

A satellite image of a hurricane over the Atlantic Ocean, with a map of the United States overlaid. The hurricane is a large, circular storm system with a dark eye and a bright, swirling cloud structure. The map shows the continental United States, with the hurricane positioned off the East Coast. The background is a warm, orange-red color, suggesting a high-contrast or false-color satellite image.

Hurricane Season Forecast 2013

NCEM-ECU Annual Hurricane Workshop

May 22, 2013

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First, a review of 2012

- 19 named storms (normal 12)
- 10 reached hurricane status (normal 6)
- 2 reached major hurricane status (normal 2)



2012 Atlantic Basin Tropical Cyclones

Type/ Cat	Name	Dates	Max Wind (mph)	Min Press (mb)	Deaths	U.S. Damage
TS	Alberto	19 – 22 May	60	995		
TS	Beryl	26 – 30 May	70	992	1	
H1	Chris	18 – 22 June	85	974		
TS	Debby	23 – 27 June	65	990	5	\$250M
H2	Ernesto	1 – 10 Aug	100	973	7	
TS	Florence	3 – 6 Aug	60	1002		
H2	Gordon	15 – 20 Aug	110	965		
TS	Helene	9 – 18 Aug	45	1004		
H1	Isaac	21 Aug – 1 Sep	80	965	34	\$2.35B
TS	Joyce	22 – 24 Aug	40	1006		
H2	Kirk	28 Aug – 2 Sep	105	970		
H1	Leslie	30 Aug – 11 Sep	80	968		
H3	Michael	3 – 11 Sept	115	964		
H1	Nadine	10 Sept – 3 Oct	90	978		
TS	Oscar	3 – 5 Oct	50	994		
TS	Patty	11 – 13 Oct	45	1005		
H1	Rafael	12 – 17 Oct	90	969	1	
H3	Sandy	22 – 29 Oct	115	940	147	\$50B
TS	Tony	22 – 25 Oct	50	1000		

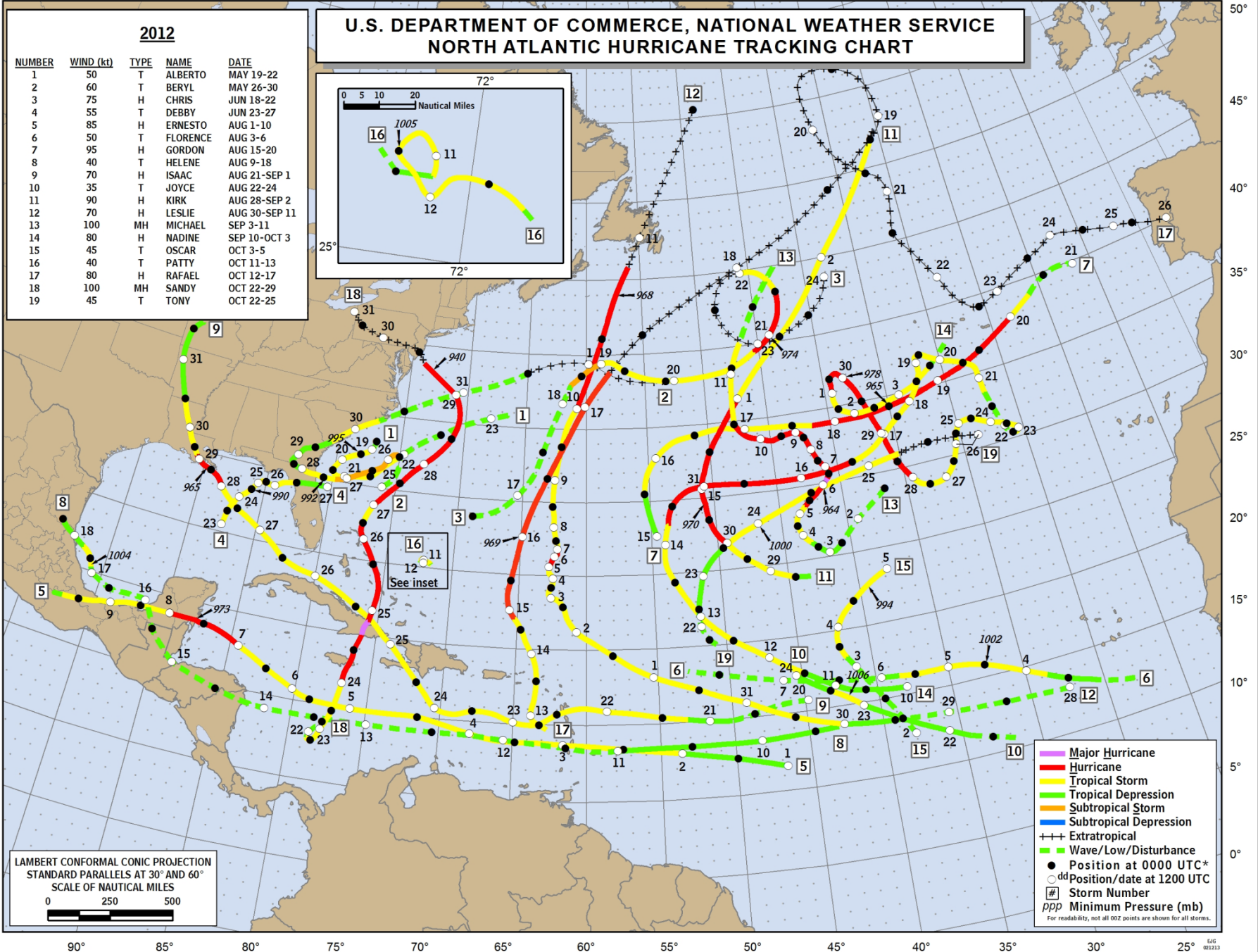
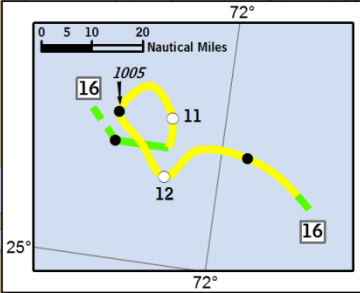
Note: Dates are based on Universal Coordinated Time (UTC).



