

2003

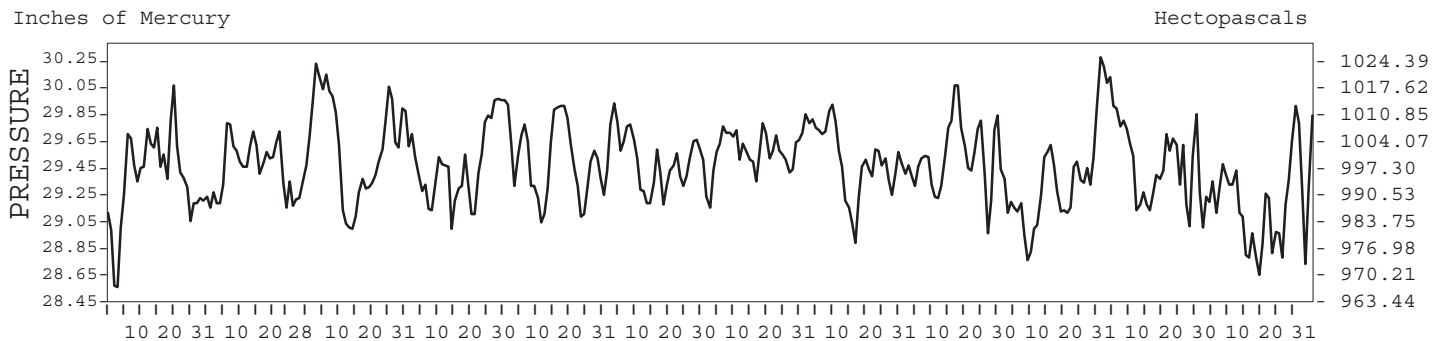
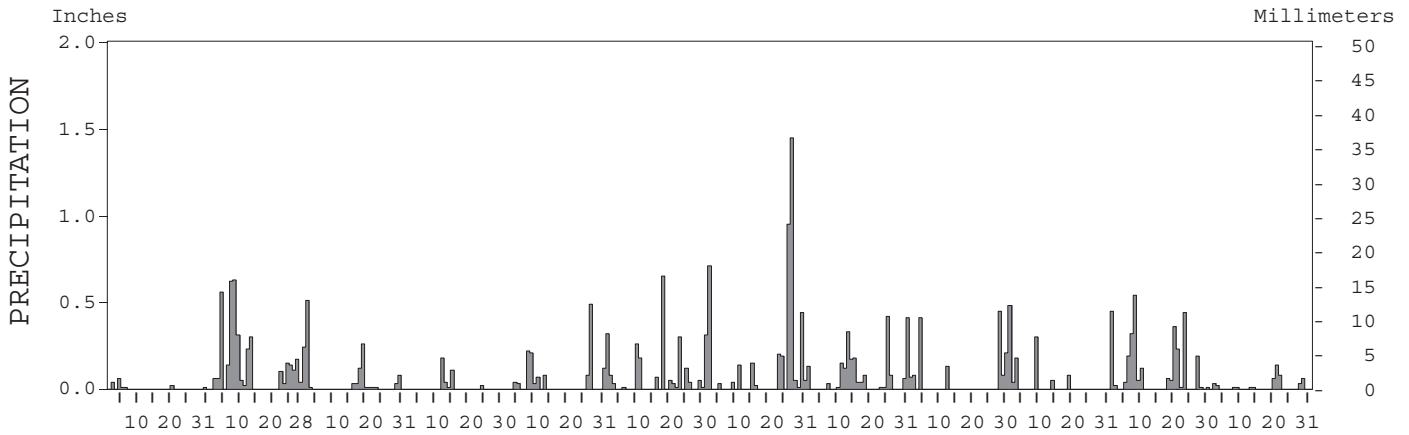
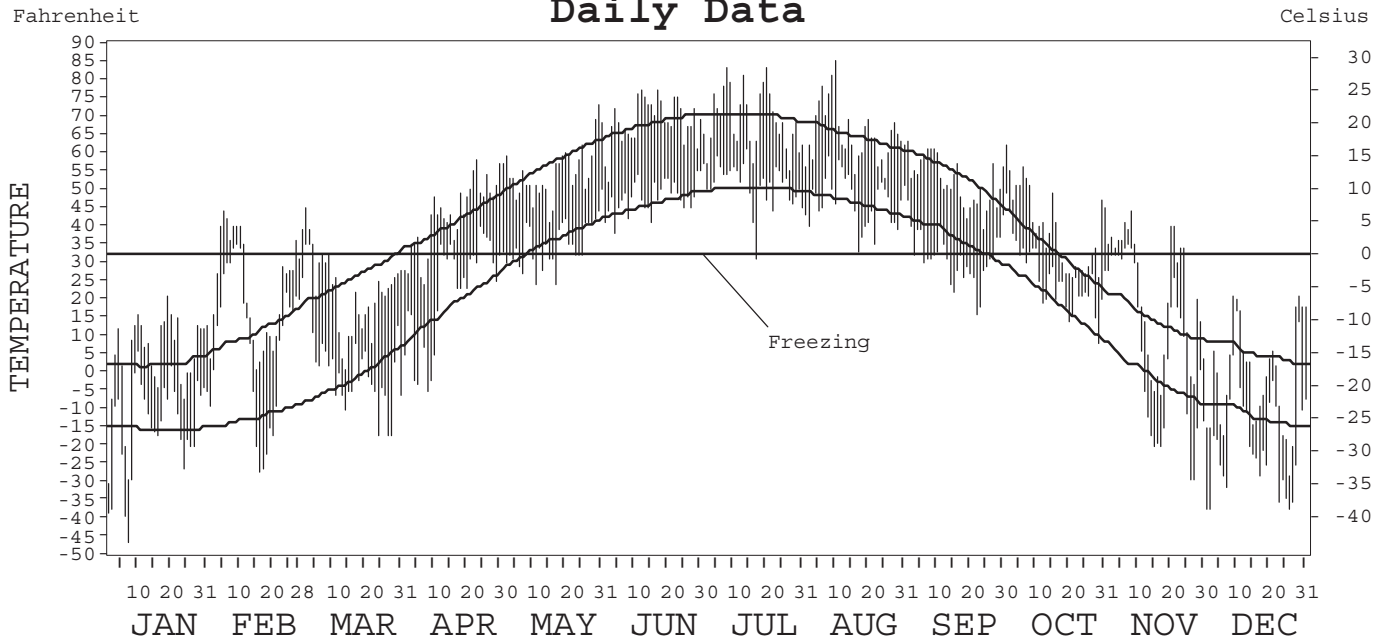
LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0197-9841

