

1999

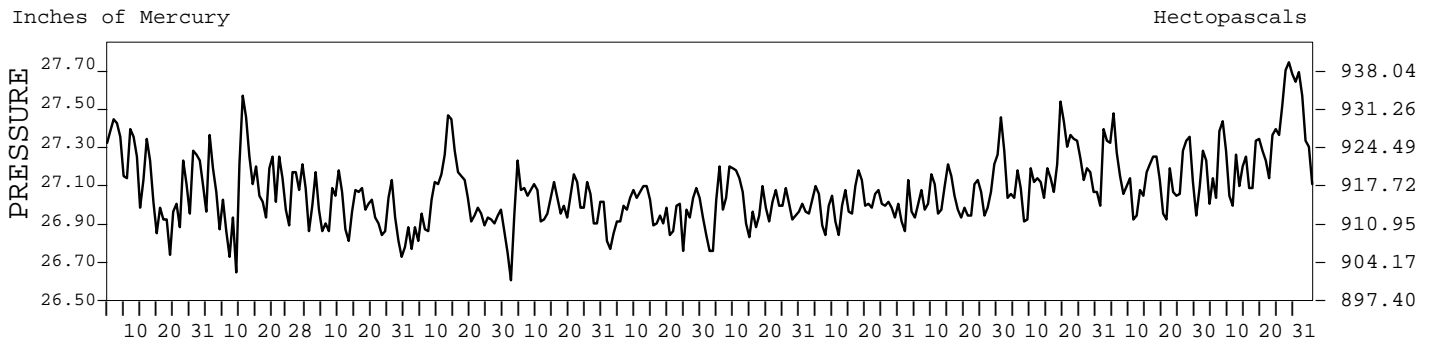
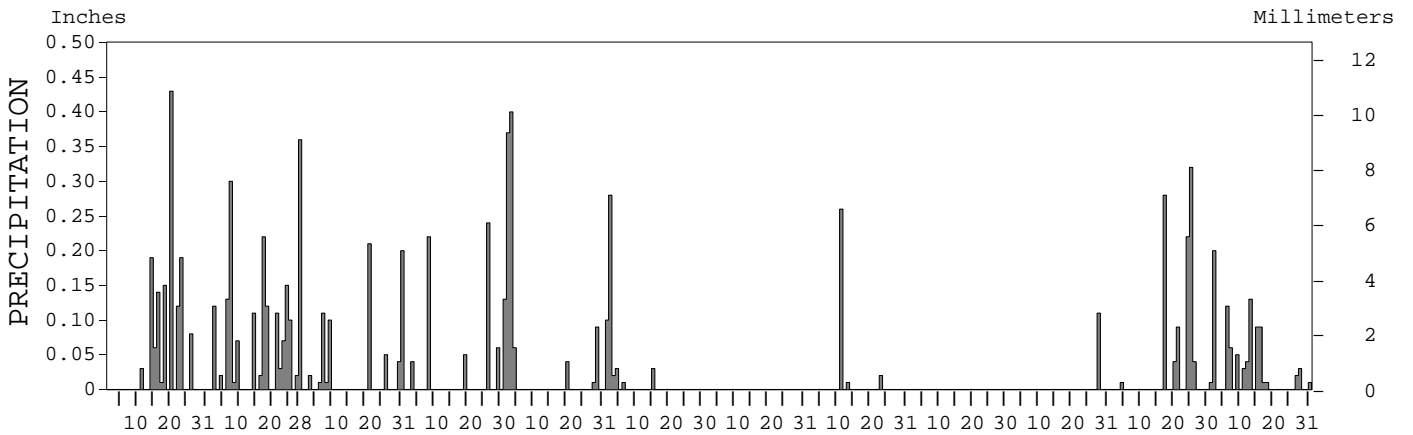
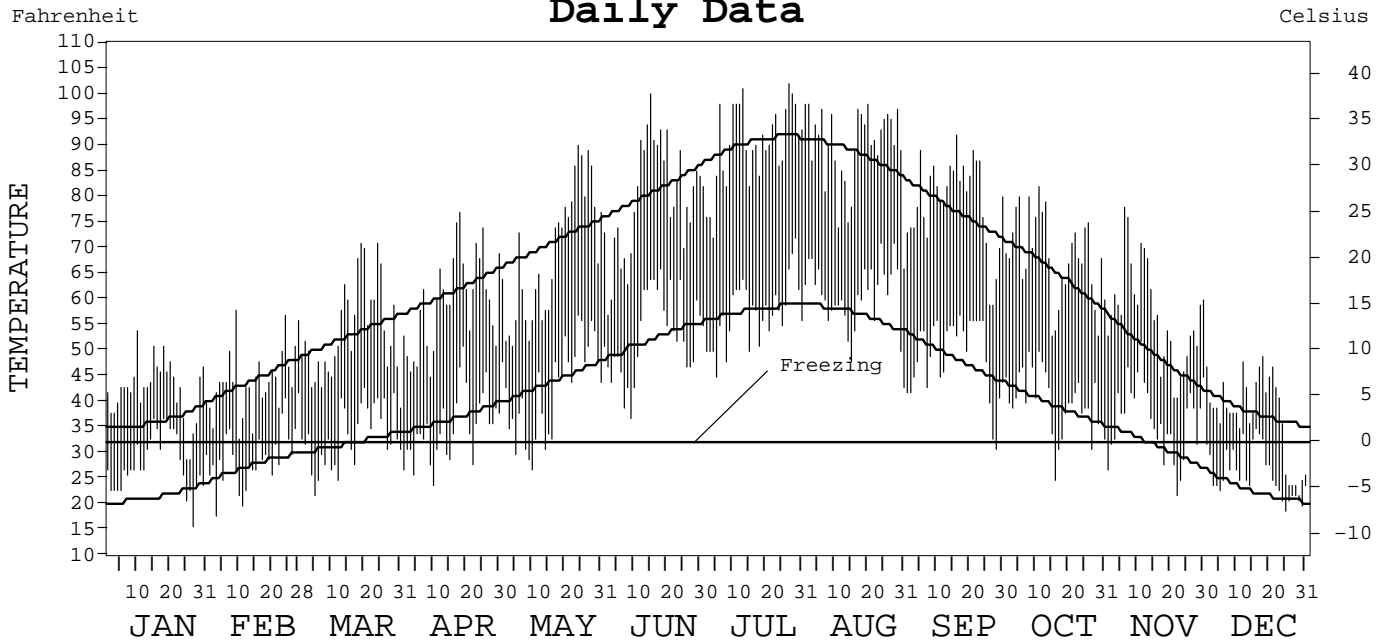
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-1765

