

2002

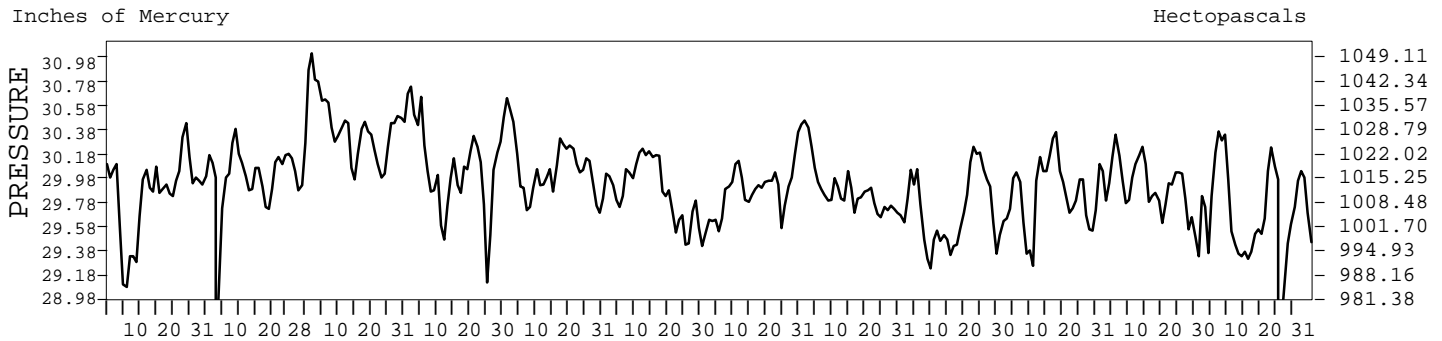
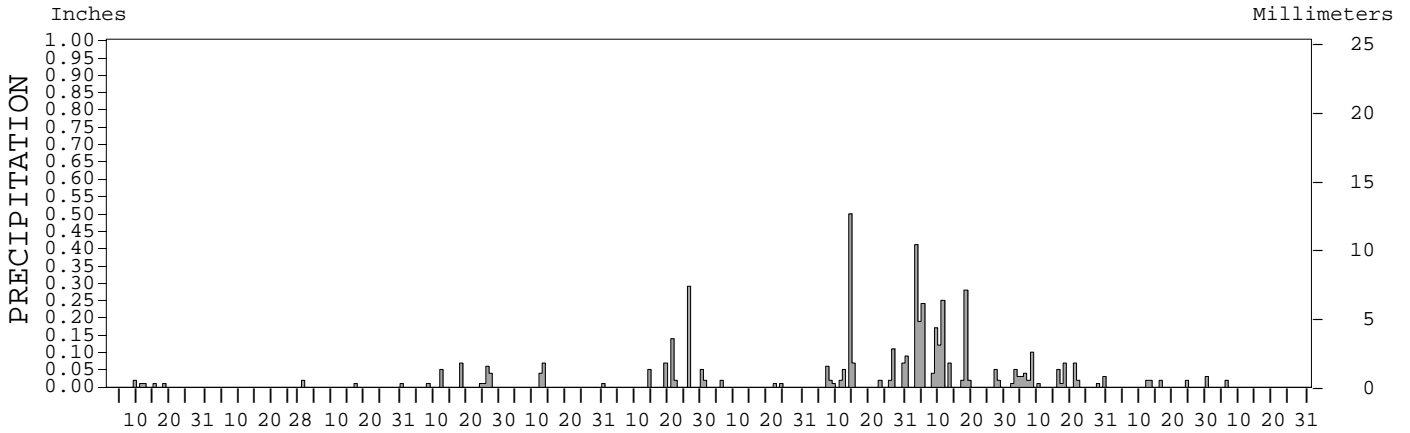
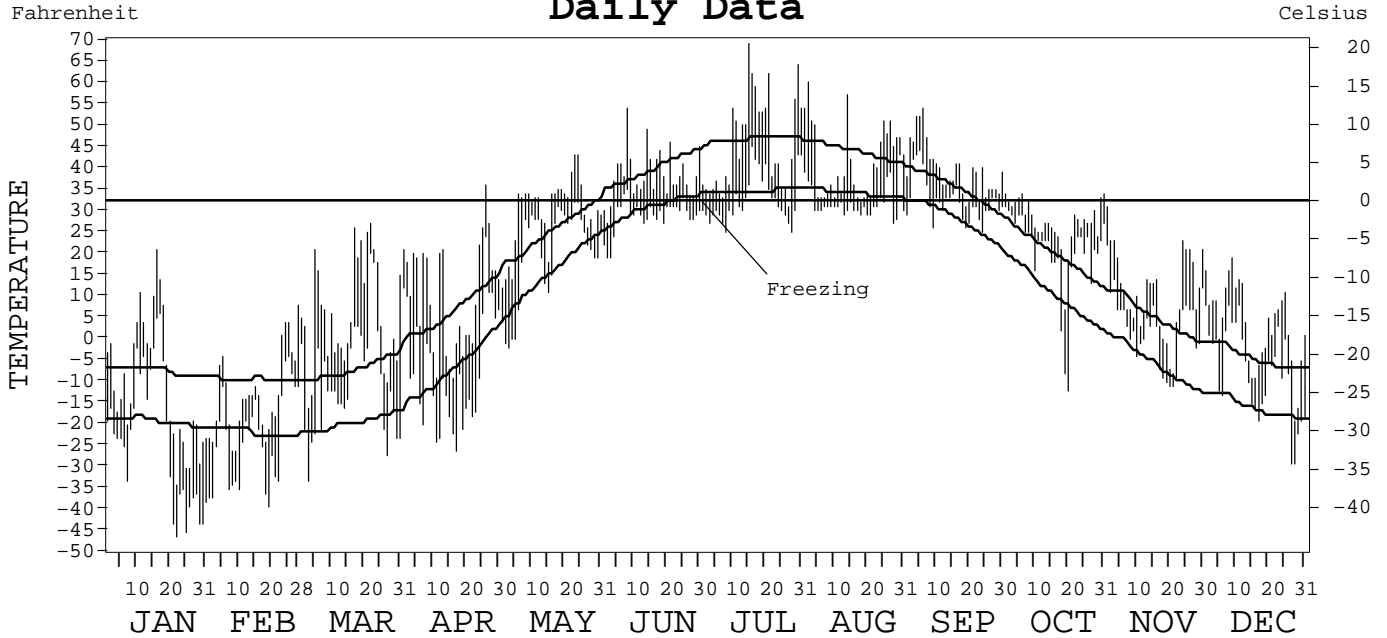
# LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0197-9582

