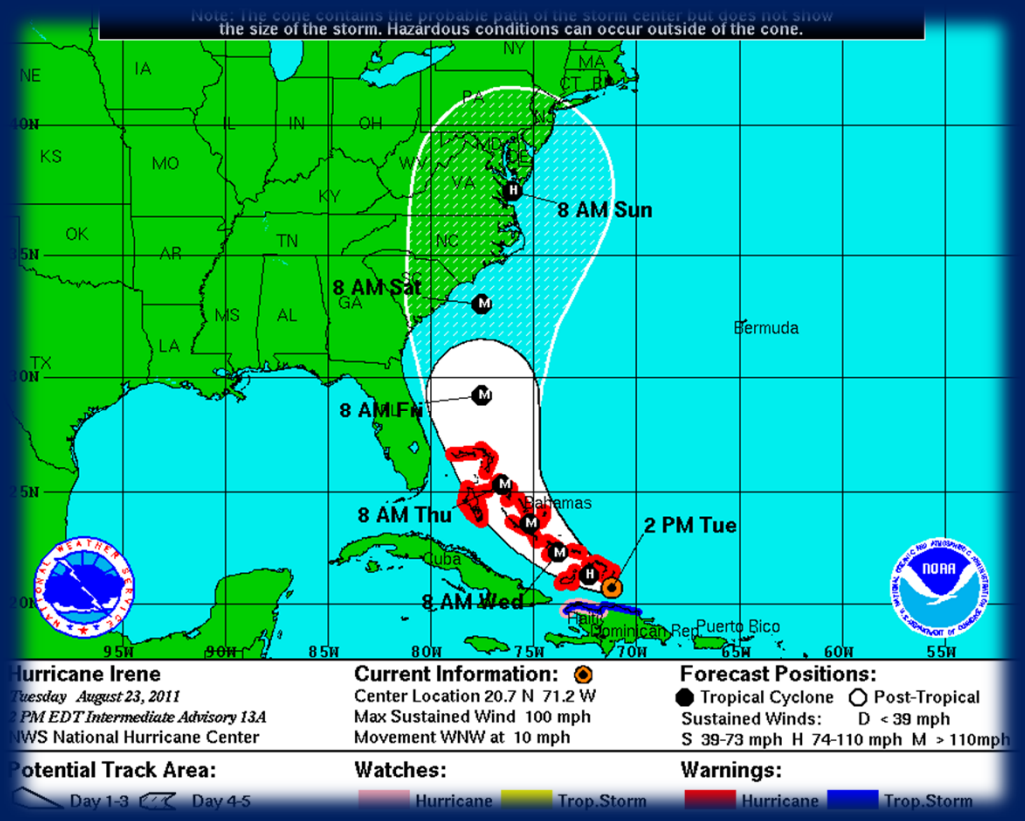
Robbie Berg

National Hurricane Center

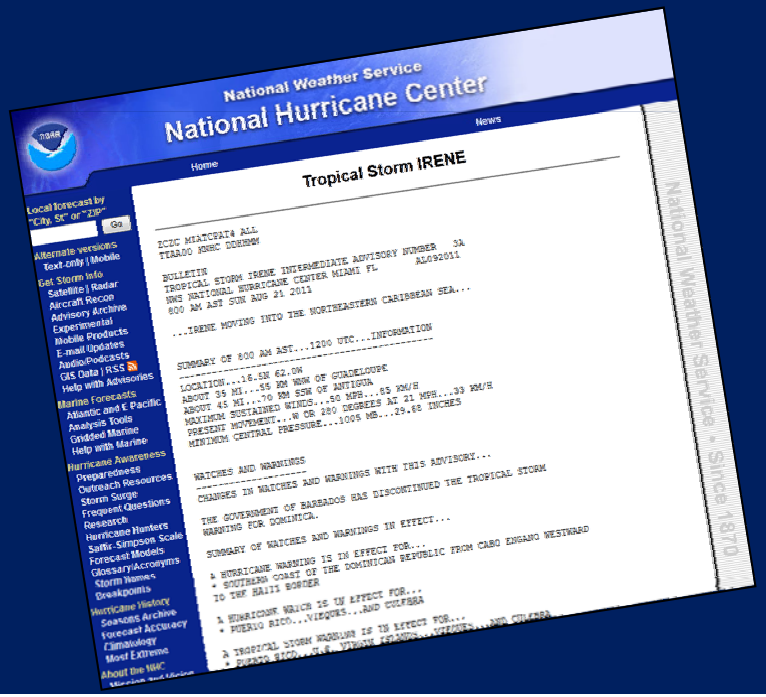
National Hurricane Conference

25 March 2013

NHC Tropical Cyclone Products



NHC provides the “big picture” that complements and guides local NWS forecast office products, and provides guidance for international partners



NHC Text Products

- Public Advisory
- Forecast Advisory
- Forecast Discussion
- Wind Speed Probabilities
- Maximum 1-min Wind Speed Probability
- Update
- Position Estimate
- Tropical Weather Outlook
- Tropical Cyclone Reports
- Seasonal Forecast (as co-author)
- Monthly Tropical Weather Summary

NHC Graphical Products

- Track Forecast Cone
- Surface Wind Field
- Surface Wind Speed Probabilities
- Cumulative Wind History
- Graphical Tropical Weather Outlook
- Storm Surge Probabilities
- Podcasts (Audio)

Tropical Weather Outlook

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000
ABNT20 KNHC 111736
TWOAT
TROPICAL WEATHER OUTLOOK
NWS TPC/NATIONAL HURRICANE CENTER MIAMI FL
200 PM EDT SAT SEP 11 2010

FOR THE NORTH ATLANTIC...CARIBBEAN SEA AND THE GULF OF MEXICO...

THE NATIONAL HURRICANE CENTER IS ISSUING ADVISORIES ON TROPICAL
STORM IGOR...LOCATED ABOUT 1030 MILES WEST OF THE CAPE VERDE
ISLANDS.

SHOWERS AND THUNDERSTORMS HAVE CHANGED LITTLE IN ASSOCIATION WITH A
BROAD AREA OF LOW PRESSURE LOCATED OVER THE EASTERN CARIBBEAN SEA.
ENVIRONMENTAL CONDITIONS APPEAR FAVORABLE FOR DEVELOPMENT...AND A
TROPICAL DEPRESSION COULD FORM AS THE SYSTEM MOVES WESTWARD INTO
THE CENTRAL AND WESTERN CARIBBEAN SEA.  THERE IS A HIGH CHANCE...60
PERCENT...OF THIS SYSTEM BECOMING A TROPICAL CYCLONE DURING THE
NEXT 48 HOURS.  REGARDLESS OF DEVELOPMENT...LOCALLY HEAVY RAINFALL
IS POSSIBLE IN THE NORTHERN LEEWARD ISLANDS...PUERTO RICO...THE
VIRGIN ISLANDS...AND HISPANIOLA DURING THE NEXT DAY OR SO.  THESE
RAINS COULD CAUSE LIFE-THREATENING FLASH FLOODS AND MUD SLIDES...
ESPECIALLY IN MOUNTAINOUS TERRAIN.

SATELLITE IMAGERY AND UPPER-AIR OBSERVATIONS INDICATE THAT THE
VIGOROUS TROPICAL WAVE AND ASSOCIATED LOW PRESSURE AREA NEAR THE
WEST COAST OF AFRICA HAVE BECOME BETTER ORGANIZED DURING THE PAST
SEVERAL HOURS.  SURFACE PRESSURES ARE QUITE LOW...AND A TROPICAL
DEPRESSION COULD FORM OVER THE NEXT COUPLE OF DAYS AS THIS SYSTEM
MOVES TOWARD THE WEST OR WEST-NORTHWEST AT 10 TO 15 MPH.  THERE IS
A MEDIUM CHANCE...50 PERCENT...OF THIS SYSTEM BECOMING A TROPICAL
CYCLONE DURING THE NEXT 48 HOURS.

ELSEWHERE...TROPICAL CYCLONE FORMATION IS NOT EXPECTED DURING THE
NEXT 48 HOURS.

$$
FORECASTER BLAKE/BRENNAN
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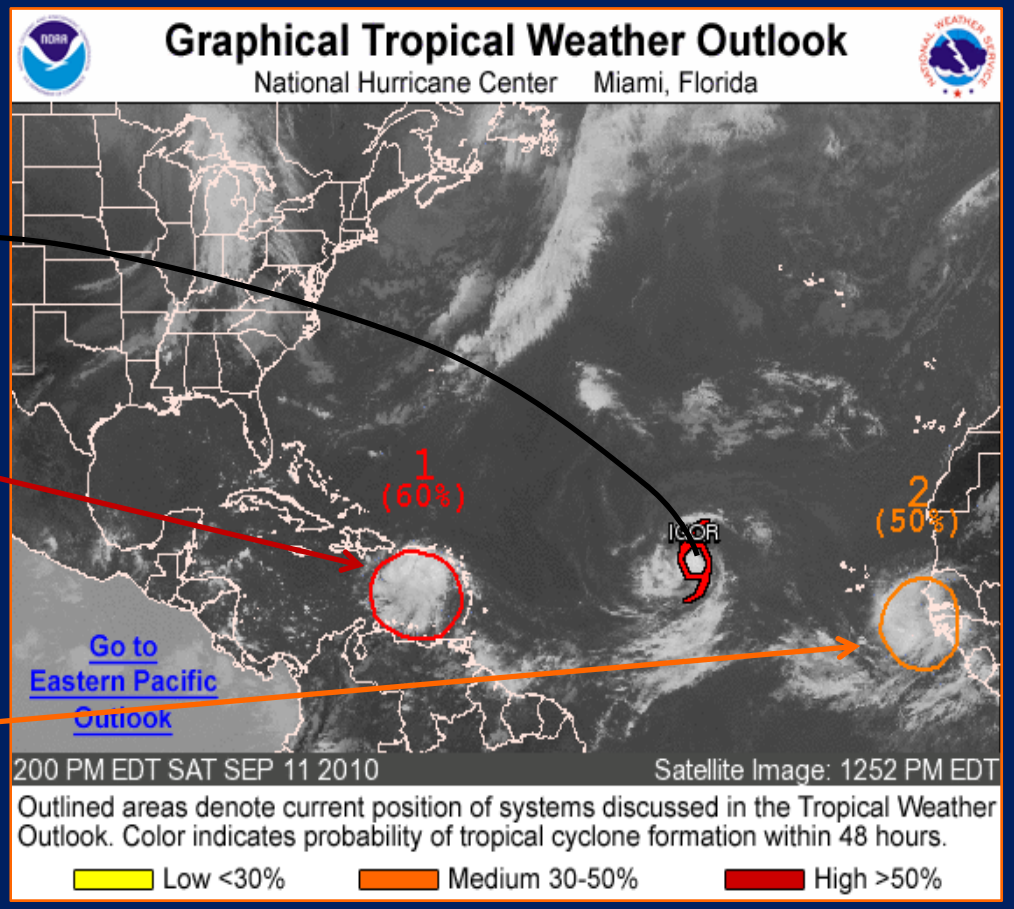


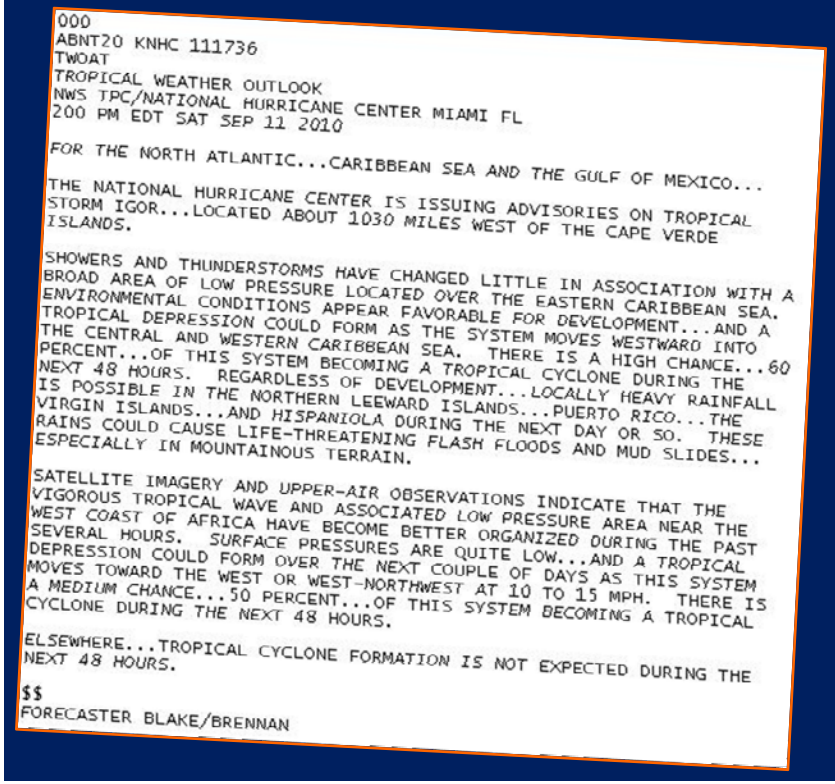
Text

Graphic

Tropical Weather Outlook

- General assessment of activity in the tropics, pertaining to tropical cyclone formation

- Discusses areas of disturbed weather and their potential for formation (into a tropical cyclone) during the next 48 hours



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ABNT20 KNHC 111736
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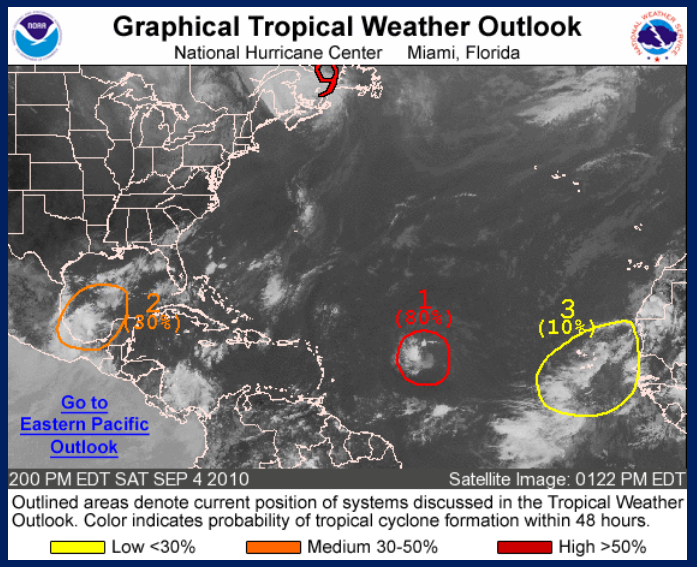
ELSEWHERE...TROPICAL CYCLONE FORMATION IS NOT EXPECTED DURING THE NEXT 48 HOURS.

