

2003

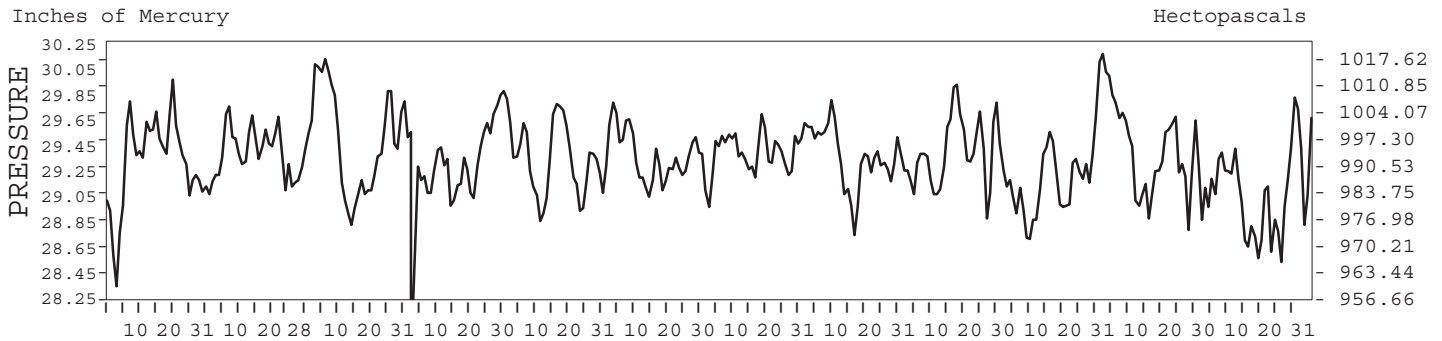
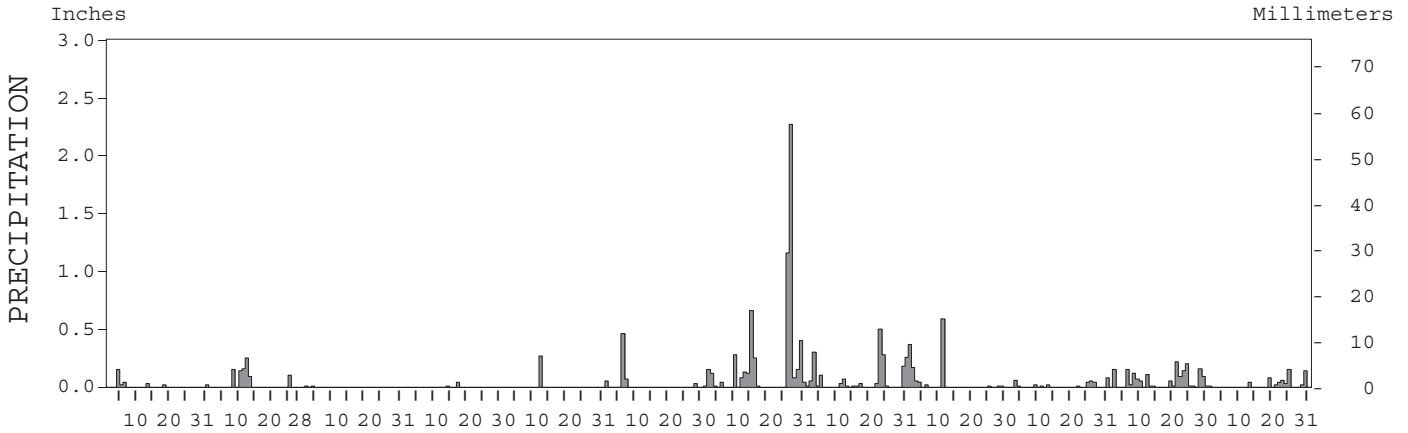
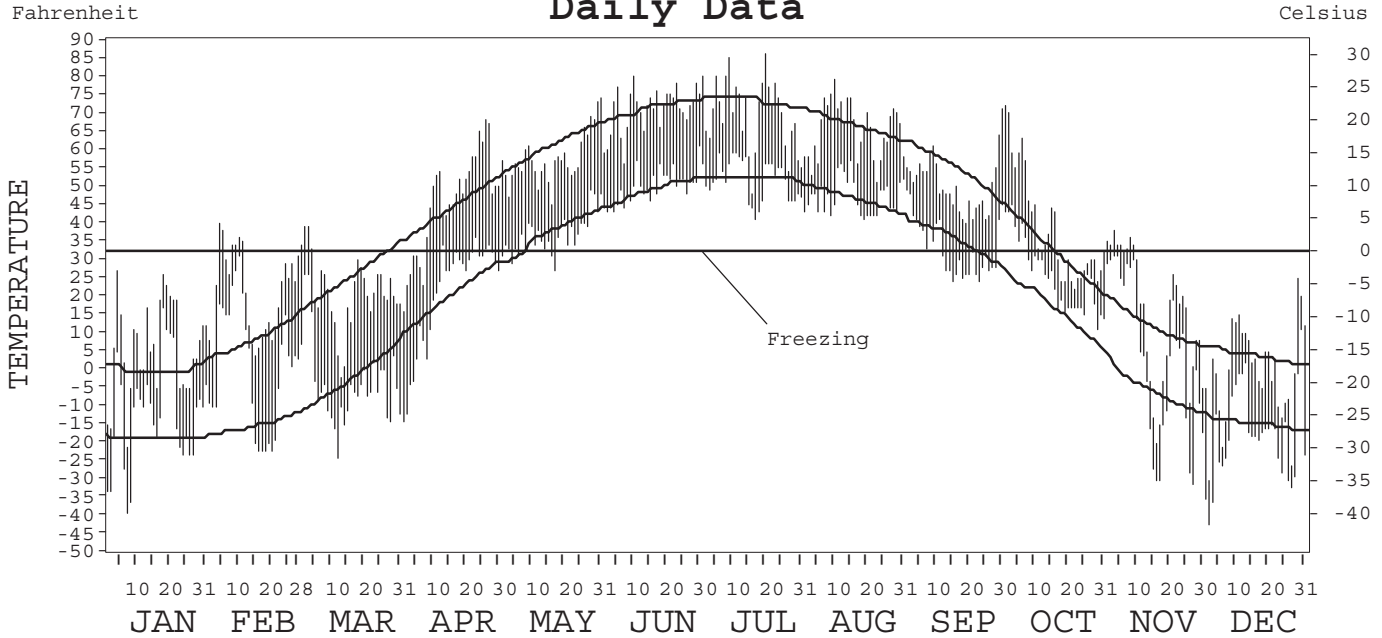
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0197-9728