## BARROW, ALASKA (BRW)

### 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
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# METEOROLOGICAL DATA FOR 2002

## BARROW, AK (BRW)

LATITUDE: 71° 17' 12" N      LONGITUDE: 156° 45' 48" W      ELEVATION (FT): GRND: 35      BARO: 38      TIME ZONE: ALASKA (UTC + 9)      WBAN: 27502

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	-10.4	-12.8	6.1	10.4	29.6	38.3	45.6	41.5	39.6	27.3	11.1	3.2	19.1	
	HIGHEST DAILY MAXIMUM	21	8	27	36	43	54	69	60	54	34	31	19	69	
	DATE OF OCCURRENCE	16	28	22	26	24+	08	15	02	06	31+	01	09	JUL 15	
	MEAN DAILY MINIMUM	-23.3	-23.1	-10.3	-7.3	19.9	28.8	32.7	31.9	32.4	20.2	2.3	-7.4	8.1	
	LOWEST DAILY MINIMUM	-46	-39	-33	-26	-2	19	25	27	25	-12	-11	-29	-46	
	DATE OF OCCURRENCE	22	19	03	17	03	03+	28+	28	24	20	21+	27+	JAN 22	
	AVERAGE DRY BULB	-16.8	-17.9	-2.1	1.6	24.8	33.6	39.2	36.7	36.0	23.8	6.7	-2.1	13.6	
	MEAN WET BULB			-1.6	2.2	24.3	32.3	37.4	35.5	35.4	22.9	6.3	-2.2		
	MEAN DEW POINT			-4.9	-0.9	22.1	30.5	35.3	34.5	34.3	19.9	3.7	-5.1		
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 70°	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	MAXIMUM ≤ 32°	31	28	31	29	15	3	1	1	3	26	30	31	229	
MINIMUM ≤ 32°	31	28	31	30	31	27	18	24	17	31	30	31	329		
MINIMUM ≤ 0°	29	28	25	21	4	0	0	0	0	2	12	23	144		
H/C	HEATING DEGREE DAYS	2528	2317	2071	1894	1237	935	792	868	863	1271	1740	2074	18590	
	COOLING DEGREE DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0	
RH	MEAN (PERCENT)	79	77	84	84	88	90	87	93	93	85	86	85	86	
	HOUR 03 LST	78	78	83	86	91	95	95	96	94	86	86	85	88	
	HOUR 09 LST	80	76	83	87	88	89	86	96	94	85	86	85	86	
	HOUR 15 LST	80	78	83	80	84	86	80	88	90	83	86	85	84	
	HOUR 21 LST	80	80	84	85	88	91	88	94	95	85	86	85	87	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	0	2	5	0	5	8	7	13	11	0	0	0	51	
	THUNDERSTORMS	0	0	0	0	0	0	0	0	0	0	0	0	0	
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.)	29.88		30.42	30.09	30.10	29.89	29.93	29.86	29.71	29.88	29.89			
	MEAN SEA-LEVEL PRESS. (IN.)	29.89		30.44	30.11	30.11	29.91	29.94	29.88	29.73	29.89	29.91			
WINDS	RESULTANT SPEED (MPH)	3.8	11.4	4.5	3.1	6.5	1.1	1.3	6.2	4.9	3.2	13.1	6.3	3.4	
	RES. DIR. (TENS OF DEGS.)	09	10	13	27	12	11	28	30	14	08	09	07	10	
	MEAN SPEED (MPH)	9.5	13.4	10.4	13.4	13.9	11.5	11.4	11.5	11.2	14.3	16.2	13.6	12.5	
	PREVAIL. DIR. (TENS OF DEGS.)	10	08	08	09	10	10	28	27	12	13	08	09	08	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	33	44	36	51	38	29	26	40	30	44	40	41	51	
	DIR. (TENS OF DEGS.)	13	10	12	26	09	24	26	24	28	31	08	25	26	
	DATE OF OCCURRENCE	17	04	16	26	01	30	05	14	02	08	05	01	APR 26	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	37	49	40	60	41	35	31	48	37	49	46	48	60	
DIR. (TENS OF DEGS.)	13	10	12	25	09	25	27	23	28	32	08	27	25		
DATE OF OCCURRENCE	17	04	16	26	01	30	24	14	02	08+	05	01	APR 26		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.06	T	0.04	0.25	0.12	0.62	0.06	1.04	1.88	0.55	0.11	0.02	4.75	
	GREATEST 24-HOUR (IN.)	0.02	T	0.02	0.07	0.07	0.29	0.02	0.50	0.41	0.11	0.03	0.02	0.50	
	DATE OF OCCURRENCE	09	28+	01	18	13	26	01	14	03	07-08	30	06	AUG 14	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	5	0	3	7	3	6	4	12	13	15	5	1	74	
PRECIPITATION ≥ 0.10	0	0	0	0	0	2	0	2	7	1	0	0	12		
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	0.1	1.5	7.4	1.7	0.4	0.8	1.1	2.8	12.5	6.7	4.2	41.8	
	GREATEST 24-HOUR (IN.)	0.6	0.1	0.8	1.6	1.0	0.2	0.3	0.5	2.3	2.1	2.4	1.0	2.4	
	DATE OF OCCURRENCE	09	21	01	12	13	19	01	12	18	07-08	16	11-12	NOV 16	
	MAXIMUM SNOW DEPTH (IN.)	9	9	9	12	12	0	0	0	1	9	12	11	12	
	DATE OF OCCURRENCE	31+	28+	31+	30+	01				18	23+	17	01	NOV 17	
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	0	0	0	2	1	0	0	0	1	4	2	0	10		

