

1999

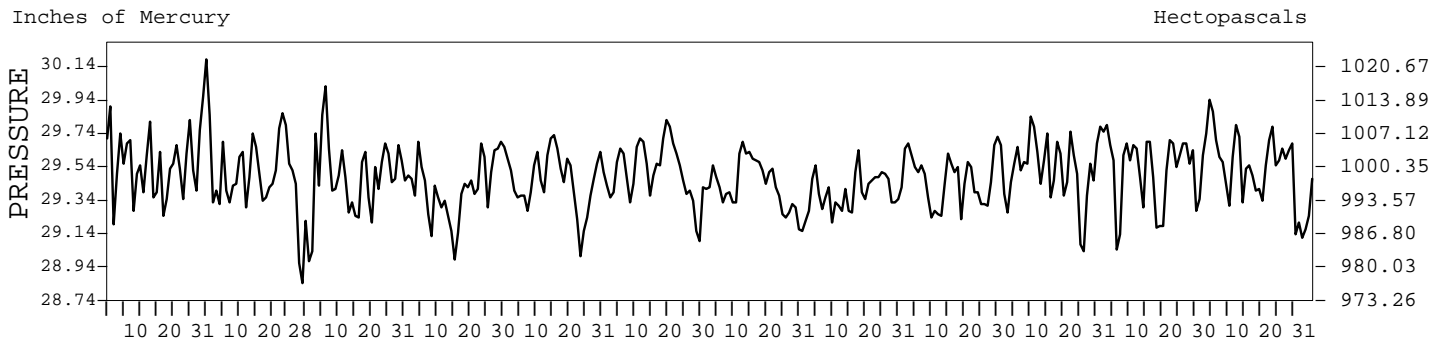
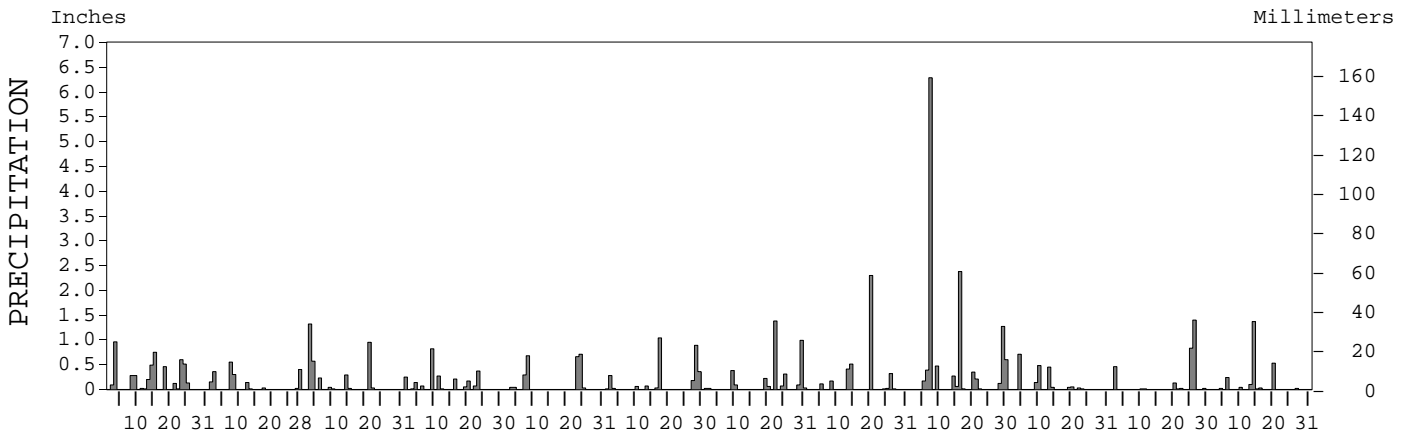
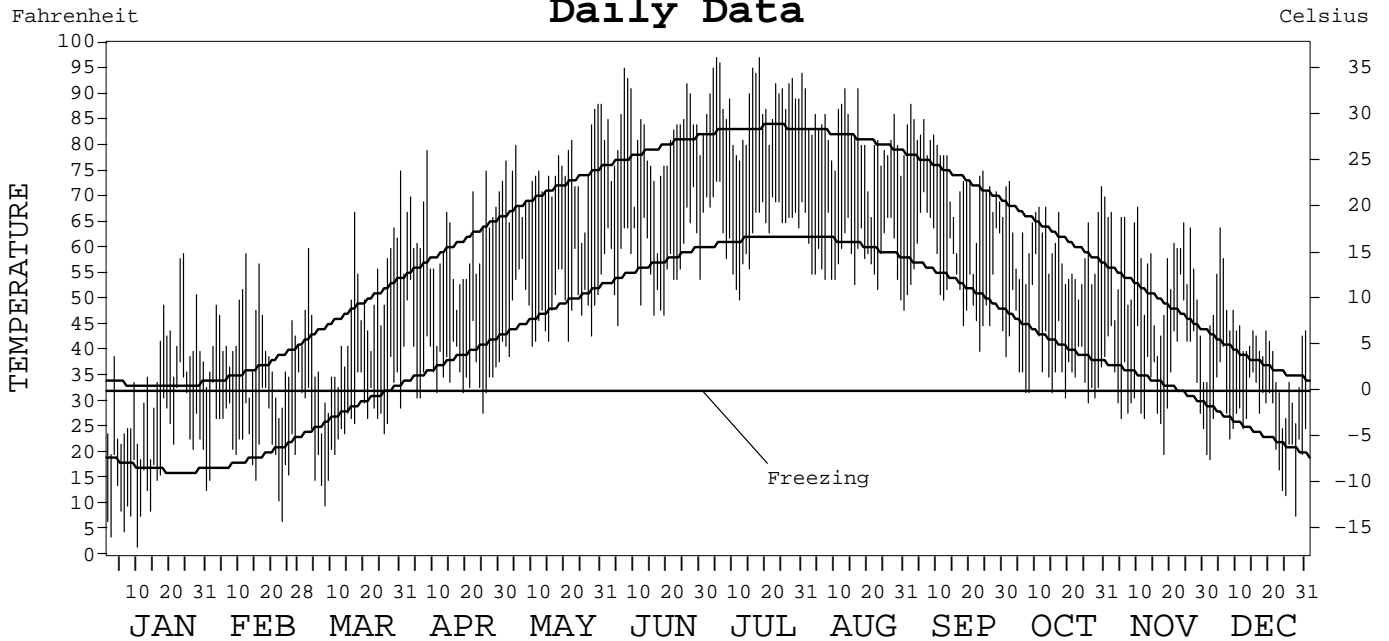
LOCAL CLIMATOLOGICAL DATA  
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-4551

