

1999

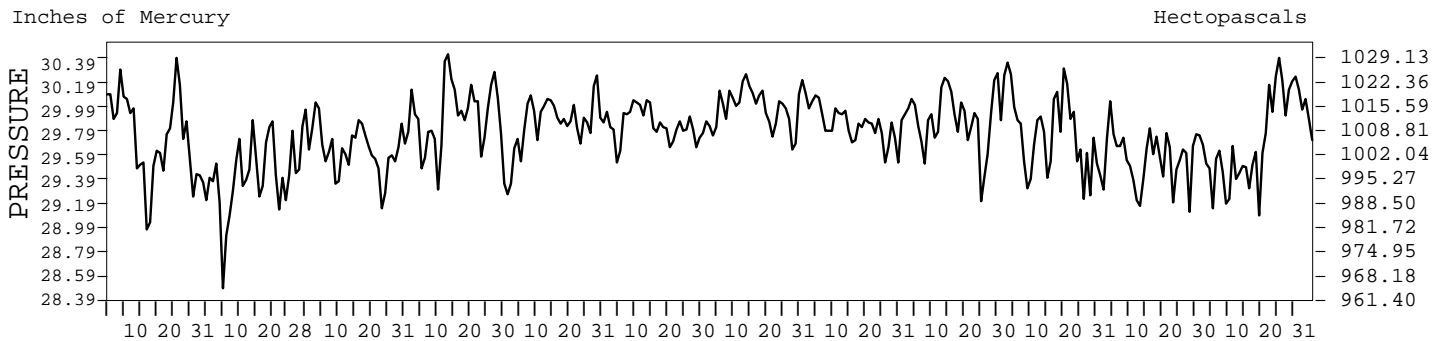
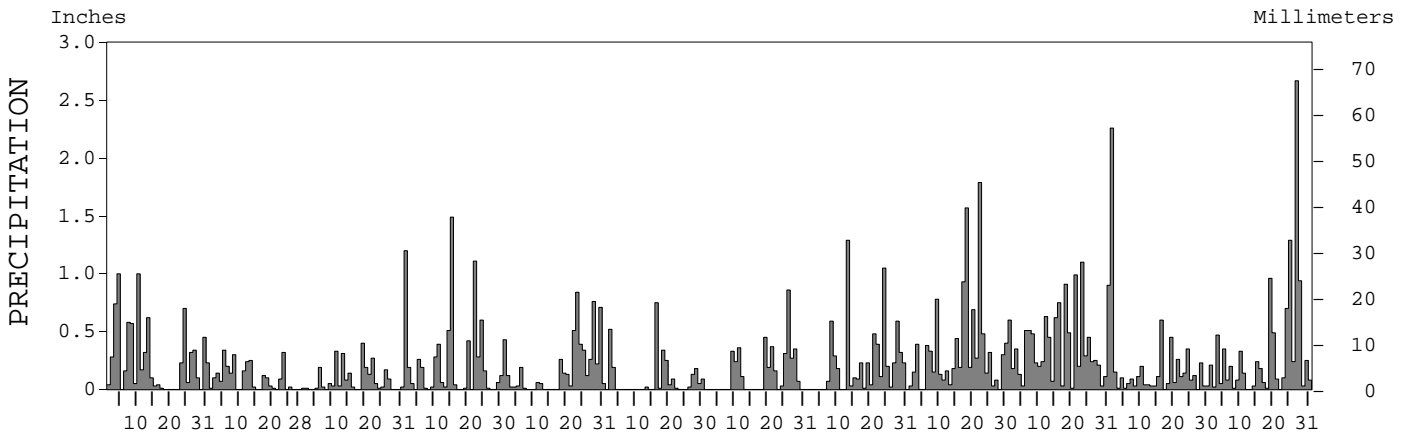
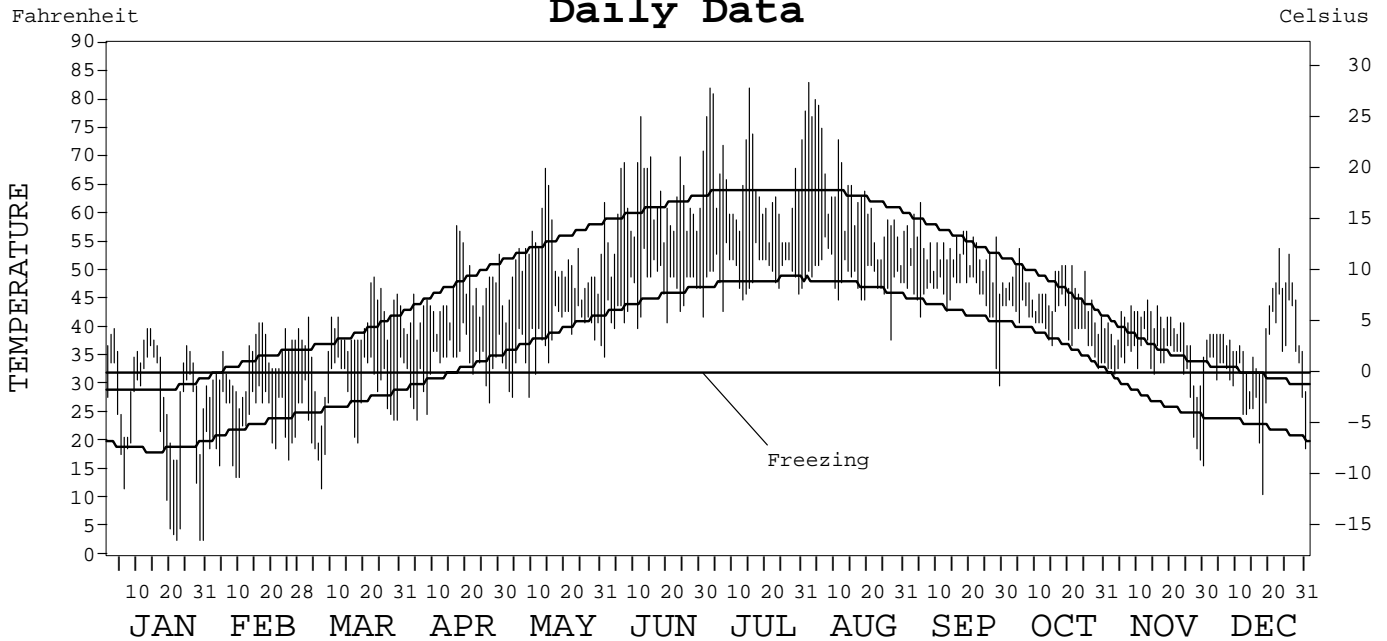
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0197-9760

