

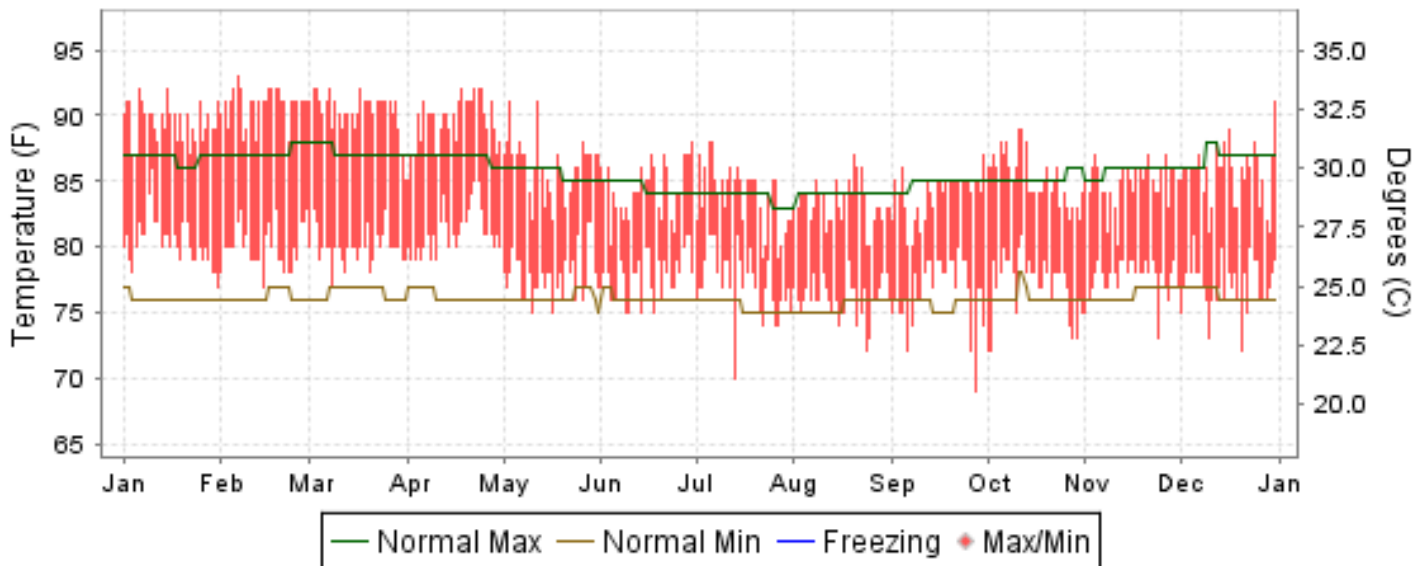


2009 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

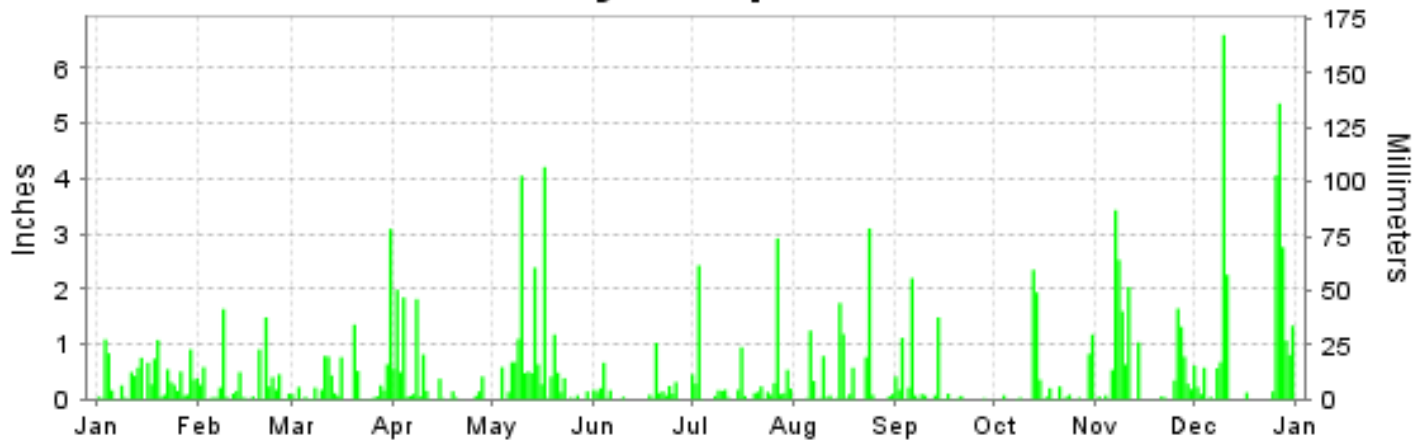
ISSN 0198-4357

PAGO PAGO, AMERICAN SAMOA (NSTU)

Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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NATIONAL
ENVIRONMENTAL SATELLITE, DATA
AND INFORMATION SERVICE

NATIONAL
CLIMATIC DATA CENTER
ASHEVILLE, NORTH CAROLINA

Thomas R. Karl
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2009

PAGO PAGO (NSTU)

LATITUDE: 14° 19'N LONGITUDE: -170° 42'W ELEVATION (FT): GRND: 12 BARO: 15 TIME ZONE: 165 W MER (UTC -11) WBAN: 61705

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	89.5	90.8	90.3	89.6	86.1	84.4	83.9	83.3	84.0	85.2	84.9	85.6	86.5	
	HIGHEST DAILY MAXIMUM	92	93	92	92	91	88	88	87	87	89	87	91	93	
	DATE OF OCCURRENCE	15+	06	17+	24+	12+	30	06+	20	30	12+	26+	31	FEB 06	
	MEAN DAILY MINIMUM	80.4	80.0	80.0	81.2	77.8	77.8	77.3	76.1	76.6	77.1	77.7	77.1	78.3	
	LOWEST DAILY MINIMUM	77	77	77	79	75	75	70	72	69	72	73	72	69	
	DATE OF OCCURRENCE	31	14	08	10+	17+	18+	13	24	27	02+	24	20	SEP 27	
	AVERAGE DRY BULB	85.0	85.4	85.2	85.4	82.0	81.1	80.6	79.7	80.3	81.2	81.3	81.4	82.4	
	MEAN WET BULB	79.2	79.1	79.4	80.0	78.3	77.3	76.9	76.2	76.6	77.5	77.1	76.7	77.9	
	MEAN DEW POINT	77.0	76.7	77.3	78.0	76.9	75.6	75.3	74.7	74.9	76.0	75.3	74.7	76.0	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	17	23	25	18	2	0	0	0	0	0	0	1	86	
	MAXIMUM <= 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MINIMUM <= 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0	
	COOLING DEGREE DAYS	625	578	631	619	534	489	492	464	465	507	495	514	6413	
RH	MEAN (PERCENT)	78	76	79	79	86	84	85	85	85	86	84	82	82	
	HOUR 01 LST	82	80	85	83	90	86	87	88	89	91	87	85	86	
	HOUR 07 LST	78	77	80	80	87	86	87	87	85	87	84	83	83	
	HOUR 13 LST	71	68	71	74	81	82	80	80	80	80	79	76	77	
	HOUR 19 LST	79	77	80	80	87	85	86	87	86	88	85	82	84	
S	PERCENT POSSIBLE SUNSHINE	49	65	62	50	45	39	38	39	37	39	47	52	47	
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	0	0	0	0	0	0	0	0	0	0	0	0	0	
	THUNDERSTORMS	2	8	3	2	3	1	2	0	1	1	4	1	28	
CLOUDNESS	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.)	29.78	29.82	29.80	29.81	29.81	29.87	29.87	29.88	29.87	29.83	29.79	29.79	29.83	
	MEAN SEA-LEVEL PRESS. (IN.)	29.79	29.83	29.81	29.82	29.82	29.88	29.88	29.89	29.88	29.84	29.80	29.80	29.84	
WINDS	RESULTANT SPEED (MPH)	4.0	7.3	2.2	5.4	5.4	11.9	13.1	10.7	13.5	10.0	11.3	8.7	7.9	
	RES. DIR. (TENS OF DEGS.)	36	07	04	07	09	10	09	10	10	12	11	11	10	
	MEAN SPEED (MPH)	9.6	10.4	7.4	11.2	9.4	15.2	15.5	13.7	15.6	12.3	12.3	11.2	12.0	
	PREVAIL.DIR.(TENS OF DEGS.)	33	07	32	09	07	09	09	09	09	13	10	11	10	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	24	25	35	31	26	31	32	29	30	23	29	25	35	
	DIR. (TENS OF DEGS.)	32	09	31	30	08	13	09	07	15	15	14	13	31	
	DATE OF OCCURRENCE	10	28	31	03	30	24	16	29	06	25	29	26	MAR 31	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	50	39	37	47	37	47	40	37	39	31	35	44	50	
DIR. (TENS OF DEGS.)	32	05	32	32	09	09	09	09	18	09	14	14	32		
DATE OF OCCURRENCE	10	17	31	01	16	26	16	31	06	15	29	26	JAN 10		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	11.34	7.62	9.99	9.28	19.17	3.65	9.96	10.41	6.28	7.53	16.65	27.40	139.28	
	GREATEST 24-HOUR (IN.)	1.75	1.77	3.09	2.15	4.42	1.06	3.22	3.74	2.23	4.16	4.48	8.48	8.48	
	DATE OF OCCURRENCE	03-04	07-08	31	02-03	16-17	19-20	26-27	23-24	06-07	13-14	07-08	10-11	DEC 10-11	
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	29	23	26	22	24	18	25	23	19	18	18	20	265	
PRECIPITATION 0.10	20	14	15	12	19	11	18	10	8	7	13	16	163		
PRECIPITATION 1.00	2	2	2	3	5	1	2	4	3	3	7	7	41		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	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	
	GREATEST 24-HOUR (IN.)	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	
	DATE OF OCCURRENCE	0	0	0	0	0	0	0	0	0	0	0	0	0	
	MAXIMUM SNOW DEPTH (IN.)	0	0	0	0	0	0	0	0	0	0	0	0	0	
	DATE OF OCCURRENCE	0	0	0	0	0	0	0	0	0	0	0	0	0	
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0	0	0	0	0	0	0	0	0	0	0	0	0	0		

