



**Drought Status and Climate Outlook for Upcoming 12 Months
FWS SFESO – Vero Beach, FL
September 13, 2012**

Short Term Drought Map:

U.S. Drought Monitor

September 11, 2012
Valid 7 a.m. EST

Florida

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	100.00	0.00	0.00	0.00	0.00	0.00
Last Week (09/04/2012 map)	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago (06/12/2012 map)	26.50	73.50	54.55	21.81	1.75	0.00
Start of Calendar Year (12/27/2011 map)	38.81	61.19	27.41	12.84	2.61	0.00
Start of Water Year (09/27/2011 map)	43.12	56.88	28.83	16.85	7.85	0.00
One Year Ago (09/06/2011 map)	37.55	62.45	38.38	15.70	7.95	0.00



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu>



*Released Thursday, September 13, 2012
David Simeral, Western Regional Climate Center*

Figure 1 – U.S. Drought Monitor for the State of Florida.

Synopsis: Convective wet season rainfall, early hurricane season activity, a number of tropical waves that have crossed the State, and Tropical Storm Isaac have brought drought to an end in Florida. See below for more specific rainfall statistics.

U.S. Drought Monitor

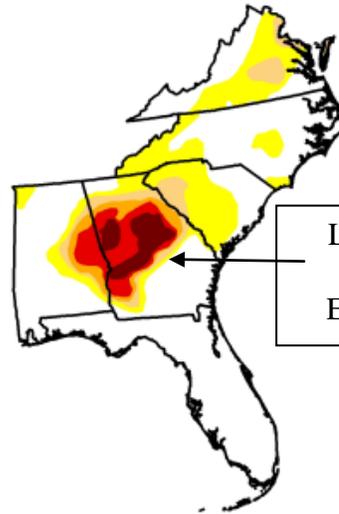
Southeast

September 11, 2012
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	62.60	37.40	17.36	11.50	8.47	3.46
Last Week (09/04/2012 map)	65.39	34.61	17.90	11.57	8.47	3.46
3 Months Ago (06/12/2012 map)	42.67	57.33	37.51	23.85	8.68	2.90
Start of Calendar Year (12/27/2011 map)	40.38	59.62	43.05	28.62	18.71	0.00
Start of Water Year (09/27/2011 map)	42.24	57.76	41.82	31.77	23.48	0.00
One Year Ago (09/06/2011 map)	39.01	60.99	45.28	30.84	22.11	0.00

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Figure 2 – U.S. Drought Monitor for the Southeast Region.

Synopsis – Sections of the southeastern U.S. have received rain, some heavy rain in areas, during the month of August. The heaviest rain occurred in eastern Tennessee, western Carolinas, northern Georgia, eastern Alabama and the Florida Panhandle. Thus, drought conditions only improved little around the edges of the drought areas illustrated above. The long-term ecological and hydrological drought in Georgia and Alabama remains well in place, with low stream flows continuing to occur in this thus far two-year drought.

Everglades

South Florida Water Depth Assessment Tool (SFWDAT)

