

RIVER AND WEATHER CONDITIONS

Prepared for Waterways Association Meeting 6/8/2016
National Weather Service Forecast Office, Pittsburgh PA

For the latest river and weather forecasts--<http://www.weather.gov/pittsburgh>

WEATHER RECAP

May was chilly until around the 23rd, then summer temperatures. Six chilly storm systems crossed the region through May 23th. May rainfall was about average, with more falling in the Monongahela basin and less in the Allegheny. A trace of snow fell on May 15!

OUTLOOK

Week of June 6: Cool midweek. Dry then chance of thunderstorms for the weekend. Around 1.00 inch.

Outlook for week of June 13: Seasonal temperatures. Relatively dry at first, then chance thunderstorms. About an 1.00 inch.

Outlook for week of June 20: Becoming warmer than normal, dry at first, then summer thunderstorms. About 1.00 inch.

Outlook July: Hot with below normal rainfall

Outlook August: Warmer than normal interspersed with a few days of cool. Below normal rainfall

Outlook September: Summer lingers.

Summer Outlook La Nina has formed. Expect a moderate La Nina by later this summer.

- July prolonged hotter and drier than normal, August hotter than normal but a couple of cooler periods
- Hurricane season more active season than last year
 - El Niño transitions to La Niña recent similar years 1988, 1995, 1998, 2007 & 2010
 - Gulf of Mexico and western Atlantic much warmer now than those years
 - Unfavorable eastern Atlantic pattern argues against extremely active season this year, but 2017 & 2018 very active

HIGH WATER POTENTIAL







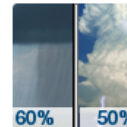
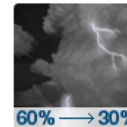

High water potential is about normal. A minimum of 2.00 inch basin wide rainfall in 6 to 12 hours is needed to bring rivers to bank full. Total precipitation through the first week of July should average about 3.50 inches which is about normal.

<i>Location</i>	<i>May 2016 Precipitation</i>	<i>Departure (Inches)</i>	<i>May Snowfall</i>
Pittsburgh	3.61	-0.34	T May 15

<i>Location</i>	<i>May Average Temperature</i>	<i>Departure Degrees</i>	<i>Extreme High</i>	<i>Extreme Low</i>
Pittsburgh	61.2	+1.1	88 May 28	35 May 16

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average monthly precipitation	2.7	2.39	2.95	3.11	3.95	4.3	3.83	3.48	3.11	2.29	3.23	2.85	38.19
Average High Temperature	35.7	39.3	49.2	61.7	70.8	79.1	82.5	81.4	74.3	62.6	51.2	39.4	60.7
Average Low Temperature	21.1	23	30	40.2	49.3	58.4	62.8	61.5	54	42.9	34.7	25.3	42
Average monthly snowfall	11.8	10.3	7.6	1.5	0	0	0	0	0	0.4	2	8.3	41.9

WEATHER FORECAST

Today	Tonight	Thursday	Thursday Night	Friday	Friday Night	Saturday	Saturday Night	Sunday
								
Showers Likely then Partly Sunny	Mostly Clear	Sunny	Slight Chance Showers	Mostly Sunny	Chance Showers	Showers Likely then Chance T-storms	T-storms Likely then Chance T-storms	Mostly Sunny
High: 64 °F	Low: 52 °F	High: 70 °F	Low: 56 °F	High: 77 °F	Low: 64 °F	High: 80 °F	Low: 66 °F	High: 76 °F

8-14 Day Outlook... Cool, followed by warming temperatures and normal precipitation.

30 Day Outlook... Above normal temperatures and below normal precipitation.

Aug-Sep-Oct Outlook... Warmer and drier than normal.

