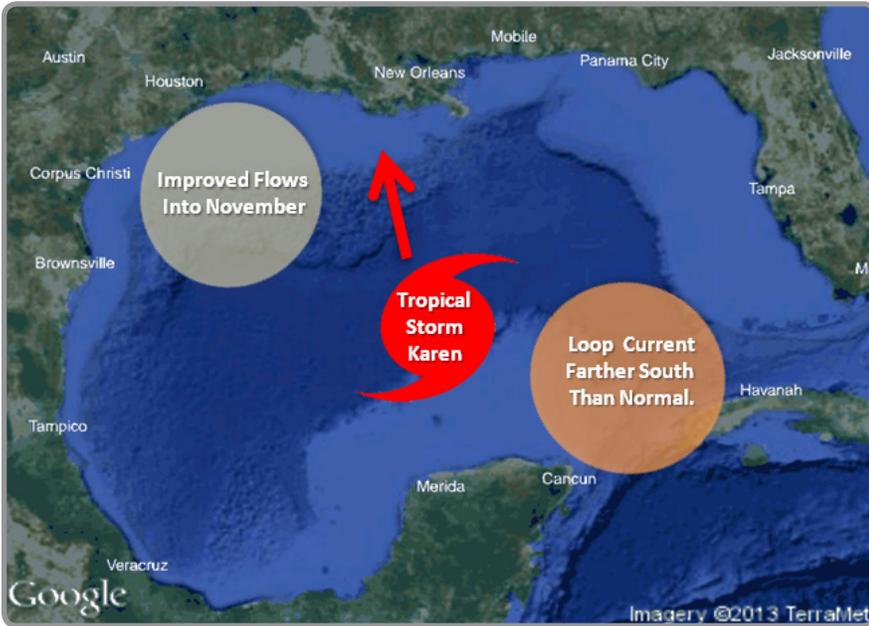


Significant Gulf Coast Events for Fall 2013



Highlights

Coastal River Flow

Texas rivers make a late fall recovery, with most rivers improving from below-normal to above-normal flows from September to November. Elsewhere, flows are trending to below normal.

Loop Current

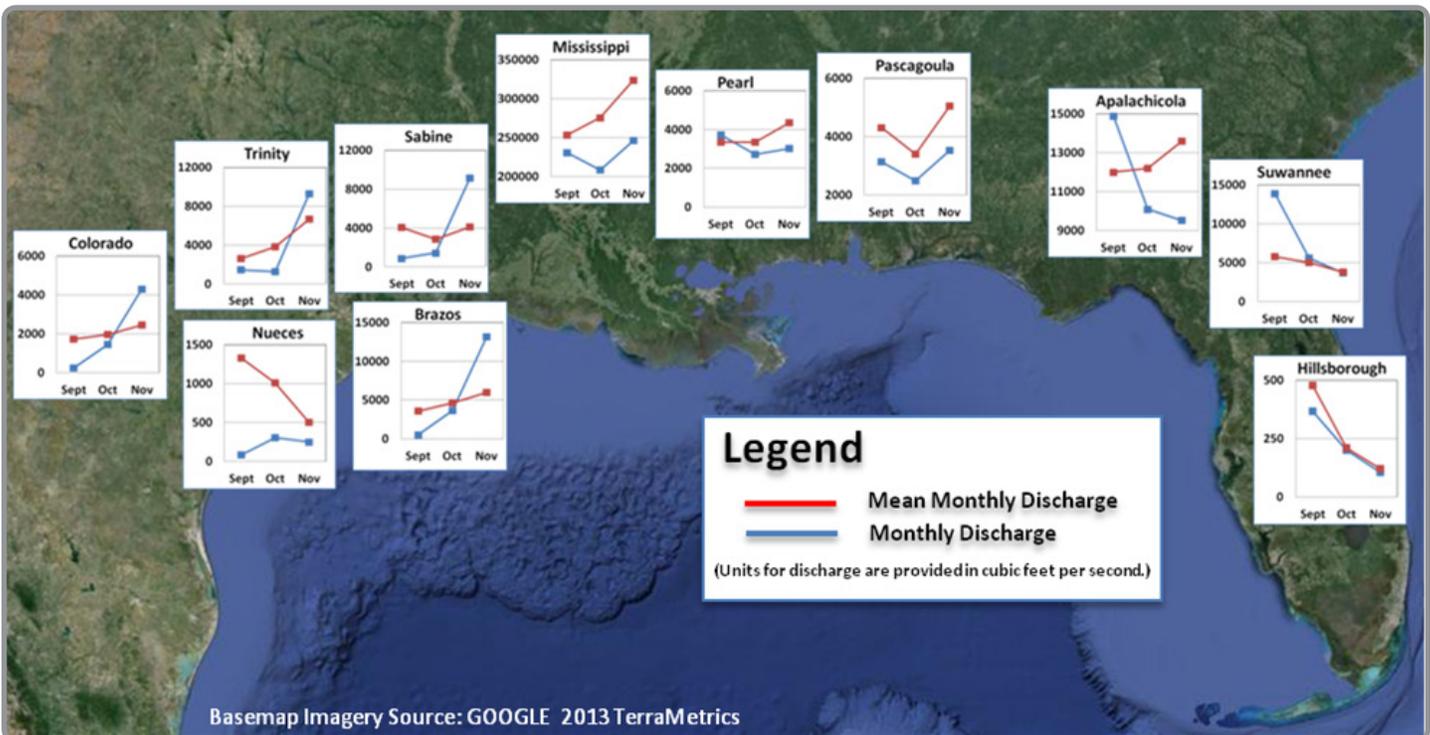
Loop current is farther south than normal.