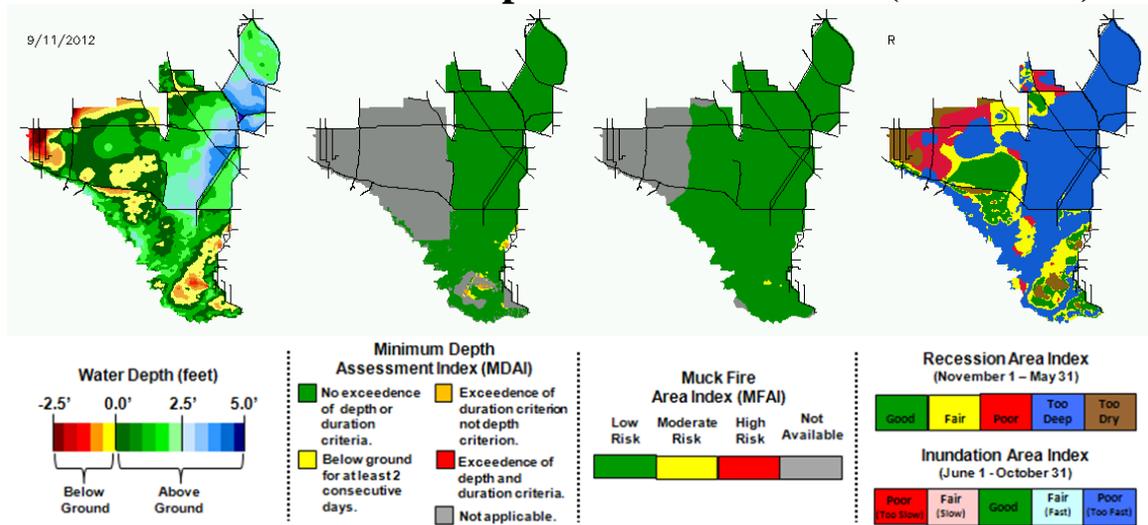
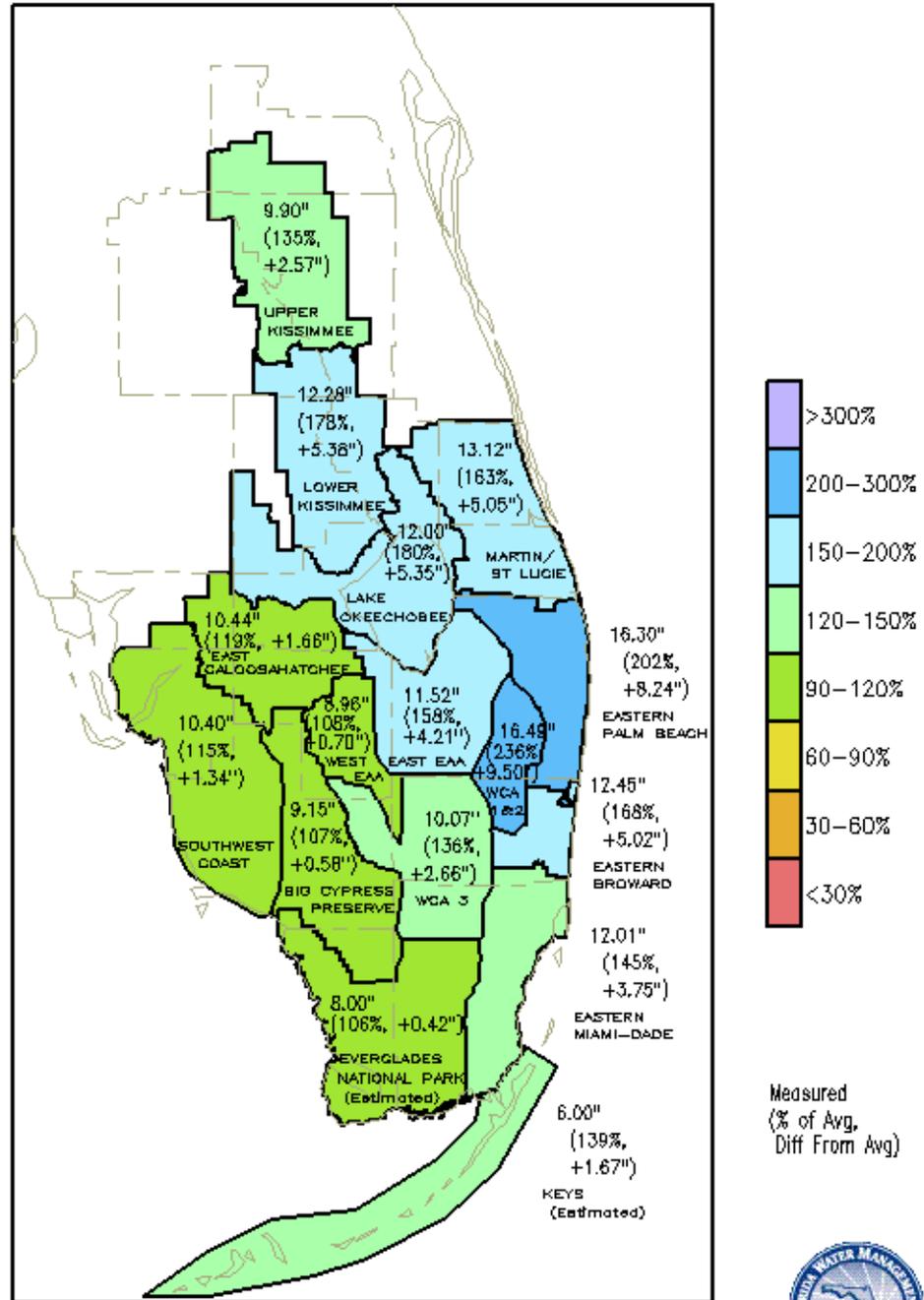