BOISE,
IDAHO (BOI)

Daily Data



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Thomas R. Karl

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
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 ASHEVILLE, NORTH CAROLINA

METEOROLOGICAL DATA FOR 1999

BOISE, ID (BOI)

LATITUDE: 43° 33' 54" N LONGITUDE: 116° 13' 12" W ELEVATION (FT): GRND: 2872 BARO: 2872 TIME ZONE: MOUNTAIN (UTC + 7) WBAN: 24131

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	42.3	44.4	54.0	59.7	68.9	79.6	90.0	89.6	78.9	68.4	57.0	37.5	64.2	
	HIGHEST DAILY MAXIMUM	54	58	71	77	90	100	102	98	92	82	78	49	102	
	DATE OF OCCURRENCE	10	09	24+	18	24	15	27	20+	16	11	06	18	JUL 27	
	MEAN DAILY MINIMUM	28.3	29.5	33.5	35.3	42.6	53.0	57.3	60.6	49.1	40.2	36.7	26.3	41.0	
	LOWEST DAILY MINIMUM	16	18	22	24	27	37	45	43	31	25	22	19	16	
	DATE OF OCCURRENCE	27	03	05	10	10	09	05	31	28	16	22	25	JAN 27	
	AVERAGE DRY BULB	35.3	37.0	43.8	47.5	55.8	66.3	73.7	75.1	64.0	54.3	46.9	31.9	52.6	
	MEAN WET BULB	31.9	32.9	36.6	39.8	45.8	53.2	55.8	58.5	48.4	42.1	39.3	29.6	42.8	
	MEAN DEW POINT	27.6	26.9	27.4	29.5	34.9	41.5	40.6	46.1	32.2	27.3	29.9	26.5	32.5	
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	1	7	17	19	1	0	0	0	0	45
	MAXIMUM ≤ 32°	2	0	0	0	0	0	0	0	0	0	0	0	7	9
	MINIMUM ≤ 32°	23	20	14	10	5	0	0	0	1	3	8	26	110	
MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	914	778	652	520	311	95	8	13	101	324	535	1017	5268	
	COOLING DEGREE DAYS	0	0	0	0	32	142	282	334	80	1	0	0	871	
RH	MEAN (PERCENT)	76	70	57	54	49	45	33	38	33	39	57	82	53	
	HOUR 05 LST	84	76	71	71	69	65	51	54	48	51	62	88	66	
	HOUR 11 LST	75	67	53	47	42	40	28	34	28	33	54	80	48	
	HOUR 17 LST	65	62	38	37	31	28	17	25	19	24	45	76	39	
	HOUR 23 LST	80	71	60	58	54	47	35	42	35	43	63	85	56	
S	PERCENT POSSIBLE SUNSHINE	36	18	41	75	74	76	92	78	96	87	40	31	62	
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	0	4	3	0	0	0	0	0	0	0	0	8	15	
	THUNDERSTORMS	0	0	0	1	3	2	0	3	0	0	0	0	9	
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.)	27.12	27.08	26.96	27.00	26.99	26.95	26.98	26.99	27.05	27.16	27.12	27.30	27.06	
	MEAN SEA-LEVEL PRESS. (IN.)	30.16	30.10	29.95	29.98	29.94	29.86	29.88	29.88	29.98	30.14	30.12	30.37	30.03	
WINDS	RESULTANT SPEED (MPH)		5.7	2.3	3.0	4.0	1.4	1.6	1.2	1.1	0.2	4.1	1.4		
	RES. DIR. (TENS OF DEGS.)		13	14	31	31	30	29	31	29	19	14	14		
	MEAN SPEED (MPH)	7.3	10.5	8.9	9.2	8.6	8.2	7.3	7.5	7.6	7.3	7.2	5.9	8.0	
	PREVAIL. DIR. (TENS OF DEGS.)	13	13	13	31	30	30	30	13	13	13	13	13	13	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	30	36	29	32	30	29	31	39	29	28	26	30	39	
	DIR. (TENS OF DEGS.)	30	30	32	31	31	07	28	30	30	31	15	32	30	
	DATE OF OCCURRENCE	16	17	27+	09	03	15	20	30	25	28+	19	13	AUG 30	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	36	40	36	38	36	34	37	44	36	32	31	38	44	
DIR. (TENS OF DEGS.)	26	30	32	31	31	24	28	30	30	32	15	32	30		
DATE OF OCCURRENCE	16	17	27	09	03	15	20	30	25+	26+	19	13	AUG 30		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.40	1.96	0.75	0.61	1.10	0.47	T	0.29	0.00	0.11	1.00	0.90	8.59	
	GREATEST 24-HOUR (IN.)	0.43	0.38	0.21	0.24	0.61	0.38	T	0.26	0.00	0.11	0.53	0.20	0.61	
	DATE OF OCCURRENCE	20	27-28	21	26	02-03	01-02	07	11		28	24-25	02	MAY 02-03	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	10	17	9	5	7	6	0	3	0	1	7	15	80	
PRECIPITATION ≥ 0.10	6	10	4	2	3	2	0	1	0	1	3	3	35		
PRECIPITATION ≥ 1.00	0	0	0	0	0	0	0	0	0	0	0	0	0		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	1.7	5.7	6.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.7	18.1	
	GREATEST 24-HOUR (IN.)	1.5	2.7	5.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.6	5.1	
	DATE OF OCCURRENCE	26	02	31	03							21	09	MAR 31	
	MAXIMUM SNOW DEPTH (IN.)	1	3	T	1	0	0	0	0	0	0	T	T	3	
	DATE OF OCCURRENCE	27+	03+	07+	01							21	31+	FEB 03+	
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	1	2	1	0	0	0	0	0	0	0	0	0	4		

