

1999

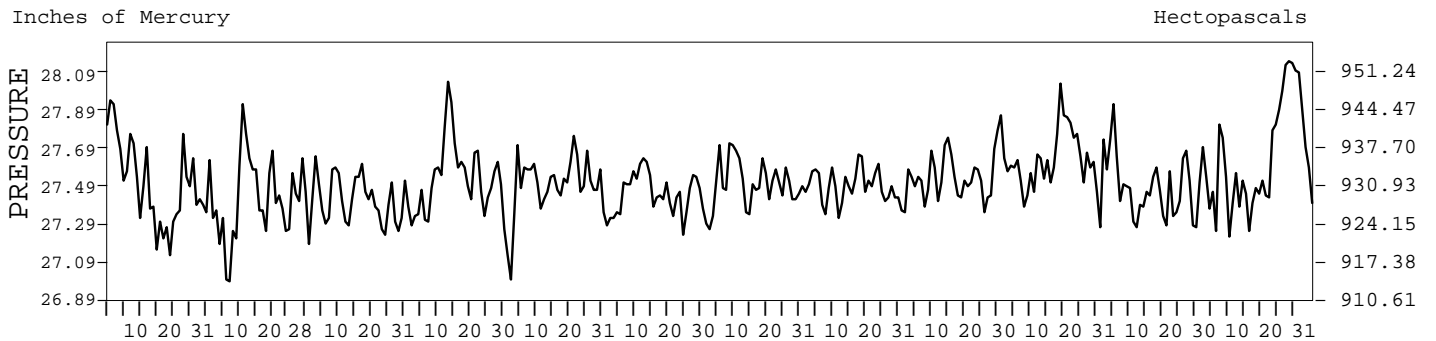
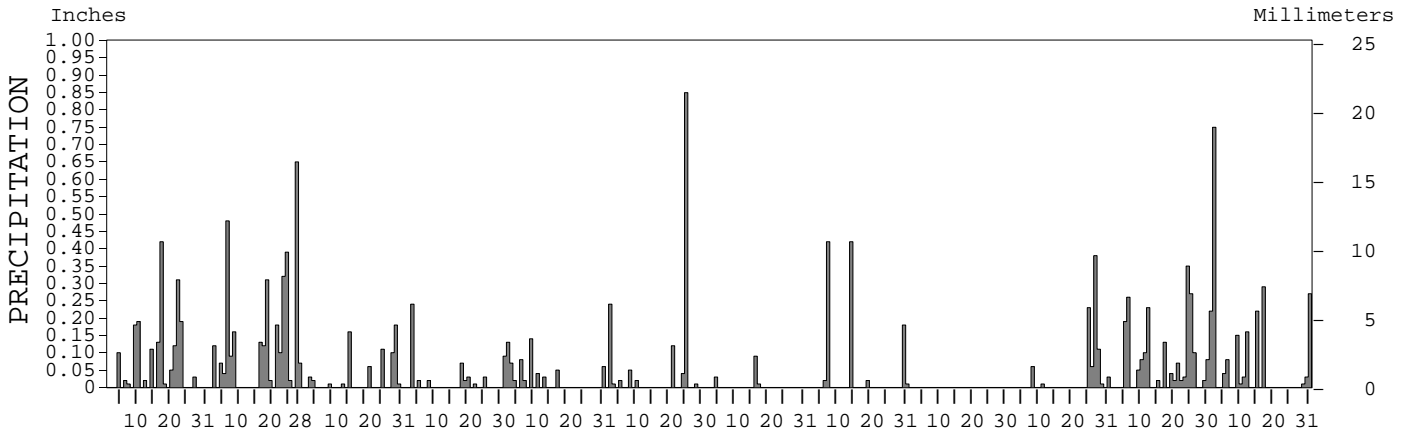
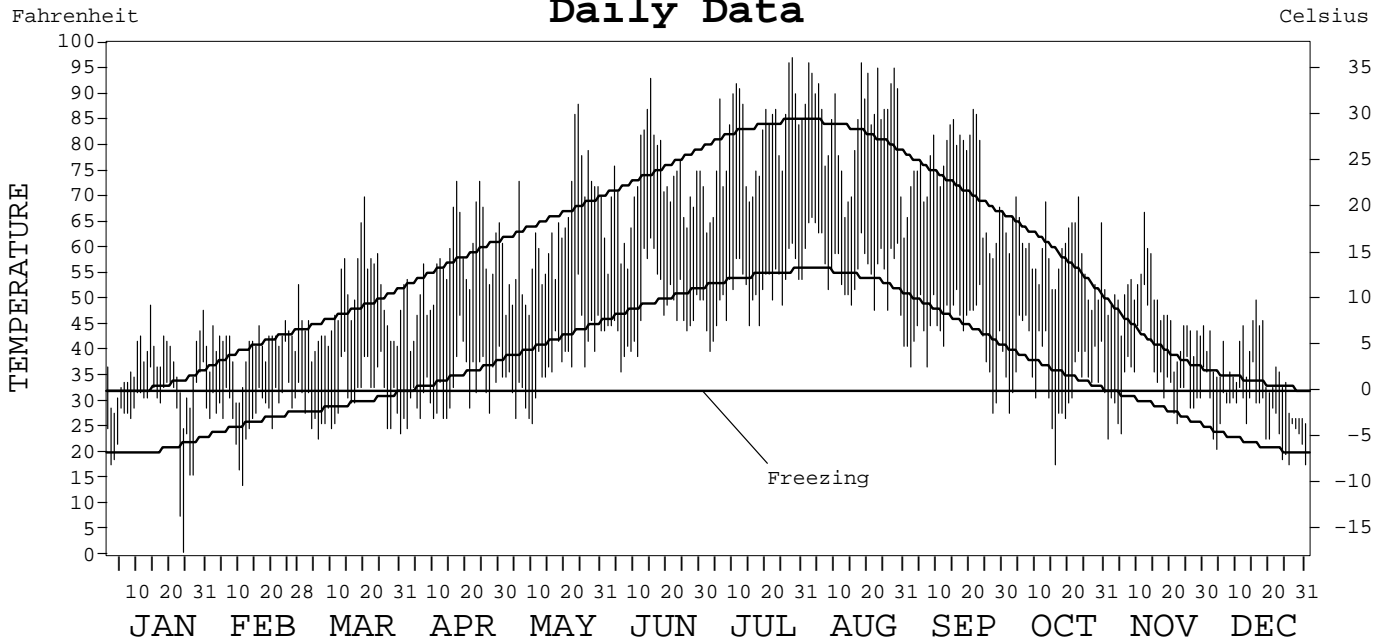
LOCAL CLIMATOLOGICAL DATA  
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-5485

