

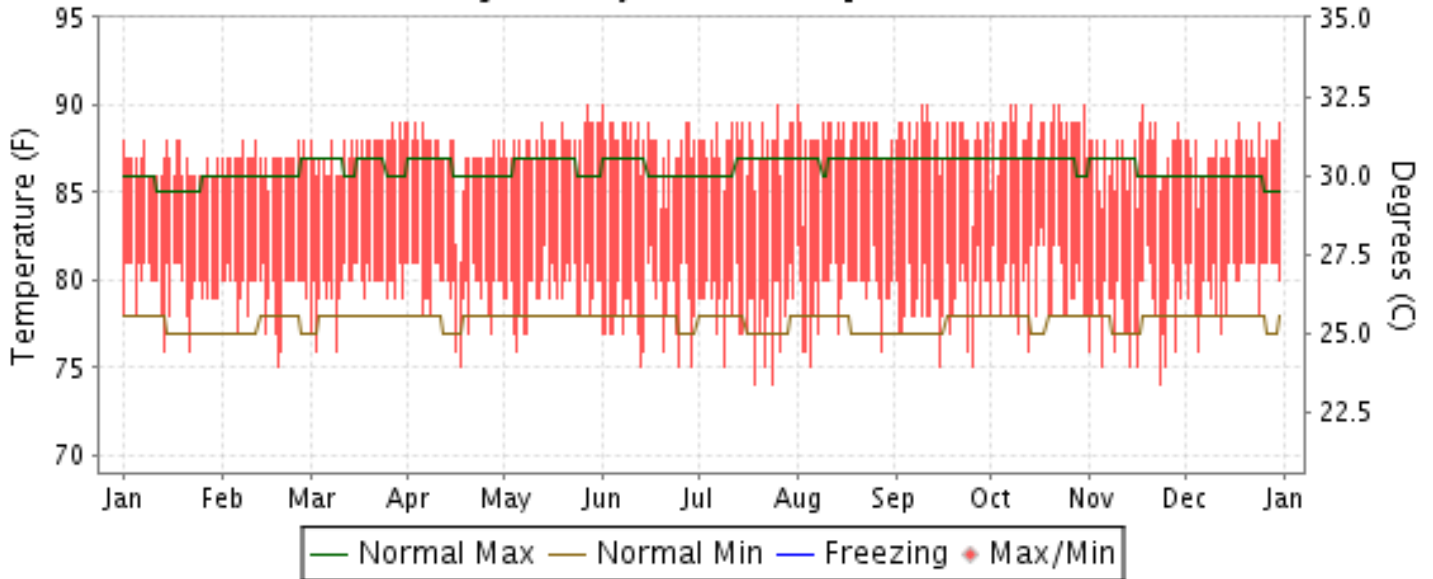


# 2013 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

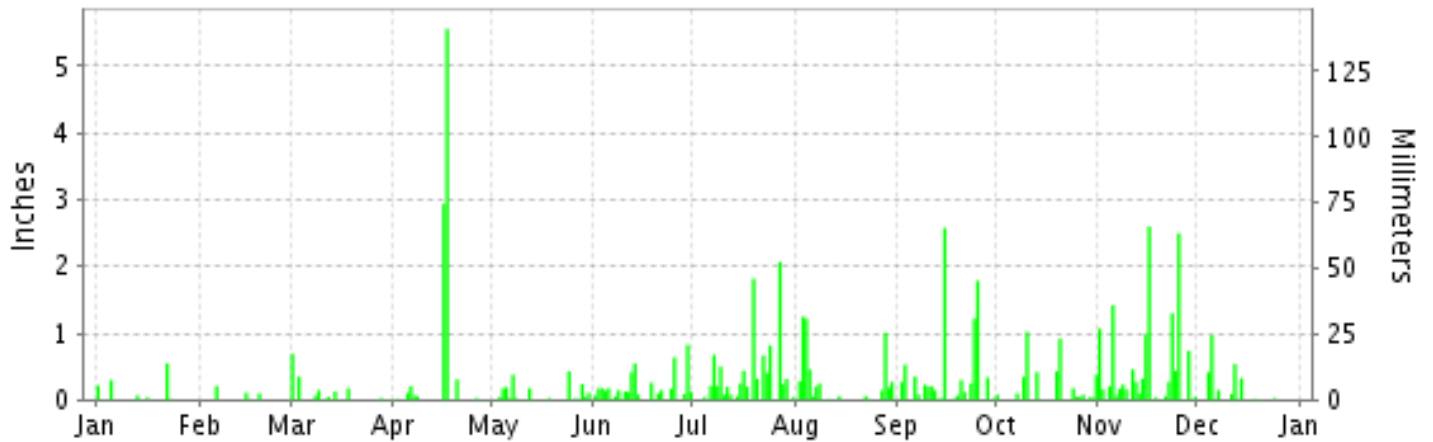
ISSN 0198-4314

## KWAJALEIN, PACIFIC (PKWA)

### Daily Max/Min Temperature



### Daily Precipitation



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CLIMATIC DATA CENTER  
ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2013

## KWAJALEIN (PKWA)

LATITUDE: 8° 43'N      LONGITUDE: 167° 43'E      ELEVATION (FT): GRND: 7 BARO: 11      TIME ZONE: 180 E MER (UTC 12)      WBAN: 40604

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	86.6	86.6	87.5	87.1	88.0	87.8	86.6	88.2	88.3	88.5	87.2	87.4	87.5
	HIGHEST DAILY MAXIMUM	88	88	89	89	90	90	88	90	90	90	90	89	90
	DATE OF OCCURRENCE	19+	19+	31+	05+	27	01	19+	01	11+	30+	18	31+	NOV 18
	MEAN DAILY MINIMUM	79.5	79.5	79.6	79.4	79.3	78.3	79.5	79.3	78.7	79.6	78.0	79.9	79.2
	LOWEST DAILY MINIMUM	76	76	76	75	76	75	76	75	75	76	74	76	74
	DATE OF OCCURRENCE	22+	22+	09+	17	05	29+	22+	05	25+	13	23	05	NOV 23
	AVERAGE DRY BULB			83.5	83.3	83.6	83.1	1.4	83.7	83.5	84.1	82.6	83.7	
	MEAN WET BULB													
	MEAN DEW POINT													
	NUMBER OF DAYS WITH:													
	MAXIMUM >= 90°	0	0	0	0	1	1	0	1	2	6	1	0	12
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	569	569	582	556	586	546	569	589	560	598	537	586	6847
RH	MEAN (PERCENT)													
