

2003

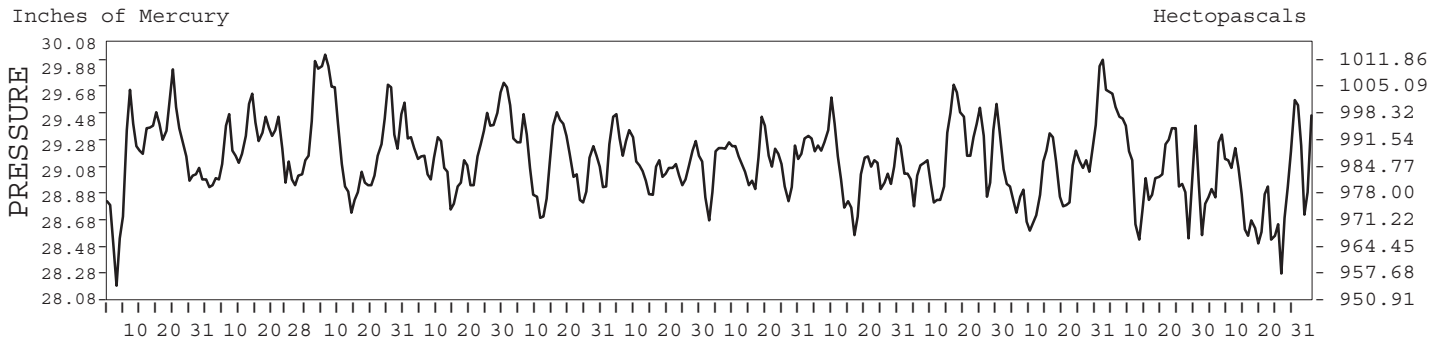
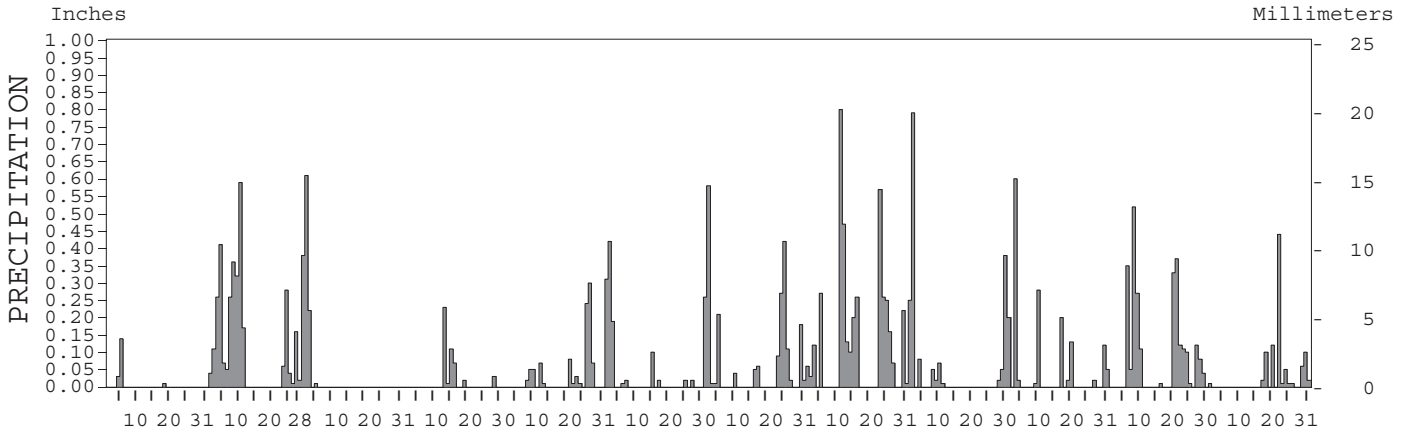
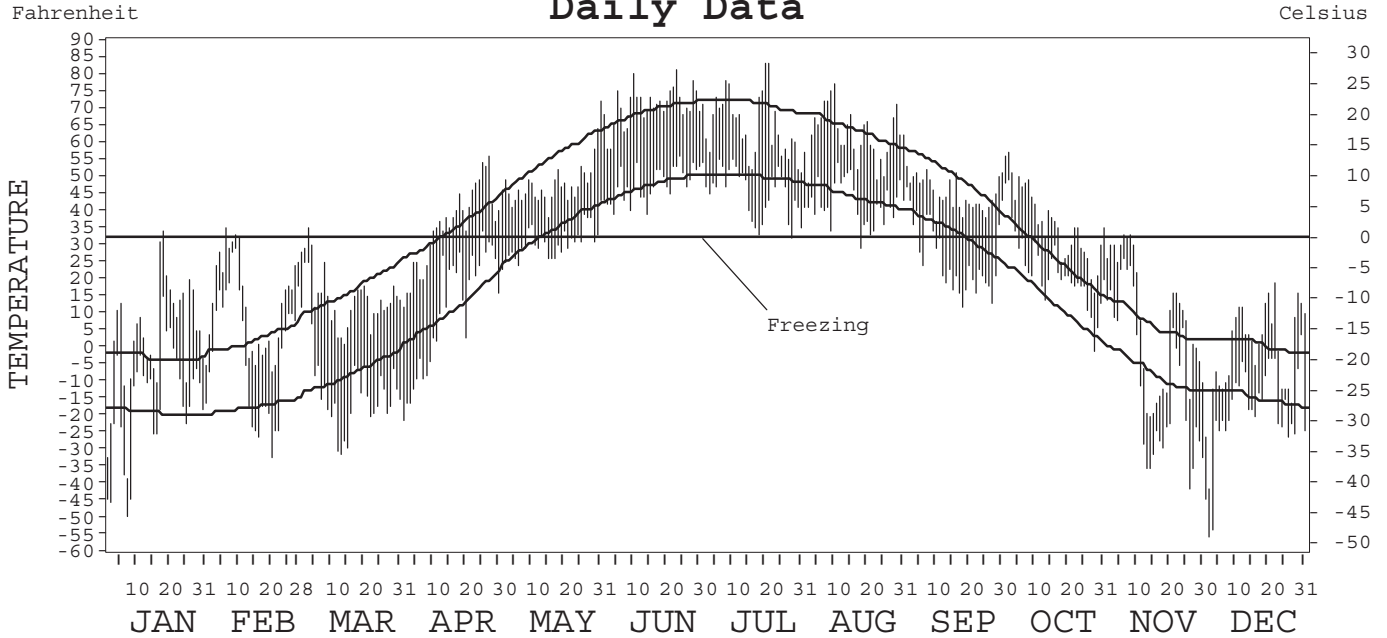
LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0197-9647