MCGRATH, ALASKA (MCG)

Daily Data



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

METEOROLOGICAL DATA FOR 2003

MC GRATH, AK (MCG)

LATITUDE: 62° 57' 12" N LONGITUDE: 155° 36' 12" W ELEVATION (FT.): GRND: 336 BARO: 339 TIME ZONE: ALASKA (UTC + 9) WBAN: 26510

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	4.1	23.2	22.5	42.7	54.7	68.5	69.0	65.1	52.0	39.2	21.2	-1.1	38.4	
	HIGHEST DAILY MAXIMUM	21	44	45	58	73	77	83	85	63	62	44	21	85	
	DATE OF OCCURRENCE	19	05	02	23	30	17+	20+	10	01	01	08	29+	AUG 10	
	MEAN DAILY MINIMUM	-14.4	8.4	1.8	21.9	34.9	47.8	51.2	46.5	31.5	26.2	6.6	-18.0	20.4	
	LOWEST DAILY MINIMUM	-46	-27	-17	-5	24	38	31	33	16	8	-29	-37	-46	
	DATE OF OCCURRENCE	07	16	28+	08	17+	04	17	17	22	29	27+	26+	JAN 07	
	AVERAGE DRY BULB	-5.1	15.8	12.2	32.3	44.8	58.2	60.1	55.8	41.8	32.7	13.9	-9.5	29.4	
	MEAN WET BULB		15.4	10.8	29.9	41.7	52.4	53.9	51.8	37.8	31.3	13.4			
	MEAN DEW POINT		12.2	2.1	24.0	37.0	46.5	48.4	48.2	31.4	28.8	10.3			
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 70°	0	0	0	0	1	13	14	7	0	0	0	0	0	35
	MAXIMUM ≤ 32°	31	19	27	5	0	0	0	0	0	12	17	31	142	
MINIMUM ≤ 32°	31	25	29	24	14	0	1	0	20	23	27	31	225		
MINIMUM ≤ 0°	29	9	16	4	0	0	0	0	0	0	12	28	98		
H/C	HEATING DEGREE DAYS	2169	1371	1634	972	620	200	162	281	689	991	1525	2302	12916	
	COOLING DEGREE DAYS	0	0	0	0	0	0	15	5	0	0	0	0	20	
RH	MEAN (PERCENT)	78	84	64	70	75	67	68	78	70	86	85	77	75	
	HOUR 03 LST	78	84	71	78	85	84	81	91	82	89	86	77	82	
	HOUR 09 LST	79	85	72	70	77	69	72	85	80	91	84	77	78	
	HOUR 15 LST	78	81	54	64	68	54	57	60	53	76	84	78	67	
	HOUR 21 LST	79	85	61	67	71	60	63	77	68	87	84	77	73	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	1	4	1	0	0	1	0	4	4	3	6	2	26	
	THUNDERSTORMS	0	0	0	0	0	4	1	0	0	0	0	0	5	
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.)	29.35	29.43	29.59	29.46	29.50	29.48	29.56	29.48	29.50	29.37	29.43	29.17	29.44	
	MEAN SEA-LEVEL PRESS. (IN.)	29.75	29.82	29.98	29.84	29.87	29.86	29.93	29.85	29.88	29.75	29.82	29.57	29.83	
WINDS	RESULTANT SPEED (MPH)	0.1	1.3	3.4	0.8	1.3	1.4	2.5	1.2	2.8	1.2	1.6	0.3	0.4	
	RES. DIR. (TENS OF DEGS.)	34	10	36	02	31	19	23	21	36	32	20	33	31	
	MEAN SPEED (MPH)	.5	2.8	7.1	5.4	6.0	4.7	6.2	4.2	5.2	3.7	3.8			
	PREVAIL. DIR. (TENS OF DEGS.)	01	12	01	01	01	17	19	28	01	35	19	32	01	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	12	22	36	26	25	28	22	22	24	26	30	20	36	
	DIR. (TENS OF DEGS.)	01	14	02	01	18	13	21	20	02	19	16	09	02	
	DATE OF OCCURRENCE	22	05	13	06	26	23	14	12	20	30	08	29	MAR 13	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	14	28	44	32	35	33	30	32	32	33	38	26	44	
DIR. (TENS OF DEGS.)	01	16	02	01	18	13	19	17	03	19	18	10	02		
DATE OF OCCURRENCE	22+	05	13	06	26	23	23	18	20	30	08	29	MAR 13		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.15	3.72	1.35	0.36	1.37	2.21	4.74	2.27	1.43	1.13	3.09	0.46	22.28	
	GREATEST 24-HOUR (IN.)	0.06	0.63	0.51	0.21	0.51	0.65	1.60	0.49	0.49	0.48	0.65	0.14	1.60	
	DATE OF OCCURRENCE	04	08	02	12-13	26-27	18	26-27	13-14	28-29	01	07-08	21	JUL 26-27	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	6	18	13	5	10	16	15	17	7	6	17	11	141	
PRECIPITATION ≥ 0.10	0	12	4	2	4	6	9	8	4	3	9	1	62		
PRECIPITATION ≥ 1.00	0	0	0	0	0	0	1	0	0	0	0	0	1		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	2.5	26.3	14.0	0.1	T	T	0.0	0.0	T	4.0	18.3	10.4	75.6	
	GREATEST 24-HOUR (IN.)	0.9	6.2	5.8	0.1	T	T	0.0	0.0	T	3.2	6.6	4.0	6.6	
	DATE OF OCCURRENCE	04	13	19	13	16+	18	0	0	26	19	23	21	NOV 23	
	MAXIMUM SNOW DEPTH (IN.)	10	19	19	13	0	0	0	0	0	4	13	18	19	
	DATE OF OCCURRENCE	31+	28	01	03+						22+	29	30	MAR 01	
	NUMBER OF DAYS WITH:														
SNOWFALL ≥ 1.0	0	11	4	0	0	0	0	0	0	1	6	4	26		