	HOUR 06 LST													
	HOUR 12 LST													
	HOUR 18 LST													
	HOUR 24 LST													
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	0	0	0	0	0	0	0	0	0	3	1	1	5
PR	MEAN STATION PRESS. (IN.)													
	MEAN SEA-LEVEL PRESS. (IN.)													
WINDS	RESULTANT SPEED (MPH)													
	RES. DIR. (TENS OF DEGS.)													
	MEAN SPEED (MPH)													
	PREVAIL.DIR.(TENS OF DEGS.)													
	MAXIMUM 2-MINUTE WIND													
	SPEED (MPH)	39	31	35	30	28	33	36	32	31	32	36	30	39
	DIR. (TENS OF DEGS.)	06	07	06	06	06	08	08	07	08	16	11	09	06
	DATE OF OCCURRENCE	01	19	01	07	12	12	24	03	24	13	24	05	JAN 01
MAXIMUM 3-SECOND WIND:														
SPEED (MPH)	39	39	40	36	33	39	39	39	39	39	45	35	45	
DIR. (TENS OF DEGS.)	06	06	06	06	07	07	06	07	03	16	06	09	06	
DATE OF OCCURRENCE	01	01	01	07	12	03	01	03	20	13	23	11	NOV 23	
PRECIPITATION	WATER EQUIVALENT:													
	TOTAL (IN.)	1.22	1.22	1.73	9.34	1.97	4.66	1.22	5.51	8.81	4.17	13.63	2.62	56.10
	GREATEST 24-HOUR (IN.)	0.55	0.55	0.69	5.56	0.43	0.83	0.55	1.25	2.58	1.02	2.60	0.97	5.56
	DATE OF OCCURRENCE	22	22	01	17	24	29	22	03	15	10	16	15	APR 17
	NUMBER OF DAYS WITH:													
	PRECIPITATION 0.01	8	8	15	12	17	23	8	16	21	17	22	13	180
PRECIPITATION 0.10	3	3	5	5	7	16	3	10	14	8	18	5	97	
PRECIPITATION 1.00	0	0	0	2	0	0	0	3	3	1	5	0	14	
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