JUNEAU,
ALASKA (JNU)

Daily Data



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Thomas R. Karl

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
 NATIONAL ENVIRONMENTAL AND INFORMATION SERVICE
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 ASHEVILLE, NORTH CAROLINA

METEOROLOGICAL DATA FOR 1999

JUNEAU, AK (JNU)

LATITUDE: 58° 21' 18" N LONGITUDE: 134° 34' 30" W ELEVATION (FT): GRND: 19 BARO: 19 TIME ZONE: ALASKA (UTC + 9) WBAN: 25309

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	31.0	34.2	38.8	45.6	51.6	61.7	65.4	63.8	53.7	46.7	39.7	39.4	47.6	
	HIGHEST DAILY MAXIMUM	40	41	49	58	68	77	82	83	62	54	45	54	83	
	DATE OF OCCURRENCE	14+	17+	23	17	14	12	15+	02	05	05	13	23	AUG 02	
	MEAN DAILY MINIMUM	22.1	23.0	27.4	33.3	38.0	45.9	49.4	48.9	45.6	40.3	32.5	32.3	36.6	
	LOWEST DAILY MINIMUM	3	14	12	24	28	35	42	38	30	33	16	11	3	
	DATE OF OCCURRENCE	30+	10+	07	05	09+	01	01	27	29	29	30	18	JAN 30+	
	AVERAGE DRY BULB	26.6	28.6	33.1	39.5	44.8	53.8	57.4	56.4	49.7	43.5	36.1	35.9	42.1	
	MEAN WET BULB	26.3	27.9	31.5	37.8	42.5	50.9	54.0	53.9	48.4	42.5	35.4	35.2	40.5	
	MEAN DEW POINT	23.9	24.7	28.6	35.3	39.0	48.0	51.0	51.9	47.4	41.2	33.9	33.3	38.2	
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 70°	0	0	0	0	0	3	9	7	0	0	0	0	0	19
	MAXIMUM ≤ 32°	14	11	4	0	0	0	0	0	0	0	3	5	37	
	MINIMUM ≤ 32°	24	28	21	9	4	0	0	0	1	0	8	13	108	
	MINIMUM ≤ 0°	0	0	0	0	0	0	0	0	0	0	0	0	0	
H/C	HEATING DEGREE DAYS	1181	1012	978	758	619	329	230	264	452	660	858	895	8236	
	COOLING DEGREE DAYS	0	0	0	0	0	0	2	3	0	0	0	0	5	
RH	MEAN (PERCENT)	88	83	84	86	81	81	82	86	93	92	91	89	86	
	HOUR 03 LST	87	87	91	95	91	93	93	95	96	92	92	89	92	
	HOUR 09 LST	89	85	87	85	80	82	83	86	93	91	92	90	87	
	HOUR 15 LST	88	76	73	76	69	68	69	77	86	91	88	90	79	
	HOUR 21 LST	89	87	87	91	86	83	81	87	94	92	90	88	88	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	0	1	1	1	0	1	0	1	3	1	6	0	15	
	THUNDERSTORMS	0	0	0	0	0	0	0	0	0	0	1	1	1	
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.)	29.75	29.44	29.69	29.96	29.88	29.88	30.03	29.89	29.95	29.77	29.59	29.77	29.80	
	MEAN SEA-LEVEL PRESS. (IN.)	29.77	29.52	29.70	29.97	29.90	29.90	30.05	29.90	29.97	29.79	29.61	29.79	29.82	
WINDS	RESULTANT SPEED (MPH)	7.1	5.3	6.0	6.7	7.2	1.8	2.4	4.9	7.7	10.2	7.2	9.9	6.3	
	RES. DIR. (TENS OF DEGS.)	10	11	11	11	11	13	11	11	10	11	10	11	11	
	MEAN SPEED (MPH)	7.9	6.9	7.9	8.8	9.3	6.3	6.7	7.5	8.9	11.2	8.2	10.9	8.4	
	PREVAIL. DIR. (TENS OF DEGS.)	09	09	11	12	12	23	09	09	08	11	11	12	11	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	36	36	32	37	36	24	24	38	37	41	43	44	44	
	DIR. (TENS OF DEGS.)	12	12	12	11	12	12	12	12	12	12	11	11	11	
	DATE OF OCCURRENCE	26	23	10	01	06	27	11+	28	22	16	01	23	DEC 23	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	40	43	38	48	47	28	30	48	45	51	54	54	54	
DIR. (TENS OF DEGS.)	12	12	12	12	15	12	13	13	12	12	12	12	12		
DATE OF OCCURRENCE	26+	23	09	01	06	27	11	28	22	16	01	23	DEC 23		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	8.14	2.66	2.58	7.48	5.69	2.69	4.10	6.77	10.62	12.19	5.77	10.30	78.99	
	GREATEST 24-HOUR (IN.)	1.02	0.44	0.41	1.87	0.99	0.75	0.86	1.32	1.97	1.26	2.26	2.95	2.95	
	DATE OF OCCURRENCE	03-04	05-06	19-20	14-15	23-24	16	26	13-14	21-22	15-16	01	27-28	DEC 27-28	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	24	19	23	23	23	15	14	22	27	31	28	28	277	
PRECIPITATION ≥ 0.10	18	12	9	14	15	7	12	16	22	26	14	17	182		
PRECIPITATION ≥ 1.00	2	0	0	3	0	0	0	2	2	1	1	2	13		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	53.1	34.2	7.3	1.1	T	0.0	0.0	0.0	0.0	T	5.1	19.9	120.7	
	GREATEST 24-HOUR (IN.)	7.6	6.4	3.7	0.5	T	0.0	0.0	0.0	0.0	T	3.7	5.6	7.6	
	DATE OF OCCURRENCE	24	08	06	02	03+					31+	28	19	JAN 24	
	MAXIMUM SNOW DEPTH (IN.)	20	32	23	8	0	0	0	0	0	0	4	8	32	
	DATE OF OCCURRENCE	31	08	08	01							30+	19	FEB 08	
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	11	11	2	0	0	0	0	0	0	0	1	6	31		