NORMALS, MEANS, AND EXTREMES

MCGRATH, AK (MCG)

LATITUDE: 62° 57' 12" N LONGITUDE: 155° 36' 12" W ELEVATION (FT): GRND: 336 BARO: 339 TIME ZONE: ALASKA (UTC + 9) WBAN: 26510

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	2.3	10.7	25.3	40.5	56.8	67.6	69.7	64.1	53.4	32.2	13.8	4.8	36.8
	MEAN DAILY MAXIMUM	55	1.1	9.9	23.9	38.7	55.4	66.4	68.5	63.1	52.6	31.5	13.3	1.6	35.5
	HIGHEST DAILY MAXIMUM	61	54	55	55	67	82	90	89	89	76	62	49	49	90
	YEAR OF OCCURRENCE		1945	1943	1998	1958	2002	1969	1977	1977	1957	2003	1997	1977	JUN 1969
	MEAN OF EXTREME MAXS.	55	31.1	34.9	43.0	53.7	70.9	80.2	82.9	76.7	65.8	49.4	35.5	31.3	54.6
	NORMAL DAILY MINIMUM	30	-15.6	-12.5	-1.8	17.7	35.5	45.7	49.8	45.7	35.9	18.3	-2.2	-12.3	17.0
	MEAN DAILY MINIMUM	55	-17.1	-12.7	-3.0	16.7	34.6	45.3	49.2	45.5	35.5	17.9	-2.2	-15.2	16.2
	LOWEST DAILY MINIMUM	61	-75	-64	-51	-40	-2	30	31	25	2	-28	-53	-67	-75
	YEAR OF OCCURRENCE		1989	1947	1966	1985	2001	1974	2003	1984	1992	1982	1990	1961	JAN 1989
	MEAN OF EXTREME MINS.	55	-46.8	-41.5	-30.8	-10.1	22.3	35.5	39.7	32.9	21.6	-4.7	-29.1	-43.2	-4.5
	NORMAL DRY BULB	30	-6.7	-9	11.8	29.1	46.2	56.7	59.8	54.9	44.7	25.3	5.8	-3.8	26.9
	MEAN DRY BULB	55	-8.0	-1.4	10.4	27.7	45.1	55.9	58.9	54.2	44.1	24.7	5.5	-6.8	25.9
	MEAN WET BULB	13	-1.0	1.8	11.1	26.3	40.0	50.7	54.6	50.5	40.7	23.2	5.2	.5	25.3
	MEAN DEW POINT	13	-4.3	-3.4	3.4	18.0	31.8	43.7	50.0	47.0	36.6	19.8	1.6	-3.1	20.1
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 70°	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MAXIMUM ≤ 32°	30	28.8	25.5	21.5	7.0	0.2	0.0	0.0	0.0	0.4	16.3	27.1	29.0	155.8	
MINIMUM ≤ 32°	30	30.8	28.0	30.7	27.6	10.3	0.2	0.0	1.0	9.7	27.2	29.6	30.9	226.0	
MINIMUM ≤ 0°	30	23.2	20.6	17.8	4.3	0.0	0.0	0.0	0.0	0.0	3.0	18.2	23.0	110.1	
H/C	NORMAL HEATING DEG. DAYS	30	2223	1847	1653	1078	583	256	174	318	611	1233	1779	2132	13887
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	0	4	11	6	0	0	0	0	21
RH	NORMAL (PERCENT)	30		74	67	62	60	63	72	78	77	81	81	80	
	HOUR 03 LST	30		78	77	76	79	83	88	90	87	86	82	80	
	HOUR 09 LST	30		77	76	67	64	65	76	84	84	86	82	80	
	HOUR 15 LST	30	75	67	52	46	44	46	56	64	62	70	79	80	62
	HOUR 21 LST	30		76	66	56	53	55	67	78	78	82	82	80	
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	61	2.0	1.3	0.6	0.3	0.4	0.4	0.8	1.4	1.0	1.3	1.5	2.3	13.3
	THUNDERSTORMS	61	0.0	0.0	0.0	0.0	0.4	3.0	2.5	0.7	0.1	0.0	0.0	0.0	6.7
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	55	5.0	4.9	4.9	5.2	5.8	6.2	6.3	6.5	6.3	6.5	5.8	5.4	5.7
	MIDNIGHT-MIDNIGHT (OKTAS)	26	4.5	4.2	4.4	5.0	5.6	5.9	6.3	6.2	5.9	5.9	5.6	5.0	5.4
	MEAN NO. DAYS WITH:														
