Climatological Analysis of Strong to Very Strong El Niño Winters

For the National Weather Service Philadelphia/Mount Holly
County Warning Area

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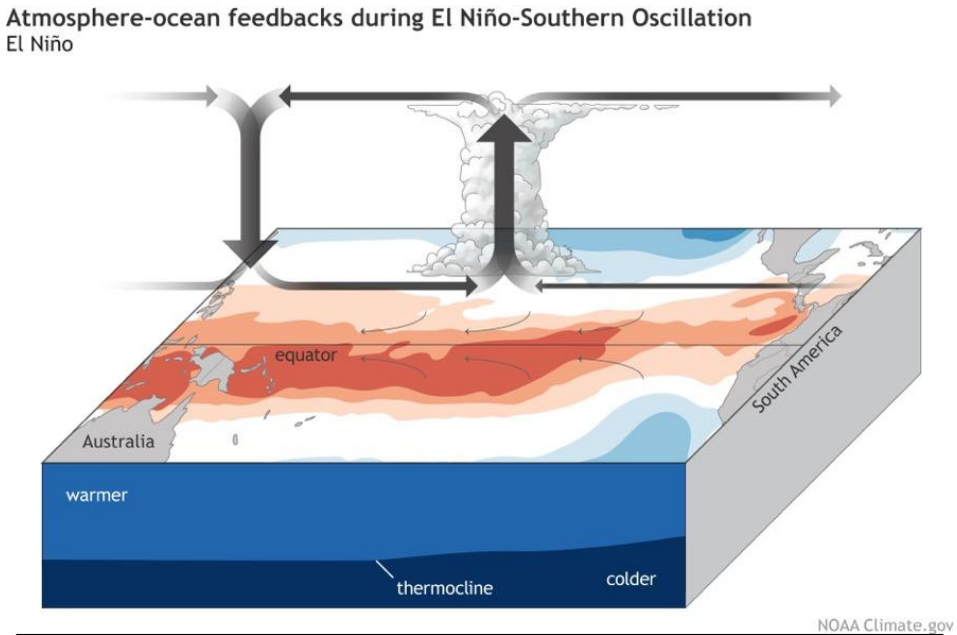
What is an El Niño?

- **“El Niño” is the warm phase of a naturally occurring atmospheric-oceanic cycle within the equatorial region of the Pacific Ocean.** The cold phase is called “La Niña.” The third, middle phase is called “Neutral.” This cycle is collectively known as the El Niño-Southern Oscillation (ENSO).

- El Niño is a “coupled” ocean-atmosphere phenomenon, meaning that both the ocean and atmosphere have to reinforce each other for the event to continue and grow.

- Oceanic anomalies do not fluctuate as much as atmospheric anomalies, which is why ENSO measures are ocean-based. Phases change on the order of several months to years.

- El Niño has predictable impacts to global atmospheric patterns on a seasonal time scale. However, seasonal outcomes can vary at specific locations, including in the Mid-Atlantic. **El Niño shifts the odds rather than guarantees an outcome.**



The following slides provide observed data and analysis from strong and very strong El Niño winters at select stations across our area.

Observed Data from Strong El Niño Winters

2026-2027 Winter Outlook

Philadelphia, PA (PHL)

Strong to **Very Strong** El Niño Winters	Seasonal Snowfall Total (inches, PHL)	Greatest Storm Total Snowfall (inches, PHL)	Dates	Number of 6"+ Storms	Number of 12"+ Storms	Number of 20"+ Storms	Remarks	DJF Highest Temperature (°F)	DJF Lowest Temperature (°F)	DJF Mean Temperature (°F)	DJF Coldest High Temp (°F)	DJF Warmest Low Temp (°F)	DJF Days w/ High Temp <= 32°F	DJF Greatest 2 Day Precip (inches)	Dates	DJF Total Precip (inches)
1957-1958	41.8	13.0	Feb 15-16	3	1	0		64	5	33.1	11	55	20	1.79	Feb 27-28	12.66
1965-1966	27.4	8.3	Jan 29-30	1	0	0		62	4	32.5	16	48	21	1.96	Feb 12-13	8.97
1972-1973	T	T		0	0	0	**Only winter with no measurable snowfall on record since 1884**	62	8	36.0	23	48	12	1.87	Jan 27-28	12.09
1982-1983	37.9	21.3	Feb 11-12	2	1	1	1.9" of snowfall on Apr 19-20	70	3	36.4	25	55	7	1.87	Feb 11-12	8.14
1986-1987	25.7	8.8	Jan 22	2	0	0		60	4	34.0	20	44	8	1.92	Dec 24-25	11.64
1991-1992	4.7	2.1	Mar 22	0	0	0	Trace of snowfall on Apr 3	67	11	37.6	23	56	8	2.06	Dec 2-3	6.05
1997-1998	0.8	0.5	Jan 23-24	0	0	0		69	16	40.4	32	60	1	2.44	Jan 23-24	10.58
2009-2010	78.7	28.5	Feb 5-6	3	3	2	Very strong Negative NAO winter. **Snowiest winter on record since 1884**	67	13	33.8	21	45	14	2.40	Feb 5-6	16.80
2015-2016	27.5	22.4	Jan 22-23	1	1	1	0.3" of snowfall on Apr 9	71	8	41.3	20	62	10	2.19	Feb 23-24	12.13
Average	27.2	11.7		1.3	0.7	0.4		65.8	8.0	36.1	21.2	52.6	11	2.06		11.01
1991-2020 Normal	23.1							68	9	36.1	21	50	13		1991-2020 Normal	9.85
	Above Normal									Above Normal						Above Normal
	Below Normal									Below Normal						Below Normal

