

2003

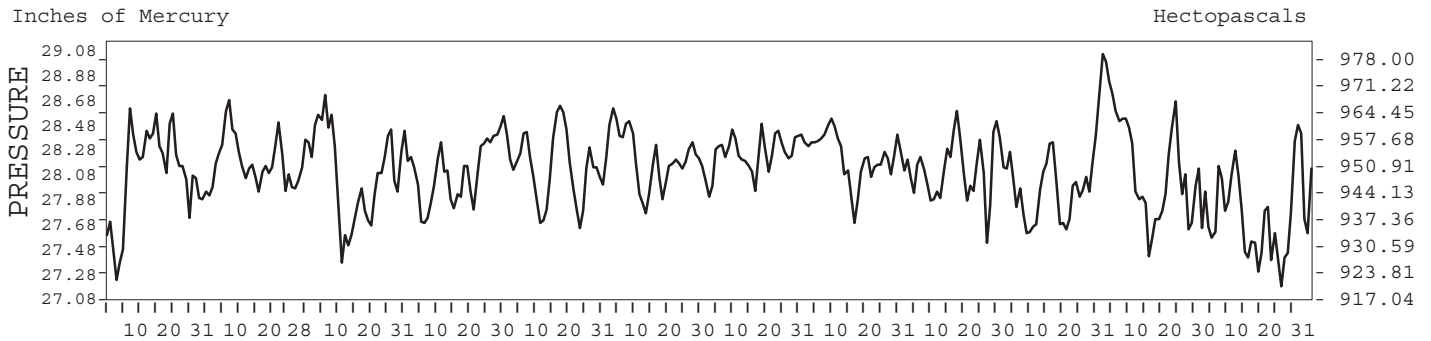
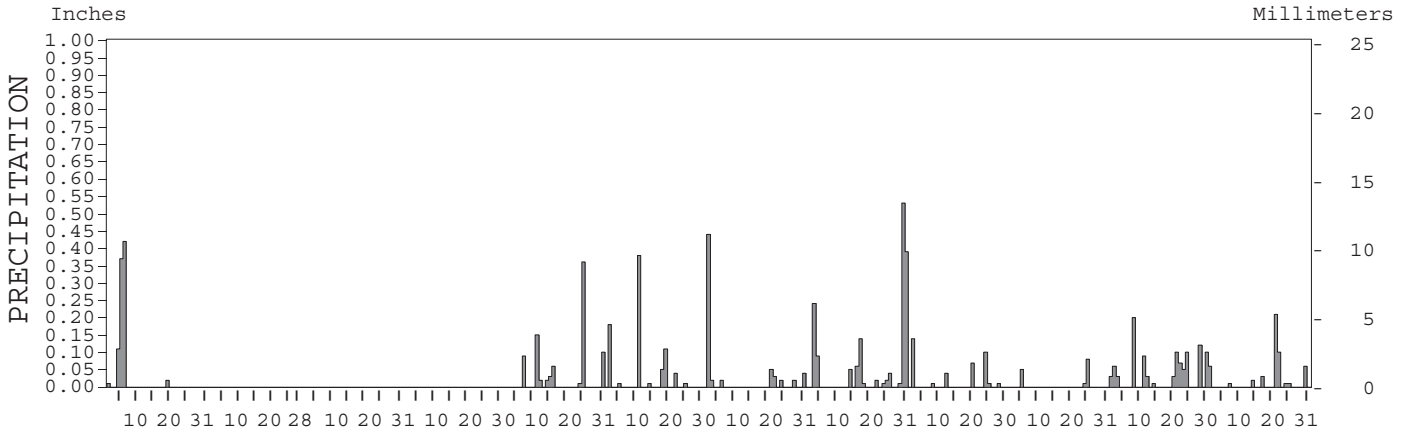
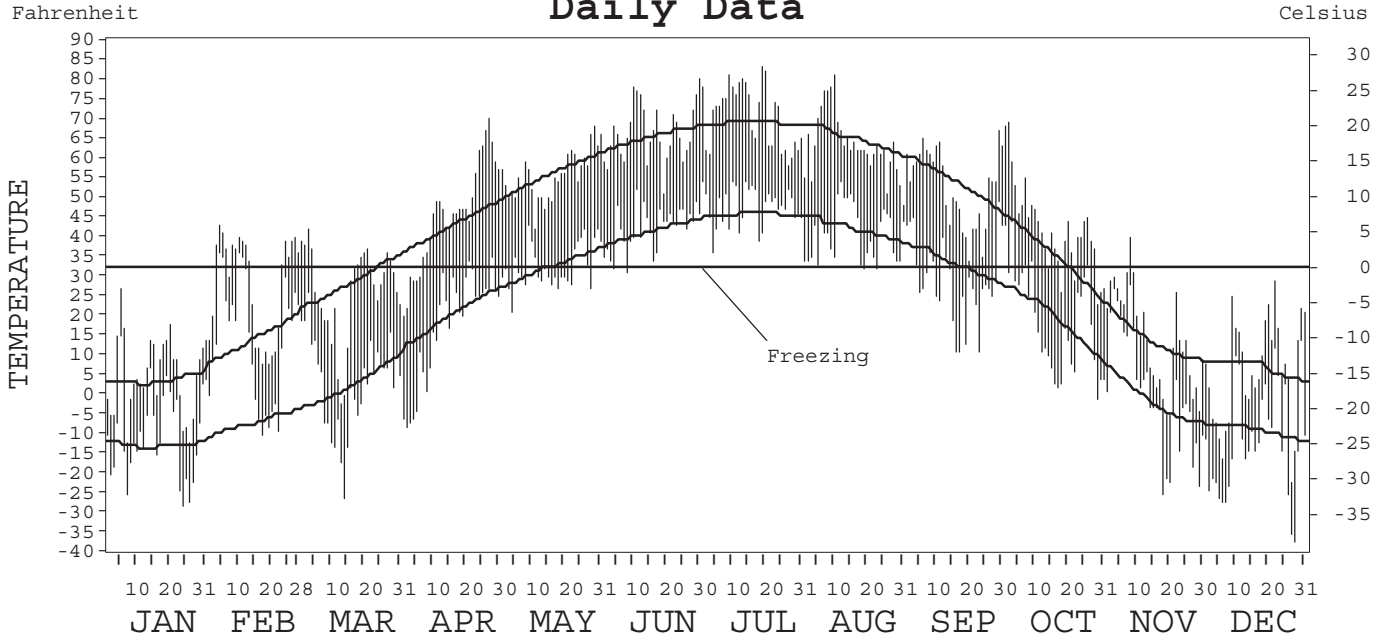
# LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0197-9701

