



# NCEI Activities Related to Climate Services

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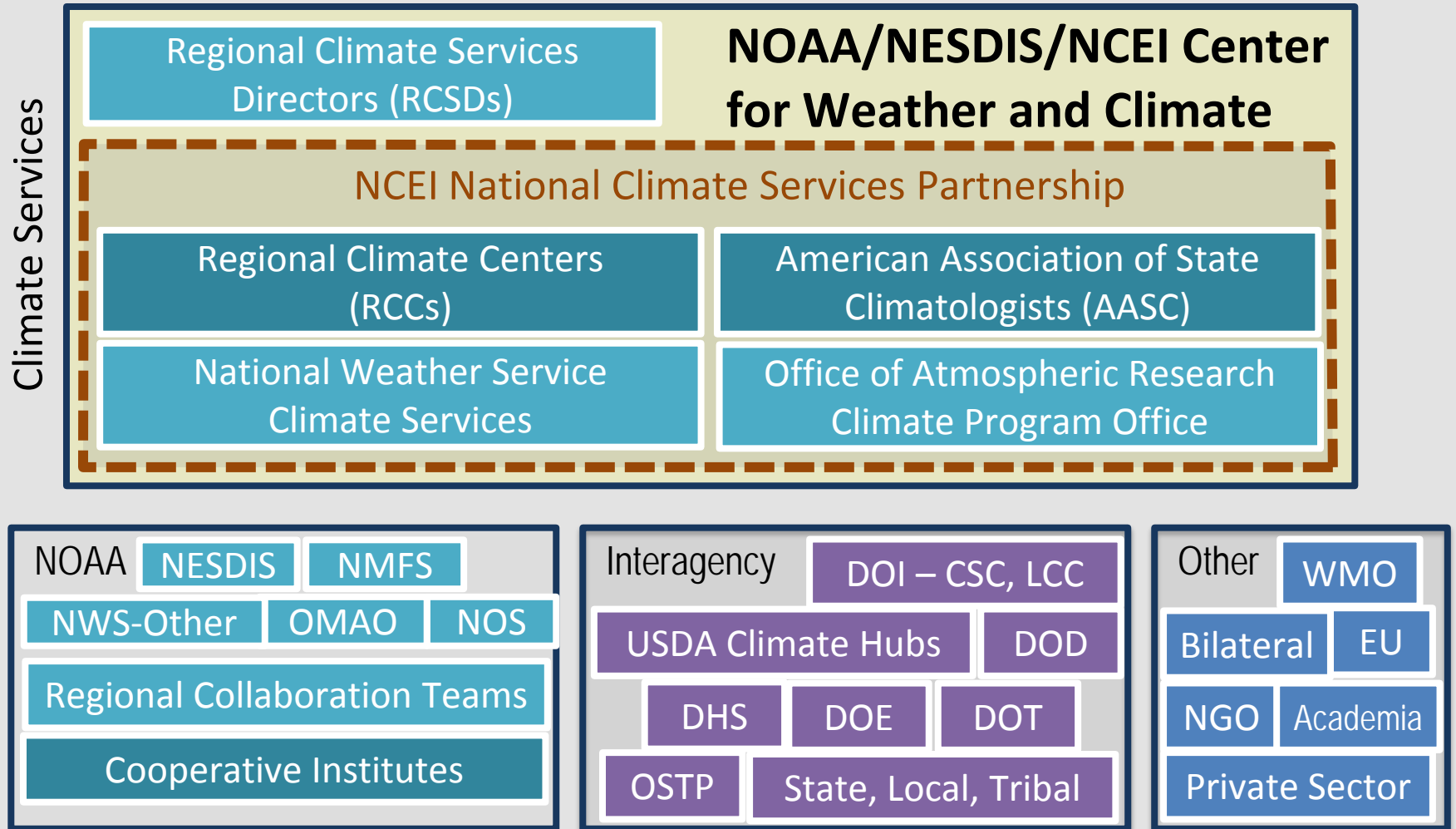
NOAA Satellite and Information Service | National Centers for Environmental Information



