

WINTER ANALOGS FOR 2007-2008 WINTER

.CLIMATOLOGY...

NOW ITS TIME FOR OUR ANNUAL ANALOG EXERCISE OF COMPARING AUTUMN WEATHER AND ENSUING WINTER TEMPERATURES. THIS WILL BE A LA NINA WINTER, CURRENT FORECAST ESTIMATES ARE FOR EITHER A MODERATE OR STRONG LA NINA TO BE WITH US THROUGH THE WINTER. THE LAST MODERATE LA NINA WINTER OCCURRED IN 1999-2000. THE OTHER IMPORTANT MOVERS AND SHAKERS ARE THE EASTERN PACIFIC (PDO/PNA) AND NORTHERN ATLANTIC (NAO) FOR OUR UPCOMING WINTER. AS LONG AS THE NINA REMAINS MODERATE OR STRONGER, IT WILL HAVE A LARGE INFLUENCE ON OUR UPCOMING WEATHER. FROM THE WINTER OF 1949-50 IN PHILADELPHIA, MODERATE LA NINA WINTERS HAVE HAD AN AVERAGE TEMPERATURE OF 34.3F AND AVERAGE SNOWFALL OF 15.5 INCHES WHILE STRONG LA NINA WINTERS HAVE HAD AN AVERAGE TEMPERATURE OF 36.2 DEGREES AND AVERAGE SNOWFALL OF 15.4 INCHES.

WHILE THERE ARE OUTLOOKS ISSUED FOR THE PDO AND NAO, THE FORECAST SKILL IS GREATER FOR ENSOS (NINOS AND NINAS). SINCE GETTING A NINA TO FOLLOW A SCRIPT IS HARD ENOUGH, HERE IS THE SHORT SIX-PACK OF WHAT OCCURRED IN PAST NINA WINTERS THAT HAD AN UNSEASONABLY WARM OCTOBER FOLLOWED BY A NOVEMBER THAT BORDERED THE TERCILE THRESHOLD BETWEEN NORMAL AND COLDER THAN NORMAL. MY SON AND MIKE ALREADY TOLD ME I HAVE THE SNOW ALL WRONG.

YEAR	ENSUING DEC	ENSUING JAN	ENSUING FEB	AVG TEMP	ENSUING PCPN	ENSUING SNOW
1908-9	37.1	35.6	41.2	38.0	10.26	18.1
1949-0	39.0	43.2	33.8	38.7	8.29	1.9
1950-1	34.2	36.0	36.4	35.5	9.19	4.6
1954-5	36.0	32.6	36.1	34.9	5.60	12.1
1971-2	41.6	35.1	32.4	36.4	8.64	12.2
1984-5	41.9	27.3	35.3	34.8	6.16	16.5
AVERAGE	38.3	35.0	35.9	36.4	8.02	10.9
NORMAL	37.4	32.3	34.8	34.8	9.57	19.3

THE OFFICIAL CPC OUTLOOK FOR THIS WINTER HAS ABOUT A 40 PERCENT CHANCE OF BEING WARMER THAN NORMAL. THE 50 PERCENT CONFIDENCE INTERVAL FOR THE UPCOMING WINTER MEAN TEMPERATURE FOR PHILADELPHIA IS BETWEEN 33.6F AND 37.5F. THE PRECIPITATION OUTLOOK HAS EQUAL CHANCES OF BEING EITHER WETTER OR DRIER THAN NORMAL NORTHWEST OF INTERSTATE 95 AND A SLIGHTLY GREATER CHANCE OF IT BEING DRIER THAN NORMAL SOUTHEAST OF INTERSTATE 95.

MODERATE OR STRONG NINAS TEND TO HAVE FEWER LARGE (6 INCHES OR GREATER AS MEASURED AT PHL) SINGLE SNOW EVENTS THAN THE TYPICAL WINTER. WHILE MODERATE AND STRONG NINAS HAVE ACCOUNTED FOR 18 PERCENT OF ALL WINTERS SINCE 1949-50, THEY HAVE ONLY ACCOUNTED FOR ABOUT 9 PERCENT OF THE 6 INCH OR GREATER SINGLE SNOW EVENTS. THERE HAS NOT BEEN A SINGLE 10 INCH OR GREATER SNOW EVENT AS MEASURED IN PHILADELPHIA IN A MODERATE OR STRONG NINA WINTER SINCE AT LEAST THE 1910S. IT IS BELIEVED THAT THE WEAKER SUB-TROPICAL JET DURING NINA WINTERS BRINGS LESS MOISTURE NORTHWARD. ALSO ITS HARDER OR SLOWER FOR THE SUBTROPICAL JET TO PHASE WITH THE POLAR JET THAN IN NINO WINTERS. EL NINO WINTERS WE NORMALLY HAVE AN ABOVE AVERAGE CHANCE OF LARGER SNOW EVENTS. AN INTERESTING ARTICLE ABOUT THIS CLIMATOLOGY CAN BE FOUND IN THE OCTOBER 2003 ISSUE OF WEATHER AND FORECASTING.

AS ALWAYS PAST PERFORMANCE IS NOT ALWAYS AN INDICATION OF FUTURE TRENDS. HAVE A HAPPY AND HEALTHY WINTER SEASON HOPEFULLY ONE WITH MUCH LESS SLEET IN IT.

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