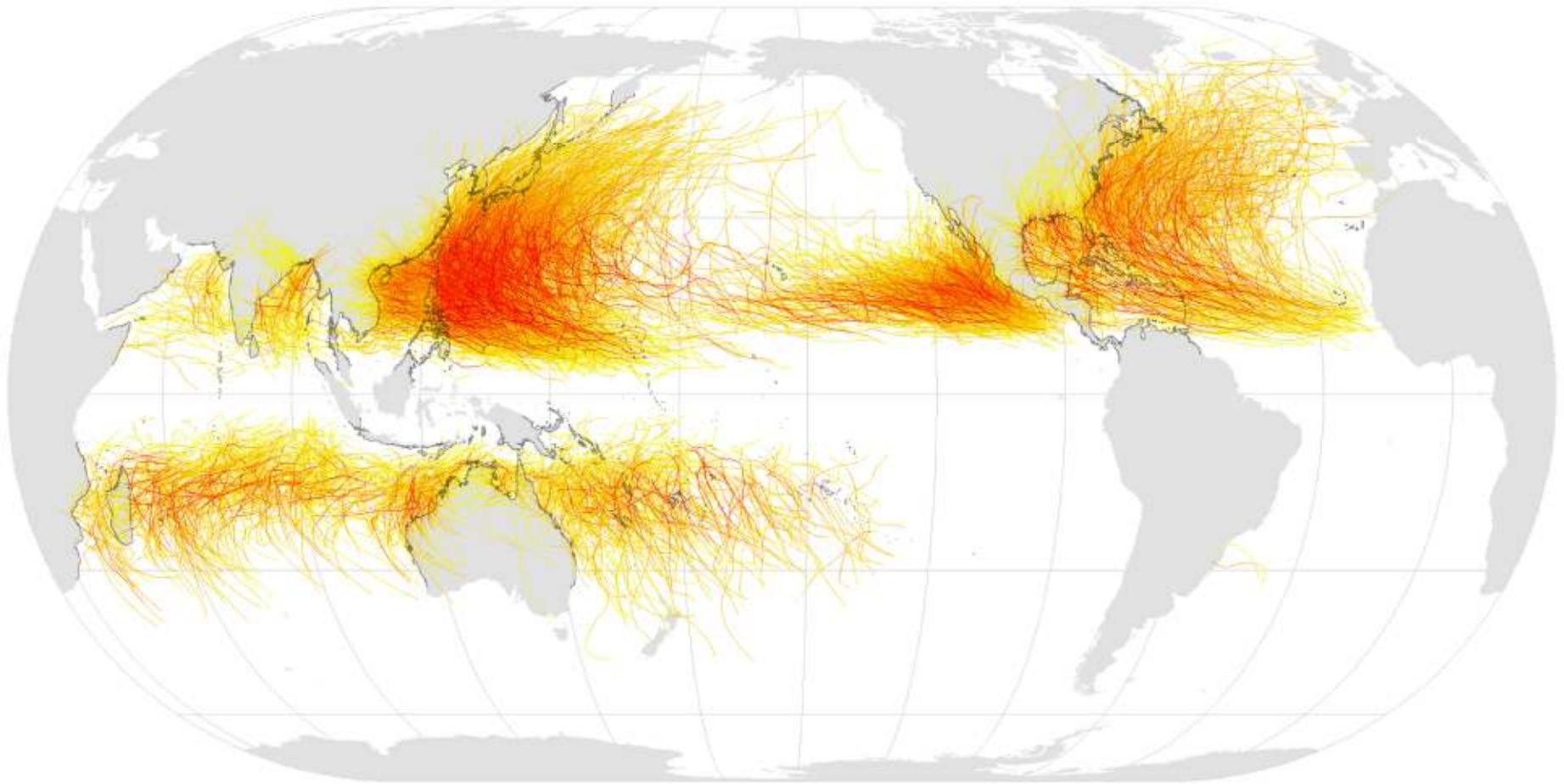


Hurricane Season 2008



Are You Ready?

Tropical Cyclones, 1945–2006



Saffir-Simpson Hurricane Scale:

tropical
depression

tropical
storm

hurricane
category 1

hurricane
category 2

hurricane
category 3

hurricane
category 4

hurricane
category 5

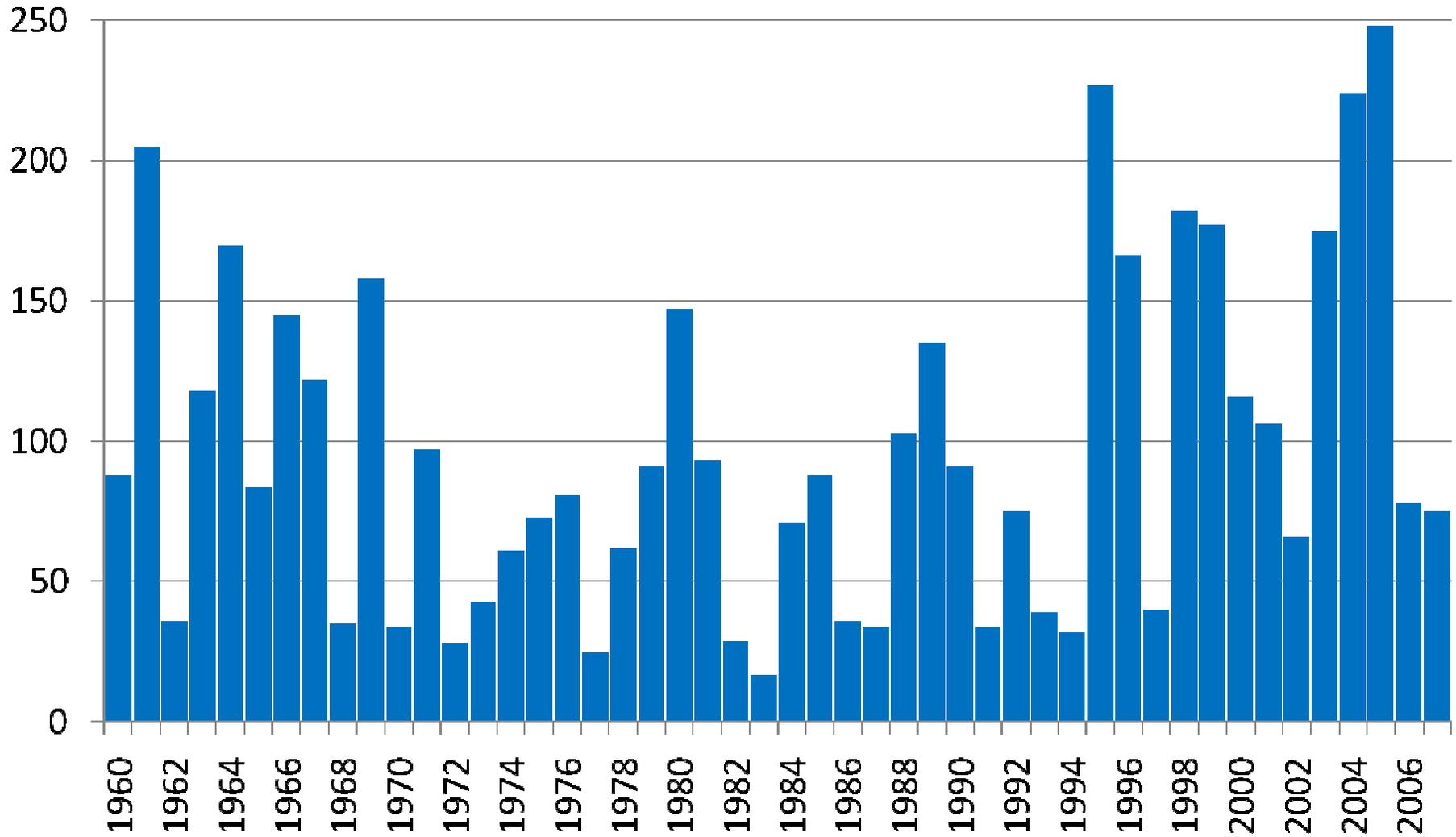
Hurricane Season Duration And Seasonal Averages

Basin	Season Starts	Season Ends	Tropical Storms	Hurricanes	Strong Hurricanes
Northwest Pacific	April	January	26.7	16.9	8.5
South Indian	October	May	20.6	10.3	4.3
Northeast Pacific	May	November	16.3	9.0	4.1
North Atlantic	June	November	10.6	5.9	2.0
Australia	October	May	10.6	4.8	1.9
North Indian	April	December	5.4	2.2	0.4