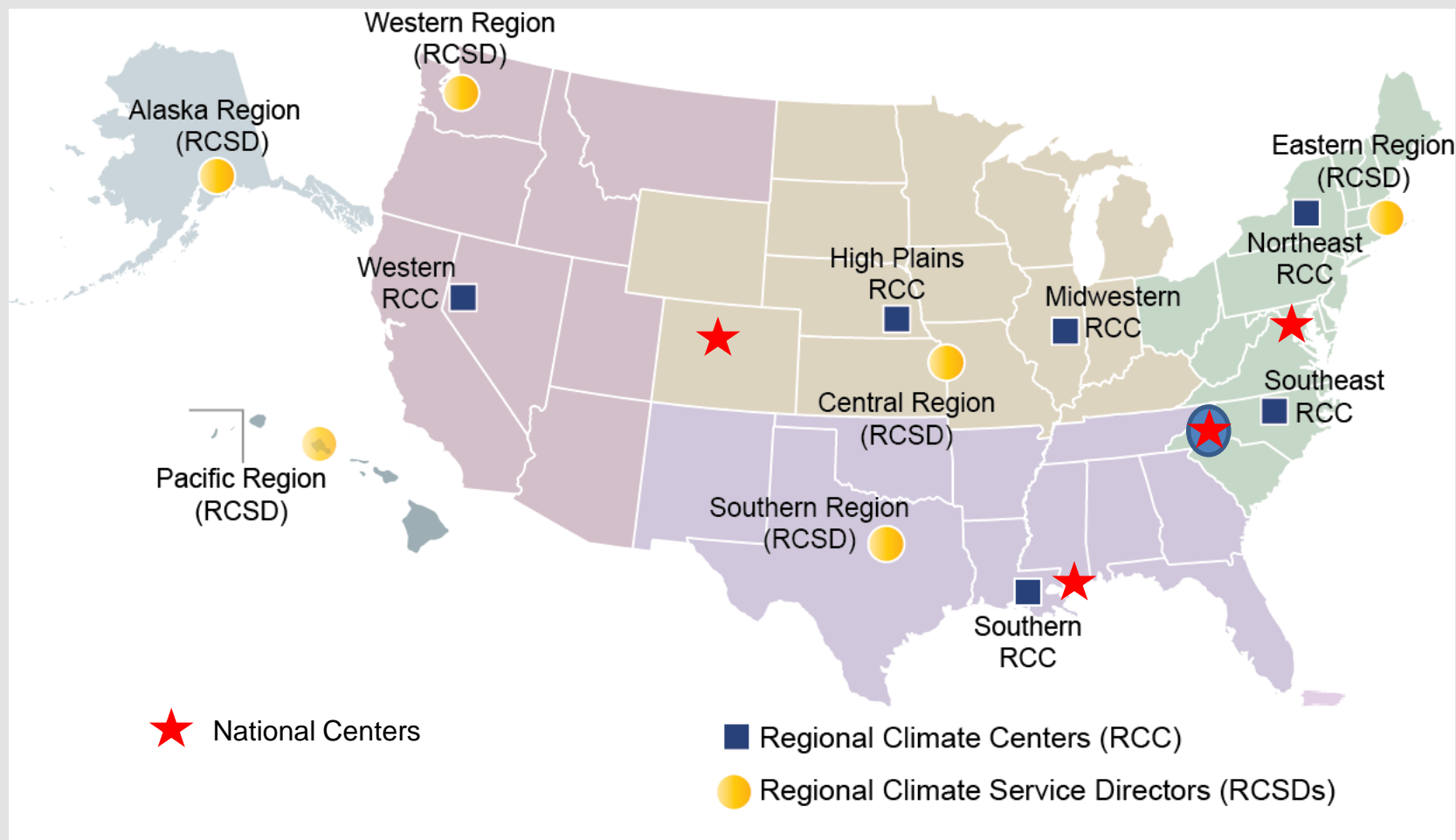
# Strategic Framework



# Primary Climate Services Partners

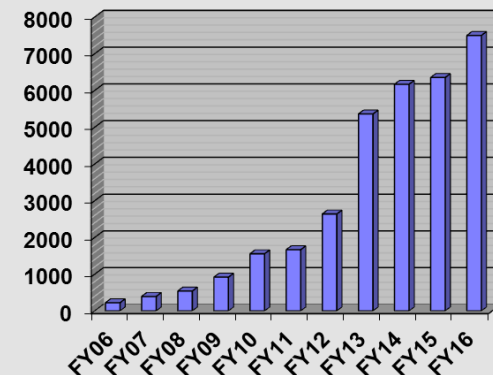
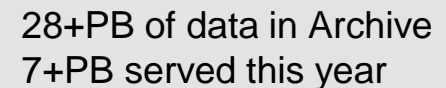
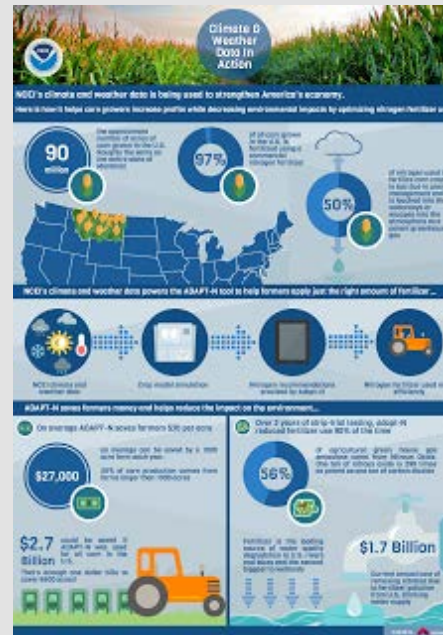


# NCEI Climate Services Delivery





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# NCEI Climate Services FY17

- Tracking Global Significant Events

## Selected Significant Climate Anomalies and Events October 2016

### GLOBAL AVERAGE TEMPERATURE

October 2016 average global land and ocean surface temperature was third highest for October since records began in 1880, behind only 2014 and 2015, making the past three Octobers the three warmest on record.

### ARCTIC SEA ICE EXTENT

October 2016 sea ice extent was 28.5 percent below the 1981-2010 average. This marked the smallest October sea ice since satellite records began in 1979.

### EUROPE

Finland experienced its driest October since national records began in 1961 and Norway experienced its fourth driest since its records began in 1900.

### ASIA

The Asian continent experienced its 39<sup>th</sup> coolest October in the 107-year continental record.

### ALASKA

It was the driest October for Alaska since state records began in 1925.

### CONTIGUOUS UNITED STATES

The contiguous U.S. observed its third warmest October in its 122-year national record and its warmest since 1963.

### HURRICANE MATTHEW

(September 28<sup>th</sup> – October 9<sup>th</sup>, 2016)

Maximum winds 257 km/h  
Matthew was the first Category 5 hurricane in the North Atlantic since Felix in 2007. The storm majorly impacted Haiti, Cuba, the Bahamas, and parts of the southeastern United States. More than 1,000 fatalities were reported and thousands of homes and buildings were destroyed.

### AFRICA

It was the second warmest October for Africa in the 107-year continental record, behind only 2015.

### SOUTH AMERICA

Overall, it was the 15<sup>th</sup> warmest October in the 107-year continental record for South America.

### AUSTRALIA

Australia was cooler than average during October, with the mean temperature ranking in the bottom third among all Octobers in the country's 107-year record.

### ANTARCTIC SEA ICE EXTENT

October 2016 sea ice extent was 4.0 percent below the 1981-2010 average, the second lowest, behind only 1986, since satellite records began in 1979.