Figure 5 – SFWMD South Florida Water Depth Assessment Tool (SFWDAT) with current water depths, muck fire hazards and wading bird recession rates for the Greater Everglades.

SFWMD Rainfall 02-aug-2012 to 01-sep-2012

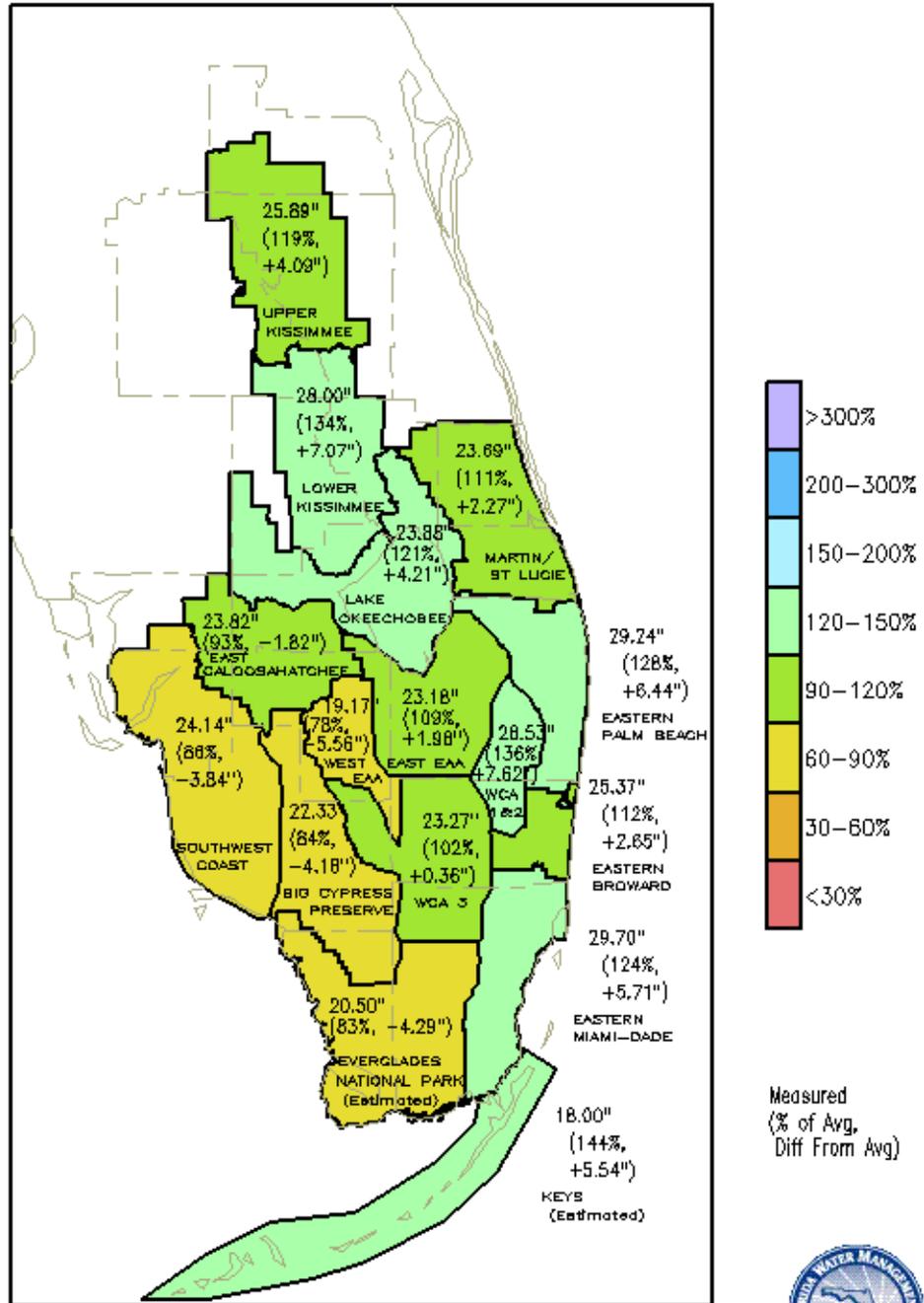


GrADS: COLA/IGES

Figure 6 – South Florida Water Management District rain totals for the month of August 2012. Most of the area received 100-200% of average rainfall for the month.



SFWMD Rainfall 02-jun-2012 to 01-sep-2012



DISTRICT-WIDE: 24.90" (108%, +1.83")

GrADS: COLA/IGES