FAIRBANKS,
ALASKA (FAI)

Daily Data



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

METEOROLOGICAL DATA FOR 2003

FAIRBANKS, AK (FAI)

LATITUDE: 64° 49' 00" N LONGITUDE: 147° 51' 18" W ELEVATION (FT): GRND: 461 BARO: 464 TIME ZONE: ALASKA (UTC + 9) WBAN: 26411

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	5.9	21.0	21.1	45.6	57.6	70.7	69.6	65.4	50.4	38.5	15.2	- .4	38.4	
	HIGHEST DAILY MAXIMUM	27	40	39	68	74	80	86	79	71	72	38	25	86	
	DATE OF OCCURRENCE	04	04	03+	26	31	10	20	10	30	01	03	29	JUL 20	
	MEAN DAILY MINIMUM	-12.5	1.0	-4.0	20.6	36.8	49.7	51.7	47.0	33.2	25.5	3.2	-17.8	19.5	
	LOWEST DAILY MINIMUM	-39	-22	-24	-14	27	43	41	41	24	11	-31	-42	-42	
	DATE OF OCCURRENCE	07	20+	12	01	17	04+	17	19	23+	29	27	02	DEC 02	
	AVERAGE DRY BULB	-3.3	11.0	8.6	33.1	47.2	60.2	60.7	56.2	41.8	32.0	9.2	-9.1	29.0	
	MEAN WET BULB		10.2	7.3		40.4	51.1	54.6	51.5	37.5	30.0				
	MEAN DEW POINT		6.4	- .6		29.1	41.2	49.7	47.4	31.1	27.2				
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 70°	0	0	0	0	2	21	18	11	1	2	0	0	55	
	MAXIMUM ≤ 32°	31	22	27	7	0	0	0	0	0	16	22	31	156	
MINIMUM ≤ 32°	31	28	31	26	5	0	0	0	17	24	30	31	223		
MINIMUM ≤ 0°	26	12	25	4	0	0	0	0	0	0	13	29	109		
H/C	HEATING DEGREE DAYS	2110	1505	1742	950	547	141	154	265	689	1015	1667	2289	13074	
	COOLING DEGREE DAYS	0	0	0	0	0	3	27	1	0	0	0	0	31	
RH	MEAN (PERCENT)	80	82	66	57	50	52	71	75	70	84	85	80	71	
	HOUR 03 LST	80	84	76	75	69	71	85	92	80	88	86	80	80	
	HOUR 09 LST	80	84	76	64	52	55	75	80	78	88	85	79	75	
	HOUR 15 LST	81	74	51	40	35	36	57	56	51	73	84	80	60	
	HOUR 21 LST	80	84	63	52	44	45	67	74	72	86	86	81	70	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	0	0	0	0	1	0	0	0	2	6	1	0	10	
	THUNDERSTORMS	0	0	0	0	0	1	1	0	0	0	0	0	2	
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.)	29.32	29.40	29.48		29.36	29.37	29.40	29.36	29.39	29.27	29.33	29.09		
	MEAN SEA-LEVEL PRESS. (IN.)	29.85	29.92	30.01		29.86	29.87	29.90	29.86	29.90		29.85	29.62		
WINDS	RESULTANT SPEED (MPH)	0.9	2.0	1.8		1.4	1.6	2.8	0.7	2.4	1.2	0.3	0.2		
	RES. DIR. (TENS OF DEGS.)	04	02	05		34	05	23	24	04	06	35	03		
	MEAN SPEED (MPH)	1.6	2.9	4.3	4.8	6.5	6.5	5.5	4.3	5.1	2.6	2.7	.5	3.9	
	PREVAIL. DIR. (TENS OF DEGS.)	04	04	04	03	06	04	21	05	36	05	04	04	04	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	16	15	29	26	26	25	26	31	21	20	21	9	31	
	DIR. (TENS OF DEGS.)	01	01	06	02	06	06	28	26	05	24	27	29	26	
	DATE OF OCCURRENCE	19	13	13	06	03	11	06	12	24+	03+	10	01	AUG 12	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	18	18	33	59	33	33	32	37	24	26	28	12	59	
DIR. (TENS OF DEGS.)	02	01	05	05	06	07	25	26	05	24	25	28	05		
DATE OF OCCURRENCE	19+	13	13	18	03	11	26	12	24+	03	10	01	APR 18		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.28	0.89	0.02	0.05	0.27	0.61	5.96	1.89	1.27	0.34	1.68	0.59	13.85	
	GREATEST 24-HOUR (IN.)	0.15	0.25	0.01	0.04	0.27	0.46	2.56	0.72	0.59	0.08	0.22	0.15	2.56	
	DATE OF OCCURRENCE	04	12	04+	17	12	06	26-27	23-24	11	31	21	25	JUL 26-27	
	NUMBER OF DAYS WITH:														
PRECIPITATION ≥ 0.01	6	6	2	2	1	4	18	17	9	10	20	10	105		
PRECIPITATION ≥ 0.10	1	5	0	0	1	1	11	6	3	0	8	2	38		
PRECIPITATION ≥ 1.00	0	0	0	0	0	0	2	0	0	0	0	0	2		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	6.9	7.8	0.8	T	T	0.0	0.0	0.0	0.1	2.6	27.6	9.6	55.4	
	GREATEST 24-HOUR (IN.)	4.3	3.0	0.4	T	T	0.0	0.0	0.0	0.1	1.1	4.5	2.2	4.5	
	DATE OF OCCURRENCE	04	12	26	17+	16				25	26	28	30	NOV 28	
	MAXIMUM SNOW DEPTH (IN.)	12	13	13	12	0	0	0	0	0	1	14	16	16	
	DATE OF OCCURRENCE	06+	28+	02+	10+						31+	30+	31+	DEC 31+	
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	1	4	0	0	0	0	0	0	0	1	10	3	19		