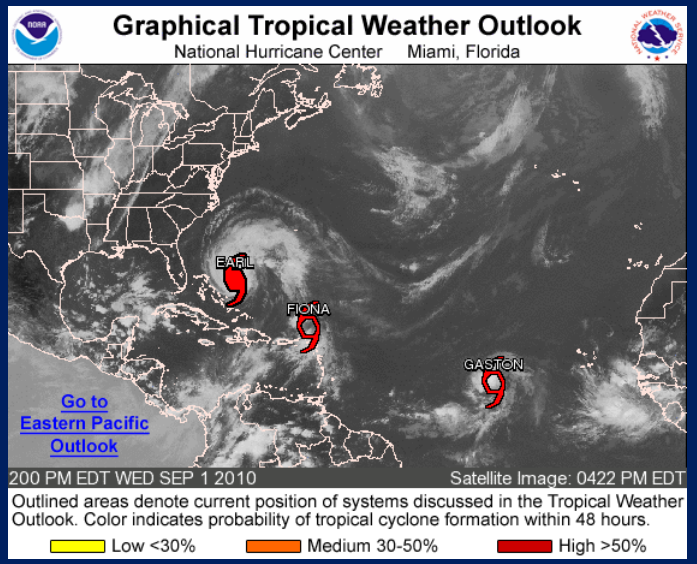
$$
FORECASTER BLAKE/BRENNAN

Issued at 2 AM, 8 AM, 2 PM, 8 PM EDT
During EST issuance times become-
1 AM, 7 AM, 1 PM, 7 PM

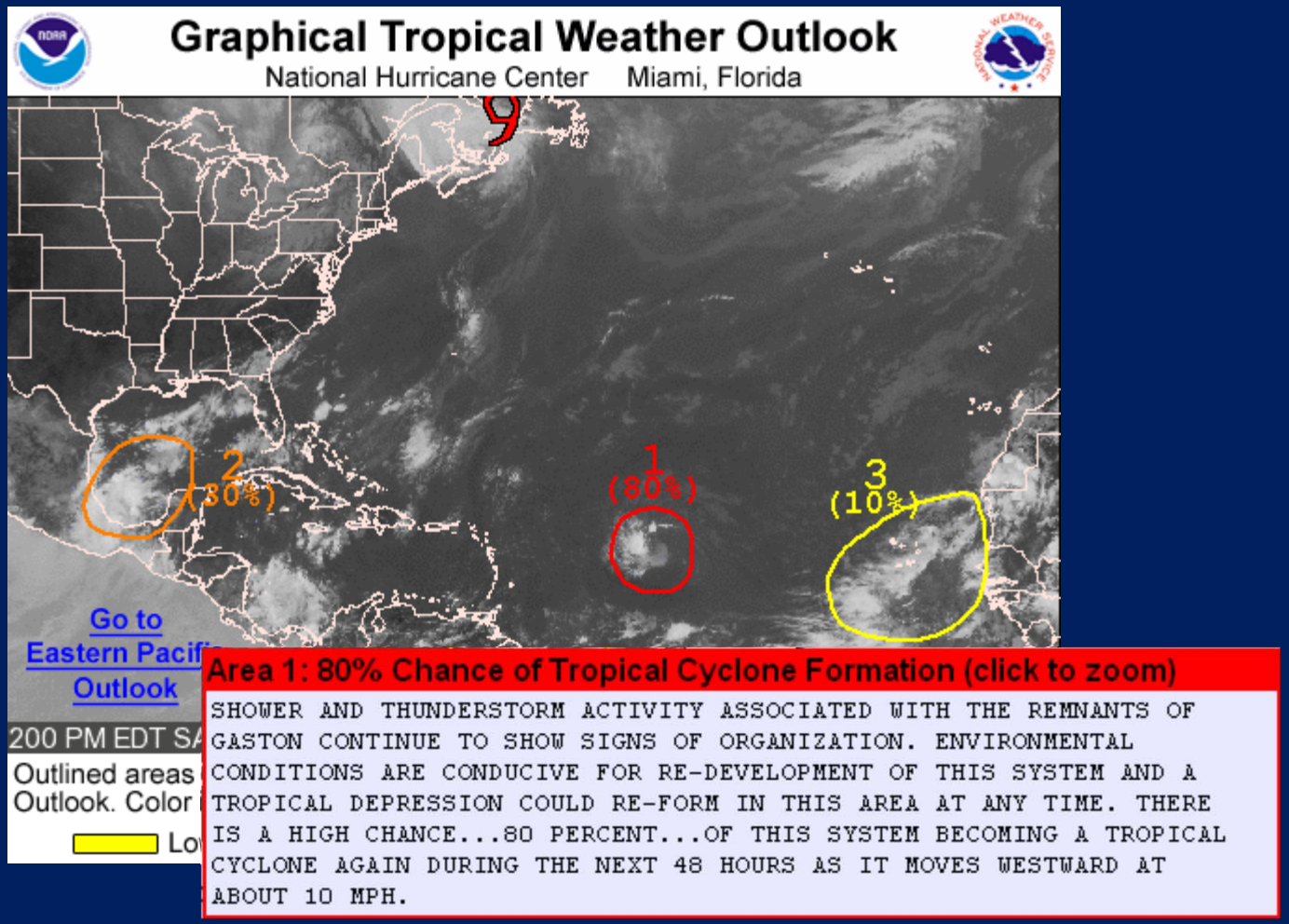
Graphical Tropical Weather Outlook

- A visual companion to the text TWO
- A web-based graphic superimposed on the most recently available geostationary satellite mosaic.
- Indicates the ***current*** locations of areas of disturbed weather discussed in the TWO by encircling them.
- Provides categorical (low, medium, and high) and explicit probability of formation during the next 48 hours
- Active tropical cyclones are also shown on the Graphical TWO with a cyclone symbol





Graphical Tropical Weather Outlook

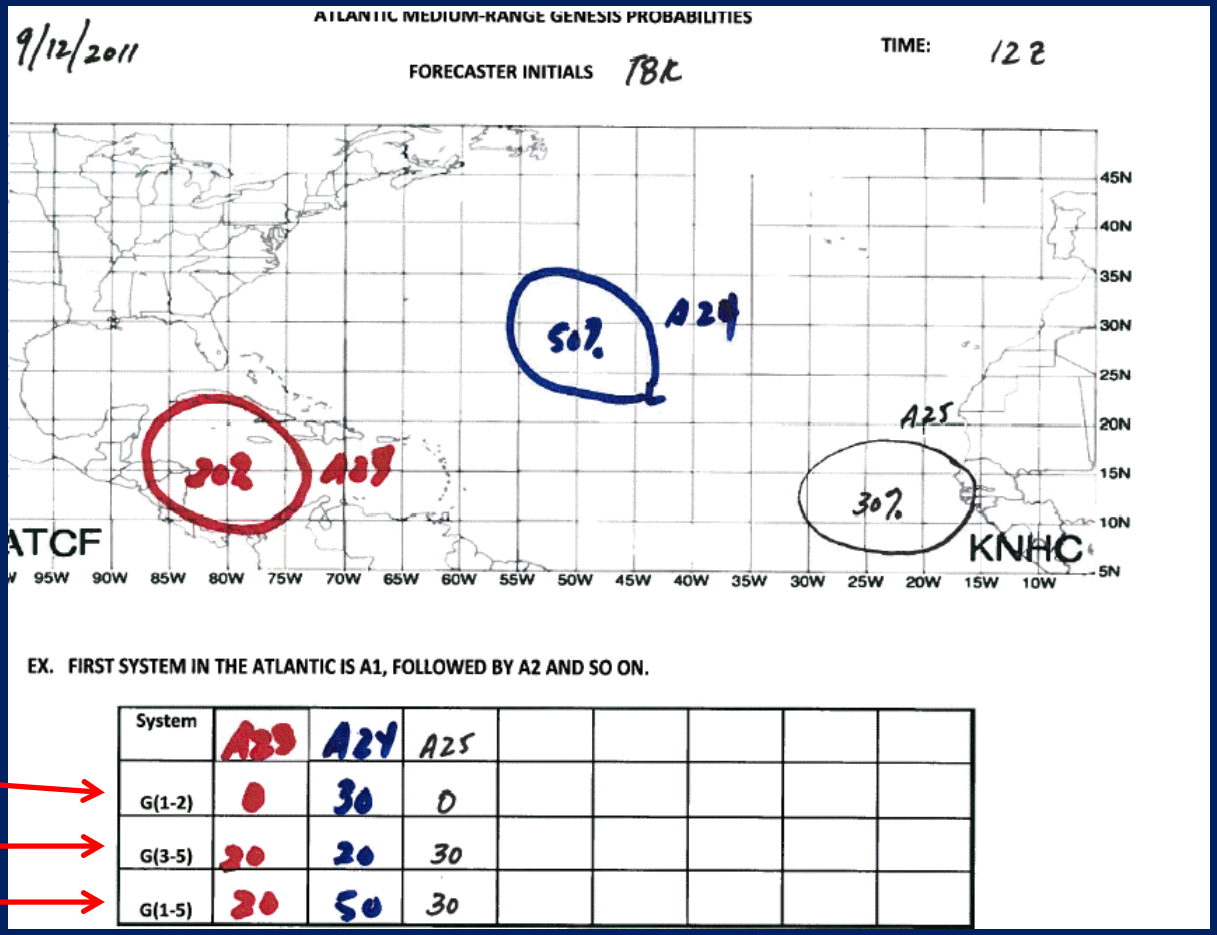


Experimental Medium Range Genesis Forecasts

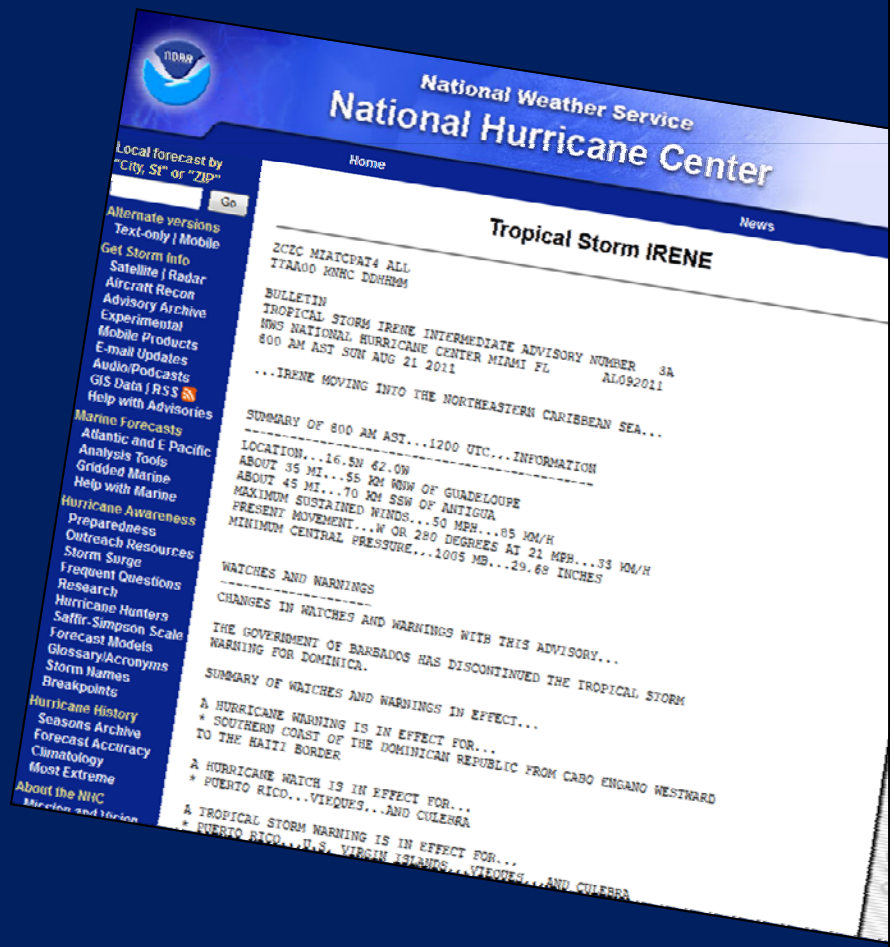
TWO

Extended outlook

Total



NHC Tropical Cyclone Advisory Products



HAZARDS AFFECTING LAND

WIND...TROPICAL-STORM-FORCE WINDS WILL CONTINUE TO SPREAD INLAND OVER THE SOUTHERN PORTION OF THE WARNING AREA TONIGHT. HURRICANE-FORCE WINDS ARE EXPECTED TO FIRST REACH THE HURRICANE WARNING AREA LATE TONIGHT. TROPICAL-STORM-FORCE WINDS ARE EXPECTED TO BEGIN ALONG THE MID-ATLANTIC COAST LATE TONIGHT WITH HURRICANE CONDITIONS EXPECTED BY SATURDAY AFTERNOON. TROPICAL STORM CONDITIONS ARE EXPECTED TO REACH SOUTHERN NEW ENGLAND SATURDAY NIGHT WITH HURRICANE CONDITIONS EXPECTED ON SUNDAY.

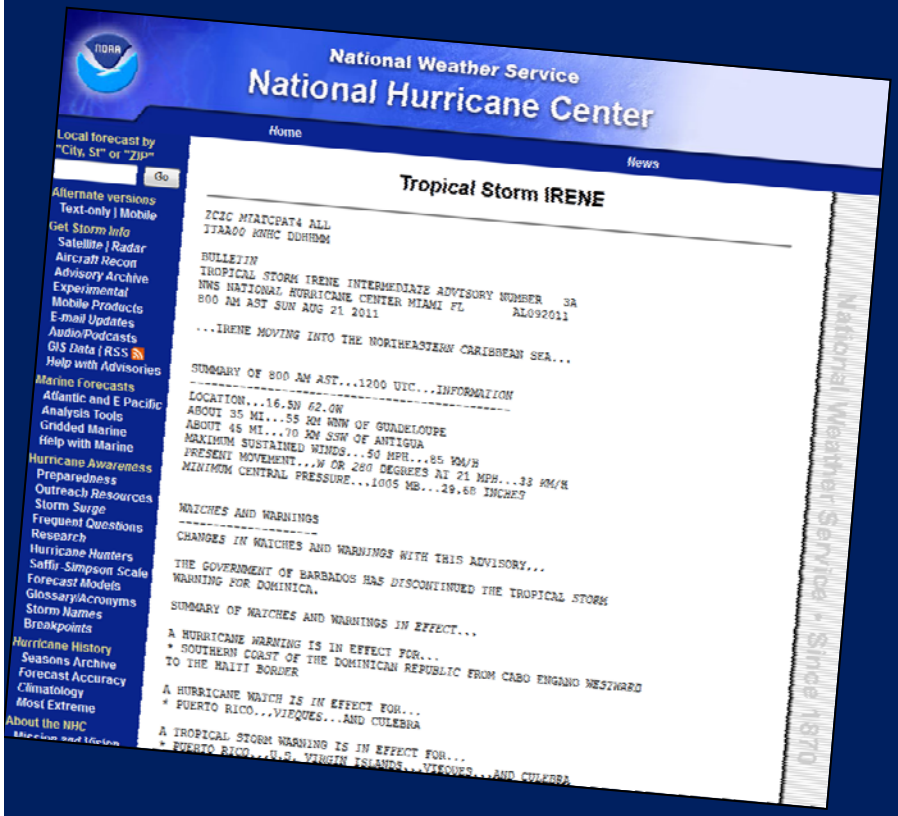
STORM SURGE...AN EXTREMELY DANGEROUS STORM SURGE WILL RAISE WATER LEVELS BY AS MUCH AS 6 TO 11 FEET ABOVE GROUND LEVEL IN THE HURRICANE WARNING AREA IN NORTH CAROLINA...INCLUDING THE ALBEMARLE AND PAMLICO SOUNDS. STORM SURGE WILL RAISE WATER LEVELS BY AS MUCH AS 4 TO 8 FEET ABOVE GROUND LEVEL WITHIN THE HURRICANE WARNING AREA FROM THE NORTH CAROLINA/VIRGINIA BORDER NORTHWARD TO CAPE COD INCLUDING SOUTHERN PORTIONS OF THE CHESAPEAKE BAY AND ITS TRIBUTARIES. NEAR THE COAST...THE SURGE WILL BE ACCOMPANIED BY LARGE...DESTRUCTIVE...AND LIFE-THREATENING WAVES. STORM SURGE VALUES ARE VERY LOCATION-SPECIFIC...AND USERS ARE URGED TO CONSULT PRODUCTS ISSUED BY THEIR LOCAL NATIONAL WEATHER SERVICE OFFICES.

