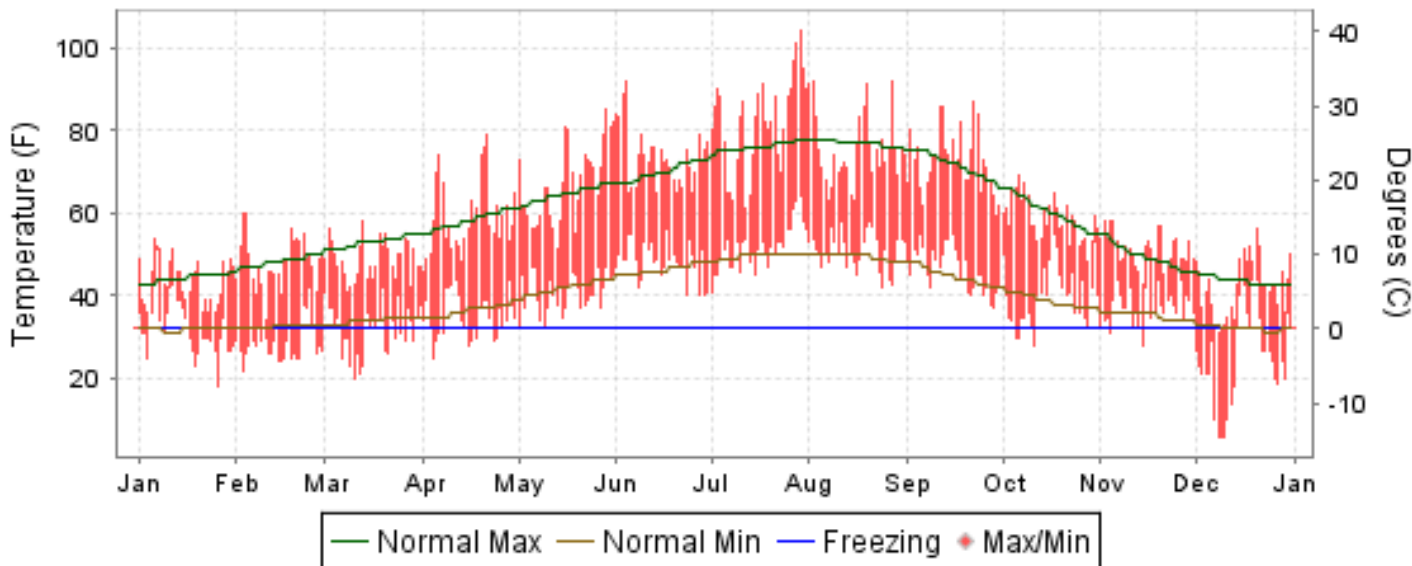




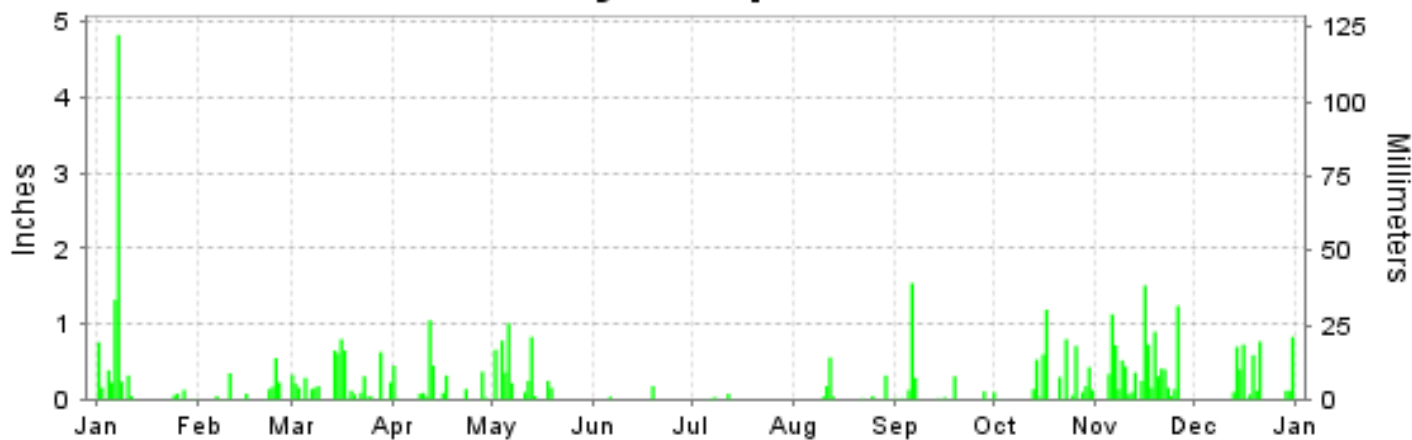
# 2009 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