U.S. DEPARTMENT OF COMMERCE, NATIONAL WEATHER SERVICE NORTH ATLANTIC HURRICANE TRACKING CHART

2012

NUMBER	WIND (kt)	TYPE	NAME	DATE
1	50	T	ALBERTO	MAY 19-22
2	60	T	BERYL	MAY 26-30
3	75	H	CHRIS	JUN 18-22
4	55	T	DEBBY	JUN 23-27
5	85	H	ERNESTO	AUG 1-10
6	50	T	FLORENCE	AUG 3-6
7	95	H	GORDON	AUG 15-20
8	40	T	HELENE	AUG 9-18
9	70	H	ISAAC	AUG 21-SEP 1
10	35	T	JOYCE	AUG 22-24
11	90	H	KIRK	AUG 28-SEP 2
12	70	H	LESLIE	AUG 30-SEP 11
13	100	MH	MICHAEL	SEP 3-11
14	80	H	NADINE	SEP 10-OCT 3
15	45	T	OSCAR	OCT 3-5
16	40	T	PATTY	OCT 11-13
17	80	H	RAFAEL	OCT 12-17
18	100	MH	SANDY	OCT 22-29
19	45	T	TONY	OCT 22-25



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
 - +++ Extratropical
 - Position at 0000 UTC*
 - Position/date at 1200 UTC
 - # Storm Number
 - ppp Minimum Pressure (mb)
- For readability, not all 00z points are shown for all storms.

ACE – Accumulated Cyclone Energy

- A nice way to measure overall risk.
- It takes into account the number of named storms, their strength, and how long they last.
- Normal ACE value for the Atlantic Basin is 96.
- In 2012, ACE was 133.
- Those groups which have issued forecasts, their ACE range for 2013 is typically coming in between 130 & 175.



NOAA's Forecast?

- Well, it comes out on May 23rd.
- Many of the groups doing hurricane season forecasting look at similar variables.
- So, don't be surprised if NOAA's forecast comes out anticipating above average hurricane season activity.
- And if NOAA's forecast is for near normal or below average hurricane season activity?
 - Let's hope NOAA is correct!!



One final (ominous) note

- The U.S. is experiencing an unprecedented drought of major hurricanes (category 3 or higher). We have gone the longest in recorded history (going back to the 19th Century) without a major hurricane striking the U.S. coast. Every day without a major hurricane adds to the record. Our last major hurricane was Wilma in 2005.
- How many landfalling major hurricanes should the U.S. have had over this time period based on long-term averages? **Four!**