## KWAJALEIN (PKWA)

**LATITUDE:** 8° 43'N      **LONGITUDE:** 167° 43'E      **ELEVATION (FT):** GRND: 7 BARO: 11      **TIME ZONE:** 180 E MER (UTC 12)      **WBAN: 40604**

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
<b>TEMPERATURE °F</b>	NORMAL DAILY MAXIMUM	30	85.4	85.8	86.4	86.5	86.8	86.5	86.5	86.8	87.0	86.8	86.4	85.7	86.4	
	MEAN DAILY MAXIMUM	61	85.5	85.9	86.5	86.5	86.6	86.5	86.6	87.1	87.2	87.0	86.4	85.8	86.5	
	HIGHEST DAILY MAXIMUM	61	91	92	91	92	93	92	94	95	93	97	92	90	97	
	YEAR OF OCCURRENCE		1953	1954	1954	1953	1953	1958	1953	1958	1958	1958	1953	1953	1953	OCT 1958
	MEAN OF EXTREME MAXS.	61	87.2	87.3	88.3	88.3	88.7	88.5	88.9	89.6	89.7	89.5	88.9	87.7	88.6	
	NORMAL DAILY MINIMUM	30	78.0	78.0	78.2	78.5	78.7	78.4	78.1	78.1	78.1	78.3	78.2	78.3	78.2	
	MEAN DAILY MINIMUM	61	77.7	77.7	78.0	78.1	78.1	78.0	77.7	77.9	77.8	77.9	77.9	78.1	77.9	
	LOWEST DAILY MINIMUM	61	68	71	70	71	71	71	70	71	68	71	70	70	69	
	YEAR OF OCCURRENCE		1979	1963	1985	1964	1968	2008	1954	1971	1984	1967	1975	1963	1963	SEP 1984
	MEAN OF EXTREME MINS.	61	74.0	74.3	74.2	74.4	74.4	74.0	73.9	74.0	73.9	73.8	74.1	74.0	74.1	
	NORMAL DRY BULB	30	81.7	81.9	82.3	82.5	82.8	82.5	82.3	82.5	82.6	82.5	82.3	82.0	82.3	
	MEAN DRY BULB	60	81.6	81.8	82.3	82.3	82.4	82.3	80.9	82.5	82.5	82.5	82.1	82.0	82.1	
	MEAN WET BULB	26	75.8	75.6	75.9	76.7	77.4	77.6	77.6	77.7	77.7	77.8	77.7	76.9	77.0	
	MEAN DEW POINT	26	74.2	73.7	74.1	75.0	75.8	76.2	76.3	76.3	76.3	76.2	76.3	76.2	75.3	
	NORMAL NO. DAYS WITH:															
	MAXIMUM >= 90	30	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.3	0.2	0.3	0.0	1.0	
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		
<b>H/C</b>	NORMAL HEATING DEG. DAYS	30	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NORMAL COOLING DEG. DAYS	30	518	473	536	525	550	524	536	541	527	544	519	527	6320	
<b>RH</b>	NORMAL (PERCENT)	30	77	75	76	78	79	81	81	80	80	80	80	79	79	
	HOURLY 06 LST	30	80	79	79	81	83	84	83	83	83	82	83	81	82	
	HOURLY 12 LST	30	80	79	80	82	83	84	84	84	84	83	83	81	82	
	HOURLY 18 LST	30	72	70	70	73	75	77	77	76	76	76	76	74	74	
	HOURLY 24 LST	30	76	74	74	77	78	79	78	78	78	79	80	78	77	
<b>S</b>	PERCENT POSSIBLE SUNSHINE															
<b>W/O</b>	MEAN NO. DAYS WITH:															
	HEAVY FOG(VISBY <= 1/4 MI) THUNDERSTORMS	50 61	0.0 0.2	0.0 0.1	0.0 0.1	0.0 0.3	0.0 0.5	0.0 0.8	0.0 1.5	0.0 1.3	0.0 1.7	0.0 1.8	0.0 1.4	0.0 0.7	0.0 10.4	
<b>CLOUDINESS</b>	MEAN:															