CLEAR	55	9.3	8.8	9.4	7.2	4.0	1.9	2.2	2.3	3.4	3.8	6.2	7.4	65.9	
PARTLY CLOUDY	55	4.8	4.5	6.3	7.3	8.3	8.9	7.8	5.2	4.9	4.8	4.3	4.5	71.6	
CLOUDY	55	16.8	14.8	15.4	15.5	18.7	19.3	20.7	23.0	21.2	21.8	19.0	18.6	224.8	
PR	MEAN STATION PRESSURE (IN)	30	29.39	29.42	29.42	29.44	29.46	29.50	29.56	29.53	29.40	29.35	29.35	29.35	29.43
	MEAN SEA-LEVEL PRES. (IN)	19	29.76	29.86	29.86	29.82	29.86	29.88	29.94	29.89	29.78	29.77	29.76	29.72	29.83
WINDS	MEAN SPEED (MPH)	36	3.2	4.1	5.3	6.3	6.6	6.2	5.8	5.7	5.7	5.0	3.6	3.0	5.0
	PREVAIL. DIR (TENS OF DEGS)	22	30	30	01	36	36	29	19	18	36	01	36	29	36
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	5	28	39	36	30	25	30	23	22	28	26	31	25	39
	DIR. (TENS OF DEGS)		07	18	02	20	18	04	22	20	11	19	08	19	18
	YEAR OF OCCURRENCE		2001	2000	2003	2002	2003	1999	2000	2003	1999	2003	2002	2002	FEB 2000
MAXIMUM 5-SECOND:															
SPEED (MPH)	5	40	63	44	44	35	33	33	32	41	33	38	36	63	
DIR. (TENS OF DEGS)		21	19	02	19	18	13	22	17	18	19	18	19	19	
YEAR OF OCCURRENCE		2000	2000	2003	2002	2003	2003	1999	2003	2002	2003	2003	2002	FEB 2000	
PRECIPITATION	NORMAL (IN)	30	1.04	0.74	0.81	0.66	1.02	1.45	2.32	2.75	2.36	1.46	1.46	1.44	17.51
	MAXIMUM MONTHLY (IN)	61	3.74	3.72	2.82	2.78	3.07	4.36	5.36	6.26	6.18	4.59	4.34	5.02	6.26
	YEAR OF OCCURRENCE		1993	2003	1991	1964	1988	1950	1975	1945	1993	1946	1979	1990	AUG 1945
	MINIMUM MONTHLY (IN)	61	0.10	0.00	T	0.01	0.18	0.15	0.38	0.80	0.19	0.14	0.02	0.11	0.00
	YEAR OF OCCURRENCE		1961	1979	1986	1943	1979	2000	1993	1968	1969	1965	1963	1966	FEB 1979
	MAXIMUM IN 24 HOURS (IN)	61	1.03	1.15	1.17	1.10	1.11	2.39	2.56	2.10	1.73	1.54	1.51	1.90	2.56
	YEAR OF OCCURRENCE		1957	1956	1982	1960	1960	1950	1975	1955	2000	1945	1985	1990	JUL 1975
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	10.7	7.4	8.6	7.2	10.9	13.0	15.0	16.6	14.0	13.0	12.6	13.3	142.3	
PRECIPITATION ≥ 1.00	30	0.0	0.0	0.0	0.0	*	*	0.1	0.1	0.2	0.0	0.1	*	0.5	
SNOWFALL	NORMAL (IN)	30	15.2	10.9	11.3	5.7	1.1	0.*	0.0	0.0	1.3	11.5	19.7	21.7	98.4
	MAXIMUM MONTHLY (IN)	61	42.2	38.0	35.8	32.8	10.7	0.1	T	0.9	13.7	32.1	53.6	54.2	54.2
	YEAR OF OCCURRENCE		1993	1944	1990	1964	1992	1975	1990	1998	1992	1971	1994	1990	DEC 1990
	MAXIMUM IN 24 HOURS (IN)	60	11.7	14.7	14.3	13.2	7.0	0.1	T	0.9	7.0	10.5	15.2	15.5	15.5
	YEAR OF OCCURRENCE		1957	2000	1982	1964	1971	1975	1990	1998	1992	1971	1946	1978	DEC 1978
	MAXIMUM SNOW DEPTH (IN)	54	53	51	68	47	30	0	0	0	7	12	90	54	90
	YEAR OF OCCURRENCE		1949	1990	1990	1972	1985				1992	2001	1948	1994	NOV 1948
	NORMAL NO. DAYS WITH:														
SNOWFALL ≥ 1.0	30	4.7	3.2	3.6	1.4	0.3	0.0	0.0	0.0	0.4	3.7	6.0	6.4	29.7	