## GULKANA, ALASKA (GKN)

### Daily Data



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# METEOROLOGICAL DATA FOR 2003

## GULKANA, AK (GKN)

LATITUDE: 62° 09' 37" N      LONGITUDE: 145° 27' 27" W      ELEVATION (FT): GRND: 1574      BARO: 1577      TIME ZONE: ALASKA (UTC + 9)      WBAN: 26425

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	5.1	28.0	26.1	45.7	55.5	66.2	70.8	63.5	52.6	41.9	14.1	5.9	39.6	
	HIGHEST DAILY MAXIMUM	27	43	42	70	68	80	83	81	67	69	40	29	83	
	DATE OF OCCURRENCE	05	04	03	27	29	30	19	10	29	02	08	22	JUL 19	
	MEAN DAILY MINIMUM	-10.0	14.0	3.0	17.6	32.7	42.1	47.7	40.8	29.1	18.6	.6	-11.9	18.7	
	LOWEST DAILY MINIMUM	-28	-10	-26	-8	21	31	36	32	11	-1	-25	-37	-37	
	DATE OF OCCURRENCE	24	17	14	02	04	08	04	23+	23+	29	18	28	DEC 28	
	AVERAGE DRY BULB	-2.4	21.0	14.6	31.7	44.1	54.2	59.3	52.2	40.9	30.3	7.4	-3.0	29.2	
	MEAN WET BULB	-1.8	20.1	12.6	27.3	38.0	46.8	52.4	47.7	36.6	27.3	7.7			
	MEAN DEW POINT	-5.4	16.3	3.6	17.0	28.6	38.0	45.4	42.5	29.7	23.2	4.7			
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 70°	0	0	0	1	0	9	18	6	0	0	0	0	0	34
	MAXIMUM ≤ 32°	31	12	21	6	0	0	0	0	0	6	29	31	136	
	MINIMUM ≤ 32°	31	24	31	28	19	2	0	2	20	26	30	31	244	
MINIMUM ≤ 0°	25	9	11	5	0	0	0	0	0	1	16	24	91		
H/C	HEATING DEGREE DAYS	2082	1226	1557	992	639	319	177	389	718	1073	1723	2099	12994	
	COOLING DEGREE DAYS	0	0	0	0	0	0	5	0	0	0	0	0	5	
RH	MEAN (PERCENT)	82	79	61	55	58	57	61	71	68	78	84	82	70	
	HOUR 03 LST	81	82	73	74	75	80	80	87	81	87	84	82	80	
	HOUR 09 LST	82	83	67	58	59	58	65	74	73	87	85	83	73	
	HOUR 15 LST	82	72	48	36	41	38	47	55	49	61	84	83	58	
	HOUR 21 LST	82	80	60	52	56	50	56	72	70	81	83	81	69	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	1	1	0	1	3	0	0	4	0	0	2	0	12	
	THUNDERSTORMS	0	0	0	0	1	2	0	0	0	0	0	0	3	
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.)	28.07	28.18	28.09	28.10	28.15	28.21	28.25	28.22	28.12	28.07	28.05	27.76	28.11	
	MEAN SEA-LEVEL PRESS. (IN.)	29.92	29.96	29.87	29.83	29.85	29.88	29.91	29.90	29.83	29.81	29.87	29.59	29.85	
WINDS	RESULTANT SPEED (MPH)	0.4	5.9	4.6	0.7	3.9	4.6	6.5	5.3	1.1	1.7		1.3		
	RES. DIR. (TENS OF DEGS.)	17	17	36	17	16	16	17	16	07	16		35		
	MEAN SPEED (MPH)	.7	7.0	7.2	5.6	8.7	8.2	9.5	7.6	7.2	4.5	3.5	2.1	6.0	
	PREVAIL. DIR. (TENS OF DEGS.)	19	17	01	17	16	16	16	16	16	17	36	33	17	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	22	31	46	29	33	28	35	35	32	29	28	17	46	
	DIR. (TENS OF DEGS.)	18	17	01	16	17	16	17	17	01	15	17	33	01	
	DATE OF OCCURRENCE	05	08	12	21	31	26+	16	12	14	03	08	31	MAR 12	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	26	41	67	35	41	36	47	45	41	35	33	22	67	
DIR. (TENS OF DEGS.)	17	17	36	15	16	15	16	16	36	14	16	34	36		
DATE OF OCCURRENCE	05	08	09	21+	31	06	27	12	14	03+	08	31	MAR 09		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	0.93	T	T	T	0.84	0.79	0.64	1.61	0.38	0.14	1.02	0.51	6.86	
	GREATEST 24-HOUR (IN.)	0.79	T	T	T	0.36	0.38	0.44	0.91	0.14	0.09	0.20	0.31	0.91	
	DATE OF OCCURRENCE	05-06	28+	28+	17+	25	11	02	30-31	02	24-25	08	21-22	AUG 30-31	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	5	0	0	0	9	8	8	13	7	3	14	9	76	
PRECIPITATION ≥ 0.10	3	0	0	0	3	3	1	4	2	0	5	2	23		
PRECIPITATION ≥ 1.00	0	0	0	0	0	0	0	0	0	0	0	0	0		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)														
	GREATEST 24-HOUR (IN.)														
	DATE OF OCCURRENCE														
	MAXIMUM SNOW DEPTH (IN.)														
	DATE OF OCCURRENCE														
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0															