SPOKANE  
WASHINGTON (GEG)

Daily Data



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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
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 ASHEVILLE, NORTH CAROLINA

# METEOROLOGICAL DATA FOR 1999

## SPOKANE, WA (GEG)

LATITUDE: 47° 37' 17" N      LONGITUDE: 117° 31' 40" W      ELEVATION (FT): GRND: 2412      BARO: 2412      TIME ZONE: PACIFIC (UTC + 8)      WBAN: 24157

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	37.1	41.0	49.1	56.9	63.4	71.9	80.6	84.2	74.4	59.2	48.2	36.1	58.5	
	HIGHEST DAILY MAXIMUM	49	53	70	73	88	93	97	96	87	70	67	50	97	
	DATE OF OCCURRENCE	14	28	20	24+	24	15	28	18+	21	23+	12	16	JUL 28	
	MEAN DAILY MINIMUM	27.3	28.7	30.7	32.9	37.8	47.9	51.7	56.4	43.8	35.5	34.6	27.1	37.9	
	LOWEST DAILY MINIMUM	1	14	23	25	26	36	40	41	28	18	23	18	1	
	DATE OF OCCURRENCE	24	11	06	02	10	06	03	31	27	16	01	31+	JAN 24	
	AVERAGE DRY BULB	32.2	34.9	39.9	44.9	50.6	59.9	66.2	70.3	59.1	47.4	41.4	31.6	48.2	
	MEAN WET BULB	31.1	32.3	35.0	37.9	42.9	50.3	53.8	57.7	46.6	40.7	39.0	30.8	41.5	
	MEAN DEW POINT	28.5	28.6	28.8	28.4	33.1	41.4	42.8	48.7	33.4	32.0	36.1	28.9	34.2	
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	1	6	11	0	0	0	0	18	
	MAXIMUM ≤ 32°	7	2	0	0	0	0	0	0	0	0	0	8	17	
	MINIMUM ≤ 32°	22	22	19	16	6	0	0	0	2	12	12	28	139	
	MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/C	HEATING DEGREE DAYS	1010	836	769	594	448	186	75	36	181	540	703	1030	6408	
	COOLING DEGREE DAYS	0	0	0	0	7	41	118	210	14	0	0	0	390	
RH	MEAN (PERCENT)	86	80	68	56	55	54	46	50	42	58	83	89	64	
	HOUR 04 LST	88	86	83	74	75	76	69	68	61	74	88	91	78	
	HOUR 10 LST	87	81	66	50	50	53	42	47	37	56	84	90	62	
	HOUR 16 LST	84	72	51	39	37	34	27	33	22	41	77	84	50	
	HOUR 22 LST	84	80	69	59	59	58	49	54	44	62	86	88	66	
S	PERCENT POSSIBLE SUNSHINE	24	50												
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	8	0	0	0	0	0	0	0	0	0	8	2	18	
	THUNDERSTORMS	0	0	0	0	0	3	2	3	0	0	0	0	8	
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.)	27.51	27.43	27.43	27.55	27.50	27.46	27.51	27.50	27.56	27.64	27.48	27.66	27.52	
	MEAN SEA-LEVEL PRESS. (IN.)	30.05	29.95	29.93	30.05	29.98	29.91	29.95	29.93		30.14	30.03			
WINDS	RESULTANT SPEED (MPH)	6.6	9.4	4.4	2.9	6.5	6.6	2.5	2.1	1.1	3.7	3.6	6.4	4.5	
	RES. DIR. (TENS OF DEGS.)	18	19	18	20	21	21	22	18	22	21	16	20	20	
	MEAN SPEED (MPH)	9.4	13.1	9.9	9.1	10.1	10.6	9.2	7.7	7.4	8.8	9.5	9.5	9.5	
	PREVAIL. DIR. (TENS OF DEGS.)	21	21	22	21	20	21	22	05	05	21	05	20	21	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	33	44	40	29	36	31	37	25	38	40	36	39	44	
	DIR. (TENS OF DEGS.)	21	21	22	24	26	21	23	22	26	25	21	22	21	
	DATE OF OCCURRENCE	14	02	03	20	06	15	07	15+	25	31	12	17+	FEB 02	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	40	53	49	36	41	38	41	32	47	47	43	47	53	
DIR. (TENS OF DEGS.)	21	22	22	22	23	20	21	26	24	25	21	22	22		
DATE OF OCCURRENCE	14	02	03	26	06	15	07	31+	25	31	12	17+	FEB 02		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.89	3.27	0.69	0.44	0.73	1.36	0.13	1.07	T	0.89	2.06	2.26	14.79	
	GREATEST 24-HOUR (IN.)	0.50	0.71	0.28	0.24	0.20	0.89	0.09	0.42	T	0.49	0.45	0.87	0.89	
	DATE OF OCCURRENCE	22-23	27-28	28-29	03	01-02	24-25	16	14+	26+	27-28	24-25	01-02	JUN 24-25	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	15	17	10	8	11	9	3	6	0	8	18	13	118	
PRECIPITATION ≥ 0.10	9	11	4	1	2	3	0	3	0	3	8	7	51		
PRECIPITATION ≥ 1.00	0	0	0	0	0	0	0	0	0	0	0	0	0		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	8.7	14.7	3.8	2.7	0.6	0.0	0.0	0.0	0.0	0.0	2.1	9.7	42.3	
	GREATEST 24-HOUR (IN.)	2.6	3.7	1.9	2.5	0.3	0.0	0.0	0.0	0.0	0.0	1.6	3.6	3.7	
	DATE OF OCCURRENCE	22	08	28	03	09						24	31	FEB 08	
	MAXIMUM SNOW DEPTH (IN.)	4	4	T	T	0	0	0	0	0	0	0	2	4	
	DATE OF OCCURRENCE	27+	09	16	05+								31	FEB 09	
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	4	6	1	1	0	0	0	0	0	0	1	2	15		