ISSN 0198-540X

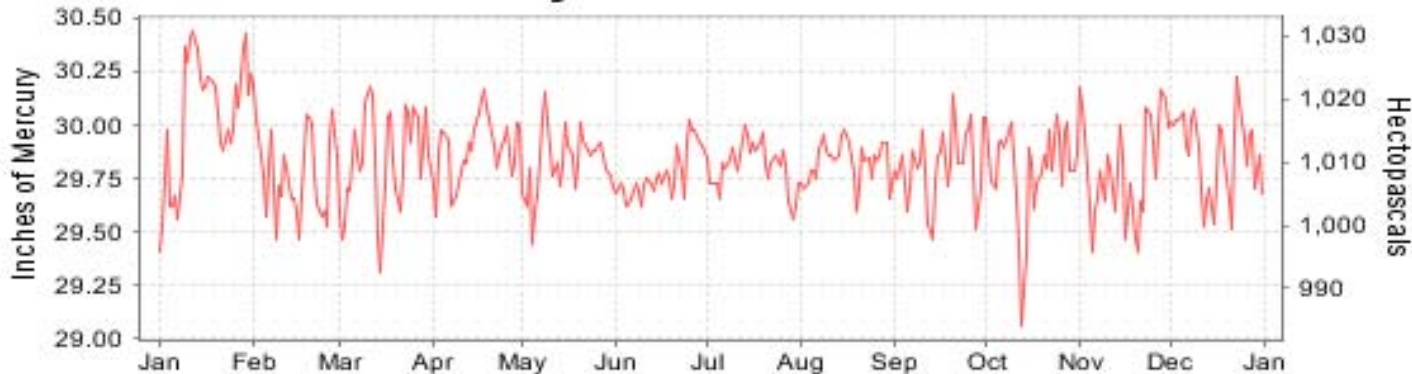
## OLYMPIA, WASHINGTON (KOLM) Daily Max/Min Temperature



## Daily Precipitation



## Daily Station Pressure



I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, AND IS COMPILED FROM RECORDS ON FILE AT THE NATIONAL CLIMATIC DATA CENTER.

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NATIONAL  
CLIMATIC DATA CENTER  
ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2009

## OLYMPIA (KOLM)

LATITUDE: 46° 58'N      LONGITUDE: -122° 54'W      ELEVATION (FT): GRND: 188    BARO: 203      TIME ZONE: PACIFIC (UTC -8)      WBAN: 24227