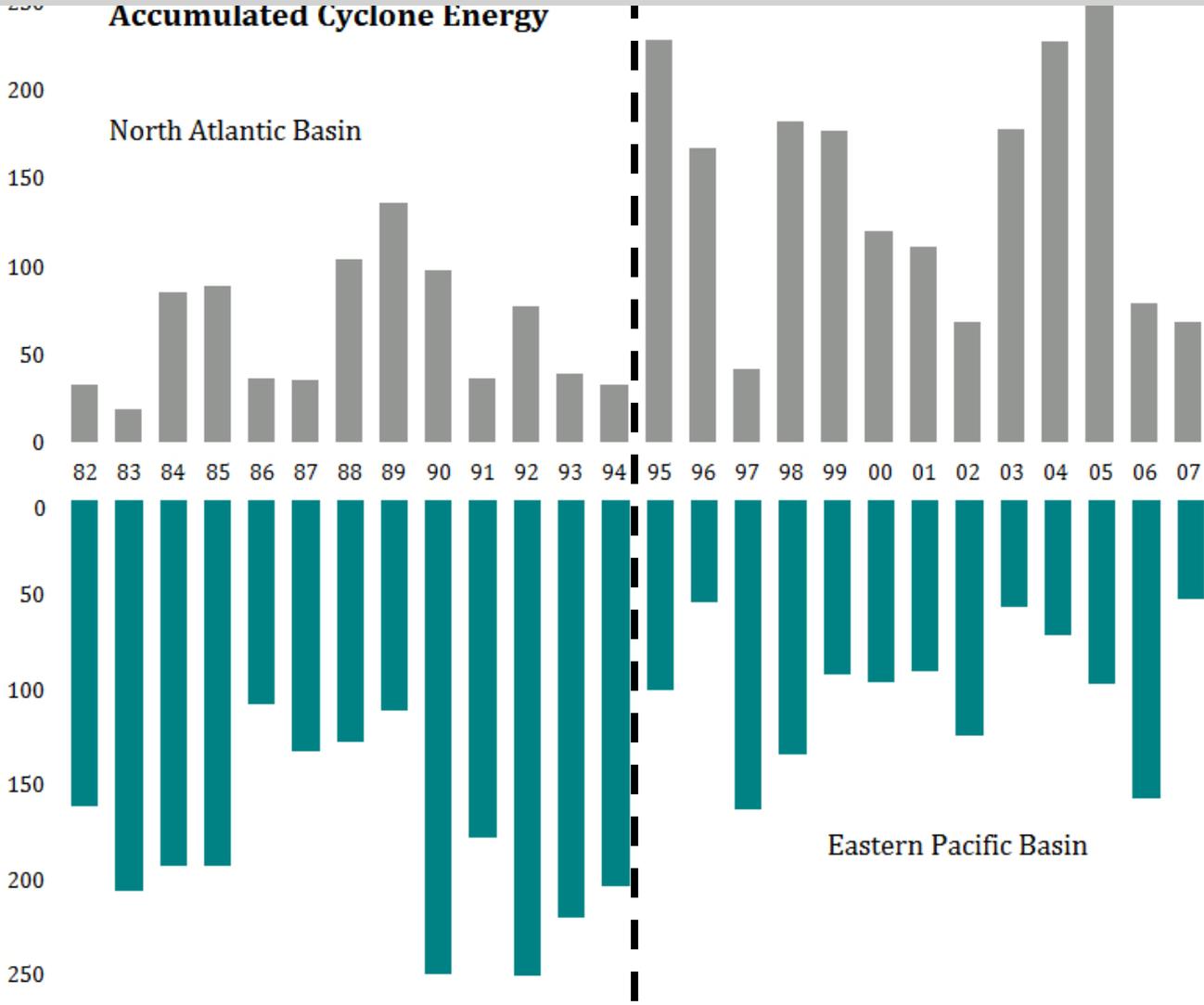
What is ACE?

- Accumulated Cyclone Energy (ACE)
 - An approximation of how much energy is used by a tropical cyclone during its lifetime
 - All tropical storms and hurricanes
 - Sum the square of the maximum wind speed
 - Calculated every six hours