BETTLES, ALASKA (BTT)

Daily Data



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

METEOROLOGICAL DATA FOR 2003

BETTLES, AK (BTT)

LATITUDE: 66° 54' 58" N LONGITUDE: 151° 30' 32" W ELEVATION (FT): GRND: 649 BARO: 652 TIME ZONE: ALASKA (UTC + 9) WBAN: 26533

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	3.2	13.5	14.6	35.5	48.0	70.6	64.9	62.1	45.1	36.3	7.6	-.9	33.4	
	HIGHEST DAILY MAXIMUM	34	35	35	56	72	81	83	77	53	57	33	19	83	
	DATE OF OCCURRENCE	18	06	03	27	31	23	21+	10	01	02	08+	22	JUL 21+	
	MEAN DAILY MINIMUM	-15.5	-1.0	-11.2	10.9	30.7	47.6	45.3	42.2	26.4	22.5	-9.0	-18.4	14.2	
	LOWEST DAILY MINIMUM	-49	-32	-31	-21	23	39	32	29	10	-1	-41	-55	-55	
	DATE OF OCCURRENCE	07	20	13	01	01	14+	28	18	18	28	26	02	DEC 02	
	AVERAGE DRY BULB	-6.1	6.3	1.7	23.2	39.4	59.1	55.1	52.2	35.8	29.4	-.7	-9.6	23.8	
	MEAN WET BULB		5.9	1.0	21.2	34.7	50.6	50.2	48.4	32.4	27.8				
	MEAN DEW POINT		2.5	-6.0	12.6	26.0	41.3	44.9	44.5	26.0	24.3				
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 70°	0	0	0	0	1	18	10	5	0	0	0	0	0	34
MAXIMUM ≤ 32°	30	26	30	9	0	0	0	0	0	12	28	31	166		
MINIMUM ≤ 32°	31	28	31	29	21	0	1	1	21	27	30	31	251		
MINIMUM ≤ 0°	28	14	27	9	0	0	0	0	0	1	18	30	127		
H/C	HEATING DEGREE DAYS	2196	1636	1955	1246	788	172	299	390	873	1093	1964	2307	14919	
	COOLING DEGREE DAYS	0	0	0	0	0	3	0	0	0	0	0	0	3	
RH	MEAN (PERCENT)	75	83	70	62	62	55	71	78	70	82	83	77	72	
	HOUR 03 LST	75	83	75	74	77	73	89	91	80	84	82	80	80	
	HOUR 09 LST	78	84	74	66	64	55	73	86	78	85	83	79	75	
	HOUR 15 LST	72	81	58	48	48	39	57	62	53	73	83	78	63	
	HOUR 21 LST	74	84	75	61	55	48	63	76	74	83	84	79	71	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	0	1	2	1	1	0	0	2	0	3	3	1	14	
	THUNDERSTORMS	0	0	0	0	0	10	0	0	0	0	0	0	10	
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.)	29.19	29.26	29.34	29.21	29.20	29.16	29.14	29.12	29.22	29.11	29.08	28.94	29.16	
	MEAN SEA-LEVEL PRESS. (IN.)	29.96	30.01	30.10	29.95	29.92	29.86	29.85	29.83	29.95	29.83	29.84	29.70	29.90	
WINDS	RESULTANT SPEED (MPH)	3.4	3.3	2.4	3.1	0.8	1.3	4.5	0.9	1.3	3.1	2.2	2.2	1.4	
	RES. DIR. (TENS OF DEGS.)	36	34	34	36	01	17	21	22	36	35	34	34	34	
	MEAN SPEED (MPH)	5.4	4.3	4.1	6.1	6.3	5.3	6.5	4.7	5.1	4.4	3.4	3.5	4.9	
	PREVAIL. DIR. (TENS OF DEGS.)	34	33	01	02	02	14	22	01	36	32	32	33	33	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	25	15	23	18	22	29	26	17	24	22	14	20	29	
	DIR. (TENS OF DEGS.)	05	01	36	26	22	27	24	24	23	04	02	01	27	
	DATE OF OCCURRENCE	17	16	11	29	20	15	15	21+	11	05	27	03	JUN 15	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	37	17	30	23	32	45	38	23	30	31	17	24	45	
DIR. (TENS OF DEGS.)	05	01	36	23	05	26	24	28	23	04	36	01	26		
DATE OF OCCURRENCE	17	23+	11	29+	04	15	15	20	11	05	27	03	JUN 15		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.18	3.21	1.22	0.47	0.94	1.11	2.33	3.98	1.72	1.65	2.59	0.95	20.35	
	GREATEST 24-HOUR (IN.)	0.17	0.68	0.61	0.23	0.36	0.66	0.58	0.80	0.79	0.62	0.52	0.44	0.80	
	DATE OF OCCURRENCE	04-05	09-10	02	13	26-27	01-02	02	11	02	03-04	08	22	AUG 11	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	3	17	4	6	12	9	15	17	10	11	15	12	131	
PRECIPITATION ≥ 0.10	1	10	3	2	2	4	7	13	3	6	10	4	65		
PRECIPITATION ≥ 1.00	0	0	0	0	0	0	0	0	0	0	0	0	0		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	2.6	40.9	17.4	5.7	0.4	0.0	0.0	0.0	0.3	8.0	35.9	21.3	132.5	
	GREATEST 24-HOUR (IN.)	2.5	8.1	8.2	2.8	0.4	0.0	0.0	0.0	0.3	3.8	5.6	11.4	11.4	
	DATE OF OCCURRENCE	04-05	10	02	13	23				10	17	08	22	DEC 22	
	MAXIMUM SNOW DEPTH (IN.)	17	39	49	36	18	0	0	0	0	5	23	32	49	
	DATE OF OCCURRENCE	10+	27	04+	15+	01					20	24	23	MAR 04+	
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	1	11	3	2	0	0	0	0	0	3	11	5	36		