Oct-Nov-Dec Outlook... Normal temperatures and normal precipitation

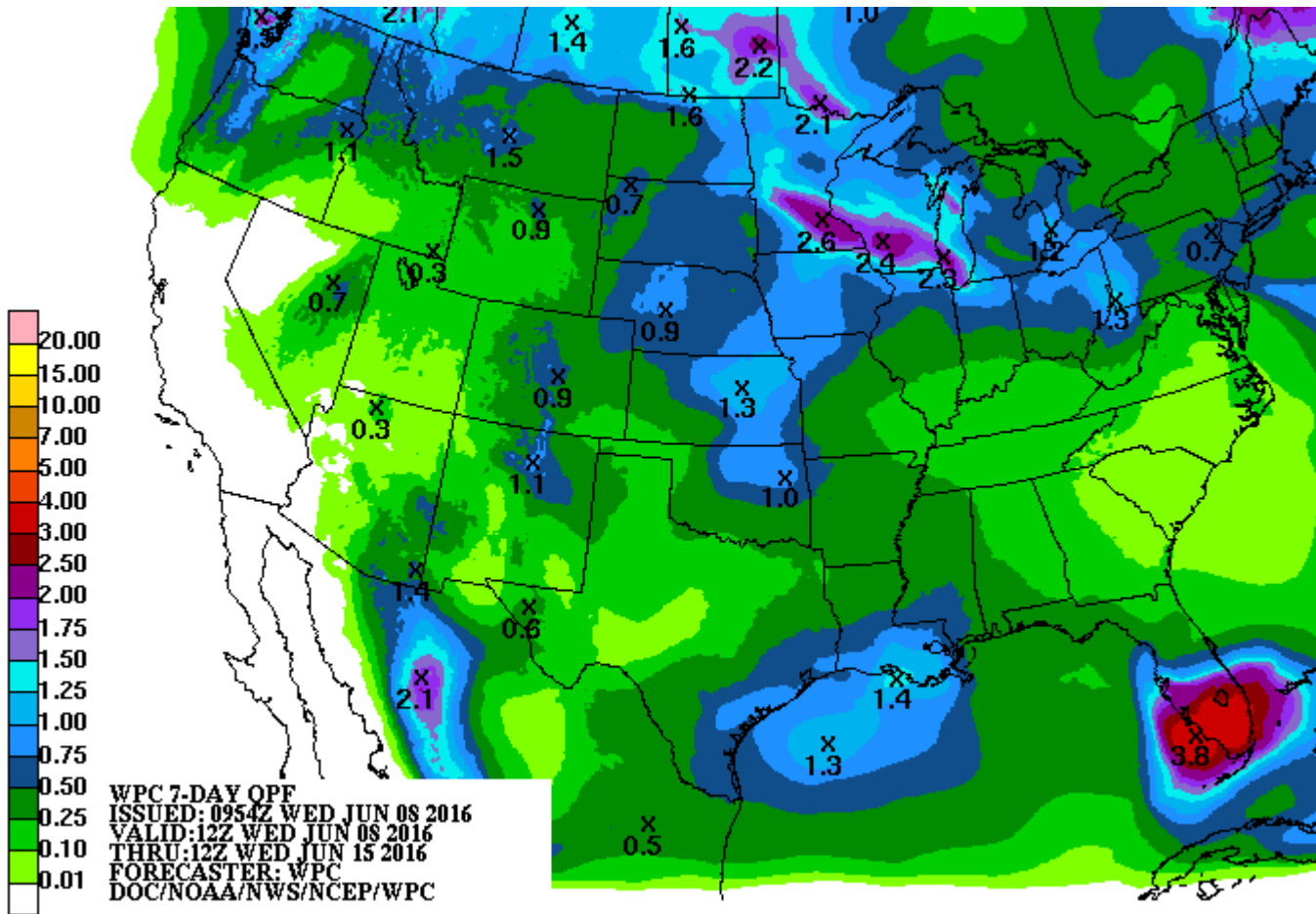
Dec-Jan-Feb Outlook... Normal temperatures and normal precipitation

Average Yearly rainfall Pittsburgh: 38.19 inches **So far in 2016:** 14.26(-1.71)

Totals for: 2015:40.56 2014: 36.84 2013: 36.65 inches; 2012: 41.74 inches; 2011: 44.24 inches; 2010: 37.85 inches

