RIVER AND WEATHER CONDITIONS

Prepared for Waterways Association Meeting 11/12/2014
National Weather Service Forecast Office, Pittsburgh PA
For the latest river and weather forecasts--http://www.weather.gov/pittsburgh

WEATHER RECAP

During October, 2014, temperatures were above normal and rainfall was generally above normal over most of the Hydrologic Service area. The most rain fell in Northern West Virginia where 200 to 300 percent of normal rain fell. In Pittsburgh, the maximum temperature in October was 79 and the minimum 33 degrees. The average October temperature was 53.7, which is 1.0 degree above the normal average of 52.7. A total of 1.89 inches of precipitation fell during the month which is 0.40 inches below the normal amount of 2.29 inches. There were 14 days where greater than or equal to 0.01 inches of rain fell. 0.10 inches or greater fell on 6 days. There were no days with rainfall greater than or equal to 0.50 inches. The maximum 24 hour rainfall was 0.63 inches and fell between October 14 and 15. The average daily precipitation for October was 0.06 inches. There was a trace of snowfall during the month. The normal amount of snowfall for October is 0.4 inches. There were 347 heating degree days which is 40 below the normal amount of 387 days. There were 4 cooling degree days which is 4 below the normal amount of 8 days

As much as 6 to 7 inches of rain fell over the upper Monongahela River basin during October. During the middle part of October the entire region received its first widespread rain event with many places receiving an inch or more.

Location	*Oct 2014 Precipitation*	*Departure (Inches)*	*Since Jan 1*
Pittsburgh	1.89	-0.40	33.13(+.01)

Location	*Oct Average Temperature*	*Departure degrees*	*Extreme High*	*Extreme Low*
Pittsburgh	53.7	+1.0	79(Oct 14)	33(Oct 27)

RIVER CONDITIONS

River flows and velocities were normal for the Allegheny River and the Ohio River with flows about 100% of normal for October. Flows and velocities on the Monongahela River were 75% of normal for October.

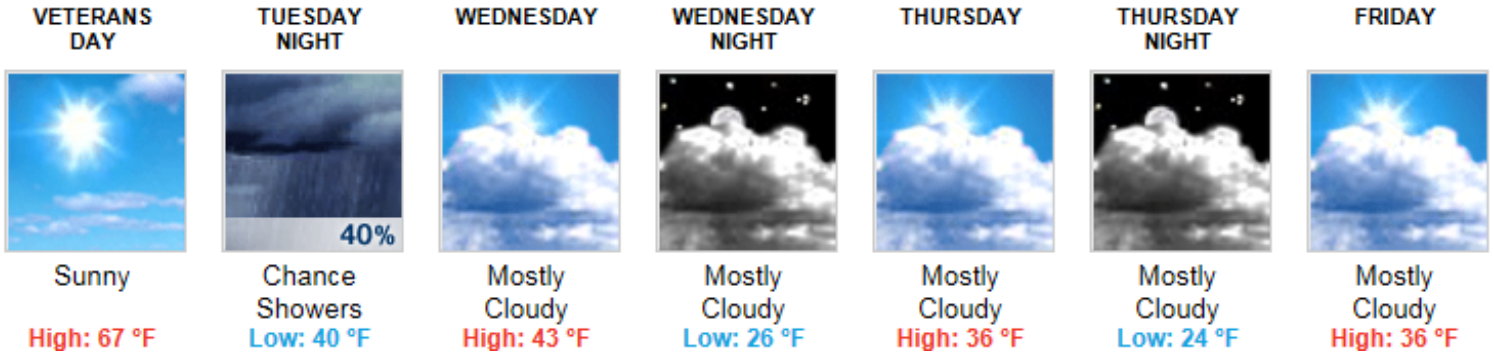
HIGH WATER POTENTIAL

A minimum of 2.00 inches basin wide rainfall in 6 to 12 hours is needed to bring rivers to bank full. High water potential is below normal over the next 30 days. With the loss of tree foliage, the amount of rainfall to cause rises will quickly increase.

OUTLOOK

An extended cold period is in store through November 25th with most precipitation falling in the frozen form. Weather systems will be moving rather rapidly. No heavy rain events are forecast.

WEATHER FORECAST



8-14 Day Outlook… Much below normal temperatures and normal precipitation.
30 Day Outlook... Below normal temperatures and near normal precipitation.
Nov-Dec-Jan Outlook…Below normal temperatures and normal precipitation
Jan-Feb-Mar Outlook… Normal temperatures and normal precipitation
Mar-Apr-May Outlook… Normal temperatures and normal precipitation

Average Yearly rainfall Pittsburgh: 38.19 inches **So far in 2014:**32.13 (+0.01)
Totals for: 2013: 36.65 inches; 2012: 41.74 inches; 2011: 44.24 inches; 2010: 37.85 inches