WILLIAMSPORT,  
PENNSYLVANIA (IPT)

Daily Data



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*Thomas R. Karl*

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	NATIONAL ENVIRONMENTAL AND INFORMATION SERVICE	NATIONAL SATELLITE, DATA, AND INFORMATION SERVICE	NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA	DIRECTOR NATIONAL CLIMATIC DATA CENTER
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# METEOROLOGICAL DATA FOR 1999

## WILLIAMSPORT, PA (IPT)

LATITUDE: 41° 14' 36" N      LONGITUDE: 76° 55' 18" W      ELEVATION (FT): GRND: 541      BARO: 541      TIME ZONE: EASTERN (UTC + 5)      WBAN: 14778

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	34.6	41.3	46.5	61.1	74.2	81.1	88.2	81.5	74.2	60.7	54.9	41.1	61.6	
	HIGHEST DAILY MAXIMUM	59	59	75	79	88	95	97	91	88	73	68	64	97	
	DATE OF OCCURRENCE	24	12	31	08	31+	07	05	17+	02	02	10	05	JUL 05	
	MEAN DAILY MINIMUM	18.4	23.4	26.5	37.5	48.8	57.8	64.4	58.5	54.8	38.6	35.5	26.0	40.9	
	LOWEST DAILY MINIMUM	2	7	10	28	39	45	50	48	40	30	20	8	2	
	DATE OF OCCURRENCE	10	23	08	25	03	05	12	31	23	26	18	28	JAN 10	
	AVERAGE DRY BULB	26.5	32.4	36.5	49.3	61.5	69.5	76.3	70.0	64.5	49.7	45.2	33.6	51.3	
	MEAN WET BULB			30.9	43.0	54.9	62.9				45.6				
	MEAN DEW POINT			21.9	34.4	49.0	58.3				41.6				
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	5	14	3	0	0	0	0	22	
	MAXIMUM ≤ 32°	12	4	3	0	0	0	0	0	0	0	0	5	24	
	MINIMUM ≤ 32°	28	24	24	6	0	0	0	0	0	6	13	25	126	
	MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0	
	H/C	HEATING DEGREE DAYS	1186	907	875	462	122	25	1	8	87	467	587	970	5697
	COOLING DEGREE DAYS	0	0	0	0	21	165	360	169	79	0	0	0	794	
RH	MEAN (PERCENT)	77	69	60	61	67	71	70	71	78	77	66	72	70	
	HOUR 01 LST	80	75	70	70	81	86	86	84	89	90	72	77	80	
	HOUR 07 LST	84	74	71	75	80	85	83	86	88	90	75	80	81	
	HOUR 13 LST	69	57	47	49	50	52	52	51	60	58	56	62	55	
	HOUR 19 LST	75	68	56	51	56	61	62	63	79	71	61	68	64	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	7	5	2	1	0	0	1	0	4	8	3	3	34	
	THUNDERSTORMS	0	0	1	1	3	5	8	6	3	2	0	0	29	
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)														
	CEILOMETER (≤ 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
	MIDNIGHT-MIDNIGHT: (OKTAS)														
	CEILOMETER (≤ 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
NUMBER OF DAYS WITH:															
CLEAR															
PARTLY CLOUDY															
CLOUDY															
PR	MEAN STATION PRESS. (IN.)	29.57	29.49	29.44	29.40	29.45	29.50	29.41	29.40	29.44	29.55	29.51	29.50	29.47	
	MEAN SEA-LEVEL PRESS. (IN.)			30.02	29.97	30.01	30.06				30.12				
WINDS	RESULTANT SPEED (MPH)	2.1	2.2	5.6	2.1	1.7	0.9	1.3	1.2	0.7	1.3	3.1	2.9	1.9	
	RES. DIR. (TENS OF DEGS.)	28	33	29	30	27	21	26	30	25	28	29	27	29	
	MEAN SPEED (MPH)	6.7	6.1	8.7	6.6	5.8	4.9	4.9	4.7	5.5	5.0	6.8	5.8	6.0	
	PREVAIL. DIR. (TENS OF DEGS.)	26	28	27	26	25	27	26	26	29	27	26	27	26	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	43	26	34	30	31	25	32	33	37	34	37	28	43	
	DIR. (TENS OF DEGS.)	24	26	25	30	24	29	01	22	25	23	23	30	24	
	DATE OF OCCURRENCE	18	12	22	14	24	29+	30	13	29	22	02	11	JAN 18	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	47	33	43	44	43	32	43	41	45	44	49	36	49	
DIR. (TENS OF DEGS.)	24	28	25	26	25	16	36	23	24	24	23	15	23		
DATE OF OCCURRENCE	18	12	22	16	24	05	30	13	29	22	02	15+	NOV 02		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	4.91	1.96	3.46	2.44	2.45	2.94	3.66	3.86	12.60	1.95	2.89	2.36	45.48	
	GREATEST 24-HOUR (IN.)	0.96	0.58	1.32	0.82	0.97	1.24	1.38	2.30	6.68	0.71	1.71	1.37	6.68	
	DATE OF OCCURRENCE	03	07-08	03	09	07-08	28-29	22	20	06-07	04	25-26	14	SEP 06-07	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	15	9	9	12	7	10	12	9	14	9	9	9	124	
PRECIPITATION ≥ 0.10	11	6	5	7	4	5	5	6	11	4	4	4	72		
PRECIPITATION ≥ 1.00	0	0	1	0	0	1	1	1	3	0	1	1	9		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	12.5	6.3	15.6	T	T	0.0	0.0	0.0	0.0	0.0	0.1	0.6	35.1	
	GREATEST 24-HOUR (IN.)	3.9	3.6	7.6	T	T	0.0	0.0	0.0	0.0	0.0	0.1	0.6	7.6	
	DATE OF OCCURRENCE	15	07	04	11	08	0	0				29	27	MAR 04	
	MAXIMUM SNOW DEPTH (IN.)					0						T			
	DATE OF OCCURRENCE											30+			
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	4	3	4	0	0	0	0	0	0	0	0	0	11		