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	43.7	48.3	48.7	59.1	67.0	73.5	81.9	75.3	72.6	58.7	51.2	42.3	60.2	
	HIGHEST DAILY MAXIMUM	54	60	58	79	85	92	104	92	87	69	58	56	104	
	DATE OF OCCURRENCE	06	04+	13	21	29	04	29	27+	22	06	05+	20	JUL 29	
	MEAN DAILY MINIMUM	32.5	28.4	31.6	34.9	40.6	48.2	51.7	50.9	46.5	40.1	37.6	25.0	39.0	
	LOWEST DAILY MINIMUM	18	22	20	25	33	40	41	42	37	28	28	6	6	
	DATE OF OCCURRENCE	26	03	10	04	09+	29+	01	24	28	11	14	10+	DEC 10+	
	AVERAGE DRY BULB	38.1	38.4	40.2	47.0	53.8	60.9	66.8	63.1	59.6	49.4	44.4	33.7	49.6	
	MEAN WET BULB	36.3	35.8	37.5	42.6	48.1	54.8	58.9	57.2	54.3	46.9	43.0	31.6	45.6	
	MEAN DEW POINT	33.9	32.4	33.4	36.8	41.9	48.9	53.3	53.2	50.8	44.2	41.0	29.0	41.6	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	0	1	8	4	0	0	0	0	13	
	MAXIMUM <= 32°	0	0	0	0	0	0	0	0	0	12	0	3	15	
	MINIMUM <= 32°	18	25	16	11	0	0	0	0	0	3	3	23	99	
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	827	741	762	533	341	128	56	88	161	476	610	964	5687	
	COOLING DEGREE DAYS	0	0	0	0	1	13	118	38	7	0	0	0	177	
RH	MEAN (PERCENT)	86	81	78	70	67	68	66	74	77	84	88	86	77	
	HOUR 04 LST	89	90	88	88	88	91	91	94	95	94	93	89	91	
	HOUR 10 LST	86	79	72	63	58	59	55	65	64	78	85	84	71	
	HOUR 16 LST	82	68	66	50	48	46	42	52	53	71	84	84	62	
	HOUR 22 LST	88	87	83	80	77	78	77	85	89	92	91	93	85	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	9	13	8	6	2	0	0	4	5	9	8	13	77	
	THUNDERSTORMS	0	0	0	0	0	0	1	0	0	1	1	0	3	
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.)	30.04	29.78	29.84	29.88	29.82	29.76	29.81	29.82	29.81	29.80	29.79	29.87	29.84	
	MEAN SEA-LEVEL PRESS. (IN.)	30.27	30.01	30.06	30.10	30.05	29.98	30.02	30.05	30.03	30.02	30.01	30.10	30.06	
WINDS	RESULTANT SPEED (MPH)	3.4	0.9	3.9	2.3	1.7	2.3	0.6	1.7	1.3	2.0	6.6	0.9	2.2	
	RES. DIR. (TENS OF DEGS.)	20	20	22	22	22	23	26	23	22	22	20	17	22	
	MEAN SPEED (MPH)	5.9	3.3	6.1	4.5	4.9	4.6	4.6	3.8	4.1	4.2	7.7	3.1	4.7	
	PREVAIL.DIR.(TENS OF DEGS.)	21	21	20	21	21	21	02	21	20	21	19	20	19	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	31	25	32	24	23	32	18	16	21	24	35	28	35	
	DIR. (TENS OF DEGS.)	19	17	26	18	19	19	23	25	28	19	18	09	18	
	DATE OF OCCURRENCE	04	24	15	12	05	04	06	13	06	30	09	06	NOV 09	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	41	36	45	32	35	43	30	30	36	33	49	39	49	
DIR. (TENS OF DEGS.)	21	15	23	25	24	17	15	27	21	18	18	10	18		
DATE OF OCCURRENCE	04	24	15	02	05	04	18	14	01	14	09	06	NOV 09		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	8.58	1.60	5.75	3.13	4.68	0.22	0.15	1.22	2.49	5.32	10.08	4.58	47.80	
	GREATEST 24-HOUR (IN.)	4.97	0.55	1.10	1.11	1.09	0.18	0.09	0.61	1.72	1.19	1.98	0.89	4.97	
	DATE OF OCCURRENCE	06-07	24	16-17	12-13	04-05	19	12-13	11-12	06-07	17	16-17	20-21	JAN 06-07	
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	14	10	22	12	12	2	5	8	11	16	21	13	146	
PRECIPITATION 0.10	9	5	15	6	10	1	0	3	5	12	19	10	95		
PRECIPITATION 1.00	2	0	0	1	1	0	0	0	1	1	3	0	9		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)														
	GREATEST 24-HOUR (IN.)														
	DATE OF OCCURRENCE														
	NUMBER OF DAYS WITH:														
SNOWFALL >= 1.0															