PRECIPITATION (inches) 2003 MCGRATH, AK (MCG)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	0.37	0.36	0.94	0.37	0.30	0.59	1.34	2.02	1.06	2.27	1.86	0.35	11.83
1975	1.41	0.51	0.48	0.62	0.49	1.31	5.36	2.33	3.14	1.96	0.26	1.16	19.03
1976	1.03	1.33	1.41	0.09	1.63	0.96	1.82	0.91	0.50	1.36	1.76	0.30	13.10
1977	0.31	0.44	1.20	1.58	1.35	0.61	0.91	1.46	4.72	0.71	0.67	1.62	15.58
1978	0.17	0.23	0.15	0.13	0.99	2.96	1.41	2.25	1.19	1.17	1.97	3.43	16.05
1979	1.10	0.00	1.22	2.64	0.18	1.12	1.99	1.87	1.82	0.92	4.34	1.14	18.34
1980	1.65	0.33	0.29	0.08	1.25	3.47	2.96	2.46	1.32	0.66	0.73	0.18	15.38
1981	0.39	1.65	0.13	0.56	0.74	1.99	2.99	2.65	0.71	2.08	1.49	0.70	16.08
1982	0.51	0.50	2.38	0.93	1.17	1.36	3.21	2.73	5.00	2.71	1.23	1.02	22.75
1983	0.18	0.11	0.01	2.55	1.34	1.18	1.34	3.79	2.05	1.92	0.51	0.99	15.97
1984	1.43	0.78	1.08	0.20	1.43	1.24	2.11	2.28	0.57	0.40	0.32	3.54	15.38
1985	1.36	1.21	2.43	0.23	1.07	1.96	1.08	3.06	5.56	2.05	2.83	1.19	24.03
1986	0.23	0.08	T	0.36	0.67	1.80	3.45	2.66	3.29	1.75	1.79	0.95	17.03
1987	1.51	0.59	0.12	0.09	1.43	0.51	4.41	1.66	3.34	1.06	2.08	1.76	18.56
1988	0.62	0.87	0.52	0.38	3.07	2.10	0.88	2.71	0.84	1.31	0.35	1.51	15.16
1989	1.78	2.48	0.24	1.01	1.18	1.18	2.65	3.92	3.32	2.31	1.68	1.02	22.77
1990	1.24	1.99	2.76	0.66	1.01	0.61	2.16	3.37	3.19	1.99	1.68	5.02	25.68
1991	0.74	0.32	2.82	0.59	0.26	0.57	2.73	2.96	1.25	1.58	0.62	1.09	15.53
1992	0.19	0.69	0.70	0.30	1.50	0.96	3.04	1.93	2.45	0.67	2.87	2.19	17.49
1993	3.74	0.79	0.54	0.04	1.14	2.51	0.38	3.96	6.18	2.71	1.84	0.53	24.36
1994	1.96	0.47	1.33	0.54	0.26	2.47	1.82	3.48	1.04	0.94	4.20	2.99	21.50
1995	0.50	0.54	0.14	0.86	2.10	1.24	2.89	1.57	1.21	1.35	0.11	0.18	12.69
1996	1.31	2.83	0.63	0.49	0.69	1.72	2.59	4.25	1.26	0.28	1.05	1.00	18.10
1997	0.47	0.89	0.13	0.15	1.01	0.87	0.40	2.49	1.40	0.51	1.26	0.62	10.20
1998	0.51	0.04	0.20	1.30	1.25	1.18	5.24	5.41	3.48	0.52	0.80	0.75	20.68
1999	1.04	0.06	0.33	1.04	0.50	2.27	2.44	2.82	1.81	0.85	0.27	1.71	15.14
2000	2.45	0.93	0.50	0.12	0.87	0.15	3.62	3.23	3.28	1.25	1.45	0.36	18.21
2001	0.19	1.94	0.52	2.04	0.45	0.30	3.14	2.18	0.90	1.91	0.11	0.21	13.89
2002	2.18	0.28	0.07	1.75	1.02	0.76	1.38	2.18	2.96	1.51	0.52	0.75	15.36
2003	0.15	3.72	1.35	0.36	1.37	2.21	4.74	2.27	1.43	1.13	3.09	0.46	22.28
POR= 64 YRS	0.98	0.90	0.83	0.72	0.94	1.54	2.31	2.93	2.19	1.37	1.20	1.16	17.07