NORMALS, MEANS, AND EXTREMES

BOISE, ID (BOI)

LATITUDE: 43° 33' 54" N LONGITUDE: 116° 13' 12" W ELEVATION (FT): GRND: 2872 BARO: 2872 TIME ZONE: MOUNTAIN (UTC + 7) WBAN: 24131

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	36.4	44.2	52.9	61.4	71.0	80.9	90.2	88.1	77.0	64.6	48.7	37.7	62.8
	MEAN DAILY MAXIMUM	52	37.0	44.3	52.6	61.6	71.0	80.1	90.1	88.1	77.8	64.8	48.8	38.3	62.9
	HIGHEST DAILY MAXIMUM	60	63	71	81	92	98	109	111	110	102	94	78	65	111
	YEAR OF OCCURRENCE		1953	1992	1978	1987	1986	1940	1960	1961	1945	1997	1999	1964	JUL 1960
	MEAN OF EXTREME MAXS.	52	51.3	58.6	68.3	78.6	89.3	97.5	102.3	100.7	93.7	82.2	65.1	53.4	78.4
	NORMAL DAILY MINIMUM	30	21.6	27.5	31.9	36.7	43.9	52.1	57.7	56.8	48.2	39.0	31.1	22.5	39.1
	MEAN DAILY MINIMUM	52	22.0	27.2	31.7	36.9	44.2	51.7	58.0	57.1	48.8	38.9	30.5	23.3	39.2
	LOWEST DAILY MINIMUM	60	-17	-15	6	19	22	31	35	34	23	11	-3	-25	-25
	YEAR OF OCCURRENCE		1950	1989	1971	1968	1982	1995	1986	1992	1970	1971	1985	1990	DEC 1990
	MEAN OF EXTREME MINS.	52	2.9	11.3	19.4	24.3	30.3	38.8	45.8	44.6	34.5	24.5	16.4	6.5	24.9
	NORMAL DRY BULB	30	29.0	35.9	42.4	49.1	57.5	66.5	74.0	72.5	62.6	51.8	39.9	30.1	50.9
	MEAN DRY BULB	52	29.5	35.7	42.1	49.2	57.7	65.9	74.1	72.6	63.3	51.8	39.6	30.7	51.0
	MEAN WET BULB	16	27.0	31.5	37.5	42.6	48.4	53.7	57.4	56.3	50.5	42.4	34.8	26.1	42.3
	MEAN DEW POINT	16	23.2	26.0	29.3	32.7	38.0	42.1	43.7	42.2	37.8	31.5	28.9	21.9	33.1
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.1	1.3	6.4	18.7	16.0	3.2	0.1	0.0	0.0	45.8	
MAXIMUM ≤ 32°	30	10.2	3.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	8.0	22.5	
MINIMUM ≤ 32°	30	25.7	19.5	17.0	8.9	2.1	*	0.0	0.0	0.6	5.8	16.5	25.3	121.4	
MINIMUM ≤ 0°	30	1.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.8	4.1	
H/C	NORMAL HEATING DEG. DAYS	30	1116	815	701	477	242	75	6	20	160	414	753	1082	5861
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	9	120	285	252	88	0	0	0	754
RH	NORMAL (PERCENT)	30	75	70	60	52	49	45	36	37	45	54	68	75	56
	HOUR 05 LST	30	79	78	72	68	67	65	54	53	60	66	76	79	68
	HOUR 11 LST	30	73	66	54	46	43	39	32	33	39	47	64	72	51
	HOUR 17 LST	30	68	57	43	35	31	28	21	23	29	37	57	68	41
	HOUR 23 LST	30	78	75	66	59	56	50	40	41	50	60	74	78	61
S	PERCENT POSSIBLE SUNSHINE	57	40	50	62	68	72	76	87	85	82	69	43	38	64
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	61	5.7	3.1	0.8	0.3	0.2	0.1	0.0	0.0	0.1	0.5	2.9	5.6	19.3
	THUNDERSTORMS	61	0.0	0.3	0.6	0.9	2.8	2.8	2.6	2.4	1.6	0.6	0.3	0.1	15.0
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)														
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH:														
	CLEAR														
	PARTLY CLOUDY														
	CLOUDY														
PR	MEAN STATION PRESSURE (IN)	27	27.19	27.09	27.00	27.00	27.00	27.00	27.00	27.00	27.00	27.10	27.10	27.19	27.06
	MEAN SEA-LEVEL PRES. (IN)	16	30.22	30.13	30.02	29.97	29.91	30.00	29.90	29.91	29.97	30.07	30.14	30.25	30.04
WINDS	MEAN SPEED (MPH)	45	7.8	8.8	9.8	9.7	9.2	8.9	8.3	8.0	7.9	8.0	8.2	7.8	8.5
	PREVAIL. DIR (TENS OF DEGS)	29	13	13	13	31	31	31	31	13	13	13	13	12	13
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	4	33	36	32	46	32	40	36	39	33	34	31	32	46
	DIR. (TENS OF DEGS)		31	30	32	31	27	31	34	30	19	11	28	11	31
	YEAR OF OCCURRENCE		1996	1999	1997	1998	1997	1997	1997	1999	1997	1996	1998	1996	APR 1998
	MAXIMUM 5-SECOND:														
	SPEED (MPH)	4	38	40	40	52	41	51	47	44	41	34	41	41	52
DIR. (TENS OF DEGS)		31	30	32	32	27	30	17	30	18	33	23	24	32	
YEAR OF OCCURRENCE		1996	1999	1997	1998	1997	1997	1998	1999	1997	1996	1998	1996	APR 1998	
PRECIPITATION	NORMAL (IN)	30	1.45	1.07	1.29	1.24	1.08	0.81	0.35	0.43	0.80	0.75	1.48	1.36	12.11
	MAXIMUM MONTHLY (IN)	60	3.87	3.70	3.46	3.04	4.40	3.41	1.62	2.37	2.93	2.25	3.36	4.23	4.40
	YEAR OF OCCURRENCE		1970	1986	1989	1955	1998	1941	1982	1968	1986	1956	1988	1983	MAY 1998
	MINIMUM MONTHLY (IN)	60	0.12	0.18	0.17	0.09	T	0.01	0.00	0.00	0.00	0.00	0.14	0.09	0.00
	YEAR OF OCCURRENCE		1949	1997	1994	1949	1992	1966	1947	1998	1987	1988	1976	1976	AUG 1998
	MAXIMUM IN 24 HOURS (IN)	60	1.48	1.00	1.65	1.27	2.05	2.24	0.94	1.61	1.74	0.76	0.88	1.16	2.24
	YEAR OF OCCURRENCE		1953	1951	1981	1969	1990	1958	1960	1979	1976	1947	1971	1955	JUN 1958
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	11.8	9.7	9.7	8.2	7.2	5.6	2.8	3.3	4.2	5.6	10.4	11.4	89.9	
PRECIPITATION ≥ 1.00	30	0.0	0.0	*	0.1	0.1	0.1	0.0	*	*	0.0	0.0	0.0	0.3	
SNOWFALL	NORMAL (IN)	30	6.3	2.7	1.4	1.0	0.2	0.0	0.0	0.0	0.1	2.7	6.9	21.3	
	MAXIMUM MONTHLY (IN)	60	21.4	25.2	11.9	8.0	4.0	T	T	T	T	2.7	18.6	26.2	26.2
	YEAR OF OCCURRENCE		1964	1949	1951	1967	1964	1995	1995	1989	1998	1971	1985	1983	DEC 1983
	MAXIMUM IN 24 HOURS (IN)	60	8.5	13.0	6.4	7.2	4.0	T	T	T	T	1.7	6.5	9.8	13.0
	YEAR OF OCCURRENCE		1950	1949	1952	1969	1964	1995	1995	1989	1998	1971	1964	1996	FEB 1949
	MAXIMUM SNOW DEPTH (IN)	51	12	9	6	1	0	0	0	0	0	0	11	13	13
	YEAR OF OCCURRENCE		1982	1949	1952	1975							1985	1985	DEC 1985
	NORMAL NO. DAYS WITH:														
SNOWFALL ≥ 1.0	30	2.1	0.9	0.4	0.3	0.*	0.0	0.0	0.0	0.0	0.1	1.0	2.7	7.5	