# NORMALS, MEANS, AND EXTREMES

## WILLIAMSPORT, PA (IPT)

LATITUDE: 41° 14' 36" N      LONGITUDE: 76° 55' 18" W      ELEVATION (FT): GRND: 541      BARO: 541      TIME ZONE: EASTERN (UTC + 5)      WBAN: 14778

		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	33.3	36.6	47.7	60.1	71.1	79.0	83.1	81.2	73.8	62.4	49.9	37.9	59.7
	MEAN DAILY MAXIMUM	51	34.5	37.8	47.3	60.6	71.6	79.9	84.1	82.0	74.1	63.1	49.8	38.3	60.3
	HIGHEST DAILY MAXIMUM	55	69	71	87	92	96	102	103	100	102	91	83	69	103
	YEAR OF OCCURRENCE		1967	1985	1998	1990	1996	1952	1995	1955	1953	1951	1950	1998	JUL 1995
	MEAN OF EXTREME MAXS.	51	52.9	55.8	69.3	81.7	87.5	92.1	94.4	91.7	88.4	78.6	68.2	56.3	76.4
	NORMAL DAILY MINIMUM	30	17.1	19.2	28.5	38.1	47.9	56.6	61.5	60.5	53.1	41.6	33.6	23.9	40.1
	MEAN DAILY MINIMUM	51	18.9	20.5	28.3	38.4	47.8	56.9	61.7	60.2	52.8	41.4	33.0	23.7	40.3
	LOWEST DAILY MINIMUM	55	-20	-13	-2	15	28	36	43	38	28	20	8	-15	-20
	YEAR OF OCCURRENCE		1994	1971	1996	1982	1996	1986	1965	1965	1947	1972	1976	1950	JAN 1994
	MEAN OF EXTREME MINS.	51	-1.0	0.5	11.2	24.8	33.3	43.3	49.8	47.3	37.9	27.4	18.8	4.7	24.8
	NORMAL DRY BULB	30	25.2	28.0	38.1	49.1	59.5	67.8	72.3	70.8	63.5	52.0	41.8	30.9	49.9
	MEAN DRY BULB	51	26.7	29.1	37.8	49.6	59.7	68.4	72.9	71.1	63.5	52.2	41.4	31.0	50.3
	MEAN WET BULB	14	24.4	26.4	33.3	43.6	53.4	62.2	66.4	60.6	57.9	44.4	37.3	26.8	44.7
	MEAN DEW POINT	14	18.0	19.1	25.2	35.3	47.3	57.4	62.5	57.2	54.6	40.1	31.9	21.3	39.2
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.2	0.8	1.9	4.6	2.3	0.7	0.0	0.0	0.0	10.5	
MAXIMUM ≤ 32°	30	14.3	9.0	1.8	*	0.0	0.0	0.0	0.0	0.0	0.0	0.5	8.0	33.6	
MINIMUM ≤ 32°	30	28.5	24.4	21.1	8.0	0.7	0.0	0.0	0.0	0.1	5.0	14.1	24.9	126.8	
MINIMUM ≤ 0°	30	2.8	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	5.2	
H/C	NORMAL HEATING DEG. DAYS	30	1234	1036	834	477	200	30	0	9	106	408	696	1057	6087
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	29	114	229	189	61	0	0	0	622
RH	NORMAL (PERCENT)	30	70	68	64	61	67	73	74	77	79	75	73	72	71
	HOUR 01 LST	30	74	73	72	72	80	87	89	90	90	85	80	76	81
	HOUR 07 LST	30	76	76	76	75	81	86	88	91	92	88	81	78	82
	HOUR 13 LST	30	62	58	54	48	52	56	57	59	61	58	62	64	58
	HOUR 19 LST	30	67	63	58	52	57	62	64	69	75	71	71	70	65
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	28	2.0	1.7	1.3	1.2	2.2	2.9	3.2	4.2	7.6	6.0	3.0	2.1	37.4
	THUNDERSTORMS	28	0.3	0.5	1.0	1.8	4.2	7.0	7.5	6.0	3.0	0.9	0.5	0.3	33.0
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	1			6.4			5.6							
	MIDNIGHT-MIDNIGHT (OKTAS)	1			6.4										