NORMALS, MEANS, AND EXTREMES

JUNEAU, AK (JNU)

LATITUDE: 58° 21' 18" N LONGITUDE: 134° 34' 30" W ELEVATION (FT): GRND: 19 BARO: 19 TIME ZONE: ALASKA (UTC + 9) WBAN: 25309

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	29.4	34.1	38.7	47.2	55.1	60.9	63.9	62.7	55.9	47.1	36.7	31.6	46.9
	MEAN DAILY MAXIMUM	50	28.9	34.0	38.7	47.3	55.3	61.7	64.0	62.8	56.1	47.0	37.6	32.4	47.2
	HIGHEST DAILY MAXIMUM	55	57	57	61	72	82	86	90	83	73	61	56	54	90
	YEAR OF OCCURRENCE		1958	1992	1998	1995	1947	1969	1975	1999	1996	1987	1949	1999	JUL 1975
	MEAN OF EXTREME MAXS.	50	42.4	43.9	48.2	59.4	69.8	76.0	78.5	75.5	65.7	55.6	48.1	43.9	58.9
	NORMAL DAILY MINIMUM	30	19.0	22.7	26.7	32.1	38.9	45.0	48.1	47.3	42.9	37.2	27.2	22.6	34.1
	MEAN DAILY MINIMUM	50	18.2	22.6	26.3	32.4	39.3	45.3	48.3	47.4	43.1	37.0	28.5	23.3	34.3
	LOWEST DAILY MINIMUM	55	-22	-22	-15	6	25	31	36	27	23	11	-5	-21	-22
	YEAR OF OCCURRENCE		1972	1968	1972	1963	1972	1971	1950	1948	1972	1984	1966	1949	JAN 1972
	MEAN OF EXTREME MINS.	50	-1.1	4.6	10.2	23.4	30.0	37.1	41.5	39.1	31.8	24.6	12.1	2.9	21.4
	NORMAL DRY BULB	30	24.2	28.4	32.7	39.7	47.0	53.0	56.0	55.0	49.4	42.2	32.0	27.1	40.6
	MEAN DRY BULB	50	23.7	28.3	32.6	39.9	47.2	53.5	56.1	55.1	49.6	42.0	33.1	27.9	40.8
	MEAN WET BULB	12	26.5	28.1	32.5	38.8	44.9	50.4	49.7	49.2	45.1	38.4	30.3	27.9	38.5
	MEAN DEW POINT	12	23.9	24.0	28.5	34.6	40.6	46.7	47.0	46.8	43.6	36.5	28.1	25.9	35.5
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 70°	30	0.0	0.0	0.0	0.1	1.4	5.1	7.2	5.7	0.2	0.0	0.0	0.0	19.7	
MAXIMUM ≤ 32°	30	16.3	8.7	4.3	0.1	0.0	0.0	0.0	0.0	0.0	0.3	6.8	12.9	49.4	
MINIMUM ≤ 32°	30	25.4	21.8	22.0	14.4	3.5	0.1	0.0	*	1.4	7.2	19.1	23.9	138.8	
MINIMUM ≤ 0°	30	4.7	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.8	8.7	
H/C	NORMAL HEATING DEG. DAYS	30	1265	1025	1001	759	558	360	279	310	468	707	990	1175	8897
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	0	0	0	0	0	0	0	0	0
RH	NORMAL (PERCENT)	30	80	81	79	77	76	78	81	84	88	88	85	83	82
	HOUR 03 LST	30	81	83	86	87	89	90	90	92	93	91	87	84	88
	HOUR 09 LST	30	80	82	80	76	76	78	82	85	88	89	86	83	82
	HOUR 15 LST	30	77	75	70	63	63	67	72	75	79	82	81	82	74
	HOUR 21 LST	30	81	82	82	80	78	78	81	85	91	90	87	83	83
S	PERCENT POSSIBLE SUNSHINE	33	32	32	37	39	39	34	31	32	26	19	23	20	30
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	55	2.1	2.3	1.8	1.0	0.8	0.3	0.2	1.1	2.6	2.8	3.2	2.4	20.6
	THUNDERSTORMS	55	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.3
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	47	6.2	6.4	6.4	6.4	6.3	6.5	6.6	6.3	6.8	7.0	6.7	6.7	6.5
	MIDNIGHT-MIDNIGHT (OKTAS)	15	5.2	5.7	6.1	5.9	6.3	6.1	6.2	5.9	6.4	6.6	6.0	6.1	6.0