# NORMALS, MEANS, AND EXTREMES OLYMPIA (KOLM)

LATITUDE:  
46° 58'N

LONGITUDE:  
-122° 54'W

ELEVATION (FT):  
GRND: 188 BARO: 203

TIME ZONE:  
PACIFIC (UTC -8)

WBAN: 24227

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	44.4	48.3	53.0	58.2	64.6	70.0	76.1	77.0	71.7	60.4	49.6	43.8	59.8	
	MEAN DAILY MAXIMUM	62	44.5	49.1	53.2	58.9	65.7	71.0	77.2	77.0	71.6	60.5	50.5	44.7	60.3	
	HIGHEST DAILY MAXIMUM	68	64	73	79	87	96	101	104	104	104	98	90	74	64	104
	YEAR OF OCCURRENCE		2005	1986	2004	1987	1983	1942	2009	1981	1988	1987	1949	1958	1958	JUL 2009
	MEAN OF EXTREME MAXS.	62	55.4	60.4	66.3	75.8	83.5	88.0	92.8	91.3	86.4	74.9	61.6	55.2	74.3	
	NORMAL DAILY MINIMUM	30	31.8	32.6	34.1	36.5	42.0	46.4	49.6	49.5	44.9	38.9	35.3	32.1	39.5	
	MEAN DAILY MINIMUM	62	31.6	32.2	33.7	36.4	41.6	46.6	49.5	49.5	45.2	39.7	35.6	32.6	39.5	
	LOWEST DAILY MINIMUM	68	-8	-1	9	0	0	30	35	33	25	14	-1	-7	-8	
	YEAR OF OCCURRENCE		1979	1972	1989	1997	1997	1976	1962	1973	1972	2002	1955	1983	1983	JAN 1979
	MEAN OF EXTREME MINS.	62	14.9	18.8	23.1	27.0	31.0	37.7	41.3	40.4	34.4	27.7	21.9	17.5	28.0	
	NORMAL DRY BULB	30	38.1	40.5	43.6	47.4	53.3	58.2	62.8	63.3	58.3	49.7	42.4	38.0	49.6	
	MEAN DRY BULB	62	38.0	40.7	43.5	47.7	53.7	58.8	63.4	63.3	58.4	50.1	43.0	38.7	49.9	
	MEAN WET BULB	26	37.9	37.9	40.8	43.8	48.5	52.8	56.5	56.7	52.9	47.2	41.5	37.0	46.1	
	MEAN DEW POINT	26	36.9	36.2	38.6	41.2	45.6	49.7	53.1	53.5	50.1	45.5	40.5	36.1	43.9	
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.0	0.1	0.8	2.2	2.3	0.6	*	0.0	0.0	6.0	
	MAXIMUM <= 32	30	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.3	2.7	
MINIMUM <= 32	30	14.9	13.5	12.8	7.7	1.1	0.1	0.0	0.0	0.6	5.6	10.8	15.5	82.6		
MINIMUM <= 0	30	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.7		
H/C	NORMAL HEATING DEG. DAYS	30	820	678	648	512	349	201	90	78	195	465	666	829	5531	
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	2	10	38	40	7	0	0	0	97	
RH	NORMAL (PERCENT)	30	89	86	82	77	74	73	71	71	76	85	89	90	80	
	HOURLY 04 LST	30	92	92	93	92	91	92	92	92	94	94	93	92	92	
	HOURLY 10 LST	30	90	87	81	71	67	67	65	67	73	84	89	91	78	
	HOURLY 16 LST	30	80	72	63	58	55	55	51	49	54	66	80	85	64	
	HOURLY 22 LST	30	91	90	87	84	81	80	78	80	86	92	92	92	86	
S	PERCENT POSSIBLE SUNSHINE															