NORMALS, MEANS, AND EXTREMES

FAIRBANKS, AK (FAI)

LATITUDE: 64° 49' 00" N LONGITUDE: 147° 51' 18" W ELEVATION (FT): GRND: 461 BARO: 464 TIME ZONE: ALASKA (UTC + 9) WBAN: 26411

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	-3	8.0	25.0	43.6	60.6	70.9	73.0	66.3	54.3	31.4	11.2	3.3	37.3
	MEAN DAILY MAXIMUM	55	-8	7.8	24.1	42.1	59.6	70.5	72.2	66.0	54.3	32.1	11.6	1.2	36.7
	HIGHEST DAILY MAXIMUM	52	50	47	56	74	89	96	94	93	84	72	49	45	96
	YEAR OF OCCURRENCE		1981	1987	1994	1960	1960	1969	1975	1994	1957	2003	1997	1999	JUN 1969
	MEAN OF EXTREME MAXS.	55	29.2	33.2	44.4	59.8	74.8	83.7	85.2	80.5	68.8	51.8	34.6	29.9	56.3
	NORMAL DAILY MINIMUM	30	-19.0	-15.6	-2.7	19.8	36.9	48.5	51.9	46.2	34.7	15.6	-6.6	-15.2	16.2
	MEAN DAILY MINIMUM	55	-18.4	-14.3	-2.7	19.9	37.4	48.8	51.7	46.5	35.5	17.1	-4.7	-15.6	16.8
	LOWEST DAILY MINIMUM	52	-61	-58	-49	-24	-1	31	35	27	3	-27	-46	-62	-62
	YEAR OF OCCURRENCE		1969	1993	1956	1986	1964	1963	1959	1987	1992	1992	1990	1961	DEC 1961
	MEAN OF EXTREME MINS.	55	-43.4	-37.8	-26.5	-3.1	26.0	38.5	42.7	34.6	22.5	-5.2	-27.4	-39.5	-1.5
	NORMAL DRY BULB	30	-9.7	-3.8	11.1	31.7	48.8	59.7	62.4	56.2	44.5	23.5	2.3	-5.9	26.7
	MEAN DRY BULB	55	-9.7	-3.2	10.9	31.1	48.4	59.7	62.1	56.1	44.7	24.7	3.5	-7.4	26.7
	MEAN WET BULB	13	-2.9	-9	10.5	28.0	41.3	52.3	55.8	51.4	40.5	21.9	.2	-7	24.8
	MEAN DEW POINT	13	-6.0	-5.9	2.7	17.9	30.2	44.2	50.0	46.8	35.8	18.0	-3.9	-4.2	18.8
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 70°	30	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.0	0.0	0.0	0.0	
MAXIMUM ≤ 32°	30	29.8	26.2	20.9	5.1	0.1	0.0	0.0	0.0	0.4	16.3	28.1	29.9	156.8	
MINIMUM ≤ 32°	30	31.0	28.3	31.0	26.1	5.5	0.0	0.0	0.4	9.1	27.8	30.0	31.0	220.2	
MINIMUM ≤ 0°	30	25.3	22.2	16.0	2.2	0.0	0.0	0.0	0.0	0.0	3.2	19.3	25.0	113.2	
H/C	NORMAL HEATING DEG. DAYS	30	2315	1926	1670	999	504	179	121	283	615	1287	1882	2199	13980
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	0	20	42	11	1	0	0	0	74
RH	NORMAL (PERCENT)	30	72	70	63	54	49	57	65	72	71	76	75	74	66
	HOUR 03 LST	30	71	71	70	68	67	76	82	86	82	79	75	74	75
	HOUR 09 LST	30	71	71	68	56	50	59	68	76	76	79	76	74	69
	HOUR 15 LST	30	71	66	52	41	35	42	49	55	54	66	74	75	57
	HOUR 21 LST	30	71	71	65	53	46	52	61	72	74	77	76	75	66
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	52	4.2	2.4	0.5	0.4	0.2	0.3	0.8	1.7	1.4	1.8	1.2	2.7	17.6
	THUNDERSTORMS	52	0.0	0.0	0.0	0.0	0.4	3.1	2.4	0.9	0.1	0.0	0.0	0.0	6.9
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	45	5.0	5.0	4.7	5.3	5.5	5.8	5.9	6.2	6.1	6.3	5.5	5.6	5.6
	MIDNIGHT-MIDNIGHT (OKTAS)	32	4.8	4.5	4.4	5.0	5.4	5.8	5.9	6.0	5.8	6.0	5.2	5.2	5.3