	MEAN NO. DAYS WITH:														
	CLEAR	47	5.7	4.3	4.4	3.7	3.8	3.4	2.8	3.9	2.7	2.4	3.3	3.2	43.6
PARTLY CLOUDY	47	2.6	3.0	3.2	4.2	4.4	4.2	4.5	4.7	3.3	2.1	2.3	2.0	40.5	
CLOUDY	47	22.5	21.0	23.4	22.1	22.6	22.4	23.0	21.9	23.4	26.0	24.0	25.2	277.5	
PR	MEAN STATION PRESSURE (IN)	14	29.89	29.87	29.79	29.90	29.90	29.99	30.01	29.99	29.90	29.80	29.78	29.81	29.89
	MEAN SEA-LEVEL PRES. (IN)	2	29.89	29.87	29.81	29.92	29.93	29.99	30.06	29.99	29.95	29.81	29.78	29.84	29.90
WINDS	MEAN SPEED (MPH)	33	7.7	8.3	8.0	8.5	8.2	7.9	7.6	7.5	7.9	9.3	8.7	9.0	8.2
	PREVAIL. DIR (TENS OF DEGS)	18	09	11	11	11	11	11	10	09	11	11	11	11	11
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	1	36	36	32	37	36	24	24	38	37	41	43	44	44
	DIR. (TENS OF DEGS)		12	12	12	11	12	12	12	12	12	12	11	11	11
	YEAR OF OCCURRENCE		1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	DEC 1999
	MAXIMUM 5-SECOND:														
SPEED (MPH)	1	40	43	38	48	47	28	30	48	45	51	54	54	54	
DIR. (TENS OF DEGS)		12	12	12	12	15	12	13	13	12	12	12	12	12	
YEAR OF OCCURRENCE		1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	DEC 1999	
PRECIPITATION	NORMAL (IN)	30	4.54	3.75	3.28	2.77	3.42	3.15	4.16	5.32	6.73	7.84	4.91	4.44	54.31
	MAXIMUM MONTHLY (IN)	55	9.11	8.48	6.50	7.48	9.20	6.22	10.36	12.31	15.14	15.25	11.22	13.61	15.25
	YEAR OF OCCURRENCE		1993	1964	1994	1999	1992	1996	1997	1961	1991	1974	1956	1997	OCT 1974
	MINIMUM MONTHLY (IN)	55	0.94	0.07	0.59	0.27	1.25	1.08	1.15	0.56	2.34	2.71	1.15	0.49	0.07
	YEAR OF OCCURRENCE		1969	1989	1983	1948	1946	1950	1972	1979	1965	1950	1983	1983	FEB 1989
	MAXIMUM IN 24 HOURS (IN)	55	2.74	2.71	1.81	2.05	2.30	2.26	2.14	2.62	3.35	4.66	3.40	3.56	4.66
	YEAR OF OCCURRENCE		1948	1993	1992	1997	1992	1996	1997	1974	1996	1946	1988	1956	OCT 1946
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	18.1	16.5	17.9	16.7	16.8	15.9	16.1	17.3	20.0	23.7	19.2	20.2	218.4	
PRECIPITATION ≥ 1.00	30	0.6	0.4	0.1	0.1	0.2	0.2	0.2	0.6	0.8	1.3	1.2	0.8	6.7	
SNOWFALL	NORMAL (IN)	30	30.6	18.6	15.4	3.5	0.*	0.0	0.0	0.0	T	0.9	13.3	22.2	104.5
	MAXIMUM MONTHLY (IN)	55	69.2	86.3	52.6	46.3	1.2	T	0.0	0.0	T	15.6	69.8	54.7	86.3
	YEAR OF OCCURRENCE		1982	1965	1948	1963	1964	1970			1974	1956	1994	1964	FEB 1965
	MAXIMUM IN 24 HOURS (IN)	55	20.1	23.7	31.0	24.2	0.7	T	0.0	0.0	T	8.8	19.4	25.6	31.0
	YEAR OF OCCURRENCE		1975	1949	1948	1963	1945	1970			1974	1956	1994	1962	MAR 1948
	MAXIMUM SNOW DEPTH (IN)	49	38	41	40	33	0	0	0	0	0	7	25	36	41
	YEAR OF OCCURRENCE		1966	1949	1972	1963						1956	1994	1962	FEB 1949
NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	7.8	5.4	4.1	0.8	0.0	0.0	0.0	0.0	0.0	0.3	3.6	6.1	28.1	