WBAN : 26510

AVERAGE TEMPERATURE (°F) 2003 MCGRATH, AK (MCG)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	-11.3	-12.5	7.0	29.5	47.4	54.4	59.2	57.6	49.4	20.6	0.5	-13.6	24.0
1975	-14.7	-6.4	6.9	22.5	44.3	54.1	59.8	54.0	42.5	23.6	-8.3	-16.8	21.8
1976	-14.2	-16.8	8.2	28.0	43.4	55.4	58.7	56.1	44.2	22.9	11.1	-6.0	24.3
1977	10.5	6.6	0.5	18.1	41.3	57.0	61.7	61.0	46.3	27.9	-5.4	-8.2	26.4
1978	4.8	6.6	13.2	33.1	48.8	51.5	59.1	57.6	45.3	23.1	14.2	9.3	30.6
1979	-7.7	-19.9	14.1	30.1	48.5	52.5	57.6	56.9	46.3	33.9	21.4	-14.7	27.2
1980	-13.5	11.8	16.5	34.0	47.6	51.8	57.2	52.0	42.3	29.6	8.0	-25.5	26.0
1981	14.4	6.0	26.9	30.2	51.1	54.1	55.6	52.9	41.3	28.1	8.7	-6.9	30.2
1982	-11.6	0.2	13.3	23.9	41.2	55.2	57.8	54.7	45.2	16.9	5.8	-3.9	24.9
1983	-15.2	-5.5	9.1	30.2	47.2	56.7	59.6	50.5	39.7	22.2	14.0	0.4	26.2
1984	-8.0	-16.0	18.7	21.0	40.3	57.2	57.7	51.7	44.4	24.8	1.8	1.4	24.6
1985	12.2	-7.9	13.6	10.9	40.6	53.0	60.3	52.0	42.9	20.4	-1.8	10.2	25.5
1986	-5.9	4.5	3.5	21.0	43.6	58.1	59.6	52.2	45.2	24.9	3.9	8.4	26.6
1987	-2.2	0.6	12.7	27.5	45.7	56.2	59.8	56.6	42.4	32.7	6.4	-7.1	27.8
1988	-3.6	2.0	13.6	27.9	49.5	58.0	63.3	54.5	43.7	17.4	-3.8	6.9	27.5
1989	-27.6			33.5	43.2	56.8	60.4	56.8	46.9	25.6	-4.3	1.2	
1990	-11.2	-21.9	16.8	36.5	48.9	58.5	62.4	57.6	42.6	25.4	2.4	-6.7	25.9
1991	-2.9	-8.8	13.4	31.6	47.0	59.4	57.9	53.6	48.9	28.0	2.8	-7.4	27.6
1992	-3.3	-4.4	12.1	27.0	39.8	57.7	61.1	55.3	33.6	18.7	11.8	-4.2	25.4
1993	-1.1	4.7	18.4	36.9	50.5	58.0	63.2	55.1	42.8	30.9	12.2	5.3	31.4
1994	-1.1	3.5	7.0	31.6	49.5	56.4	60.1	55.2	44.1	21.5	3.3	-6.4	27.1
1995	-5.2	5.6	4.2	37.4	50.8	56.1	59.3	54.3	49.7	26.0	2.0	-6.6	27.8
1996	-11.9	-2.4	19.3	28.0	47.7	56.6	60.9	52.2	40.9	17.5	0.6	-16.7	24.4
1997	-12.6	12.9	5.7	34.3	49.0	61.4	63.6	57.7	49.4	18.1	13.9	-7.6	28.8
1998	-12.0	1.2	20.2	37.6	46.4	57.4	59.1	50.6	46.3	28.3	6.2	-8.1	27.8
1999	-15.2	-15.6	6.9	29.7	44.9	57.9	58.7	55.6	45.8	21.8	-6.6	-14.4	23.0
2000	-7.7	11.2	14.9	30.0	42.7	58.7	57.4	51.4	41.6	23.3	12.6	4.0	28.3
2001	10.1	11.8	11.1	31.2	40.0	59.1	57.8	55.6	47.0	21.8	-4.0	-12.9	27.4
2002	4.5	5.8	14.1	25.5	49.4	57.8	60.4	53.7	46.8	32.1	20.0	5.0	31.3
2003	-5.1	15.8	12.2	32.3	44.8	58.2	60.1	55.8	41.8	32.7	13.9	-9.5	29.4
POR= 62 YRS	-7.9	-9.9	9.9	27.4	44.8	56.0	58.8	54.1	44.0	25.2	5.2	-6.8	25.8

HEATING DEGREE DAYS (base 65°F) 2003 MCGRATH, AK (MCG)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	173	230	461	1368	1936	2442	2470	2002	1798	1270	633	321	15104
1975-76	173	334	668	1280	2203	2538	2458	2377	1758	1102	660	280	15831
1976-77	193	269	617	1301	1612	2204	1683	1633	2002	1403	729	234	13880
1977-78	111	134	551	1142	2115	2273	1862	1632	1597	949	497	398	13261
1978-79	176	224	585	1291	1520	1720	2038	2383	1574	1040	507	367	13425
1979-80	221	242	555	958	1299	2473	2434	1539	1499	923	533	391	13067
1980-81	242	393	672	1092	1704	2807	1562	1653	1173	1036	426	323	13083
1981-82	287	368	704	1140	1688	2232	2376	1816	1599	1228	733	292	14463
1982-83	222	314	588	1486	1778	2133	2491	1831	1728	1037	545	242	14395
1983-84	166	447	752	1318	1523	2003	2262	2357	1432	1316	761	226	14563
1984-85	221	407	609	1239	1895	1973	1636	2046	1591	1621	751	354	14343
1985-86	157	398	656	1381	2004	1697	2203	1692	1908	1317	660	206	14279
1986-87	191	391	586	1236	1837	1754	2020	1805	1616	1122	593	256	13407
1987-88	162	255	674	994	1755	2236	2128	1830	1588	1105	472	207	13406
1988-89	70	320	630	1470	2067	1798	2869			937	666	238	
1989-90	159	248	534	1214	2076	1975	2364	2436	1489	849	492	200	14036
1990-91	103	232	665	1223	1876	2226	2105	1842	1595	995	550	198	13610
1991-92	225	344	478	1140	1866	2246	2117	2015	1637	1132	773	213	14186
1992-93	128	291	932	1429	1592	2147	2045	1686	1438	837	443	203	13171
1993-94	89	299	659	1051	1583	1848	2049	1721	1797	995	472	259	12822
1994-95	155	305	616	1341	1849	2213	2174	1663	1886	821	432	262	13717
1995-96	173	327	453	1204	1889	2220	2385	1955	1412	1104	528	248	13898
1996-97	136	387	714	1468	1932	2526	2400	1456	1831	914	488	126	14378
1997-98	75	232	462	1450	1528	2243	2379	1778	1384	816	568	237	13152
1998-99	177	439	551	1127	1756	2258	2481	2251	1793	1052	616	207	14708
1999-00	197	284	566	1334	1961	2453	2248	1552	1546	1041	684	188	14054
2000-01	236	416	696	1283	1567	1889	1695	1482	1666	1006	769	182	12887
2001-02	217	285	536	1336	2064	2404	1870	1652	1575	1179	481	213	13812
2002-03	144	352	539	1013	1341	1851	2169	1371	1634	972	620	200	12206
2003-	162	281	689	991	1525	2302							