NORMALS, MEANS, AND EXTREMES PAGO PAGO (NSTU)

LATITUDE:
14° 19'N

LONGITUDE:
-170° 42'W

ELEVATION (FT):
GRND: 12 BARO: 15

TIME ZONE:
165 W MER (UTC -11)

WBAN: 61705

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	86.8	87.2	87.3	86.9	85.6	84.5	83.8	84.0	84.8	85.2	85.8	86.9	85.7
	MEAN DAILY MAXIMUM	43	87.2	87.6	87.6	87.1	85.8	84.8	83.9	84.0	85.0	85.5	86.3	86.9	86.0
	HIGHEST DAILY MAXIMUM	50	95	96	95	95	93	91	91	92	92	94	95	94	96
	YEAR OF OCCURRENCE		1998	1998	1998	1998	2000	1995	2002	2002	2002	2001	1998	2001	FEB 1998
	MEAN OF EXTREME MAXS.	43	90.2	90.5	90.4	89.9	88.9	87.7	87.1	87.3	88.2	88.7	89.7	90.2	89.1
	NORMAL DAILY MINIMUM	30	76.1	76.3	76.6	76.3	76.2	76.1	75.5	75.5	75.8	76.2	76.5	76.4	76.1
	MEAN DAILY MINIMUM	43	76.7	76.7	76.8	76.5	76.5	76.4	75.7	75.6	76.0	76.4	76.7	76.7	76.4
	LOWEST DAILY MINIMUM	50	67	67	67	68	66	64	62	64	63	67	67	67	62
	YEAR OF OCCURRENCE		1965	1965	1965	1979	1974	1965	1964	1979	1970	1973	1964	1964	JUL 1964
	MEAN OF EXTREME MINS.	43	72.9	73.7	73.3	72.8	71.7	71.4	70.4	70.4	70.7	72.0	72.6	72.6	72.0
	NORMAL DRY BULB	30	81.5	81.8	82.0	81.6	80.9	80.3	79.7	79.8	80.3	80.7	81.2	81.7	81.0
	MEAN DRY BULB	43	82.0	82.2	82.2	81.8	81.2	80.6	79.9	79.8	80.5	81.0	81.5	81.8	81.2
	MEAN WET BULB	26	77.9	78.2	78.2	78.1	77.2	76.4	75.5	75.6	76.3	77.0	77.7	77.9	77.2
	MEAN DEW POINT	26	76.7	77.0	77.1	77.0	75.9	75.0	73.9	74.0	74.8	75.6	76.3	76.7	75.8
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	2.8	4.1	3.6	2.9	0.9	0.2	*	0.1	0.5	0.8	1.7	3.9	21.5
	MAXIMUM <= 32	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
	MINIMUM <= 32	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
MINIMUM <= 0	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	
H/C	NORMAL HEATING DEG. DAYS	30	0	0	0	0	0	0	0	0	0	0	0	0	0
	NORMAL COOLING DEG. DAYS	30	511	469	526	498	493	460	454	457	460	486	485	515	5814
RH	NORMAL (PERCENT)	30	83	83	83	83	82	81	79	80	80	82	82	82	82
	HOURLY 01 LST	30	88	88	88	88	87	85	83	83	85	86	86	88	86
	HOURLY 07 LST	30	88	88	89	89	87	85	83	84	84	84	84	85	86
	HOURLY 13 LST	30	75	75	75	76	76	76	74	74	74	75	76	75	75
	HOURLY 19 LST	30	82	82	82	84	84	82	80	81	81	82	82	82	82
S	PERCENT POSSIBLE SUNSHINE	41	45	47	47	42	34	35	40	44	51	44	46	47	44
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	43	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
	THUNDERSTORMS	43	2.9	3.0	3.3	3.3	2.9	1.2	0.7	0.6	1.0	2.6	3.7	3.4	28.6
CLOUDNESS	MEAN: SUNRISE-SUNSET (OKTAS)	39	6.6	6.6	6.2	6.2	6.1	5.7	5.7	5.6	5.5	6.1	6.3	6.4	6.1