PRECIPITATION (inches) 1999 BOISE, ID (BOI)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	3.87	0.30	1.04	0.93	0.73	1.72	0.28	0.10	1.00	0.81	2.03	1.37	14.18
1971	2.04	0.65	1.50	0.40	0.25	1.58	0.12	0.18	0.64	0.53	2.32	1.63	11.84
1972	2.15	0.91	1.50	0.62	0.32	0.90	0.21	0.05	1.11	0.64	1.11	1.79	11.31
1973	1.14	0.42	0.65	1.49	0.74	0.19	0.07	0.03	0.82	1.15	2.44	2.23	11.37
1974	1.35	0.66	1.50	0.67	0.10	0.60	0.53	0.22	T	1.45	0.67	1.71	9.46
1975	0.59	2.62	1.92	1.53	0.88	0.78	0.82	0.48	0.01	1.99	0.78	1.29	13.69
1976	1.49	1.31	0.72	1.60	0.46	1.66	1.15	0.95	2.11	0.52	0.14	0.09	12.20
1977	0.65	0.57	0.86	0.19	1.80	1.26	0.41	0.73	1.20	0.21	1.86	2.46	12.20
1978	2.37	1.50	1.43	2.34	0.36	0.56	0.48	0.24	0.89	T	1.06	0.60	11.83
1979	1.93	1.20	0.48	1.60	1.28	0.18	0.01	1.81	0.04	1.50	1.30	0.74	12.07
1980	1.56	1.29	2.14	1.20	3.77	0.58	0.03	T	1.59	0.30	1.26	1.49	15.21
1981	1.20	1.02	2.76	1.93	0.95	0.77	0.23	0.13	0.36	0.97	2.24	2.72	15.28
1982	1.42	1.54	1.39	0.79	0.39	0.35	1.62	0.19	1.38	1.74	1.10	1.92	13.83
1983	1.67	1.26	2.70	2.29	1.93	0.17	1.16	0.28	0.65	0.56	1.87	4.23	18.77
1984	0.80	0.86	1.43	1.62	1.06	1.47	0.23	1.24	0.69	0.85	2.36	0.63	13.24
1985	0.20	0.55	0.97	0.90	1.52	0.37	0.85	0.04	1.81	0.84	1.85	1.24	11.14
1986	0.98	3.70	2.01	1.55	1.10	0.35	0.17	0.07	2.93	0.33	1.00	0.12	14.31
1987	0.73	1.24	2.01	0.38	0.69	0.58	0.70	0.11	0.00	T	1.00	1.05	8.49
1988	1.30	0.43	1.45	1.80	1.33	0.47	0.02	0.09	0.24	0.00	3.36	0.81	11.30
1989	1.14	1.15	3.46	0.46	0.21	0.08	0.03	0.78	1.20	1.24	0.59	0.10	10.44
1990	0.84	0.79	0.77	2.14	4.07	0.11	0.42	0.39	0.50	0.45	0.61	0.98	12.07
1991	0.96	0.46	0.55	1.65	1.57	0.64	0.37	0.04	0.21	0.91	1.76	0.35	9.47
1992	0.36	0.92	0.17	0.66	T	2.07	0.03	T	0.30	0.90	1.37	0.89	7.67
1993	1.65	0.96	2.45	2.09	0.92	2.10	0.52	0.24	T	0.47	0.38	0.98	12.76
1994	1.28	0.90	0.17	1.25	1.01	0.24	0.10	T	0.10	0.78	1.78	1.79	9.40
1995	2.10	0.51	1.51	1.03	2.36	0.88	0.59	0.06	0.22	0.42	2.20	2.14	14.02
1996	1.33	1.07	1.97	1.47	1.67	0.21	0.12	T	0.46	0.68	1.71	3.43	14.12
1997	2.74	0.18	0.52	1.89	1.14	1.35	0.45	0.27	0.67	0.55	0.68	0.65	11.09
1998	2.73	1.39	0.99	0.81	4.40	1.21	0.49	0.00	1.96	0.11	0.97	1.65	16.71
1999	1.40	1.96	0.75	0.61	1.10	0.47	T	0.29	0.00	0.11	1.00	0.90	8.59
POR= 100 YRS	1.47	1.24	1.30	1.21	1.25	0.88	0.20	0.20	0.50	0.88	1.29	1.31	11.73

WBAN : 24131