# NORMALS, MEANS, AND EXTREMES

## GULKANA, AK (GKN)

LATITUDE: 62° 09' 37" N      LONGITUDE: 145° 27' 27" W      ELEVATION (FT): GRND: 1574      BARO: 1577      TIME ZONE: ALASKA (UTC + 9)      WBAN: 26425

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	3.5	13.8	28.2	42.4	55.6	65.0	68.5	64.5	53.4	34.3	13.2	6.4	37.4
	MEAN DAILY MAXIMUM	55	2.9	14.0	28.1	42.1	55.2	65.3	68.3	64.7	53.9	35.2	14.1	4.4	37.4
	HIGHEST DAILY MAXIMUM	56	46	46	50	70	85	90	91	86	74	69	48	49	91
	YEAR OF OCCURRENCE		1948	1943	1981	2003	1960	1969	1953	1994	1989	2003	1964	1999	JUL 1953
	MEAN OF EXTREME MAXS.	55	30.7	36.2	43.1	54.8	69.1	78.4	80.7	76.9	65.2	52.2	35.5	32.2	54.6
	NORMAL DAILY MINIMUM	30	-12.9	-7.4	2.3	19.7	32.2	41.1	45.4	41.7	32.8	18.4	-2.2	-9.5	16.8
	MEAN DAILY MINIMUM	55	-13.5	-7.0	1.5	19.6	32.7	42.2	46.1	42.2	33.2	18.3	-1.1	-11.4	16.9
	LOWEST DAILY MINIMUM	56	-60	-65	-48	-42	5	26	29	20	2	-23	-44	-58	-65
	YEAR OF OCCURRENCE		1947	1947	1972	1944	1964	1997	1970	1984	1992	1989	1964	1989	FEB 1947
	MEAN OF EXTREME MINS.	55	-39.5	-33.1	-24.4	-2.0	22.3	31.8	36.2	28.1	17.4	-5.2	-25.0	-36.6	-2.5
	NORMAL DRY BULB	30	-4.7	3.2	15.3	31.1	43.9	53.1	57.0	53.1	43.1	26.4	5.5	-1.6	27.1
	MEAN DRY BULB	55	-5.3	3.3	14.9	30.7	43.8	53.7	57.3	53.3	43.5	26.7	6.4	-3.4	27.1
	MEAN WET BULB	14	.3	5.5	15.0	28.0	39.1	47.2	48.4	45.4	36.9	23.4	5.4	3.0	24.8
	MEAN DEW POINT	14	-5.1	-1.0	5.6	16.7	26.4	35.6	41.4	39.3	30.8	19.0	1.2	-1.5	17.4
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	28.6	24.3	17.9	3.1	0.0	0.0	0.0	0.0	0.5	12.1	26.8	28.3	141.6	
MINIMUM ≤ 32°	30	30.6	28.1	30.8	26.7	14.0	1.2	0.1	3.6	13.6	25.5	29.6	30.6	234.4	
MINIMUM ≤ 0°	30	22.5	18.0	13.4	1.8	0.0	0.0	0.0	0.0	0.0	2.7	17.3	22.5	98.2	
H/C	NORMAL HEATING DEG. DAYS	30	2163	1733	1543	1018	655	358	250	370	658	1199	1786	2064	13797
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	0	0	0	0	0	0	0	0	0
RH	NORMAL (PERCENT)														
	HOUR 03 LST	30	71	71	69	62	54	58	65	70	73	80	76	74	69
	HOUR 09 LST	30	72	67	51	42	37	41	46	49	53	66	76	75	56
	HOUR 15 LST	30		71									76		
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	14	0.4	1.1	0.7	0.3	0.7	0.3	0.5	1.3	1.8	1.9	2.4	1.3	12.7
	THUNDERSTORMS	14	0.0	0.0	0.0	0.0	0.4	1.4	1.8	0.4	0.1	0.0	0.0	0.0	4.1
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	5	3.8	5.6	4.8	5.4	5.8	5.9	4.6	4.7	4.4	5.0	4.8	4.3	4.9
	MIDNIGHT-MIDNIGHT (OKTAS)	7	3.2	4.2	4.0	4.6	4.9	5.1	4.9	5.1	4.5	4.9	4.7	4.2	4.5
	MEAN NO. DAYS WITH:														
CLEAR	6	14.8	6.2	9.4	5.0	3.0	2.0	3.7	2.2	4.7	2.5	3.8	5.7	63.0	