RAINFALL...IRENE IS EXPECTED TO PRODUCE RAINFALL ACCUMULATIONS OF 6 TO 10 INCHES...WITH ISOLATED MAXIMUM AMOUNTS OF 15 INCHES...FROM EASTERN NORTH CAROLINA NORTHWARD THROUGH THE MID-ATLANTIC STATES INTO NEW ENGLAND THROUGH MONDAY MORNING. THESE RAINS COULD CAUSE WIDESPREAD FLOODING AND LIFE-THREATENING FLASH FLOODS.

SURF...LARGE SWELLS GENERATED BY IRENE ARE AFFECTING PORTIONS OF THE COAST OF THE SOUTHEASTERN UNITED STATES. THESE SWELLS WILL CAUSE LIFE-THREATENING SURF AND RIP CURRENT CONDITIONS.

TORNADOES...ISOLATED TORNADOES ARE POSSIBLE OVER EXTREME EASTERN NORTH CAROLINA LATE TONIGHT AND SATURDAY.

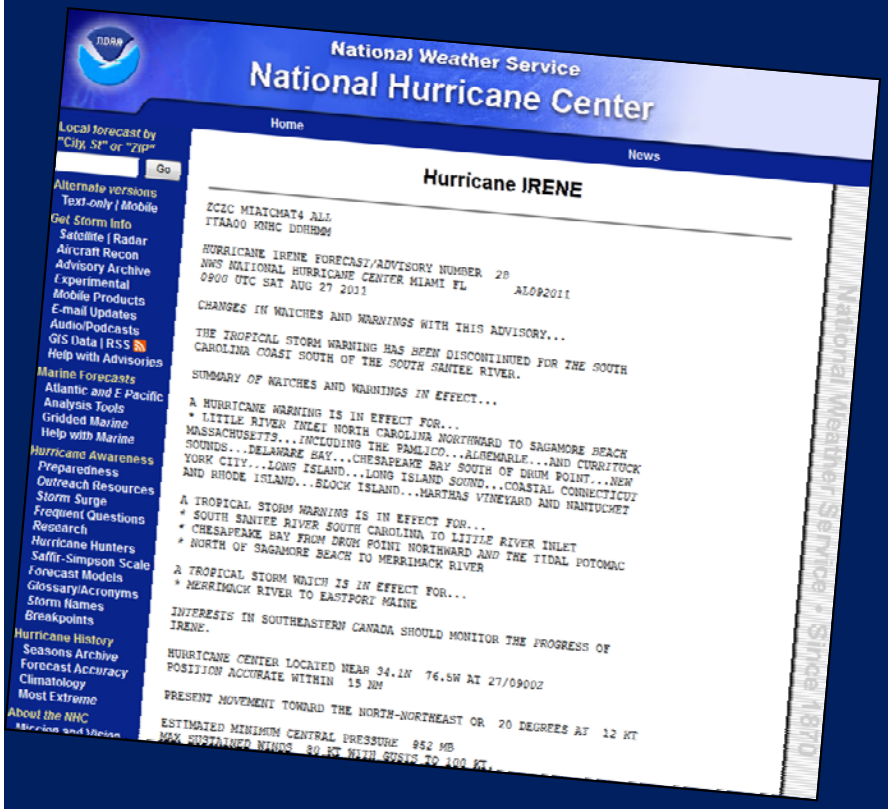
NHC Tropical Cyclone Advisory Products



Intermediate Public Advisory

- Provides continuous flow of information.
- Issued when watches or warnings are in effect.
- Issued 3-hourly or 2-hourly if well-defined center within NWS radar range.
- Not used to issue watches or warnings.
- Content similar to routine public advisories.

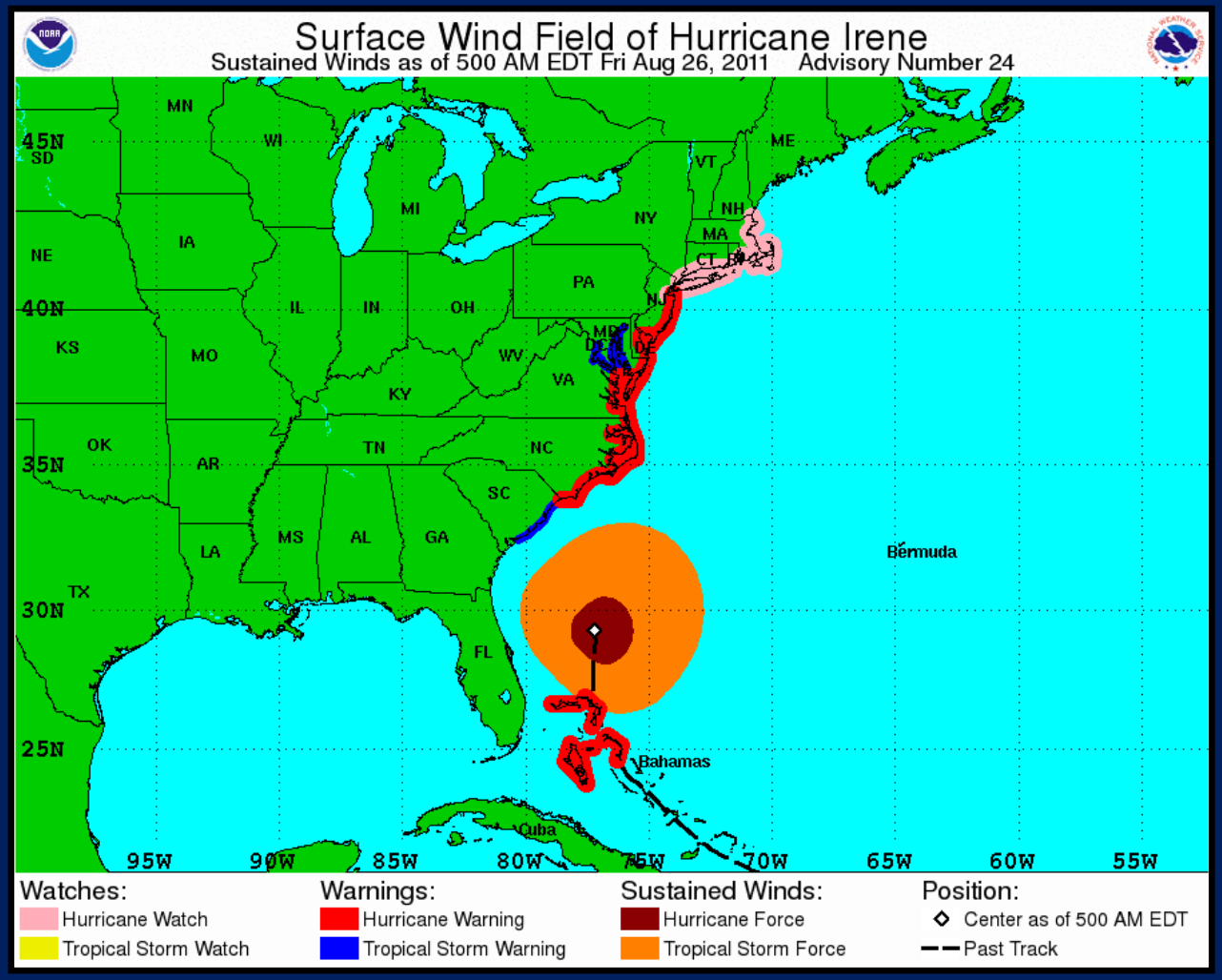
NHC Tropical Cyclone Advisory Products



Forecast Advisory

- Only source of all the forecast data
- Data is used in HURREVAC and other commercial tracking software
- Watches and warnings
- Center location, motion, minimum pressure and eye diameter
- Forecast positions, intensity and wind radii

Surface Wind Field



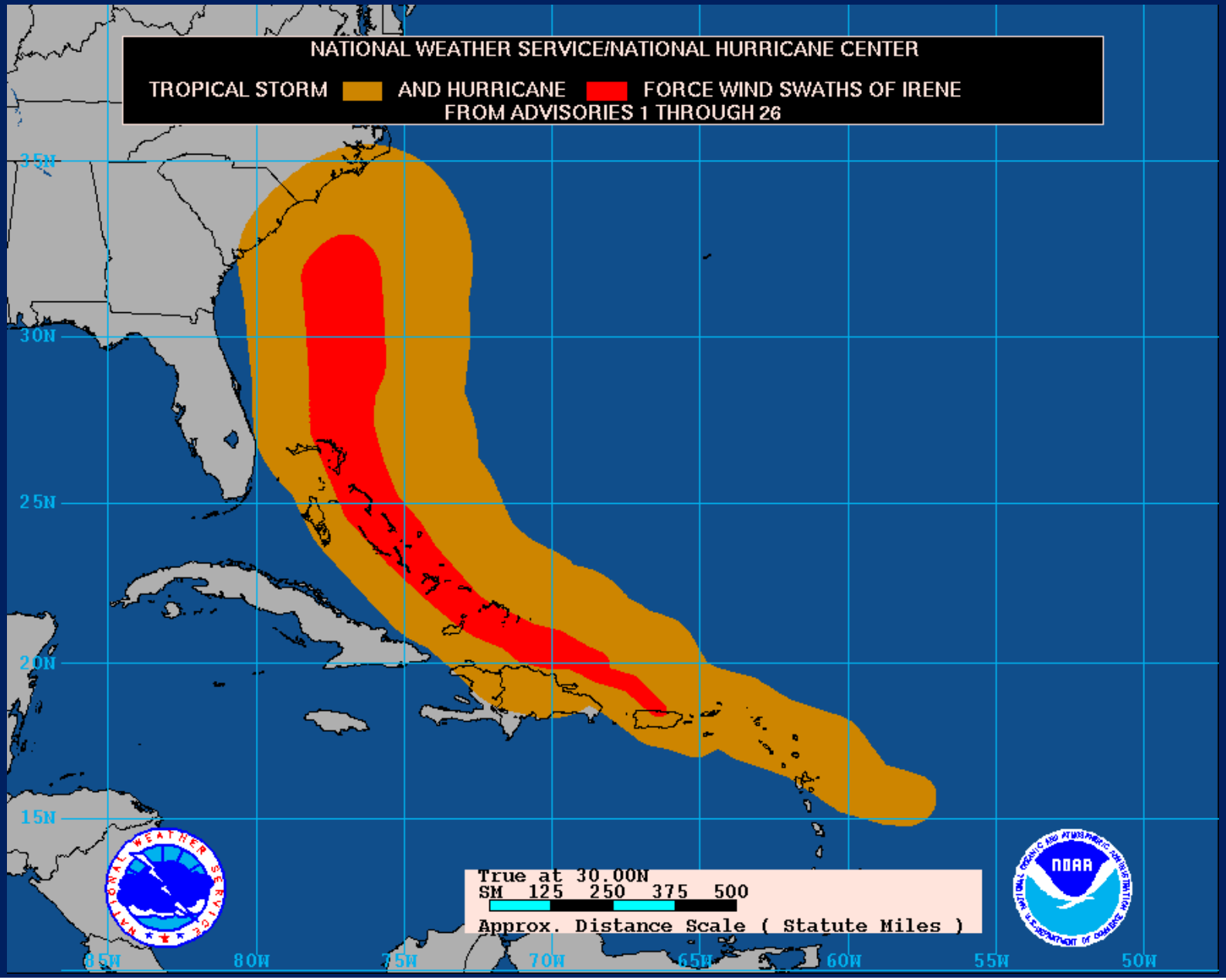
Shows:

Wind field

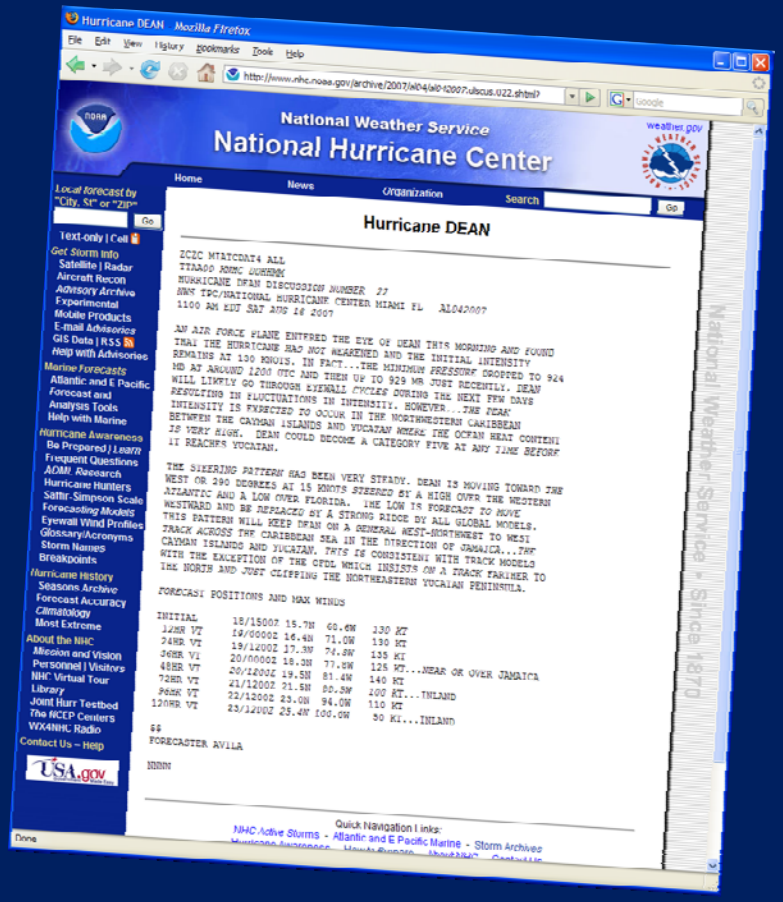
Past track

Current watches/ warnings

Cumulative Wind History



NHC Tropical Cyclone Advisory Products



Forecast Discussion

- Free-form text product
- Provides the reasoning behind forecasts and warnings
- Discussion of relevant observations, model guidance, and the forecast uncertainties
- Includes table of track and intensity forecasts

Tropical Cyclone Update

TROPICAL STORM CLAUDETTE TROPICAL CYCLONE UPDATE
NWS TPC/NATIONAL HURRICANE CENTER MIAMI FL AL042009
1215 PM EDT SUN AUG 16 2009

...DEPRESSION BECOMES TROPICAL STORM CLAUDETTE...