North Atlantic Annual ACE



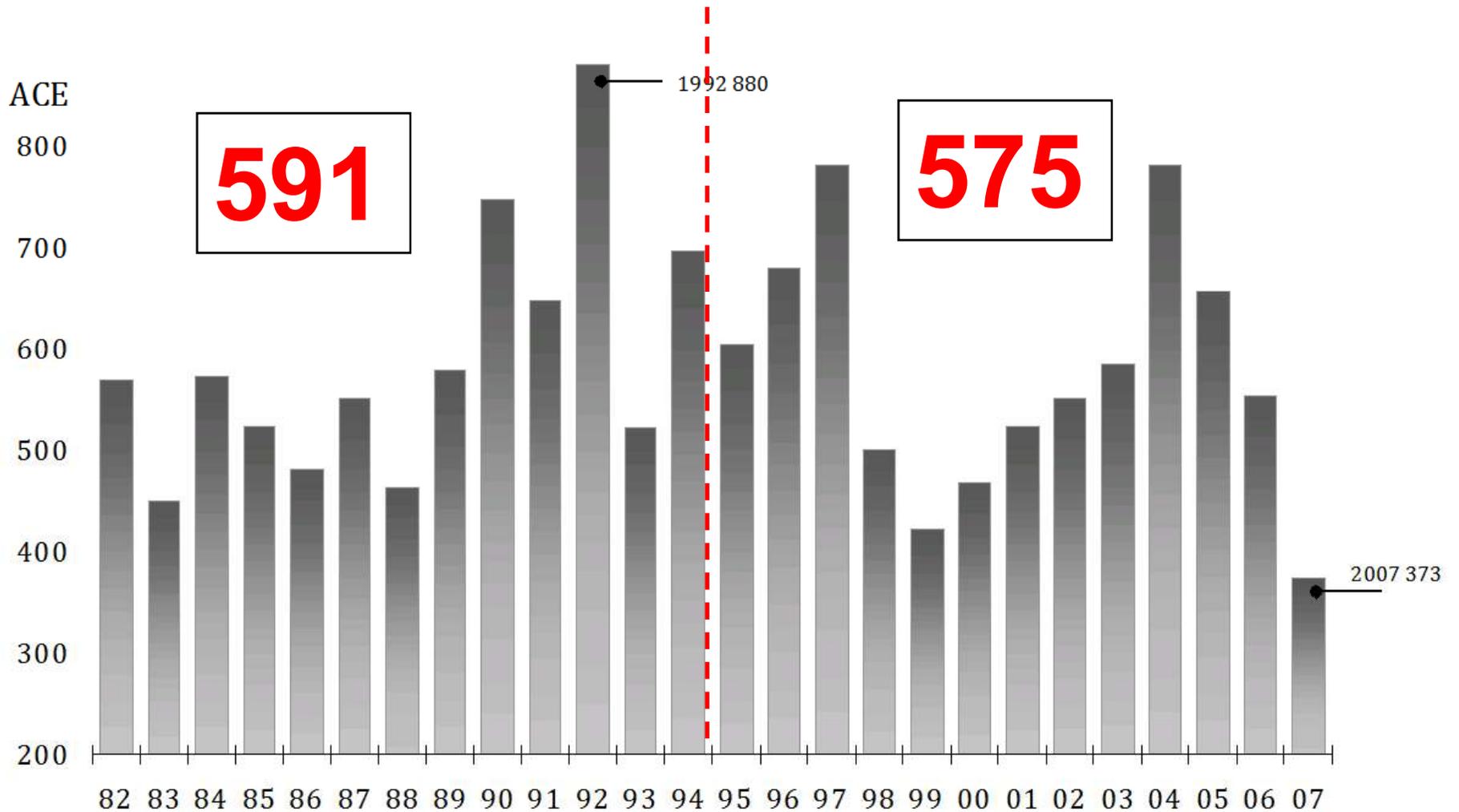
Eastern Pacific + North Atlantic



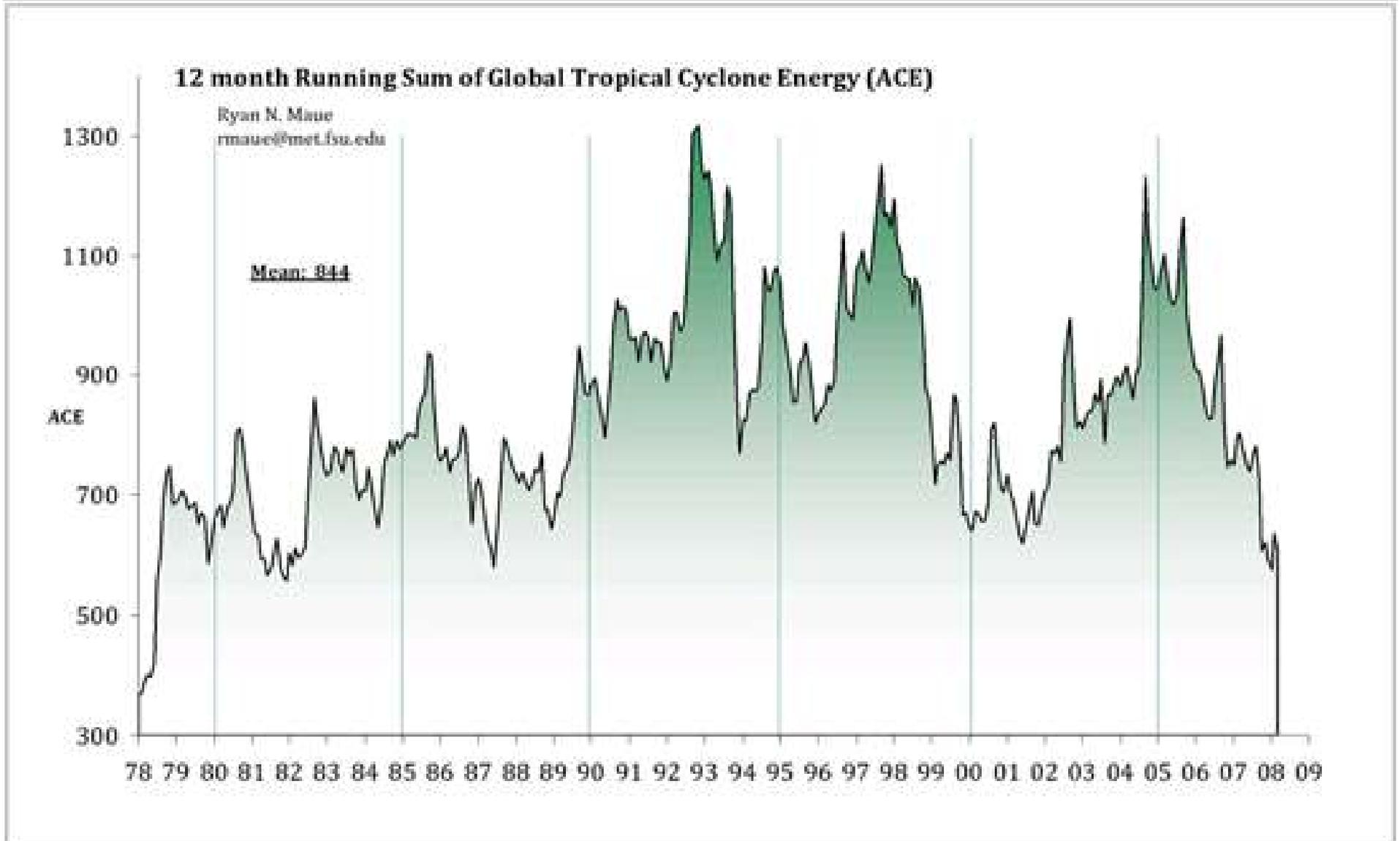
1982-1994
245

1995-2007
245

Northern Hemisphere ACE 1982-2007

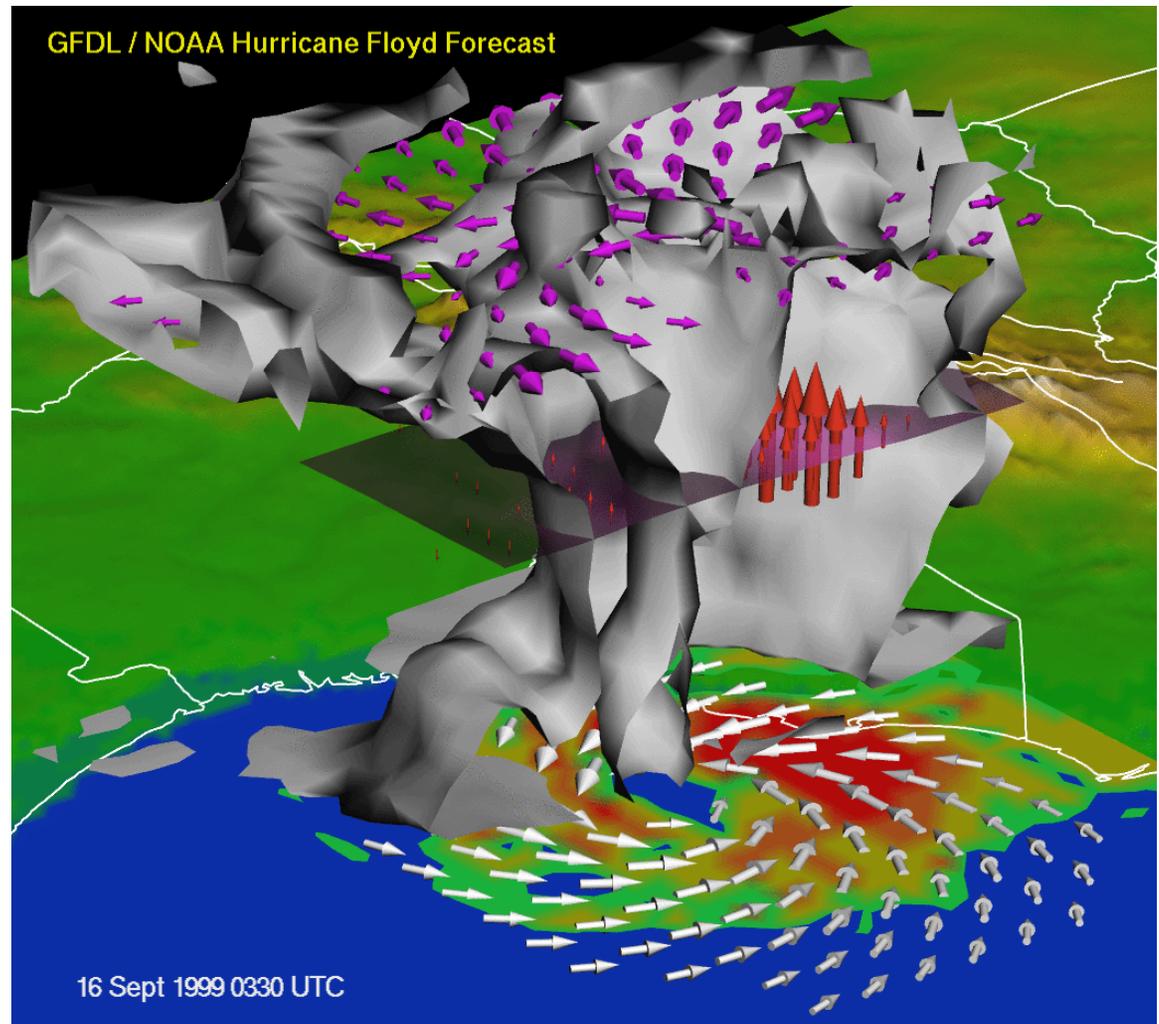


Global ACE Trends, 1978 - 2008

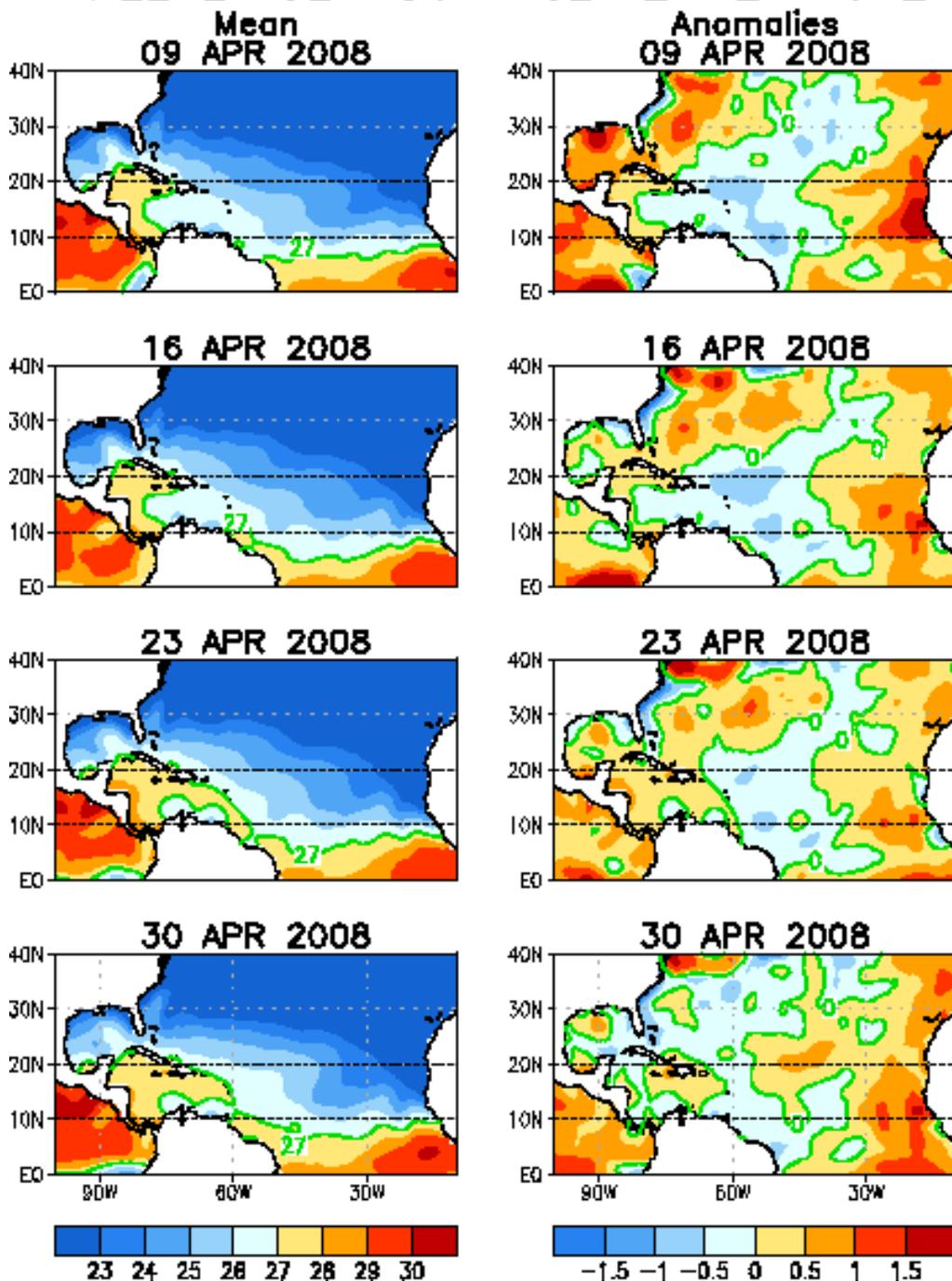


Factors For Hurricane Development

- Sea Surface Temperatures
- Saharan hot, dry air
- Wind Shear
- Steering Currents