Figure 7 – South Florida Water Management District Wet Season rainfall totals from June 1, 2012 to present. Rainfall of 100-130% above average has fallen over the entire Kissimmee / Greater Everglades system. Whereas, 80% of average has fallen over southwestern Florida.



Tropical Storm Isaac

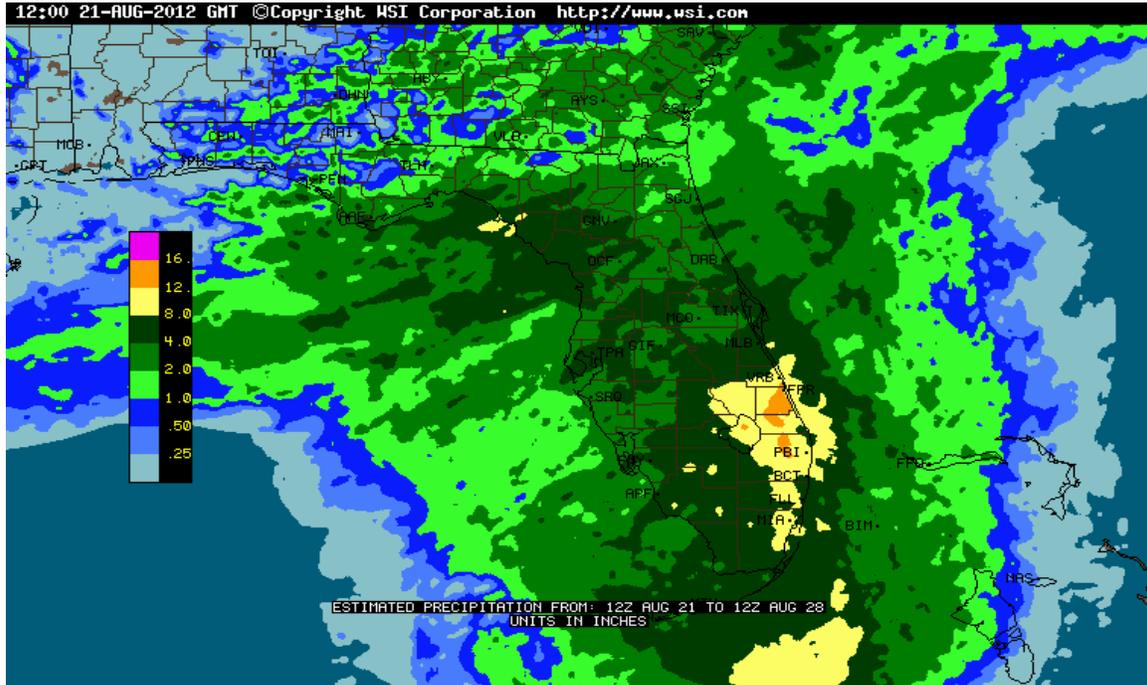


Figure 7 – Rainfall from Tropical Storm Isaac for the week preceding and up to the storm. Rainfall maximas of 12-16 inches occurred from Ft. Pierce southward to Port St. Lucie and into western Palm Beach county.

