2007 Year in Review

Introduction

The southern portion of the Mid Atlantic experienced an eventful year in several respects. Overall, temperatures were above normal for the year, especially January, August, and October. January featured a very warm start to the year, with Norfolk experiencing seven days in the 70s during the month (Richmond had four). A major pattern shift occurred by late January however, as temperatures plummeted to below normal levels and the cold persisted through most of February. Snow lovers were disappointed however as the cold was not linked with any significant storms. In fact, by the end of meteorological winter (Dec-Feb) Norfolk had received no measurable snowfall and Richmond had a paltry 0.3 inches. March generally was a warm dry month; a lone snowstorm during the middle of the month affected areas across the northeast United States but brought mainly rain to our region. A late season snowfall brought the biggest snow of the year (for Richmond and Norfolk) on April 7th, significant because it was the 1st measurable snowfall in April at Richmond and Norfolk since 1989. The snowfall season (2006-07) brought just 1.3" to Richmond, 0.1" to Norfolk, and 3.4" to Salisbury. While these amounts are well below average, they still do not represent any records (all three sites have had more than five other seasons with less).

The remainder of spring proceeded with little fanfare; conditions continued to be drier than normal for the most part and severe weather was limited. Entering summer, drought was becoming a major concern. Although summer was hotter than average, the heat did not really become consistent until July and August and only Richmond ranked in the top ten for hottest summers on record. More significant was the lack of widespread rainfall that continued well into fall. September through mid-October was particularly dry and with temperatures remaining more typical of summer, the severe drought spread northward into much of the southern half of Virginia. Finally a bout of welcome rainfall arrived late in October, alleviating the dry conditions for a short period of time. Overall though, 2007 was quite dry (falling just shy of a top ten ranking at both Richmond and Norfolk). Most locations ended the year about 10 to 15 inches below normal, with the greatest departures generally located across far southern Virginia and into North Carolina, although the eastern shore was very dry as well.

The data presented below will be for the year as a whole, focusing primarily on monthly temperature and precipitation departures at the three primary stations of Richmond, Norfolk, and Salisbury, MD. A brief summary of the daily temperature records set during 2007 follows as well. For more detailed information concerning specific events during the year such as the August heat wave or the drought see the local climate section of the webpage or click on "Additional Recent News" from our homepage.

Richmond, VA 2007 Summary Data

	TEMPERATURE				PRECIPITATION				Significance / Remarks	
	ACTUAL			Dep	Total (in)		# DAYS			
	Max	Min	Avg		Actual	Dep	.01"+	Dep	Temperature	Precipitation
JAN	53.1	33.9	43.5	6.9	3.46	-0.09	10	-1		
FEB	45.4	25.5	35.5	-4.0	2.06	-0.92	5	-4	coldest since 1979	
MAR	64.3	39.1	51.7	4.0	2.66	-1.43	6	-5		
APR	69.0	45.2	57.1	(avg)	3.62	0.44	7	-2		
MAY	78.4	56.5	67.4	2.0	3.69	-0.27	9	-2		
JUN	86.5	64.8	75.7	2.2	5.22	1.68	14	4		
JUL	89.9	67.5	78.7	0.8	1.69	-2.98	7	-4		
AUG	90.9	69.9	80.4	4.1	6.81	2.63	9	(avg)	*6th Warmest*	
SEP	84.3	60.8	72.6	2.2	1.11	-2.87	3	-6		
OCT	78.1	55.7	66.9	8.6	3.54	-0.06	5	-3	*2nd Warmest*	
NOV	60.5	38.4	49.5	(avg)	0.80	-2.26	8	(avg)		
DEC	52.4	35.5	44.0	3.6	3.24	0.12	12	2		
ANNUAL	71.1	49.4	60.2	2.6	37.90	-6.01	95	-20	*7th warmest*	

Norfolk, VA 2007 Summary Data

	TEMPERATURE				PRECIPITATION				Significance / Remarks	
	ACTUAL			Dep	Total (in)		# DAYS			
	Max	Min	Avg		Actual	Dep	.01"+	Dep	Temperature	Precipitation
JAN	54.5	37.7	46.1	6.1	2.71	-1.22	10	-1		
FEB	46.2	30.0	38.1	-3.9	2.09	-1.25	6	-4	coldest since 1979	
MAR	61.2	41.4	51.3	2.3	1.84	-2.24	3	-8		
APR	66.9	48.2	57.5	0.1	3.19	-0.19	9	-1		
MAY	74.4	56.7	65.6	-0.7	2.06	-1.68	10	1		
JUN	84.6	67.1	75.9	1.4	3.87	0.10	10	(avg)		
JUL	88.0	70.7	79.4	0.3	4.77	-0.40	11	1		
AUG	87.7	71.6	79.7	2.3	3.71	-1.08	10	-1		
SEP	81.7	67.0	74.3	2.2	0.38	-3.68	8	-2		*6th Driest*
OCT	77.2	61.0	69.1	8.0	5.39	1.92	6	-2	*2nd Warmest*	
NOV	60.2	43.8	52.0	-0.3	0.31	-2.67	4	-4		*5th Driest*
DEC	55.7	39.9	47.8	3.6	3.50	0.47	9	-1		
ANNUAL	69.9	53.0	61.4	1.8	33.82	-11.91	96	-21		