# NORMALS, MEANS, AND EXTREMES

## SPOKANE, WA (GEG)

LATITUDE: 47° 37' 17" N      LONGITUDE: 117° 31' 40" W      ELEVATION (FT): GRND: 2412      BARO: 2412      TIME ZONE: PACIFIC (UTC + 8)      WBAN: 24157

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	33.2	40.6	47.7	57.0	65.8	74.7	83.1	82.5	72.0	58.6	41.4	33.8	57.5
	MEAN DAILY MAXIMUM	52	32.0	39.1	47.4	57.1	66.3	74.1	83.2	82.2	72.6	58.2	41.7	33.3	57.3
	HIGHEST DAILY MAXIMUM	52	59	63	71	90	96	101	103	108	98	86	67	56	108
	YEAR OF OCCURRENCE		1971	1995	1960	1977	1986	1992	1998	1961	1988	1997	1999	1980	AUG 1961
	MEAN OF EXTREME MAXS.	52	46.1	51.5	61.8	73.5	84.3	90.3	96.6	95.9	88.7	75.1	55.8	47.5	72.3
	NORMAL DAILY MINIMUM	30	20.8	25.9	29.6	34.7	41.9	49.2	54.4	54.3	45.8	36.0	28.8	21.7	36.9
	MEAN DAILY MINIMUM	52	20.6	25.4	29.6	35.2	42.7	49.4	54.8	54.3	46.4	36.5	28.8	22.5	37.2
	LOWEST DAILY MINIMUM	52	-22	-24	-7	17	24	33	37	35	24	10	-21	-25	-25
	YEAR OF OCCURRENCE		1979	1996	1989	1966	1954	1984	1981	1965	1985	1991	1985	1968	DEC 1968
	MEAN OF EXTREME MINS.	52	-4	7.4	16.1	25.7	31.2	38.9	44.4	43.6	33.7	23.8	13.9	2.4	23.4
	NORMAL DRY BULB	30	27.1	33.3	38.7	45.9	53.9	62.0	68.8	68.4	58.9	47.3	35.1	27.8	47.3
	MEAN DRY BULB	52	26.3	32.2	38.5	46.1	54.4	61.8	69.0	68.3	59.6	47.4	35.3	27.9	47.2
	MEAN WET BULB	15	27.6	29.8	35.7	40.9	47.0	52.1	55.9	51.5	49.3	41.2	33.5	26.3	40.9
	MEAN DEW POINT	15	25.2	26.0	30.0	33.5	38.9	43.4	45.0	41.0	39.8	34.6	30.8	24.0	34.3
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	*	0.3	2.1	8.4	7.2	1.0	0.0	0.0	0.0	19.0	
MAXIMUM ≤ 32°	30	14.2	4.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.1	4.1	13.8	37.7	
MINIMUM ≤ 32°	30	26.5	22.4	20.8	10.7	1.7	0.0	0.0	0.0	0.8	9.5	19.9	26.6	138.9	
MINIMUM ≤ 0°	30	2.3	0.5	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.1	5.2	
H/C	NORMAL HEATING DEG. DAYS	30	1175	888	815	573	344	139	30	56	223	549	897	1153	6842
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	0	49	148	161	40	0	0	0	398
RH	NORMAL (PERCENT)	30	82	79	70	61	58	54	44	45	54	67	83	86	65
	HOUR 04 LST	30	85	84	81	77	76	74	64	63	71	79	87	87	77
	HOUR 10 LST	30	83	80	69	57	53	49	41	43	51	66	83	86	63
	HOUR 16 LST	30	78	69	55	44	41	36	27	28	35	49	76	82	52
	HOUR 22 LST	30	84	81	74	65	63	58	45	46	56	70	85	87	68
S	PERCENT POSSIBLE SUNSHINE	48	28	41	55	61	65	67	80	78	72	55	29	23	54
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	52	9.4	6.9	3.0	1.2	0.8	0.5	0.2	0.3	0.8	3.9	8.5	8.4	43.9
	THUNDERSTORMS	52	0.0	0.0	0.3	0.7	1.6	2.8	2.4	2.1	0.9	0.3	0.1	0.0	11.2
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	1			7.2										
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH:														
CLEAR	1		2.0	3.0		3.0	6.0								
PARTLY CLOUDY	1		3.0	2.0		3.0	1.0								
CLOUDY	1	4.0	3.0	10.0		10.0	4.0								
PR	MEAN STATION PRESSURE (IN)	25	27.57	27.54	27.47	27.49	27.48	27.49	27.52	27.51	27.55	27.58	27.53	27.58	27.53
	MEAN SEA-LEVEL PRES. (IN)	15	30.12	30.09	30.01	29.98	29.93	29.94	29.96	29.95	29.99	30.06	30.07	30.15	30.02
WINDS	MEAN SPEED (MPH)	37	8.5	9.2	9.7	10.0	9.3	9.3	8.7	8.2	8.1	8.1	8.7	8.4	8.8
	PREVAIL. DIR (TENS OF DEGS)	21	05	06	22	22	22	22	22	22	22	05	05	22	22
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	4	37	44	41	46	44	32	41	31	38	40	37	41	46
	DIR. (TENS OF DEGS)		18	21	25	25	26	25	25	25	26	25	22	22	25
	YEAR OF OCCURRENCE		1997	1999	1997	1997	1997	1998	1998	1996	1999	1999	1998	1998	APR 1997
	MAXIMUM 5-SECOND:														
	SPEED (MPH)	4	43	53	49	53	48	38	51	39	47	47	47	49	53
DIR. (TENS OF DEGS)		20	22	22	26	26	20	25	27	24	25	23	22	22	
YEAR OF OCCURRENCE		1997	1999	1999	1997	1997	1999	1998	1996	1999	1999	1998	1998	FEB 1999	
PRECIPITATION	NORMAL (IN)	30	1.98	1.49	1.49	1.18	1.41	1.26	0.67	0.72	0.73	0.99	2.15	2.42	16.49
	MAXIMUM MONTHLY (IN)	52	4.96	3.94	3.81	3.08	5.71	3.06	2.33	1.83	2.05	4.05	5.10	5.13	5.71
	YEAR OF OCCURRENCE		1959	1961	1995	1948	1948	1964	1990	1976	1959	1950	1973	1964	MAY 1948
	MINIMUM MONTHLY (IN)	52	0.38	0.35	0.31	0.08	0.20	0.16	T	T	T	0.03	0.22	0.60	T
	YEAR OF OCCURRENCE		1985	1988	1965	1956	1982	1960	1994	1988	1990	1987	1976	1976	JUL 1994
	MAXIMUM IN 24 HOURS (IN)	52	1.48	1.11	1.08	1.41	1.67	2.07	1.80	1.09	1.12	1.23	1.41	1.60	2.07
	YEAR OF OCCURRENCE		1954	1963	1995	1997	1948	1964	1990	1959	1973	1994	1960	1951	JUN 1964
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	13.1	10.8	11.1	8.9	9.2	7.7	4.5	5.1	5.7	7.1	12.8	14.7	110.7	
PRECIPITATION ≥ 1.00	30	*	0.0	0.0	0.0	0.0	0.1	*	0.0	*	0.0	*	0.1	0.2	
SNOWFALL	NORMAL (IN)	30	14.2	6.7	3.6	0.9	0.2	0.0	0.0	0.0	0.0	0.3	6.4	15.1	47.4
	MAXIMUM MONTHLY (IN)	51	56.9	28.5	15.3	6.6	3.5	T	0.0	0.0	T	6.1	24.7	42.0	56.9
	YEAR OF OCCURRENCE		1950	1975	1962	1964	1967	1994			1991	1957	1955	1964	JAN 1950
	MAXIMUM IN 24 HOURS (IN)	51	13.0	11.0	6.1	4.9	3.5	T	0.0	0.0	T	6.1	9.0	12.1	13.0
	YEAR OF OCCURRENCE		1950	1993	1989	1964	1967	1994			1991	1957	1973	1951	JAN 1950
	MAXIMUM SNOW DEPTH (IN)	50	39	42	16	2	0	0	0	0	0	4	12	23	42
	YEAR OF OCCURRENCE		1969	1969	1969	1990						1957	1985	1951	FEB 1969
	NORMAL NO. DAYS WITH:														
SNOWFALL ≥ 1.0	30	4.7	2.5	1.4	0.3	0.*	0.0	0.0	0.0	0.0	0.1	2.1	5.0	16.1	