	MIDNIGHT-MIDNIGHT (OKTAS)	38	6.2	6.2	5.9	5.9	5.8	5.4	5.7	5.5	5.5	5.9	6.1	6.2	5.9
	MEAN NO. DAYS WITH: CLEAR	39	0.5	0.5	1.0	1.0	0.9	1.6	1.6	1.8	1.8	1.1	0.7	1.1	13.6
	PARTLY CLOUDY	39	9.7	9.4	11.8	12.0	13.5	13.9	14.6	15.1	14.0	13.1	10.9	10.1	148.1
	CLOUDY	39	20.8	18.5	18.6	17.1	16.7	14.6	14.2	13.6	13.5	16.2	17.9	19.1	200.8
PR	MEAN STATION PRESSURE(IN)	26	29.77	29.77	29.80	29.82	29.85	29.87	29.89	29.89	29.89	29.86	29.81	29.76	29.83
	MEAN SEA-LEVEL PRES. (IN)	26	29.78	29.78	29.81	29.83	29.86	29.89	29.90	29.90	29.90	29.87	29.82	29.77	29.84
WINDS	MEAN SPEED (MPH)	26	9.7	9.5	9.0	9.4	11.2	13.2	13.8	13.5	13.7	12.3	11.1	10.3	11.4
	PREVAIL.DIR.(TENS OF DEGS)	28	09	09	09	09	12	11	12	09	09	09	11	09	09
	MAXIMUM 2-MINUTE: SPEED (MPH)	30	48	63	37	35	35	43	33	33	38	35	39	81	81
	DIR. (TENS OF DEGS)		03	03	03	03	10	00	06	01	00	01	00	02	02
	YEAR OF OCCURRENCE		2004	1990	1996	1994	2007	1995	2007	1995	1988	1986	1994	1991	DEC 1991
	MAXIMUM 3-SECOND SPEED (MPH)	26	115	107	59	59	47	59	49	45	49	43	47	109	115
	DIR. (TENS OF DEGS)		00	0N	0N	00	00	0N	00	0S	00	00	00	0S	00
	YEAR OF OCCURRENCE		2004	1990	1997	1994	1996	1997	1992	1994	1988	1986	1991	1991	JAN 2004
PRECIPITATION	NORMAL (IN)	30	14.02	12.14	11.15	11.16	10.43	5.94	5.76	6.43	7.36	10.03	11.16	13.38	118.96
	MAXIMUM MONTHLY (IN)	50	27.95	32.66	31.84	28.35	29.10	13.32	19.59	17.22	25.29	29.59	25.67	27.40	32.66
	YEAR OF OCCURRENCE		1997	1968	1961	1992	1999	2005	1962	1995	1972	1996	1978	2009	FEB 1968
	MINIMUM MONTHLY (IN)	50	4.65	2.02	4.01	0.74	1.61	1.97	0.72	0.29	0.63	2.10	1.36	2.25	0.29
	YEAR OF OCCURRENCE		1968	1998	1976	1998	1983	1992	1974	1989	1987	1975	1965	1995	AUG 1989
	MAXIMUM IN 24 HOURS (IN)	50	10.34	9.01	6.48	10.79	11.35	5.94	8.65	6.18	10.28	8.62	6.51	8.97	11.35
	YEAR OF OCCURRENCE		1997	1968	1981	1975	1999	1961	1962	1978	1972	1996	1992	1970	MAY 1999
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	24.2	21.6	23.2	21.4	19.9	18.2	18.4	17.8	17.2	21.5	20.4	22.9	246.7
	PRECIPITATION >= 1.00	30	3.8	3.7	2.8	3.4	2.9	1.5	1.7	1.6	2.0	3.1	3.7	4.2	34.4
SNOWFALL	NORMAL (IN)	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 MONTHLY (IN)	13	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
	YEAR OF OCCURRENCE														
	MAXIMUM IN 24 HOURS (IN)	50	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
	YEAR OF OCCURRENCE														
	MAXIMUM SNOW DEPTH (IN)	42	0	0	0	0	0	0	0	0	0	0	0	0	0
YEAR OF OCCURRENCE															
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	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	