# NORMALS, MEANS, AND EXTREMES

## BARROW, AK (BRW)

LATITUDE: 71° 17' 12" N      LONGITUDE: 156° 45' 48" W      ELEVATION (FT): GRND: 35      BARO: 38      TIME ZONE: ALASKA (UTC + 9)      WBAN: 27502

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	-7.7	-9.8	-7.4	6.3	24.9	39.5	46.5	43.6	34.8	19.3	4.6	-4.7	15.8
	MEAN DAILY MAXIMUM	54	-7.7	-11.3	-7.7	6.3	24.4	38.5	45.5	42.9	34.3	19.6	5.1	-5.3	15.4
	HIGHEST DAILY MAXIMUM	82	36	36	34	42	47	72	79	76	62	43	39	34	79
	YEAR OF OCCURRENCE		1974	1982	1998	1936	1996	1996	1993	1968	1995	1954	1937	1932	JUL 1993
	MEAN OF EXTREME MAXS.	54	18.5	13.6	13.7	26.0	36.9	55.5	64.5	60.5	48.6	33.7	24.6	18.2	34.5
	NORMAL DAILY MINIMUM	30	-19.6	-22.0	-20.0	-7.3	15.3	30.4	34.3	33.8	27.5	9.8	-6.4	-16.4	4.9
	MEAN DAILY MINIMUM	54	-20.4	-23.6	-20.7	-7.8	14.7	29.8	33.7	33.6	27.3	10.0	-6.1	-16.9	4.5
	LOWEST DAILY MINIMUM	82	-53	-56	-52	-42	-19	4	22	20	1	-32	-40	-55	-56
	YEAR OF OCCURRENCE		1975	1924	1971	1924	1984	1969	1936	1925	1975	1970	1948	1924	FEB 1924
	MEAN OF EXTREME MINS.	54	-40.2	-42.0	-37.7	-26.3	-2.5	21.9	28.3	27.3	16.4	-10.6	-23.5	-34.8	-10.3
	NORMAL DRY BULB	30	-13.4	-17.8	-15.1	-2.2	19.3	34.0	39.3	37.9	30.5	13.5	-1.7	-11.2	9.4
	MEAN DRY BULB	54	-14.1	-17.5	-14.3	-.8	19.6	34.2	39.7	38.3	30.8	14.8	-.6	-11.1	9.9
	MEAN WET BULB	13	-13.3	-13.6	-11.4	.8	20.6	33.7	38.9	37.7	30.9	15.5	-.8	-9.5	10.8
	MEAN DEW POINT	13	-18.4	-17.4	-15.9	-3.1	18.3	31.4	37.0	35.9	29.0	12.7	-4.4	-13.7	7.6
	NORMAL NO. DAYS WITH:														
	MAXIMUM ≥ 70°	30	0.0	0.0	0.0	0.0	0.0	0.1	0.7	0.3	0.0	0.0	0.0	0.0	1.1
MAXIMUM ≤ 32°	30	30.9	27.9	31.0	29.3	26.4	4.3	0.1	1.9	12.9	29.2	30.0	31.0	254.9	
MINIMUM ≤ 32°	30	31.0	28.0	31.0	30.0	30.9	23.6	13.9	15.9	25.2	30.8	30.0	31.0	321.3	
MINIMUM ≤ 0°	30	28.8	26.4	30.2	24.2	3.0	0.0	0.0	0.0	0.0	8.5	22.1	28.6	171.8	
H/C	NORMAL HEATING DEG. DAYS	30	2440	2267	2423	1967	1391	903	763	815	1016	1564	1978	2346	19873
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	0	0	0	0	0	0	0	0	0
RH	NORMAL (PERCENT)	30	73	70	71	77	87	88	88	91	91	86	79	74	81
	HOUR 03 LST	30	73	70	70	78	90	93	94	95	92	86	79	74	83
	HOUR 09 LST	30	73	70	70	77	88	88	88	92	92	86	79	74	81
	HOUR 15 LST	30	73	70	71	76	84	85	83	87	88	85	80	74	80
	HOUR 21 LST	30	73	70	72	77	87	88	88	91	91	86	79	74	81
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	62	2.0	1.4	1.4	2.7	7.2	10.0	11.9	11.2	5.0	3.0	2.2	1.2	59.2
	THUNDERSTORMS	83	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	7	1.4	4.2	3.8	4.9	6.6	6.5	6.3	7.2	7.6	7.0	2.8	0.0	4.9
	MIDNIGHT-MIDNIGHT (OKTAS)	31	3.9	3.7	3.6	4.4	6.6	6.3	6.1	7.1	7.4	6.7	5.0	4.1	5.4
	MEAN NO. DAYS WITH:														