	MEAN NO. DAYS WITH:														
CLEAR	46	9.1	8.1	9.9	6.7	4.6	3.0	3.3	2.8	4.1	3.8	6.8	6.7	68.9	
PARTLY CLOUDY	46	5.9	6.0	7.0	7.9	11.0	10.4	8.9	6.8	6.1	4.9	5.0	5.7	85.6	
CLOUDY	46	16.0	14.2	14.1	15.4	15.4	16.6	18.2	20.9	19.3	21.5	17.6	18.0	207.2	
PR	MEAN STATION PRESSURE (IN)	29	29.38	29.37	29.33	29.31	29.32	29.32	29.40	29.40	29.30	29.22	29.31	29.29	29.33
	MEAN SEA-LEVEL PRES. (IN)	18	29.83	29.93	29.91	29.85	29.84	29.86	29.92	29.89	29.81	29.80	29.85	29.76	29.85
WINDS	MEAN SPEED (MPH)	47	3.1	3.8	5.1	6.4	7.5	6.9	6.5	6.0	5.9	5.0	3.6	2.9	5.2
	PREVAIL. DIR (TENS OF DEGS)	31	02	04	36	36	36	24	23	22	36	36	36	04	36
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	6	23	30	29	31	30	25	31	31	23	25	22	21	31
	DIR. (TENS OF DEGS)		13	07	06	25	12	06	01	26	26	26	05	25	26
	YEAR OF OCCURRENCE		2001	2001	2003	2002	1998	2003	2002	2003	1998	2002	1999	1999	AUG 2003
MAXIMUM 5-SECOND:															
SPEED (MPH)	6	36	38	34	59	37	33	40	37	28	36	28	24	59	
DIR. (TENS OF DEGS)		12	06	27	05	11	07	27	26	07	26	25	08	05	
YEAR OF OCCURRENCE		2001	2001	1998	2003	1998	2003	1999	2003	2002	2002	2003	2000	APR 2003	
PRECIPITATION	NORMAL (IN)	30	0.56	0.36	0.28	0.21	0.60	1.40	1.73	1.74	1.12	0.92	0.68	0.74	10.34
	MAXIMUM MONTHLY (IN)	52	2.40	1.75	2.24	3.06	1.67	3.52	5.96	6.20	3.05	2.19	3.32	3.23	6.20
	YEAR OF OCCURRENCE		1993	1966	1991	2002	1955	1955	2003	1967	1960	1983	1970	1984	AUG 1967
	MINIMUM MONTHLY (IN)	52	0.01	0.01	T	T	0.07	0.19	0.35	0.40	0.15	0.08	T	T	T
	YEAR OF OCCURRENCE		1966	2000	1987	1991	1957	1966	1993	1957	1968	1954	1953	1969	APR 1991
	MAXIMUM IN 24 HOURS (IN)	52	0.75	0.97	1.17	1.06	0.88	1.52	2.56	3.42	1.21	2.22	0.84	1.25	3.42
	YEAR OF OCCURRENCE		1993	1966	1991	2002	1955	1955	2003	1967	1954	1976	1970	1968	AUG 1967
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	7.8	5.9	5.1	3.7	7.4	11.0	12.5	12.7	10.4	12.0	10.5	9.8	108.8	
PRECIPITATION ≥ 1.00	30	0.0	0.0	0.0	0.0	0.0	0.1	0.1	*	0.0	0.0	0.0	0.0	0.2	
SNOWFALL	NORMAL (IN)	30	10.6	7.1	5.2	2.4	0.6	0.0	0.0	0.0	2.2	12.0	13.8	13.5	67.4
	MAXIMUM MONTHLY (IN)	52	40.2	43.1	30.4	15.4	14.1	T	T	0.1	24.4	25.9	54.0	50.7	54.0
	YEAR OF OCCURRENCE		1993	1966	1991	2002	1992	1993	1990	1995	1992	1982	1970	1984	NOV 1970
	MAXIMUM IN 24 HOURS (IN)	52	10.1	20.1	12.6	6.3	9.4	T	T	0.1	9.0	10.4	14.6	14.7	20.1
	YEAR OF OCCURRENCE		1993	1966	1963	1992	1992	1993	1990	1995	1992	1974	1970	1968	FEB 1966
	MAXIMUM SNOW DEPTH (IN)	54	46	52	54	49	14	0	0	0	12	16	42	46	54
YEAR OF OCCURRENCE		1993	1966	1991	1991	1991				1992	1982	1970	1990	MAR 1991	
NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	3.4	2.2	1.7	0.8	0.1	0.0	0.0	0.0	0.7	4.7	4.8	4.2	22.6	