Louisiana

Tropical Storm Karen provided a scare to residents along the south-central Gulf of Mexico coastline when it formed on October 2, 2013. Fortunately, the storm dissipated to a Tropical Depression on October 5, 2013.

River Discharge Data for Select Rivers that Flow into the Gulf of Mexico

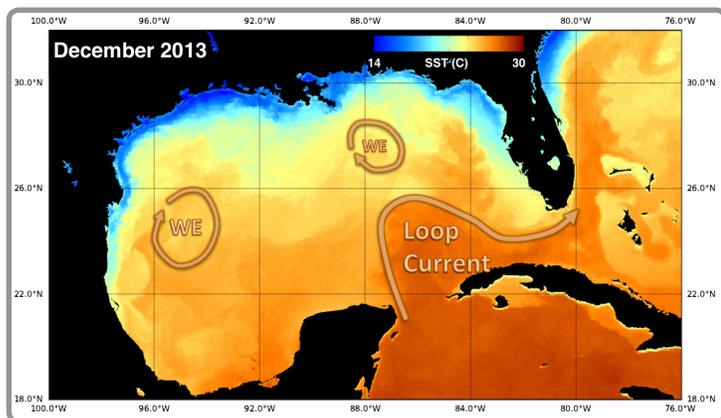
Seasonal Discharges Indicate Improved Flows in Texas and Below-Normal Flows Elsewhere



The above figure shows a distinct improvement in streamflow from September to November along the Texas Gulf Coast. All Texas rivers, with the exception of the Nueces are showing above normal flow into November. This is a strong shift from summer, where Texas rivers were well below normal. Elsewhere along the Gulf Coast, streamflow values are slightly lower than normal. (Data Source: waterdata.usgs.gov).

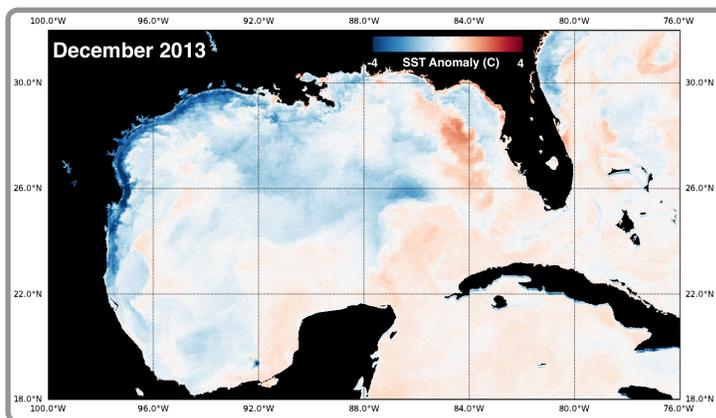
Gulf Sea Surface Temperatures (SST) and Temperature Anomalies