PARTLY CLOUDY	6	4.4	4.4	6.4	9.8	9.8	10.0	7.5	7.8	6.5	5.7	3.8	5.7	81.8	
CLOUDY	6	11.8	17.8	15.2	15.2	18.2	18.0	14.7	15.8	13.8	17.7	17.3	14.5	190.0	
PR	MEAN STATION PRESSURE (IN)	3	28.00	28.13	28.10	28.15	28.17	28.23	28.24	28.21	28.08	28.02	27.96	27.90	28.10
	MEAN SEA-LEVEL PRES. (IN)	16	29.87	29.95	29.90	29.85	29.87	29.98	29.96	29.91	29.85	29.77	29.81	29.79	29.88
WINDS	MEAN SPEED (MPH)	13	4.6	5.0	6.4	8.2	8.8	8.1	7.9	7.7	7.3	5.9	4.0	3.1	6.4
	PREVAIL. DIR (TENS OF DEGS)														
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	4	35	44	46	39	35	28	35	35	36	30	31	22	46
	DIR. (TENS OF DEGS)		17	16	01	17	19	16	17	17	16	01	16	15	01
	YEAR OF OCCURRENCE		2000	2000	2003	2001	2001	2003	2003	2003	2000	2001	2000	2000	MAR 2003
MAXIMUM 5-SECOND:															
SPEED (MPH)	4	43	54	67	52	46	36	47	45	46	41	38	29	67	
DIR. (TENS OF DEGS)		16	16	36	16	03	15	16	16	15	15	17	15	36	
YEAR OF OCCURRENCE		2000	2000	2003	2001	2001	2003	2003	2003	2002	2002	2000	2000	MAR 2003	
PRECIPITATION	NORMAL (IN)	30	0.45	0.52	0.36	0.22	0.59	1.54	1.82	1.80	1.44	1.02	0.67	0.97	11.40
	MAXIMUM MONTHLY (IN)	60	1.56	1.98	1.32	0.83	2.16	4.07	3.41	4.19	4.34	2.42	4.11	3.07	4.34
	YEAR OF OCCURRENCE		1943	1996	1972	1992	1999	1962	1995	1947	1951	1965	1956	1955	SEP 1951
	MINIMUM MONTHLY (IN)	60	T	0.03	T	0.00	T	0.08	0.30	0.04	0.07	0.11	0.01	0.05	0.00
	YEAR OF OCCURRENCE		1974	2003	1987	1954	1950	1946	1994	2001	1969	1967	2001	2001	APR 1954
	MAXIMUM IN 24 HOURS (IN)	59	0.79	0.96	0.78	0.78	1.52	1.51	2.04	2.01	2.06	1.15	2.02	0.99	2.06
	YEAR OF OCCURRENCE		2003	1978	1972	1961	1994	1945	1972	1971	1951	1959	1976	1955	SEP 1951
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	6.8	6.0	4.6	2.8	5.5	10.2	12.5	12.6	11.4	9.4	7.8	8.4	98.0	
PRECIPITATION ≥ 1.00	30	0.0	0.0	0.0	0.0	0.1	*	0.1	0.1	0.1	0.0	*	0.1	0.5	
SNOWFALL	NORMAL (IN)	30	7.3	8.2	5.6	3.1	0.7	0.*	0.0	0.*	1.2	8.6	9.2	11.8	55.7
	MAXIMUM MONTHLY (IN)	56	25.5	38.3	29.2	16.4	6.7	1.0	T	4.0	15.7	22.7	36.2	30.0	38.3
	YEAR OF OCCURRENCE		1989	1996	1996	1992	1999	1986	1993	1955	1992	1965	1956	1955	FEB 1996
	MAXIMUM IN 24 HOURS (IN)	52	14.1	14.1	10.6	14.3	5.0	1.0	T	4.0	12.0	13.0	10.0	12.0	14.3
	YEAR OF OCCURRENCE		1989	1990	1972	1992	1999	1986	1993	1955	1992	1978	1997	1992	APR 1992
	MAXIMUM SNOW DEPTH (IN)	50	40	43	55	46	24	1	0	0	11	19	34	32	55
	YEAR OF OCCURRENCE		1972	1990	1972	1972	1972	1986			1992	1965	1956	1971	MAR 1972
NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	2.7	2.4	2.0	1.0	0.2	0.0	0.0	0.0	0.5	3.0	3.4	3.4	18.6	