	SUNRISE-SUNSET (OKTAS)	43	6.6	6.5	6.6	6.8	6.9	7.0	6.8	6.9	6.8	7.1	6.9	6.8	6.8	
	MIDNIGHT-MIDNIGHT (OKTAS)	33	6.7	6.4	6.5	6.6	6.9	7.0	6.9	6.9	6.8	7.2	7.0	6.7	6.8	
	MEAN NO. DAYS WITH:															
	CLEAR	44	2.1	2.4	2.4	1.7	0.9	1.2	1.0	1.5	1.4	1.0	1.1	1.8	18.5	
PARTLY CLOUDY	44	7.2	6.3	7.7	5.9	6.6	6.1	6.0	6.2	5.2	5.1	6.3	6.4	75.0		
CLOUDY	44	21.4	19.6	20.9	22.7	23.4	22.9	23.4	22.6	23.0	24.4	22.0	22.2	268.5		
<b>PR</b>	MEAN STATION PRESSURE(IN)	26	29.78	29.79	29.80	29.80	29.81	29.80	29.80	29.79	29.79	29.78	29.76	29.77	29.79	
	MEAN SEA-LEVEL PRES. (IN)	26	29.81	29.82	29.83	29.83	29.83	29.83	29.82	29.82	29.82	29.81	29.79	29.79	29.82	
<b>WINDS</b>	MEAN SPEED (MPH)	26	17.2	16.4	16.2	15.5	14.2	13.4	11.4	9.5	9.0	10.0	12.5	16.8	13.5	
	PREVAIL.DIR.(TENS OF DEGS)															
	MAXIMUM 2-MINUTE:															
	SPEED (MPH)	53	55	37	39	37	44	41	41	44	44	44	60	46	60	
	DIR. (TENS OF DEGS)		02	05	09	00	01	01	00	07	00	06	01	07	01	
	YEAR OF OCCURRENCE		1969	2010	1999	1964	1967	1986	1962	2000	1995	2010	1991	2004	NOV 1991	
	MAXIMUM 3-SECOND															
SPEED (MPH)	30	66	48	46	47	51	51	52	67	48	53	82	64	82		
DIR. (TENS OF DEGS)		09	09	07	09	09	14	14	09	09	04	04	09	04		
YEAR OF OCCURRENCE		1988	1997	2010	2002	2003	1986	2008	2000	2011	1985	1991	2004	NOV 1991		
<b>PRECIPITATION</b>	NORMAL (IN)	30	4.01	3.30	3.56	6.21	6.61	7.86	9.85	10.40	10.89	11.83	11.07	8.13	93.72	
	MAXIMUM MONTHLY (IN)	69	15.66	11.79	24.33	20.29	26.86	19.61	22.29	23.61	21.16	20.05	19.51	30.38	30.38	
	YEAR OF OCCURRENCE		1951	2011	1951	1971	1980	1955	2002	2004	1972	1964	1957	1950	DEC 1950	
	MINIMUM MONTHLY (IN)	69	0.48	0.04	0.16	0.20	0.53	2.08	1.22	5.38	3.77	4.17	3.51	1.90	0.04	
	YEAR OF OCCURRENCE		1977	1977	1975	1983	1984	2009	2013	1981	2001	2013	1973	1971	FEB 1977	
	MAXIMUM IN 24 HOURS (IN)	69	6.46	4.60	3.81	5.56	8.35	8.86	5.68	5.35	4.69	6.53	7.24	17.15	17.15	
	YEAR OF OCCURRENCE		1979	1985	1990	2013	1980	1995	1983	1979	1972	1968	1975	1972	DEC 1972	
	NORMAL NO. DAYS WITH:															
	PRECIPITATION >= 0.01	30	16.6	13.7	15.7	16.9	18.8	22.2	23.0	23.7	22.0	24.1	22.7	20.0	239.4	
PRECIPITATION >= 1.00	30	0.8	0.8	0.8	1.9	1.7	2.0	2.8	2.9	3.3	3.8	3.2	2.3	26.3		
<b>SNOWFALL</b>	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)	15	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)	67	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)	45	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) 2013 KWAJALEIN (PKWA)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1984	3.20	4.07	1.06	2.12	0.53	3.56	3.53	7.54	7.10	8.48	11.84	6.32	59.35