PRECIPITATION (inches) 2003 FAIRBANKS, AK (FAI)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	0.14	0.33	0.27	0.21	0.11	1.22	1.17	1.14	0.47	1.08	1.03	0.55	7.72
1975	0.60	0.04	0.22	0.47	0.49	0.99	1.81	2.10	0.20	0.79	0.44	0.31	8.46
1976	0.22	0.01	0.55	0.08	0.94	1.08	1.60	0.69	1.05	0.89	0.13	0.08	7.32
1977	0.31	0.81	0.26	0.36	1.63	3.01	1.58	0.41	2.51	1.11	0.19	0.80	12.98
1978	0.39	0.19	0.09	0.16	0.44	1.71	1.19	1.24	0.98	0.59	1.02	1.40	9.40
1979	0.58	0.02	0.47	0.83	0.88	1.54	2.54	1.22	0.19	0.94	0.63	0.49	10.33
1980	0.52	0.22	0.13	0.10	0.31	1.38	1.37	1.68	0.76	0.39	0.70	0.32	7.88
1981	0.31	0.78	0.07	0.32	0.73	1.91	2.41	1.35	0.80	0.91	0.91	0.58	11.08
1982	0.34	0.38	0.39	0.93	0.96	1.96	2.33	1.67	0.77	1.48	1.49	0.23	12.93
1983	0.24	0.18	0.09	0.27	0.14	0.57	1.71	3.33	0.92	2.19	0.08	0.65	10.37
1984	0.89	0.64	0.03	0.47	1.17	0.48	2.95	1.15	0.22	0.70	0.42	3.23	12.35
1985	0.52	0.48	0.57	0.36	0.41	1.80	1.13	1.88	2.59	1.00	0.90	0.08	11.72
1986	0.13	0.19	0.32	0.07	0.54	0.87	2.12	2.36	0.65	1.79	0.48	0.34	9.86
1987	0.68	0.10	T	0.05	0.21	1.02	1.70	0.56	0.57	0.39	0.64	0.51	6.43
1988	0.32	0.13	0.13	0.21	1.51	2.26	1.02	1.95	0.73	1.07	0.68	0.46	10.47
1989	0.52	0.98	0.13	0.05	0.99	2.53	0.91	0.78	0.72	1.28	0.97	0.57	10.43
1990	0.52	0.72	0.11	0.07	0.40	1.73	4.87	3.60	1.74	0.31	1.51	2.94	18.52
1991	1.17	0.17	2.24	T	0.10	0.36	0.81	1.18	1.16	0.71	0.48	1.02	9.40
1992	0.85	0.66	0.07	0.47	1.23	2.15	2.32	0.59	1.34	0.91	0.93	1.21	12.73
1993	2.40	0.31	0.26	0.03	0.63	1.24	0.35	1.58	2.63	0.61	0.86	0.43	11.33
1994	0.47	0.32	0.17	0.07	0.22	2.41	1.11	1.38	0.61	0.82	1.67	0.48	9.73
1995	0.25	0.29	0.18	0.17	0.73	1.91	1.32	2.10	1.33	0.31	0.20	0.06	8.85
1996	0.32	1.40	0.53	0.05	0.14	1.56	1.07	2.83	1.06	1.13	0.81	0.46	11.36
1997	0.25	0.34	0.06	0.01	0.07	1.03	1.08	1.70	0.48	0.94	0.26	0.52	6.74
1998	0.08	0.11	T	0.05	0.41	1.33	3.35	3.18	1.19	0.27	0.21	0.56	10.74
1999	0.22	0.21	0.19	0.04	0.31	1.30	2.11	1.85	1.83	0.90	0.58	0.73	10.27
2000	1.97	T	0.10	T	0.74	0.72	1.29	3.04	1.48	0.91	0.37	0.16	10.78
2001	0.40	0.66	0.43	0.16	0.62	0.65	2.45	2.01	0.25	0.55	0.06	0.24	8.48
2002	0.54	0.18	0.14	3.06	0.38	0.78	2.63	3.02	1.09	1.05	0.05	0.41	13.33
2003	0.28	0.89	0.02	0.05	0.27	0.61	5.96	1.89	1.27	0.34	1.68	0.59	13.85
POR= 74 YRS	0.68	0.47	0.40	0.31	0.64	1.37	1.88	2.15	1.02	0.80	0.70	0.59	11.01