	MEAN NO. DAYS WITH:														
CLEAR	1	1.0	1.0	9.0		3.0	5.0								
PARTLY CLOUDY	1	2.0	2.0	2.0		6.0	9.0								
CLOUDY	1	2.0	5.0	10.0		10.0	9.0								
PR	MEAN STATION PRESSURE (IN)	27	29.50	29.51	29.47	29.42	29.43	29.42	29.45	29.50	29.52	29.54	29.52	29.52	29.48
	MEAN SEA-LEVEL PRES. (IN)	14	30.10	30.08	30.06	29.98	29.99	29.98	30.00	30.05	30.09	30.12	30.12	30.11	30.06
WINDS	MEAN SPEED (MPH)	32	8.7	8.6	9.3	9.0	7.4	6.8	6.5	5.8	6.0	6.5	8.0	8.1	7.6
	PREVAIL. DIR (TENS OF DEGS)	23	27	27	28	27	27	27	27	27	27	27	27	27	27
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	4	43	43	41	38	47	36	32	33	37	34	43	32	47
	DIR. (TENS OF DEGS)		24	26	25	27	25	25	01	22	25	16	25	15	25
	YEAR OF OCCURRENCE		1999	1997	1997	1996	1997	1998	1999	1999	1999	1996	1998	1996	MAY 1997
	MAXIMUM 5-SECOND:														
	SPEED (MPH)	4	47	52	51	51	67	53	43	58	45	44	52	40	67
DIR. (TENS OF DEGS)		26	25	23	31	25	25	36	27	24	16	25	28	25	
YEAR OF OCCURRENCE		1996	1997	1997	1996	1997	1996	1999	1997	1999	1996	1998	1998	MAY 1997	
PRECIPITATION	NORMAL (IN)	30	2.54	2.76	3.19	3.23	3.86	4.32	3.98	3.39	3.39	3.30	3.73	3.03	40.72
	MAXIMUM MONTHLY (IN)	55	8.25	8.42	5.96	7.55	9.45	16.80	9.65	7.67	12.60	9.60	8.09	7.36	16.80
	YEAR OF OCCURRENCE		1978	1981	1980	1993	1946	1972	1992	1988	1999	1990	1972	1973	JUN 1972
	MINIMUM MONTHLY (IN)	55	0.52	0.57	0.85	0.70	0.80	0.66	0.99	0.93	0.01	0.19	0.83	0.68	0.01
	YEAR OF OCCURRENCE		1985	1968	1995	1989	1964	1966	1955	1995	1995	1963	1976	1989	SEP 1995
	MAXIMUM IN 24 HOURS (IN)	55	3.06	2.72	2.52	2.71	4.15	8.66	2.82	5.53	6.68	4.38	3.46	3.29	8.66
	YEAR OF OCCURRENCE		1996	1971	1964	1977	1946	1972	1990	1988	1999	1955	1956	1983	JUN 1972
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	11.1	10.9	12.0	12.5	13.5	12.4	11.3	11.0	10.2	10.2	12.2	12.4	139.7	
PRECIPITATION ≥ 1.00	30	0.4	0.5	0.7	0.7	0.8	1.0	0.8	0.8	0.8	0.9	1.0	0.6	9.0	
SNOWFALL	NORMAL (IN)	30	12.4	10.7	7.1	1.4	0.*	0.0	0.0	0.0	0.1	3.1	8.3	43.1	
	MAXIMUM MONTHLY (IN)	54	40.1	34.3	29.5	13.8	0.2	T	T	T	0.0	1.0	13.8	35.5	40.1
	YEAR OF OCCURRENCE		1987	1972	1967	1982	1977	1995	1994	1994		1977	1995	1969	JAN 1987
	MAXIMUM IN 24 HOURS (IN)	54	23.1	20.4	15.0	8.8	0.2	T	T	T	0.0	1.0	12.1	16.5	23.1
	YEAR OF OCCURRENCE		1964	1972	1993	1982	1977	1995	1994	1994		1977	1953	1969	JAN 1964
	MAXIMUM SNOW DEPTH (IN)	47	70	22	24	8	0	0	0	0	0	0	10	19	70
	YEAR OF OCCURRENCE		1961	1972	1994	1982							1980	1969	JAN 1961
	NORMAL NO. DAYS WITH:														
SNOWFALL ≥ 1.0	30	3.6	3.1	1.9	0.3	0.0	0.0	0.0	0.0	0.0	0.*	0.9	2.5	12.3	