PRECIPITATION (inches) 1999 JUNEAU, AK (JNU)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	2.37	3.35	4.08	3.69	3.92	2.97	5.01	7.47	9.86	5.87	2.01	2.58	53.18
1971	5.56	3.93	3.33	2.44	4.30	1.74	1.67	6.89	5.36	5.80	4.38	3.23	48.63
1972	3.73	2.71	4.19	3.62	4.03	3.98	1.15	8.62	6.24	8.49	3.35	3.56	53.67
1973	4.37	3.94	3.01	2.41	4.09	2.80	3.65	6.64	4.95	6.07	1.63	2.30	45.86
1974	2.37	6.23	1.15	2.59	1.66	4.92	3.12	5.78	5.96	15.25	7.79	7.03	63.85
1975	4.10	3.76	2.17	3.04	3.59	2.48	4.96	2.78	7.25	3.55	2.83	5.81	46.32
1976	8.19	4.82	3.61	2.14	3.42	3.37	2.48	3.16	8.32	6.19	5.15	5.56	56.41
1977	4.59	4.56	3.31	4.02	1.56	3.47	3.19	3.03	5.57	7.14	4.58	2.16	47.18
1978	1.71	1.50	1.84	2.19	2.86	3.18	3.98	4.39	3.07	13.00	3.90	4.46	46.08
1979	2.19	0.91	3.98	0.98	2.45	2.74	5.44	0.56	4.89	9.06	8.36	7.73	49.29
1980	3.44	2.83	2.75	5.32	2.53	4.37	6.49	5.61	7.91	11.26	7.10	2.27	61.88
1981	4.66	2.57	1.88	2.11	3.27	2.44	4.25	6.19	11.61	6.18	6.93	2.24	54.33
1982	3.74	1.42	2.52	2.44	5.10	1.86	1.73	5.97	5.10	7.97	2.10	1.17	41.12
1983	4.00	1.69	0.59	2.53	5.37	2.69	3.16	9.52	6.13	4.24	1.15	0.49	41.56
1984	6.06	5.40	3.75	2.11	1.84	4.17	6.92	6.26	3.39	6.69			
1985												8.33	
1986	7.00	3.25	6.08	2.98	2.54	2.76	2.38	6.89	2.40	12.33	5.96	6.42	60.99
1987	3.99	3.13	2.12	2.08	2.60	6.02	2.54	4.54	8.92	10.36	7.17	5.32	58.79
1988	2.58	6.55	4.15	2.25	3.91	2.05	5.21	5.53	5.46	9.71	8.62	4.75	60.77
1989	6.77	0.07	1.33	0.87	3.44	1.10	3.81	2.82	7.29	6.37	6.23	6.78	46.88
1990	3.72	4.54	4.86	1.06	1.72	3.32	4.65	5.35	10.63	6.59	4.89	6.03	57.36
1991	4.16	6.55	4.41	4.73	4.72	3.41	4.85	9.60	15.14	8.63	9.63	9.32	85.15
1992	8.69	7.24	6.37	3.63	9.20	2.98	5.18	5.02	11.45	5.90	7.91	5.73	79.30
1993	9.11	8.09	3.50	1.94	2.19	4.92	2.25	3.20	8.44	9.00	11.06	7.89	71.59
1994	7.05	2.52	6.50	3.68	4.20	1.83	4.32	2.68	11.17	9.15	9.57	6.22	68.89
1995	1.78	2.83	3.01	2.08	2.85	3.45	4.36	5.01	7.43	6.04	2.93	4.58	46.35
1996	2.26	8.43	4.12	2.19	1.80	6.22	3.16	7.91	10.68	6.20	2.75	4.73	60.45
1997	2.73	8.17	3.91	4.41	3.25	3.51	10.36	3.93	8.26	7.85	4.63	13.61	74.62
1998	2.54	1.90	3.71	3.12	2.21	2.50	4.95	6.80	6.17	12.13	1.72	5.45	53.20
1999	8.14	2.66	2.58	7.48	5.69	2.69	4.10	6.77	10.62	12.19	5.77	10.30	78.99
POR= 55 YRS	4.21	3.73	3.50	2.90	3.45	3.09	4.31	5.19	7.13	7.93	5.46	4.88	55.78