Loop Current Position is Farther South than Normal



December 2013 GOES Monthly Gulf of Mexico Standard SST

The image above depicts the mean December 2013 sea surface temperatures (SSTs), revealing the warm Loop Current (LC) in the extreme southeastern Gulf of Mexico, due to the separation of a Warm Core Eddy (WE). These separation events occur a-periodically every 5 to 19 months. Typically the LC surges north again as the WEs move slowly westward. The cold bay and coastal waters in the northern Gulf (blue tones) were generated by a sequence of winter cold air outbreaks mainly due to heat loss from evaporation.

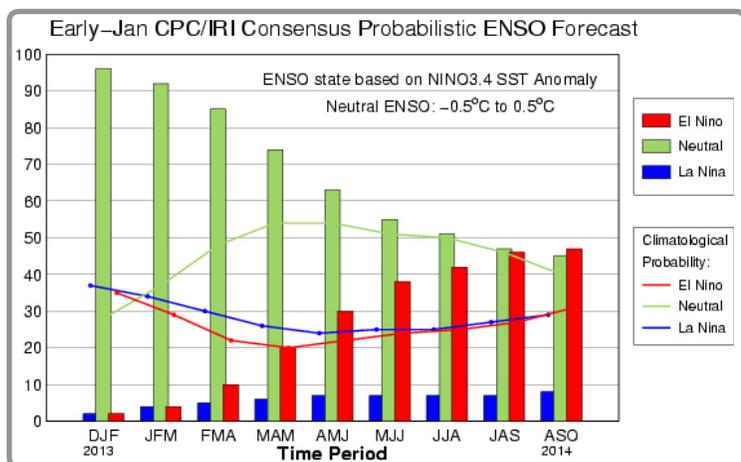


December 2013 GOES Monthly Gulf of Mexico Standard SST

The image above depicts the December 2013 SST anomalies, revealing that much of the Gulf was cooler than normal due to the extreme weather in December. The LC area was slightly warmer than normal in temperature, and water was warmer than normal where LC water was entrained northwards by the continued presence of cold eddies (not annotated).

Imagery provided courtesy of Chet Pilley (cpille1@lsu.edu) and Nan Walker (nwalker@lsu.edu), Earth Scan Laboratory, LSU School of the Coast and Environment, Baton Rouge, LA (<http://www.esl.lsu.edu>).

Outlooks: El Niño Southern Oscillation (ENSO)



The figure to the left is the Climate Prediction Center and International Research Institute (CPC/IRI) Consensus ENSO Forecast. The forecast shows a high probability of neutral conditions through the winter months, with El Niño conditions becoming more probable into the summer and fall of 2014. During El Niño, the Gulf region typically experiences cooler and wetter weather, with a lower probability of tropical cyclones.

Image is provided courtesy of the International Research Institute for Climate and Society.

Image available at: http://iri.columbia.edu/our-expertise/climate/forecasts/enso/2014-january-quick-look/?enso_tab=enso-cpc_plume

Gulf Region Partners

Earth Scan Lab at Louisiana State University
www.esl.lsu.edu

NOAA/NWS Climate Prediction Center
www.cpc.noaa.gov

NOAA/NOS Gulf of Mexico Coastal Services Center
www.csc.noaa.gov

NOAA Gulf of Mexico Collaboration Team
www.regions.noaa.gov

NOAA/NESDIS National Climatic Data Center
www.ncdc.noaa.gov

NOAA/NWS Southern Region
www.srh.noaa.gov

Southern Climate Impacts Planning Program
www.southernclimate.org

Southern Regional Climate Center
www.srcc.lsu.edu

Summary of the 2013 Hurricane Season

	NOAA Predicted	Klotzbach-Gray CSU Predicted	Seasonal Average	2013 Total
Named Storms	13 to 20	18	12	13
Hurricanes	7 to 11	9	6	2
Major Hurricanes (category 3 or higher)	4	4	3	0

As the hurricane season came to an end, there were no major hurricanes and only one real threat to the U.S. Gulf Coast with Tropical Storm Karen. Fortunately, Karen dissipated on October 5, 2013, as it approached the Louisiana coastline.