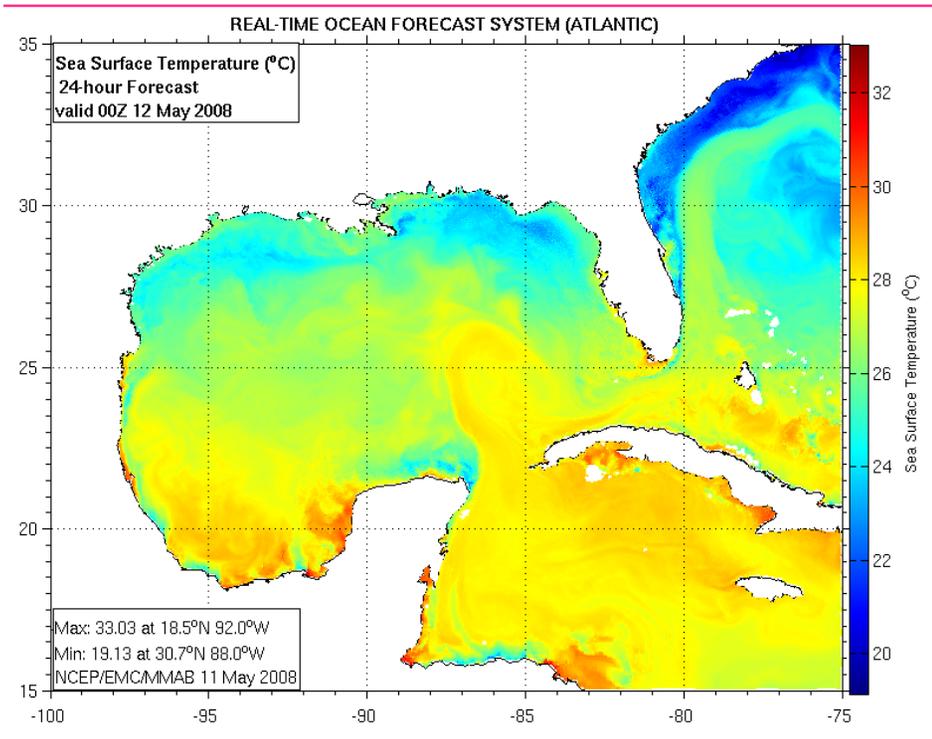


WEEKLY SEA-SURFACE TEMPERATURE

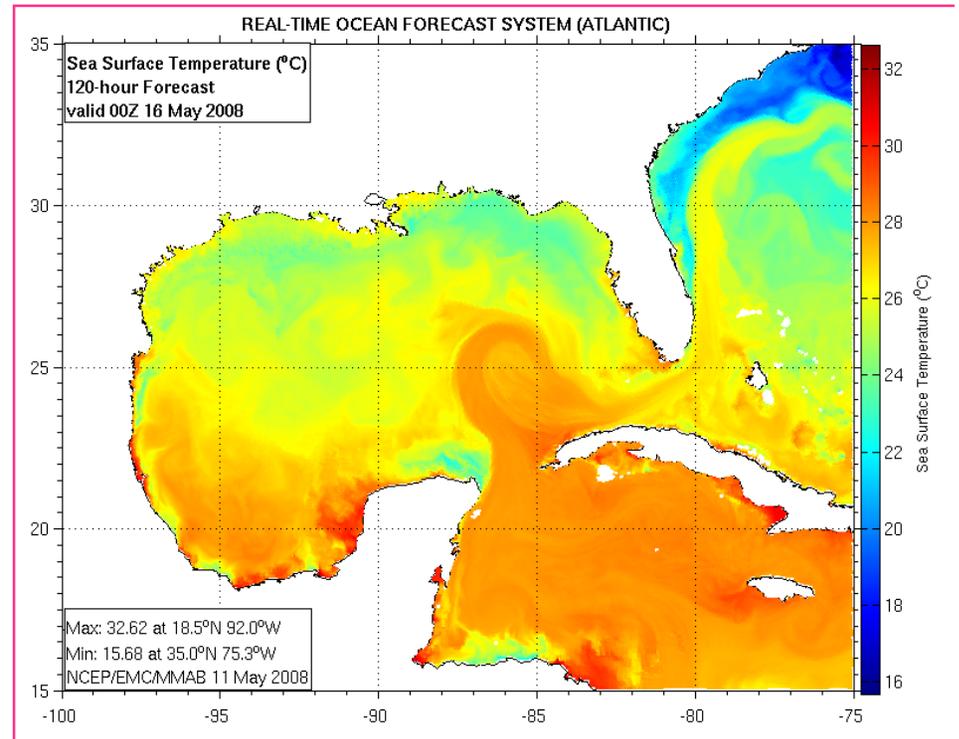


Ocean Surface Temperature Forecasts

Day 1 Forecast

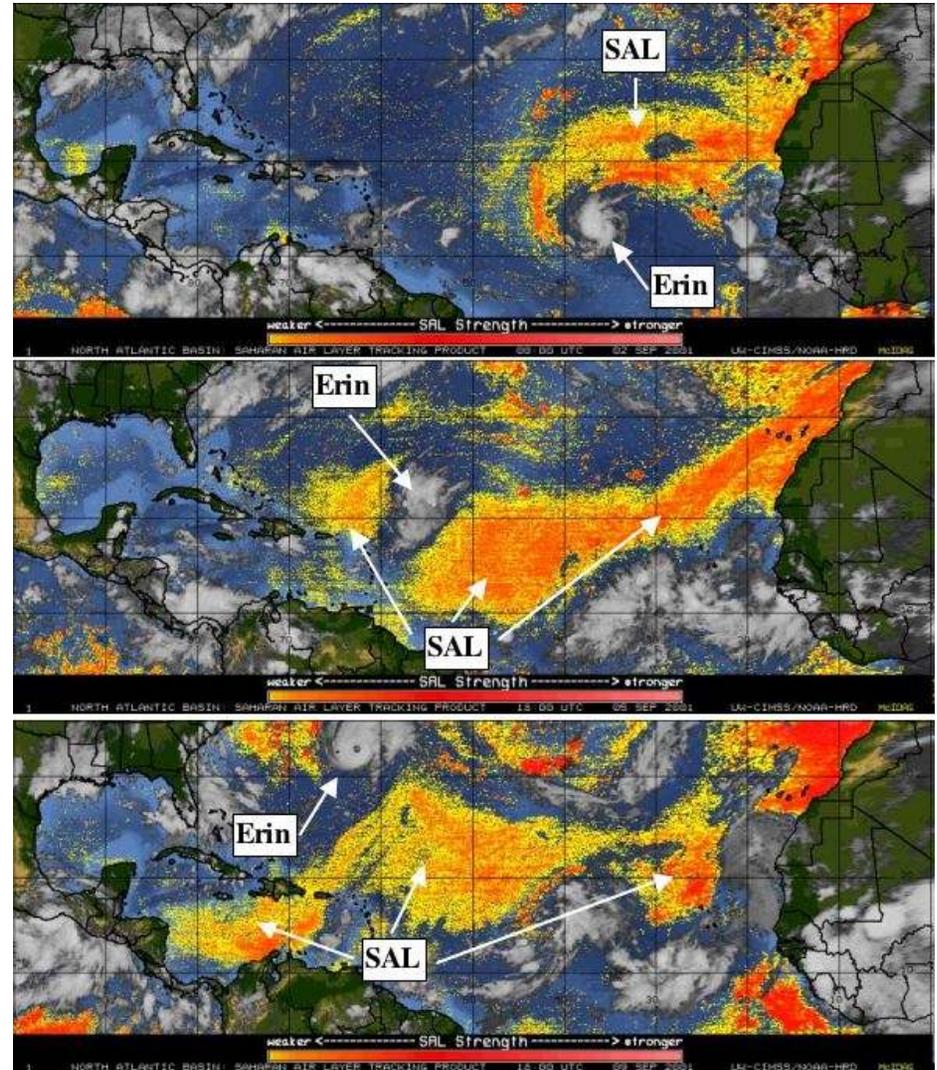


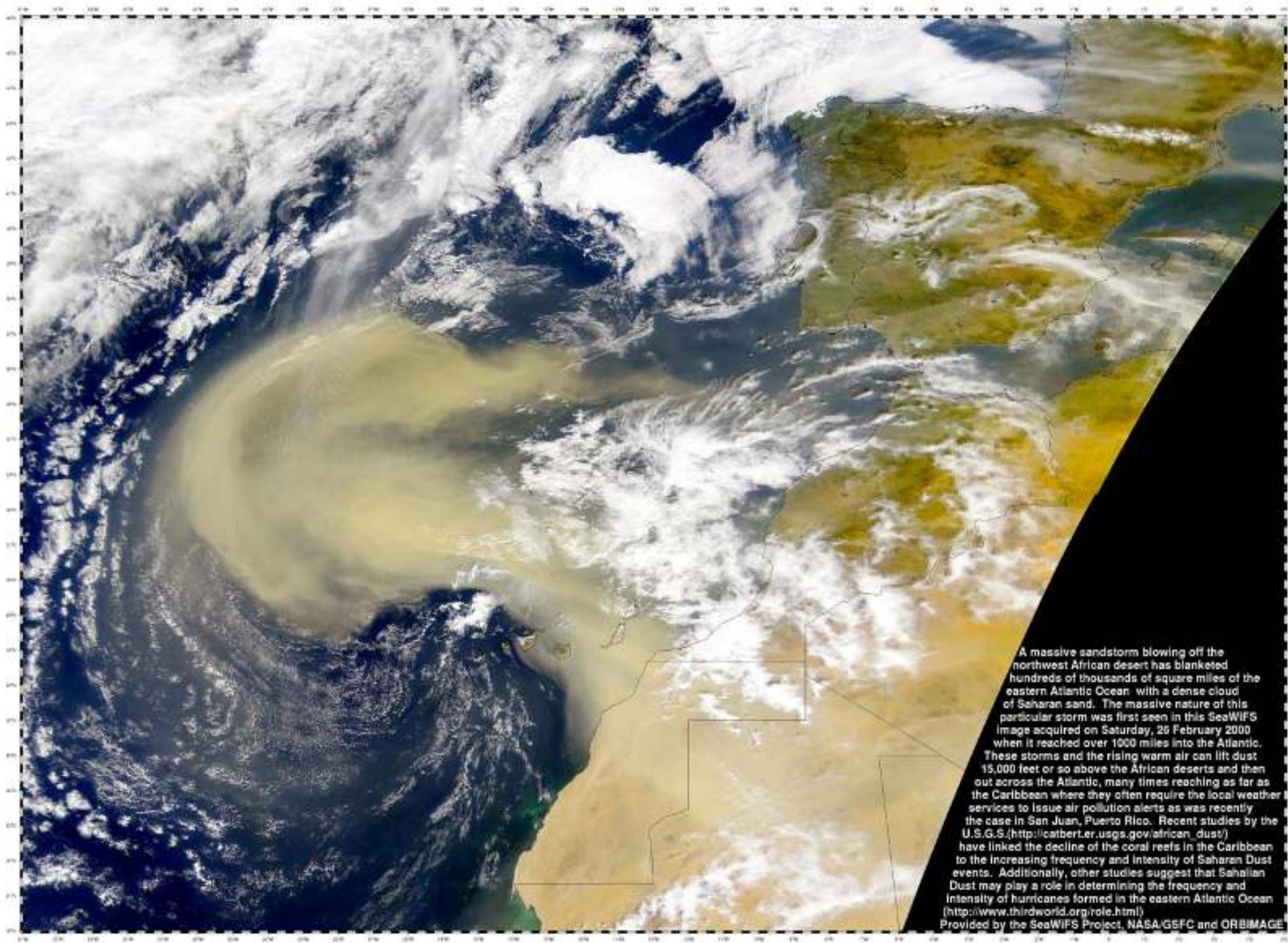