PRECIPITATION (inches) 2003 GULKANA, AK (GKN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	T	1.54	0.23	T	0.41	1.38	1.99	1.39	1.25	0.87	0.41	1.16	10.63
1975	0.22	0.26	0.05	0.37	0.41	2.56	3.32	1.84	1.28	0.23	0.01	0.30	10.85
1976	0.41	0.15	0.32	0.28	0.52	0.57	0.48	0.90	1.17	0.22	2.87	1.26	9.15
1977	0.42	0.41	0.45	0.45	1.43	2.10	1.22	0.55	1.30	0.48	0.48	0.23	9.52
1978	0.44	1.14	0.07	0.01	0.63	1.20	1.29	0.46	0.47	1.68	0.46	2.57	10.42
1979	0.10	0.37	1.15	0.21	0.37	0.91	1.51	1.61	0.32	0.95	0.61	1.11	9.22
1980	0.73	0.27	0.24	T	0.15	1.73	2.60	1.67	0.77	0.69	0.10	0.62	9.57
1981	0.43	0.14	0.35	T	0.14	2.22	2.17	1.79	0.92	0.57	0.98	1.15	10.86
1982	0.09	0.72	0.93	0.19	0.14	0.48	1.40	0.14	1.57	1.04	0.36	0.09	7.15
1983	0.38	0.26	T	0.67	0.06	0.69	3.02	2.22	2.34	0.25	0.17	0.35	10.41
1984	0.73	0.95	T	0.04	0.05	1.22	2.51	1.95	0.43	0.27	0.99	0.81	9.95
1985	0.20	0.44	0.12	0.77	0.08	3.09	1.99	2.64	2.34	0.33	0.32	1.44	13.76
1986	0.66	0.42	0.80	0.69	0.36	0.38	1.10	1.57	0.48	1.31	0.36	0.37	8.50
1987	0.34	0.03	T	0.09	0.48	2.35	2.19	1.73	1.57	2.29	0.75	1.25	13.07
1988	0.15	0.76	0.63	0.02	1.30	1.51	2.54	2.71	1.26	2.09	0.77	0.82	14.56
1989	1.41	0.15	0.16	0.37	1.68	2.22	0.84	0.69	3.15	0.66	1.06	2.01	14.40
1990	0.44	1.62	0.30	0.01	0.24	0.80	0.66	2.23	3.93	0.53	0.95	1.05	12.76
1991	0.54	0.50	0.29	0.31	0.29	1.86	3.20	1.89	0.89	1.19	1.05	0.66	12.67
1992	0.74	0.79	0.80	0.83	0.06	2.46	1.70	1.80	2.73	0.54	0.58	1.35	14.38
1993	0.61	0.46	0.08	0.03	0.54	1.68	1.07	2.08	1.49	1.40	1.55	0.75	11.74
1994	0.69	0.29	0.16	T	1.86	1.55	0.30	1.03	1.64	2.21	1.39	0.27	11.39
1995	0.19	0.83	0.99			1.38	3.41	2.54	2.22	0.45	0.22	0.05	
1996	0.21	1.98	0.98	0.10	0.31	0.48	0.89	1.38	0.31	1.31	0.37	0.87	9.19
1997	0.51	0.22	0.15	0.03	1.60	1.09	1.88	2.80	0.53	1.00	0.77	0.87	11.45
1998	0.25	0.40	0.07	T	0.51	1.75	1.42	2.57	1.27	0.83	0.24	0.31	9.62
1999	0.89	0.25	0.06	0.12	2.16	1.18	2.29	2.08	0.96	1.88	0.66	2.36	14.89
2000	0.42	0.11	0.03	0.35	1.06	1.95	1.14	3.06	3.62	2.02	0.15	0.05	13.96
2001	0.11	T	T	T	T	0.73	3.18	0.04	1.79	0.63	T	T	6.48
2002	T	0.32	0.32	0.50	2.07	2.26	0.77	2.33	1.12	1.84	1.47	0.61	13.61
2003	0.93	T	T	T	0.84	0.79	0.64	1.61	0.38	0.14	1.02	0.51	6.86
POR= 60 YRS	0.54	0.51	0.34	0.23	0.66	1.44	1.78	1.67	1.57	0.96	0.69	0.80	11.19