1985	2.28	6.97	5.75	12.46	8.05	7.66	7.61	11.18	7.64	9.99	11.45	5.06	96.10
1986	3.12	5.64	6.87	4.82	9.37	15.08	12.43	7.53	12.43	13.48	16.36	23.28	130.41
1987	3.95	1.86	1.49	3.11	6.43	11.08	10.51	14.42	11.42	9.67	9.67	6.16	89.77
1988	5.08	0.67	1.24	5.67	3.21	5.17	7.54	5.54	16.01	16.68	11.17	8.45	86.43
1989	2.90	4.63	1.67	12.84	7.34	5.77	8.06	8.09	17.32	8.20	6.40	7.13	90.35
1990	9.32	3.36	11.00	4.40	10.75	11.61	9.25	6.36	13.28	9.14	10.15	13.08	111.70
1991	1.88	7.16	10.67	15.83	10.63	10.00	11.40	12.84	19.72	7.09	16.21	3.84	127.27
1992	4.19	0.42	0.20	0.24	3.68	6.86	13.90	7.99	11.44	7.88	14.94	8.87	80.61
1993	2.97	2.72	6.87	2.48	5.94	7.72	7.40	13.07	7.07	10.31	10.26	10.78	87.59
1994	7.06	1.54	2.64	14.94	5.75	6.93	10.25	5.41	14.23	6.72	8.13	15.99	99.59
1995	1.38	3.50	3.95	13.32	9.04	14.78	9.80	11.49	12.38	16.53	7.72	5.92	109.81
1996	11.28	10.21	2.06	5.94	9.83	6.86	4.81	6.39	10.97	7.68	11.40	11.18	98.61
1997	7.89	2.57	8.92	11.17	18.45	9.77	5.10	23.38	9.29	15.51	5.83	5.07	122.95
1998	0.66	0.91	0.75	0.72	0.87	3.86	12.63	11.18	9.04	14.69	7.95	5.85	69.11
1999	4.55	3.82	1.84	2.18	3.58	12.34	10.61	8.93	8.84	11.95	10.95	6.75	86.34
2000	13.42	8.13	3.87	2.33	3.15	4.04	9.94	12.46	9.03	13.85	6.75	11.05	98.02
2001	3.53	1.75	1.13	2.17	4.68	4.63	7.73	9.27	3.77	15.52	13.70	7.96	75.84
2002	1.31	3.24	5.50	7.72	11.97	11.61	22.29	12.14	6.95	12.10	3.80	6.38	105.01
2003	2.75	2.36	2.08	12.14	10.57	6.58	10.03	10.54	10.36	14.03	4.14	11.78	97.36
2004	0.80	4.63	3.32	6.92	7.01	6.92	7.20	23.61	8.40	9.74	12.84	11.54	102.93
2005	3.42	1.41	1.26	3.12	2.68	6.49	8.57	7.32	8.03	16.86	12.33	4.70	76.19
2006	5.06	1.15	3.09	5.81	11.54	7.06	7.91	10.21	12.32	19.91	13.02	6.57	103.65
2007	0.77	3.43	1.39	11.06	8.75	5.00	5.74	11.92	11.39	11.59	12.43	5.76	89.23
2008	5.35	5.46	3.36	5.24	7.63	5.34	11.62	6.83	9.20	11.89	5.85	7.45	85.22
2009	1.84	2.37	1.78	5.27	1.58	2.08	11.03	8.93	10.51	8.28	14.05	5.78	73.50
2010	5.29	0.85	2.62	1.72	2.88	11.01	7.04	7.33	8.35	18.56	16.97	2.96	85.58
2011	6.11	11.79	10.61	3.76	7.83	8.38	10.27	14.05	11.95	14.00	14.68	5.59	119.02
2012	4.22	3.01	1.97	3.58	10.82	8.08	11.83	9.23	6.17	8.18	5.09	15.33	87.51
2013	1.22	1.22	1.73	9.34	1.97	4.66	1.22	5.51	8.81	4.17	13.63	2.62	56.10
POR= 61 YRS	4.23	3.25	4.11	6.87	8.84	8.87	9.92	10.33	10.83	11.86	11.03	7.93	98.07