	CLEAR	54	6.2	11.7	13.5	10.4	3.3	3.5	3.4	1.4	1.2	2.3	5.5	3.5	65.9
PARTLY CLOUDY	54	1.5	5.6	7.1	7.0	5.1	5.8	7.0	3.8	2.6	3.8	2.6	0.0	51.9	
CLOUDY	54	2.7	10.8	10.4	12.5	22.7	20.7	20.2	25.3	25.9	24.6	10.5	0.0	186.3	
PR	MEAN STATION PRESSURE (IN)	28	29.99	30.08	30.11	30.09	30.01	29.91	29.90	29.89	29.89	29.90	29.97	30.02	29.98
	MEAN SEA-LEVEL PRES. (IN)	19	30.01	30.09	30.14	30.10	30.04	29.99	29.95	29.90	29.89	29.94	29.99	30.02	30.00
WINDS	MEAN SPEED (MPH)	36	12.4	11.9	11.9	11.9	12.4	11.8	12.0	12.8	13.1	13.5	13.4	12.2	12.4
	PREVAIL. DIR (TENS OF DEGS)	22	07	07	07	06	07	09	09	09	07	08	08	07	07
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	4	53	44	36	51	38	33	38	55	31	44	49	44	55
	DIR. (TENS OF DEGS)		07	10	12	26	09	24	25	27	10	31	07	08	27
	YEAR OF OCCURRENCE		2001	2002	2002	2002	2002	2000	2000	2000	2001	2002	2000	2000	AUG 2000
	MAXIMUM 5-SECOND:														
SPEED (MPH)	4	60	49	43	60	41	38	46	64	37	49	55	48	64	
DIR. (TENS OF DEGS)		07	10	07	25	09	24	24	27	28	32	07	27	27	
YEAR OF OCCURRENCE		2001	2002	1999	2002	2002	2000	2000	2000	2002	2002	2000	2002	AUG 2000	
PRECIPITATION	NORMAL (IN)	30	0.12	0.12	0.09	0.12	0.12	0.32	0.87	1.04	0.69	0.39	0.16	0.12	4.16
	MAXIMUM MONTHLY (IN)	82	1.04	0.81	1.49	1.36	0.81	1.15	3.19	2.81	1.88	1.65	1.15	0.76	3.19
	YEAR OF OCCURRENCE		1962	1959	1963	1963	1933	1955	1989	1963	2002	1925	1965	1967	JUL 1989
	MINIMUM MONTHLY (IN)	82	0.00	0.00	0.00	0.00	T	T	T	T	0.01	0.12	T	0.00	0.00
	YEAR OF OCCURRENCE		1939	1936	1928	1938	1995	1937	1937	1934	1969	1936	1989	1936	JAN 1939
	MAXIMUM IN 24 HOURS (IN)	81	0.70	0.36	0.71	0.42	0.30	0.82	1.32	0.83	0.56	1.00	0.41	0.26	1.32
	YEAR OF OCCURRENCE		1937	1959	1963	1963	1969	1955	1987	1960	1959	1926	1925	1930	JUL 1987
	NORMAL NO. DAYS WITH:														
	PRECIPITATION ≥ 0.01	30	5.4	5.0	4.6	5.3	5.5	5.5	9.2	11.7	12.2	12.7	6.7	5.5	89.3
PRECIPITATION ≥ 1.00	30	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	
SNOWFALL	NORMAL (IN)	30	2.0	1.9	1.7	2.1	1.7	0.8	0.2	0.9	5.0	7.4	3.1	2.2	29.0
	MAXIMUM MONTHLY (IN)	82	11.9	9.4	15.8	15.4	12.9	6.6	9.0	4.0	16.2	21.2	19.0	9.7	21.2
	YEAR OF OCCURRENCE		1962	1944	1963	1963	1933	1933	1922	1969	1987	1925	1925	1925	OCT 1925
	MAXIMUM IN 24 HOURS (IN)	82	7.3	3.6	7.1	4.2	5.0	3.2	6.0	2.5	5.1	15.0	6.3	5.0	15.0
	YEAR OF OCCURRENCE		2001	1959	1963	1963	1996	1981	1922	1936	1987	1926	2001	1922	OCT 1926
	MAXIMUM SNOW DEPTH (IN)	53	22	29	30	30	25	14	1	2	20	12	16	16	30
	YEAR OF OCCURRENCE		1962	1962	1962	1962	1963	1950	1963	1988	1962	1964	2001	1965	APR 1962
	NORMAL NO. DAYS WITH:														
SNOWFALL ≥ 1.0	30	0.4	0.4	0.2	0.5	0.4	0.3	0.0	0.2	1.7	1.6	0.7	0.4	6.8	