DATA FROM THE NOAA DOPPLER RADAR IN TALLAHASSEE FLORIDA INDICATE THAT SURFACE WINDS ASSOCIATED WITH THE DEPRESSION HAVE INCREASED TO 40 MPH...65 KM/HR...MAKING THE DEPRESSION TROPICAL STORM CLAUDETTE.

....SUMMARY OF 1215 PM AST INFORMATION...
LOCATION...28.7N 84.6W
MAXIMUM SUSTAINED WINDS...40 MPH
PRESENT MOVEMENT...NORTHWEST OR 320 DEGREES AT 14 MPH
MINIMUM CENTRAL PRESSURE...1011 MB
$$

FORECASTER ROBERTS/BRENNAN

This product is issued when:
(1) the cyclone makes landfall
(2) unexpected changes occur in the cyclone
(3) to issue international watches and warnings
(4) now used for 1-hourly position estimates instead of TCE

Tropical Cyclone Position Estimate

HURRICANE IRENE TROPICAL CYCLONE POSITION ESTIMATE
NWS NATIONAL HURRICANE CENTER MIAMI FL AL092011
1000 PM EDT SAT AUG 27 2011

AT 1000 PM EDT…0200 UTC…THE CENTER OF HURRICANE IRENE WAS ESTIMATED BY AN AIR FORCE RESERVE HURRICANE HUNTER AIRCRAFT AND NOAA DOPPLER WEATHER RADAR TO BE NEAR LATITUDE 37.1 NORTH… LONGITUDE 75.5 WEST.

....SUMMARY OF 1000 PM EDT INFORMATION...
LOCATION...37 N 7 W
ABO 270 MI...435 KM... W OF NEW YORK CITY
MAX IMUM SUSTAINED WINDS...80 MPH.
PRESENT MOVEMENT...NNE OR 20 DEGREES AT 16 MPH
MINIMUM CENTRAL PRESSURE...97 MB
$$
FORECASTER BRENNAN

DISCONTINUED
Information included in TCU

This product is issued between 2-hourly intermediate public advisories

Timeline (EDT) for Advisories/Updates - No Watches/Warnings

- 11 am - Advisory
- 5 pm - Advisory
- 11 pm - Advisory
- 5 am - Advisory

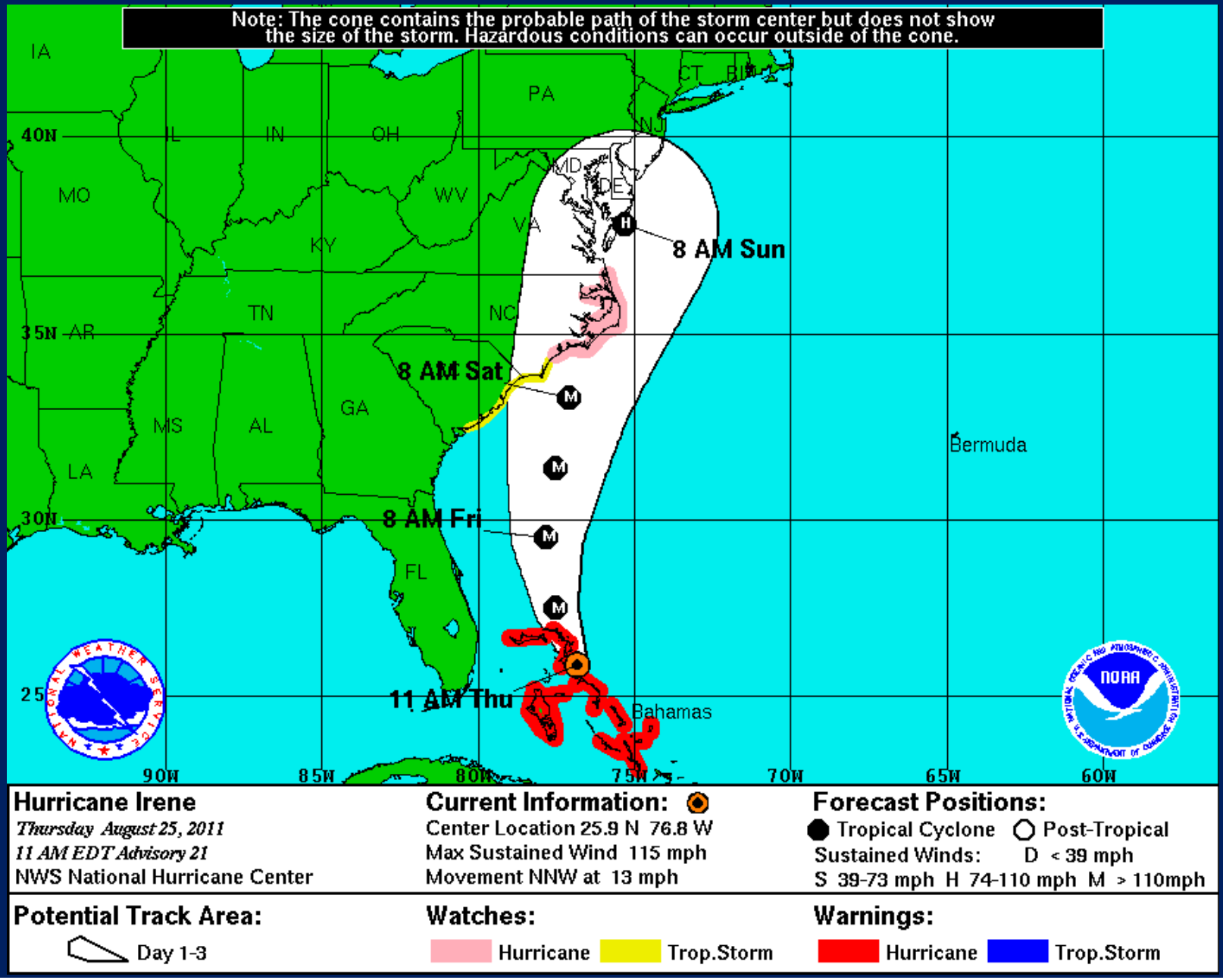
Timeline (EDT) for Advisories/Updates - Watches/Warnings in Place

- 11 am – Advisory
  - 2 pm – Intermediate Advisory
- 5 pm – Advisory
  - 8 pm – Intermediate Advisory
- 11 pm – Advisory
  - 2 am – Intermediate Advisory
- 5 am – Advisory
  - 8 am – Intermediate Advisory

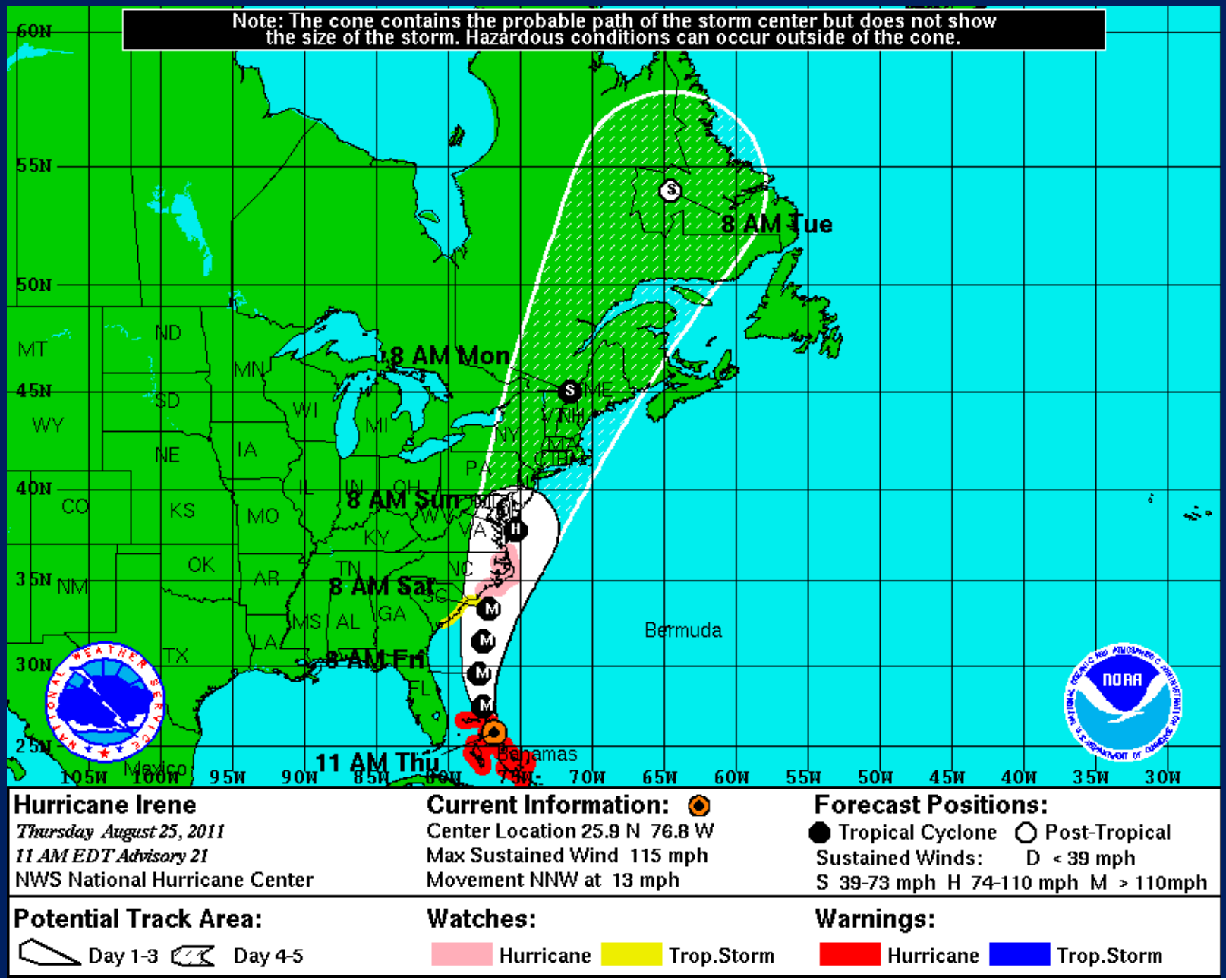
Timeline (EDT) for Advisories/Updates - Watches/Warnings in Place AND Center can be tracked by Radar

- 11 am – Advisory
  - 12 pm – Tropical Cyclone Update
  - 1 pm – Intermediate Advisory
  - 2 pm – Tropical Cyclone Update
  - 3 pm – Intermediate Advisory
  - 4 pm – Tropical Cyclone Update
- 5 pm – Repeat …