PRECIPITATION (inches) 2009 PAGO PAGO (NSTU)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	9.73	7.47	14.84	6.52	19.50	11.90	4.14	13.97	15.47	21.48	7.43	13.44	145.89
1981	14.25	14.23	25.37	22.00	9.25	9.47	10.19	10.64	4.04	16.38	10.08	19.58	165.48
1982	9.09	30.25	7.68	4.13	7.90	4.22	6.96	16.20	6.30	4.38	6.35	2.84	106.30
1983	9.45	12.09	6.07	10.97	1.61	2.71	1.12	2.11	7.78	7.17	13.23	13.05	87.36
1984	9.70	8.03	19.34	6.70	4.79	7.44	1.86	4.25	5.23	15.21	8.08	26.95	117.58
1985	16.71	8.27	5.00	18.66	10.41	12.60	3.84	5.76	9.56	10.39	9.24	6.27	116.71
1986	24.88	9.47	6.88	18.83	12.33	5.69	8.79	5.05	17.67	8.87	8.82	22.60	149.88
1987	17.05	15.01	10.09	8.05	5.51	4.02	3.86	6.29	0.63	3.87	3.83	16.42	94.63
1988	8.34	9.32	12.76	10.57	9.76	6.15	9.42	3.98	6.78	9.21	16.10	24.39	126.78
1989	18.37	14.69	8.20	13.60	7.51	5.43	9.56	0.29	1.35	9.78	17.88	14.12	120.78
1990	8.87	22.54	9.90	13.01	3.52	6.31	4.82	2.45	3.68	9.68	11.25	9.30	105.33
1991	13.67	21.01	9.02	9.45	11.25	7.86	9.16	4.36	3.40	9.63	10.20	22.55	131.56
1992	15.40	12.44	13.76	28.35	10.67	1.97	5.22	6.33	6.95	6.59	22.79	8.94	139.41
1993	23.47	7.27	17.26	12.51	8.82	3.89	4.12	8.61	9.28	9.32	8.34	12.62	125.51
1994	10.37	6.78	10.96	22.65	18.96	3.80	15.68	11.83	11.56	17.26	15.52	16.69	162.06
1995	16.40	14.69	13.39	9.07	9.55	5.23	7.27	17.22	7.75	6.42	14.95	2.25	124.19
1996	11.93	11.84	11.12	7.48	10.87	6.65	3.45	1.38	10.52	29.59	6.86	10.75	122.44
1997	27.95	11.91	7.91	5.97	9.29	3.51	3.68	7.94	6.00	5.89	5.29	7.84	103.18
1998	10.64	2.02	12.70	0.74	1.64	4.72	1.42	1.59	4.30	6.31	3.22	10.46	59.76
1999	11.36	14.50	5.48	5.02	29.10	6.29	3.41	5.71	14.16	8.72	10.54	12.50	126.79
2000	13.43	13.54	18.24	4.85	13.40	7.93	3.34	3.21	6.77	11.08	9.04	10.41	115.24
2001	6.39	13.67	15.21	6.62	4.79	4.61	4.69	3.03	4.72	8.80	8.54	15.77	96.84
2002	7.42	4.85	12.56	17.84	11.20	5.92	10.42	5.90	1.62	11.87	15.26	7.94	112.80
2003	7.41	9.11	10.41	9.33	19.59	7.69	12.43	6.78	4.32	6.48	21.39	16.77	131.71
2004	12.31	13.65	13.60	7.40	5.11	3.76	7.11	2.67	4.95	11.52	4.00	9.68	95.76
2005	13.25	10.55	12.94	14.50	10.78	13.32	5.43	13.56	14.43	6.75	9.69	24.89	150.09
2006	23.87	29.28	8.50	5.15	7.86	5.07	8.27	8.75	15.83	9.75	16.09	21.63	160.05
2007	21.01	10.35	20.31	4.66	17.34	3.44	5.67	4.74	17.02	16.18	14.61	9.86	145.19
2008	22.15	4.90	10.08	12.89	19.83	12.00	4.46	3.59	6.13	3.23	11.87	18.51	129.64
2009	11.34	7.62	9.99	9.28	19.17	3.65	9.96	10.41	6.28	7.53	16.65	27.40	139.28
POR= 43 YRS	13.84	12.33	11.59	11.35	10.90	6.41	6.28	6.66	7.43	10.28	11.26	14.45	122.78