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COOLING DEGREE DAYS (base 65°F) 2003 MCGRATH, AK (MCG)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	0	0	0	0	0	3	4	4	0	0	0	0	11
1975	0	0	0	0	0	0	18	0	0	0	0	0	18
1976	0	0	0	0	0	0	2	0	0	0	0	0	2
1977	0	0	0	0	0	0	17	19	0	0	0	0	36
1978	0	0	0	0	0	0	0	2	0	0	0	0	2
1979	0	0	0	0	0	0	1	1	0	0	0	0	2
1980	0	0	0	0	0	0	9	0	0	0	0	0	9
1981	0	0	0	0	1	2	0	0	0	0	0	0	3
1982	0	0	0	0	0	4	7	0	0	0	0	0	11
1983	0	0	0	0	0	0	4	0	0	0	0	0	4
1984	0	0	0	0	0	0	1	1	0	0	0	0	2
1985	0	0	0	0	0	0	18	0	0	0	0	0	18
1986	0	0	0	0	0	7	32	0	0	0	0	0	39
1987	0	0	0	0	0	1	6	0	0	0	0	0	7
1988	0	0	0	0	0	3	23	0	0	0	0	0	26
1989	0	0	0	0	0	1	24	1	0	0	0	0	
1990	0	0	0	0	0	12	28	9	0	0	0	0	49
1991	0	0	0	0	0	33	12	0	0	0	0	0	45
1992	0	0	0	0	0	0	11	0	0	0	0	0	11
1993	0	0	0	0	0	0	41	0	0	0	0	0	41
1994	0	0	0	0	0	4	11	8	0	0	0	0	23
1995	0	0	0	0	0	0	3	0	0	0	0	0	3
1996	0	0	0	0	0	4	16	0	0	0	0	0	20
1997	0	0	0	0	0	24	37	16	0	0	0	0	77
1998	0	0	0	0	0	15	0	0	0	0	0	0	15
1999	0	0	0	0	0	3	9	1	0	0	0	0	13
2000	0	0	0	0	0	5	7	0	0	0	0	0	12
2001	0	0	0	0	0	10	0	0	0	0	0	0	10
2002	0	0	0	0	1	2	8	5	0	0	0	0	16
2003	0	0	0	0	0	0	15	5	0	0	0	0	20