PRECIPITATION (inches) 2002 BARROW, AK (BRW)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1973	0.07	0.16	0.04	0.52	0.19	0.78	1.06	2.20	1.14	0.56	0.36	0.09	7.17
1974	0.38	0.06	0.01	T	0.06	0.52	0.55	0.59	0.49	0.20	0.16	0.04	3.06
1975	0.17	0.29	0.17	0.18	0.08	0.79	1.00	1.16	0.51	0.40	0.07	0.01	4.83
1976	0.04	0.07	0.04	0.10	0.03	0.30	0.37	0.17	0.71	0.58	0.45	0.02	2.88
1977	0.17	0.17	0.18	0.05	0.13	0.19	0.09	0.79	0.79	0.48	0.05	0.18	3.27
1978	0.08	0.17	0.08	0.13	0.03	0.37	0.73	0.50	1.11	0.13	0.32	0.22	3.87
1979	0.05	T	0.09	0.11	0.04	0.10	0.81	0.76	0.28	0.38	0.21	0.18	3.01
1980	0.15	0.15	0.02	0.06	0.01	0.56	0.77	1.41	0.73	0.36	0.12	0.08	4.42
1981	0.22	0.06	0.03	0.19	0.06	0.51	1.77	0.56	0.52	0.32	0.06	0.09	4.39
1982	0.17	0.43	0.24	0.34	0.39	0.21	0.78	0.86	0.59	0.56	0.02	0.13	4.72
1983	0.03	0.09	T	0.20	0.07	0.11	0.10	1.04	0.93	0.36	0.25	0.05	3.23
1984	0.19	0.16	0.11	0.27	0.07	0.03	0.83	1.64	0.15	0.33	0.12	0.08	3.98
1985	0.05	0.10	0.15	0.05	0.25	0.64	0.61	0.51	0.58	0.45	0.25	0.16	3.80
1986	0.16	0.14	0.09	0.03	0.07	0.07	0.79	0.69	1.45	0.43	0.14	0.09	4.15
1987	0.13	0.08	0.03	T	0.13	0.06	1.94	1.00	1.37	0.17	0.05	0.18	5.14
1988	0.02	0.04	0.10	0.03	0.02	0.15	0.74	1.57	0.41	0.24	0.01	0.26	3.59
1989	0.01	0.29		0.42	0.02	0.36	3.19	1.69	0.69	0.20	T	0.20	
1990	0.03	0.06	0.13	0.08	0.13	0.38	1.35	1.19	0.55	0.42	0.17	0.12	4.61
1991	0.07	0.08	0.02	0.07	0.17	0.08	0.22	0.20	0.35	0.39	0.07	0.03	1.75
1992	0.04	0.12	0.13	0.11	0.08	0.16	0.26	0.66	0.47	0.21	0.22	0.24	2.70
1993	0.45	0.17	0.11	0.03	0.11	0.44	0.67	0.98	1.50	0.50	0.25	0.12	5.33
1994	0.05	0.02	0.13	0.02	0.34	0.15	0.56	2.02	0.44	0.33	0.07	0.15	4.28
1995	0.06	0.03	0.23	0.13	T	0.36	1.09	0.31	0.16	0.14	0.19	0.05	2.75
1996	T	0.11	0.06	0.11	0.39	0.07	1.04	0.57	0.81	0.17	0.12	0.03	3.48
1997	0.08	T	0.03	0.11	0.03	0.63	0.48	2.64	0.59	0.41	0.08	0.06	5.14
1998	T	0.02	0.04	0.14	0.19	0.20	0.56	1.55	0.90	0.65	0.09	0.36	4.70
1999	0.09	0.08	0.09	0.07	0.03	0.31	0.67	1.38	0.37	0.23	0.23	0.13	3.68
2000	0.36	0.08	0.05	0.03	0.29	0.75	2.06	1.05	0.62	0.45	0.06	0.02	5.82
2001	0.63	0.09	0.01	0.12	0.15	0.20	1.55	1.25	0.53	0.20	0.46	0.06	5.25
2002	0.06	T	0.04	0.25	0.12	0.62	0.06	1.04	1.88	0.55	0.11	0.02	4.75
POR= 81 YRS	0.18	0.15	0.13	0.16	0.14	0.33	0.83	0.96	0.54	0.41	0.21	0.10	4.14