PRECIPITATION (inches) 1999 SPOKANE WA (GEG)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	4.15	1.83	1.30	0.93	0.94	1.60	0.59	0.10	0.48	2.13	2.04	1.43	17.52
1971	2.11	0.88	2.11	1.85	1.39	2.46	0.50	0.59	1.37	0.82	1.51	2.89	18.48
1972	1.74	1.13	1.05	1.09	1.99	1.56	0.25	0.87	0.86	0.19	0.88	1.92	13.53
1973	2.05	0.48	0.77	0.42	1.34	0.57	T	0.19	1.44	0.97	5.10	3.78	17.11
1974	3.79	1.79	2.22	0.80	1.03	0.23	0.71	0.04	0.18	0.12	2.59	2.54	16.04
1975	2.53	3.12	1.83	1.78	1.41	1.45	1.60	0.93	0.03	2.23	1.94	2.42	21.27
1976	1.28	2.04	0.83	0.97	1.24	0.78	0.79	1.83	0.05	0.59	0.22	0.60	11.22
1977	0.75	0.52	1.15	0.13	1.71	1.45	0.11	1.25	1.42	0.44	2.12	4.52	15.57
1978	2.53	1.64	0.77	2.62	2.81	1.22	1.76	1.71	0.93	0.13	2.02	1.05	19.19
1979	1.11	2.19	1.03	0.69	1.60	0.78	0.85	1.01	0.78	1.22	1.15	1.94	14.35
1980	1.96	1.90	0.91	1.06	2.34	0.99	0.21	0.79	0.84	0.64	1.67	3.72	17.03
1981	1.00	1.41	1.57	0.85	2.02	1.92	0.51	0.04	0.59	1.53	0.96	2.51	14.91
1982	1.61	1.67	1.49	2.23	0.20	0.85	1.05	0.25	1.77	1.48	1.86	2.79	17.25
1983	1.89	2.07	2.20	0.61	0.92	2.84	1.85	0.96	0.79	1.33	4.80	2.38	22.64
1984	0.99	1.37	1.80	1.75	2.01	1.89	0.07	0.27	0.56	0.76	4.26	2.28	18.01
1985	0.38	0.93	1.39	0.28	1.13	0.67	0.26	0.19	1.64	1.40	2.23	0.71	11.21
1986	3.08	2.02	1.58	1.33	1.08	0.48	0.44	0.15	1.65	0.46	2.25	1.03	15.55
1987	1.59	0.88	2.18	1.12	0.90	0.59	2.27	1.81	0.01	0.03	1.37	4.93	17.68
1988	1.76	0.35	1.57	2.15	1.50	1.12	0.23	T	1.63	0.11	4.35	1.75	16.52
1989	0.82	1.34	2.87	0.72	2.17	0.41	0.40	1.61	0.18	1.58	1.66	0.95	14.71
1990	2.45	1.01	0.85	1.34	3.11	1.91	2.33	1.03	T	3.05	0.84	1.69	19.61
1991	1.72	0.81	2.31	1.35	1.72	1.13	0.58	0.17	0.01	0.34	3.08	1.23	14.45
1992	2.12	1.76	0.43	0.65	0.28	1.51	1.09	0.33	0.36	0.81	3.02	2.16	14.52
1993	1.40	0.86	1.13	1.90	1.36	0.48	2.08	1.24	0.28	0.42	0.68	1.80	13.63
1994	1.43	0.83	0.49	1.64	1.37	0.90	T	0.10	0.45	2.79	2.24	1.57	13.81
1995	2.74	1.60	3.81	0.93	1.33	2.17	1.08	0.63	0.66	1.50	0.77	2.63	19.85
1996	2.44	2.95	1.61	2.15	1.78	1.19	0.34	0.80	0.79	3.27	4.04	4.10	25.46
1997	1.67	1.40	2.40	2.56	2.27	0.63	0.80	0.14	0.92	1.67	1.99	1.00	17.45
1998	2.08	1.59	1.21	0.89	3.09	0.84	0.26	0.27	0.21	0.27	3.78	3.28	17.77
1999	1.89	3.27	0.69	0.44	0.73	1.36	0.13	1.07	T	0.89	2.06	2.26	14.79
POR= 118 YRS	2.05	1.58	1.38	1.11	1.38	1.26	0.50	0.60	0.78	1.21	2.04	2.22	16.11