WBAN : 26411

AVERAGE TEMPERATURE (°F) 2003 FAIRBANKS, AK (FAI)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	-16.7	-17.8	7.6	34.9	51.4	58.7	63.5	59.1	51.4	21.4	0.6	-11.3	25.2
1975	-15.5	-3.4	12.6	30.5	53.5	63.4	68.4	56.1	45.8	23.9	-8.0	-16.1	25.9
1976	-11.5	-13.7	12.1	36.0	47.8	59.6	61.8	59.2	45.4	23.9	15.9	-3.9	27.7
1977	9.8	8.6	4.6	27.8	48.7	59.6	62.8	62.6	45.6	25.6	-7.6	-14.9	27.8
1978	0.1	3.9	14.0	34.8	50.2	54.6	63.5	59.5	46.8	23.3	8.6	3.3	30.2
1979	-7.7	-25.3	12.0	30.9	49.9	57.4	61.3	60.4	46.5	32.4	20.2	-10.2	27.3
1980	-9.5	16.0	17.3	35.9	50.7	56.5	60.9	53.6	43.0	33.0	11.5	-24.0	28.7
1981	18.1	5.1	27.1	31.4	51.3	58.9	56.5	53.6	44.1	29.5	12.3	-4.2	32.0
1982	-18.0	-3.9	13.1	27.7	46.8	58.5	63.1	56.6	49.3	18.5	4.4	2.2	26.5
1983	-11.0	3.4	13.8	37.4	50.4	62.3	64.2	53.5	41.2	23.6	8.6	-3.7	28.6
1984	-5.9	-13.3	21.6	30.3	47.2	61.6	60.9	53.8	46.8	25.9	0.1	-3.1	27.2
1985	11.1	-9.4	14.6	20.8	46.7	57.8	63.1	56.3	42.9	18.8	-4.7	7.7	27.1
1986	-2.1	4.7	6.0	24.0	47.8	62.6	63.6	54.7	46.3	27.1	0.2	7.3	28.5
1987	0.7	1.5	13.5	35.0	50.9	61.9	64.2	57.7	44.1	33.0	6.0	-3.2	30.4
1988	-5.3	3.9	17.8	33.6	52.8	62.9	65.8	58.4	44.4	17.4	-3.1	4.2	29.4
1989	-21.3	3.4	6.7	36.2	47.8	60.1	64.6	60.8	48.6	26.2	-7.1	4.5	27.5
1990	-12.9	-21.7	18.5	38.1	55.1	61.6	65.3	60.0	44.8	24.1	-4.9	-6.3	26.8
1991	-4.7	-1.2	11.9	35.4	51.2	63.8	60.6	54.4	48.0	24.9	0.6	-2.9	28.5
1992	-4.7	-8.7	14.0	26.1	41.8	60.0	64.1	56.5	31.7	17.5	10.4	-7.6	25.1
1993	-3.9	2.4	17.2	41.1	53.7	62.0	65.6	56.1	44.1	29.3	8.4	0.6	31.4
1994	-1.5	-6.4	10.5	34.7	51.6	58.4	64.7	59.6	43.7	21.0	0.3	-8.5	27.3
1995	-9.4	-2	3.8	40.1	53.5	60.9	63.1	57.3	52.8	28.0	-2.7	-9.0	28.2
1996	-16.8	-2.6	15.5	33.3	49.1	59.5	63.4	53.4	42.0	13.2	-1.9	-13.4	24.6
1997	-16.2	13.0	4.7	35.4	49.0	63.1	64.9	58.7	49.7	17.5	10.6	-7.0	28.6
1998	-13.6	2.1	18.4	38.6	50.0	58.8	62.7	53.0	46.1	26.1	5.0	-5.8	28.5
1999	-17.0	-16.7	7.2	32.7	46.9	61.4	61.5	58.0	45.2	19.5	-4.7	-12.8	23.4
2000	-9.9	6.7	17.6	31.9	44.4	61.5	59.6	51.7	41.7	22.3	8.7	0.3	28.0
2001	7.8	7.0	9.9	33.3	44.5	61.1	60.0	57.3	47.5	22.0	0.6	-10.5	28.4
2002	3.5	-5	9.9	23.2	50.4	58.2	61.8	54.6	47.4	31.7	19.2	4.9	30.4
2003	-3.3	11.0	8.6	33.1	47.2	60.2	60.7	56.2	41.8	32.0	9.2	-9.1	29.0
POR= 74 YRS	-9.8	-2.9	10.2	30.6	48.0	59.3	61.4	55.6	44.6	25.4	3.3	-7.6	26.5

HEATING DEGREE DAYS (base 65°F) 2003 FAIRBANKS, AK (FAI)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	85	195	402	1342	1935	2370	2497	1918	1620	1028	347	69	13808
1975-76	33	270	570	1270	2195	2513	2372	2285	1631	861	527	156	14683
1976-77	116	188	583	1269	1466	2136	1709	1574	1871	1107	500	155	12674
1977-78	101	124	573	1216	2184	2480	2013	1712	1576	898	454	304	13635
1978-79	65	176	542	1286	1689	1912	2260	2533	1638	1018	463	220	13802
1979-80	124	143	548	1004	1336	2335	2312	1415	1475	868	436	248	12244
1980-81	127	351	654	985	1599	2766	1447	1676	1168	999	418	188	12378
1981-82	255	347	622	1094	1573	2150	2581	1929	1602	1113	555	216	14037
1982-83	86	252	465	1434	1816	1946	2356	1725	1581	823	451	133	13068
1983-84	62	351	705	1280	1688	2126	2201	2277	1338	1035	549	120	13732
1984-85	140	344	538	1205	1950	2111	1666	2086	1558	1321	558	215	13692
1985-86	72	267	654	1430	2095	1776	2079	1686	1825	1224	527	113	13748
1986-87	110	312	559	1169	1943	1787	1994	1776	1594	893	428	128	12693
1987-88	61	218	620	987	1768	2111	2185	1768	1455	934	371	96	12574
1988-89	39	202	611	1469	2045	1883	2676	1722	1804	859	529	149	13988
1989-90	73	134	484	1195	2164	1875	2420	2433	1431	798	310	127	13444
1990-91	74	178	600	1261	2097	2212	2161	1849	1640	877	421	130	13500
1991-92	143	321	504	1234	1935	2105	2163	2140	1577	1160	711	157	14150
1992-93	45	259	995	1463	1636	2253	2134	1751	1478	711	343	103	13171
1993-94	43	273	620	1099	1694	1995	2061	2002	1689	900	408	210	12994
1994-95	56	217	634	1357	1941	2280	2310	1827	1896	739	354	143	13754
1995-96	92	235	365	1141	2033	2299	2541	1962	1528	946	486	171	13799
1996-97	71	353	681	1600	2010	2424	2509	1450	1862	880	485	106	14431
1997-98	40	204	453	1467	1624	2224	2429	1755	1437	786	460	199	13978
1998-99	103	365	563	1200	1793	2188	2535	2282	1784	963	553	131	14460
1999-00	147	221	584	1403	2084	2403	2315	1680	1467	987	631	112	14034
2000-01	165	407	693	1318	1682	2001	1764	1616	1701	940	629	126	13042
2001-02	164	231	521	1326	1926	2333	1899	1828	1700	1246	453	197	13824
2002-03	121	324	524	1023	1366	1857	2110	1505	1742	950	547	141	12210
2003-	154	265	689	1015	1667	2289							