NORMALS, MEANS, AND EXTREMES

BETTLES, AK (BTT)

LATITUDE: 66° 54' 58" N LONGITUDE: 151° 30' 32" W ELEVATION (FT): GRND: 649 BARO: 652 TIME ZONE: ALASKA (UTC + 9) WBAN: 26533

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	-3.1	2.0	16.4	34.1	54.9	68.7	70.8	63.2	49.1	25.4	6.4	.4	32.4
	MEAN DAILY MAXIMUM	52	-4.1	1.5	14.8	32.7	52.9	68.0	69.3	62.1	48.4	25.1	5.9	-1.7	31.2
	HIGHEST DAILY MAXIMUM	53	48	40	49	63	86	92	93	88	79	57	45	38	93
	YEAR OF OCCURRENCE		1980	1977	1998	1995	1983	1999	1986	1994	1957	2003	1976	1960	JUL 1986
	MEAN OF EXTREME MAXS.	52	25.8	25.2	34.8	48.9	70.4	81.3	83.5	76.9	63.2	42.6	28.7	24.4	50.5
	NORMAL DAILY MINIMUM	30	-19.2	-17.7	-8.0	10.6	33.7	46.9	49.5	43.7	32.8	11.9	-8.0	-15.1	13.4
	MEAN DAILY MINIMUM	52	-19.8	-17.0	-8.9	10.4	33.4	46.8	48.6	43.4	32.2	11.8	-8.0	-17.0	13.0
	LOWEST DAILY MINIMUM	53	-70	-64	-56	-37	-10	27	29	22	0	-35	-57	-59	-70
	YEAR OF OCCURRENCE		1975	1999	1964	1986	1952	1960	1955	1974	1992	1992	1974	1974	JAN 1975
	MEAN OF EXTREME MINS.	52	-49.0	-44.3	-34.3	-14.6	17.6	35.2	37.7	30.4	16.7	-11.4	-33.2	-45.0	-7.9
	NORMAL DRY BULB	30	-11.2	-7.9	4.2	22.4	44.3	57.8	60.2	53.5	41.0	18.7	-8	-7.4	22.9
	MEAN DRY BULB	52	-12.0	-7.7	3.0	21.5	43.1	57.4	59.0	52.6	40.3	18.6	-1.0	-9.3	22.1
	MEAN WET BULB	13	-5.6	-5.2	4.1	20.0	37.8	50.7	50.3	45.5	34.5	17.3	-3.1	-3.5	20.2
	MEAN DEW POINT	13	-10.1	-10.7	-3.6	11.9	29.0	42.5	45.0	41.4	30.1	13.3	-8.4	-8.6	14.3
NORMAL NO. DAYS WITH:															
MAXIMUM ≥ 70°	30	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.4	
MAXIMUM ≤ 32°	30	30.1	26.9	27.5	13.0	0.4	0.0	0.0	0.0	0.9	23.4	29.4	30.9	182.5	
MINIMUM ≤ 32°	30	30.8	27.3	30.8	28.4	12.1	0.2	0.1	2.0	14.2	29.2	29.9	31.0	236.0	
MINIMUM ≤ 0°	30	24.0	22.1	21.2	7.5	0.2	0.0	0.0	0.0	0.1	6.5	20.8	24.7	127.1	
H/C	NORMAL HEATING DEG. DAYS	30	2365	2041	1888	1280	642	227	170	366	721	1437	1975	2245	15357
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	0	11	20	7	0	0	0	0	38
RH	NORMAL (PERCENT)	30								76	76				
	HOUR 03 LST	30								90	85				
	HOUR 09 LST	30			70	64	59	59	69	79	79	80	75	77	
	HOUR 15 LST	30		68	60	56	46	44	52	61	62	73	74	75	
	HOUR 21 LST	30			69					75	79		76		
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	32	0.8	0.5	0.3	0.4	0.3	0.3	0.7	1.2	1.3	0.9	0.5	0.5	7.7
	THUNDERSTORMS	32	0.0	0.0	0.0	0.0	0.6	3.0	3.3	0.7	0.1	0.0	0.0	0.0	7.7
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	5	3.8	4.6	4.9	4.8	5.0	5.3	4.9	5.1	4.3	4.9	3.8	4.1	4.6
	MIDNIGHT-MIDNIGHT (OKTAS)	4	2.7	1.5	2.4	2.7	4.0	3.7	4.3	4.4	4.3	4.8	3.3	3.1	3.4
	MEAN NO. DAYS WITH:														