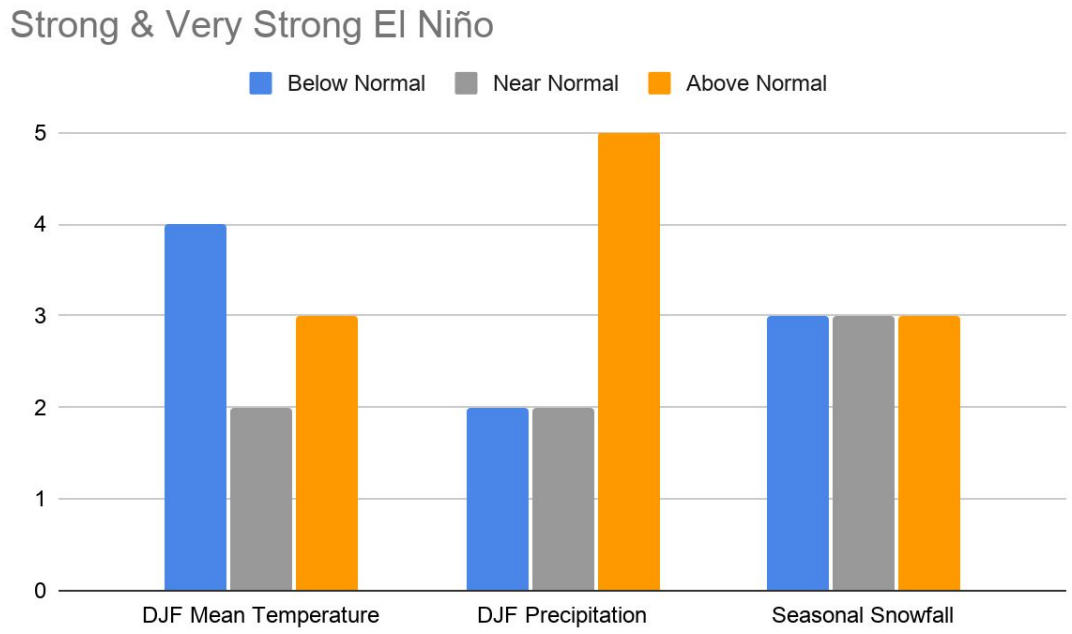
Only Very Strong El Niño Winters	Seasonal Snowfall Total (PHL)	Greatest Storm Total Snowfall (PHL)	Dates	Number of 6"+ Storms	Number of 12"+ Storms	Number of 20"+ Storms	Remarks	DJF Highest Temperature (°F)	DJF Lowest Temperature (°F)	DJF Mean Temperature (°F)	DJF Coldest High Temp (°F)	DJF Warmest Low Temp (°F)	DJF Days w/ High Temp <= 32°F	DJF Greatest 2 Day Precip (inches)	Dates	DJF Total Precip (nches)
1965-1966	27.4	8.3	Jan 29-30	1	0	0		62	4	32.5	16	48	21	1.96	Feb 12-13	8.97
1972-1973	T	T		0	0	0	**Only winter with no measurable snowfall on record since 1884**	62	8	36.0	23	48	12	1.87	Jan 27-28	12.09
1982-1983	37.9	21.3	Feb 11-12	2	1	1	1.9" of snowfall on Apr 19-20	70	3	36.4	25	55	7	1.87	Feb 11-12	8.14
1991-1992	4.7	2.1	Mar 22	0	0	0	Trace of snowfall on Apr 3	67	11	37.6	23	56	8	2.06	Dec 2-3	6.05
1997-1998	0.8	0.5	Jan 23-24	0	0	0		69	16	40.4	32	60	1	2.44	Jan 23-24	10.58
2015-2016	27.5	22.4	Jan 22-23	1	1	1	0.3" of snowfall on Apr 9	71	8	41.3	20	62	10	2.19	Feb 23-24	12.13
Average	16.4	9.1		0.7	0.3	0.3		66.8	8.3	37.4	23.2	54.8	10	2.07		9.66

Strong and Very Strong El Niño Winter Climate Analysis for Philadelphia, PA

	1991-2020 Normal	Observed El Niño Average
DJF Mean Temperature (°F)	36.1	36.1
DJF Precipitation (inches)	9.85	11.01
Seasonal Snowfall (inches)	23.1	27.2

Historical Analysis

- Near equal chances for above normal, near normal, or below normal temperatures.
- Above normal precipitation is favored.
- Near equal chances for above normal, near normal, or below normal seasonal snowfall.



Observed Data from Strong El Niño Winters

Strong and Very Strong El Niño Winter Climate Analysis for Philadelphia, PA

Observed Average for all 9 Strong and Very Strong El Niño Snow Seasons since 1950	
Greatest Storm Total Snowfall (inches)	11.7
Number of 6"+ Snow Storms	1.3
Number of 12"+ Snow Storms	0.7
Number of 20"+ Snow Storms	0.4
Seasonal Snowfall (inches)	27.2
DJF Greatest 2 Day Precip (inches)	2.06
DJF Days w/ High Temp <= 32°F	11