WBAN : 26425

AVERAGE TEMPERATURE (°F) 2003 GULKANA, AK (GKN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	-16.8	-2.6	10.4	32.4			56.4	54.0	45.7	30.1	10.9	1.2	
1975	-8.3	-3.3	10.3	30.2	44.5	51.8	58.1	52.6	46.2	28.8	0.1	-7.0	25.3
1976	-1.9	-5.0	15.0	32.8	42.3	55.0	57.8		43.3	29.5	21.1	4.5	
1977	16.3	20.5	14.2	32.2	42.5	52.9	58.0	57.6	45.6	31.1	-5.0	-12.8	29.4
1978	-4.5	7.2	16.4	31.0	43.1	50.5			46.1	32.6	10.8	0.3	
1979	-4.1	-17.8	20.8			52.2	57.9	57.7	46.7	34.3	24.1	-9.3	
1980	-4.6	16.2	19.7	36.5	46.1	54.8	57.3	52.1	42.3	31.0	15.3	-24.9	28.5
1981	19.7	14.4	23.2	25.9	48.3	52.1	55.4	52.3	40.1	29.2	7.6	-5.2	30.3
1982	-27.0	1.5	17.0	27.9	42.5	54.6	57.6	53.3	45.5	21.2	3.9	1.5	25.0
1983	-7.7	3.4	12.9	34.7		55.6	57.6	52.5	40.0	28.9	8.6	-2.8	
1984	3.2	4.9	25.9	34.9	44.4	54.8	56.4	54.0	44.3	24.5	2.2	-3.2	28.9
1985	14.7	-5.9	16.5	23.4	42.6	49.1	57.7	51.3	44.2	22.6	-3.6	16.7	27.4
1986	5.7	10.6	11.2	21.3	42.4	52.1	56.6	50.4	43.6	29.1	7.4	15.0	28.8
1987	10.2	11.5	14.0	33.5	44.7	51.9	57.6	53.8	43.7	34.4	15.7	3.8	31.2
1988	-4.5	8.4	22.0	33.3	44.4	54.4	57.7	53.2	42.5	26.1	-7	6.2	28.6
1989	-12.7	-4.1	9.6	34.3	46.0	53.3	61.1	58.1	47.0	29.5	-6	13.0	27.9
1990	-1.3	-8.4	20.2	35.1	49.0	57.1	59.9	55.5	46.9	23.8	-6.6	-2.3	27.4
1991	-3.9	7.4	18.2	34.4	46.0	55.5	55.2	51.8	46.2	22.4	5.4	3.3	28.5
1992	6.6	1.0	17.7	26.9	41.3	54.9	57.7	52.6	33.0	23.2	14.7	-6.9	26.9
1993	-3.7	9.4	18.4	36.3	49.1	55.2	60.9	55.2	44.8	31.9	12.8	3.3	31.1
1994	0.6	-3.2	20.2	35.6	43.6	54.4	57.8		43.5	24.7	1.7	-9	
1995	-4.4	6.8				54.3	55.6	52.0	49.5	30.8	2.3	-4.7	
1996		8.5	14.8	30.6	44.8	53.8	57.4	52.0	41.7	14.1	0.6	-8.7	
1997	-10.9	17.2	8.0	31.7	45.4	54.9	59.7	55.1	45.0	18.9	10.6	3.9	28.3
1998	-10.3	3.9	17.4	35.8	45.0	54.6	55.5	50.7	43.1	24.1	5.2	-6.5	26.5
1999	-9.3	-10.2	15.8	32.0	41.7	55.4	57.7	54.8	43.4	27.7	-1	-1.0	25.7
2000	0.5	15.2	20.6	32.5	41.3	53.8	55.8	50.0	40.9	25.0	13.0	4.0	29.4
2001	16.4	9.1	18.8	33.0	41.1	57.0	56.0	55.1	42.4	22.7	-1.0	-10.4	28.4
2002	6.5	5.0	5.4	22.7	46.2	53.4	57.4	53.4	44.9	35.4	23.9	4.0	29.9
2003	-2.4	21.0	14.6	31.7	44.1	54.2	59.3	52.2	40.9	30.3	7.4	-3.0	29.2
POR= 60 YRS	-5.2	3.7	15.0	30.3	44.0	53.8	57.3	53.2	43.6	27.2	6.7	-3.1	27.2

HEATING DEGREE DAYS (base 65°F) 2003 GULKANA, AK (GKN)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	261	331	573	1077	1620	1976	2271	1909	1693	1039	629	389	13768
1975-76	230	378	555	1117	1945	2233	2074	2034	1544	960	697	294	14061
1976-77	222		641	1093	1310	1874	1507	1242	1569	977	689	355	
1977-78	217	221	575	1046	2105	2415	2152	1620	1502	1013	671	429	13966
1978-79			559	995	1624	2009	2140	2324	1362			378	
1979-80	215	218	540	944	1220	2307	2164	1412	1397	849	577	302	12145
1980-81	231	393	675	1049	1483	2797	1398	1413	1289	1168	514	380	12790
1981-82	291	387	740	1100	1722	2177	2858	1782	1483	1107	688	309	14644
1982-83	222	354	577	1351	1833	1971	2253	1725	1609	904		273	
1983-84	224	380	743	1110	1688	2104	1919	1741	1206	894	630	299	12938
1984-85	263	339	615	1248	1883	2115	1552	1984	1497	1241	689	472	13898
1985-86	220	419	617	1309	2058	1495	1832	1519	1665	1307	692	378	13511
1986-87	255	449	636	1108	1726	1547	1696	1493	1578	938	625	386	12437
1987-88	220	339	633	942	1471	1897	2155	1639	1327	945	629	309	12506
1988-89	220	359	667	1199	1970	1819	2412	1936	1714	915	584	345	14140
1989-90	121	208	532	1092	1968	1604	2057	2055	1382	893	491	231	12634
1990-91	167	297	538	1272	2147	2089	2138	1611	1449	909	583	285	13485
1991-92	295	402	559	1316	1785	1911	1811	1858	1461	1135	725	299	13557
1992-93	221	376	954	1285	1503	2233	2130	1552	1439	852	488	289	13322
1993-94	137	296	601	1018	1562	1915	1997	1911	1384	878	656	309	12664
1994-95	214		641	1243	1898	2038	2154	1629				319	
1995-96	287	395	462	1054	1884	2162		1635	1548	1025	621	331	
1996-97	231	395	691	1571	1933	2276	2345	1334	1761	993	601	296	14427
1997-98	161	301	592	1425	1624	1887	2326	1705	1469	873	613	304	13280
1998-99	288	436	652	1264	1787	2212	2298	2099	1518	983	714	280	14531
1999-00	226	309	644	1152	1949	2039	1992	1436	1367	970	729	332	13145
2000-01	281	456	715	1234	1552	1883	1501	1560	1425	953	734	231	12525
2001-02	271	302	670	1300	1970	2331	1807	1675	1839	1262	576	342	14345
2002-03	227	357	596	910	1223	1885	2082	1226	1557	992	639	319	12013
2003-	177	389	718	1073	1723	2099							