Day 5 Forecast



Saharan Air Layer

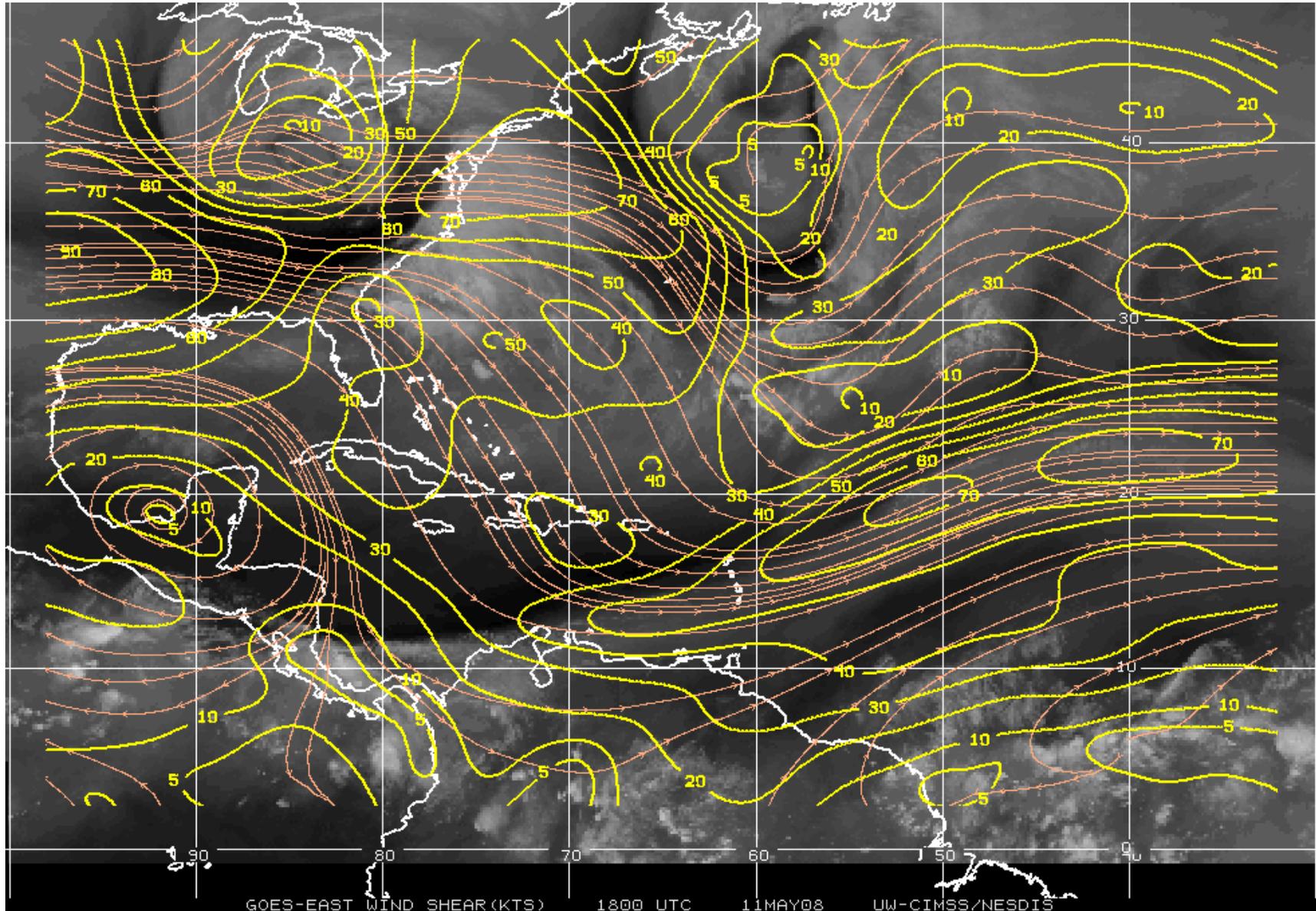
- 5,000 – 20,000 ft
- Dry, dusty air (RH<50%)
- Windy (25-55 mph)
- Can reach across the entire Atlantic Ocean
- A negative impact on hurricane genesis