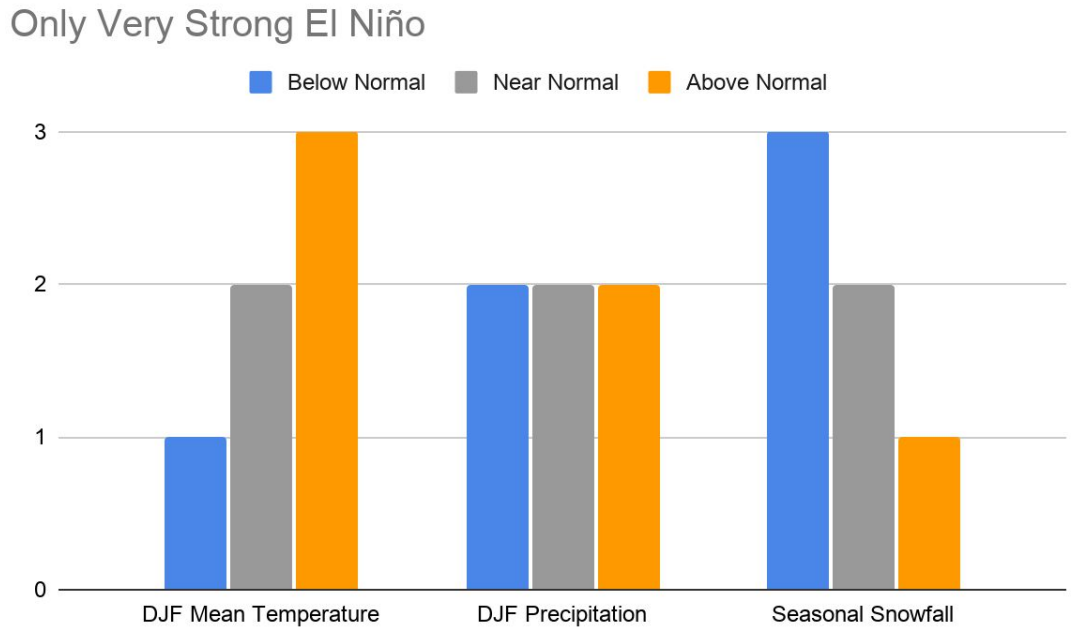
Historical Analysis

- Strong to very strong El Niño winters have a 33% chance (historically) of producing a 20"+ snow storm, a 44% chance (historically) of producing a 12"+ snow storm, and a 67% chance (historically) of producing a 6"+ snow storm.
- If a major storm (12"+) did not occur during a strong to very strong El Niño winter, there is a 75% chance of below normal (23.1") seasonal snowfall.
- Philadelphia has experienced 5 snow storms since 1950 of 20" or greater, and 4 of them occurred during strong to very strong El Niño winters. On the contrary, 6 out of 9 (67%) strong to very strong El Niño winters have not produced 20" or greater snow storms since 1950.
- Philadelphia's seasonal snowfall average, aka "normal", (23.1") is skewed by occasional extreme snow storms.

Observed Data from Strong El Niño Winters

Only Very Strong El Niño Winter Climate Analysis for Philadelphia, PA

	1991-2020 Normal	Observed El Niño Average
DJF Mean Temperature (°F)	36.1	37.4
DJF Precipitation (inches)	9.85	9.66
Seasonal Snowfall (inches)	23.1	16.4



Historical Analysis

- Above normal temperatures are favored.
- Near equal chances for above normal, near normal, or below normal precipitation.
- Below normal seasonal snowfall is favored.

Observed Data from Strong El Niño Winters

Only Very Strong El Niño Winter Climate Analysis for Philadelphia, PA

Observed Average for all 6 Very Strong El Niño Snow Seasons since 1950	
Greatest Storm Total Snowfall (inches)	9.1
Number of 6”+ Snow Storms	0.7
Number of 12”+ Snow Storms	0.3
Number of 20”+ Snow Storms	0.3
Seasonal Snowfall (inches)	16.4
DJF Greatest 2 Day Precip (inches)	2.07
DJF Days w/ High Temp <= 32°F	10

Historical Analysis

- Very strong El Niño winters have a 33% chance (historically) of producing a 12”+ and 20”+ snow storm, and a 50% chance (historically) of producing a 6”+ snow storm.
- If a major storm (12”+) did not occur during a very strong El Niño winter, there is a 75% chance of below normal (23.1”) seasonal snowfall.
- The only snow season on record without measurable snowfall in Philadelphia occurred during a very strong El Niño winter (1972-1973).
- Very strong El Niño winters have a 33% chance (historically) of producing measurable snowfall in April, and a 50% chance (historically) of at least a trace of snowfall in April.

Observed Data from Strong El Niño Winters

2026-2027 Winter Outlook

Allentown, PA (ABE)

Strong to **Very Strong** El Niño Winters	Seasonal Snowfall Total (ABE)	Greatest Storm Total Snowfall (ABE)	Dates	Number of 6"+ Storms	Number of 12"+ Storms	Number of 20"+ Storms	Remarks	DJF Highest Temperature (°F)	DJF Lowest Temperature (°F)	DJF Mean Temperature (°F)	DJF Coldest High Temp (°F)	DJF Warmest Low Temp (°F)	DJF Days w/ High Temp <= 32°F	DJF Greatest 2 Day Precip (inches)	Dates	DJF Total Precip (inches)
1957-1958	63.6	20.3	Mar 19-21	3	2	1	Trace snow depth through Apr 2	63	-1	29.6	8	55	25	2.44	Dec 19-20	14.68
1965-1966	39.7	11.5	Jan 29-30	3	0	0	Trace snowfall Oct 28. First measurable Jan 13	61	-1	29.5	12	41	23	2.05	Feb 13	10.83
1972-1973	7.4	2.2	Nov 30	0	0	0	1.4" snowfall Oct 18-19. Traces of snowfall on Oct 8, 10, & 11	62	2	31.7	19	38	18	1.33	Jan 27-28	11.65
1982-1983	45.8	25.2	Feb 11-12	2	1	1	4.6" snowfall Apr 18-19. Trace snowfall on Apr 25	69	0	33.5	21	56	19	1.56	Feb 11-12	7.43
1986-1987	35.5	11.1	Jan 22	3	0	0	Trace snowfall on Apr 2	54	-3	30.2	15	41	15	1.52	Dec 24-25	9.39
1991-1992	15.6	7.1	Mar 18-19	1	0	0	Traces of snowfall on Apr 2 & 3	66	6	33.9	21	49	15	1.78	Dec 2-3	6.72
1997-1998	7.7	2.5	Dec 30 & Jan 23-24	0	0	0	Traces of snowfall on Apr 1 & 17	67	9	36.2	26	46	4	1.34	Jan 23-24	9.64
2009-2010	59.8	17.8	Feb 9-10	3	2	0	Traces of snowfall on Oct 15 & 16	63	8	29.7	20	42	24	1.96	Dec 2-3	12.85
2015-2016	36.2	31.9	Jan 22-23	1	1	1	Traces of snowfall on Apr 3 & 9	71	2	36.4	17	53	11	2.99	Feb 23-24	13.23
Average	34.6	13.7		1.8	0.7	0.3		64.0	2.4	32.3	17.7	46.8	17	1.89		10.71
1991-2020 Normal	33.1							67	2	32.5	18	44	20		1991-2020 Normal	9.93
	Above Normal									Above Normal						Above Normal
	Below Normal									Below Normal						Below Normal