PRECIPITATION (inches) 1999 WILLIAMSPORT, PA (IPT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0.95	3.76	2.95	3.28	3.23	3.32	5.45	3.00	1.91	5.43	5.08	4.12	42.48
1971	2.54	6.50	2.69	1.17	2.88	1.89	5.68	2.48	3.33	3.88	3.18	2.87	39.09
1972	2.49	4.84	3.96	4.22	6.79	16.80	3.79	1.71	1.61	2.18	8.09	4.79	61.27
1973	2.73	2.74	3.47	5.56	5.18	5.86	3.99	1.95	5.50	3.17	2.24	7.36	49.75
1974	3.03	1.90	5.78	2.99	3.04	5.51	2.67	3.05	4.84	0.86	2.57	4.50	40.74
1975	3.53	4.34	3.07	1.53	6.54	5.25	3.66	4.43	10.02	2.98	2.83	3.24	51.42
1976	2.73	1.90	2.75	1.90	3.81	5.31	4.80	3.18	3.21	8.14	0.83	1.74	40.30
1977	1.35	1.74	5.74	6.79	1.02	3.51	3.59	2.29	7.30	4.22	5.45	4.22	47.22
1978	8.25	0.86	2.70	2.01	6.36	4.60	3.99	3.56	2.84	2.76	1.78	3.68	43.39
1979	6.36	3.20	3.18	2.73	4.00	2.23	4.24	5.54	5.83	4.08	4.07	1.90	47.36
1980	0.88	0.77	5.96	6.72	1.71	3.50	1.82	1.82	3.32	3.19	2.68	1.18	33.55
1981	0.68	8.42	0.86	2.93	2.07	5.51	4.09	1.02	2.10	4.03	1.46	1.95	35.12
1982	3.37	1.93	2.13	2.96	3.53	9.23	1.81	1.00	2.59	0.59	3.00	1.35	33.49
1983	1.79	1.87	3.05	7.03	4.51	5.55	3.38	3.68	1.88	3.01	5.89	6.54	48.18
1984	1.09	4.83	3.63	4.58	4.89	5.15	6.42	3.60	0.62	2.78	4.76	2.34	44.69
1985	0.52	1.12	2.81	1.18	3.98	2.49	3.47	4.28	2.58	1.83	5.99	1.42	31.67
1986	2.18	2.49	2.65	4.25	3.93	4.71	5.78	3.31	1.78	2.00	6.13	3.99	43.20
1987	2.68	0.78	1.77	2.63	2.21	2.30	3.69	4.04	4.99	2.70	3.26	1.63	32.68
1988	1.39	3.09	1.09	1.28	4.27	0.99	4.71	7.67	2.62	2.30	3.67	1.14	34.22
1989	1.58	1.75	3.32	0.70	7.29	5.74	3.42	2.94	4.28	4.26	2.06	0.68	38.02
1990	2.37	2.37	1.51	2.57	5.01	2.48	5.07	5.45	1.98	9.60	2.68	5.73	46.82
1991	2.02	1.70	3.84	2.44	1.79	1.36	3.98	3.54	3.35	2.24	3.29	3.20	32.75
1992	2.01	1.40	4.33	2.10	3.47	2.90	9.65	2.47	4.16	1.51	4.74	2.35	41.09
1993	1.81	1.28	4.30	7.55	2.43	4.01	1.84	4.62	4.71	3.08	4.00	2.66	42.29
1994	3.48	1.96	5.15	3.99	2.39	3.64	5.44	6.65	4.27	0.67	4.84	2.80	45.28
1995	4.65	1.31	0.85	2.41	2.29	2.56	2.87	0.93	0.01	7.90	4.04	1.46	31.28
1996	7.29	1.84	2.95	5.47	2.40	4.66	5.72	2.13	7.82	4.21	3.66	5.72	53.87
1997	1.17	1.13	2.93	1.45	2.63	2.53	1.54	5.90	3.14	0.65	5.09	1.90	30.06
1998	4.57	5.96	2.88	5.83	6.21	5.36	1.19	1.94	1.53	2.63	1.15	0.89	40.14
1999	4.91	1.96	3.46	2.44	2.45	2.94	3.66	3.86	12.60	1.95	2.89	2.36	45.48
POR= 55 YRS	2.76	2.65	3.35	3.44	3.73	3.82	3.92	3.41	3.53	3.04	3.67	2.98	40.30