AVERAGE TEMPERATURE (°F) 1999 BOISE, ID (BOI)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	36.2	41.2	41.4	43.8	57.5	68.9	76.3	75.8	57.8	47.5	43.2	33.5	51.9
1971	33.9	37.5	40.2	49.2	60.0	64.9	74.7	78.6	59.2	49.0	39.7	30.2	51.4
1972	30.9	36.5	45.5	46.7	60.6	67.6	73.5	74.5	58.8	51.7	40.5	23.8	50.9
1973	30.7	39.4	43.0	49.1	60.5	67.6	75.6	73.0	63.1	52.4	41.7	38.4	52.9
1974	29.4	38.7	42.6	49.7	55.4	71.7	73.8	71.7	65.3	52.2	41.7	33.2	52.1
1975	28.2	36.9	41.5	44.5	56.2	64.4	78.3	70.0	65.5	52.3	39.5	31.4	50.7
1976	32.2	34.2	37.1	47.3	59.3	62.6	73.1	67.7	64.1	50.8	40.9	29.3	49.9
1977	19.0	33.8	39.8	54.1	53.7	70.2	72.7	73.6	62.0	53.2	39.6	37.3	50.8
1978	37.0	38.2	48.7	48.5	54.3	64.5	72.8	69.9	61.4	52.8	36.7	27.0	51.0
1979	16.2	34.3	43.2	48.7	57.8	66.7	74.1	71.2	67.3	54.4	34.7	35.8	50.4
1980	30.3	39.8	41.1	52.6	57.2	62.6	72.9	67.2	62.6	51.6	39.8	33.1	50.9
1981	33.9	36.8	44.5	50.3	54.7	63.2	71.0	74.2	63.7	48.7	44.0	35.3	51.7
1982	24.8	30.0	41.3	45.2	54.9	65.8	70.1	72.7	60.4	50.9	36.0	31.5	48.6
1983	35.9	41.5	44.6	47.1	56.5	63.8	69.4	74.9	60.8	53.8	42.0	23.2	51.1
1984	21.2	30.2	41.9	45.9	54.8	61.7	74.2	75.5	60.1	46.9	39.1	22.9	47.9
1985	19.1	25.8	36.0	51.6	58.5	67.2	77.7	69.2	56.2	48.4	27.7	12.6	45.8
1986	29.4	41.0	48.0	48.3	59.1	72.0	69.6	75.9	57.4	52.6	40.4	28.0	51.8
1987	27.8	37.6	44.2	56.0	62.2	70.2	71.2	70.0	65.6	54.9	40.7	32.9	52.8
1988	26.1	37.8	42.6	52.7	57.9	70.7	74.6	71.6	61.7	59.9	40.7	27.0	51.9
1989	24.7	23.2	43.7	53.1	56.3	68.5	77.0	70.0	63.3	51.2	39.4	30.4	50.1
1990	34.2	34.1	44.3	54.7	55.7	66.9	76.2	74.0	69.9	51.0	41.2	18.1	51.7
1991	24.4	41.6	43.0	48.3	54.9	62.6	75.7	76.6	65.8	51.8	37.4	31.7	51.2
1992	33.1	42.1	48.9	54.9	64.3	69.8	71.4	73.9	63.4	54.4	34.5	28.5	53.3
1993	24.8	28.9	41.7	48.1	63.1	61.9	65.0	68.6	63.0	53.2	32.8	33.3	48.7
1994	32.7	34.7	46.1	52.6	61.0	67.9	77.0	76.1	66.8	50.3	32.6	30.4	52.4
1995	36.2	41.5	43.6	48.2	56.9	63.9	73.4	71.2	65.7	49.2	44.4	33.1	52.3
1996	32.5	35.1	44.2	50.0	55.4	66.7	76.7	74.8	61.8	52.4	41.3	36.3	52.3
1997	32.1	36.8	45.4	48.9	62.9	66.0	72.8	75.6	67.7	52.0	43.0	31.2	52.9
1998	38.9	40.2	44.3	49.9	56.3	63.4	79.2	76.7	69.8	51.7	43.7	30.7	53.7
1999	35.3	37.0	43.8	47.5	55.8	66.3	73.7	75.1	64.0	54.3	46.9	31.9	52.6
POR= 100 YRS	29.7	35.5	42.4	49.8	57.8	65.5	74.3	72.3	62.9	52.3	40.2	31.5	51.2