Track Forecast/Cone Graphic – Three Day

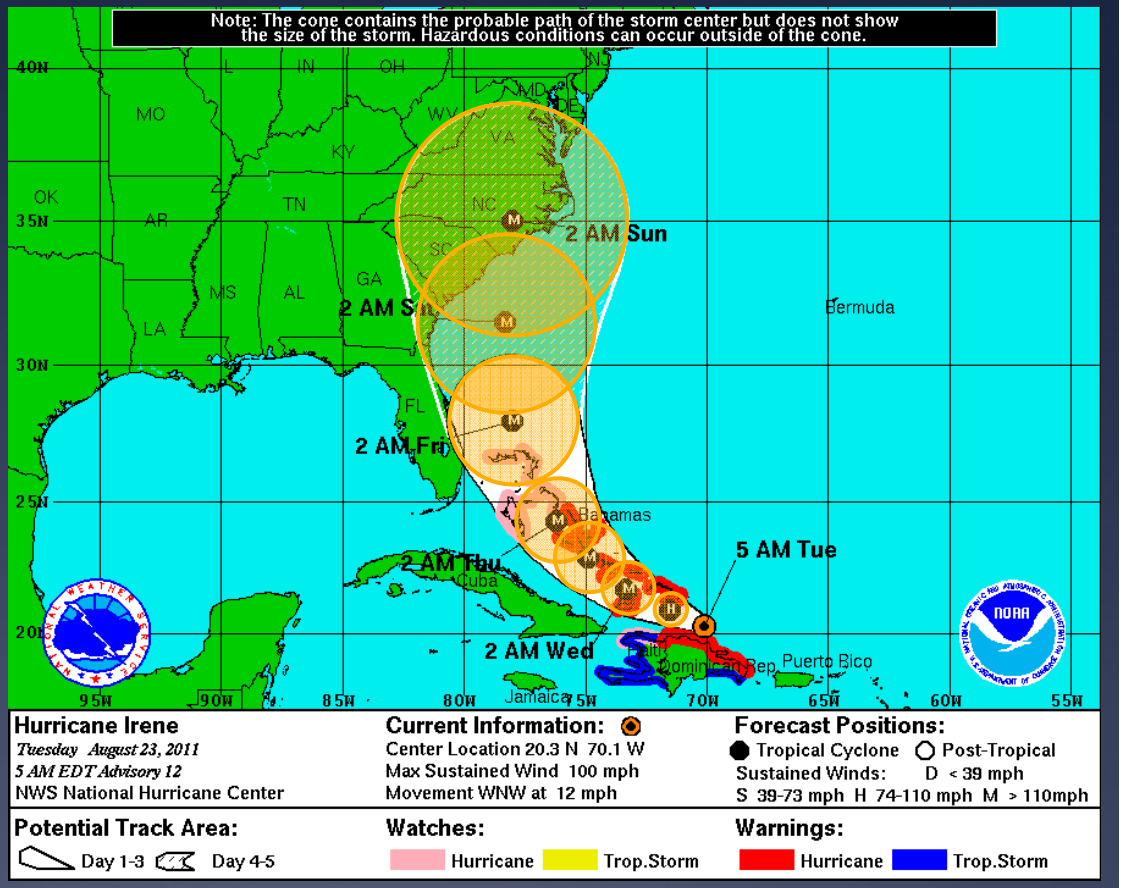


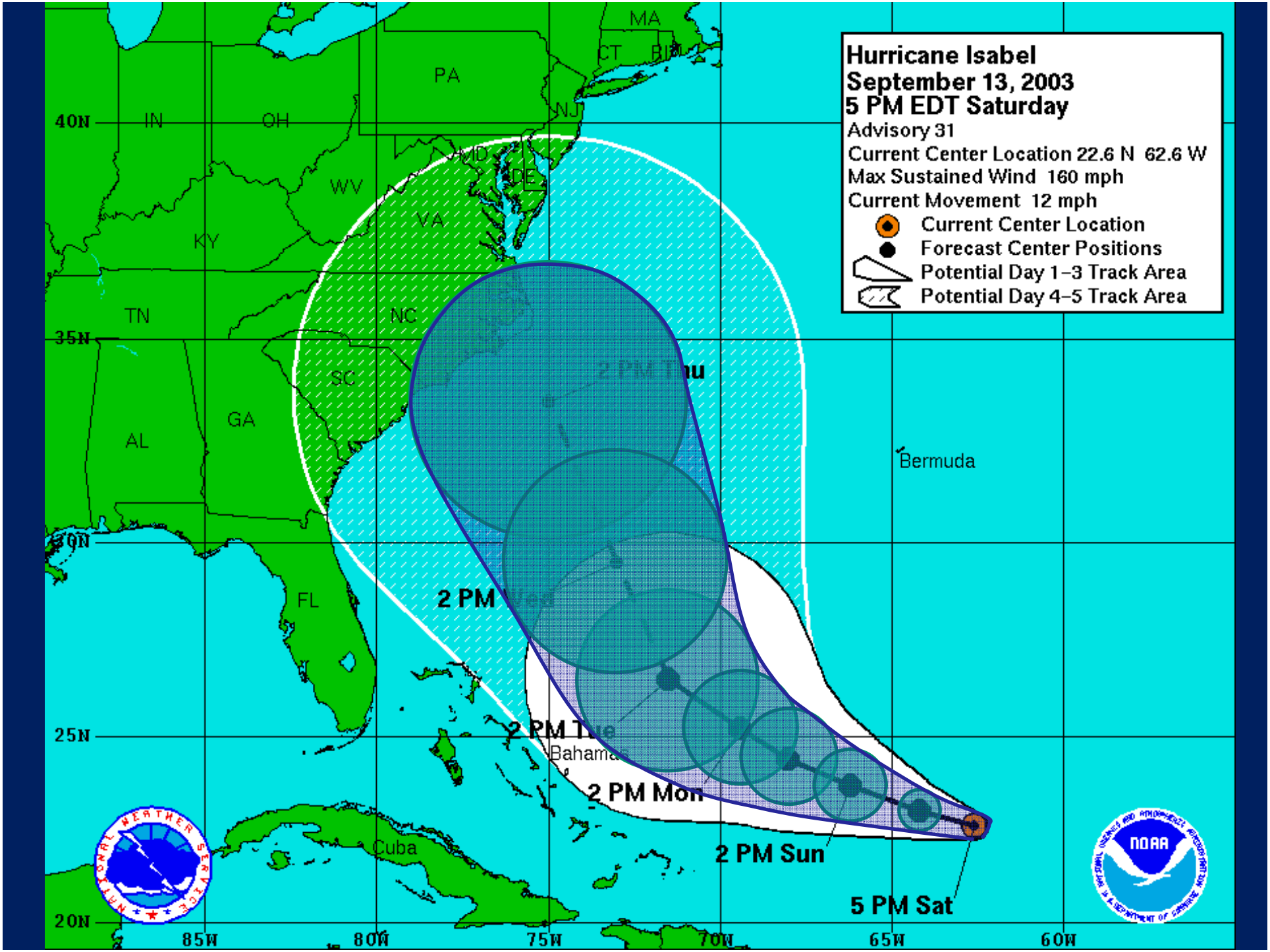
Track Forecast/Cone Graphic – Five Day



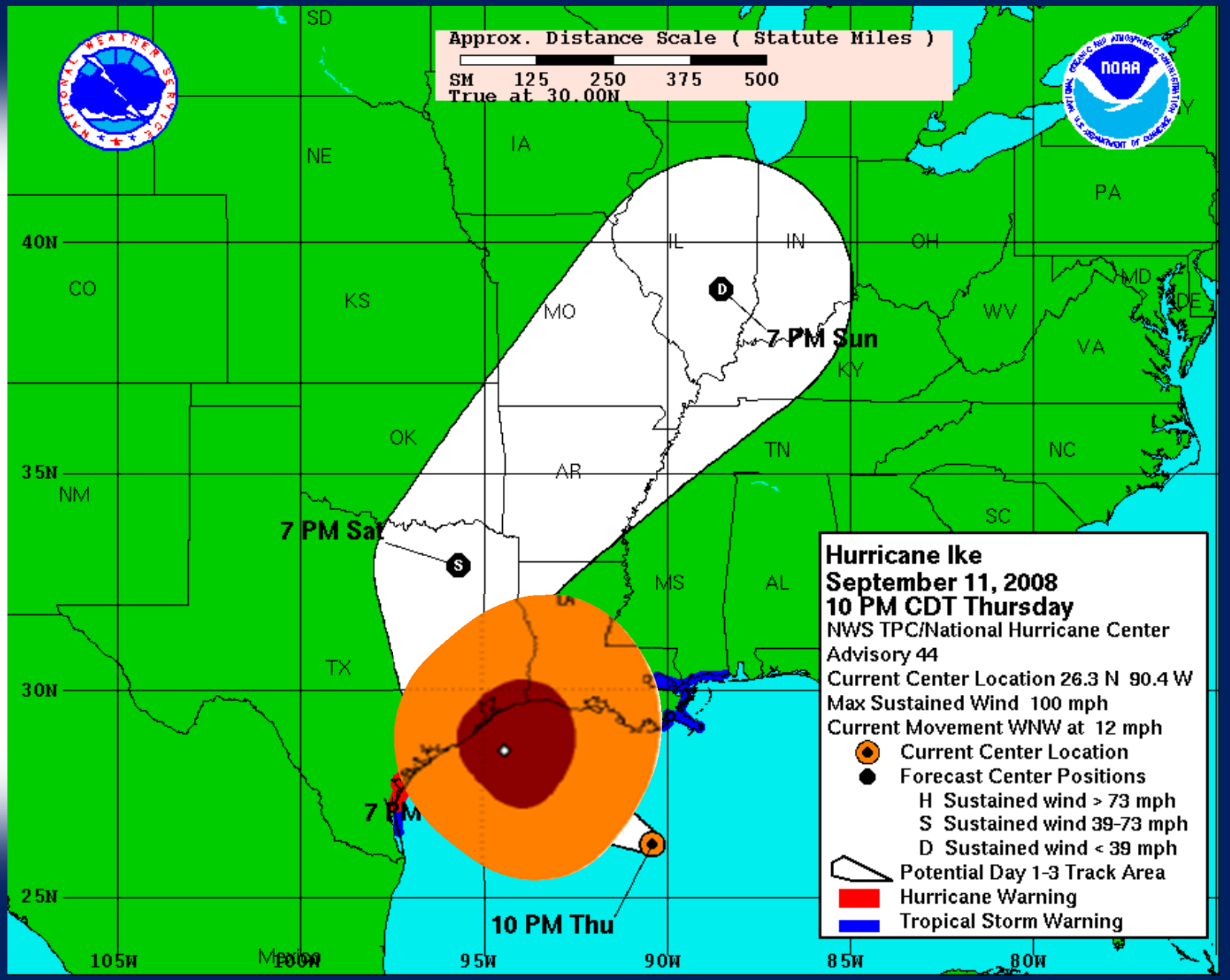
NHC Forecast Cone

- Represents probable track of tropical cyclone center
- Formed by connecting circles centered on each forecast point (at 12, 24, 36 h, etc.)
- Size of the circles determined so that, for example, the actual storm position at 48 h will be within the 48-h circle 67% of the time

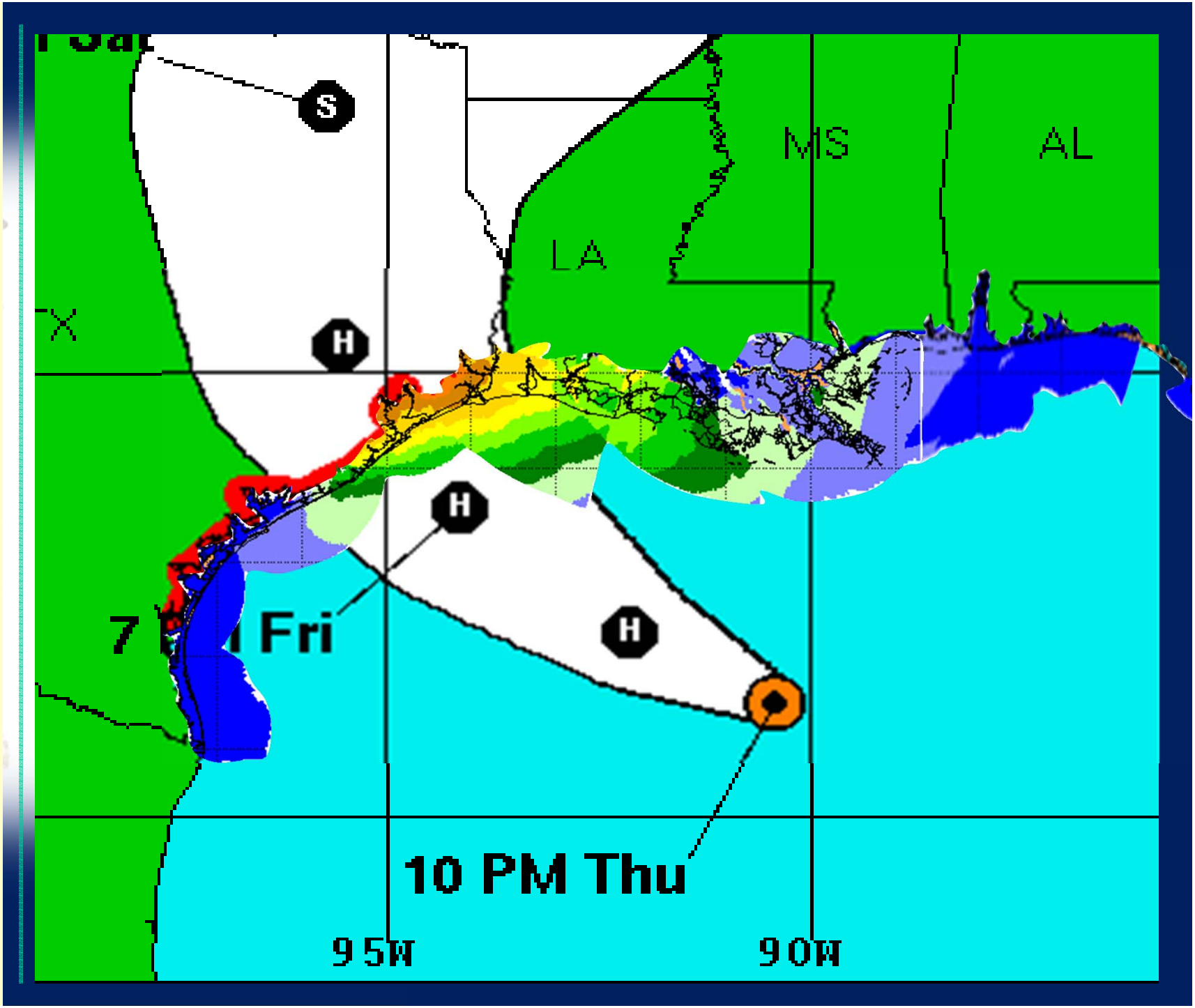



Hurricane Isabel
September 13, 2003
5 PM EDT Saturday
Advisory 31
Current Center Location 22.6 N 62.6 W
Max Sustained Wind 160 mph
Current Movement 12 mph
Current Center Location
Forecast Center Positions
Potential Day 1-3 Track Area
Potential Day 4-5 Track Area
MA
CT
RI
PA
NJ
MD
DE
WV
VA
OH
IN
KY
TN
NC
SC
GA
AL
FL
Bermuda
Cuba
Bahama
2 PM Wed
2 PM Tue
2 PM Mon
2 PM Sun
5 PM Sat
40N
35N
30N
25N
20N
85W
80W
75W
70W
65W
60W
NOAA

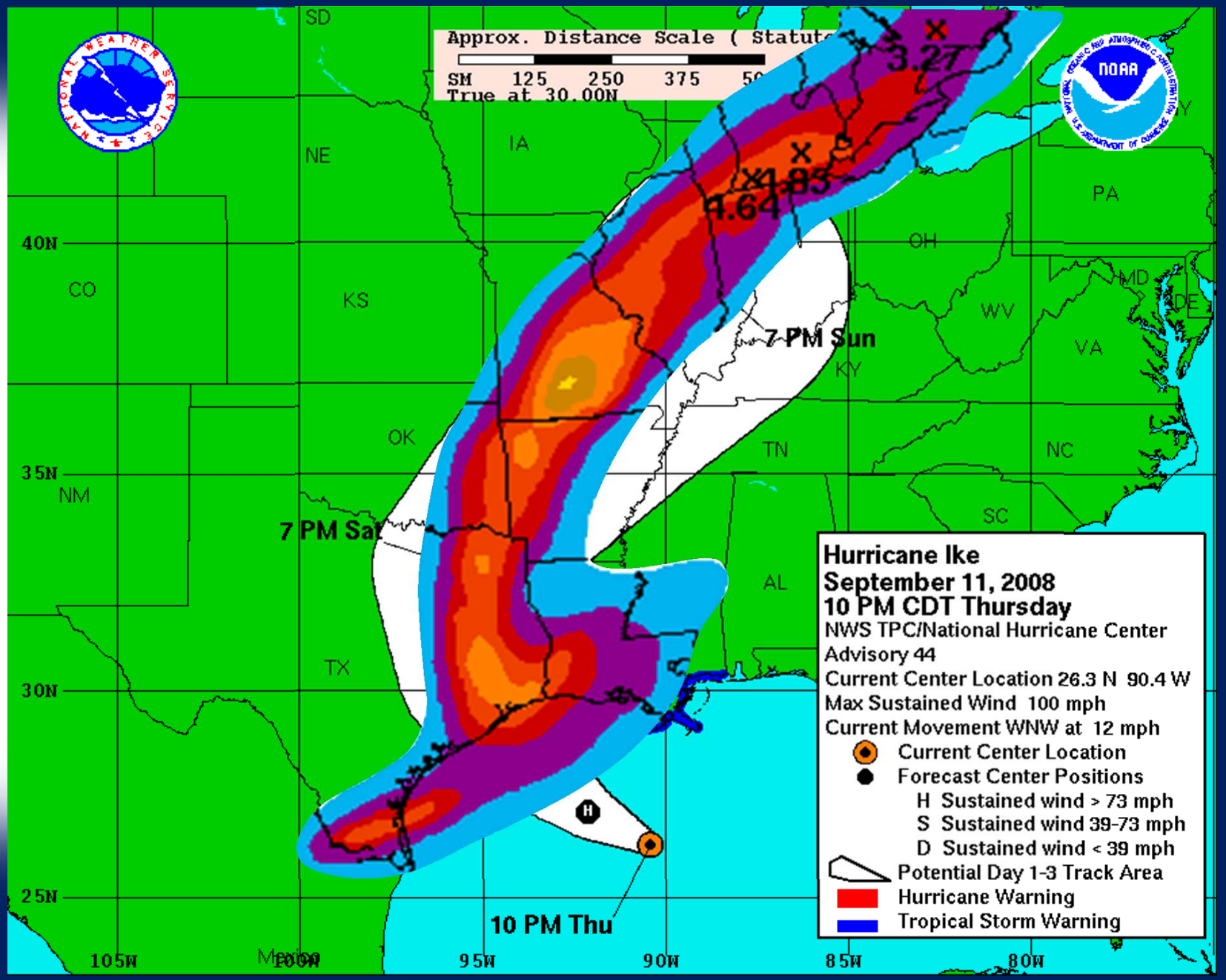
Wind


Approx. Distance Scale (Statute Miles)
SM 125 250 375 500
True at 30.00N
SD
NE
IA
IL
IN
OH
PA
NY
MD
DE
WV
VA
KY
CO
KS
MO
OK
AR
TN
NC
SC
NM
TX
MS
AL
40N
35N
30N
25N
105W
100W
95W
90W
85W
80W
Mexico
7 PM Sun
7 PM Sat
7 PM
10 PM Thu
Hurricane Ike
September 11, 2008
10 PM CDT Thursday
NWS TPC/National Hurricane Center
Advisory 44
Current Center Location 26.3 N 90.4 W
Max Sustained Wind 100 mph
Current Movement WNW at 12 mph
Current Center Location
Forecast Center Positions
H Sustained wind > 73 mph
S Sustained wind 39-73 mph
D Sustained wind < 39 mph
Potential Day 1-3 Track Area
Hurricane Warning
Tropical Storm Warning