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COOLING DEGREE DAYS (base 65°F) 2003 GULKANA, AK (GKN)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1974	0	0	0	0	0	0	1	0	0	0	0	0	
1975	0	0	0	0	0	0	22	0	0	0	0	0	22
1976	0	0	0	0	0	0	8		0	0	0	0	
1977	0	0	0	0	0	0	4	1	0	0	0	0	5
1978	0	0	0	0	0	0			0	0	0	0	
1979	0	0	0			0	1	0	0	0	0	0	
1980	0	0	0	0	0	2	1	0	0	0	0	0	3
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		1	2	0	0	0	0	0	
1984	0	0	0	0	0	0	0	3	0	0	0	0	3
1985	0	0	0	0	0	2	2	0	0	0	0	0	4
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	8	0	0	0	0	0	8
1990	0	0	0	0	0	1	15	7	0	0	0	0	23
1991	0	0	0	0	0	8	0	0	0	0	0	0	8
1992	0	0	0	0	0	2	5	0	0	0	0	0	7
1993	0	0	0	0	0	0	20	0	0	0	0	0	20
1994	0	0	0	0	0	0	0		0	0	0	0	
1995	0	0				4	0	0	0	0	0	0	
1996	0	0	0	0	0	0	0	0	0	0	0	0	
1997	0	0	0	0	0	0	4	1	0	0	0	0	5
1998	0	0	0	0	0	0	0	0	0	0	0	0	0
1999	0	0	0	0	0	0	7	0	0	0	0	0	7
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	2	0	2	0	0	0	0	4
2003	0	0	0	0	0	0	5	0	0	0	0	0	5

SNOWFALL (inches) 2003 GULKANA, AK (GKN)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1974-75	0.0	T	0.0	3.8	7.9	17.7	3.2	4.4	0.3	5.2	T	0.0	42.5
1975-76	0.0	0.0	T	0.5	1.0	7.7	5.3	2.0	8.7	4.0	T	0.0	29.2
1976-77	0.0	0.0	0.0	2.0	8.0	29.3	3.4	1.0	7.0	6.9	4.0	0.0	61.6
1977-78	0.0	0.0	T	2.5	10.0	1.0	6.9	15.0	1.0	T	T	0.0	36.4
1978-79	0.0	0.0	0.0	18.2	8.0	29.4	2.1	10.4	12.9	3.1	1.0	0.0	85.1
1979-80	0.0	0.0	0.0	4.7	5.1	16.5	10.9	4.7	10.8	T	T	0.0	52.7
1980-81	0.0	0.0	T	5.4	1.6	13.0	3.5	2.4	5.1	0.1	0.0	0.0	31.1
1981-82	0.0	0.0	3.3	9.5	12.5	17.2	2.2	3.7	8.4	2.0	T	0.0	58.8
1982-83	0.0	0.0	0.0	12.5	6.5	2.0	7.8	4.2	T	5.8	T	0.0	38.8
1983-84	0.0	0.0	1.0	2.8	1.3	5.5	15.1	20.1	T	1.1	0.0	0.0	46.9
1984-85	0.0	0.0	0.0	4.1	11.1	10.1	3.0	15.5	6.6	15.3	T	0.0	65.7
1985-86	0.0	0.0	1.6	3.4	8.1	8.0	10.5	9.0	10.7	11.3	T	1.0	63.6
1986-87	0.0	0.0	T	3.8	5.5	5.6	4.9	0.5	T	1.5	T	0.0	21.8
1987-88	0.0	0.0	T	2.7	9.7	9.4	1.1	9.3	8.0	0.3	T	0.0	40.5
1988-89	0.0	0.0	0.0	22.4	12.1	10.5	25.5	2.5	1.7	0.7	4.0	0.0	79.4
1989-90	0.0	0.0	T	6.9	14.5	22.3	5.6	26.6	4.0	T	T	0.0	79.9
1990-91	0.0	0.0	0.0	3.6	13.3	13.5	9.0	5.8	6.3	3.1	0.5	T	55.1
1991-92	0.0	0.0	0.0	17.6	17.8	8.9	12.8	9.8	10.6	16.4	T	0.0	93.9
1992-93	0.0	0.0	15.7	10.4	7.1	19.7	11.5	8.0	0.8	T	T	T	73.2
1993-94	T	0.0	1.5	9.8	20.6	9.0	12.9	4.6	0.6	T	0.5	T	59.5
1994-95	0.0	0.0	1.0	20.9	21.8	4.8	2.7	14.2	14.0			0.0	
1995-96	0.0	0.0	T	5.0	2.8	0.6	4.4	38.3	29.2	2.3	0.0		
1996-97	0.0	0.0	2.2	10.7	6.7	16.8	15.6	3.1	4.7	0.6	T	0.0	60.4
1997-98	0.0	0.0	0.0	21.4	11.5	17.5	4.7	7.8	1.6	T	T	0.0	64.5
1998-99	T	0.0	0.0	7.0	5.5	6.5	12.6	4.2	1.6	1.3	6.7	0.0	45.4
1999-00	0.0	0.0	T	18.9									
2000-01													
2001-02													
2002-03													
2003-													
POR= 55 YRS	T	0.1	1.1	8.2	8.9	10.2	7.5	7.3	5.3	2.7	0.7	0.0	52.0