WBAN : 24157

AVERAGE TEMPERATURE (°F) 1999 SPOKANE WA (GEG)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	25.9	36.3	37.0	41.6	54.9	66.2	72.5	70.2	54.2	44.9	36.0	27.7	47.3
1971	31.8	33.6	35.2	45.3	56.3	58.2	69.7	74.1	55.2	44.2	35.4	25.8	47.1
1972	22.6	30.7	41.4	42.0	56.9	62.0	68.1	71.1	55.4	47.2	38.3	25.4	46.8
1973	27.0	34.9	41.1	46.2	56.5	62.0	71.2	69.1	59.7	47.2	33.7	33.3	48.5
1974	24.1	35.4	38.5	46.4	50.2	66.0	67.8	68.2	60.5	48.0	36.4	30.5	47.7
1975	23.6	24.7	34.0	41.7	52.7	59.2	72.4	64.1	61.0	46.9	33.8	30.9	45.4
1976	29.6	32.1	35.1	45.2	54.5	58.5	68.8	65.4	63.4	46.8	35.8	29.6	47.1
1977	22.0	35.1	38.2	50.9	51.6	65.0	67.0	71.2	55.1	46.5	34.0	26.2	46.9
1978	27.6	34.0	42.2	45.7	51.4	62.7	68.3	65.9	56.6	46.6	28.7	19.0	45.7
1979	10.5	28.8	40.4	45.5	54.7	62.7	70.4	70.0	63.1	51.1	30.5	35.2	46.9
1980	20.7	34.5	38.6	51.7	55.8	57.8	69.2	64.1	58.4	47.4	36.3	33.2	47.3
1981	32.8	33.9	40.9	45.7	52.0	57.0	65.1	71.5	59.7	45.9	39.9	29.7	47.8
1982	26.0	32.1	40.3	43.5	54.2	66.5	67.6	69.8	59.5	46.1	31.7	27.3	47.1
1983	35.8	38.1	43.0	46.3	57.1	61.9	65.5	72.3	57.1	49.7	39.3	16.2	48.5
1984	30.5	34.5	41.7	44.0	50.1	59.2	69.1	70.1	56.7	43.4	35.8	20.4	46.3
1985	21.4	24.9	35.9	48.0	56.2	61.8	75.0	64.9	53.3	44.7	19.5	19.3	43.7
1986	30.1	31.6	42.8	44.9	55.3	66.2	64.0	72.6	54.8	49.0	34.8	26.3	47.7
1987	26.5	35.1	41.8	51.1	57.2	65.1	66.6	66.2	62.8	49.5	38.1	25.9	48.8
1988	24.7	35.4	39.7	48.9	54.6	61.1	68.7	68.4	58.9	53.3	36.3	27.0	48.1
1989	28.8	21.8	36.6	48.9	53.1	64.3	68.7	64.8	60.1	47.0	38.0	31.0	46.9
1990	33.4	30.2	40.9	49.7	52.8	60.7	70.4	68.5	65.3	45.1	39.0	21.1	48.1
1991	25.7	39.2	36.8	45.8	51.6	56.6	68.7	70.2	61.8	46.2	34.2	32.8	47.5
1992	31.8	38.9	45.5	48.8	58.9	68.0	67.8	69.6	57.4	49.5	34.3	22.9	49.5
1993	21.9	25.4	37.8	45.5	59.8	60.2	60.2	64.2	58.7	50.0	29.4	30.9	45.3
1994	35.6	29.1	41.8	49.1	56.7	60.8	73.0	69.4	63.4	46.8	32.4	30.3	49.0
1995	31.0	37.3	39.9	45.5	56.8	60.1	67.9	63.9	61.2	43.9	40.2	28.6	48.0
1996	25.4	28.7	36.4	46.3	49.6	60.5	70.0	68.1	56.0	45.3	33.2	24.8	45.4
1997	28.4	31.7	39.2	43.3	56.7	59.9	67.6	71.0	61.9	47.3	38.6	29.3	47.9
1998	30.7	38.1	41.5	48.0	56.1	62.5	75.3	71.7	65.1	46.5	39.9	28.6	50.3
1999	32.2	34.9	39.9	44.9	50.6	59.9	66.2	70.3	59.1	47.4	41.4	31.6	48.2
POR= 118 YRS	26.9	31.9	39.5	47.6	55.6	62.4	69.3	68.6	59.5	48.5	36.5	29.7	48.0