Please Note: Material provided in this map was compiled from NOAA's State of the Climate Reports. For more information please visit: <http://www.ncdc.noaa.gov/sotc>

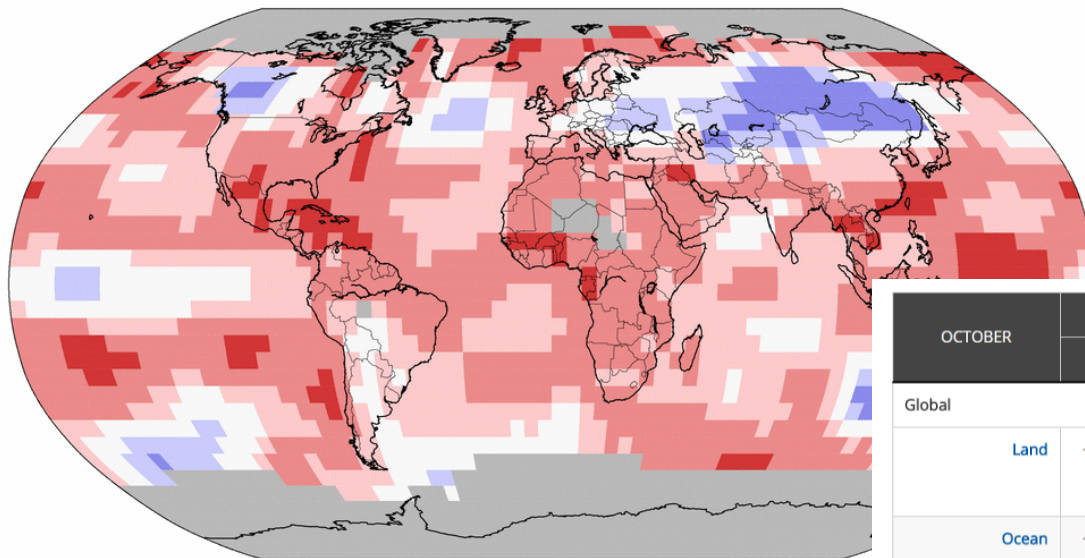
# NCEI Climate Services FY17

- Authoritative Source of Global and US Climate Monitoring

## Land & Ocean Temperature Percentiles Oct 2016

NOAA's National Centers for Environmental Information

Data Source: GHCN-M version 3.3.0 & ERSST version 4.0.0

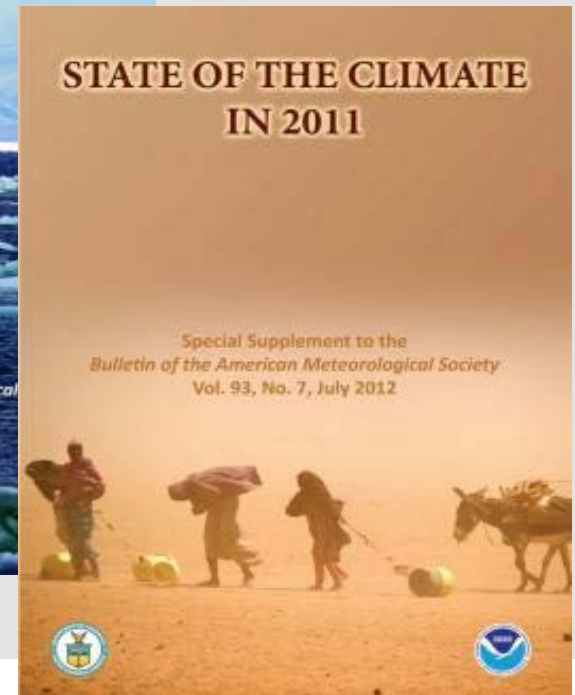
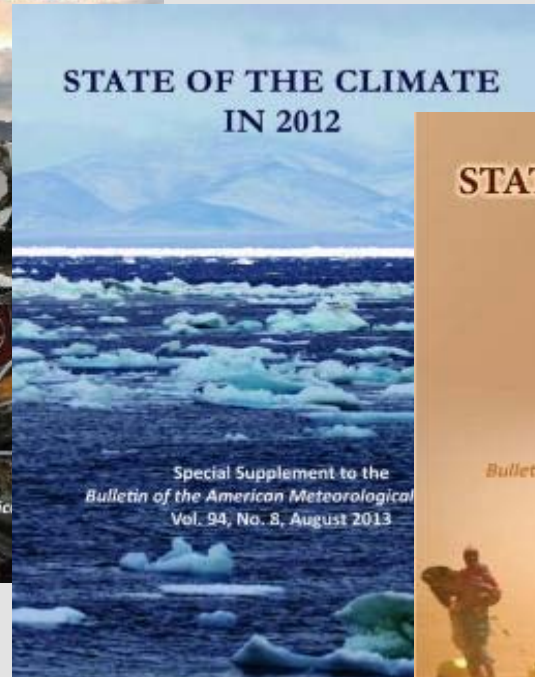
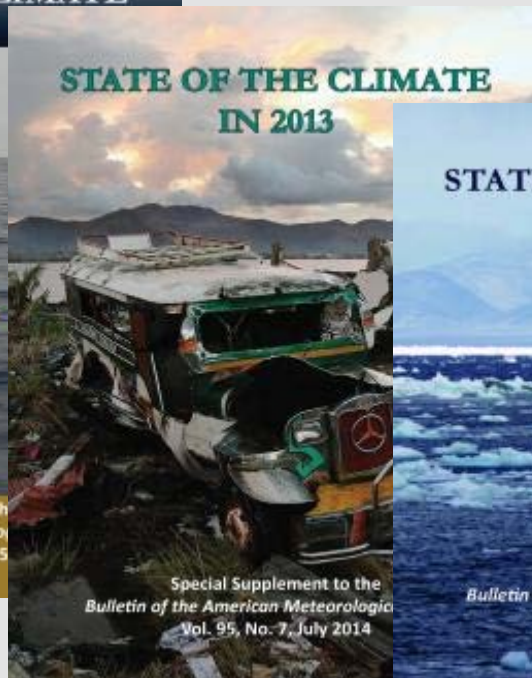


