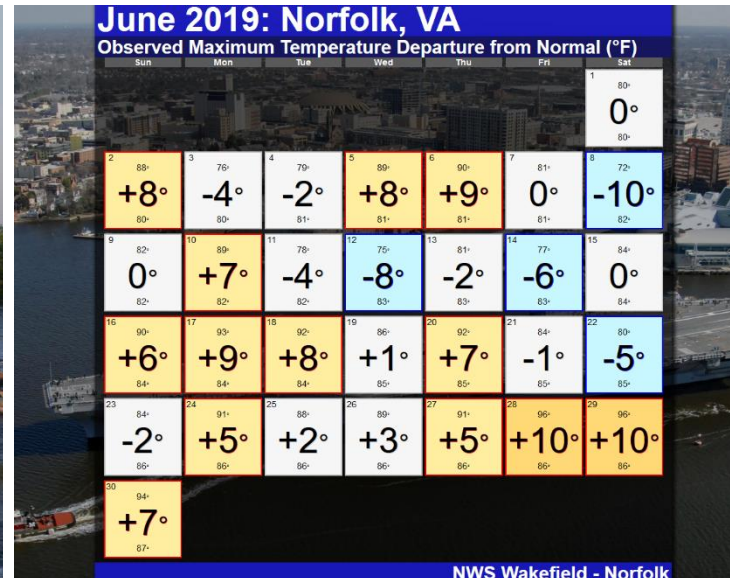
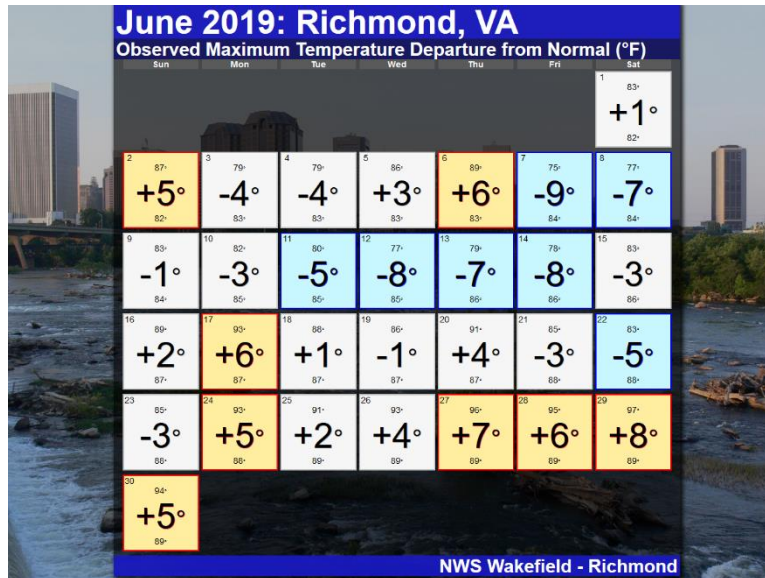


June 2019 Review

Temperature Summary

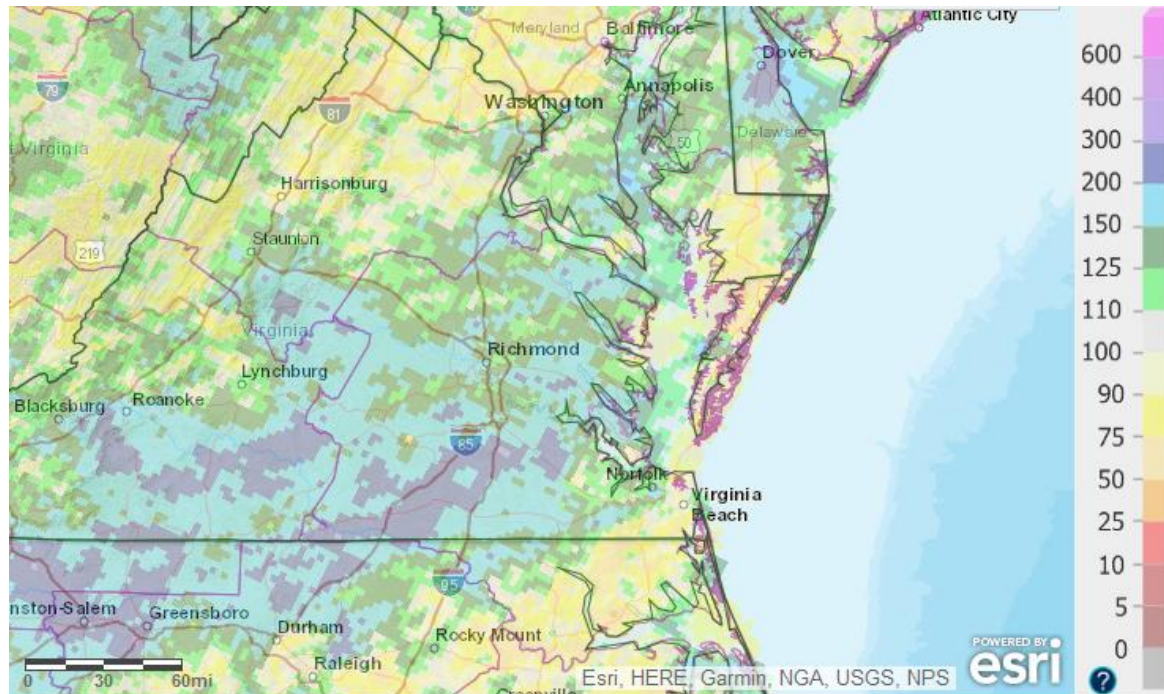
After a May that featured record or near record warmth, June temperatures were much closer to normal. Overall, temperatures ended up about 1 to 2 degrees warmer than average over southeast and east central VA as well as northeast NC and the MD/VA lower eastern shore. Across the VA Piedmont west of I-95, average temperatures were very close to normal. The tables below showing daily high temperature departures at Richmond and Norfolk reveal no major anomalies; Richmond did not have a single day with a high that was either 10 F warmer or cooler than normal and Norfolk recorded only 3 such days. Through June 15th, Richmond did not have any 90 degree days and Norfolk had only one. The second half of the month turned hot much of the time, especially during the final week when most days were in the 90s. The only daily record set at our 4 main long term climate sites (RIC/ORF/ECG/SBY) was at Elizabeth City, NC where the low of 74 F on June 6th tied a daily record high minimum also set in 1981. The locally heavy to excessive rainfall on June 7th did not bring record amounts to any of the main climate sites.