WBAN : 25309

AVERAGE TEMPERATURE (°F) 1999 JUNEAU, AK (JNU)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	22.0	35.1	36.5	39.1	45.3	50.7	52.3	51.7	46.3	39.6	27.8	21.6	39.0
1971	13.0	28.1	28.9	38.6	43.5	53.2	57.5	55.4	48.1	38.5	31.4	20.9	38.1
1972	15.8	19.5	26.5	34.6	44.8	50.4	58.0	55.4	47.0	38.7	34.5	23.6	37.4
1973	18.9	24.6	32.9	39.6	45.9	51.3	53.7	51.8	48.0	41.2	23.0	28.0	38.2
1974	14.8	28.8	24.7	39.3	46.8	50.2	53.5	54.7	50.1	42.5	36.4	33.8	39.6
1975	23.1	24.5	30.6	38.3	47.4	51.4	55.9	53.9	51.4	41.8	28.5	24.7	39.3
1976	28.3	25.8	32.4	41.1	45.5	52.0	55.7	55.9	50.6	42.8	40.9	34.4	42.1
1977	35.0	40.1	36.0	42.3	47.7	54.1	57.0	58.5	50.5	42.4	29.4	18.9	42.7
1978	25.1	31.8	33.9	42.0	47.8	54.2	55.2	56.3	50.6	45.1	30.3	28.3	41.7
1979	20.6	11.0	35.6	41.1	47.7	52.2	56.7	58.2	51.0	45.2	37.2	26.5	40.3
1980	19.5	33.8	34.1	42.2	49.4	55.6	55.6	54.7	49.0	44.6	38.7	21.7	41.6
1981	37.6	32.7	39.4	39.1	52.1	54.3	56.1	55.9	49.2	42.8	36.8	26.9	43.6
1982	13.8	21.3	31.8	37.1	45.4	56.3	57.7	54.8	50.3	42.2	30.6	31.6	39.4
1983	30.2	31.8	34.8	42.6	49.7	55.6	57.1	54.6	48.0	42.1	31.8	18.9	41.4
1984	32.0		39.6	43.1	49.1	53.5	55.5	55.3	50.0	40.5			
1985												32.5	
1986	34.3	28.7	35.3	37.3	46.6	54.3	56.8	54.4	50.7	45.8	30.5	36.0	42.6
1987	33.1	34.7	31.8	41.6	47.8	51.6	58.6	57.5	50.1	44.4	40.0	34.3	43.8
1988	27.0	32.6	37.6	41.7	48.5	54.0	53.8	53.9	48.2	44.1	36.2	31.3	42.4
1989	25.5	23.9	29.4	42.7	49.0	55.4	60.1	58.2	52.4	41.7	32.9	36.0	42.3
1990	26.4	25.1	36.4	42.7	49.7	55.0	59.3	58.1	51.2	40.7	26.4	23.7	41.2
1991	24.9	35.3	33.1	41.7	48.2	55.0	55.2	55.0	50.3	40.1	36.3	33.6	42.4
1992	35.7	32.7	36.9	41.1	46.4	55.2	57.0	56.0	46.8	40.5	38.4	25.6	42.7
1993	24.5	30.2	35.8	44.4	52.1	55.8	59.6	57.1	51.2	45.8	36.8	35.9	44.1
1994	27.7	18.4	36.7	43.3	48.1	54.9	57.4	59.3	50.2	43.3	29.4	27.7	41.4
1995	27.2	29.0	30.3	43.4	51.4	55.4	57.0	54.8	53.8		32.4	25.2	
1996	16.6	29.0	32.8	40.7	48.7	54.1	57.7	54.7	48.9	40.2	31.3	26.5	40.1
1997	26.1	35.3	31.5	41.5	51.5	56.6	58.2	58.8	53.3	41.4	37.3	36.7	44.0
1998	24.5	37.1	35.0	42.4	50.1	55.9	57.5	54.2	49.4	42.8	33.1	27.9	42.5
1999	26.6	28.6	33.1	39.5	44.8	53.8	57.4	56.4	49.7	43.5	36.1	35.9	42.1
POR= 55 YRS	24.2	28.1	32.6	39.6	47.4	53.5	56.0	54.9	49.5	42.0	33.0	28.0	40.7

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HEATING DEGREE DAYS (base 65°F) 1999 JUNEAU, AK (JNU)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	387	405	553	783	1110	1343	1607	1029	1112	784	658	346	10117
1971-72	227	290	504	811	1001	1360	1519	1315	1186	906	618	432	10169
1972-73	207	293	535	810	907	1275	1423	1126	986	752	584	404	9302
1973-74	343	404	505	732	1253	1143	1550	1006	1242	765	556	437	9936
1974-75	349	315	437	690	851	957	1296	1129	1063	791	541	402	8821
1975-76	281	337	402	712	1088	1244	1132	1131	1006	706	597	384	9020
1976-77	280	275	427	679	717	938	918	690	893	673	531	320	7341
1977-78	243	196	428	695	1062	1423	1233	922	954	683	525	317	8681
1978-79	298	262	427	612	1037	1134	1370	1505	904	712	528	378	9167
1979-80	251	205	415	609	830	1187	1404	895	949	678	477	278	8178
1980-81	283	308	472	628	783	1333	843	899	786	772	392	316	7815
1981-82	269	275	469	682	841	1175	1579	1214	1021	830	601	257	9213
1982-83	220	310	435	699	1027	1029	1073	924	931	663	470	275	8056
1983-84	237	317	502	701	991	1423	1014		780	649	486	338	
1984-85	286	291	444	754									
1985-86						1001	943	1011	913	822	564	316	
1986-87	249	319	423	587	1028	891	982	841	1020	697	526	394	7957
1987-88	199	222	440	635	744	944	1169	935	844	691	508	324	7655
1988-89	338	338	497	641	855	1040	1217	1144	1097	663	491	283	8604
1989-90	159	210	370	713	959	890	1191	1109	879	661	467	295	7903
1990-91	180	210	407	748	1152	1274	1238	823	981	694	516	298	8521
1991-92	294	303	435	764	855	966	902	930	865	712	571	292	7889
1992-93	240	274	540	750	791	1217	1250	966	899	612	394	271	8204
1993-94	166	240	406	588	838	891	1147	1298	869	641	514	299	7897
1994-95	229	171	437	668	1061	1150	1165	1003	1066	641	416	285	8292
1995-96	241	309	329		971	1229	1493	1038	993	719	498	322	
1996-97	218	312	476	764	1004	1187	1196	826	1031	698	414	252	8378
1997-98	203	183	345	725	823	869	1247	776	926	673	457	266	7493
1998-99	224	331	463	681	951	1141	1181	1012	978	758	619	329	8668
1999-	230	264	452	660	858	895							