WBAN : 61705

AVERAGE TEMPERATURE (°F) 2009 PAGO PAGO (NSTU)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	81.1	81.8	82.2	82.4	79.6	80.6	79.2	79.4	80.2	79.7	81.8	81.6	80.8
1981	81.7	80.8	80.6	80.2	80.6	79.1	79.0	79.2	80.6	79.8	80.8	80.9	80.3
1982	82.0	80.4	82.3	81.8	80.8	80.4	78.7	79.0	79.2	80.8	80.2	81.1	80.6
1983	82.1	83.5	81.9	81.1	81.1	79.7	78.7	78.3	80.2	79.6	80.4	81.4	80.7
1984	80.7	81.5	81.3	81.5	81.8	80.6	79.0	79.8	79.6	79.6	81.0	80.3	80.6
1985	80.3	81.6	82.2	80.8	80.4	80.0	79.5	79.9	79.7	80.9	80.5	81.7	80.6
1986	81.2	81.6	82.1	81.2	80.6	80.6	79.3	78.3	79.9	81.1	81.8	81.7	80.8
1987	81.7	82.5	82.3	82.1	80.4	78.5	78.3	78.2	79.7	80.4	81.8	82.2	80.7
1988	82.6	82.8	82.9	81.4	81.7	81.4	79.6	80.5	80.2	80.1	79.7	79.9	81.1
1989	79.7	80.5	81.3	80.7	80.5	80.1	78.7	79.7	81.7	81.1	80.5	80.4	80.4
1990	81.5	81.4	81.6	80.6	81.9	80.4	80.2	80.1	80.4	81.5	81.6	81.7	81.1
1991	81.5	82.0	82.6	82.6	81.0	80.6	81.1	80.8	80.5	81.1	82.1	81.5	81.5
1992	81.9	82.2	81.5	81.5	82.0	81.3	81.7	80.3	81.5	81.4	80.4	82.0	81.5
1993	81.7	81.9	81.5	81.9	81.2	79.9	78.3	80.0	79.7	80.3	82.5	83.5	81.0
1994	83.1	84.1	83.9	83.1	82.1	80.8	80.3	79.1	80.0	80.4	81.6	82.9	81.8
1995	83.0	83.1	83.5	82.7	82.7	83.6	82.4	81.7	81.7	82.0	82.8	83.2	82.7
1996	83.0	83.0	83.4	83.0	81.9	82.6	81.7	81.2	82.6	81.6	83.4	83.7	82.6
1997	82.4	83.6	82.7	83.9	82.6	80.9	81.7	80.6	81.9	83.7	83.8	84.5	82.7
1998	85.3	86.3	85.8	85.2	84.2	83.6	81.7	82.9	84.4	85.2	86.3	83.3	84.5
1999	81.6	81.9	81.9	82.9	80.2	80.7	81.0	80.8	81.2	81.4	82.7	83.6	81.7
2000	83.8	83.8	83.1	83.8	81.7	81.4	80.0	81.6	82.3	81.7	82.9	83.7	82.5
2001	84.2	83.4	83.4	83.3	83.2	82.8	81.5	82.3	82.1	82.4	83.4	83.2	82.9
2002	84.3	85.4	84.3	84.1	84.1	82.7	82.8	81.2	82.8	82.3	84.0	84.6	83.6
2003	85.4	83.8	84.6	82.9	82.8	80.7	80.6	79.3	81.8	82.5	81.7	82.5	82.4
2004	81.8	81.3	81.5	81.3	80.8	80.5	80.7	81.4	82.0	82.5	83.1	84.7	81.8
2005	84.0	84.7	84.6	83.6	82.1	80.8	80.4	80.8	81.9	82.6	83.6	82.5	82.6
2006	82.1	82.4	83.7	83.7	83.9	81.9	80.3	81.2	81.0	81.0	81.2	82.3	82.1
2007	83.2	83.6	83.5	84.2	82.5	83.5	82.9	83.2	83.0	83.1	83.7	83.5	83.3
2008	83.4	84.2	83.5	83.3	82.6	81.1	80.6	81.8	81.3	82.8	83.2	84.6	82.7
2009	85.0	85.4	85.2	85.4	82.0	81.1	80.6	79.7	80.3	81.2	81.3	81.4	82.4
POR= 43 YRS	82.0	82.2	82.2	81.8	81.2	80.6	79.9	79.8	80.5	81.0	81.5	81.8	81.2