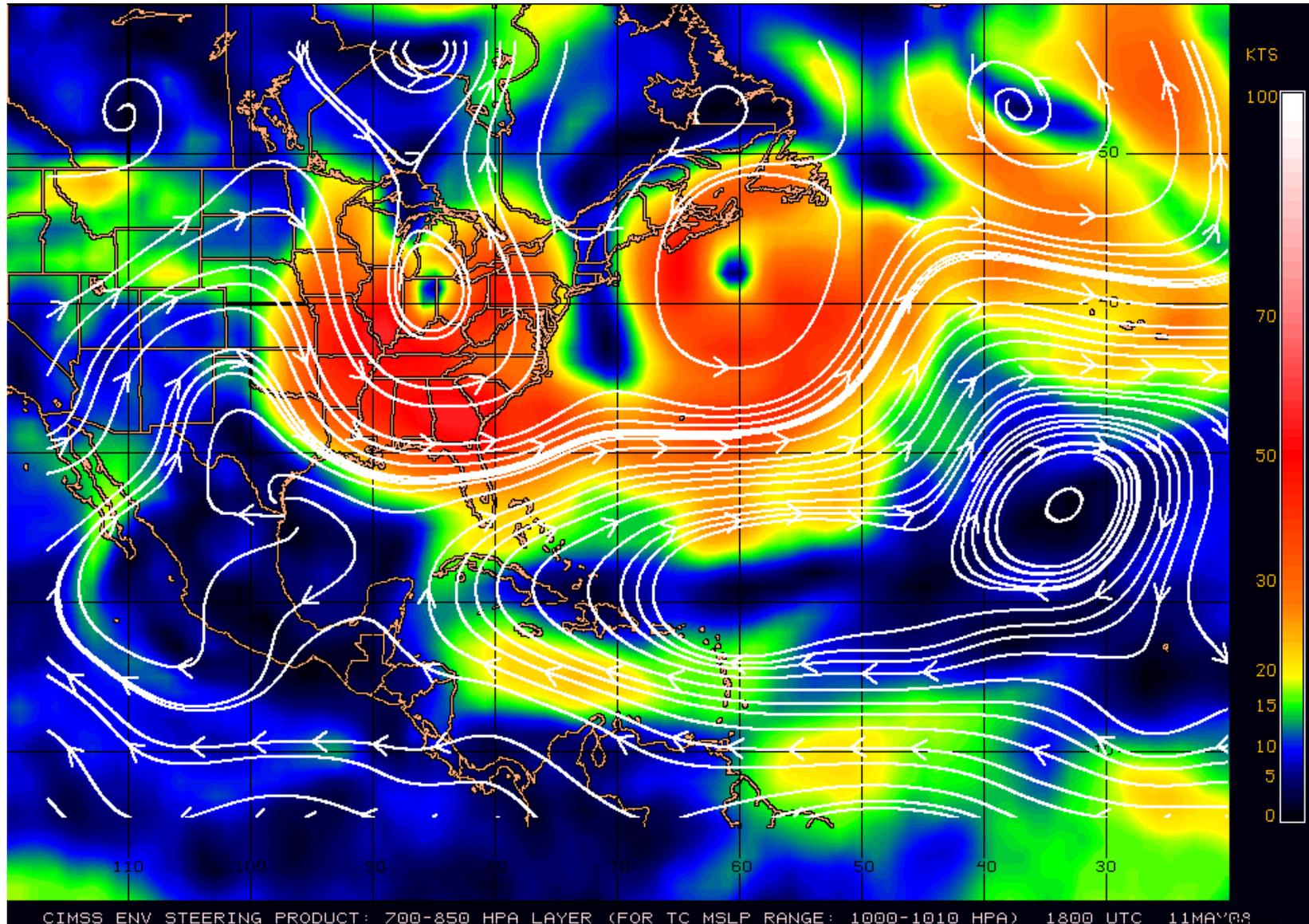


A massive sandstorm blowing off the northwest African desert has blanketed hundreds of thousands of square miles of the eastern Atlantic Ocean with a dense cloud of Saharan sand. The massive nature of this particular storm was first seen in this SeaWiFS image acquired on Saturday, 26 February 2000 when it reached over 1000 miles into the Atlantic. These storms and the rising warm air can lift dust 15,000 feet or so above the African deserts and then out across the Atlantic, many times reaching as far as the Caribbean where they often require the local weather services to issue air pollution alerts as was recently the case in San Juan, Puerto Rico. Recent studies by the U.S.G.S. (http://caibert.er.usgs.gov/african_dust/) have linked the decline of the coral reefs in the Caribbean to the increasing frequency and intensity of Saharan Dust events. Additionally, other studies suggest that Saharan Dust may play a role in determining the frequency and intensity of hurricanes formed in the eastern Atlantic Ocean (<http://www.thirdworld.org/role.html>)
Provided by the SeaWiFS Project, NASA/GSFC and ORBIMAGE