HEATING DEGREE DAYS (base 65°F) 1999 BOISE, ID (BOI)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	0	0	240	537	650	969	958	765	763	465	176	78	5601
1971-72	10	6	210	492	753	1069	1047	818	598	543	194	45	5785
1972-73	11	0	222	406	727	1270	1056	708	673	470	182	91	5816
1973-74	4	13	103	382	692	817	1099	728	687	452	304	42	5323
1974-75	10	11	53	391	689	983	1132	782	721	607	275	76	5730
1975-76	6	21	74	399	759	1035	1013	886	858	524	189	132	5896
1976-77	3	36	76	434	720	1097	1418	868	772	342	358	7	6131
1977-78	8	32	145	362	758	853	859	744	500	488	329	74	5152
1978-79	5	38	173	370	841	1171	1503	855	668	481	241	72	6418
1979-80	5	2	26	326	903	899	1070	725	736	367	257	133	5449
1980-81	0	41	104	409	750	983	957	783	631	432	315	97	5502
1981-82	15	5	137	497	624	915	1240	974	729	586	312	86	6120
1982-83	27	2	182	432	863	1030	897	653	622	530	309	82	5629
1983-84	38	0	145	338	682	1290	1353	1004	710	566	328	162	6616
1984-85	0	8	204	557	771	1299	1412	1093	895	398	226	53	6916
1985-86	0	26	259	509	1113	1619	1097	668	522	499	280	15	6607
1986-87	35	2	259	376	733	1141	1149	761	639	287	140	41	5563
1987-88	23	18	86	306	722	990	1198	780	686	359	261	59	5488
1988-89	4	5	157	178	724	1169	1242	1166	656	356	276	30	5963
1989-90	0	29	97	421	759	1064	951	858	633	303	286	82	5483
1990-91	6	10	26	430	710	1449	1252	651	676	493	306	100	6109
1991-92	0	0	55	409	822	1026	982	657	492	308	92	54	4897
1992-93	6	40	118	340	907	1124	1239	1004	715	501	140	155	6289
1993-94	53	45	124	367	960	975	993	839	579	378	148	64	5525
1994-95	9	1	34	449	967	1066	887	652	657	499	255	111	5587
1995-96	5	23	86	485	610	984	1000	859	636	447	292	55	5482
1996-97	1	6	162	405	703	883	1013	783	601	473	128	41	5199
1997-98	18	0	61	410	651	1040	803	684	635	452	270	85	5109
1998-99	0	0	51	408	635	1058	914	778	652	520	311	95	5422
1999-	8	13	101	324	535	1017							

WBAN : 24131

COOLING DEGREE DAYS (base 65°F) 1999 BOISE, ID (BOI)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0	0	0	0	24	201	357	341	30	0	0	0	953
1971	0	0	0	0	31	81	320	435	42	2	0	0	911
1972	0	0	0	0	62	129	283	303	40	0	0	0	817
1973	0	0	0	0	51	177	341	269	51	1	0	0	890
1974	0	0	0	0	13	252	289	226	71	0	0	0	851
1975	0	0	0	0	10	64	426	182	96	11	0	0	789
1976	0	0	0	0	19	66	263	130	55	2	0	0	535
1977	0	0	0	20	10	170	255	306	61	0	0	0	822
1978	0	0	1	0	6	64	254	200	72	0	0	0	597
1979	0	0	0	0	27	129	293	199	101	3	0	0	752
1980	0	0	0	3	25	68	251	117	38	2	0	0	504
1981	0	0	0	1	3	52	205	296	101	0	0	0	658
1982	0	0	0	0	2	117	194	248	50	0	0	0	611
1983	0	0	0	0	55	50	180	313	26	0	0	0	624
1984	0	0	0	0	19	70	291	340	64	2	0	0	786
1985	0	0	0	2	28	125	402	165	4	0	0	0	726
1986	0	0	0	1	103	235	184	348	37	0	0	0	908
1987	0	0	0	23	61	202	223	180	111	0	0	0	800
1988	0	0	0	0	46	237	308	215	66	24	0	0	896
1989	0	0	0	6	14	140	376	191	56	0	0	0	783
1990	0	0	0	3	5	145	357	293	180	6	0	0	989
1991	0	0	0	0	0	36	337	368	85	6	0	0	832
1992	0	0	0	11	76	202	208	321	77	20	0	0	915
1993	0	0	0	0	86	68	61	162	71	8	0	0	456
1994	0	0	0	15	30	156	386	354	96	0	0	0	1037
1995	0	0	0	0	12	83	272	225	114	0	0	0	706
1996	0	0	0	0	4	111	372	314	73	22	0	0	896
1997	0	0	0	0	71	80	266	337	151	13	0	0	918
1998	0	0	0	4	9	42	449	371	201	3	0	0	1079
1999	0	0	0	0	32	142	282	334	80	1	0	0	871