	CLEAR	6	14.8	9.8	9.4	7.2	6.8	3.8	1.7	1.8	5.5	3.8	7.8	7.5	79.9
PARTLY CLOUDY	6	5.2	4.2	5.4	9.8	11.0	13.4	8.2	6.8	5.8	4.8	5.2	5.5	85.3	
CLOUDY	6	11.0	14.0	16.2	13.0	13.2	12.8	16.0	17.2	13.7	17.2	12.0	12.8	169.1	
PR	MEAN STATION PRESSURE (IN)	20	29.16	29.28	29.22	29.13	29.12	29.11	29.20	29.19	29.10	29.10	29.18	29.17	29.16
	MEAN SEA-LEVEL PRES. (IN)	18	29.91	30.00	30.00	29.93	29.90	29.97	29.93	29.89	29.85	29.88	29.90	29.84	29.92
WINDS	MEAN SPEED (MPH)	32	5.5	6.1	6.7	7.6	7.1	6.7	6.3	6.0	6.3	6.3	5.7	5.5	6.3
	PREVAIL. DIR (TENS OF DEGS)	20	33	33	32	02	36	23	23	18	36	36	33	33	33
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	4	25	24	24	28	22	29	30	22	24	22	22	23	30
	DIR. (TENS OF DEGS)		05	03	05	23	22	27	24	01	23	04	02	05	24
	YEAR OF OCCURRENCE		2003	2001	2000	2002	2003	2003	2002	2002	2003	2003	2002	2000	JUL 2002
	MAXIMUM 5-SECOND:														
SPEED (MPH)	4	37	35	39	38	35	45	43	36	30	38	31	38	45	
DIR. (TENS OF DEGS)		05	05	05	04	06	26	25	36	23	03	06	04	26	
YEAR OF OCCURRENCE		2003	2001	2000	2000	2002	2003	2002	2000	2003	2001	2002	2000	JUN 2003	
PRECIPITATION	NORMAL (IN)	30	0.84	0.61	0.55	0.38	0.85	1.43	2.10	2.54	1.82	1.08	0.90	0.87	13.97
	MAXIMUM MONTHLY (IN)	53	3.42	3.21	3.60	3.08	3.01	3.59	5.42	9.16	4.80	3.82	3.85	3.09	9.16
	YEAR OF OCCURRENCE		1973	2003	1963	2002	1998	1965	1963	1994	2002	1972	1967	1992	AUG 1994
	MINIMUM MONTHLY (IN)	53	T	T	T	0.01	0.04	T	0.00	0.41	0.13	0.12	0.02	0.12	0.00
	YEAR OF OCCURRENCE		1961	1979	1960	1986	1959	1959	1959	1958	1984	1974	1995	1995	JUL 1959
	MAXIMUM IN 24 HOURS (IN)	53	1.40	1.03	0.87	0.98	1.02	1.93	1.46	2.96	1.31	1.32	1.35	0.78	2.96
	YEAR OF OCCURRENCE		1973	1996	1963	1982	1995	1958	1970	1994	1954	1972	1992	1992	AUG 1994
	NORMAL NO. DAYS WITH:														
	PRECIPITATION ≥ 0.01	30	8.3	7.0	7.5	5.6	7.1	10.7	12.2	13.5	12.1	11.7	10.3	11.1	117.1
	PRECIPITATION ≥ 1.00	30	0.0	0.0	0.0	0.0	*	*	0.1	0.1	*	*	*	0.0	0.2
SNOWFALL	NORMAL (IN)	30	14.8	9.8	9.9	5.3	0.8	0.0	0.0	0.*	2.7	13.2	14.4	16.8	87.7
	MAXIMUM MONTHLY (IN)	53	55.8	40.9	35.2	34.7	12.3	T	T	2.6	19.2	28.3	41.6	40.2	55.8
	YEAR OF OCCURRENCE		1973	2003	1991	1984	2001	1974	2000	1969	1996	1972	1967	1987	JAN 1973
	MAXIMUM IN 24 HOURS (IN)	53	21.7	11.1	10.6	10.8	6.7	T	T	2.6	5.6	10.8	19.0	11.4	21.7
	YEAR OF OCCURRENCE		1973	1996	1991	1975	1952	1987	2000	1969	1972	1976	1994	2003	JAN 1973
	MAXIMUM SNOW DEPTH (IN)	51	71	61	73	86	50	0	0	2	9	22	42	59	86
	YEAR OF OCCURRENCE		1973	1968	1963	1963	1963			1969	1968	1994	1994	1994	APR 1963
NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	4.2	3.2	2.9	1.1	0.4	0.0	0.0	0.0	0.9	4.4	3.7	4.8	25.6	