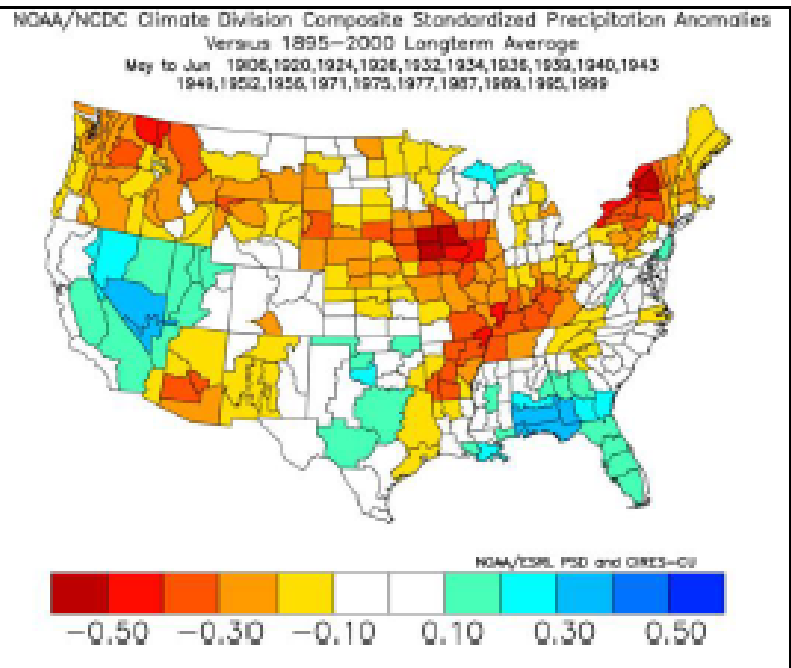
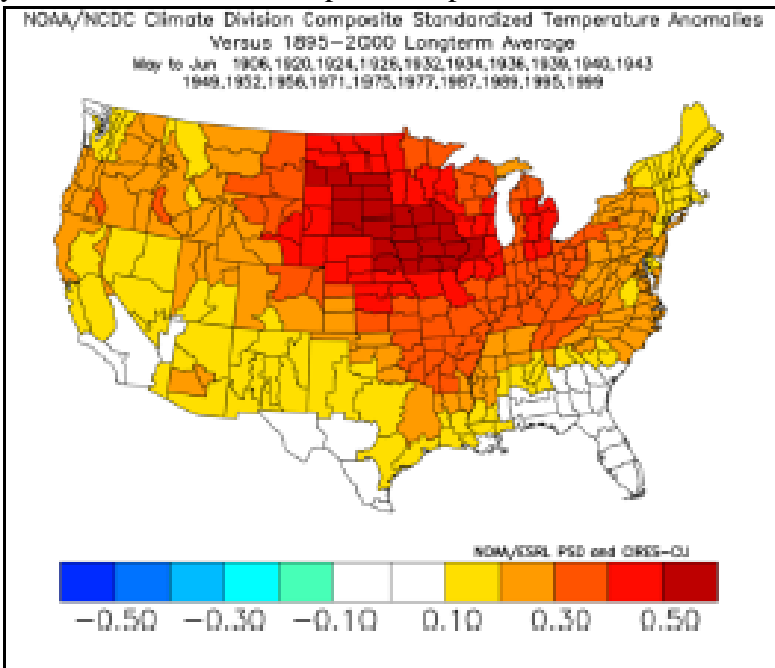
Average Yearly snowfall Pittsburgh: 41.9 inches 2015-16 season: 29.6 inches (-12.3)

2014-15: 47.2 in 2013-14: 63.4 in; 2012-13: 57 in; 2011-12: 37 in; 2010-11: 57 in; 2009-10: 77 in



7 Day rain forecast

Years in which sea surface temperature anomalies reached at least 1.0 degrees Celsius above normal during the winter and began to decrease (by at least 0.2 degrees Celsius) during the spring months are as follows: 1958, 1964, 1966, 1973, 1983, 1988, 1992, 1995, 1998, 2003, 2007, and 2010. Using this list of 12 years composite maps of June-July-August temperatures and precipitation can be created to determine what these patterns looked like during weakening El Niño years. Below are the composite maps:

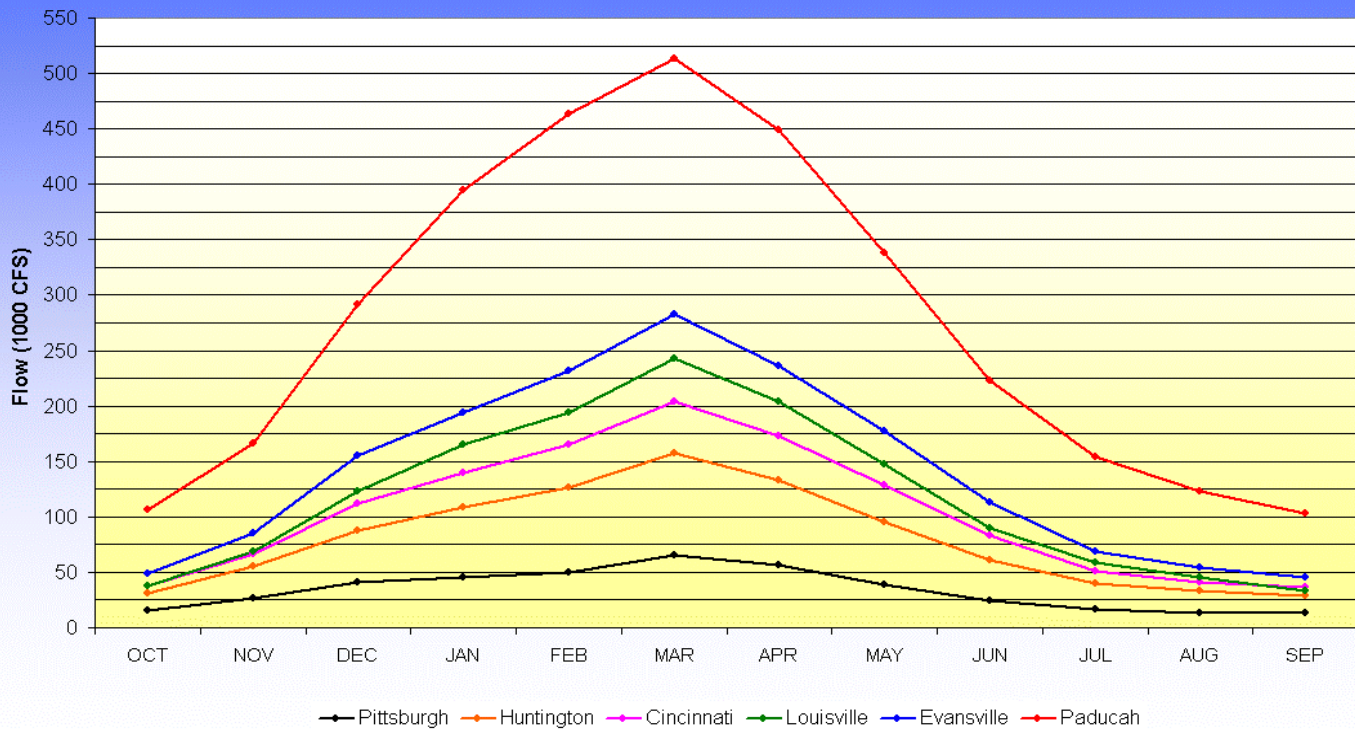


OHIO RIVER: Mean Monthly Flow Values

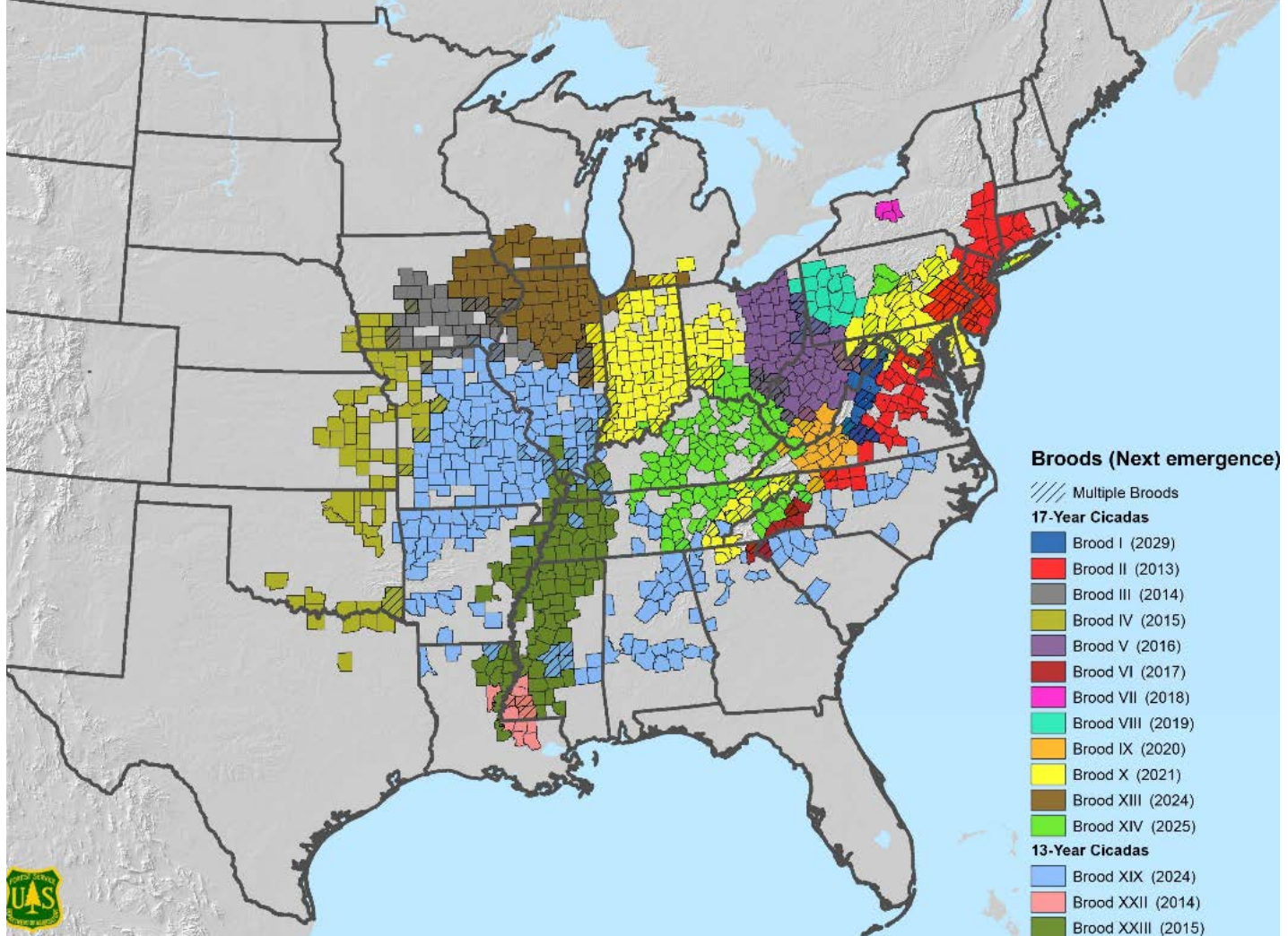
77 year average 1928-2004

Mean Monthly Flow Plotted at Mid-Month

Data courtesy US Army Corps of Engineers



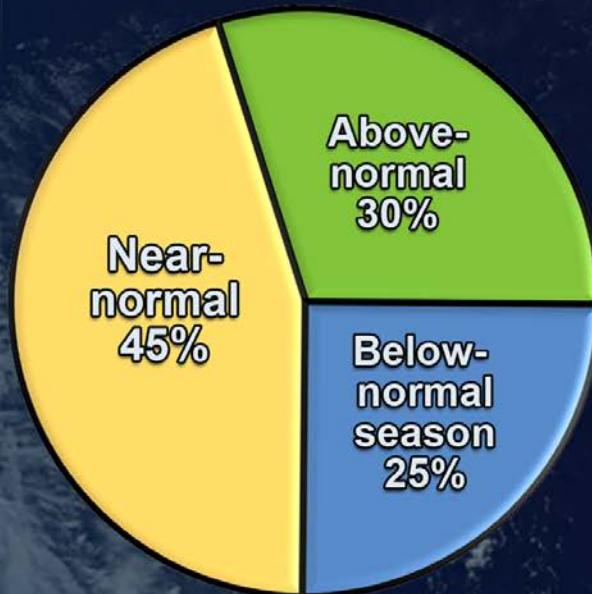
Active Periodical Cicada Broods of the United States



2016 Atlantic Hurricane Season Outlook

Named storms: 10 - 16
Hurricanes: 4 - 8
Major hurricanes: 1 - 4

Outlook
probability



Be prepared: Visit hurricanes.gov
and follow @NWS and @NHC_Atlantic on Twitter

2016 Atlantic Tropical Cyclone Names

Alex	Hermine	Otto
Bonnie	Ian	Paula
Colin	Julia	Richard
Danielle	Karl	Shary
Earl	Lisa	Tobias
Fiona	Matthew	Virginie
Gaston	Nicole	Walter



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