HEATING DEGREE DAYS (base 65°F) 1999 SPOKANE WA (GEG)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	13	5	321	614	864	1146	1022	873	918	584	270	215	6845
1971-72	64	19	297	641	882	1208	1308	991	726	684	274	127	7221
1972-73	36	18	292	545	795	1219	1171	838	734	558	286	152	6644
1973-74	17	47	193	546	933	978	1265	824	814	554	455	97	6723
1974-75	41	22	134	519	852	1062	1276	1122	953	694	375	173	7223
1975-76	22	75	136	554	933	1048	1091	946	922	588	317	213	6845
1976-77	20	71	74	556	871	1089	1324	832	824	436	409	66	6572
1977-78	57	56	289	563	921	1197	1154	862	701	576	412	101	6889
1978-79	37	97	252	562	1083	1424	1684	1011	756	577	313	134	7930
1979-80	41	4	91	423	1029	918	1365	880	809	392	283	211	6446
1980-81	19	77	195	543	854	977	992	867	741	570	395	243	6473
1981-82	73	7	209	584	747	1088	1202	912	761	639	328	76	6626
1982-83	62	17	193	582	996	1163	897	747	672	558	285	113	6285
1983-84	55	2	230	468	765	1508	1065	880	715	621	460	194	6963
1984-85	21	18	264	662	870	1381	1345	1117	895	501	280	128	7482
1985-86	0	64	343	622	1363	1409	1076	927	680	595	357	67	7503
1986-87	81	4	311	488	902	1193	1186	831	710	417	253	86	6462
1987-88	51	50	116	474	799	1206	1240	850	775	477	330	173	6541
1988-89	47	16	240	361	856	1171	1113	1205	873	473	364	65	6784
1989-90	22	76	149	554	805	1048	976	968	739	454	373	166	6330
1990-91	37	42	54	610	774	1356	1212	716	866	568	406	248	6889
1991-92	15	16	108	574	918	992	1024	750	598	477	206	61	5739
1992-93	32	60	232	481	916	1297	1331	1102	834	578	192	165	7220
1993-94	151	83	217	457	1063	1051	904	998	713	469	262	160	6528
1994-95	26	13	81	558	970	1071	1045	771	771	578	262	170	6316
1995-96	21	88	146	648	742	1120	1217	1045	880	556	471	143	7077
1996-97	35	49	281	603	949	1241	1130	928	794	642	264	154	7070
1997-98	35	15	116	549	785	1098	1058	747	721	505	276	90	5995
1998-99	0	20	101	565	748	1119	1010	836	769	594	448	186	6396
1999-	75	36	181	540	703	1030							

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COOLING DEGREE DAYS (base 65°F) 1999 SPOKANE WA (GEG)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0	0	0	0	3	143	253	175	2	0	0	0	576
1971	0	0	0	0	10	17	216	306	9	0	0	0	558
1972	0	0	0	0	28	41	138	213	10	0	0	0	430
1973	0	0	0	0	31	67	216	177	39	0	0	0	530
1974	0	0	0	0	0	137	134	127	7	0	0	0	405
1975	0	0	0	0	0	7	256	57	20	0	0	0	340
1976	0	0	0	0	0	24	143	93	33	0	0	0	293
1977	0	0	0	18	2	72	126	254	0	0	0	0	472
1978	0	0	0	0	0	42	144	131	9	0	0	0	326
1979	0	0	0	0	1	73	217	166	39	0	0	0	496
1980	0	0	0	1	3	2	156	56	6	3	0	0	227
1981	0	0	0	0	0	9	82	213	60	0	0	0	364
1982	0	0	0	0	2	128	148	171	32	0	0	0	481
1983	0	0	0	0	46	26	77	235	1	0	0	0	385
1984	0	0	0	0	3	28	155	181	23	1	0	0	391
1985	0	0	0	0	15	36	317	68	0	0	0	0	436
1986	0	0	0	0	65	109	57	247	8	0	0	0	486
1987	0	0	0	8	20	94	110	97	53	1	0	0	383
1988	0	0	0	0	12	63	169	128	67	0	0	0	439
1989	0	0	0	0	0	49	145	78	9	0	0	0	281
1990	0	0	0	0	0	42	213	157	68	0	0	0	480
1991	0	0	0	0	0	0	139	187	20	0	0	0	346
1992	0	0	0	0	25	159	124	209	11	8	0	0	536
1993	0	0	0	0	36	27	11	64	34	0	0	0	172
1994	0	0	0	0	9	37	280	159	43	0	0	0	528
1995	0	0	0	0	14	29	119	59	38	0	0	0	259
1996	0	0	0	0	0	16	198	150	17	0	0	0	381
1997	0	0	0	0	14	9	122	209	30	6	0	0	390
1998	0	0	0	0	6	22	325	234	110	0	0	0	697
1999	0	0	0	0	7	41	118	210	14	0	0	0	390