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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  
GULKANA,  
ALASKA (GKN)

Gulkana Airport is located in the Copper River basin 2 miles west of the river and 9 miles south of the village of Gulkana. The airport is approximately 150 airline miles northeast of Anchorage and 200 miles south-southeast of Fairbanks. The facility can be reached by both highway and air, and is near the junction point of the Glenn Highway, leading to Anchorage and Canada, and the Richardson Highway, leading to Fairbanks. Terrain surrounding the station experiences no rapid changes in elevation. To the east the ground drops about 400 feet to the river. East of the river, the land rises gradually to about 3,000 feet at a distance of 18 miles, and then rises abruptly to 12,000 feet at the top of Mt. Drum, about 25 miles away. Elevation changes in all other directions are small. Numerous small river and creek valleys give the appearance of a fairly rough terrain despite the small elevation changes. From a much larger scale viewpoint, mountain ranges exist in all directions. The Alaska Range lies about 75 miles to the north. Mt. Drum to the east is the western end of the Wrangell Mountains. Fifty miles to the south are the Chugach Mountains. To the west at a distance of about 100 miles, the north-south oriented Talkeetna Mountains, with their southern extension joining the Chugach Range, form a barrier between Gulkana and Anchorage. Elevations of the various mountain ranges are from 6,000 to 12,000 feet. The mountains exert a significant influence on the climate of the Copper River basin.

There is no doubt that Gulkana Airport is under a dominant continental influence. Typical of this are the extremes of temperature in summer and winter, with a range as large as 156 degrees. Because the sun makes only a brief appearance during the middle of the day in winter, the average minimum temperature usually remains below zero. In contrast to the cold winter months with short days, summer is pleasantly cool, but warm enough for outdoor activities, with 18 to 20 hours of sunshine.

Mountains surrounding the Gulkana area capture a large portion of the moisture which might otherwise reach the valley, particularly from the Gulf of Alaska which deposits annual amounts in excess of 60 inches on the windward slopes of the Chugach Range. There is no commercial agriculture in the Copper River basin, but with well over half of the annual total precipitation occurring during the four months of June through September, there is adequate moisture for gardening. The average length of the growing season is 78 days.

Cloud data are available for a short period, but the heaviest precipitation occurrence in summer may be indicative of maximum cloudiness occurring during these months.

Surface wind directions are prevailing southeasterly during spring, summer, and early fall, and from the north during late fall and winter. Monthly wind speeds are highest in summer. However, the infrequent occurrences of strong winds in excess of 40 mph have always been associated with the lighter wind months from October through April.

# STATION LOCATION

GULKANA, ALASKA

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	LATITUDE		ELEVATION ABOVE										AUTOMATIC OBSERVING EQUIPMENT *	* TYPE M = AMOS T = AUTOB S = ASOS W = AWOS	REMARKS	
				NORTH	WEST	GROUND													
						SEA LEVEL	WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING GAUGE	WINDHOLE GAUGE	8 INCH RAIN GAUGE	HYGROMETER					
*NOTE: <u>AIPRORT</u> CAA Station + Gulkana Airport	11/9/42	11/19/99	9 mi. S	62°09'	145°27'	1572	30 d20	5 c5 e f4	5 c5 g4										c. Moved 100' E 6/16/61. Station type changed to WBAS/FAA 8/1/67. FAA effective 8/25/73. d. Moved to ground site 9/27/73. M. Commissioned 8/26/75. e. Removed 5/1980. f. Commissioned 9/21/82. g. Minor relocation 9/21/82.
Gulkana Airport	11/19/99	Present	NA	62°10'	145°27'	h1574											S	ASOS Commissioned 11/19/99 h. Ground Elevation	

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\* NOTES: For earlier station history see previous editions.