Precipitation & Snowfall Summary

In terms of total precipitation, the month ended up wetter than average across much of central and south central VA, but drier than normal for most places closer to the coast in southeast VA and northeast NC. There was a lot of variability due to locally heavy rain from thunderstorms; Wakefield received 4.89" on June 7th, an amount that is more than what the average month of June brings (3.99"). Flash flooding closed the Virginia Diner down for a day. For the month, Wakefield's total of nearly 10 inches of rainfall was about 250% of normal, while Salisbury and Norfolk had about 90% of the normal June total (slightly drier than average). The following image below shows a map with the approximate percent of normal values. Tabular data for our main climate sites follows this on the next page.

June 2019 Precipitation (Percent of Normal)



Tabular Summary of Data:

June 2019 Temperature Summary Data *also on other dates										
Site	Avg Max		Avg Min		Avg Temp		Warmest	Coldest	Significance / Remarks (if Top Ten List, etc.)	
	(°F)		(°F)		(°F)		(°F)	(°F)		
	Actual	Dep	Actual	Dep	Actual	Dep	Date	Date		
Richmond	85.9	-0.2	65.8	1.3	75.9	0.5	97 on 29th	52 on 4th		
Norfolk	85.6	2.1	68.9	1.8	77.3	1.9	96 on *29th	56 on 15th		
Salisbury	84.3	2.1	64.4	2.7	74.4	2.4	94 on *29th	47 on 4th		
Elizabeth City	86.5	1.8	67.8	1.7	77.1	1.7	96 on 30th	53 on 15th		
Wakefield	86.2	0.5	65.4	2.8	75.8	1.6	95 on 29th	51 on 4th		

June 2019 Precipitation & Snowfall Summary Data											
Site	Total Pre		# Pre Days		Greatest		Total Snow		# Snow Days		Significance / Remarks (if Top Ten List, etc.)
	(in.)		(≥0.01")		(in.)		(in.)		(≥0.1")		
	Actual	Dep	Actual	Dep	Actual	Date	Act	Dep	Act	Dep	
Richmond	5.14	1.21	11	1	1.69	7th	0.0	0.0	0	0	
Norfolk	3.85	-0.41	13	3	1.37	7th	0.0	0.0	0	0	
Salisbury	3.47	-0.24	14	4	1.03	2nd	0.0	0.0	0	0	
Elizabeth City	5.37	0.88	14	4	1.30	19th	0.0	0.0	0	0	
Wakefield	9.85	5.86	14	4	4.89	7th	0.0	0.0	0	0	

* **“Dep”= Departure** from the 30-year normals (1981-2010). Temperature departures are shaded orange for 1 F or more warmer than average and blue for 1 F or more cooler than average. Similarly, precipitation departures are shaded green for 0.50” or more wetter than average and tan for 0.50” or more drier than average and snowfall departures are shaded purple for 0.5” or more above average and tan for 0.5” or more below average.

Daily Records for Long Term Climate Sites:

Norfolk, VA Records (Period of Record 146 yrs./1874-2019)

**tie*

Record Highs: none set.

Record Low Maximums: none set.

Record Lows: none set.

Record High Minimums: none set.

Daily Precipitation: none set.

Daily Snowfall: none set.

Richmond, VA Daily Records (Period of Record 123 yrs./1897-2019)

**tie*

Record Highs: none set.

Record Low Maximums: none set.

Record Lows: none set.

Record High Minimums: none set.

Daily Precipitation: none set.

Daily Snowfall: none set.