SNOWFALL (inches) 1999 SPOKANE WA (GEG)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	0.0	0.0	0.0	T	6.8	12.0	6.1	5.5	1.5	T	0.0	0.0	31.9
1971-72	0.0	0.0	0.0	3.1	4.0	34.2	17.2	5.9	2.5	0.2	0.0	0.0	67.1
1972-73	0.0	0.0	0.0	0.8	T	4.7	6.5	3.5	0.5	T	0.0	0.0	16.0
1973-74	0.0	0.0	0.0	0.8	23.6	9.1	15.0	4.4	2.5	0.4	0.4	0.0	56.2
1974-75	0.0	0.0	0.0	0.0	0.3	16.6	30.9	28.5	7.6	5.1	T	0.0	89.0
1975-76	0.0	0.0	0.0	3.9	11.4	6.9	15.3	6.3	4.6	0.4	0.0	0.0	48.8
1976-77	0.0	0.0	0.0	0.0	0.1	4.2	6.8	2.5	2.7	T	T	0.0	16.3
1977-78	0.0	0.0	0.0	0.0	11.2	30.3	19.1	6.6	2.2	T	T	0.0	69.4
1978-79	0.0	0.0	0.0	0.0	15.4	14.8	16.5	10.6	3.4	T	T	0.0	60.7
1979-80	0.0	0.0	0.0	0.0	3.9	10.4	16.6	5.9	1.1	0.4	0.0	0.0	38.3
1980-81	0.0	0.0	0.0	0.0	1.2	6.8	2.6	3.3	T	T	0.3	0.0	14.2
1981-82	0.0	0.0	0.0	T	0.8	13.0	23.3	2.2	2.1	6.0	T	0.0	47.4
1982-83	0.0	0.0	0.0	T	5.4	17.4	8.1	5.5	T	0.2	T	0.0	36.6
1983-84	0.0	0.0	0.0	0.0	5.7	24.8	5.3	8.0	1.9	1.3	0.8	0.0	47.8
1984-85	0.0	0.0	0.0	1.1	12.0	24.7	4.6	14.8	9.6	T	T	0.0	66.8
1985-86	0.0	0.0	0.0	0.4	23.7	8.3	14.7	13.8	T	0.2	T	0.0	61.1
1986-87	0.0	0.0	0.0	0.0	5.0	7.9	11.7	1.1	T	T	T	0.0	25.7
1987-88	0.0	0.0	0.0	0.0	1.5	20.3	9.1	1.2	1.6	T	T	0.0	33.7
1988-89	0.0	0.0	0.0	0.0	10.9	16.3	10.5	19.0	9.4	T	T	0.0	66.1
1989-90	0.0	0.0	0.0	T	5.2	1.1	10.3	18.0	2.6	3.5	T	0.0	40.7
1990-91	0.0	0.0	0.0	0.0	1.2	14.3	15.9	1.1	9.5	0.2	0.0	0.0	42.2
1991-92	0.0	0.0	T	0.8	4.9	2.4	9.0	1.4	0.0	T	0.0	0.0	18.5
1992-93	0.0	0.0	0.0	0.0	11.1	40.2	18.8	15.1	2.1	T	T	T	87.3
1993-94	0.0	0.0	0.0	T	3.7	6.4	0.9	8.2	0.5	T	0.0	T	19.7
1994-95	0.0	0.0	0.0	0.8	13.7	6.3	3.9	4.4	0.7	T	0.0	0.0	29.8
1995-96	0.0	0.0	0.0				22.7						
1996-97													
1997-98							6.4	1.6	1.8	T	0.0	0.0	
1998-99	0.0	0.0	0.0	T	0.8	11.2	8.7	14.7	3.8	2.7	0.6	0.0	42.5
1999-	0.0	0.0	0.0	0.0	2.1	9.7							
POR= 50 YRS	0.0	0.0	T	0.4	6.2	14.5	15.3	7.4	3.8	0.6	0.1	T	48.3

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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 SPOKANE WASHINGTON (GEG)

Spokane lies on the eastern edge of the broad Columbia Basin area of Washington which is bounded by the Cascade Range on the west and the Rocky Mountains on the east. The elevations in eastern Washington vary from less than 400 feet above sea level near Pasco where the Columbia River flows out of Washington to over 5,000 feet in the mountain areas of the extreme eastern edge of the State. Spokane is located on the upper plateau area where the long gradual slope from the Columbia River meets the sharp rise of the Rocky Mountain Ranges.

Much of the urban area of Spokane lies along both sides of the Spokane River at an elevation of approximately 2,000 feet, but the residential areas have spread to the crests of the plateaus on either side of the river with elevations up to 2,500 feet above sea level. Spokane International Airport is situated on the plateau area 6 miles west-southwest and some 400 feet higher than the downtown business district.