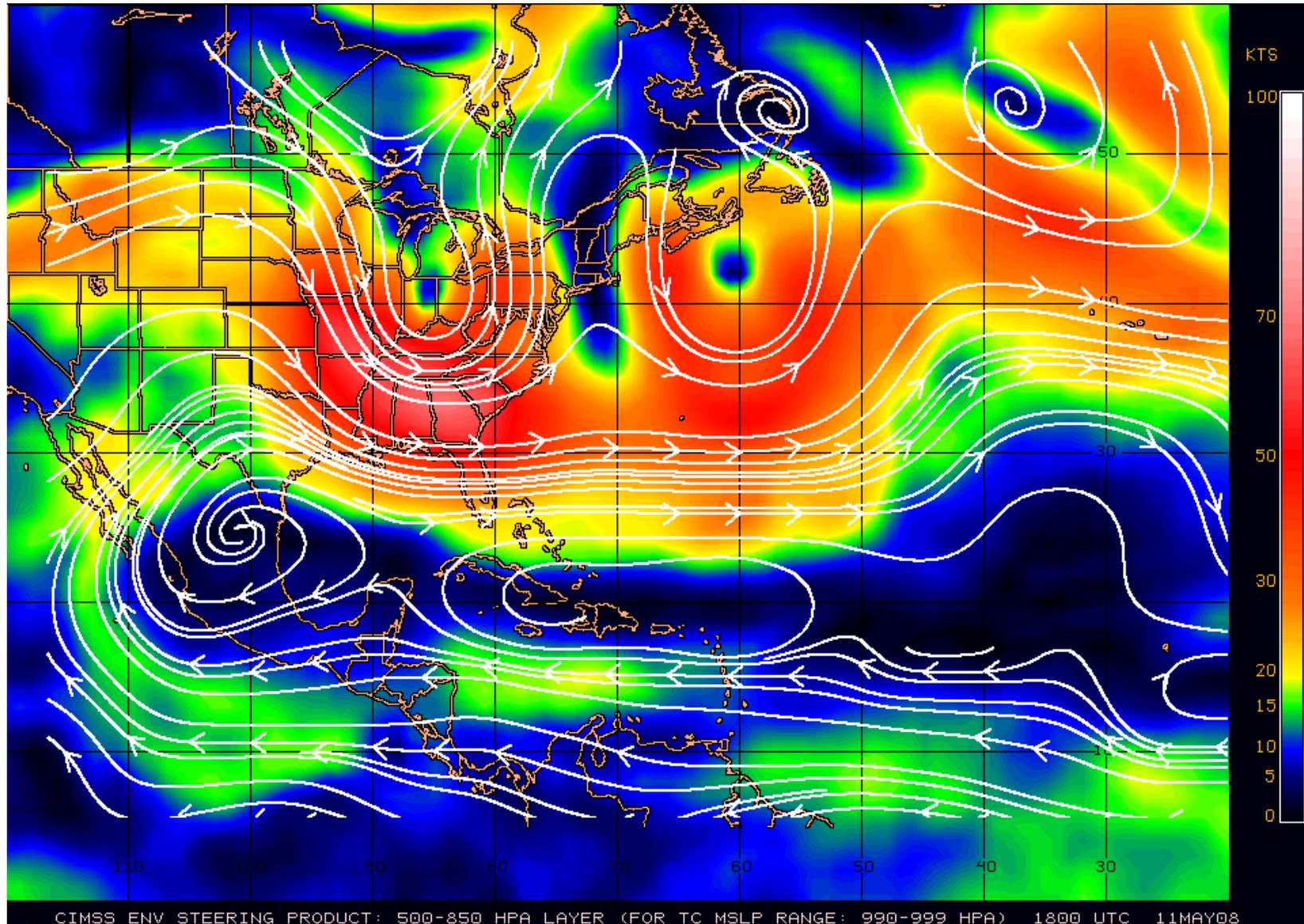
Wind Shear



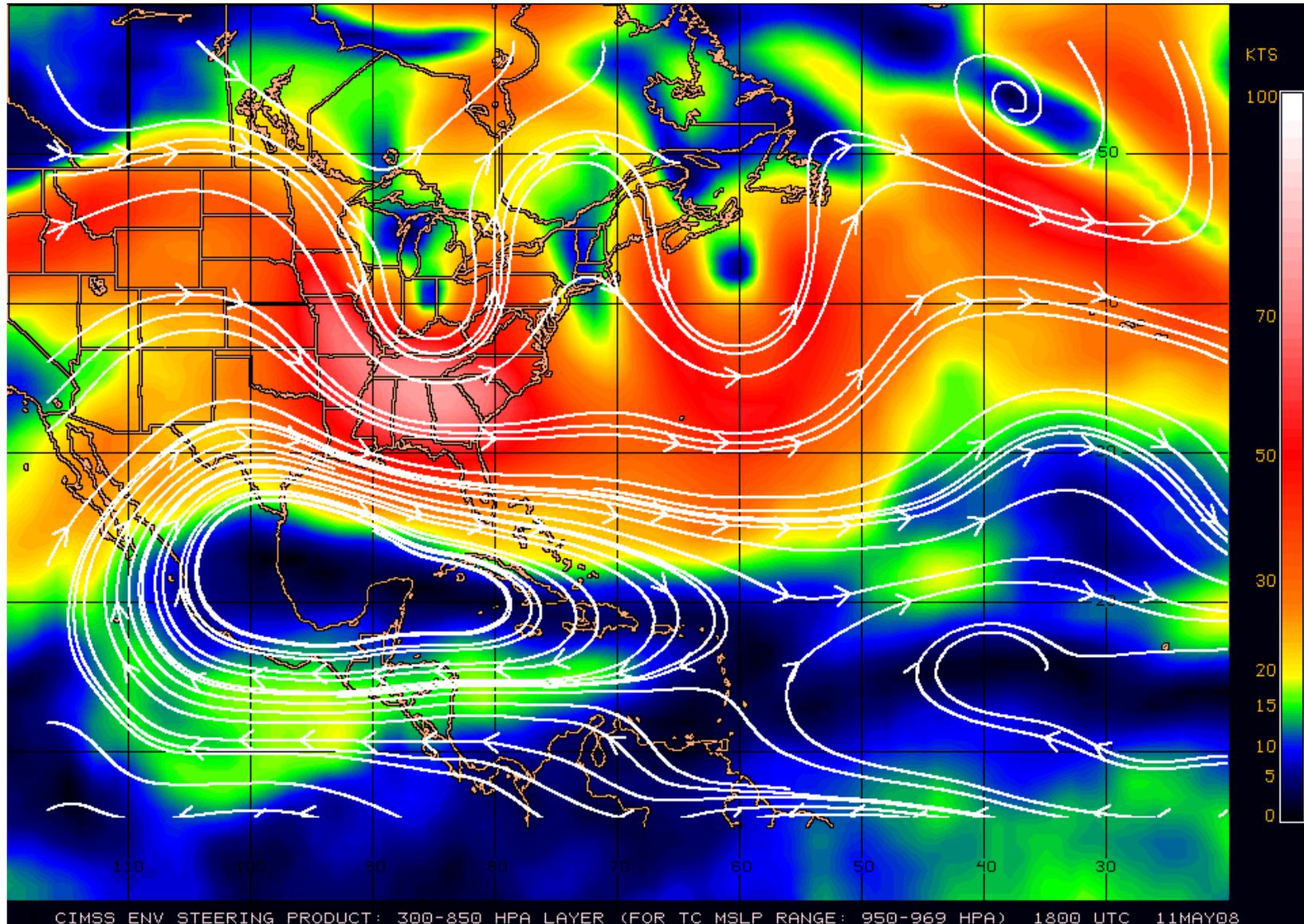
Steering Currents 5,000 – 10,000 ft



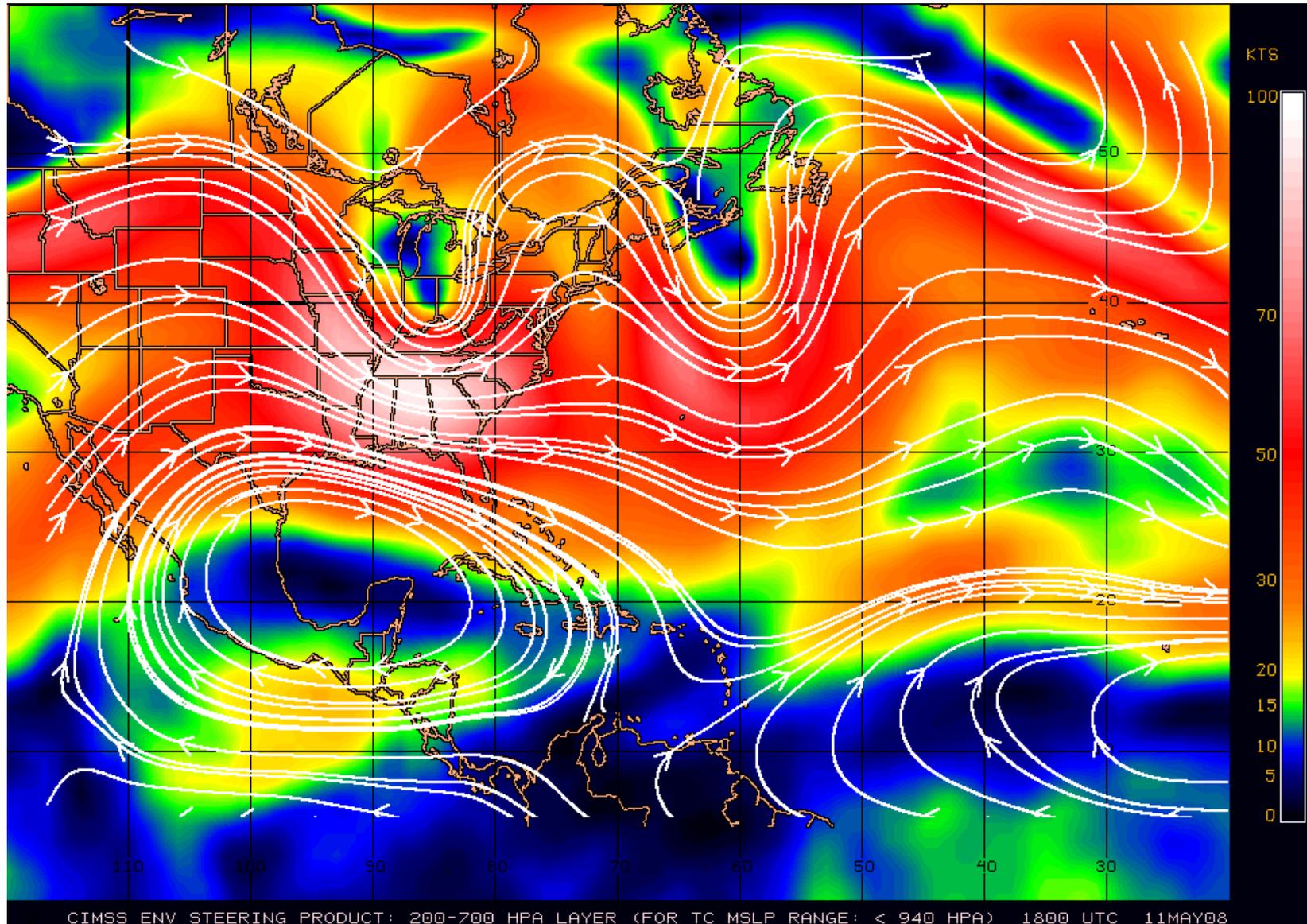
Steering Currents 5,000 – 20,000 ft



Steering Currents 5,000 – 30,000 ft



Steering Currents 10,000 – 40,000 ft

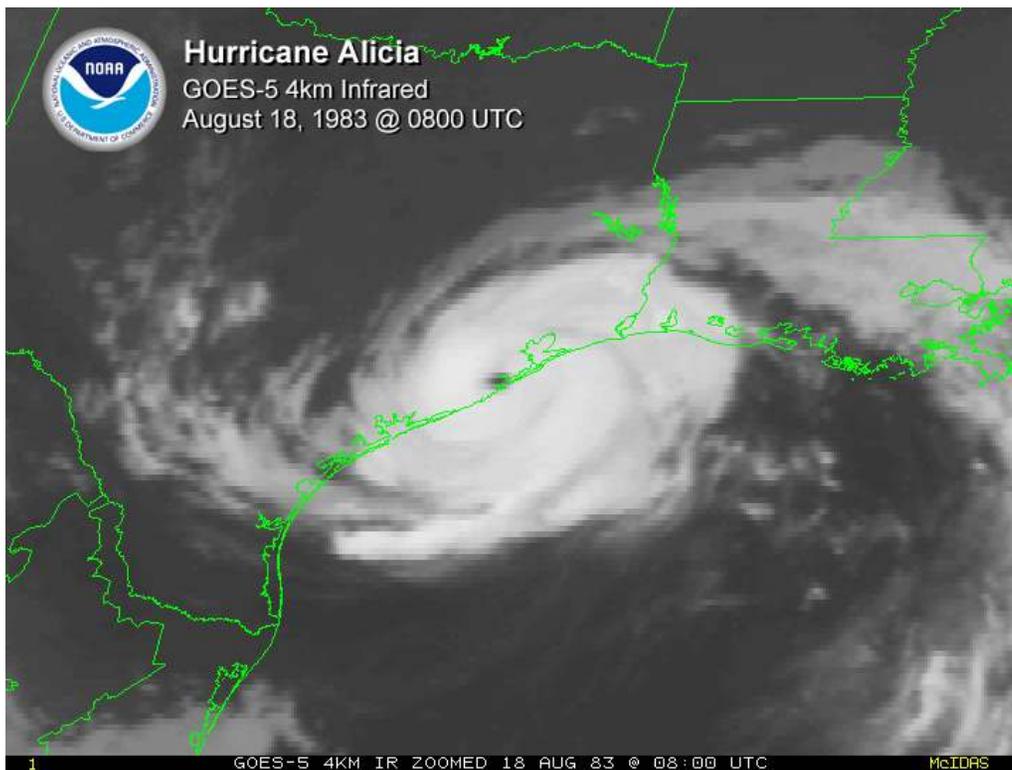


Bill Gray's Forecast

- updated April 1 2008
- **15** named storms
- **8** hurricanes
- **4** intense hurricanes

- New statistical model
- Hindcast accurately predicted above/below average season 45 out of 58 seasons
- Last 13 years have shown no skill over climatology!