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AVERAGE TEMPERATURE (°F) 2002 BARROW, AK (BRW)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1973	-13.5	-13.2	-20.8	-2.7	19.1	33.2	39.7	39.8	34.0	19.4	7.9	-5.4	11.5
1974	-10.7	-28.3	-20.1	-7.9	18.1	30.0	39.1	42.3	32.9	6.2	-7.6	-26.6	5.6
1975	-26.4	-13.2	-7.3	-4.5	19.1	33.6	37.4	34.7	23.9	5.2	-11.3	-21.8	5.8
1976	-18.9	-22.9	-15.4	-2.1	17.2	33.5	38.5	37.5	32.2	13.7	2.5	-16.4	8.3
1977	-8.0	-16.4	-22.2	-6.4	19.0	34.1	38.8	44.4	35.7	20.2	-4.9	-7.6	10.6
1978	-6.0	-14.2	-10.5	1.6	16.4	33.0	39.8	36.6	33.5	7.1	5.4	-13.9	10.7
1979	-2.5	-20.0	-16.6	-9	19.8	32.4	43.0	46.1	36.5	19.0	9.5	-12.0	12.9
1980	-13.9	-10.3	-11.5	-3.8	17.0	37.0	35.7	33.9	25.1	14.5	-5.0	-15.6	8.6
1981	-9	-15.7	-10.9	1.1	23.6	34.6	39.7	33.6	25.5	14.2	-6	-8.1	11.3
1982	-11.1	-6.5	-12.4	-1.0	16.6	33.9	38.0	36.7	29.6	6.9	-10.1	-9.3	9.3
1983	-19.2	-15.4	-13.4	2.7	16.9	34.6	38.1	34.3	23.9	7.0	1.3	0.6	9.3
1984	-15.3	-33.0	-16.5	-10.6	16.6	37.9	41.0	38.4	34.2	17.2	-8.1	-13.6	7.4
1985	-7.3	-17.2	-12.9	-6.6	22.7	35.8	39.0	38.6	28.9	10.4	2.7	-6.9	10.6
1986	-15.0	-8.8	-17.7	-7.7	20.1	34.5	42.0	39.5	36.9	16.4	0.4	-6.4	11.2
1987	-13.0	-20.0	-11.7	-4.7	20.2	34.1	38.9	38.9	28.3	22.9	-5.4	-8.9	10.0
1988	-10.5	-14.4	-12.7	1.4	19.8	33.6	38.9	35.7	28.2	2.0	-13.6	-9.3	8.3
1989	-24.0	9.3		6.0	17.4	36.5	45.5	46.8	35.5	18.0	-12.6	-9.5	
1990	-23.0	-23.2	-11.4	7.5	26.5	37.7	42.3	37.3	31.5	16.9	-6.9	-15.7	10.0
1991	-13.4	-18.2	-17.7	3.3	28.0	36.9	37.9	36.1	29.9	17.5	-8.0	-15.8	9.7
1992	-18.6	-20.3	-9.2	0.8	20.7	35.9	39.7	39.0	25.0	12.5	-1.1	-8.7	9.6
1993	-12.6	-11.1	-12.6	6.5	23.0	36.4	45.2	36.8	32.4	23.1	5.2	-8.1	13.7
1994	-9.0	-8.9	-18.2	-1	18.6	32.6	41.6	43.1	27.2	8.4	-8.6	-16.0	9.2
1995	-12.0	-16.2	-16.7	7.6	26.4	36.6	40.4	36.5	35.6	18.5	4.0	-11.9	12.4
1996	-7.1	-16.3	-5.6	0.0	25.9	37.8	42.2	35.9	27.9	5.5	9.4	-4.3	12.6
1997	-17.5	-14.2	-13.1	3.7	19.7	34.2	40.9	42.0	35.0	19.7	11.1	-11.6	12.5
1998	-14.6	-14.6	-2.7	11.2	23.8	37.8	44.6	42.4	37.7	24.7	15.1	-1.8	17.0
1999	-18.7	-15.2	-15.9	-2.3	22.8	35.4	42.8	42.1	33.5	17.7	-5	-16.8	10.4
2000	-13.8	-15.7	-12.0	-8	13.9	37.1	38.4	38.5	31.6	17.2	0.5	-5.1	10.8
2001	-10.6	-2.7	-15.7	1.4	11.1	35.0	38.6	35.3	32.0	9.6	0.8	-8.5	10.5
2002	-16.8	-17.9	-2.1	1.6	24.8	33.6	39.2	36.7	36.0	23.8	6.7	-2.1	13.6
POR= 82 YRS	-14.6	-17.7	-14.7	-.6	19.3	34.1	39.6	38.4	30.7	15.4	-.4	-10.9	9.9