The climate of Spokane combines some of the characteristics of damp coastal type weather and arid interior conditions. Most of the air masses which reach Spokane are brought in by the prevailing westerly and southwesterly circulations. Frequently, much of the moisture in the storms that move eastward and southeastward from the Gulf of Alaska and the eastern Pacific Ocean is precipitated out as the storms are lifted across the Coast and Cascade Ranges. Annual precipitation totals in the Spokane area are generally less than 20 inches and less than 50 percent of the amounts received west of the Cascades. However, the precipitation and total cloudiness in the Spokane vicinity is greater than that of the desert areas of south-central Washington. The lifting action of the air masses as they move up the east slope of the Columbia Basin frequently produces the cooling and condensation necessary for formation of clouds and precipitation.

Infrequently, the Spokane area comes under the influence of dry continental air masses from the north or east. On occasions when these air masses penetrate into eastern Washington the result is high temperatures and very low humidity in the summer and sub-zero temperatures in the winter. In the winter most of the severe arctic outbursts of cold air move southward on the east side of the Continental Divide and do not affect Spokane.

In general, Spokane weather has the characteristics of a mild, arid climate during the summer months and a cold, coastal type in the winter. Approximately 70 percent of the total annual precipitation falls between the first of October and the end of March and about half of that falls as snow. The growing season usually extends over nearly six months from mid-April to mid-October. Irrigation is required for all crops except dry-land type grains. The summer weather is ideal for full enjoyment of the many mountain and lake recreational areas in the immediate vicinity. Winter weather includes many cloudy or foggy days and below freezing temperatures with occasional snowfall of several inches in depth. Sub-zero temperatures and traffic-stopping snowfalls are infrequent.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is October 6 and the average last occurrence in the spring is May 4.

# STATION LOCATION

SPOKANE, WASHINGTON

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUCI M T S W	* Type M = AMOS T = AUTOB S = ASOS W = AWOS	REMARKS	
						SEA LEVEL	GROUND												
							G M D U M P R E F E R E N C E	W I N D I N D I C A T O R	E M P T Y R E C O R D	P R E S E N T R E C O R D	S U R F A C E S W I T C H	T E R R A I N G A G E	R A I N G A G E	W E E T I N G A G E	8 I N C H R A I N G A G E				H I G H W A T E R T A B L E
<b>CITY</b>																			
Spokane Times Building Howard Street near Riverside Avenue	8/4/80	1/1/82	NA	47° 40'	117°25'	1896		18	18						2		Observations began 2/1/81.		
Riverside Avenue and Mill (Wall) Street	1/1/82	11/29/84	Near City Center	47° 40'	117°25'	1895		22	22						32		Office destroyed by fire 11/29/84.		
Browns Block, Riverside Avenue & Post Street	11/30/84	1/1/87	Near City Center	47° 40'	117°25'	1894		24	24						40				
Hyde Block, Riverside Avenue near Howard St.	1/1/87	8/4/89	Near City Center	47° 40'	117°25'	1894		57	57						48		Fire destroyed building and all records.		
Chamberlin Block Sprague Avenue and Lincoln Street	8/11/89	9/6/89	Near City Center	47° 40'	117°25'	1896		46	46						35				
Riverside Avenue and Division Street	9/6/89	11/15/89	Near City Center	47° 40'	117°25'	1925		36	36						35				
313-1/2 Riverside Ave.	11/15/89	11/7/90	Near City Center	47° 40'	117°25'	1895		41	41						35				
Blalock Building Sprague Avenue and Stevens Street	11/7/90	8/1/92	Near City Center	47° 40'	117°25'	1902	109	101	100		a92				92		a - Added 7/14/91.		
Jamieson Building 705 Riverside Avenue	8/1/92	7/1/02	Near City Center	47° 40'	117°25'	1894	107	100	99		90				90				
Empire State Building 905 Riverside Avenue	7/1/02	1/1/41	Near City Center	47° 40'	117°25'	1895	110	101	101		94				94		Consolidated at airport 1/1/41.		
<b>AIRPORT</b>																			
Felts Field (4.5 mi. NE of city center)	5/14/32	1/1/41	NA	47° 40'	117°20'	1955		42	28	27		25	26	25					
Felts Field	1/1/41	12/8/47	NA	47° 40'	117°20'	1955		42 d53	28 b7	27 b6		25 c3	26 c4	25 c3			City and Airport Offices consolidated at Felts field 1/1/41. b - Moved to field site 1/1/42. c - Moved to field site 2/3/42. d - Effective 2/20/42.		
Geiger Field (6 mi. SW of city center) + Spokane International Airport eff. 5/5/60	12/8/47	5/17/65	10.5 mi. SW	47° 37'	117°31'	2357 h2356	29 e34 f20	7	5	25		3	5	3	g4		e - Effective 7/18/57. f - Moved to field site 11/25/57. g - Commissioned near center of runway complex 8/1/59. h - Effective 5/17/65. i - Not moved 5/17/65. j - Moved to roof 3/1/77.		
Terminal Building Spokane Int'l AP	5/17/65	11/15/79	0.7 mi. NW	47° 38'	117°32'	2356	i20	6	5	j33		5	5	5	i4	NA			
NWS Building International Airport	11/15/79	09/01/95	0.25 mi. NW	47° 38'	117°32'	2357	k20	6	5	6		5	5	5	k4	NA	k - Not moved 11/15/79.		
International Airport	09/01/95	Present	NA	47°37'	117°32'	2412										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  
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