Only Very Strong El Niño Winters	Seasonal Snowfall Total (ABE)	Greatest Storm Total Snowfall (ABE)	Dates	Number of 6"+ Storms	Number of 12"+ Storms	Number of 20"+ Storms	Remarks	DJF Highest Temperature (°F)	DJF Lowest Temperature (°F)	DJF Mean Temperature (°F)	DJF Coldest High Temp (°F)	DJF Warmest Low Temp (°F)	DJF Days w/ High Temp <= 32°F	DJF Greatest 2 Day Precip (inches)	Dates	DJF Total Precip (nches)
1965-1966	39.7	11.5	Jan 29-30	3	0	0	Trace snowfall Oct 28. First measurable Jan 13	61	-1	29.5	12	41	23	2.05	Feb 13	10.83
1972-1973	7.4	2.2	Nov 30	0	0	0	1.4" snowfall Oct 18-19. Traces of snowfall on Oct 8, 10, & 11	62	2	31.7	19	38	18	1.33	Jan 27-28	11.65
1982-1983	45.8	25.2	Feb 11-12	2	1	1	4.6" snowfall Apr 18-19. Trace snowfall on Apr 25	69	0	33.5	21	56	19	1.56	Feb 11-12	7.43
1991-1992	15.6	7.1	Mar 18-19	1	0	0	Traces of snowfall on Apr 2 & 3	66	6	33.9	21	49	15	1.78	Dec 2-3	6.72
1997-1998	7.7	2.5	Dec 30 & Jan 23-24	0	0	0	Traces of snowfall on Apr 1 & 17	67	9	36.2	26	46	4	1.34	Jan 23-24	9.64
2015-2016	36.2	31.9	Jan 22-23	1	1	1	Traces of snowfall on Apr 3 & 9	71	2	36.4	17	53	11	2.99	Feb 23-24	13.23
Average	25.4	13.4		1.2	0.3	0.3		66.0	3.0	33.5	19.3	47.2	15	1.84		9.92

Observed Data from Strong El Niño Winters

2026-2027 Winter Outlook

Reading, PA (RDG)

Strong to **Very Strong** El Niño Winters	Seasonal Snowfall Total (RDG)	Greatest Storm Total Snowfall (RDG)	Dates	Number of 6"+ Storms	Number of 12"+ Storms	Number of 20"+ Storms	Remarks	DJF Highest Temperature (°F)	DJF Lowest Temperature (°F)	DJF Mean Temperature (°F)	DJF Coldest High Temp (°F)	DJF Warmest Low Temp (°F)	DJF Days w/ High Temp <= 32°F	DJF Greatest 2 Day Precip (inches)	Dates	DJF Total Precip (inches)
1957-1958	53.2	18.7	Feb 15-16	2	2	0	Trace snowfall on Apr 8, depth on Apr 9	63	4	32.7	10	56	20	2.31	Dec 19-20	14.40
1965-1966	35.0	11.7	Jan 29-30	3	0	0	Trace snowfall on Apr 1 & May 9	67	5	33.7	15	48	19	1.92	Feb 13	10.41
1972-1973	M							64	6	32.5	20	45	14	1.70	Jan 28-29	12.85
1982-1983	M						2.5" of snowfall on Apr 20	71	-4	33.6	22	53	9	2.30	Feb 12	8.74
1986-1987	M							56	-5	30.8	19	38	11	1.30	Dec 25	8.38
1991-1992	11.4	2.8	Mar 22	0	0	0	First measurable snowfall Jan 16. Trace of snowfall on Apr 2 & 3	66	8	34.2	19	55	13	1.94	Dec 2-3	8.85
1997-1998	5.9	4.5	Jan 23-24	0	0	0		68	16	38.3	30	52	3	1.75	Jan 23-24	12.04
2009-2010	56.5	20.3	Feb 9-10	3	2	1		62	10	31.6	20	43	19	2.04	Feb 9-10	12.03
2015-2016	35.2	27	Jan 22-23	1	1	1	First measurable snowfall Jan 12. 0.5" of snowfall on Apr 9	71	4	36.9	16	53	12	3.22	Jan 22-23	11.75
Average	32.9	13.3		1.5	0.8	0.3		65.3	4.9	33.8	19.0	49.2	13	2.05		11.05
1991-2020 Normal	N/A							67	3	33.2	18	47	18		1991-2020 Normal	9.09
										Above Normal						Above Normal
										Below Normal						Below Normal