HEATING DEGREE DAYS (base 65°F) 2009 PAGO PAGO (NSTU)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1983-84	0	0	0	0	0	0	0	0	0	0	0	0	0
1984-85	0	0	0	0	0	0	0	0	0	0	0	0	0
1985-86	0	0	0	0	0	0	0	0	0	0	0	0	0
1986-87	0	0	0	0	0	0	0	0	0	0	0	0	0
1987-88	0	0	0	0	0	0	0	0	0	0	0	0	0
1988-89	0	0	0	0	0	0	0	0	0	0	0	0	0
1989-90	0	0	0	0	0	0	0	0	0	0	0	0	0
1990-91	0	0	0	0	0	0	0	0	0	0	0	0	0
1991-92	0	0	0	0	0	0	0	0	0	0	0	0	0
1992-93	0	0	0	0	0	0	0	0	0	0	0	0	0
1993-94	0	0	0	0	0	0	0	0	0	0	0	0	0
1994-95	0	0	0	0	0	0	0	0	0	0	0	0	0
1995-96	0	0	0	0	0	0	0	0	0	0	0	0	0
1996-97	0	0	0	0	0	0	0	0	0	0	0	0	0
1997-98	0	0	0	0	0	0	0	0	0	0	0	0	0
1998-99	0	0	0	0	0	0	0	0	0	0	0	0	0
1999-00	0	0	0	0	0	0	0	0	0	0	0	0	0
2000-01	0	0	0	0	0	0	0	0	0	0	0	0	0
2001-02	0	0	0	0	0	0	0	0	0	0	0	0	0
2002-03	0	0	0	0	0	0	0	0	0	0	0	0	0
2003-04	0	0	0	0	0	0	0	0	0	0	0	0	0
2004-05	0	0	0	0	0	0	0	0	0	0	0	0	0
2005-06	0	0	0	0	0	0	0	0	0	0	0	0	0
2006-07	0	0	0	0	0	0	0	0	0	0	0	0	0
2007-08	0	0	0	0	0	0	0	0	0	0	0	0	0
2008-09	0	0	0	0	0	0	0	0	0	0	0	0	0
2009-	0	0	0	0	0	0	0	0	0	0	0	0	0

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COOLING DEGREE DAYS (base 65°F) 2009 PAGO PAGO (NSTU)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1980	507	495	543	530	457	475	446	453	463	465	513	523	5870
1981	526	450	493	465	490	432	439	447	473	467	481	502	5665
1982	533	438	543	512	497	469	433	442	434	496	463	506	5766
1983	539	524	529	493	504	449	429	419	463	456	467	516	5788
1984	495	487	514	504	528	472	442	462	445	459	487	482	5777
1985	481	470	543	480	487	458	457	468	449	500	474	526	5793
1986	510	474	538	490	489	476	452	421	454	506	511	527	5848
1987	521	497	541	520	485	412	420	419	449	485	514	541	5804
1988	550	522	563	499	525	496	457	484	459	473	450	467	5945
1989	468	438	513	478	488	461	431	463	506	506	471	484	5707
1990	519	466	522	471	531	470	478	473	467	519	505	524	5945
1991	514	482	553	533	503	473	505	498	470	506	518	520	6075
1992	529	503	519	499	533	497	525	482	504	514	468	535	6108
1993	524	477	521	513	510	454	421	468	448	483	534	584	5937
1994	569	543	592	547	539	479	483	444	456	484	504	561	6201
1995	565	516	578	539	557	564	548	521	509	534	541	571	6543
1996	567	526	577	546	529	535	522	511	532	521	556	585	6507
1997	547	527	554	576	554	483	526	490	516	588	574	610	6545
1998	640	603	651	613	605	566	524	560	589	630	645	571	7197
1999	521	478	532	543	478	479	503	496	494	515	538	582	6159
2000	592	553	569	569	526	499	474	522	528	527	542	584	6485
2001	598	521	578	552	572	543	519	542	519	545	560	573	6622
2002	604	581	607	581	595	540	557	508	537	543	579	614	6846
2003	637	531	614	545	560	478	485	447	508	550	509	550	6414
2004	528	481	519	495	496	474	497	518	517	549	551	618	6243
2005	596	557	611	566	535	483	485	498	513	556	562	549	6511
2006	534	492	587	569	596	514	470	493	484	461	495	544	6239
2007	573	527	583	583	548	561	561	571	544	569	564	584	6768
2008	578	565	578	557	554	489	493	529	494	559	553	616	6565
2009	625	578	631	619	534	489	492	464	465	507	495	514	6413

SNOWFALL (inches) 2009 PAGO PAGO (NSTU)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1980-81	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
1981-82	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
1982-83	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
1983-84	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
1984-85	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
1985-86	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
1986-87	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
1987-88	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
1988-89	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
1989-90	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
1990-91	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
1991-92	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
1992-93	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
1993-94	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
1994-95	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
1995-96	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
1996-97	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
1997-98	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
1998-99	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
1999-00	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
2000-01	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
2001-02	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
2002-03	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
2003-04	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
2004-05	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
2005-06	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
2006-07	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
2007-08	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
2008-09	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
2009-	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
POR= 44 YRS	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