Storm Surge

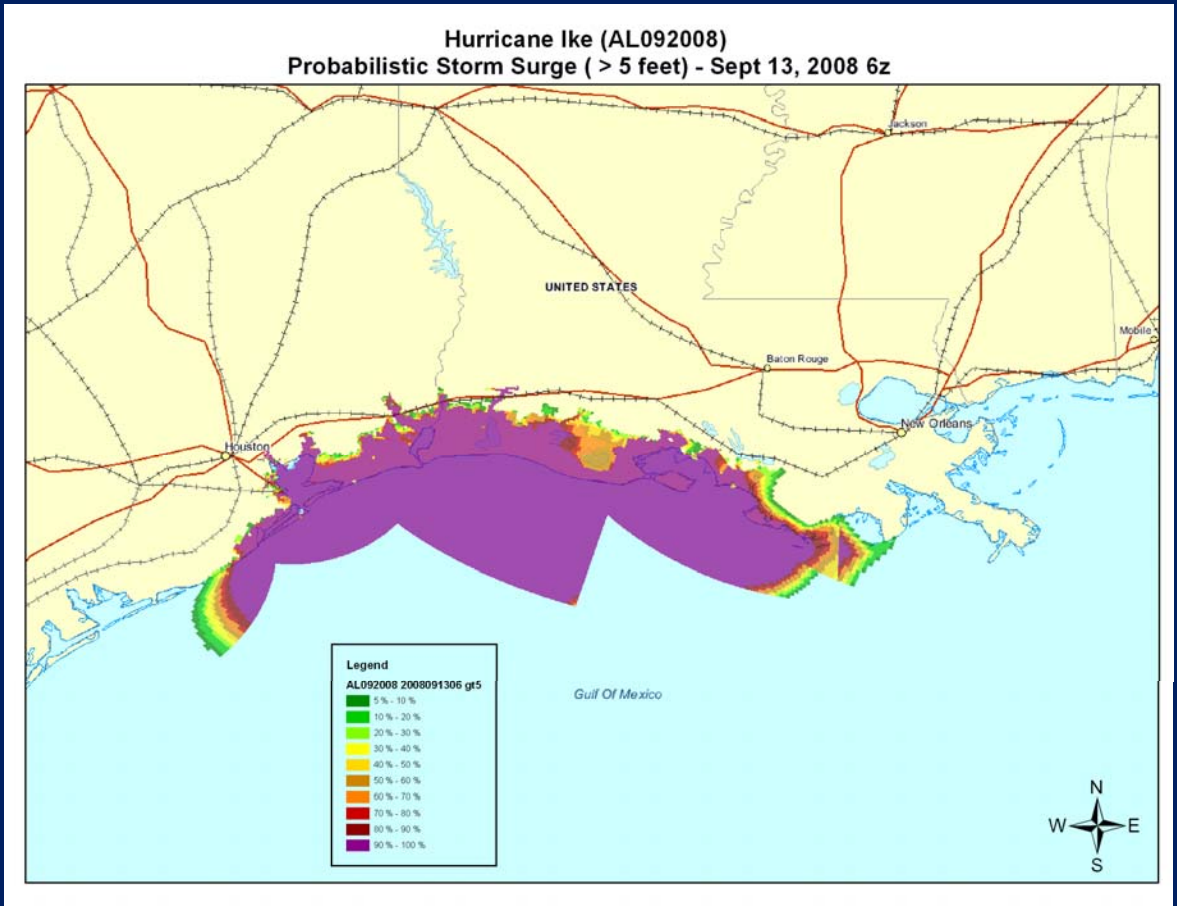


Rainfall


Approx. Distance Scale (Statute
SM 125 250 375
True at 30.00N
3.27
4.64
7 PM Sun
7 PM Sat
10 PM Thu
Hurricane Ike
September 11, 2008
10 PM CDT Thursday
NWS TPC/National Hurricane Center
Advisory 44
Current Center Location 26.3 N 90.4 W
Max Sustained Wind 100 mph
Current Movement WNW at 12 mph
Current Center Location
Forecast Center Positions
H Sustained wind > 73 mph
S Sustained wind 39-73 mph
D Sustained wind < 39 mph
Potential Day 1-3 Track Area
Hurricane Warning
Tropical Storm Warning
SD
NE
IA
PA
OH
CO
KS
MD
DE
WV
VA
KY
OK
TN
NC
NM
SC
AL
TX
40N
35N
30N
25N
105W
100W
95W
90W
85W
80W
Mexico

GIS Products

http://www.nhc.noaa.gov/gis/



Forecast Cone/Track/Points/
Watches and Warnings

Surface Wind Field

Working Best Track Wind Swath

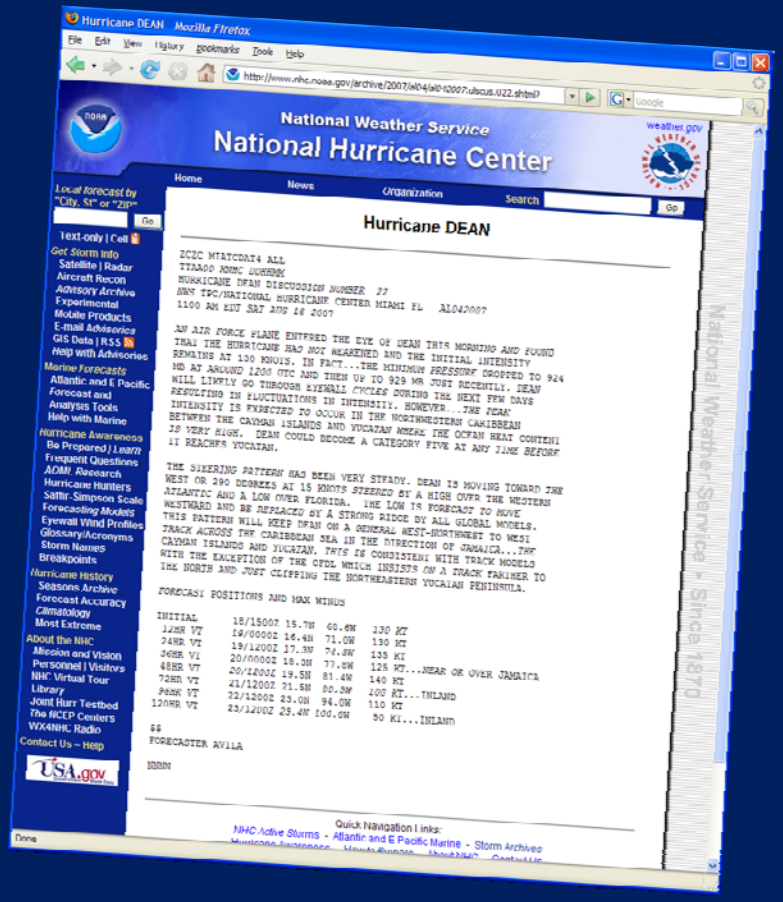
Forecast Wind Radii

Breakpoints

Wind Speed Probability

Probabilistic Storm Surge

NHC Tropical Cyclone Advisory Products



Tropical Weather Summary

- Monthly summary of tropical cyclones
- Statistics of season thus far
- Operational dates/winds only

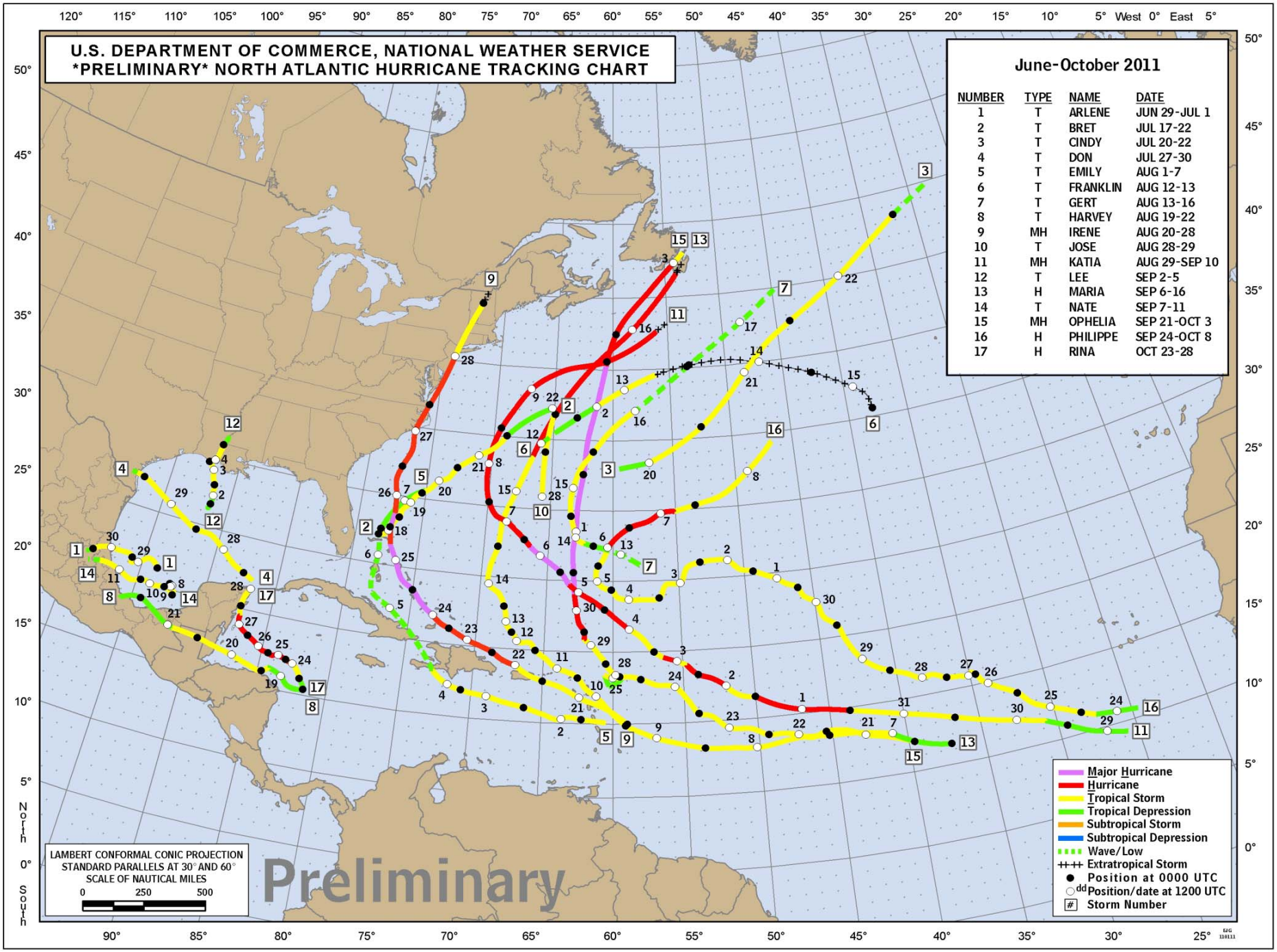
EIGHT TROPICAL STORMS FORMED IN THE ATLANTIC BASIN DURING THE MONTH OF SEPTEMBER. THREE OF THESE STORMS...IGOR...JULIA...AND KARL... BECAME MAJOR HURRICANES...AND LISA REACHED HURRICANE STATUS. THESE NUMBERS ARE WELL ABOVE THE LONG-TERM (1944-2009) AVERAGES OF 4 TROPICAL STORMS...2 HURRICANES...AND ABOUT 1 MAJOR HURRICANE FOR THE MONTH OF SEPTEMBER. ALSO...THE FORMATION OF EIGHT NAMED STORMS TIES 2002 FOR THE RECORD NUMBER OF NAMED STORMS FORMING IN THE MONTH OF SEPTEMBER. IN TERMS OF ACCUMULATED CYCLONE ENERGY... ACE...WHICH MEASURES THE COMBINED STRENGTH AND DURATION OF TROPICAL STORMS AND HURRICANES...TROPICAL CYCLONE ACTIVITY IN SEPTEMBER WAS ABOUT 78 PERCENT ABOVE AVERAGE.

SO FAR THIS SEASON...OVERALL TROPICAL CYCLONE ACTIVITY TO DATE IS ABOUT 53 PERCENT ABOVE THE LONG-TERM MEDIAN.

REPORTS ON INDIVIDUAL CYCLONES...WHEN COMPLETED...ARE AT THE WEB SITE OF THE NATIONAL HURRICANE CENTER...USE LOWER-CASE LETTERS...HTTP://WWW.NHC.NOAA.GOV/2010ATLAN.SHTML

SUMMARY TABLE

NAME	DATES	MAX WIND (MPH)
H ALEX	25 JUN-2 JUL	105
TD TWO	7-8 JUL	35
TS BONNIE	22-24 JUL	40
TS COLIN	2-8 AUG	60
TD FIVE	10-11 AUG	35
MH DANIELLE	21-31 AUG	135
MH EARL	25 AUG-5 SEP	145
TS FIONA	30 AUG-4 SEP	60
TS GASTON	1-2 SEP	40
TS HERMINE	6-8 SEP	65
MH IGOR	8-21 SEP	155
MH JULIA	12-20 SEP	135
MH KARL	14-18 SEP	120
H LISA	21-26 SEP	80

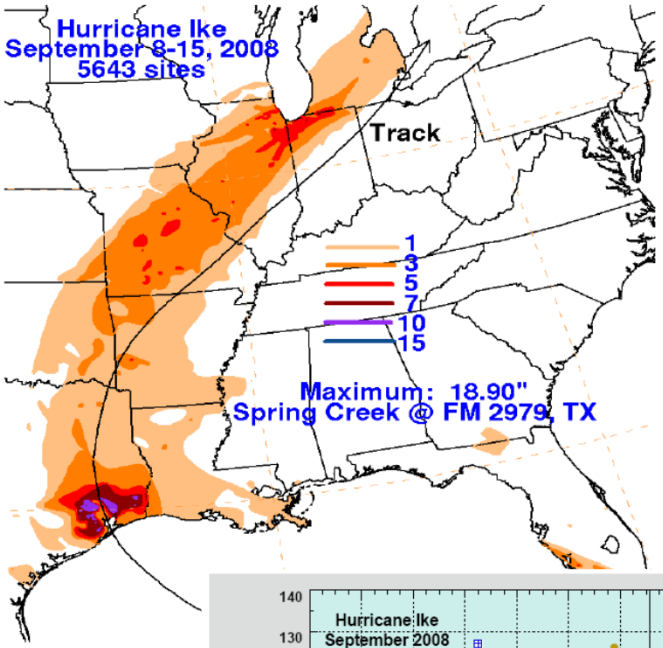

U.S. DEPARTMENT OF COMMERCE, NATIONAL WEATHER SERVICE
PRELIMINARY NORTH ATLANTIC HURRICANE TRACKING CHART
June-October 2011
NUMBER TYPE NAME DATE
1 T ARLENE JUN 29-JUL 1
2 T BRET JUL 17-22
3 T CINDY JUL 20-22
4 T DON JUL 27-30
5 T EMILY AUG 1-7
6 T FRANKLIN AUG 12-13
7 T GERT AUG 13-16
8 T HARVEY AUG 19-22
9 MH IRENE AUG 20-28
10 T JOSE AUG 28-29
11 MH KATIA AUG 29-SEP 10
12 T LEE SEP 2-5
13 H MARIA SEP 6-16
14 T NATE SEP 7-11
15 MH OPHELIA SEP 21-OCT 3
16 H PHILIPPE SEP 24-OCT 8
17 H RINA OCT 23-28
Major Hurricane
Hurricane
Tropical Storm
Tropical Depression
Subtropical Storm
Subtropical Depression
Wave/Low
Extratropical Storm
Position at 0000 UTC
Position/date at 1200 UTC
Storm Number
LAMBERT CONFORMAL CONIC PROJECTION
STANDARD PARALLELS AT 30° AND 60°
SCALE OF NAUTICAL MILES
0 250 500
Preliminary