Only Very Strong El Niño Winters	Seasonal Snowfall Total (RDG)	Greatest Storm Total Snowfall (RDG)	Dates	Number of 6"+ Storms	Number of 12"+ Storms	Number of 20"+ Storms	Remarks	DJF Highest Temperature (°F)	DJF Lowest Temperature (°F)	DJF Mean Temperature (°F)	DJF Coldest High Temp (°F)	DJF Warmest Low Temp (°F)	DJF Days w/ High Temp <= 32°F	DJF Greatest 2 Day Precip (inches)	Dates	DJF Total Precip (nches)
1965-1966	35.0	11.7	Jan 29-30	3	0	0	Trace snowfall on Apr 1 & May 9	67	5	33.7	15	48	19	1.92	Feb 13	10.41
1972-1973	M							64	6	32.5	20	45	14	1.70	Jan 28-29	12.85
1982-1983	M						2.5" of snowfall on Apr 20	71	-4	33.6	22	53	9	2.30	Feb 12	8.74
1991-1992	11.4	2.8	Mar 22	0	0	0	First measurable snowfall Jan 16. Trace of snowfall on Apr 2 & 3	66	8	34.2	19	55	13	1.94	Dec 2-3	8.85
1997-1998	5.9	4.5	Jan 23-24	0	0	0		68	16	38.3	30	52	3	1.75	Jan 23-24	12.04
2015-2016	35.2	27	Jan 22-23	1	1	1	First measurable snowfall Jan 12. 0.5" of snowfall on Apr 9	71	4	36.9	16	53	12	3.22	Jan 22-23	11.75
Average	21.9	11.5		1.0	0.3	0.3		67.8	5.8	34.9	20.3	51.0	12	2.14		10.77

Observed Data from Strong El Niño Winters

2026-2027 Winter Outlook

Strong to **Very Strong** El Niño Winters	Seasonal Snowfall Total (ILG)	Greatest Storm Total Snowfall (ILG)	Dates	Number of 6"+ Storms	Number of 12"+ Storms	Number of 20"+ Storms	Remarks	DJF Highest Temperature (°F)	DJF Lowest Temperature (°F)	DJF Mean Temperature (°F)	DJF Coldest High Temp (°F)	DJF Warmest Low Temp (°F)	DJF Days w/ High Temp <= 32°F	DJF Greatest 2 Day Precip (inches)	Dates	DJF Total Precip (inches)
1957-1958	49.5	17.9	Mar 19-20	3	1	0	Trace snowfall Oct 27 and Apr 9	59	4	31.9	10	50	23	1.91	Feb 26-27	12.51
1965-1966	27.2	11.5	Jan 29-30	1	0	0	First trace snowfall Jan 13. Trace snowfall Apr 1	63	5	32.9	16	48	19	2.29	Feb 12-13	9.26
1972-1973	1.2	1.1	Feb 21-22	0	0	0	Traces of snowfall Oct 19, Apr 8 & 11	67	10	37.6	24	49	8	2.01	Feb 2	13.22
1982-1983	25.1	13.6	Feb 11	1	1	0	0.5" of snowfall on Apr 19-20	72	6	37.2	25	54	7	1.62	Feb 11	8.92
1986-1987	40.0	14.4	Feb 22-23	3	2	0	2.4" of snowfall Apr 5-6	57	0	33.5	20	44	9	1.95	Dec 24-25	11.98
1991-1992	3.5	1.4	Jan 25-26	0	0	0	Trace of snowfall Apr 3	67	10	37.3	23	56	9	2.02	Dec 2-3	7.12
1997-1998	T	T		0	0	0	**Only winter with no measurable snowfall on record since 1893**	66	16	39.4	34	54	0	2.69	Jan 23-24	10.32
2009-2010	72.7	25.8	Feb 5-6	3	3	1	**Snowiest winter on record since 1893**	68	11	32.9	21	45	18	2.42	Feb 5-6	16.97
2015-2016	25.4	16.1	Jan 22-23	1	1	0	Trace of snowfall on Apr 9	71	8	39.4	18	60	10	1.66	Feb 23-24	11.94
Average	27.2	11.3		1.3	0.9	0.1		65.6	7.8	35.8	21.2	51.1	11	2.06		11.36
1991-2020 Normal	20.2							69	8	35.7	21	49	13		1991-2020 Normal	9.91
	Above Normal									Above Normal						Above Normal
	Below Normal									Below Normal						Below Normal

Wilmington, DE (ILG)

Only Very Strong El Niño Winters	Seasonal Snowfall Total (ILG)	Greatest Storm Total Snowfall (ILG)	Dates	Number of 6"+ Storms	Number of 12"+ Storms	Number of 20"+ Storms	Remarks	DJF Highest Temperature (°F)	DJF Lowest Temperature (°F)	DJF Mean Temperature (°F)	DJF Coldest High Temp (°F)	DJF Warmest Low Temp (°F)	DJF Days w/ High Temp <= 32°F	DJF Greatest 2 Day Precip (inches)	Dates	DJF Total Precip (nches)
1965-1966	27.2	11.5	Jan 29-30	1	0	0	First trace snowfall Jan 13. Trace snowfall Apr 1	63	5	32.9	16	48	19	2.29	Feb 12-13	9.26
1972-1973	1.2	1.1	Feb 21-22	0	0	0	Traces of snowfall Oct 19, Apr 8 & 11	67	10	37.6	24	49	8	2.01	Feb 2	13.22
1982-1983	25.1	13.6	Feb 11	1	1	0	0.5" of snowfall on Apr 19-20	72	6	37.2	25	54	7	1.62	Feb 11	8.92
1991-1992	3.5	1.4	Jan 25-26	0	0	0	Trace of snowfall Apr 3	67	10	37.3	23	56	9	2.02	Dec 2-3	7.12
1997-1998	T	T		0	0	0	**Only winter with no measurable snowfall on record since 1893**	66	16	39.4	34	54	0	2.69	Jan 23-24	10.32
2015-2016	25.4	16.1	Jan 22-23	1	1	0	Trace of snowfall on Apr 9	71	8	39.4	18	60	10	1.66	Feb 23-24	11.94
Average	13.7	7.3		0.5	0.3	0.0		67.7	9.2	37.3	23.3	53.5	9	2.05		10.13