But Does It Matter How Many Hurricanes Occur In A Season?



- Only major hurricane of the 1983 season
- August 18th
- Category 3 – 115 mph
- 21 fatalities
- \$5.4 billion (in 2007 \$)

But Does It Matter How Many Hurricanes Occur In A Season?



- Only major hurricane of the 1992 season
- Category 5 – 155 mph - FL
- Category 3 – 115 mph - LA
- 26 fatalities
- \$38.9 billion (in 2007 \$)

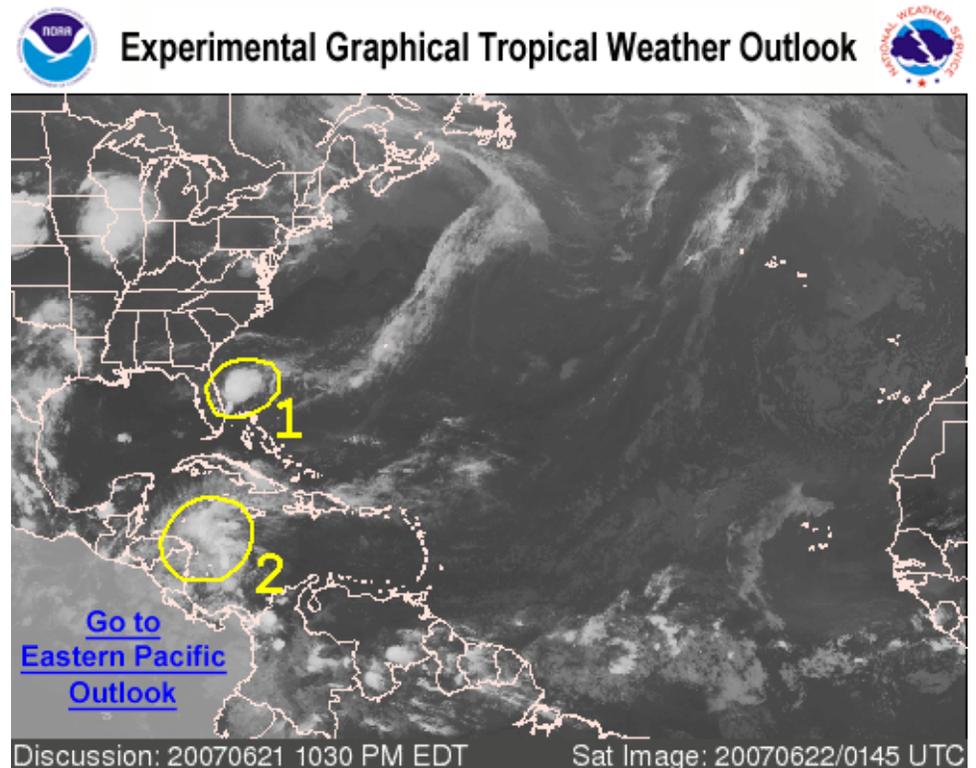
National Weather Service Changes

- Tropical Weather Outlook
- Issued by National Hurricane Center
- At 1 am and 7 am, 1 pm and 7 pm
- Better times for media
- Better times for emergency management



National Weather Service Changes

- Graphical Tropical Weather Outlook
- Issued by National Hurricane Center
- At 1 am and 7 am, 1 pm and 7 pm
- Yellow: Less than 20 % chance of development
- Orange: 20 – 50% chance of development
- Red: Greater than 50 % chance of development



The highlighted and numbered areas, if any, indicate current locations of weather systems discussed in the Tropical Weather Outlook below.

Extend Generalized Forecast Information in Public Advisories to 48 Hours

ZCZC MIATCPAT2 ALL
TTAA00 KNHC DDHMM
BULLETIN
HURRICANE KATRINA ADVISORY NUMBER 10
NWS TPC/NATIONAL HURRICANE CENTER MIAMI FL
11 PM EDT THU AUG 25 2005

...EYE OF KATRINA MOVING SOUTHWESTWARD ACROSS MIAMI-DADE COUNTY...

A HURRICANE WARNING REMAINS IN EFFECT FOR THE SOUTHEAST FLORIDA COAST FROM JUPITER INLET SOUTHWARD TO FLORIDA CITY...INCLUDING LAKE OKEECHOBEE. PREPARATIONS TO PROTECT LIFE AND PROPERTY SHOULD HAVE BEEN COMPLETED.

A TROPICAL STORM WARNING IS IN EFFECT FOR ALL THE FLORIDA KEYS AND FLORIDA BAY FROM KEY WEST NORTHWARD...AND ALONG THE GULF COAST OF FLORIDA FROM LONGBOAT KEY SOUTH AND EASTWARD TO SOUTH OF FLORIDA CITY.

A TROPICAL STORM WATCH REMAINS IN EFFECT FOR PORTIONS THE FLORIDA WEST COAST FROM NORTH OF LONGBOAT KEY TO ANCLOTE KEY. A TROPICAL STORM WATCH MEANS THAT TROPICAL STORM CONDITIONS ARE POSSIBLE WITHIN THE WATCH AREA...GENERALLY WITHIN 36 HOURS.

AT 11 PM EDT...0300Z...THE TROPICAL STORM WARNING AND TROPICAL STORM WATCH ALONG THE EAST COAST OF FLORIDA NORTH OF JUPITER HAVE BEEN DISCONTINUED.

INTERESTS ELSEWHERE ALONG THE GULF COAST OF THE UNITED STATES SHOULD MONITOR THE PROGRESS OF KATRINA.

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

AT 11 PM EDT...0300Z...THE EYE OF HURRICANE KATRINA WAS LOCATED NEAR LATITUDE 25.5 NORTH...LONGITUDE 80.7 WEST OR ABOUT 35 MILES... SOUTHWEST OF MIAMI FLORIDA OR 20 MILES NORTHWEST OF THE CITY OF HOMESTEAD.

KATRINA IS MOVING TOWARD THE SOUTHWEST NEAR 8 MPH AND THIS MOTION IS EXPECTED TO CONTINUE DURING THE NEXT SEVERAL HOURS. KATRINA IS EXPECTED TO MOVE OVER THE EASTERN GULF OF MEXICO FRIDAY AND SATURDAY.

MAXIMUM SUSTAINED WINDS ARE NEAR 75 MPH WITH HIGHER GUSTS. KATRINA IS A CATEGORY ONE HURRICANE ON THE SAFFIR-SIMPSON SCALE. SOME ADDITIONAL WEAKENING IS ANTICIPATED WHILE KATRINA IS OVER LAND. AND IT COULD WEAKEN TO A TROPICAL STORM EARLY ON FRIDAY. RESTRENGTHENING IS EXPECTED ON FRIDAY OR SATURDAY. AND KATRINA COULD BECOME A DANGEROUS HURRICANE IN THE GULF OF MEXICO IN 2 TO 3 DAYS.

HURRICANE FORCE WINDS EXTEND OUTWARD UP TO 10 MILES FROM THE

- Broad, cautionary statements for areas that could potentially be affected beyond 48 hours may also be included.
- Public advisories will contain generalized track and intensity forecast information, using wording that appropriately conveys the uncertainties in those forecasts, out to 48 hours.

For More Information

weather.gov

www.weather.gov

National Weather Service Forecast Office
Lake Charles, Louisiana

SR News SRH Home Organization Search Go

Local weather forecast by "City, St" or zip code

Current Hazards
SW La./SE Tex. Shelter-in-Place National

Current Conditions
Observations
Satellite Images
Rivers & Lakes AHPS
Precip Estimate
Hydrology

Radar Imagery
Lake Charles
Fort Polk
Nationwide

Forecasts
SW La./SE Tex.
Marine
Graphical
Aviation
Fire Weather

Climate
Local
National
More...

Tropical Weather
SW La./SE Tex.
Hurricane Rita
Nat'l Hurricane Ctr

Weather Safety
Local Storm Ready
Preparedness
NOAA Wx Radio

Additional Info
Tide Data
Weather Events
Jambalaya
Online Wx Briefing

Top News

- March 2008 Rainfall/Temperature Co-op Climate Corner now available
- Moderate flooding continues on the Atchafalaya River
- View the latest river stages and forecasts on our AHPS page

Cell Phone Weather Link: www.srh.noaa.gov/wml
Click on the map for your Point Forecast (What is a Point forecast?)

Click on the map below for the latest forecast.

En Español

Read watches, warnings & advisories.

Flood Warning

Small Craft Advisory

Hazardous Weather Outlook

Last map update: Sun, May 11, 2008 at 9:03:39 pm CDT

More News

- Winter/Spring 2008 edition of the Jambalaya now available!
- View summaries of recent weather events across our region
- Join CoCoRaHS and become a volunteer weather observer!

Latest LCH Radar

Latest Satellite

Latest POE Radar