Salisbury, MD 2007 Summary Data

	TEMPERATURE				PRECIPITATION				Significance / Remarks	
	ACTUAL			Dep	Total (in)		# DAYS			
	Max	Min	Avg		Actual	Dep	.01"+	Dep	Temperature	Precipitation
JAN	49.4	30.1	39.7	4.0	4.04	-0.05	10	-1		
FEB	39.6	20.3	29.9	-8.0	2.58	-0.98	7	-3	coldest since 1979	
MAR	57.5	31.7	44.6	-0.9	3.50	-1.12	5	-6		
APR	62.7	39.4	51.1	-3.2	4.14	0.73	6	-4		
MAY	75.8	46.6	61.2	-2.2	0.97	-2.90	10	-1		
JUN	82.6	57.9	70.2	-1.9	2.48	-1.09	12	2		
JUL	88.2	61.4	74.8	-2.5	4.50	-0.04	7	-3		
AUG	86.8	63.3	75.0	-0.5	1.86	-3.13	9	(avg)		
SEP	81.5	53.1	67.3	-1.8	1.49	-2.24	7	-1		
OCT	75.6	50.6	63.1	5.5	2.89	-0.75	13	5	warmest since 1984	
NOV	57.1	32.1	44.6	-4.0	0.89	-2.41	6	-3		
DEC	49.4	29.0	39.2	-0.8	4.03	0.31	12	1		
ANNUAL	67.2	43.0	55.1	-1.2	33.37	-13.65	104	-12		

Detailed monthly data for 2007 for the three main climate sites, Richmond, Norfolk, and Salisbury are shown in the tables to the left.

Departures from the 1971-2000 means are color coded for temperature: Orange (warm) and blue (cool) and for precipitation: Tan (dry) and green (wet).

For Richmond and Norfolk (both of which have a period of record greater than 100 years), monthly rankings are included if they attain top ten status. Note that both experienced a very warm October and even Salisbury, MD (where the station was moved to a location with much colder nights in 2000) ended up well above normal.

Historical climate data for Elizabeth City, NC has a relatively short period of record with lots of missing data, but this is the station with the greatest precipitation anomaly: more than 20 inches below normal for the year (actual precipitation was only 25.58" (normal being 47").

Daily Temperature Records in 2007

Richmond (period of record 111 yrs/1897-2007):

- **Record Highs**: Six record highs were set (or tied) in 2007….most notable being 104F on August 8th (hottest temperature in Richmond on *any* date since 1977). Also very significant was the 95F on October 9th (hottest October temperature since 99F on October 5th 1941).

- **Record High Mins**: Three record high mins were set…most notably a low temperature of 73F on October 19th, nearly 30 degrees above normal for the date.

- **Record Lows**: none set.

- **Record Low Maximums**: none set.

NORFOLK (period of record 134 yrs/1874-2007):

- **Record Highs**: Eleven record highs were set (or tied) in 2007….most notable being 100F on August 8th. Also very significant was the 91F on October 9th (first 90+ reading during October in Norfolk since 1986).

- **Record High Mins**: Seven record high mins were set (or tied)…most notably a low temperature of 71F on October 26th, nearly 30 degrees above normal for the date.

- **Record Lows**: Two record lows were set (or tied)…most notable being 43F on May 14th (breaking the previous record by 5 degrees).

- **Record Low Maximums**: One set…high of only 66F on June 14th.

SALISBURY (period of record 102 yrs/1906-2007):

- **Record Highs**: Three record highs were set (or tied) in 2007….most notable being 92F on October 9th (first 90+ reading during October in Salisbury since 1997).

- **Record High Mins**: Three record high mins were set (or tied)…most notably a low temperature of 71F on October 19th, nearly 30 degrees above normal for the date.

- **Record Lows**: Eighteen record lows were set (or tied)…most notable being four consecutive record lows from April 8th through the 11th, all of these dates dropping to 25F or lower.

- **Record Low Maximums**: Three set…most notable being a high of only 62F on June 14th.

Questions on this write-up of 2007: mailto:Larry.Brown@noaa.gov