PRECIPITATION (inches) 2003 BETTLES, AK (BTT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	0.35	0.09	0.26	0.12	0.44	1.60	1.53	1.32	2.05	0.12	1.51	0.27	9.66
1975	0.68	0.54	0.29	0.38	0.30	1.25	1.05	0.68	2.37	0.63	0.51	0.58	9.26
1976	0.49	1.43	0.60	0.17	1.20	1.34	2.95	1.92	1.87	1.48	1.45	0.21	15.11
1977	0.40	0.49	0.66	0.71	1.45	1.31	1.37	1.71	3.65	0.80	0.10	1.36	14.01
1978	0.40	0.41	0.43	0.46	0.11	2.45	0.44	0.83	1.22	0.41	1.30	1.04	9.50
1979	0.09	T	0.44	1.07	0.65	1.94	2.25	1.11	0.87	1.13	2.66	0.51	12.72
1980	0.56	0.67	0.10	0.24	1.13	2.49	1.69	1.76	0.46	1.99	0.30	0.39	11.78
1981	0.94	1.21	0.31	0.58	0.52	1.56	4.06	2.79	0.65	1.19	0.81	0.43	15.05
1982	0.35	0.32	1.24	1.51	0.36	1.70	4.29	2.51	4.14	0.38	0.72	1.01	18.53
1983	0.05	0.12	0.11	0.33	0.22	0.18	1.77	4.07	1.81	1.23	0.22	0.17	10.28
1984	0.55	0.35	0.10	0.75	0.42	1.65	3.94	3.23	0.13	0.15	0.08	0.82	12.17
1985	0.87	0.27	0.96	0.12	1.01	1.56	1.45	2.35	3.91	0.81	0.87	0.69	14.87
1986	0.34	0.29	0.16	0.01	0.73	2.62	1.35	2.12	2.47	1.46	0.41	1.06	13.02
1987	0.65	0.30	0.04	0.10	1.02	2.28	2.17	1.52	3.20	1.61	0.51	1.46	14.86
1988	1.28	0.59	0.16	0.28	0.91	0.58	1.44	3.61	1.50	1.05	0.45	1.15	13.00
1989	0.66	2.24	0.08	1.26	1.44	1.26	2.00	3.57	1.01	0.99	0.50	1.01	16.02
1990	0.39	0.59	1.89	0.32	0.68	1.39	1.80	1.54	2.38	1.03	0.53	1.01	13.55
1991	1.61	0.42	2.25	0.44	2.23	0.63	1.51	0.83	1.00	1.16	0.22	0.66	12.96
1992	0.50	0.81	0.51	0.25	0.22	3.11	2.86	2.58	0.59	0.97	3.36	3.09	18.85
1993	3.20	0.49	1.15	0.06	0.83	1.36	1.53	2.59	4.72	1.28	1.91	0.88	20.00
1994	0.75	0.33	1.35	0.28	0.89	0.92	1.88	9.16	0.33	1.38	1.41	1.21	19.89
1995	0.24	0.13	0.52	0.24	2.20	1.42	1.26	2.64	1.88	0.96	0.02	0.12	11.63
1996	0.21	2.77	0.38	0.11	0.33	0.96	2.31	2.40	1.28	0.58	0.60	0.78	12.71
1997	0.30	0.83	T	0.07	0.22	0.85	1.88	2.23	2.34	0.92	0.95	0.77	11.36
1998	0.23	0.29	0.07	0.60	3.01	1.43	3.52	4.66	1.85	0.50	0.60	0.78	17.54
1999	1.49	0.43	0.44	0.17	0.63	0.74	3.20	2.41	1.52	0.56	0.36	0.71	12.66
2000	2.55	0.65	0.62	0.23	0.40	1.05	3.73	2.00	2.60	0.78	1.72	0.47	16.80
2001	0.51	0.86	0.33	0.55	1.30	1.37	1.62	2.63	1.08	1.63	0.68	0.47	13.03
2002	1.25	0.48	0.16	3.08	0.73	1.55	1.46	1.34	4.80	0.88	0.43	0.84	17.00
2003	0.18	3.21	1.22	0.47	0.94	1.11	2.33	3.98	1.72	1.65	2.59	0.95	20.35
POR= 53 YRS	0.81	0.73	0.70	0.57	0.70	1.39	1.93	2.55	1.77	1.10	0.93	0.81	13.99