WBAN : 14778

AVERAGE TEMPERATURE (°F) 1999 WILLIAMSPORT, PA (IPT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	18.5	26.5	34.2	49.9	62.6	67.4	73.2	72.4	67.4	56.4	45.1	32.8	50.5
1971	23.0	30.4	36.6	48.4	58.5	70.6	71.8	70.4	68.2	58.8	39.6	35.1	51.0
1972	28.6	24.2	34.9	46.0	61.0	64.0	72.1	70.1	63.1	46.6	37.7	34.3	48.6
1973	28.6	25.9	43.4	48.9	54.9	70.4	71.2	71.1	63.6	53.4	42.4	31.7	50.5
1974	29.7	27.5	38.1	50.9	57.2	65.7	71.8	71.3	61.5	49.0	43.1	34.1	50.0
1975	30.6	31.2	37.2	43.2	61.5	66.9	72.1	70.9	59.5	54.4	47.2	31.8	50.5
1976	22.7	35.4	42.1	52.9	58.3	71.6	70.5	70.2	62.3	49.4	36.3	26.1	49.8
1977	14.9	28.9	44.7	53.2	63.8	67.0	73.8	72.1	67.2	50.4	45.3	28.4	50.8
1978	22.8	20.5	34.5	48.3	60.7	68.4	72.1	74.8	65.0	52.5	43.7	32.5	49.7
1979	26.7	19.7	42.3	48.3	60.9	67.0	72.6	71.0	62.8	50.8	44.8	35.0	50.2
1980	28.0	25.7	36.9	51.3	61.4	65.7	73.8	75.4	66.8	49.6	37.1	25.0	49.7
1981	20.3	33.2	36.5	51.9	62.5	70.8	74.4	72.4	64.5	51.3	42.2	30.2	50.9
1982	19.3	28.4	35.7	46.1	62.1	64.5	71.1	66.6	63.1	52.0	43.8	36.9	49.1
1983	29.3	31.5	41.0	47.9	56.3	66.3	72.2	71.1	62.0	49.9	40.1	26.7	49.5
1984	21.0	34.7	30.4	47.5	55.9	68.7	70.6	72.2	60.6	56.7	40.3	35.7	49.5
1985	23.4	29.9	40.1	53.3	61.0	64.4	71.0	70.1	65.3	52.9	45.1	27.9	50.4
1986	27.3	27.6	40.7	51.1	63.7	67.5	72.6	68.3	62.9	52.3	37.4	33.4	50.4
1987	25.3	27.2	40.5	52.2	61.2	70.6	75.5	69.9	63.0	47.5	41.2	33.7	50.7
1988	22.5	28.5	39.9	48.2	61.1	67.8	77.4	74.4	61.3	47.7	42.5	30.5	50.2
1989	31.3	28.9	37.8	47.7	57.9	69.2	72.9	70.8	63.7	53.6	39.9	19.8	49.5
1990	35.5	34.3	41.3	51.6	57.6	69.1	72.6	71.4	62.4	55.7	44.0	35.3	52.6
1991	28.2	33.8	41.7	52.1	67.1	71.6	75.2	74.0	62.6	54.3	42.0	34.0	53.1
1992	30.6	32.2	37.3	48.7	58.7	66.8	71.4	69.5	63.7	49.3	43.1	33.0	50.4
1993	32.3	25.3	35.2	50.4	62.1	69.2	76.6	73.3	62.7	50.0	40.6	30.6	50.7
1994	18.6	23.9	35.5	53.3	57.3	71.4	75.0	68.8	62.9	51.0	45.6	35.1	49.9
1995	32.2	25.6	42.1	47.4	59.2	70.1	75.9	76.0	62.2	54.9	35.7	25.2	50.5
1996	22.9	28.1	32.9	48.6	56.0	70.0	70.3	70.8	63.5	51.3	36.2	34.8	48.8
1997	25.5	33.2	38.2	47.2	54.5	67.8	71.9	68.7	62.3	51.5	37.3	32.6	49.2
1998	34.8	37.0	41.5	50.7	64.2	67.6	71.2	72.0	66.1	52.5	42.3	35.8	53.0
1999	26.5	32.4	36.5	49.3	61.5	69.5	76.3	70.0	64.5	49.7	45.2	33.6	51.3
POR= 55 YRS	26.6	29.0	38.1	49.5	59.6	68.2	71.5	71.0	63.6	52.4	41.4	30.9	50.2

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HEATING DEGREE DAYS (base 65°F) 1999 WILLIAMSPORT, PA (IPT)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	0	0	56	271	591	990	1297	961	871	495	212	16	5760
1971-72	0	7	58	201	757	921	1122	1176	923	562	141	90	5958
1972-73	12	19	91	565	810	942	1125	1089	664	479	306	16	6118
1973-74	5	16	119	354	672	1027	1087	1047	828	427	258	36	5876
1974-75	1	0	142	488	648	950	1059	940	852	648	155	44	5927
1975-76	1	9	168	324	529	1023	1305	850	704	393	217	19	5542
1976-77	0	12	121	478	855	1201	1547	1008	624	366	119	38	6369
1977-78	4	15	46	444	588	1126	1300	1239	938	495	190	28	6413
1978-79	9	0	76	381	633	998	1179	1264	696	497	167	40	5940
1979-80	15	19	131	438	601	919	1141	1134	863	405	139	77	5882
1980-81	0	0	65	472	830	1232	1378	886	877	391	130	7	6268
1981-82	0	0	97	416	677	1070	1408	1020	903	558	123	57	6329
1982-83	15	45	108	393	632	865	1101	934	736	511	271	50	5661
1983-84	14	8	159	461	741	1182	1360	873	1069	517	288	30	6702
1984-85	6	6	171	257	733	901	1282	978	765	377	151	59	5686
1985-86	4	6	108	369	590	1142	1162	1043	749	412	117	41	5743
1986-87	9	41	108	403	821	969	1225	1051	754	379	179	10	5949
1987-88	2	22	93	534	707	963	1306	1054	774	497	162	60	6174
1988-89	5	6	133	530	667	1063	1038	1005	835	515	244	18	6059
1989-90	3	16	109	344	746	1396	908	853	730	425	226	31	5787
1990-91	6	9	133	305	623	913	1136	870	714	394	104	7	5214
1991-92	0	0	143	342	684	953	1060	945	854	482	201	30	5694
1992-93	2	6	114	478	649	988	1006	1106	915	434	124	33	5855
1993-94	0	4	145	458	726	1059	1434	1144	906	360	255	29	6520
1994-95	0	19	90	427	576	921	1009	1096	701	520	192	9	5560
1995-96	0	0	131	316	872	1226	1297	1063	985	487	310	10	6697
1996-97	2	2	113	418	857	929	1218	886	823	527	323	44	6142
1997-98	4	11	108	424	823	1000	929	778	730	422	93	72	5394
1998-99	1	8	55	379	674	897	1186	907	875	462	122	25	5591
1999-	1	8	87	467	587	970							