SNOWFALL (inches) 1999 BOISE, ID (BOI)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	T	0.0	0.0	0.3	0.1	4.4	4.0	2.1	1.6	T	0.0	0.0	12.5
1971-72	0.0	0.0	0.0	2.7	0.4	14.8	5.0	3.5	0.6	1.6	0.0	0.0	28.6
1972-73	0.0	0.0	0.0	T	T	12.6	7.3	0.3	0.6	T	0.0	0.0	20.8
1973-74	0.0	0.0	0.0	0.0	8.8	4.5	6.0	2.4	5.7	T	0.0	0.0	27.4
1974-75	0.0	0.0	0.0	0.0	0.9	4.6	5.4	6.3	2.2	2.6	0.9	0.0	22.9
1975-76	0.0	0.0	0.0	T	3.9	4.2	6.3	6.7	3.9	0.2	0.0	0.0	25.2
1976-77	0.0	0.0	0.0	0.0	T	1.1	7.2	3.5	2.9	T	T	0.0	14.7
1977-78	0.0	0.0	0.0	T	4.7	4.4	1.6	7.3	T	T	T	0.0	18.0
1978-79	0.0	0.0	0.0	0.0	0.2	3.1	11.9	4.3	0.8	0.2	T	0.0	20.5
1979-80	0.0	0.0	0.0	0.0	6.6	1.4	3.8	0.8	2.7	T	0.0	0.0	15.3
1980-81	0.0	0.0	0.0	0.0	3.2	1.7	3.6	0.7	T	0.5	0.0	0.0	9.7
1981-82	0.0	0.0	0.0	0.0	2.8	11.1	12.2	1.4	3.6	1.4	0.0	0.0	32.5
1982-83	0.0	0.0	0.0	0.0	2.1	6.4	1.6	0.9	T	T	0.8	0.0	11.8
1983-84	0.0	0.0	0.0	0.0	2.2	26.2	4.3	4.4	T	0.3	T	0.0	37.4
1984-85	0.0	0.0	0.0	T	0.2	7.7	2.6	5.3	1.5	1.0	0.0	0.0	18.3
1985-86	0.0	0.0	0.0	T	18.6	12.6	3.9	4.4	0.0	T	0.0	0.0	39.5
1986-87	0.0	0.0	0.0	0.0	5.9	0.9	0.5	0.6	T	0.0	0.0	0.0	7.9
1987-88	0.0	0.0	0.0	0.0	0.5	3.0	3.9	0.3	2.9	1.2	0.0	0.0	11.8
1988-89	0.0	0.0	0.0	0.0	2.5	10.8	8.0	0.7	T	T	0.0	0.0	22.0
1989-90	0.0	T	0.0	T	0.4	T	5.2	6.5	0.4	T	T	0.0	12.5
1990-91	0.0	0.0	0.0	0.0	0.1	15.7	1.5	T	1.2	T	0.0	0.0	18.5
1991-92	0.0	0.0	0.0	1.1	2.8	T	0.3	T	0.0	T	0.0	0.0	4.2
1992-93	0.0	0.0	0.0	T	3.6	5.7	14.6	10.4	0.2	T	T	0.0	34.5
1993-94	0.0	0.0	0.0	0.0	1.9	0.2	2.8	3.8	T	T	0.0	0.0	8.7
1994-95	0.0	0.0	0.0	0.0	8.8	8.5	1.5	5.7	1.2	T	T	T	25.7
1995-96	T	0.0	0.0	0.0	0.2	5.9	6.7	6.9	1.8	T	T	0.0	21.5
1996-97	0.0	0.0	0.0	T	T	13.0	3.4	T	0.3	T	0.0	0.0	16.7
1997-98	0.0	0.0	0.0	0.0	0.0	0.6	4.2	1.4	1.1	T	0.0	0.0	7.3
1998-99	T	0.0	T	0.0	T	8.8	1.7	5.7	6.7	0.4	0.0	0.0	23.3
1999-	0.0	0.0	0.0	0.0	0.9	2.7							
POR= 59 YRS	T	T	0.0	0.1	2.3	5.7	6.3	3.5	1.8	0.6	0.1	T	20.4

WBAN : 24131

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 BOISE, IDAHO (BOI)

Boise is situated in the Boise River Valley about 8 miles below the mouth of a mountain canyon where the valley proper begins. Sheltered by large shade trees and averaging 2,710 feet in elevation, the denser part of the city covers a gentle alluvial slope about 2 miles wide, stretching southwest from the foothills of the Boise Mountains to the river. The Boise Mountains immediately north of the city rise 5,000 to 6,000 feet above sea level in about 8 miles, the slopes partly mantled with sagebrush and then chaparral giving way near the summit to ridges of fir, spruce, and pine. Across the river, the land rises in two irregular steps, or benches, for several miles, finally reaching the low divide between the Boise and Snake Rivers. Downstream the valley widens, merging with the valley of the Snake about 40 miles to the northwest. Once semi-arid, the entire area is now irrigated from the upstream reservoirs.