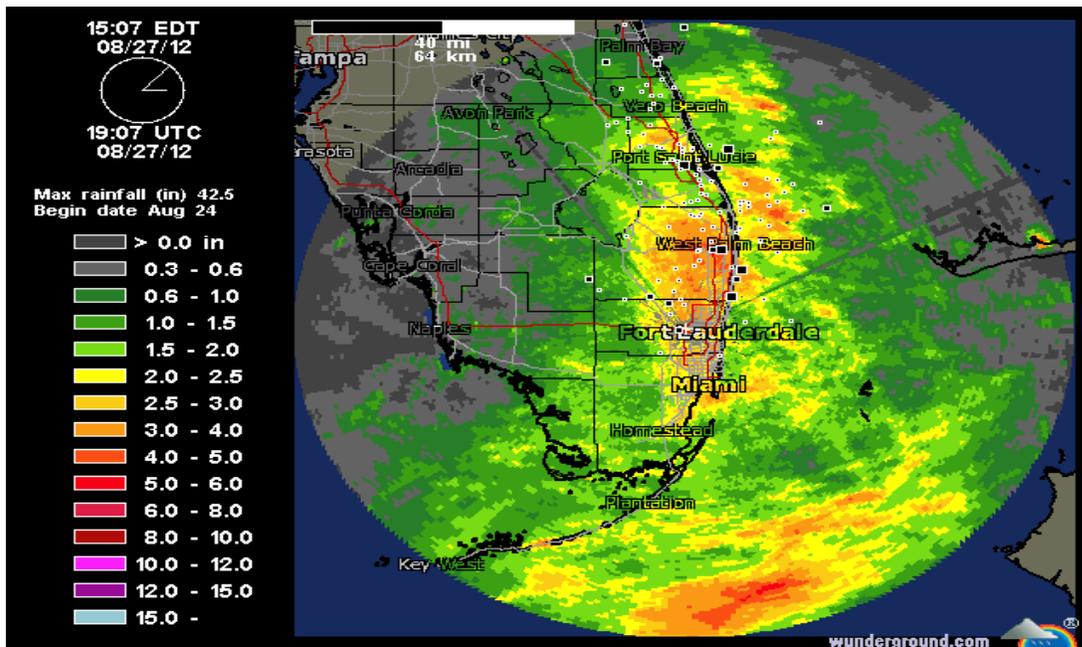


Figure 8 – Rainfall totals for the “Day of the Tornadoes” which was after Isaac moved into the central Gulf of Mexico.