HEATING DEGREE DAYS (base 65°F) 2002 BARROW, AK (BRW)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1973-74	778	772	923	1407	1709	2186	2352	2619	2645	2192	1449	1045	20077
1974-75	795	695	956	1818	2180	2848	2841	2202	2246	2085	1417	934	21017
1975-76	850	931	1226	1852	2293	2699	2609	2554	2501	2014	1476	943	21948
1976-77	816	844	976	1587	1873	2532	2269	2285	2711	2141	1419	922	20375
1977-78	802	632	871	1381	2099	2256	2202	2223	2346	1904	1501	954	19171
1978-79	772	874	936	1793	1786	2448	2091	2390	2534	1978	1395	970	19967
1979-80	676	579	851	1419	1660	2391	2450	2186	2380	2065	1480	835	18972
1980-81	902	961	1191	1558	2102	2501	2043	2265	2360	1917	1275	906	19981
1981-82	777	968	1176	1569	1966	2269	2363	2002	2403	1983	1495	925	19896
1982-83	833	871	1057	1796	2261	2307	2617	2255	2435	1871	1485	906	20694
1983-84	830	941	1225	1798	1907	1998	2495	2848	2532	2273	1498	806	21151
1984-85	738	816	917	1479	2197	2442	2248	2304	2423	2153	1303	870	19890
1985-86	800	810	1078	1691	1867	2233	2485	2066	2573	2183	1384	909	20079
1986-87	707	784	840	1500	1941	2216	2424	2388	2382	2093	1380	920	19575
1987-88	801	802	1095	1297	2114	2295	2344	2305	2415	1906	1394	938	19706
1988-89	803	898	1097	1956	2363	2307	2763	1556		1767	1468	851	
1989-90	595	557	879	1449	2335	2311	2730	2477	2372	1720	1184	816	19425
1990-91	696	850	997	1487	2161	2511	2433	2336	2568	1849	1138	834	19860
1991-92	837	887	1046	1469	2194	2513	2598	2481	2307	1930	1365	866	20493
1992-93	778	800	1193	1619	1982	2285	2407	2130	2410	1751	1294	850	19499
1993-94	609	868	970	1291	1795	2267	2300	2073	2587	1951	1431	968	19110
1994-95	721	671	1126	1753	2212	2515	2388	2278	2534	1719	1189	846	19952
1995-96	760	876	877	1432	1829	2388	2239	2361	2189	1951	1207	808	18917
1996-97	698	894	1108	1843	1665	2137	2551	2209	2414	1834	1398	915	19666
1997-98	741	707	894	1399	1610	2368	2460	2224	2093	1609	1270	810	18185
1998-99	626	693	810	1240	1492	2069	2589	2241	2501	2011	1299	881	18452
1999-00	681	704	938	1458	1958	2528	2435	2332	2380	1967	1577	828	19786
2000-01	820	814	994	1473	1927	2167	2335	1887	2493	1901	1663	894	19368
2001-02	811	916	982	1709	1917	2273	2528	2317	2071	1894	1237	935	19590
2002-	792	868	863	1271	1740	2074							

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COOLING DEGREE DAYS (base 65°F) 2002 BARROW, AK (BRW)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
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	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0	0	0
1977	0	0	0	0	0	0	0	0	0	0	0	0	0
1978	0	0	0	0	0	0	0	0	0	0	0	0	0
1979	0	0	0	0	0	0	0	0	0	0	0	0	0
1980	0	0	0	0	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0	0	0	0	0	0	0
1995	0	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0	0	0	0	0

SNOWFALL (inches) 2002 BARROW, AK (BRW)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1973-74	1.1	0.6	6.5	8.4	4.1	1.7	2.6	0.8	0.2	T	0.9	4.1	31.0
1974-75	T	0.0	3.3	2.7	2.4	0.7	2.3	3.6	2.4	2.7	0.7	T	20.8
1975-76	0.3	1.5	3.2	4.3	0.7	0.1	0.4	0.7	0.6	1.6	0.7	0.1	14.2
1976-77	T	T	2.1	8.3	7.2	0.4	2.2	1.9	2.1	0.7	1.3	T	26.2
1977-78	0.1	0.1	0.8	7.0	1.1	2.7	1.2	2.6	1.3	0.7	0.6	T	18.2
1978-79	0.0	0.2	6.1	3.2	4.8	2.6	0.7	T	0.9	1.1	0.4	1.0	21.0
1979-80	0.5	T	2.1	4.4	2.1	2.1	2.8	2.8	0.4	1.1	0.1	T	18.4
1980-81	T	1.0	2.4	7.9	2.4	1.6	4.5	1.2	0.4	2.8	0.7	3.7	28.6
1981-82	T	0.6	5.5	5.7	0.6	0.9	1.7	4.3	2.4	3.4	4.4	0.2	29.7
1982-83	1.7	0.4	5.1	5.8	0.2	1.3	0.3	0.9	T	1.5	0.7	0.7	18.6
1983-84	0.4	1.8	6.9	3.4	3.1	0.5	1.9	1.6	1.1	2.7	0.7	T	24.1
1984-85	T	2.4	0.7	3.7	1.2	0.8	0.5	1.1	1.6	0.6	2.4	0.4	15.4
1985-86	0.0	0.7	6.1	4.7	2.7	1.7	1.6	1.4	0.9	0.3	0.9	T	21.0
1986-87	T	0.9	4.2	9.4	3.4	3.0	2.9	2.8	0.7	0.4	1.4	0.8	29.9
1987-88	T	0.4	16.2	2.7	0.5	2.7	0.5	1.3	1.7	0.4	1.3	0.6	28.3
1988-89	T	2.5	4.1	2.7	0.1	2.6	0.1	3.3		4.2	0.6	0.2	
1989-90	T	0.0	0.4	6.6	0.4	4.0	0.7	0.8	3.0	1.9	1.1	1.2	20.1
1990-91	0.4	T	4.7	11.0	5.6	2.4	1.9	2.0	0.6	2.0	2.7	1.1	34.4
1991-92	T	1.1	4.6	7.9	1.5	1.2	1.1	2.7	4.6	3.1	1.3	0.5	29.6
1992-93	T	2.1	8.9	7.5	6.8	4.7	8.6	3.2	4.2	3.4	1.4	0.1	50.9
1993-94	0.0	1.5	11.8	8.5	5.5	3.1	1.4	0.4	4.3	1.3	3.8	2.5	44.1
1994-95	T	1.1	3.4	11.1	2.7	3.0	1.8	0.7	5.2	2.7	0.1	T	31.8
1995-96	T	1.3	1.4	5.4	3.7	1.7	0.8	4.2	1.9	3.4	6.0	0.4	30.2
1996-97	T	0.2	7.2	6.3	4.5	0.8	4.8	T	1.7	3.0	2.1	T	30.6
1997-98	T	T	3.8	19.1	5.0	3.0	0.5	1.5	1.3	3.9	2.2	T	40.3
1998-99	0.0	T	0.8	12.6	3.8	7.1	1.0	1.6	1.9	1.7	0.7	1.5	32.7
1999-00	T	0.7	4.1	11.5	9.9	2.9	7.0	2.6	1.2	2.2	4.9	T	47.0
2000-01	0.7	2.5	9.9	11.3	3.5	1.5	8.1	1.9	0.8	2.4	3.0	0.1	45.7
2001-02	0.2	0.2	1.6	6.8	17.5	4.9	2.6	0.1	1.5	7.4	1.7	0.4	44.9
2002-	0.8	1.1	2.8	12.5	6.7	4.2							
POR= 81 YRS	0.5	0.7	3.7	7.4	3.7	2.6	2.3	2.1	2.0	2.3	1.8	0.6	29.7