WBAN : 40604

**AVERAGE TEMPERATURE (°F) 2013 KWAJALEIN (PKWA)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1984	82.0	82.2	83.0	83.1	83.6	82.9	82.7	81.8	82.3	82.6	82.0	82.5	82.6
1985	82.2	82.7	82.0	81.4	82.2	82.0	82.2	81.9	82.8	82.9	82.0	82.2	82.2
1986	82.1	82.2	82.1	82.6	82.2	82.3	82.5	83.0	82.1	82.7	82.0	81.5	82.3
1987	81.1	81.1	82.1	82.5	82.9	82.5	82.7	83.1	82.9	83.7	82.9	82.2	82.5
1988	81.7	82.6	83.0	83.1	83.6	82.6	82.3	83.1	82.2	81.9	82.2	81.5	82.5
1989	82.0	82.1	82.8	82.2	82.1	82.2	82.5	82.6	82.4	82.5	82.9	83.0	82.4
1990	82.2	82.2	82.2	83.5	82.3	82.9	82.9	83.3	82.6	83.2	83.3	82.4	82.8
1991	82.6	82.5	81.8	81.6	82.6	82.5	82.3	82.7	82.7	82.8	81.9	81.6	82.3
1992	80.8	81.2	81.8	82.7	82.8	82.5	82.2	83.0	83.5	83.4	81.8	81.7	82.3
1993	81.1	81.5	81.7	82.3	82.5	82.9	82.9	82.5	83.1	83.2	82.4	82.1	82.4
1994	82.0	82.2	82.2	81.9	83.0	82.3	82.1	82.9	83.1	83.3	83.3	82.2	82.5
1995	82.1	81.9	82.6	81.8	82.7	82.4	81.9	82.3	82.3	81.1	81.5	82.4	82.1
1996	82.3	82.0	82.9	82.6	82.4	82.1	82.7	82.9	83.1	83.3	82.4	81.6	82.5
1997	81.7	82.2	82.1	82.2	82.1	82.2	83.5	81.8	82.4	82.2	82.6	81.7	82.2
1998	80.8	81.0	81.8	82.7	83.4	82.6	81.1	81.8	82.1	81.9	81.9	81.4	81.9
1999	81.6	81.5	81.9	82.3	82.5	81.1	80.8	81.3	81.1	81.6	80.5	81.2	81.5
2000	80.5	81.1	81.6	82.3	82.4	81.8	81.2	81.0	82.3	81.7	82.0	81.7	81.6
2001	81.0	81.5	82.7	83.3	82.7	82.6	82.5	82.9	83.2	83.1	82.1	82.7	82.5
2002	82.8	81.9	82.3	83.8	83.9	83.6	82.6	82.4	83.6	82.9	83.5	82.6	83.0
2003	82.1	82.6	83.1	81.6	83.0	83.1	83.3	83.6	83.5	82.9	83.9	83.1	83.0
2004	83.3	83.4	83.8	83.3	83.4	83.1	83.2	82.7	84.0	83.8	83.9	83.0	83.4
2005	82.4	82.6	83.3	83.7	84.0	83.1	83.1	83.5	83.4	83.3	83.4	82.6	83.2
2006	82.0	82.2	82.1	83.0	82.5	82.9	83.0	83.1	83.3	82.5	82.5	82.8	82.7
2007	82.8	82.5	83.6	82.6	82.9	82.7	82.8	82.6	82.6	82.5	81.8	82.4	82.7
2008	81.8	81.7	81.9	81.8	81.0	80.9	80.6	82.3	82.2	82.1	82.5	81.1	81.7
2009	81.5	81.7	82.3	82.4	83.3	83.6	82.0	83.1	82.5	82.7	82.3	83.0	82.5
2010	82.5	82.0	83.0	83.8	84.4	83.4	82.7	82.8	82.3	81.9	81.7	82.5	82.8
2011	82.1	82.2	82.4	84.0	82.6	82.9	82.5	82.1	82.5	82.0	81.9	82.4	82.5
2012	82.0	82.2	82.9	83.4	83.3	83.4	82.9	83.2	83.5	83.4	83.4	82.7	83.0
2013	83.1	83.1	83.5	83.3	83.6	83.1	1.4	83.7	83.5	84.1	82.6	83.7	76.6
POR= 60 YRS	81.6	81.8	82.3	82.3	82.4	82.3	80.9	82.5	82.5	82.5	82.1	82.0	82.1