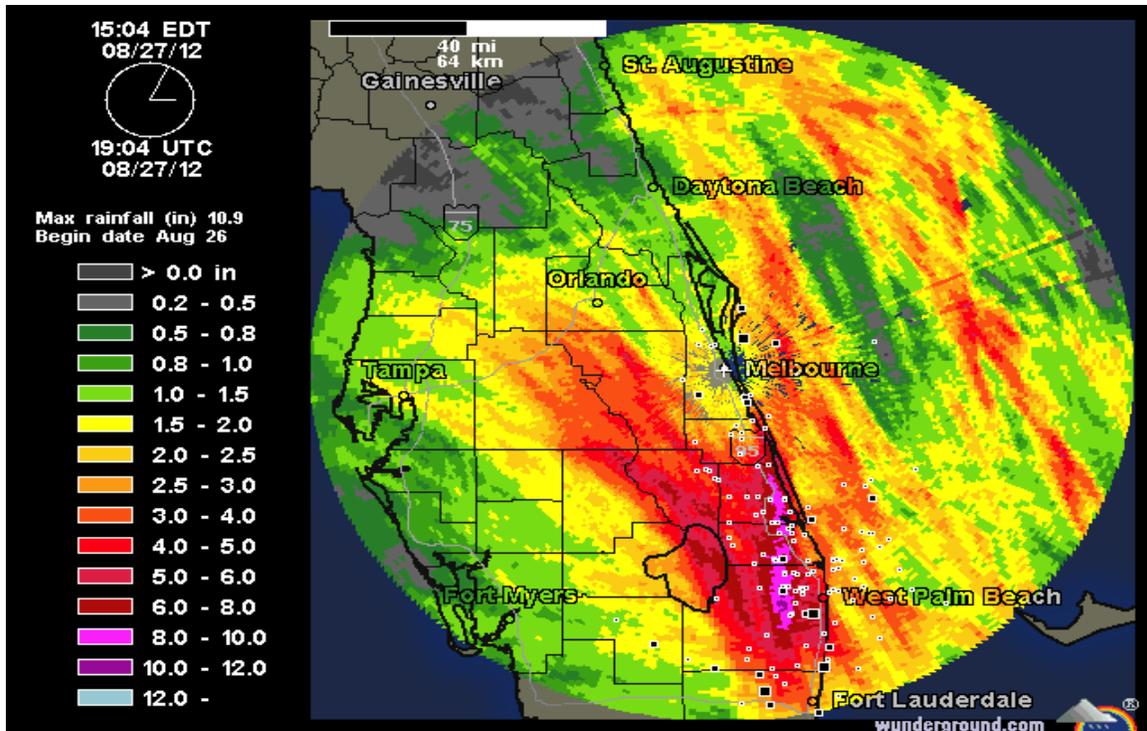


Figure 9 – A closer view of rainfall totals for the “Day of the Tornadoes” which was after Isaac moved into the central Gulf of Mexico.

Drought Outlook for the Next 3 Months:

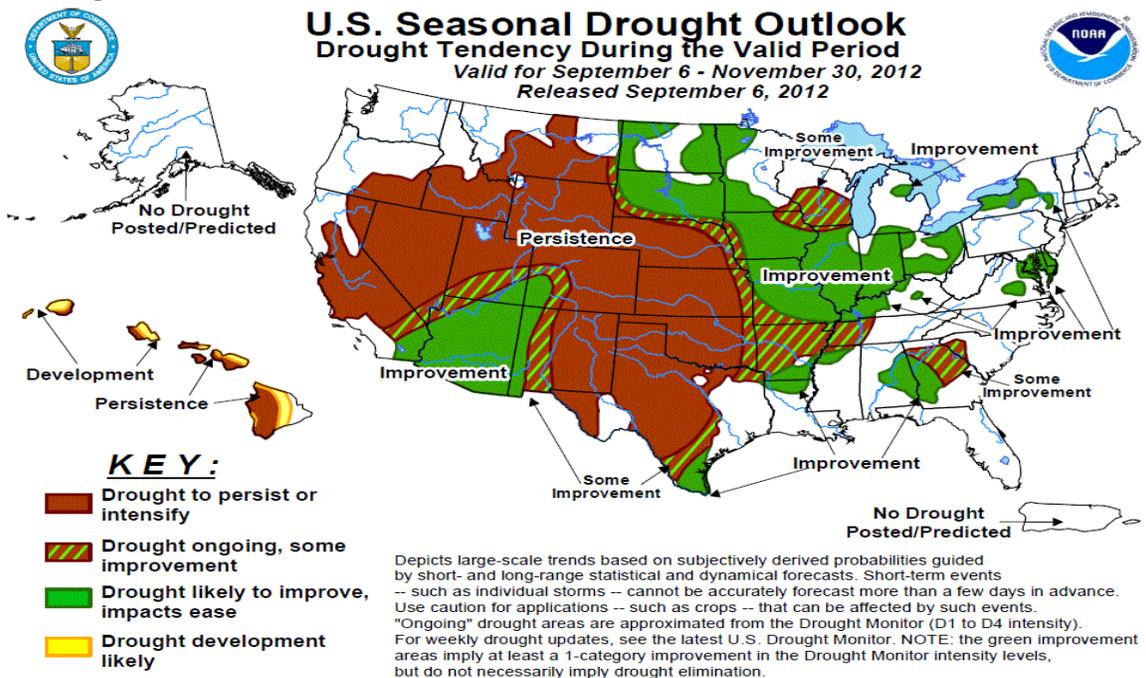


Figure 10 – Drought Outlook for the next 3 months indicating improvements.

El Nino / La Nina (ENSO) Status – El Nino Watch is in effect for remainder of 2012.
(Climate Prediction Center)

ENSO-neutral conditions continued during August 2012 despite above-average sea surface temperatures (SST) across the eastern Pacific Ocean. Most of the equatorial Pacific remained near +0.5°C, which is the minimal temperature criteria for an El Nino event. The upper 300m of the ocean also remained warmer than average during August (see Figure 11).