Observed Data from Strong El Niño Winters

2026-2027 Winter Outlook

Strong to **Very Strong** El Niño Winters	Seasonal Snowfall Total (ACY)	Greatest Storm Total Snowfall (ACY)	Dates	Number of 6"+ Storms	Number of 12"+ Storms	Number of 20"+ Storms	Remarks	DJF Highest Temperature (°F)	DJF Lowest Temperature (°F)	DJF Mean Temperature (°F)	DJF Coldest High Temp (°F)	DJF Warmest Low Temp (°F)	DJF Days w/ High Temp <= 32°F	DJF Greatest 2 Day Precip (inches)	Dates	DJF Total Precip (inches)
1957-1958	31.6	9.0	Feb 1	2	0	0	Trace snowfall Oct 27 and Apr 9. A winter with a lot of small snows	59	4	33.0	11	55	19	2.78	Feb 27-28	16.34
1965-1966	23.1	7.5	Jan 26-27	2	0	0	No snowfall reported until Jan 13	65	0	31.6	15	49	19	2.59	Feb 12-13	9.71
1972-1973	0.4	0.4	Feb 16	0	0	0	Trace of snowfall on Oct 19 & Apr 11. **Second least snowy winter on record since 1944**	63	10	37.7	24	54	9	2.19	Feb 1-2	10.52
1982-1983	22.3	11.8	Feb 11	2	0	0	0.7" snowfall Apr 19-20	73	4	36.6	21	54	10	1.20	Feb 11	8.63
1986-1987	33.3	16.3	Jan 25-26	2	1	0	0.7" snowfall on Apr 5	60	-8	33.5	23	45	7	1.97	Jan 18-19	12.62
1991-1992	3.2	2.2	Jan 25-26	0	0	0	Trace of snowfall on Apr 27	71	3	36.2	23	56	7	1.30	Dec 1-2	6.79
1997-1998	3.0	3.0	Dec 27	0	0	0	Only 1 measureable snowfall	66	14	39.2	32	55	1	2.77	Feb 23-24	14.92
2009-2010	58.1	18.2	Feb 5-6	5	2	0	**Snowiest winter on record since 1944**	68	10	34.0	22	47	11	2.73	Dec 25-26	19.25
2015-2016	27.5	12.9	Jan 22-24	1	1	0	1.8" snowfall on Apr 9	73	7	40.7	21	62	10	1.41	Feb 23-24	12.79
Average	22.5	9.0		1.6	0.4	0.0		66.4	4.9	35.8	21.3	53.0	10	2.10		12.40
1991-2020 Normal	17.4							70	5	36.3	22	51	10		1991-2020 Normal	11.08
	Above Normal									Above Normal						Above Normal
	Below Normal									Below Normal						Below Normal

Atlantic City Airport, NJ (ACY)

Located in Pomona, NJ

Only Very Strong El Niño Winters	Seasonal Snowfall Total (ACY)	Greatest Storm Total Snowfall (ACY)	Dates	Number of 6"+ Storms	Number of 12"+ Storms	Number of 20"+ Storms	Remarks	DJF Highest Temperature (°F)	DJF Lowest Temperature (°F)	DJF Mean Temperature (°F)	DJF Coldest High Temp (°F)	DJF Warmest Low Temp (°F)	DJF Days w/ High Temp <= 32°F	DJF Greatest 2 Day Precip (inches)	Dates	DJF Total Precip (nches)
1965-1966	23.1	7.5	Jan 26-27	2	0	0	No snowfall reported until Jan 13	65	0	31.6	15	49	19	2.59	Feb 12-13	9.71
1972-1973	0.4	0.4	Feb 16	0	0	0	Trace of snowfall on Oct 19 & Apr 11. **Second least snowy winter on record since 1944**	63	10	37.7	24	54	9	2.19	Feb 1-2	10.52
1982-1983	22.3	11.8	Feb 11	2	0	0	0.7" snowfall Apr 19-20	73	4	36.6	21	54	10	1.20	Feb 11	8.63
1991-1992	3.2	2.2	Jan 25-26	0	0	0	Trace of snowfall on Apr 27	71	3	36.2	23	56	7	1.30	Dec 1-2	6.79
1997-1998	3.0	3.0	Dec 27	0	0	0	Only 1 measureable snowfall	66	14	39.2	32	55	1	2.77	Feb 23-24	14.92
2015-2016	27.5	12.9	Jan 22-24	1	1	0	1.8" snowfall on Apr 9	73	7	40.7	21	62	10	1.41	Feb 23-24	12.79
Average	13.3	6.3		0.8	0.2	0.0		68.5	6.3	37.0	22.7	55.0	9	1.91		10.56

Observed Data from Strong El Niño Winters

2026-2027 Winter Outlook

Trenton, NJ (TTN)