WBAN : 26533

AVERAGE TEMPERATURE (°F) 2003 BETTLES, AK (BTT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	-19.5	-27.6	0.4	23.2	47.3	55.4	59.4	56.8	46.5	16.9	-10.2	-19.1	19.1
1975	-21.7	-6.1	5.9	18.0	45.2	57.8	62.4	53.9	38.5	18.0	-10.1	-18.6	20.3
1976	-13.8	-20.2	4.4	26.2	43.8	56.8	58.4	58.4	44.3	19.0	12.4	-9.3	23.4
1977	5.3	4.8	-5.6	14.6	43.3	58.2	63.7	60.9	42.8	22.1	-8.4	-14.7	23.9
1978	2.2	-1.8	6.9	26.2	45.2	53.3	62.5	56.4	45.6	15.7	8.4	-4.2	26.4
1979	-5.1	-26.7	4.4	22.1	48.0	55.7	58.8	57.8	42.9	27.6	17.0	-22.6	23.3
1980	-14.6	4.9	8.3	24.1	48.0	55.7	60.7	51.5	35.9	23.9	4.9	-27.4	23.0
1981	16.1	-1.7	17.5	21.9	48.5	55.6	53.9	51.3	39.7	23.4	2.5	-8.4	26.7
1982	-14.9	-8.9	6.0	17.2	39.6	56.9	60.4	53.3	43.0	9.6	-6	-2.1	21.6
1983	-17.2	-2.3	4.7	26.9	43.3	58.4	61.2	48.6	33.9	14.0	8.5	-7.1	22.7
1984	-16.2	-24.2	9.1	14.8	40.5	60.3	58.2	48.9	42.4	20.8	-5.9	-8.1	20.1
1985	10.3	-14.4	6.9	10.7	41.2	56.2	60.3	53.5	38.7	14.6	6.9	6.9	
1986	-5.5	0.3		10.2	41.5	59.4	59.7	49.3	40.8	17.1	-4.9	5.3	
1987	-4.7	-5.0	6.1	21.1	45.2	58.3	60.7	53.1	37.2	25.9	3.8	-5.1	24.7
1988	-5.1	0.0	8.5	25.9	47.6	59.3	61.9	52.9	40.2	9.3	-5.3	0.5	24.6
1989	-31.5	6.3	0.7	26.6	41.8	56.5	58.9	55.8	43.2	19.7	-9.6	0.7	22.4
1990	-16.6	-29.4	11.1	29.3	51.0	59.1	62.5	57.2	38.7	18.2	-12.9	-14.5	21.1
1991	-8.0	-6.3	2.6	26.8	48.6	62.0	58.9	51.7	44.8	20.4	-5.6	-7.5	24.0
1992	-4.7	-12.3	9.7	19.5	34.0	59.9	62.9	52.8	29.3	13.7	-2	-13.2	21.0
1993	-11.4	-6	10.5	31.5	46.0	60.8	63.6	51.2	36.8	24.7	0.2	1.8	26.3
1994	0.7	-8.3	-9	24.1	47.8	55.1	62.3	54.0	39.4	18.1	-12.1	-10.3	22.5
1995	-8.0	-3.1	-2.6	33.8	50.3	56.0	60.4	52.7	47.2	23.1	-9.0	-11.5	24.1
1996	-20.1	-9.7	7.4	21.4	43.3	56.8	58.4	47.2	37.5	8.0	0.6	-9.0	20.2
1997	-14.9	5.2	-2.2	26.1	45.2	61.2	60.5	54.5	45.8	11.8	7.9	-4.8	24.7
1998	-13.1	0.6	14.7	34.1	45.8	55.7	61.8	50.3	42.1	23.8	4.0	-5.2	26.2
1999	-19.9	-18.0	2.0	24.2	46.3	61.5	60.8	56.3	43.2	16.5	-5.9	-16.5	20.9
2000	-13.8	5.8	9.9	21.7	37.5	59.6	56.4	48.8	37.7	15.2	7.3	0.4	23.9
2001	5.1	3.2	1.4	22.7	35.7	58.4	57.0	53.9	44.5	18.2	0.2	-8.0	24.4
2002	-2.4	-3.5	7.7	15.3	43.8	54.9	57.6	49.1	43.2	24.3	15.6	2.4	25.7
2003	-6.1	6.3	1.7	23.2	39.4	59.1	55.1	52.2	35.8	29.4	-7	-9.6	23.8
POR= 52 YRS	-12.0	-7.8	4.2	21.3	43.1	57.5	59.0	52.7	40.3	18.6	-9	-9.3	22.2

HEATING DEGREE DAYS (base 65°F) 2003 BETTLES, AK (BTT)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	192	260	543	1480	2257	2615	2690	1997	1829	1403	605	210	16081
1975-76	134	337	790	1454	2260	2595	2450	2474	1877	1156	651	240	16418
1976-77	219	204	613	1420	1575	2310	1848	1682	2191	1510	665	196	14433
1977-78	88	157	663	1321	2205	2471	1948	1872	1793	1158	607	341	14624
1978-79	94	257	574	1521	1696	2144	2173	2574	1878	1280	521	271	14983
1979-80	194	218	655	1154	1435	2721	2472	1742	1751	1221	521	279	14363
1980-81	146	420	864	1269	1800	2868	1513	1870	1466	1288	502	283	14289
1981-82	335	416	753	1283	1876	2276	2481	2073	1827	1427	780	247	15774
1982-83	170	356	654	1716	1969	2079	2549	1883	1866	1135	677	223	15277
1983-84	144	498	925	1575	1692	2240	2525	2592	1730	1499	750	144	16314
1984-85	215	490	673	1365	2132	2271	1689	2228	1800	1623	729	269	15484
1985-86	143	359	782	1557	1800	1800	2186	1811	1641	1641	722	170	15484
1986-87	202	482	719	1479	2097	1850	2158	1963	1827	1310	608	228	14923
1987-88	140	364	828	1206	1836	2174	2175	1888	1748	1169	532	176	14236
1988-89	118	370	738	1725	2113	1998	2996	1638	1993	1145	712	258	15804
1989-90	194	279	646	1398	2240	1994	2532	2649	1669	1064	436	198	15299
1990-91	115	241	784	1448	2341	2470	2268	1996	1935	1140	501	171	15410
1991-92	199	406	599	1373	2122	2249	2159	2246	1707	1358	955	167	15540
1992-93	82	372	1064	1586	1953	2431	2364	1834	1680	999	583	133	15081
1993-94	84	418	838	1240	1939	1959	1993	2055	2045	1217	530	304	14622
1994-95	120	355	759	1446	2316	2336	2268	1908	2097	931	453	260	15249
1995-96	149	379	528	1293	2226	2375	2640	2167	1780	1301	667	239	15744
1996-97	199	543	819	1764	1930	2288	2471	1669	2077	1163	604	141	15668
1997-98	148	322	568	1640	1709	2158	2413	1794	1554	921	589	276	14092
1998-99	116	447	681	1269	1823	2169	2623	2319	1949	1219	570	141	15326
1999-00	176	273	645	1498	2121	2515	2437	1712	1701	1290	842	159	15369
2000-01	269	493	813	1537	1724	1994	1852	1722	1965	1262	903	195	14729
2001-02	245	338	611	1444	1935	2255	2082	1915	1770	1482	651	296	15024
2002-03	237	486	645	1253	1474	1931	2196	1636	1955	1246	788	172	14019
2003-	299	390	873	1093	1964	2307							