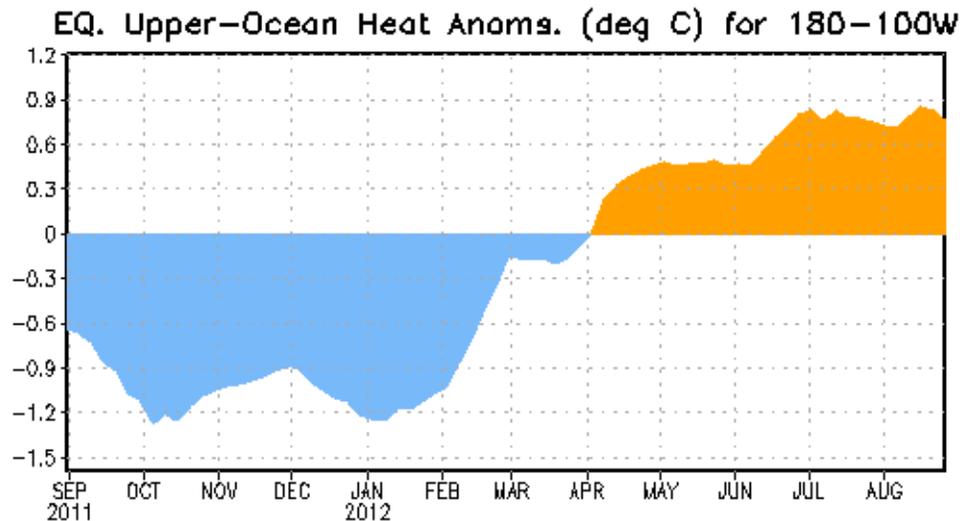


Figure 11 – The upper 300m of the Pacific Ocean has been warming since April 2012.

Possible new signs of El Niño development in the atmosphere include upper-level easterly winds and a slightly negative Southern Oscillation Index in the Pacific Ocean. Despite these indicators, key aspects of the tropical atmosphere did not support the development of El Niño conditions in the Pacific Ocean. Namely, low-level trade winds were near average along the equator, and tropical convection was inconsistent with El Niño. Because of the lack of clear atmospheric anomaly patterns, the Climate Prediction Center will keep the month of August as ENSO-neutral.

However, there are new signs of a transition towards El Niño in the atmosphere as well as the ocean since July 2012:

- Tropical Atlantic - faster than average lower level trade winds
- Atlantic / Caribbean – numerous areas of strong wind shear
- Atlantic / Caribbean – patches of dry air aloft, mainly from northern South America

Most of the dynamical models, along with 50% of the statistical models, now predict the onset of El Niño beginning in September. The majority of models indicate a weak to borderline moderate strength event with temperatures near + 0.5 to + 1.0°C. Supported by the model forecasts and the continued warmth across the Pacific Ocean, the official forecast calls for the development of most

likely a weak El Niño during September 2012, persisting or increasing through December-February 2012-13.

Expected El Niño effects for Florida include:

- Jet streams are farther south leading to a colder winter
- Wetter dry season
- Above average surface water elevations during the dry season
- Fewer fires with smaller burn areas
- Decreased lightning
- Decreased hurricane activity both the summer before and after the El Niño event