**HEATING DEGREE DAYS (base 65°F) 2013 KWAJALEIN (PKWA)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
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
2009-10	0	0	0	0	0	0	0	0	0	0	0	0	0
2010-11	0	0	0	0	0	0	0	0	0	0	0	0	0
2011-12	0	0	0	0	0	0	0	0	0	0	0	0	0
2012-13	0	0	0	0	0	0	0	0	0	0	0	0	0
2013-	0	0	0	0	0	0	0	0	0	0	0	0	0

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**COOLING DEGREE DAYS (base 65°F) 2013 KWAJALEIN (PKWA)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1984	535	504	565	551	582	546	557	526	527	554	518	549	6514
1985	541	500	533	501	542	513	542	529	540	564	516	539	6360
1986	539	488	537	536	542	524	550	564	519	558	516	516	6389
1987	507	458	540	530	559	530	557	569	541	585	542	540	6458
1988	526	516	565	551	584	535	545	568	521	529	525	519	6484
1989	532	482	559	520	535	527	549	554	529	550	544	567	6448
1990	538	490	539	561	542	545	561	575	533	572	555	545	6556
1991	553	495	528	505	552	533	546	556	535	556	515	521	6395
1992	494	477	526	535	558	532	541	565	562	577	514	524	6405
1993	507	468	522	524	548	542	562	552	548	571	529	541	6414
1994	532	487	543	514	566	524	537	562	550	573	555	540	6483
1995	534	480	551	509	557	528	532	542	526	503	502	544	6308
1996	541	497	560	535	550	521	557	563	551	572	531	526	6504
1997	527	486	537	523	537	525	578	527	530	541	532	524	6367
1998	497	455	530	540	578	534	505	528	520	533	515	518	6253
1999	522	469	530	527	551	488	500	510	492	519	472	512	6092
2000	488	475	522	522	545	511	507	504	529	525	516	522	6166
2001	501	469	555	554	558	536	554	560	553	568	518	558	6484
2002	559	479	545	572	593	564	553	545	566	564	559	552	6651
2003	537	497	571	506	568	549	573	584	561	563	572	569	6650
2004	574	538	594	554	577	553	573	554	577	590	573	562	6819
2005	545	501	575	567	597	551	569	582	559	577	561	554	6738
2006	534	487	536	546	548	542	566	569	558	551	532	556	6525
2007	558	496	584	535	562	539	563	552	534	549	510	548	6530
2008	529	490	530	512	501	483	494	541	522	537	531	507	6177
2009	519	475	544	528	575	567	534	567	533	554	524	556	6476
2010	549	480	565	570	608	556	553	559	525	532	505	547	6549
2011	538	489	549	574	553	545	551	541	534	535	515	547	6471
2012	535	505	564	557	576	559	562	569	562	579	557	557	6682
2013	569	569	582	556	586	546	569	589	560	598	537	586	6847