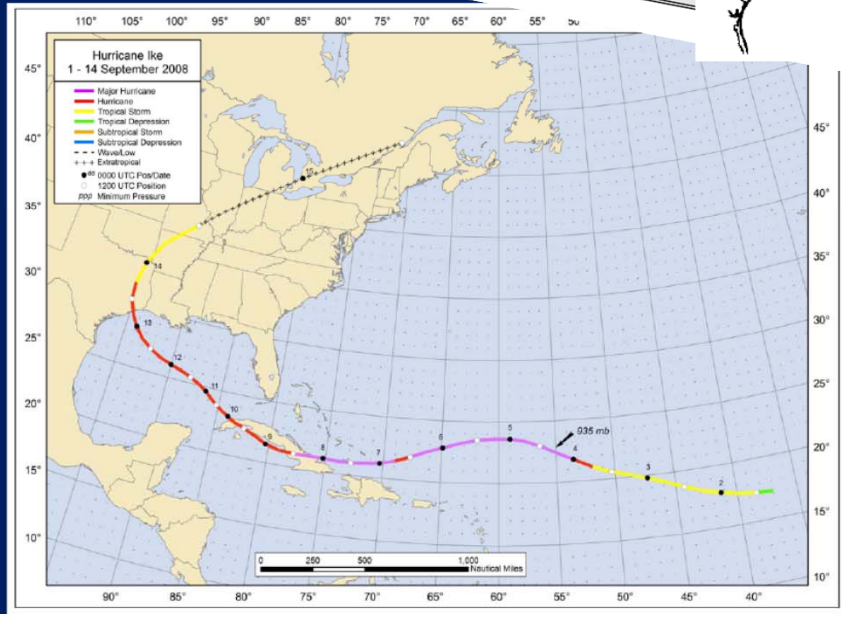
Tropical Cyclone Reports

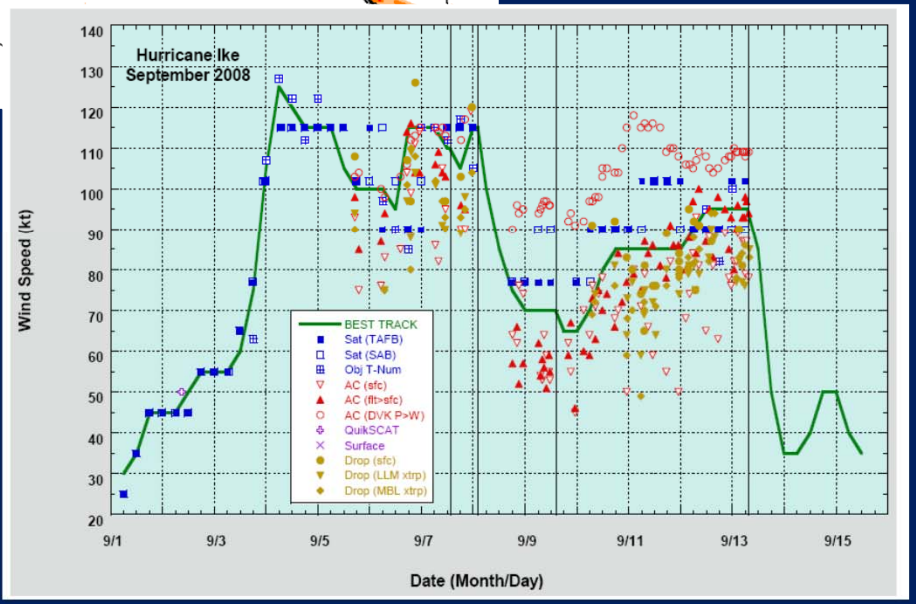
Tropical Cyclone Report
Hurricane Ike
(AL092008)
1 - 14 September 2008

Robbie Berg
National Hurricane Center
23 January 2009

Texas					
ICAO Sites					
Angleton / Brazoria (KLBX)[1]	13/0753	974.6	12/2353	32	
Bay City (KBYY)	13/0625	985.8	13/0625	33	
Beaumont (KBPT)	13/0905	982.4	13/0814	61	
Brenham (K11R)	13/1148	987.5	13/1212	33	
College Station (KCLL)	13/1338	985.8	13/1153	30	





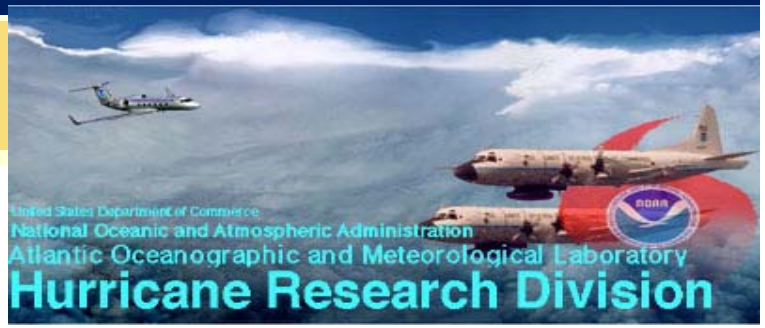


NOAA's 2012 Atlantic Hurricane Outlook

Season and Activity Type	May 2012 Outlook	Aug 2012 Outlook	Observed Activity	Climatology
Chance Above Average	25%	35%	Above Average	33%
Chance Near Average	50%	50%		33%
Chance Below Average	25%	15%		33%
Named Storms	9-15	12-17	19	12
Hurricanes	4-8	5-8	10	6
Major Hurricanes	1-3	2-3	2	3
Acc. Cyclone Energy	65-140%	75-135%	142%	100%

Climate Prediction Center

National Hurricane Center



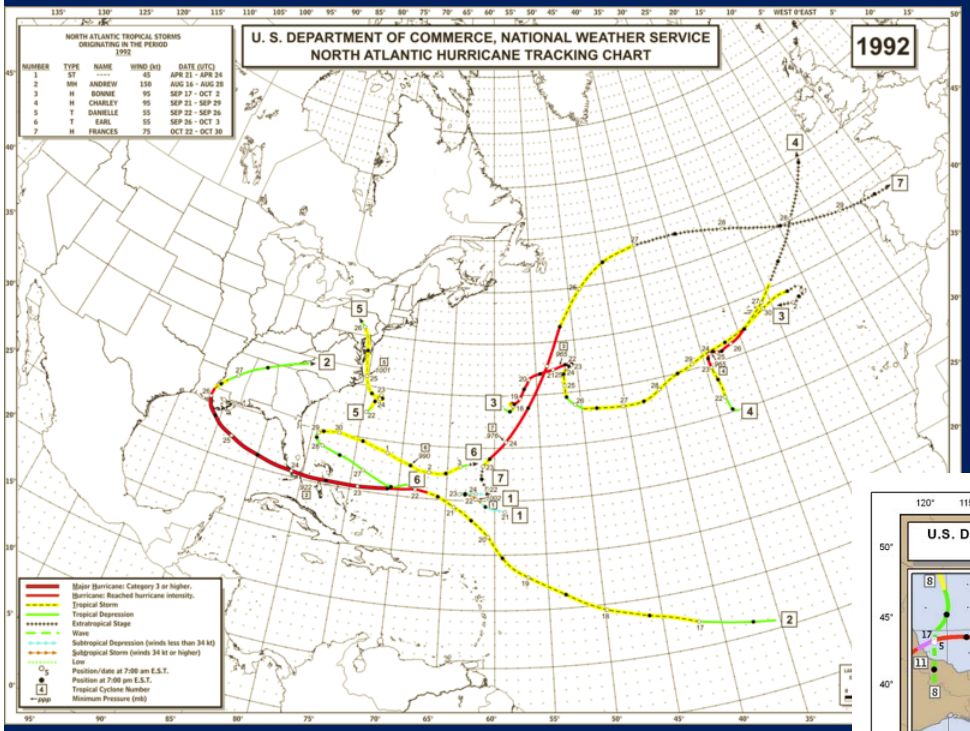
NOAA Seasonal Outlook

Caveats

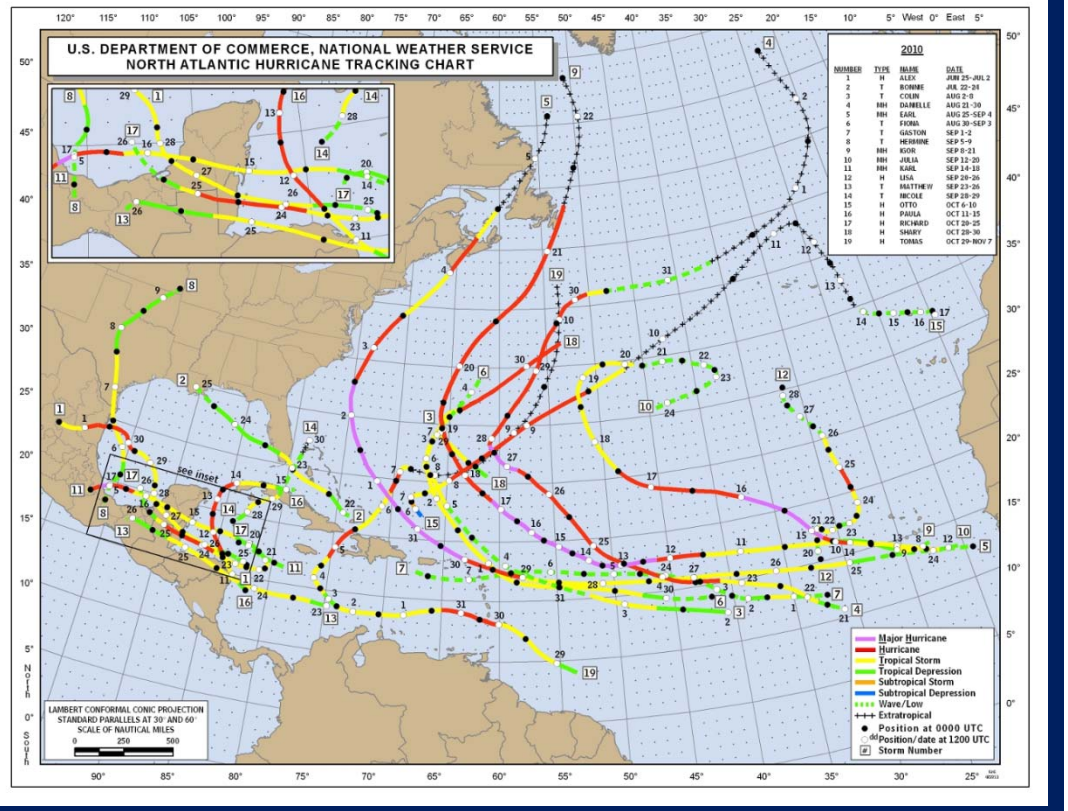
1) Forecasts only modestly skillful

2) Says nothing about US landfalls

1992

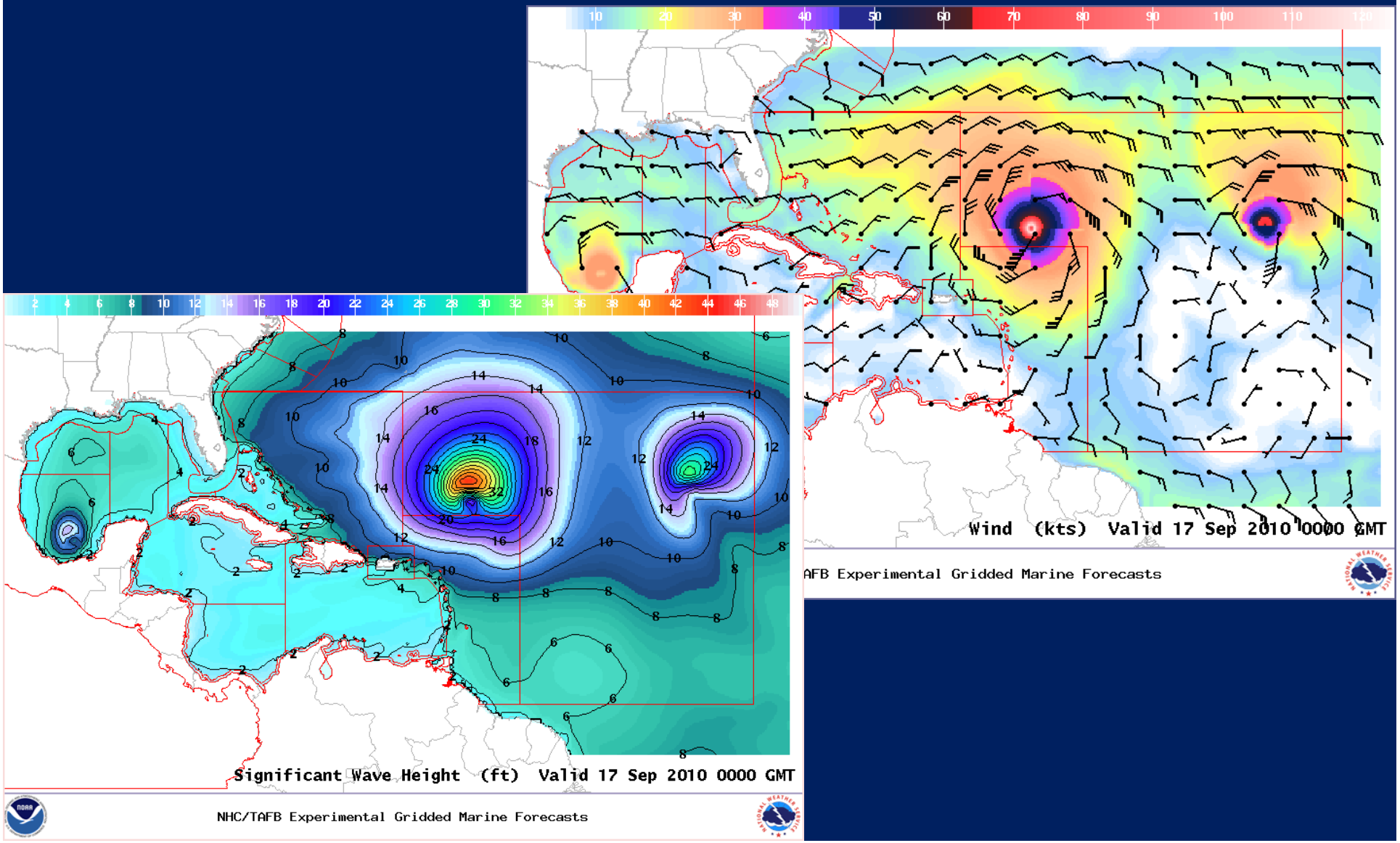

U. S. DEPARTMENT OF COMMERCE, NATIONAL WEATHER SERVICE
NORTH ATLANTIC HURRICANE TRACKING CHART
1992
NORTH ATLANTIC TROPICAL STORMS ORIGINATING IN THE PERIOD 1992
NUMBER TYPE NAME WIND (kt) DATE (UTC)
1 ST ----- 45 APR 21 - APR 24
2 MH ANDREW 150 AUG 16 - AUG 28
3 H BONNIE 95 SEP 17 - OCT 2
4 H CHARLEY 95 SEP 21 - SEP 29
5 T DANIELLE 55 SEP 22 - SEP 26
6 T EARL 55 SEP 26 - OCT 3
7 H FRANCES 75 OCT 22 - OCT 30
Major Hurricane: Category 3 or higher.
Hurricane: Reached hurricane intensity.
Tropical Storm
Tropical Depression
Extratropical Stage
Wave
Subtropical Depression (winds less than 34 kt)
Subtropical Storm (winds 34 kt or higher)
Low
Position/date at 7:00 am E.S.T.
Position at 7:00 pm E.S.T.
Tropical Cyclone Number
Minimum Pressure (mb)