Strong to **Very Strong** El Niño Winters	Seasonal Snowfall Total (TTN)	Greatest Storm Total Snowfall (TTN)	Dates	Number of 6"+ Storms	Number of 12"+ Storms	Number of 20"+ Storms	Remarks	DJF Highest Temperature (°F)	DJF Lowest Temperature (°F)	DJF Mean Temperature (°F)	DJF Coldest High Temp (°F)	DJF Warmest Low Temp (°F)	DJF Days w/ High Temp <= 32°F	DJF Greatest 2 Day Precip (inches)	Dates	DJF Total Precip (inches)
1957-1958	51.7	17.8	Mar 19-21	3	2	0		63	5	33.0	13	55	23	2.35	Feb 27-28	13.27
1965-1966	22.1	7.3	Jan 29-30	1	0	0	Trace of snowfall on Oct 28. A winter with a lot of small snows	61	6	33.8	17	52	21	2.45	Feb 13	10.34
1972-1973	3.3	2.5	Oct 18-19	0	0	0	Second snowiest October on record since 1865. Several dustings of snowfall. Trace of snowfall on Apr 8 & 11	63	6	35.9	20	45	13	2.53	Feb 1-2	12.53
1982-1983	32.5	16.6	Feb 11-12	2	1	0	3.3" snowfall on Apr 18-19	70	5	35.9	24	55	8	1.60	Feb 11-12	9.14
1986-1987	37.1	11.6	Feb 22-23	2	0	0	A winter with a lot of small snows	58	1	31.4	17	44	12	2.67	Dec 2-3	14.62
1991-1992	9.8	3.4	Mar 22	0	0	0		67	6	35.1	23	53	12	1.94	Dec 2-3	6.83
1997-1998	5.5	2.3	Dec 27	0	0	0		71	14	38.5	29	49	1	2.44	Jan 23-24	13
2009-2010	53.6	17.6	Feb 9-10	4	1	0		67	13	33.5	20	46	15	1.98	Dec 9	14.24
2015-2016	26.0	18.5	Jan 22-23	1	1	0	First snowfall reported on Jan 12	72	4	38.9	16	61	10	1.73	Feb 23-24	12.15
Average	26.8	10.0		1.4	0.6	0.0		65.8	6.7	35.1	19.9	51.1	13	2.19		11.79
1991-2020 Normal	26.6							69	5	34.4	20	49	15		1991-2020 Normal	9.98
	Above Normal									Above Normal						Above Normal
	Below Normal									Below Normal						Below Normal

Only Very Strong El Niño Winters	Seasonal Snowfall Total (TTN)	Greatest Storm Total Snowfall (TTN)	Dates	Number of 6"+ Storms	Number of 12"+ Storms	Number of 20"+ Storms	Remarks	DJF Highest Temperature (°F)	DJF Lowest Temperature (°F)	DJF Mean Temperature (°F)	DJF Coldest High Temp (°F)	DJF Warmest Low Temp (°F)	DJF Days w/ High Temp <= 32°F	DJF Greatest 2 Day Precip (inches)	Dates	DJF Total Precip (nches)
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1991-1992	9.8	3.4	Mar 22	0	0	0		67	6	35.1	23	53	12	1.94	Dec 2-3	6.83
1997-1998	5.5	2.3	Dec 27	0	0	0		71	14	38.5	29	49	1	2.44	Jan 23-24	13
2015-2016	26.0	18.5	Jan 22-23	1	1	0	First snowfall reported on Jan 12	72	4	38.9	16	61	10	1.73	Feb 23-24	12.15
Average	16.5	8.4		0.7	0.3	0.0		67.3	6.8	36.4	21.5	52.5	11	2.12		10.67