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COOLING DEGREE DAYS (base 65°F) 2003 BETTLES, AK (BTT)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	0	0	0	0	0	20	30	11	0	0	0	0	61
1975	0	0	0	0	0	0	59	0	0	0	0	0	59
1976	0	0	0	0	0	2	20	5	0	0	0	0	27
1977	0	0	0	0	0	0	54	36	0	0	0	0	90
1978	0	0	0	0	0	0	21	0	0	0	0	0	21
1979	0	0	0	0	0	0	11	1	0	0	0	0	12
1980	0	0	0	0	0	8	17	11	0	0	0	0	36
1981	0	0	0	0	0	9	0	0	0	0	0	0	9
1982	0	0	0	0	0	13	31	0	0	0	0	0	44
1983	0	0	0	0	9	30	33	0	0	0	0	0	72
1984	0	0	0	0	0	9	11	0	0	0	0	0	20
1985	0	0	0	0	0	9	3	10	0	0	0	0	20
1986	0	0	0	0	0	10	46	0	0	0	0	0	56
1987	0	0	0	0	0	34	13	0	0	0	0	0	47
1988	0	0	0	0	0	15	29	0	0	0	0	0	44
1989	0	0	0	0	0	8	10	2	0	0	0	0	20
1990	0	0	0	0	7	27	46	7	0	0	0	0	87
1991	0	0	0	0	0	88	18	0	0	0	0	0	106
1992	0	0	0	0	0	22	21	1	0	0	0	0	44
1993	0	0	0	0	0	12	46	0	0	0	0	0	58
1994	0	0	0	0	0	12	43	19	0	0	0	0	74
1995	0	0	0	0	7	0	13	0	0	0	0	0	20
1996	0	0	0	0	0	1	1	0	0	0	0	0	2
1997	0	0	0	0	0	35	13	3	0	0	0	0	51
1998	0	0	0	0	0	5	22	0	0	0	0	0	27
1999	0	0	0	0	0	43	52	13	0	0	0	0	108
2000	0	0	0	0	0	4	11	0	0	0	0	0	15
2001	0	0	0	0	0	2	2	0	0	0	0	0	4
2002	0	0	0	0	0	0	16	0	0	0	0	0	16
2003	0	0	0	0	0	3	0	0	0	0	0	0	3