WBAN : 27502

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 EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p>
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## 2002 BARROW, ALASKA (BRW)

Barrow is the most northerly First-Order station operated by the National Weather Service. Although this station generally records one of the lowest mean temperatures for the winter months, the surrounding topography prevents the establishment of the lowest minima for the state. With the Arctic Ocean to the north, east, and west, and level tundra stretching 200 miles to the south, there are no natural wind barriers to assist in stilling the wind, permitting the lowering of temperatures by radiation, and no downslope drainage area to aid the flow of cold air to lower levels. Consequently, temperature inversions in the lower levels of the atmosphere are not as marked as those observed at stations in the central interior.

Temperatures at this northern station remain below the freezing point through most of the year, with the daily maxima reaching higher than 32 degrees on an average of only 109 days a year. Freezing temperatures have been observed every month of the year. February is generally the coldest month and March temperatures are but little higher than those observed in the winter months. In April, temperatures begin a general upward trend, with May becoming the definite transitional period from winter to the summer season. July is the warmest month of the year and the frequency of minimum temperatures of 32 degrees or less are about one day out of two for July and August. During late July or early August, the Arctic Ocean is usually ice-free for the first time in summer. The end of the short summer is reached in September. By November about half of the daily mean temperatures are zero or below, and Barrow definitely returns to the clutches of winter cold.

At 1250 p.m. on November 18, the sun dips below the horizon and is not seen again until 1151 a.m. on January 24. Then the amount of possible sunshine each day increases by never less than 9 minutes per day. By 106 a.m. on May 10th the possible sunshine has increased to 24 hours per day. The sun remains visible from that time to August 2, when it again sets for 1 hour and 25 minutes. The decrease in hours of sunshine is as rapid as the increase.

The amount of sunshine appears to have a direct relationship to the occurrence of cloudiness, precipitation, and heavy fog. All three build up to a maximum along with the hours of sunshine. Maximum cloudiness does continue into the fall months, although the amount of sunshine, precipitation, and fog are on the decrease. Since an accurate estimate of cloudiness cannot be made under conditions of darkness, the record of cloudiness for that time is not summarized. However, average cloudiness probably approximates that observed during late winter and spring months.

Variation of wind speed during the year is small, with the fall months being windiest. Extreme winds in the upper 40s and low 50s have been recorded for all months.

# STATION LOCATION

BARROW, ALASKA

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE										AUTOMATIC OBSERVING EQUIPMENT *	* TYPE M = AMOS T = AUTOB S = ASOS W = AWOS  REMARKS	
						SEA LEVEL		GROUND										TEMPERATURE
						GROUND	SITE	WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TRAINING GAUGE BUCKET	WEIGHING RAIN GAGE	8 INCH RAIN GAGE	HYGROMETER			
*NOTES: <u>Airport</u> Weather Bureau Building+ Wiley Post-Will Rogers Airport  +Weather Service Bldg. (Effective 1970)  Post Rogers Memorial AP	11/7/66	06/01/98	330 ft. SE	71°18'	156°47'	31	31	31	12 f	12 g5	NA	NA	NA	6	NA e5 h5	NA	e. Commissioned 75' NW of inst. shelter 4/21/77. f. Removed 2/6/78. g. Minor move 2/6/78. h. Type change 10/21/85. i. Moved to ground 12/7/86.	
	06/01/98	Present	NA	71°17'	156°46'	j35										S	ASOS Commissioned 06/01/98 j. Ground elevation.	

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\* NOTES: for earlier station history see previous edition.