OCTOBER	ANOMALY		RANK (OUT OF 137 YEARS)		RECORDS		
	°C	°F			YEAR(S)	°C	°F
Global							
Land	+0.76 ± 0.14	+1.37 ± 0.25	Warmest	16 <sup>th</sup>	2015	+1.35	+2.43
			Coolest	122 <sup>nd</sup>	1912	-0.95	-1.71
Ocean	+0.72 ± 0.15	+1.30 ± 0.27	Warmest	2 <sup>nd</sup>	2015	+0.86	+1.55
			Coolest	136 <sup>th</sup>	1908, 1909	-0.46	-0.83
Land and Ocean	+0.73 ± 0.14	+1.31 ± 0.25	Warmest	3 <sup>rd</sup>	2015	+0.99	+1.78
			Coolest	135 <sup>th</sup>	1908, 1912	-0.52	-0.94
			Ties: 2003				



# NCEI Climate Analysis Products and Services

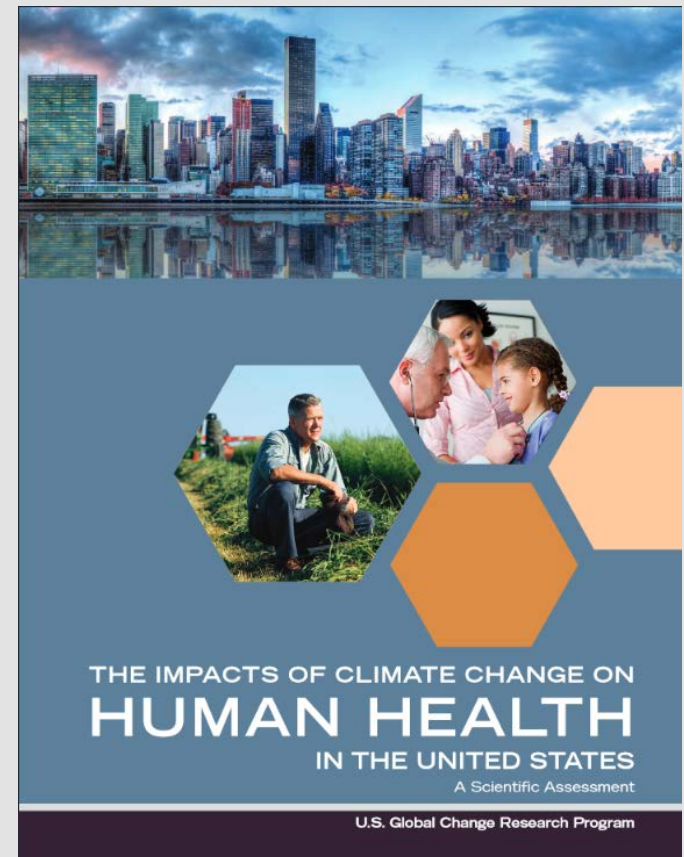
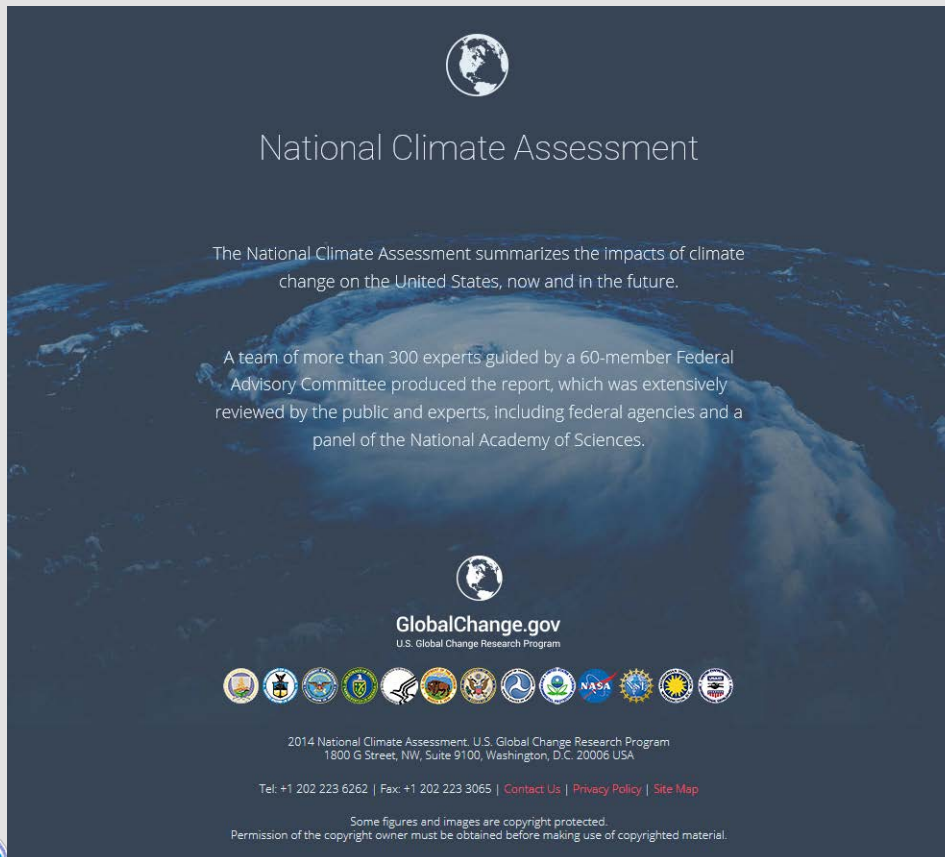
- Lead development of Annual State of the Climate





# NCEI Climate Analysis Products and Services

- Lead development of sustained US Climate Assessment and supporting reports





# Some Points for Discussion

- Between June and November, the recommendation to create a Joint Action Group with a limited lifespan changed to a standing committee. What changed?
- How does this effort compare to/complement the WMO Global Framework for Climate Services and various GEO Workplan items that advance climate services?
- How does this effort complement USGCRP climate services activities?
- Is the goal “grass roots” participation or high level representation that can speak for Agencies?



# NOAA's National Centers for Environmental Information

**[www.ncei.noaa.gov](http://www.ncei.noaa.gov)**



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