SNOWFALL (inches) 2003 BETTLES, AK (BTT)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	0.0	0.0	0.3	4.9	18.6	5.1	11.4	8.5	3.7	11.9	0.3	0.0	64.7
1975-76	0.0	0.0	T	7.2	7.7	12.2	13.1	14.8	8.4	3.2	T	0.0	66.6
1976-77	0.0	0.0	T	27.9	23.4	5.1	10.5	8.7	16.2	6.4	0.2	0.0	98.4
1977-78	0.0	0.0	T	12.6	1.2	29.7	9.4	8.0	13.4	5.5	T	0.0	79.8
1978-79	0.0	0.0	3.2	8.0	21.9	33.1	3.5	0.3	8.6	8.1	T	0.0	86.7
1979-80	0.0	0.0	8.0	15.0	36.3	13.0	8.7	11.0	4.2	6.1	0.0	0.0	102.3
1980-81	0.0	0.0	4.4	17.6	9.2	7.2	18.7	21.1	6.3	6.2	0.0	0.0	90.7
1981-82	0.0	0.0	0.6	8.8	25.8	7.9	4.1	1.8	24.2	5.3	1.1	0.0	79.6
1982-83	0.0	0.0	T	10.0	11.0	20.5	1.5	3.5	1.7	5.9	T	0.0	54.1
1983-84	0.0	T	3.7	21.7	7.5	6.6	12.4	11.0	3.0	34.7	2.0	0.0	102.6
1984-85	0.0	0.0	0.5	4.2	1.4	22.5	20.9	9.9	21.8	2.8	3.7	0.0	87.7
1985-86	0.0	0.0	0.6	8.3	10.7	10.8	7.6	5.3	1.2	0.8	1.2	0.0	46.5
1986-87	0.0	0.0	1.3	12.9	7.2	18.3	12.0	4.9	0.6	4.1	0.0	0.0	61.3
1987-88	0.0	0.0	2.0	19.6	9.6	40.2	18.2	13.5	6.3	2.8	2.6	0.0	114.8
1988-89	0.0	0.0	0.6	13.8	7.0	25.0	13.0	32.8	2.2	10.9	2.2	0.0	107.5
1989-90	0.0	0.0	T	8.2	10.8	18.0	10.8	7.1	31.0	3.3	0.0	0.0	89.2
1990-91	0.0	0.0	5.6	17.1	13.0	21.8	29.3	5.5	35.2	3.0	T	0.0	130.5
1991-92	0.0	0.0	0.0	6.2	4.1	11.0	8.2	11.6	7.9	4.0	3.3	0.0	56.3
1992-93	0.0	0.0	4.6	15.2	36.3	36.6	40.8	10.6	25.0	1.5	T	0.0	170.6
1993-94	0.0	T	8.9	12.4	27.9	20.4	15.7	5.9	18.3	3.4	0.3	0.0	113.2
1994-95	0.0	T	0.9	21.2	29.7	23.9	4.0	3.1	7.1	T	T	0.0	89.9
1995-96	0.0	0.0	0.0	8.7	1.1	2.0	3.2	31.7	6.2	1.8	1.6	0.0	56.3
1996-97	0.0	0.0	19.2	9.3	10.3	20.1	4.5	15.0	T	1.2	T	0.0	79.6
1997-98	0.0	0.0	0.0	11.6	15.8	15.2	3.3	7.6	1.0	2.8	1.7	0.0	59.0
1998-99	0.0	T	0.4	7.0	7.8	11.5	20.8	6.6	7.5	2.3	1.4	0.0	65.3
1999-00	0.0	0.0	1.1	12.0	9.4	13.1	34.7	13.1	10.1	3.2	T	T	96.7
2000-01	T	0.0	5.2	14.4	26.9	8.6	8.8	18.0	8.1	8.8	12.3	T	111.1
2001-02	0.0	0.0	2.1	20.4	14.5	5.9	28.8	8.7	2.1	16.2	0.8	T	99.5
2002-03	T	0.0	1.4	10.7	5.2	13.7	2.6	40.9	17.4	5.7	0.4	0.0	98.0
2003-	0.0	0.0	0.3	8.0	35.9	21.3							
POR= 52 YRS	0.0	0.1	1.9	12.1	13.7	14.7	12.2	10.3	10.1	6.7	1.5	T	83.3

WBAN : 26533

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
BETTLES,
ALASKA (BTT)

Bettles Airport is located on the south side of and adjacent to the Koyukuk River. The foothills of the Endicott Mountains are found to the west, north, and east of the station. The Koyukuk River valley extends for about 20 miles to the south where it then curves to the southwest. Changes in elevation for a distance of about 15 miles on all sides of the airport are small, with a very gradual rise from south to north. The land is timbered with low spruce and birch. Bettles Airport is one of four Weather Service stations located north of the Arctic Circle.

The climate of the Bettles area is typical of a continental regime. Temperatures during the long summer days are mild, with maximums mostly in the high 60s and low 70s, and occasionally in the 80s. The sun does not set during the period June 2 to July 9. The freeze-free period averages 89 days, extending from May to late August. There is no commercial agriculture in this area. Bettles provides a center for wilderness guided and unguided tours, hunting and fishing and gold mining.

Winters are typical of interior Alaska. Minimum temperatures average below zero from November through March, and readings in the -45 to -55 degree range are experienced each winter. Here, as in most of the interior, the transition from summer to winter and vice versa is rapid, resulting in short spring and fall seasons.

Annual precipitation amounts are slightly heavier than at most interior locations, but still fall well within what is expected for a continental climate. It also follows the pattern of nearly all Alaskan stations, with precipitation amounts building up to a maximum during late summer and fall months. Snow has occurred during all months except July. The total seasonal snowfall has ranged from less than 40 inches to more than 130 inches. Because of the cold temperatures, much of the snow remains on the ground during the winter.

Surface winds are seldom strong during any season of the year, nor do they show much seasonal variation. Wind directions prevail from the north ten months of the year.

STATION LOCATION

BETTLES, 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 TEMPERATURE	GROUND								HYGROMETER		8 INCH RAIN GAGE
							WIND INSTRUMENT	EXTREME THERMOMETER	PSYCHROMETER	SUNSHINE SWITCH	TIPPING BUCKET	WINDHOLE RAIN GAGE	8 INCH RAIN GAGE				
CAA Control Bldg.	4/4/44	4/4/51	NA	66° 54'	151° 43'	848	30	5	5	NA	NA	NA	4	NA	NA	CAA became FAA in 1959. a. Minor move 9/1/51. b. Minor Adjustment 7/28/56. c. Minor adjustment 8/5/59. d. Resurvey by USC&GS 5/18/68. Station type changed to WBAS/FSS 5/18/68; to WBO/FSS 1/23/69; to WSO/FSS 1/23/69; to WSO/FSS 8/25/70; to FSS 3/18/76. e. Minor move 7/7/82. f. Moved 17' SE 7/10/84. g. Moved 12' SE 8/8/85.	
CAA Control Bldg.	4/4/51	11/19/99	5 mi. NE	66° 55'	151° 31'	666 d644	27 b27 e30	5 a4 f4	4 a4 f4	NA	NA	NA	3 c3 g4	NA	NA		
FAA Control Bldg.+ Bettles Field +FSS Building (Effective 12/3/69)																	
<u>Airport</u> Bettles Airport	11/19/99	Present	NA	66° 55'	151° 31'	h649								S		ASOS Commissioned 11/19/99 h. Ground elevation.	

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