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COOLING DEGREE DAYS (base 65°F) 1999 JUNEAU, AK (JNU)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0	0	0	0	0	0	0	0	0	0	0	0	0
1971	0	0	0	0	0	0	0	0	0	0	0	0	0
1972	0	0	0	0	0	0	0	0	0	0	0	0	0
1973	0	0	0	0	0	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	7	0	0	0	0	0	7
1976	0	0	0	0	0	0	3	3	0	0	0	0	6
1977	0	0	0	0	0	0	0	1	0	0	0	0	1
1978	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	1	0	0	0	0	1
1980	0	0	0	0	0	1	0	0	0	0	0	0	1
1981	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	2	0	0	0	0	0	0	2
1983	0	0	0	0	0	0	0	0	0	0	0	0	0
1984	0	0	0	0	0	0	0	0	0	0	0	0	0
1985												0	
1986	0	0	0	0	0	2	0	0	0	0	0	0	2
1987	0	0	0	0	0	0	5	0	0	0	0	0	5
1988	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	14	0	0	0	0	0	14
1990	0	0	0	0	0	1	8	3	0	0	0	0	12
1991	0	0	0	0	0	6	0	0	0	0	0	0	6
1992	0	0	0	0	0	6	0	0	0	0	0	0	6
1993	0	0	0	0	0	0	5	0	0	0	0	0	5
1994	0	0	0	0	0	0	0	2	0	0	0	0	2
1995	0	0	0	0	0	1	0	0	0	0	0	0	
1996	0	0	0	0	0	0	2	0	0	0	0	0	2
1997	0	0	0	0	0	6	0	0	0	0	0	0	6
1998	0	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	2	3	0	0	0	0	5

SNOWFALL (inches) 1999 JUNEAU, AK (JNU)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	0.0	0.0	T	0.4	24.3	26.2	51.0	21.5	50.6	1.1	T	0.0	175.1
1971-72	0.0	0.0	0.0	6.9	20.5	37.1	45.1	31.1	27.1	10.3	0.0	0.0	178.1
1972-73	0.0	0.0	0.0	2.2	2.8	31.6	63.8	20.9	9.6	0.5	0.0	0.0	131.4
1973-74	0.0	0.0	0.0	T	18.6	15.7	36.0	32.8	15.3	0.5	0.0	0.0	118.9
1974-75	0.0	0.0	T	0.9	3.5	17.3	41.5	16.5	18.9	4.5	0.0	0.0	103.1
1975-76	0.0	0.0	0.0	5.3	32.5	51.0	32.9	34.1	25.5	2.3	0.0	0.0	183.6
1976-77	0.0	0.0	0.0	1.2	1.1	26.3	5.0	T	12.7	T	0.0	0.0	46.3
1977-78	0.0	0.0	0.0	T	27.4	16.6	5.2	1.1	1.7	0.4	0.0	0.0	52.4
1978-79	0.0	0.0	0.0	0.0	14.9	21.6	24.2	21.4	5.4	T	0.0	0.0	87.5
1979-80	0.0	0.0	0.0	0.0	1.6	48.4	41.6	4.1	2.4	T	0.0	0.0	98.1
1980-81	0.0	0.0	0.0	0.0	0.5	40.5	2.4	16.4	0.5	2.2	0.0	0.0	62.5
1981-82	0.0	0.0	0.0	0.0	4.0	6.0	69.2	29.6	8.4	1.1	T	0.0	118.3
1982-83	0.0	0.0	0.0	2.0	0.4	10.8	40.1	15.7	0.2	T	0.0	0.0	69.2
1983-84	0.0	0.0	0.0	0.0	8.1	13.3	43.1	0.7	1.0	T	T	0.0	66.2
1984-85	0.0	0.0	0.0	0.0									
1985-86						2.0	10.3	7.4	30.4	4.4	T	0.0	
1986-87	0.0	0.0	0.0	T	22.1	1.4	3.3	1.4	7.3	T	0.0	0.0	35.5
1987-88	0.0	0.0	0.0	T	4.6	6.8	3.5	8.0	1.0	0.5	0.0	0.0	24.4
1988-89	0.0	0.0	0.0	0.0	4.8	11.3	44.7	0.2	10.0	T	0.0	0.0	71.0
1989-90	0.0	0.0	0.0	0.6	32.5	6.4	36.5	39.4	0.6	0.0	0.0	0.0	116.0
1990-91	0.0	0.0	0.0	0.0	48.8	33.2	31.8	15.5	9.4	0.8	T	0.0	139.5
1991-92	0.0	0.0	0.0	5.4	7.7	49.3	14.3	12.4	4.1	T	T	0.0	93.2
1992-93	0.0	0.0	0.0	1.1	4.4	25.0	32.5	36.8	2.6	T	0.0	0.0	102.4
1993-94	0.0	0.0	0.0	0.0	4.3	10.4	61.2	32.4	22.9	T	0.0	0.0	131.2
1994-95	0.0	0.0	0.0	0.0	69.8	25.8	8.6	14.0	28.4	T	0.0	0.0	146.6
1995-96	0.0	0.0	0.0	0.0	2.9	23.0	20.8	33.1	5.5	T	0.0	0.0	85.3
1996-97	0.0	0.0	0.0	0.5	2.5	4.6	12.3	17.3	19.2	0.4	0.0	0.0	56.8
1997-98	0.0	0.0	0.0	1.9	1.2	14.9	12.9	0.5					
1998-99						22.8	53.1	34.2	7.3	1.1	T	0.0	
1999-	0.0	0.0	0.0	T	5.1	19.9							
POR= 53 YRS	0.0	0.0	T	1.0	12.6	22.6	25.7	19.0	14.8	3.1	0.0	T	98.8

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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
JUNEAU,
ALASKA (JNU)

Juneau lies well within the area of maritime influences which prevail over the coastal areas of southeastern Alaska, and is in the path of most storms that cross the Gulf of Alaska. Consequently, the area has little sunshine, generally moderate temperatures, and abundant precipitation. In contrast with the characteristic lack of sunshine there are greatly appreciated intervals, sometimes lasting for several days at a stretch, during which clear skies prevail. The rugged terrain exerts a fundamental influence upon local temperatures and the distribution of precipitation, creating considerable variations in both weather elements within relatively short distances.