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COOLING DEGREE DAYS (base 65°F) 1999 WILLIAMSPORT, PA (IPT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0	0	0	8	58	109	262	237	136	12	0	0	822
1971	0	0	0	1	19	189	221	178	160	15	2	0	785
1972	0	0	0	0	25	67	236	183	40	0	0	0	551
1973	0	0	0	4	0	186	205	213	83	1	0	0	692
1974	0	0	0	11	26	63	217	204	43	0	0	0	564
1975	0	0	0	0	54	108	231	197	10	4	0	0	604
1976	0	0	0	35	20	223	173	177	47	0	0	0	675
1977	0	0	0	18	91	106	282	241	119	0	5	0	862
1978	0	0	0	0	63	134	237	310	83	0	0	0	827
1979	0	0	0	3	48	105	262	212	73	4	0	0	707
1980	0	0	0	0	34	104	279	333	128	0	0	0	878
1981	0	0	0	5	60	186	301	236	90	0	0	0	878
1982	0	0	0	0	42	48	213	103	56	2	5	0	469
1983	0	0	0	3	8	99	242	205	76	0	0	0	633
1984	0	0	0	0	9	147	186	236	44	7	0	0	629
1985	0	0	2	30	36	48	194	170	121	1	0	0	602
1986	0	0	1	1	83	123	250	151	53	15	0	0	677
1987	0	0	0	2	67	185	332	181	39	0	0	0	806
1988	0	0	0	0	48	151	398	306	28	2	0	0	933
1989	0	0	0	2	34	150	253	199	77	1	0	0	716
1990	0	0	1	30	4	159	248	216	67	26	0	0	751
1991	0	0	0	12	176	211	322	288	81	18	0	0	1108
1992	0	0	0	1	16	91	207	149	82	0	0	0	546
1993	0	0	0	4	39	165	365	267	83	0	0	0	923
1994	0	0	0	16	24	229	319	144	34	0	0	0	766
1995	0	0	0	0	20	169	345	347	53	11	0	0	945
1996	0	0	0	1	38	170	173	190	76	0	0	0	648
1997	0	0	0	0	6	134	225	131	34	11	0	0	541
1998	0	0	8	0	76	156	203	230	94	0	0	0	767
1999	0	0	0	0	21	165	360	169	79	0	0	0	794

SNOWFALL (inches) 1999 WILLIAMSPORT, PA (IPT)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	0.0	0.0	0.0	T	0.2	14.8	14.2	15.5	16.7	T	0.0	0.0	61.4
1971-72	0.0	0.0	0.0	0.0	9.3	1.6	6.0	34.3	6.7	1.6	0.0	0.0	59.5
1972-73	0.0	0.0	0.0	0.3	12.8	5.1	1.5	8.3	2.6	T	0.0	0.0	30.6
1973-74	0.0	0.0	0.0	0.0	0.4	15.6	7.8	4.8	5.7	6.3	0.0	0.0	40.6
1974-75	0.0	0.0	0.0	T	T	4.6	15.4	14.9	3.8	0.1	0.0	0.0	38.8
1975-76	0.0	0.0	0.0	0.0	0.2	4.6	11.4	5.2	7.5	T	0.0	0.0	28.9
1976-77	0.0	0.0	0.0	T	3.8	6.0	16.0	7.3	8.5	0.3	0.2	0.0	42.1
1977-78	0.0	0.0	0.0	1.0	4.6	17.6	38.1	14.3	6.8	1.2	0.0	0.0	83.6
1978-79	0.0	0.0	0.0	T	3.9	4.8	10.5	17.7	T	0.4	0.0	0.0	37.3
1979-80	0.0	0.0	0.0	T	T	4.8	1.9	5.2	8.6	T	0.0	0.0	20.5
1980-81	0.0	0.0	0.0	T	12.0	6.8	10.8	5.5	6.5	T	0.0	0.0	41.6
1981-82	0.0	0.0	0.0	T	T	8.1	14.3	10.4	7.9	13.8	0.0	0.0	54.5
1982-83	0.0	0.0	0.0	T	T	1.4	6.3	7.6	0.5	1.8	0.0	0.0	17.6
1983-84	0.0	0.0	0.0	0.0	T	5.3	11.7	1.6	22.1	T	0.0	0.0	40.7
1984-85	0.0	0.0	0.0	0.0	T	8.9	8.7	6.4	0.6	0.4	0.0	0.0	25.0
1985-86	0.0	0.0	0.0	0.0	T	6.5	10.2	13.6	0.9	T	0.0	0.0	31.2
1986-87	0.0	0.0	0.0	0.0	7.7	T	40.1	5.3	0.4	T	0.0	0.0	53.5
1987-88	0.0	0.0	0.0	T	9.4	6.0	10.1	9.7	1.6	T	0.0	0.0	36.8
1988-89	0.0	0.0	0.0	T	T	0.7	2.3	1.5	2.5	T	0.0	0.0	7.0
1989-90	0.0	T	0.0	T	2.8	8.3	9.5	3.2	6.8	0.7	0.0	0.0	31.3
1990-91	0.0	0.0	0.0	0.0	T	9.8	5.2	4.1	8.5	0.3	0.0	T	27.9
1991-92	0.0	T	0.0	0.0	T	0.8	4.3	2.8	10.5	1.6	0.0	0.0	20.0
1992-93	0.0	0.0	0.0	T	T	9.2	2.2	21.0	22.6	0.8	0.0	0.0	55.8
1993-94	0.0	0.0	0.0	0.8	0.1	4.1	34.5	19.9	21.8	0.0	0.0	T	81.2
1994-95	T	T	0.0	0.0	1.0	0.1	0.7	8.0	2.8	0.2	0.0	T	12.8
1995-96	0.0	0.0	0.0	0.0	13.8	25.0	30.9	3.8	8.6	3.8			
1996-97						4.4							
1997-98						13.9	6.5	4.3	3.4	0.0	0.0	0.0	
1998-99	0.0	0.0	0.0	0.0	0.0	2.7	12.5	6.3	15.6	T	T	0.0	37.1
1999-	0.0	0.0	0.0	0.0	0.1	0.6							
POR= 53 YRS	T	T	0.0	0.1	2.9	8.3	10.8	9.7	8.1	1.2	0.0	T	41.1