WBAN : 26411

COOLING DEGREE DAYS (base 65°F) 2003 FAIRBANKS, AK (FAI)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	0	0	0	0	1	9	44	20	0	0	0	0	74
1975	0	0	0	0	0	28	146	1	0	0	0	0	175
1976	0	0	0	0	0	2	23	14	0	0	0	0	39
1977	0	0	0	0	0	0	44	54	0	0	0	0	98
1978	0	0	0	0	0	0	27	10	0	0	0	0	37
1979	0	0	0	0	0	0	16	7	0	0	0	0	23
1980	0	0	0	0	0	0	8	6	0	0	0	0	14
1981	0	0	0	0	1	11	0	2	0	0	0	0	14
1982	0	0	0	0	0	27	36	0	0	0	0	0	63
1983	0	0	0	0	5	61	40	0	0	0	0	0	106
1984	0	0	0	0	0	22	21	2	0	0	0	0	45
1985	0	0	0	0	0	8	20	4	0	0	0	0	32
1986	0	0	0	0	0	46	74	0	0	0	0	0	120
1987	0	0	0	0	0	42	42	0	0	0	0	0	84
1988	0	0	0	0	0	41	72	2	0	0	0	0	115
1989	0	0	0	0	0	10	67	11	0	0	0	0	88
1990	0	0	0	0	11	32	91	35	0	0	0	0	169
1991	0	0	0	0	0	100	13	0	0	0	0	0	113
1992	0	0	0	0	0	17	21	4	0	0	0	0	42
1993	0	0	0	0	0	18	70	3	0	0	0	0	91
1994	0	0	0	0	0	19	55	55	0	0	0	0	129
1995	0	0	0	0	5	24	41	0	4	0	0	0	74
1996	0	0	0	0	0	11	29	0	0	0	0	0	40
1997	0	0	0	0	0	56	46	15	0	0	0	0	117
1998	0	0	0	0	0	18	37	1	0	0	0	0	56
1999	0	0	0	0	0	27	45	11	0	0	0	0	83
2000	0	0	0	0	0	16	5	0	0	0	0	0	21
2001	0	0	0	0	0	15	14	0	0	0	0	0	29
2002	0	0	0	0	8	0	30	7	0	0	0	0	45
2003	0	0	0	0	0	3	27	1	0	0	0	0	31

SNOWFALL (inches) 2003 FAIRBANKS, AK (FAI)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	0.0	0.0	0.3	24.4	22.5	17.9	14.1	1.6	5.0	4.4	T	0.0	90.2
1975-76	0.0	0.0	T	14.4	11.4	6.7	6.4	0.5	10.4	1.2	T	0.0	51.0
1976-77	0.0	0.0	T	14.7	4.3	2.6	6.7	19.0	5.5	6.8	T	0.0	59.6
1977-78	0.0	0.0	1.0	17.3	5.1	14.4	4.9	3.0	1.6	0.7	0.1	0.0	48.1
1978-79	0.0	0.0	0.3	7.6	15.1	21.7	9.7	0.5	7.7	3.1	0.0	0.0	65.7
1979-80	0.0	0.0	T	6.5	4.4	11.0	10.8	4.4	3.2	0.8	0.0	0.0	41.1
1980-81	0.0	0.0	3.4	5.1	10.6	4.8	6.2	10.2	0.9	1.9	0.0	0.0	43.1
1981-82	0.0	0.0	0.3	7.8	16.2	10.6	7.6	7.0	7.2	11.4	0.3	0.0	68.4
1982-83	0.0	0.0	0.6	25.9	27.8	3.8	4.8	3.6	2.1	1.9	0.4	0.0	70.9
1983-84	0.0	0.0	0.4	17.3	2.4	14.4	13.8	11.1	0.8	6.7	T	0.0	66.9
1984-85	0.0	0.0	0.0	11.3	8.5	50.7	8.1	8.0	7.4	5.9	1.0	0.0	100.9
1985-86	0.0	0.0	2.1	5.4	14.7	1.8	2.3	2.6	3.7	1.0	0.0	0.0	33.6
1986-87	0.0	0.0	T	11.8	7.4	6.0	12.0	1.5	T	1.0	T	0.0	39.7
1987-88	0.0	0.0	T	3.5	14.1	10.4	6.3	2.5	2.6	0.2	0.3	0.0	39.9
1988-89	0.0	0.0	0.2	12.9	15.2	10.5	10.8	13.4	3.9	0.4	0.8	0.0	68.1
1989-90	0.0	0.0	0.5	19.7	18.1	11.1	10.4	16.0	2.6	T	0.0	T	78.4
1990-91	T	0.0	1.6	6.9	37.3	47.5	20.6	3.0	30.4	T	0.0	0.0	147.3
1991-92	0.0	0.0	0.0	12.2	9.7	18.9	15.5	15.0	1.8	11.5	14.1	0.0	98.7
1992-93	0.0	0.0	24.4	16.7	18.7	28.5	40.2	5.4	5.2	T	0.0	T	139.1
1993-94	0.0	0.0	7.5	7.3	16.3	8.5	11.2	8.1	4.5	0.8	0.0	0.0	64.2
1994-95	0.0	0.0	0.0	15.3	35.3	13.1	5.9	7.4	3.1	1.3	0.0	0.0	81.4
1995-96	0.0	0.1	0.0	7.1	3.2	0.8	5.4	29.3	9.6	0.7	0.0	0.0	56.2
1996-97	0.0	T	7.1	16.2	18.4	9.4	4.9	8.8	2.3	0.4	0.0	T	67.5
1997-98	0.0	0.0	0.0	19.3	7.6	13.1	1.3	3.2	0.9	0.5	0.1	0.0	46.0
1998-99	0.0	0.0	T	6.2	4.6	8.5	4.2	2.7	3.5	0.9	0.4	0.0	31.0
1999-00	0.0	0.0	3.0	11.1	11.2	13.8	27.9	0.2	3.0	T	T	0.0	70.2
2000-01	0.0	0.0	1.4	9.8	7.5	2.7	6.7	10.7	8.6	2.2	7.0	0.0	56.6
2001-02	0.0	0.0	0.3	6.4	2.8	4.6	11.4	4.2	2.2	15.4	1.8	0.0	49.1
2002-03	0.0	T	T	14.7	1.6	9.6	6.9	7.8	0.8	T	T	0.0	41.4
2003-	0.0	0.0	0.1	2.6	27.6	9.6							
POR= 51 YRS	T	0.0	1.5	10.8	13.3	12.8	10.2	8.5	6.0	3.2	1.3	T	67.6