Temperature variations, both daily and seasonal, are usually confined to relatively narrow limits by the dominant maritime influences. There are, however, periods of comparatively severe cold, which usually start with strong northerly winds, and are most often caused by the flow of cold air from northwestern Canada through nearby mountain passes and over the Juneau ice field. These are generally of brief duration. During such periods strong, gusty winds, known locally as Taku Winds, often occur especially in downtown Juneau, Douglas, and other local areas, but generally they are not felt in the Mendenhall Valley. At times these are strong enough to cause considerable damage. During periods of calm or light winds, temperature differences within short distances are frequently very pronounced. Variations in local sunlight and air drainage patterns produce wide differences in temperatures particularly between upland or sloping areas and areas of low, flat terrain. Juneau International Airport, located on low, flat terrain formed by the Mendenhall River delta, and in the path of drainage air from the Mendenhall Glacier, averages about 10 days a year with minimum readings below zero. Downtown Juneau, located on a sloping portion of a rugged mountain area, experiences on the average only about one day each year with minimum readings below zero. At the airport the growing season averages 146 days, from May 4 to September 28, while the downtown average is 181 days, from April 22 to October 21.

The months of February to June mark the period of lightest precipitation, with monthly averages of about 3 inches. After June the monthly amounts increase gradually, reaching an average of 7.71 inches in October. Due to the rugged topography, precipitation throughout the year tends to vary greatly within short distances. At the Juneau Airport, yearly precipitation is 53 inches while downtown, only 8 miles away, it is 93 inches. The maximum yearly amount received in the city is almost double the maximum received at the airport.

Although a trace of snow has fallen as early as September 9, first falls usually occur in the latter part of October, and sometimes not until the first part of December. On the average there is very little accumulation on the ground at low levels until the last of November, although at higher elevations, and particularly on mountain tops, a cover is usually established in early October. Snow accumulation usually reaches its greatest depth during the middle of February. Individual storms may produce heavy falls as late as the first half of May. However, snow cover is usually gone before the middle of April. Ice accumulations due to alternating thawing and freezing of snow or due to freezing precipitation are frequent problems in the Juneau area during the winter months.

STATION LOCATION

JUNEAU, ALASKA

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE											AUC T O M A T I C H E I G H T I N F E E T * *	* Type M = AMOS T = AUTOB S = ASOS W = AWOS	REMARKS	
						SEA LEVEL	GROUND													
							G R O U N D L E V E L	W I N D I N D I C A T O R I E S	E M E R G E N C Y E L E V A T I O N	E M E R G E N C Y E L E V A T I O N	P R E S E N T E L E V A T I O N	S U R F A C E E L E V A T I O N	T E R R A I N C O V E R E D E L E V A T I O N	R A I N G A G E E L E V A T I O N	W E E T I N G A G E E L E V A T I O N	8 I N C H R A N G A G E E L E V A T I O N				H I G H W A T E R L E V E L
<u>COOPERATIVE</u>																				
113 5th Street	6/2/16	1/1/17	NA	58°18'	134°24'	80		6												
<u>CITY</u>																				
224 E 4th Street	1/1/17	5/1/22	NA	58°18'	134°24'		49		11											
7th and Franklin Sts.	5/2/22	7/1/28	1400 ft. NW	58°18'	134°25'		54		11											
McKanna House W 7th Street	7/2/28	2/10/31	800 ft. WSW	58°18'	134°25'		50		11											
Federal Building 4th & Main Streets	2/11/31	Present	750 ft. SE	58°18'	134°24'	80	116		96											Cooperative station after 7/1/43.
Wea. Svc. Forecast Off. Federal Office Building	12/17/73	Present	7.1 mi. SE of Airport	58°18'	134°25'		216													WSFO moved from Airport.
<u>AIRPORT</u>																				
Juneau Airport	7/1/43	4/15/59	8 mi. NW	58°22'	134°35'	15	34	6	6	a	Unk	4	c	b5	4					a - Height unknown. b - Out of service 8/31/52-8/22/56 c - Removed 8/22/56 d - Commissioned 390 feet SSE of thermometer site 9/19/64. e - Effective 9/19/64. f - Minor relocation 10/15/67. g - Removed 12/1977.
Administration Building Municipal Airport	4/16/59	6/14/79	500 ft. SSE	58°22'	134°35'	17	37	6	6	17	73	NA	4	f6	4	d5	NA			
Federal Aviation Admin. International Airport	6/14/79	11/1/84	Not Moved	58°22'	134°35'	12	37	6	5	15	NA	3	j4	NA	NA	5	NA			WSO closed. Observations by FAA in same location. FAA operations reduced 11/1/84 to 12/1/85. 1985 annual not published. h - Moved to roof 11/13/84. i - Removed 11/1984. j - Reinstalled 9/1/85. k - Minor move 4/7/86. m - Installed 4/7/86. n - Lowered 11/14/86.
Juneau International AP	03/01/98	Present	NA	58°21'	134°35'	19														S ASOS Commissioned 03/01/98

SUBSCRIPTION: Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801.
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