DAILY RESERVOIR SUMMARY FOR: 9-Nov-14

RESERVOIR	FLOOD STORAGE CAPACITY USED	POOL ELEVATIONS (NAVD88) MINIMUM POOL	WINTER MAX POOL	SUMMER MAX POOL	FULL POOL	ACTUAL FOR TODAY 7AM POOL ELEV	7AM OUTFLOW CFS
Allegheny	0%	1239.5	1306.5	1327.5	1364.5	1308.48	4160
Tionesta	2%	1084.6			1169.6	1090.28	560
Union City	2%	1209.7			1277.7	1225.77	390
Woodcock	0%	1161.9	1164.9	1180.4	1208.4	1173.27	45
East Branch	0%	1554.8	1622.8	1649.8	1684.8	1617.97	51
Mahoning	1%	1074.2		1097.1	1161.1	1082.57	295
Crooked Creek	2%	837.4			917.4	843.37	120
Conemaugh	2%	899.2			974.2	905.12	540
Loyalhanna	3%	909.5			974.5	922.99	120
Stonewall Jackson	0%	1037.3	1067.5	1072.5	1081.3	1067.83	55
Tygart	0%	1009.5	1039.5	1093.5	1166.5	1055.13	3850
Yough	0%	1343.4	1418.4	1438.4	1469.4	1407.31	600
Michael J. Kirwan	2%	950.6	980.6	985.1	992.6	980.79	90
Berlin	2%	979.3	1015.9	1024.0	1031.3	1016.46	140
Lake Milton	0%	929.4	939.4	947.4	950.4	944.57	195
Mosquito	0%	880.3	899.2	900.7	903.3	899.13	16
Shenango	2%	883.7	886.7	894.7	917.7	894.40	730

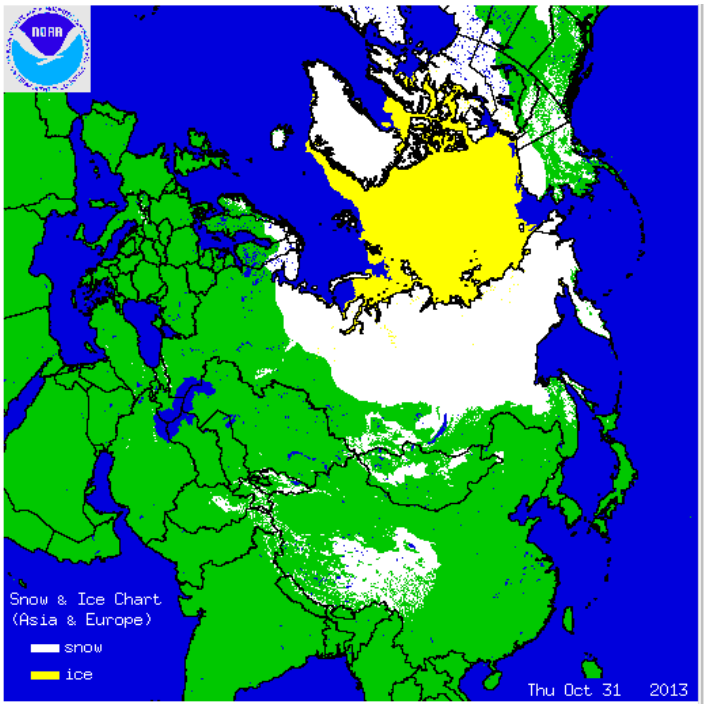
FLOOD STORAGE USED

District-wide	1.0%
Allegheny Basin	1.1%
Monongahela Basin	0.0%
Beaver Basin	1.7%

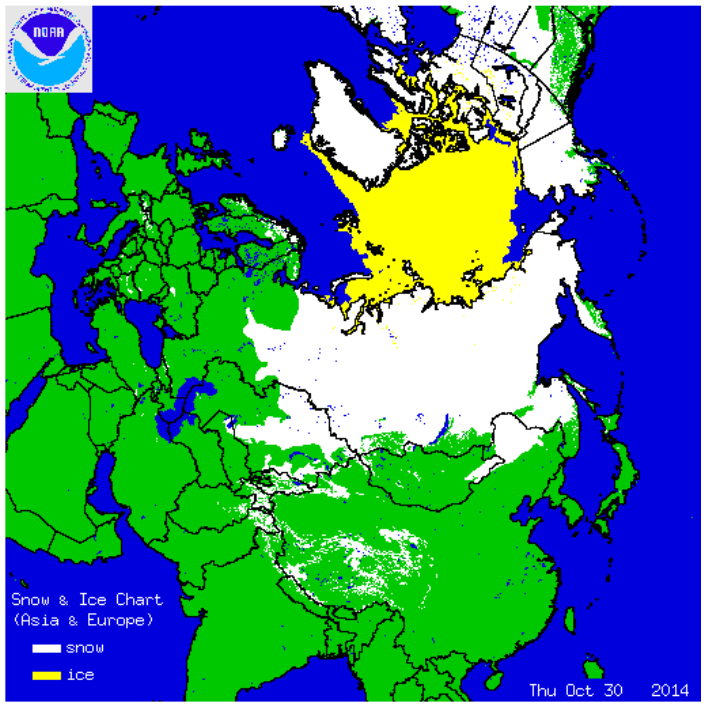
2014 Atlantic hurricane: The season ends Nov 30. No activity in the Atlantic for the past week and none expected for at least the next week. Based on 30-year (1981-2010) Climatology... In terms of accumulated cyclone energy, which measures the combined strength and duration of tropical storms & hurricanes...activity so far in 2014 has been about 67 percent of the 1981-2010 average.

Oct Siberian Snow Cover and relationship to cold winters in Pittsburgh A rapid advance of Eurasian snow cover during the month of October favors that the upcoming winter will be cold across the Northern Hemisphere. About 14.1 million square kilometers of snow blanketed Siberia at the end of October, the second most in records going back to 1967. The record coverage was in 1976.

Oct 31 2013 Siberian Snow Cover



Oct 31 2014 Siberian Snow Cover



El Niño Outlook Tropical Pacific Ocean surface temperatures are normal, but sub-surface water is warmer than average. A late season El Nino remains possible if these warmer waters rise to the surface. The last El Nino was from 2009 to 2010, and the Pacific has either been in its cooler state, called La Nina, or neutral since then. A weak El Nino likely means a normal to above normal snow fall for Pittsburgh.