WBAN : 14778

REFERENCE NOTES:

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1961 - 1990). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD.</p>	<p>GENERAL CONTINUED: CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED. WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65° F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.</p> <p>ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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1999  
WILLIAMSPORT,  
PENNSYLVANIA (IPT)

The climate of the Lycoming valley is favorably influenced by the lower elevation of the area compared to the surrounding terrain. Since the prevailing winds reach the area from the southwest to the north, there is a slight moderating effect on winter extremes of cold. Radiation cooling on clear nights is somewhat more frequent than in adjacent areas. Deep valley fogs occasionally persist until nearly midday. Cold air drainage from the surrounding hills is experienced during several nights but the cool temperatures are often modified by the proximity of the river and adjacent damp areas. The winters are milder than those experienced to the west and cold spells are frequently interrupted by incursions of warmer coastal weather. In summer the air frequently becomes trapped in the valley and higher temperatures and humidities result, generally benefitting the local agriculture.

The long irregular range south of the river forms an effective barrier to free air movement. Moderate or strong south to southwest winds are deflected to southeast or south winds in crossing the range and the air becomes quite turbulent with distinct wave effects. Banner clouds with one to three rolls are frequently observed with low overcasts.

An average growing season of 168 days extends from April 29 to October 14. Snowfall in the valley is generally uniform but varies considerably with the rise in terrain, particularly to the north and south. Snow depth on the ridge 2 miles south of the observation point is frequently double the amount at the station.

# STATION LOCATION

WILLIAMSPORT, PENNSYLVANIA

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE											* Type	REMARKS	
						SEA LEVEL	GROUND												AUCOM
							G	WIND	E	P	S	T	R	W	8	H			
<u>COOPERATIVE</u> Williamsport, PA	1873	5/31/49		41°15'	77°01'													Near center of town.	
<u>AIRPORT</u> Williamsport Airport AVCO Hangar, 3/16 mile SSW from Post Office	10/26/37	7/16/40		41°15'	76°56'													Cooperative aviation observations by AVCO employees.	
Williamsport Airport Municipal Hangar West end of airport	7/16/40	2/28/49	1000 ft. S	41°15'	76°56'	520	37		5						3			Opened by CAA 1/26/44 CAA-WB. 8/16/48 full WB complement.	
Administration Building Williamsport Airport ++ ++Name changed to Williamsport-Lycoming County Airport in 1969.	2/28/49	09/01/95	2200 ft. ENE	41°15'	76°55'	c524	a20	d5	d5	NA	NA .g4 j30	4	f	4	j30	b4 h4 i4	NA	a - 55 feet to 6/24/64 b - Commissioned 1200 feet SW of thermometer site 7/1/64. c - 527 feet to 7/1/64. d - Standby status after 7/1/64. Removed 8/1978. e - Removed 8/1978. f - Removed 8/15/81. g - Installed 9/15/81. h - Type change 5/29/85. i - Minor move 5/1988. j - Moved to roof 5/1988.	
Williamsport-Lycoming County Airport	09/01/95	Present	NA	41°15'	76°55'	541											S	ASOS Commissioned 09/01/95	

SUBSCRIPTION: Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801.  
INQUIRIES/COMMENTS CALL: (828) 271-4800

National Climatic Data Center  
151 Patton Avenue, Rm 120  
Asheville NC 28801-5001

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