Although air masses from the Pacific are considerably modified by the time they reach Boise, their influence, particularly in winter, alternates with that of atmospheric developments from other directions. The result is almost a typical upland continental type of climate in summer, while winters are usually tempered by periods of cloudy or stormy and mild weather. Autumns have prolonged periods of near ideal weather, while springtime is noted by changeable weather and varied temperatures. The Boise climate in general may be described as dry and temperate, with sufficient variation to be stimulating.

Summer hot periods rarely last longer than a few days. Temperatures of 100 degrees or higher occur nearly every year.

Winter cold spells with temperatures of 10 degrees or lower generally last longer than the summer hot spells. During cold weather, however, there is ordinarily little wind to add to the discomfort.

The normal precipitation pattern in the Boise area shows a winter high and a very pronounced summer low. Total amounts and intensity are generally greatest near the foothills, dwindling to westward and southward.

Tornadoes are very rare as are destructive force winds. Northwesterly winds, drying and rather raw in character, although of moderate velocity, are common from March through May. Diurnal southeasterly winds, descending from nearby foothills at night, frequently have a moderating effect on winter temperatures. There is an occasional, but moderate, duststorm during the warmer months, usually occurring at times of cold frontal passage.

Relative humidity is low but widespread irrigation maintains humidity several percent above the general dryness of western arid conditions in summer. Thunderstorms occur primarily during spring and summer, with less frequency during fall and occasionally during winter. December and January are the months of heavy fog or low stratus cloud conditions. Only a moderate amount of sunshine is received in the average winter, but protracted periods of clear, sunny weather are the rule in summer. Ice storms are practically unknown.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is October 9 and the average last occurrence in the spring is May 8.

STATION LOCATION

BOISE, IDAHO

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE											REMARKS					
						SEA LEVEL	GROUND															
							WIND	EMERGENCY	ROOF	SHOULDER	RAILROAD	WHEEL	8	HO	HO	HO						
COOPERATIVE Post Hospital Fort Boise	2/1/64	7/1/77	NA	43° 37'	116°11'	2800	Unk															No extreme thermometer until maximum installed January 1872.
CITY Overland Hotel, NW Corner 8th & Main Sts.	7/1/77	9/1/80	0.75 mi. WSW	43° 37'	116°12'	2705	Unk	Unk														Thermometer in standard window shelter, north side of building through 1887.
Davis Building adjoining Overland Hotel (probably West)	9/1/80	1/1/88		43° 37'	116°12'	2705	Unk	Unk														Thermometers in roof shelter.
Perrault Building 7th & Main, SE corner	1/1/88	6/30/90	300 ft. ESE	43° 37'	116°12'	2707	Unk	Unk														Thermometers in roof shelter.
COOPERATIVE Boise Barracks (Fort Boise) Office of Surgeon	7/1/90	11/30/98	0.75 mi. ENE	43° 37'	116°11'	2815	Unk	Unk														Possibly window shelter on north side of surgeon's residence.
CITY Sonna Building 910-1/2 Main Street	12/1/98	3/16/05	0.75 mi. WSW	43° 37'	116°12'	2703	68	61	61				51			51						Wind may have been affected by Idaho Hotel.
Federal Building N corner 8th & Bancroft	3/16/05	6/30/39	0.25 mi. NE	43° 37'	116°12'	2713	87	78	78	Roof			72			72						
AIRPORT Old Boise Airport on Boise Junior College Campus	10/13/31	12/18/39	NA	43° 36'	116°12'	2699	52 c30	NA a4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	a - Installed spring 1932. b - Installed fall 1937. c - Effective 7/1/39.
Boise Air Terminal 3.5 mi. SSW of P.O.	12/19/39	6/4/69	2.5 mi. SSW	43° 34'	116°13'	2841 j2836	49 e56 g38 h120	5 g7 m6 q	5	NA d48 e55 h53 i30	3 q	5 p4 r30	3 n	NA k4	NA	NA	NA	NA	NA	NA	NA	d - Installed 1942 e - Effective 10/1/51. f - Effective 12/5/53. g - Effective 7/17/54. h - Effective 12/8/55. i - Effective 8/5/58. j - Effective 10/1/59. k - Commissioned 1225; W of thermometer site 10/1/59. l - Effective 8/21/64. m - Removed prior to 12/1965. n - Effective 4/18/68. o - Removed 4/18/68. p - Effective 8/20/68.
Boise Air Terminal Gowen Field	6/5/69	12/01/95	0.5 mi. E	43° 34'	116°13'	2838 s20	NA t5	NA t5	53 u6	3	5	3	4 v4	NA	NA	NA	NA	NA	NA	NA	NA	s - Not moved 6/5/69. t - Installed 6/10/69. u - Moved to ground 8/3/70. v - Type change 8/9/85.
Boise Air Terminal Gowen Field	12/01/95	Present	NA	43°34'	116°13'	2872																ASOS Commissioned 12/01/95

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

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