El Niño Status & Outlook

2026-2027
Winter Outlook

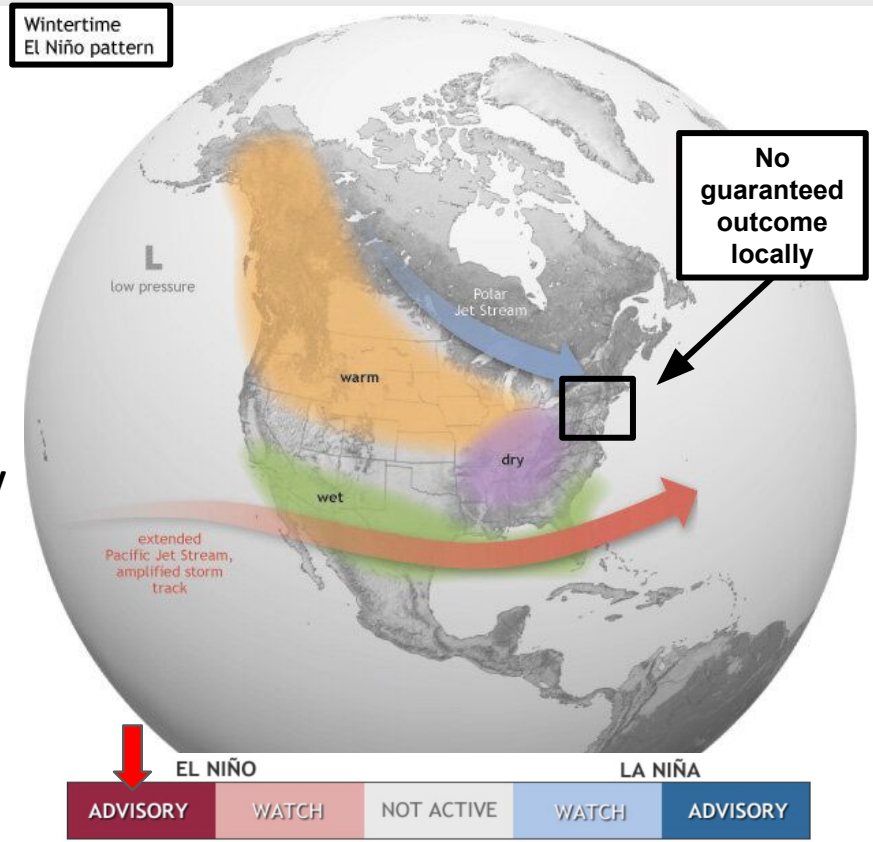
El Niño Advisory

Favored Effects in the Mid-Atlantic

⚠ No two years are alike

Warmer than average	Wetter than average

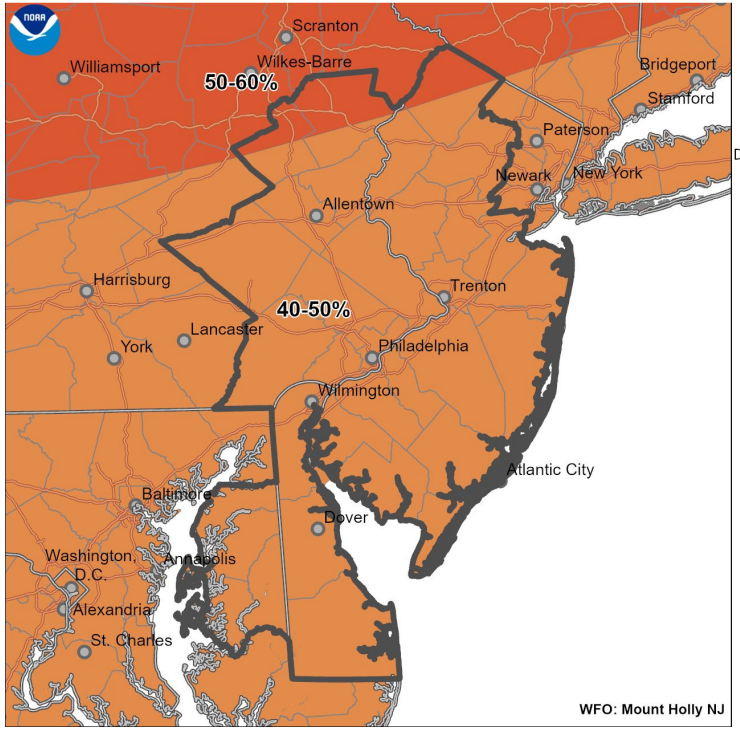
- **El Niño continues to strengthen, with a strong-to-very strong El Niño likely through January-March 2027.**
- **The current relative Niño index value is the second warmest behind 1997 based on ranked September monthly values since 1950.**
- **Impacts in U.S. generally lag peak of event → El Niño peaks in Oct-Dec, but impacts can continue through Dec-Jan-Feb-Mar**



Winter Outlook: December-January-February

2026-2027
Winter Outlook

Leaning Above Normal Temperatures



Seasonal Temperature Outlook

Valid:
December, 2026 - February, 2027

Probability (Percent Chance)

Above Normal
- Likely Above: 90-100%, 80-90%, 70-80%, 60-70%, 50-60%
- Leaning Above: 40-50%, 33-40%

Near Normal
- 33-40%
- 40-50%

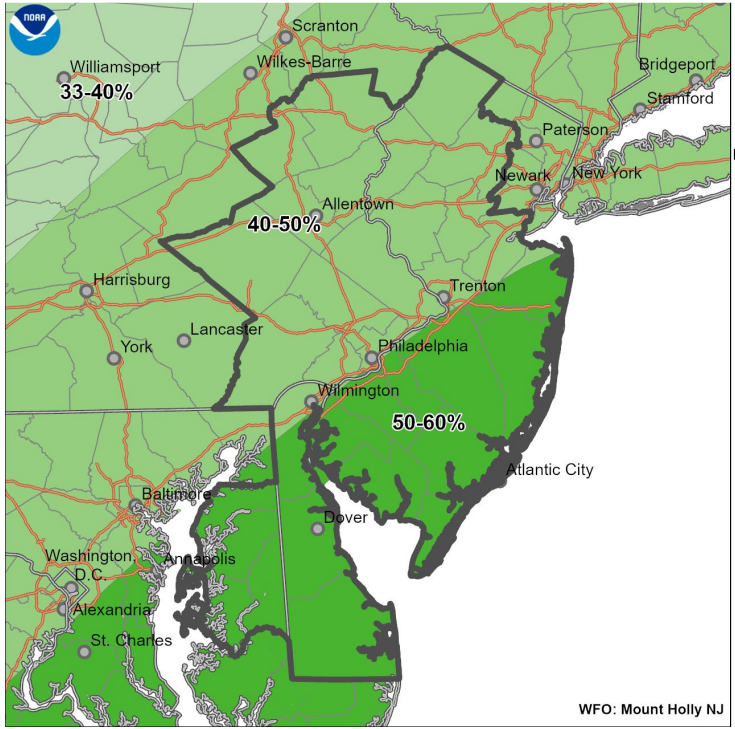
Below Normal
- Leaning Below: 33-40%, 40-50%, 50-60%
- Likely Below: 60-70%, 70-80%, 80-90%, 90-100%

Equal Chances

Climate Prediction Center
Issued:
October 15, 2026

www.cpc.ncep.noaa.gov

Leaning Above Normal Precipitation



Seasonal Precipitation Outlook

Valid:
December, 2026 - February, 2027

Probability (Percent Chance)

Above Normal
- Likely Above: 90-100%, 80-90%, 70-80%, 60-70%, 50-60%
- Leaning Above: 40-50%, 33-40%

Near Normal
- 33-40%
- 40-50%

Below Normal
- Leaning Below: 33-40%, 40-50%, 50-60%
- Likely Below: 60-70%, 70-80%, 80-90%, 90-100%

Equal Chances

Climate Prediction Center
Issued:
October 15, 2026

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El Niño Impacts for the Mid-Atlantic

2026-2027
Winter Outlook

- Continental weather pattern is favorable for coastal storms along the East Coast, and thus a wetter than average season is favored.

- Above normal temperatures are favored. Cold air is needed in conjunction with a coastal storm to produce significant snowfall. Cold air is often a missing ingredient during El Niño coastal storm setups, as milder temperatures are also favored upstream across southern Canada and the Midwest. The presence of cold air is not directly driven by El Niño in our region.

- **Strong to very strong El Niño winters have produced both little to no snowfall and historic snowfall.** El Niño is not a reliable indicator of seasonal snowfall outcome in our region, but generally below normal snowfall is favored during very strong El Niño winters unless a major storm occurs. Several minor snow events are unlikely.