**SNOWFALL (inches) 2013 KWAJALEIN (PKWA)**

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	0.0	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
2009-10	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
2010-11	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
2011-12	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
2012-	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= 60 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 : 40604

**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. 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 CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.</p> <p>GENERAL CONTINUED: 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</p>	<p>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. 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 EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER. STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED STATION HISTORY INFORMATION GO TO "Historical Observing Metadata Repository", URL IS: <a href="http://www.ncdc.noaa.gov/homr/">http://www.ncdc.noaa.gov/homr/</a> SNOWFALL STOPPED MONTH &amp; YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</p> <p><b>NOTE:</b> The "Period of Record:(POR)" for all "averages" is based on "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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# 2013 KWAJALEIN PACIFIC (PKWA)

Kwajalein Island, although only 3 miles in length and 1/2 mile wide, is the largest of the fringing reef islands composing Kwajalein Atoll. Kwajalein Atoll, spanning some 70 miles, is one of the largest coral atolls in the world. The land surface of the island, which has very little effect on the climate of the locality, has an average elevation of less than 10 feet above sea level. The highest points on the island are 12 to 15 feet above sea level.

Kwajalein, located less than 700 miles north of the equator, has a tropical marine climate characterized by relatively high annual rainfall and warm to hot, humid weather throughout the year.

Temperatures are very uniform from day to day and month to month. Because of the low latitude, there are only slight seasonal variations in the length of daylight period and the altitude of the sun at Kwajalein. As a result, the variation of the amount of solar energy received is small. The small variation in solar energy and the marine influence are the principal reasons for the uniform temperatures in the area. The range of normal temperature between the coldest month and the warmest month averages about 2 degrees.

The principal rainfall season extends from May through November. Light, easterly winds, almost constant cloudiness, and frequent moderate to heavy showers prevail during the wet season.

The dry season includes the period December through April, and is characterized not so much by lack of showers as by light showers of short duration. In this season the trade winds are persistent, blowing from the northeast 15 to 20 knots almost continuously. Cloudiness is at a minimum, and the sky is less than one-half covered most of the time, but clear skies are rare.

Severe storms with attendant damaging winds are rare in the vicinity of Kwajalein. During the wet season, however, small, weak depressions may form near the island. Some of these intensify and a few eventually develop into typhoons after moving westward away from the island. These depressions cause heavy rainfall in the Kwajalein Atoll.

The relative humidity is uniformly high throughout the year, and is slightly higher in the wet season than in the dry season. The combination of high humidity and proximity of the salt water ocean presents a corrosion problem.

# Station History

KWAJALEIN, RM

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
KWAJALEIN	1952-05-01	1954-11-01	8° 43'	167° 43'	10		COOP
KWAJALEIN	1960-07-01	1982-01-01	8° 43'	167° 43'	10		COOP
KWAJALEIN	1982-01-01	Present	8° 43'	167° 43'	7		COOP
KWAJALEIN	1954-11-01	1960-07-01	8° 43'	167° 43'	0		COOP

# Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
PRECIP	1982-09-24	Present	DAILY	2400	SRG		
PRECIP	1952-05-01	1982-09-24	DAILY	1200			
TEMP	1952-05-01	1982-09-24	DAILY	1200			
TEMP	1982-09-24	Present	DAILY	2400	MXMN		

\* For explanation of codes and abbreviations see Station Metadata link below.

Other Station Information can be found at:

ASOS Implementation by NWS: <http://www.nws.noaa.gov/ops2/Surface/asosimplementation.htm>

Station Metadata website: <http://www.ncdc.noaa.gov/homr>

INQUIRES/COMMENTS CALL: (828) 271-4800, option 2

Fax Number : (828) 271-4876

TDD : (828) 271-4010

Email : [ncdc.orders@noaa.gov](mailto:ncdc.orders@noaa.gov)

NOAA/National Climatic Data Center

Attn: User Engagement & Services Branch

151 Patton Avenue

Asheville, NC 28801-5001

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