SNOWFALL (inches) 2003 MCGRATH, AK (MCG)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	0.0	0.0	T	16.4	26.6	9.3	18.5	10.4	6.9	8.5	1.3	0.1	98.0
1975-76	0.0	0.0	0.0	16.5	5.3	19.1	16.5	15.9	19.6	1.4	T	0.0	94.3
1976-77	0.0	0.0	0.0	13.3	17.1	6.2	3.5	8.3	17.9	20.3	0.4	0.0	87.0
1977-78	0.0	0.0	0.6	4.4	12.0	22.0	2.4	3.8	2.1	1.3	0.0	0.0	48.6
1978-79	0.0	0.0	T	13.7	20.6	54.0	17.3	0.0	12.6	10.4	T	0.0	128.6
1979-80	0.0	0.0	T	4.1	24.3	19.9	22.2	2.2	4.7	T	T	0.0	77.4
1980-81	0.0	0.0	0.5	7.2	16.8	3.1	9.1	21.5	1.7	5.1	T	0.0	65.0
1981-82	0.0	0.0	4.1	15.7	21.7	16.2	12.8	2.1	30.9	5.6	T	0.0	109.1
1982-83	0.0	0.0	0.0	24.0	21.6	10.4	4.8	2.4	0.3	12.6	T	0.0	76.1
1983-84	0.0	0.0	0.7	7.1	8.9	17.6	18.5	12.9	15.1	2.9	1.1	0.0	84.8
1984-85	0.0	0.0	0.0	6.5	7.5	49.6	20.2	20.6	35.0	3.1	4.2	0.0	146.7
1985-86	0.0	0.0	0.5	9.3	33.9	15.9	6.3	2.0	T	8.1	1.2	0.0	77.2
1986-87	0.0	0.0	T	11.8	22.6	17.4	29.3	9.7	2.2	2.3	2.0	0.0	97.3
1987-88	0.0	0.0	0.1	4.2	35.5	27.4	10.6	15.1	9.6	1.3	0.0	0.0	103.8
1988-89	0.0	0.0	0.8	17.3	7.7			17.3	4.5	2.5	0.6	0.0	
1989-90	0.0	0.0	0.0	21.0	26.8	16.6	21.4	33.4	35.8	5.4	1.8	0.0	162.2
1990-91	T	0.0	3.5	13.1	28.0	54.2	9.6	6.8	31.2	2.3	T	T	148.7
1991-92	0.0	0.0	0.0	6.6	11.5	22.1	7.4	15.4	12.5	2.2	10.7	0.0	88.4
1992-93	0.0	0.0	13.7	8.5	31.4	27.6	42.2	11.4	8.8	0.4	0.1	0.0	144.1
1993-94	0.0	0.0	2.2	9.3	19.3	11.4	28.7	7.0	15.4	7.1	T	0.0	100.4
1994-95	0.0	0.0	0.4	6.9	53.6	49.9	8.9	6.7	2.8	1.3	T	0.0	130.5
1995-96	0.0	0.0	0.0	13.1	1.5	3.0	13.9	31.7	4.5	7.5	T	T	75.2
1996-97	0.0	0.0	3.0	2.8	14.1	20.3	9.9	13.4	2.7	1.5	T	0.0	67.7
1997-98	0.0	0.0	0.0	5.0	21.2	12.0	12.3	0.5	2.4	1.2	1.2	0.0	55.8
1998-99	0.0	0.0	0.0	6.5	14.0	15.9	16.3	1.8	7.9	10.9	T	0.0	73.3
1999-00	0.0	0.0	3.1	6.3	7.9	29.5	32.8	23.3	6.9	2.7	T	0.0	112.5
2000-01	0.0	0.0	T	13.5	14.3	7.3	2.6	35.2	9.1	21.3	2.1	0.0	105.4
2001-02	0.0	0.0	0.2	19.7	1.1	5.9	35.8	8.2	1.9	11.9	0.8	0.0	85.5
2002-03	0.0	0.0	T	14.5	8.3	14.1	2.5	26.3	14.0	0.1	T	T	79.8
2003-	0.0	0.0	T	4.0	18.3	10.4							
POR= 60 YRS	T	T	1.1	10.2	16.8	18.4	14.5	12.3	11.1	6.8	1.1	0.0	92.3

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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 (1971 - 2000). 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 EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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2003
MCGRATH,
ALASKA (MCG)

McGrath is located in western interior Alaska near the western end of a relatively flat drainage basin in the upper portion of the Kuskokwim River valley. The Kuskokwim Mountains extend in a northeast-southwest direction through the McGrath area, but the most pronounced ridges of this range lie to the west of the station. Consequently, the area is, for practical purposes, a portion of the sheltered continental interior. The characteristic continental climate is more pronounced during the winter season when temperatures become quite cold and precipitation relatively light, with pronounced north or northwesterly winds prevailing. During the summer months, when prevailing winds become southerly, the climate is at least partly affected by maritime influences, and the transition periods between the seasons are relatively short. Average summertime precipitation is more abundant than that received by most stations farther inland, but this may be due as much to topographic influences as to maritime influences. High temperatures in the summer reflect the continental influences of the interior, and high temperatures in the fall are just a little below the values reached in other areas farther inland like Fairbanks.

Over 40 percent of the normal precipitation falls during July, August, and September. The winter months have relatively little precipitation in comparison. However, due to the general nature of the dry snow, the accumulated snowfall is usually quite large. Spring is the driest season of the year with considerable clear and mild weather, and this period usually lasts well into June. Most thunderstorms occur during the months of June and July. Small hail occurs several times a year.

Break-up of the Kuskokwim River usually occurs in the middle of May and the ground is normally thawed enough for cultivation by the first of June. The normal growing season is approximately 120 days and the average occurrence of the last temperature of 32 degrees in the spring is late May. The first temperature of 32 degrees in the autumn normally occurs in the middle of September.

The summer months are relatively warm for Alaska. On approximately 15 days during the summer the daily maximum rises to the 80s. Relatively high temperatures have been observed during the winter months resulting from influxes of warm maritime air from the ocean. These thaws, usually of one or two days duration, occur several times during the winter season.

During the winter months the minimum temperatures fall to well below zero, at times reaching at least -50 degrees. Long periods of five to ten or more days of extremely low temperatures occur during the winter months. Skies remain clear and atmospheric pressures quite high. In the coldest of these periods high inversion ice-fog and ice crystals are a common occurrence. Months with the least cloudiness are January, February, March, and April.

STATION LOCATION

MCGRATH, ALASKA

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUTOMATIC OBSERVING EQUIPMENT *	REMARKS
						SEA LEVEL		GROUND									
						GROUND TEMPERATURE	WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING GAUGE BUCKET	WEIGHING RAIN GAUGE	8 INCH RAIN GAUGE	HYGROMETER			
AIRPORT																	
McGrath Airport	4/12/42	7/06/65		62°58'	155°37'	334	28	7	6				a4	4		a. Installed 11/1/60.	
FSS/Weather Service Office Building McGrath Airport	7/06/65	07/01/98	900 ft. NE	62°58'	155°37'	c344	24	7	6				6	4	b8 d8	b. Commissioned 1310 feet NW of previously used temperature sensor. c. Indicated as 349 feet until resurvey of 10/6/66. d. Type change 09/08/86.	
McGrath Airport	07/01/98	Present	NA	62°57'	155°36'	e336									S	ASOS Commissioned 07/01/98 e. Ground elevation.	

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