2010


U.S. DEPARTMENT OF COMMERCE, NATIONAL WEATHER SERVICE
NORTH ATLANTIC HURRICANE TRACKING CHART
2010
NUMBER TYPE NAME DATE
1 H ALEX JUN 25- JUL 2
2 T BONNIE JUL 22- 24
3 T COLIN AUG 2- 8
4 MH DANIELLE AUG 21- 30
5 MH EARL AUG 25- SEP 4
6 T FIONA AUG 30- SEP 3
7 T GASTON SEP 1- 2
8 T HERMINE SEP 5- 9
9 MH IGOR SEP 8- 21
10 MH JULIA SEP 12- 20
11 MH KARL SEP 14- 18
12 H LISA SEP 24- 26
13 T MATTHEW SEP 23- 26
14 T NICOLE SEP 28- 29
15 H OTTO OCT 6- 10
16 H PAULA OCT 11- 15
17 H RICHARD OCT 20- 25
18 H SHARY OCT 29- 30
19 H TOMAS OCT 29- NOV 7
see inset
LAMBERT CONFORMAL CONIC PROJECTION
STANDARD PARALLELS AT 30° AND 60°
SCALE OF NAUTICAL MILES
0 250 500
Major Hurricane
Hurricane
Tropical Storm
Tropical Depression
Subtropical Storm
Subtropical Depression
Wave/Low
Extratropical
Position at 0000 UTC
Position/date at 1200 UTC
Storm Number

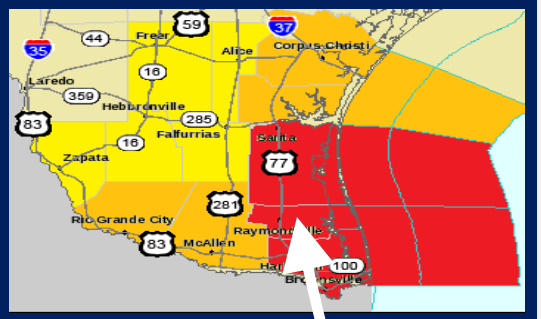
Gridded Marine Forecasts

- **Winds and waves -** http://www.nhc.noaa.gov/tafb/gridded_marine/



NOAA
NATIONAL WEATHER SERVICE
Weather Forecast Office
Hurricane Information
and Decision Support

Hurricane Local Statement Segment Example - Winds



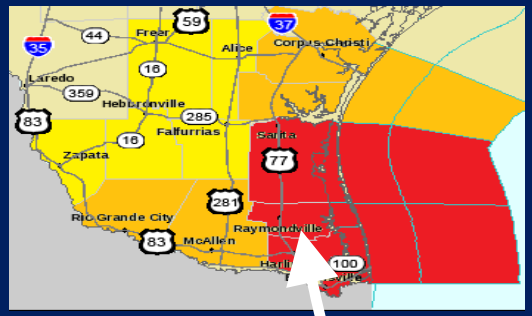
TXZ251-256-257-300400- /O.CON.KBRO.HU.W.1001.000000T0000Z-000000T0000Z/
KENEDY-COASTAL WILLACY-COASTAL CAMERON-
1132 AM CDT TUE JUN 29 2010

...HURRICANE WARNING REMAINS IN EFFECT...

...WINDS...
SUSTAINED NORTHEAST WINDS WILL REMAIN AT 10 TO 20 MPH THIS AFTERNOON...WITH GUSTS TO 30 MPH IN RAIN BANDS. WINDS WILL INCREASE TO 15 TO 25 MPH OVERNIGHT...WITH GUSTS TO 35 MPH IN RAIN BANDS. TROPICAL STORM FORCE WINDS WILL ARRIVE AROUND MIDDAY WEDNESDAY...WITH HURRICANE FORCE WINDS ARRIVING AS EARLY AS SUNSET AND CONTINUING THROUGH MIDNIGHT OR LATER BEFORE SLOWLY DIMINISHING THURSDAY. WIND SPEEDS COULD BE HIGHER DEPENDING ON WHETHER ALEX STRENGTHENS RAPIDLY OVERNIGHT TONIGHT IN THE OPEN WATERS OF THE GULF.

IMPACT STATEMENT: DAMAGING WINDS EXPECTED. MOST MOBILE HOMES WILL EXPERIENCE MODERATE TO SUBSTANTIAL DAMAGE. SOME OF POOR CONSTRUCTION WILL BE UNINHABITABLE UNTIL REPAIRED. HOUSES OF POOR TO AVERAGE CONSTRUCTION WILL HAVE DAMAGE TO SHINGLES...SIDING...AND GUTTERS. SOME WINDOWS WILL BE BLOWN OUT. UNFASTENED HOME ITEMS OF LIGHT TO MODERATE WEIGHT WILL BECOME AIRBORNE...CAUSING ADDITIONAL DAMAGE AND POSSIBLE INJURY. DOZENS OF WIRES WILL BE BLOWN DOWN. LOCAL POWER OUTAGES WILL AFFECT ENTIRE NEIGHBORHOODS. MANY LARGE BRANCHES OF HEALTHY TREES WILL BE SNAPPED...AND ROTTING SMALL TO MEDIUM SIZED TREES WILL BE UPROOTED. DOZENS OF PALM FRONDS WILL BE BLOWN DOWN...AND MINOR DAMAGE WILL OCCUR TO CITRUS ORCHARDS AND NEWLY PLANTED LOWLAND CROPS.

Hurricane Local Statement Segment (Continued)



TXZ251-256-257-300400- /O.CON.KBRO.HU.W.1001.000000T0000Z-000000T0000Z/
KENEDY-COASTAL WILLACY-COASTAL CAMERON-
1132 AM CDT TUE JUN 29 2010

...INLAND FLOODING...

OUTER RAIN BANDS WILL PRODUCE ONE HALF TO ONE AND ONE HALF INCHES OF RAIN THROUGH MIDNIGHT TONIGHT. HEAVIER BANDS WILL ARRIVE AFTER MIDNIGHT INTO MIDDAY WEDNESDAY WITH ANOTHER HALF TO ONE AND ONE HALF INCHES OF RAIN. SQUALLS WILL FOLLOW WEDNESDAY AFTERNOON AND CONTINUE THROUGH WEDNESDAY NIGHT BEFORE TAPERING OFF BY NOON THURSDAY. STORM TOTAL RAINFALL WILL RANGE FROM 6 TO 12 INCHES BUT COULD BE AS HIGH AS 15 INCHES WHERE LOCALLY HEAVY RAINS FALL.

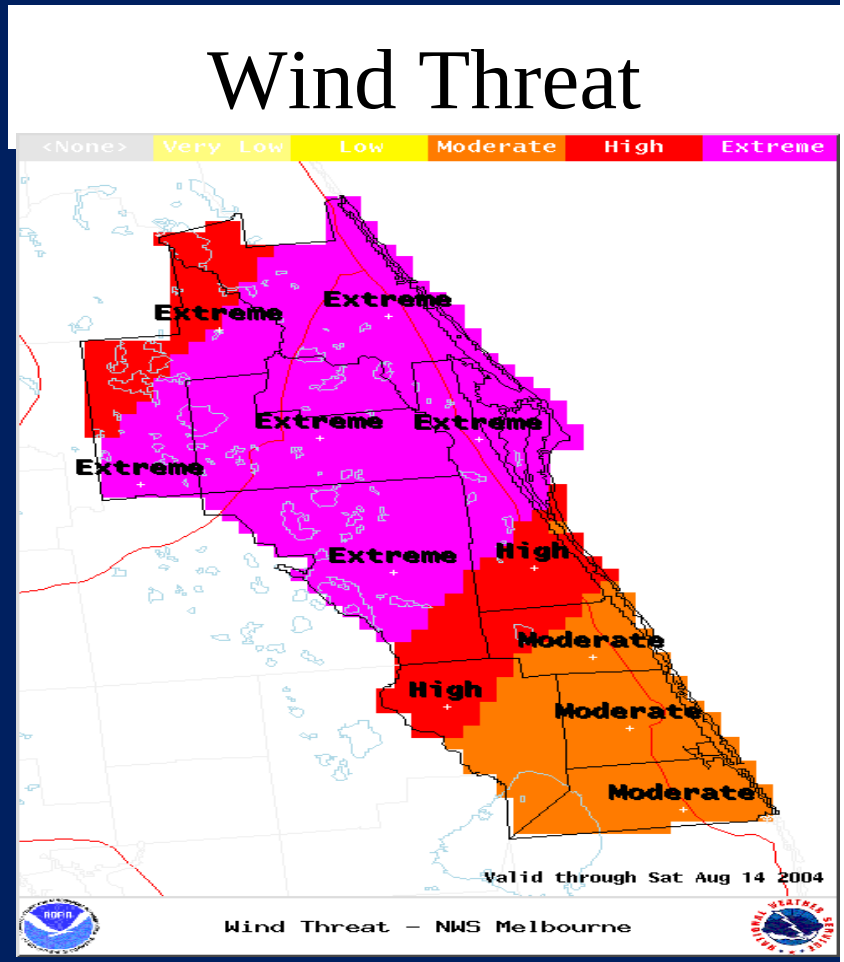
A FLOOD WATCH IS IN EFFECT FOR THE ENTIRE AREA. RESIDENTS CAN PLAN ON THE FOLLOWING IMPACTS: THIS MAY BECOME A DANGEROUS FLOOD SITUATION! PERSONS LIVING IN OR NEAR POOR DRAINAGE AREAS SHOULD CONSIDER EVACUATION IMMEDIATELY. SIGNIFICANT PROPERTY DAMAGE WILL OCCUR IN THESE LOCATIONS. MINOR PROPERTY DAMAGE IS POSSIBLE IN OTHER AREAS. SOME POWER OUTAGES ARE EXPECTED. WATER LEVELS IN VERY POOR DRAINAGE AREAS WILL APPROACH 7 FEET. OTHER POOR DRAINAGE LOCATIONS WILL HAVE RISES BETWEEN 3 AND 5 FEET. ELSEWHERE...EXPECT WATER RISES TO NEAR 2 FEET. NUMEROUS MAIN ROADS WILL BE CLOSED. DRIVING IS HIGHLY DISCOURAGED UNTIL WELL AFTER FLOOD WATERS RECEDE.

...STORM SURGE AND STORM TIDE...

IT REMAINS DIFFICULT TO DETERMINE THE EXACT HEIGHT OF THE STORM TIDE FOR SPECIFIC LOCATIONS ALONG THE DEEP SOUTH TEXAS COAST GIVEN REMAINING UNCERTAINTY IN SIZE AND INTENSITY...AND TO A LESSER DEGREE TRACK OF ALEX. THE LATEST FORECAST SUGGESTS A STORM TIDE WHICH COULD RANGE UP TO 7 FEET...RESULTING IN 2 TO 5 FEET OF INUNDATION ABOVE GROUND LEVEL. HIGHEST INUNDATION WOULD FAVOR AREAS WHERE WATER POOLS...INCLUDING THE

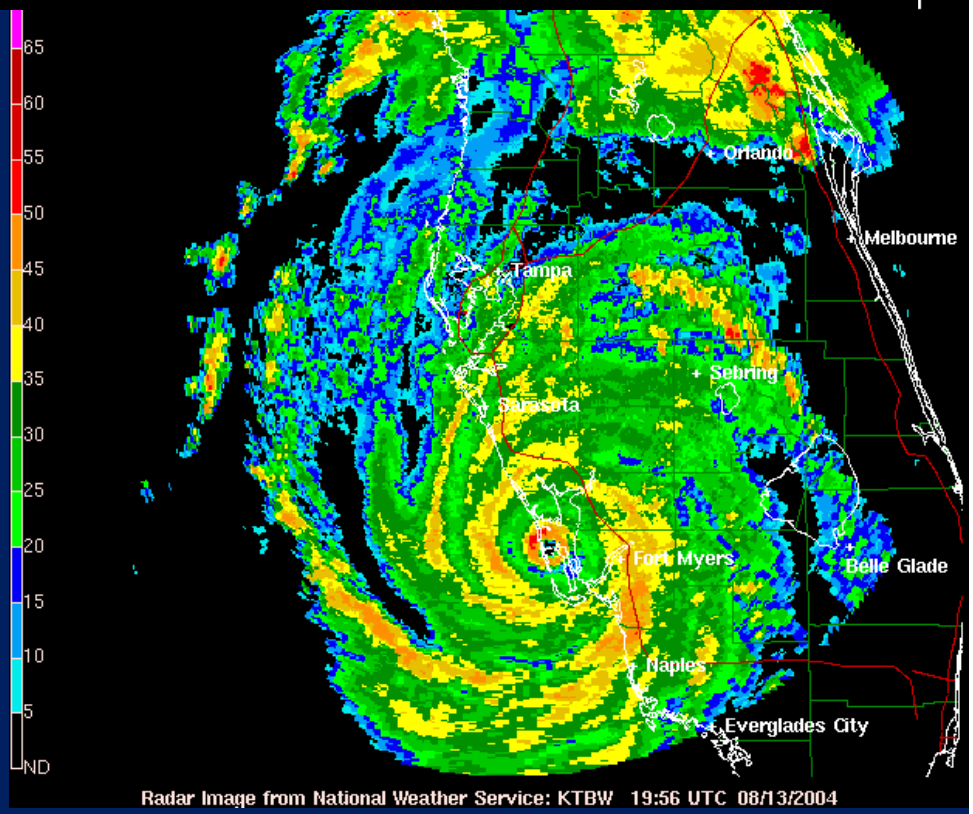
Graphical Tropical Cyclone Hazards

- Five parameters available
  - Wind
  - Storm Surge Flooding
  - Inland Flooding
  - Tornadoes
  - Marine Hazards
- Color-coded for risk, threat, and impact
  - Standard scheme applied :
    - **Yellow (low)** to **Magenta (extreme)**



Extreme Wind Warning (EWW)

Inform the public of the need to take immediate shelter in an interior portion of a well-built structure due to the onset of extreme tropical cyclone winds.



Issuance Criteria - An EWW issued:

-Tropical cyclone is a CAT 3 or greater (115 mph or greater).

-Valid time 2 hours or less

Questions?