WBAN : 61705

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> <p>NOTE: The "Period of Record:(POR) for all "averages" is based on the "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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2009 PAGO PAGO AMERICAN SAMOA (NSTU)

Pago Pago Airport is located on the southeastern coast of the island of Tutuila in the American Samoa group, approximately 2,600 miles south-southwest of Hawaii, 1,600 miles north-northeast of New Zealand, and 4,500 miles southwest of California. Tutuila is a long, narrow island lying southwest-northeast, with a land area of 76 square miles, a greatest length of just over 20 miles, and a width ranging from 1 to 2 miles in the eastern half and from 2 to 5 miles in the western. It is volcanic in origin, extremely mountainous, and nearly surrounded by a coral reef. The principal ridge extends the length of the island, reaching a maximum height of 2,141 feet, at Matafao peak, near the central portion of the long axis. Vegetation is moderately dense, with many coconut, banana, and other tropical fruit trees, grass, and low-growing brush. The orientation of Tutuila is such that winds from the east-northeast clockwise to south approach Pago Pago Airport directly from the ocean without being deflected by the terrain, while winds from other directions may be considerably disturbed by topography.

Samoa has a maritime climate with abundant rain and warm, humid days and nights. Rainfall, usually falling as showers, is about 125 inches a year at the airport, but varies greatly over small distances because of topography. Thus, Pago Pago, less than 4 miles north of the airport and at the head of a hill-encircled harbor open to the prevailing wind, receives nearly 200 inches a year. The crest of the range receives well above 250 inches. In most years, the airport records about 300 days with a trace or more of rain and about 175 with .1 inch or more.

The driest months are June through September (southern winter) and the wettest, December through March (southern summer). However, the seasonal rainfall may vary widely in individual years, and heavy showers and long rainy periods can occur in any month. Flooding rains are not unknown. Some of these have been associated with hurricanes and tropical storms, but they have occurred at other times as well.

June, July and August are the coolest months and January, February, and March, the warmest. Afternoon temperatures ordinarily reach the upper 80s in summer and the mid 80s in winter, while nighttime temperatures fall to the mid 70s in the summer and low 70s in winter. The highest temperatures recorded at the airport are in the low 90s and lowest near 60.

The prevailing winds throughout the year are the easterly trades. These tend to be more directly from the east in December through March, but predominantly from east-southeast and southeast during the rest of the year. The trade winds are also less prevalent in summer than in winter. As the foregoing suggests, the trades are interrupted more often in summer than in winter. These interruptions are sometimes associated with the proximity of small tropical storms, of bands of converging winds, or of low pressure systems higher in the atmosphere, all of which help make summer the rainy season. At other times, the absence of the trades is marked by periods of light and variable winds and by land and sea breezes. Westerly to northerly winds, in particular, are more frequent then. These are strong at times, but are often quite light, and may then reflect the nighttime drainage of cooled air from the mountains west and north of the airport.

Thunderstorms are less frequent than might be expected, considering the moistness and instability of the tropical air mass which usually overlies Samoa.

Station Location

PAGO PAGO

LOCATION	Occupied From	Occupied To	Airline Distances and Directions from previous Location	Latitude NORTH WEST		Longitude NORTH WEST		ELEVATION ABOVE										AUTOMATIC OBSERVING EQUIPMENT *	REMARKS	
								SEA LEVEL	GROUND											
								GROUND TEMPERATURE SITE	WIND INSTRUMENT	EXTREME THERMOMETERS	PSYCHROMETER	SUNSHINE SWITCH	TIPPING BUCKET RAIN GAUGE	WEIGHING RAIN GAUGE	8 INCH RAIN GAUGE	HYGROTHERMOMETER				
<u>AIRPORT</u>																				
Airport Communications Building, Tafuna AP # (Supplementary Aviation Weather Reporting Sta.)	1/25/56	4/13/64		14° 20'	170° 43'	6	37	a6	5		3		3		a. About 60 feet West of shoreline. b. Installed 11/6/57. # - Pago Pago International Airport effective 9/1/62.					
FAA Receiver Control Building, Pago Pago International Airport	4/14/64	3/31/66	2900 ft. WSW	14° 20'	170° 43'	30	20	5	5		3		3		FAA Station.					
American Samoa	4/01/66	Present	2000 ft. E	14° 20'	170° 43'	12	21 c28 e28	4	4	5	3	NA	4	d5	NA	Weather Bureau Operation. c. Relocated 10/4/72. d. Added 5/13/90. e. Ground elevation.				

* TYPE
M = AMOS
T = AUTOB
S = ASOS
W = AWOS

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