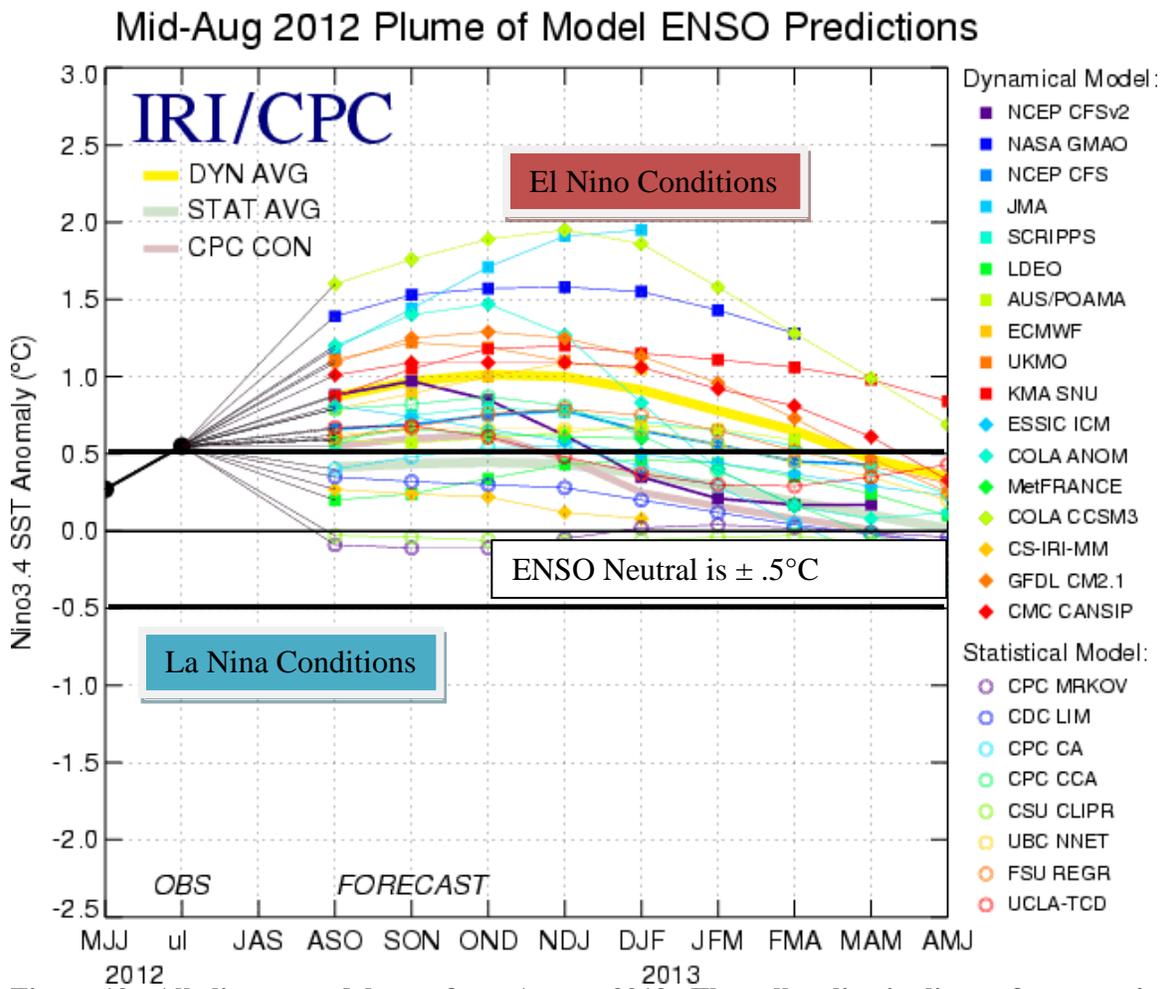


Figure 12 - All climate model runs from August 2012. The yellow line is climate forecaster's preferred dynamical model average indicating a progression towards El Niño developing by September 2012.

2012 Hurricane Season

Colorado State University August Prediction with current tropical cyclone statistics in parentheses:

Tropical Storms = 14 (14 – as of 9/13/12)
Hurricanes = 6 (6 – as of 9/13/12)
Major Hurricanes = 2 (0 – as of 9/13/12)
Hurricane Strike on eastern Florida = 24% chance

Central & South Florida Temperature Outlook:

September thru November – Average
December – Cooler than Average
January thru March 2013 – Much Cooler than Average
April 2013 – Cooler than Average
May 2013 – Average
June 2013 – Warmer than Average
July thru August 2013 – Much Warmer than Average

Central & South Florida Rainfall Outlook:

September – Average
October thru November – Wetter than Average
December - Much Wetter than Average
January 2013 thru March 2013 – Very Much Wetter than Average
April 2013 – Much Wetter than Average
May 2013 – Wetter than Average
June thru July 2013 - Average

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