WBAN : 26411

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 FAIRBANKS, ALASKA (FAI)

Fairbanks is located in the Tanana Valley, in the interior of Alaska. It has a distinctly continental climate, with large variation of temperature from winter to summer.

The climate in Fairbanks is conditioned mainly by the response of the land mass to large changes in solar heat received by the area during the year. The sun is above the horizon from 18 to 21 hours during June and July. During this period, daily average maximum temperatures reach the lower 70s. Temperatures of 80 degrees or higher occur on about 10 days each summer. In contrast, from November to early March, when the period of daylight ranges from 10 to less than 4 hours per day, the lowest temperature readings normally fall below zero quite regularly. Low temperatures of -40 degrees or colder occur each winter. The range of temperatures in summer is comparatively low, from the lower 30s to the mid 90s. In winter, this range is larger, from about 65 below to 45 degrees above. This large winter range of temperature reflects the great difference between frigid weather associated with dry northerly airflow from the Arctic to mild temperatures associated with southerly airflow from the Gulf of Alaska, accompanied by chinook winds off the Alaska Range, 80 miles to the south of Fairbanks.

Snow cover is persistent in Fairbanks, without interruption, from October through April. Snowfalls of 4 inches or more in a day occur only three times during winter. Blizzard conditions are almost never seen, as winds in Fairbanks are above 20 miles an hour less than 1 percent of the time. Precipitation normally reaches a minimum in spring, and a maximum in August, when rainfall is common. During summer, thunderstorms occur in Fairbanks on an average of about eight days. Thunderstorms are about three times more frequent over the hills to the north and east of Fairbanks. Damaging hail or wind rarely accompany thunderstorms around Fairbanks.

There are rolling hills reaching elevations up to 2,000 feet above Fairbanks to the north and east of the city. During winter, the uplands are often warmer than Fairbanks, as cold air settles into the valley. In some months, temperatures in the uplands will average more than 10 degrees warmer than Fairbanks. During summer, the uplands are a few degrees cooler than the city. Precipitation in the uplands around Fairbanks is heavier than it is in the city by roughly 20 to 50 percent. Fairbanks exhibits an urban heat island, especially during winter. Low lying areas nearby, such as the community of North Pole, are often colder than the city, sometimes by as much as 15 degrees.

During winter, with temperatures of -20 degrees or colder, ice fog frequently forms in the city. Cold snaps accompanied by ice fog generally last about a week, but can last three weeks in unusual situations. The fog is almost always less than 300 feet deep, so that the surrounding uplands are usually in the clear, with warmer temperatures. Visibility in the ice fog is sometimes quite low, and this can hinder aircraft operations for as much as a day in severe cases. Aside from the low visibility in winter ice fog, flying weather in Fairbanks is quite favorable, especially from February through May, when crystal clear weather is common and the length of daylight is rapidly increasing.

Hardy vegetables and grains grow luxuriantly. Freezing of local rivers normally begins in the first week of October. The date when ice will normally support a persons weight is October 27. Rivers remain frozen and safe for travel until early April. Breakup of the river ice usually occurs in the first week of May.

STATION LOCATION

FAIRBANKS, 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										HYGROMETER
							GROUND	WIND	EXTREME	PSYCHROMETER	SUNSHINE	TIPPING GAUGE	WINDHOLE	8 INCH	RAINFALL		
*NOTE: <u>AIRPORT</u>																	
Weather Bureau Building Fairbanks Airport 4-1/2 mi. WSW of P.O.	8/22/51	4/13/55	4 mi. WSW	64°49'	147°52'	434	32	7	5		f5		4		f. Discontinued 8/22/51 - 10/25/52.		
Terminal Building	4/13/55	12/01/97	250 ft. NW	64°49'	147°52'	436	62 i33 t30	7 n q22	5 h6 n q22			g5 k6 m20 p18 r22	5 m19 p17 r21 u5	j5	g. Installed 10/21/55. h. Effective 8/3/57. i. Effective 9/25/57. j. Commissioned 1400' ENE of thermometer site 8/12/63. k. Effective 7/18/66. m. Moved to roof 8/1/69. n. Removed 12/8/69. p. Minor adjustment 12/1970. q. Installed on roof 12/31/71. r. Minor adjustment 5/1979. t. Lowered 8/27/84. u. Type change 11/5/84.		
International Airport	12/01/97	Present	NA	64°49'	147°51'	v461								S	ASOS Commissioned 12/01/97 v. Ground Elevation		

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* NOTES: For earlier station history see previous editions.