W/O	MEAN NO. DAYS WITH: HEAVY FOG (VISIB <= 1/4 MI)	46	9.4	9.0	7.2	5.0	2.6	1.5	2.1	4.3	8.3	12.7	10.7	10.1	82.9	
	THUNDERSTORMS	62	0.1	0.2	0.3	0.5	0.6	0.4	0.5	0.6	0.7	0.4	0.3	0.2	4.8	
CLOUDNESS	MEAN: SUNRISE-SUNSET (OKTAS)															
	MIDNIGHT-MIDNIGHT (OKTAS)															
	MEAN NO. DAYS WITH: CLEAR	1	1.0	3.0	2.0		1.0									
	PARTLY CLOUDY			2.0	2.0		5.0	2.0								
CLOUDY	1	2.0	4.0	10.0		4.0	1.0									
PR	MEAN STATION PRESSURE (IN)	26	29.85	29.83	29.82	29.83	29.82	29.83	29.84	29.82	29.82	29.85	29.83	29.85	29.83	
	MEAN SEA-LEVEL PRES. (IN)	26	30.07	30.05	30.04	30.05	30.04	30.04	30.06	30.03	30.04	30.07	30.04	30.07	30.05	
WINDS	MEAN SPEED (MPH)	26	6.3	6.0	6.6	6.6	6.4	6.3	5.8	5.4	5.1	5.4	6.6	6.2	6.1	
	PREVAIL. DIR. (TENS OF DEGS)	30	21	20	20	21	21	21	21	21	21	21	20	20	21	
	MAXIMUM 2-MINUTE: SPEED (MPH)	14	39	36	38	33	28	32	28	22	29	33	35	45	45	
	DIR. (TENS OF DEGS)		16	17	17	18	18	19	23	18	17	16	18	16	16	
	YEAR OF OCCURRENCE		2000	1999	1999	2001	1996	2009	1999	2004	1997	1997	2009	1995	DEC 1995	
	MAXIMUM 3-SECOND SPEED (MPH)	14	54	47	49	46	36	43	32	30	36	45	49	66	66	
	DIR. (TENS OF DEGS)		16	17	19	18	16	17	23	27	21	15	18	14	14	
	YEAR OF OCCURRENCE		2000	1999	2005	2001	2007	2009	1999	2009	2009	1997	2009	1995	DEC 1995	
PRECIPITATION	NORMAL (IN)	30	7.54	6.17	5.29	3.58	2.27	1.78	0.82	1.10	2.03	4.19	8.13	7.89	50.79	
	MAXIMUM MONTHLY (IN)	68	19.84	15.50	11.79	7.80	5.83	6.48	3.00	5.45	7.59	10.72	19.68	14.32	19.84	
	YEAR OF OCCURRENCE		1953	1999	1997	1991	1948	1946	1983	1968	1978	2003	2006	1970	JAN 1953	
	MINIMUM MONTHLY (IN)	68	0.29	0.22	0.48	0.37	0.15	0.04	T	0.00	T	0.39	1.37	2.28	0.00	
	YEAR OF OCCURRENCE		1985	1993	1965	1956	1947	1945	1984	1946	1993	1987	1976	1944	AUG 1946	
	MAXIMUM IN 24 HOURS (IN)	68	4.97	4.93	3.92	3.46	1.54	1.91	1.50	1.64	2.48	4.14	5.90	3.83	5.90	
	YEAR OF OCCURRENCE		2009	1951	1972	1991	1948	1985	1979	2001	1978	2003	1990	1956	NOV 1990	
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	19.4	17.7	18.1	15.1	12.5	9.2	5.2	5.4	8.4	13.0	20.1	20.8	164.9	
	PRECIPITATION >= 1.00	30	1.7	1.2	0.7	0.3	0.1	0.1	0.1	0.1	0.3	0.8	1.7	2.2	9.3	
SNOWFALL	NORMAL (IN)	30	4.3	3.9	1.0	0.1	0.*	0.*	0.0	0.0	0.0	0.0	1.5	3.8	14.6	
	MAXIMUM MONTHLY (IN)	55	58.7	27.4	20.6	2.2	T	T	0.0	0.0	T	T	14.8	21.4	58.7	
	YEAR OF OCCURRENCE		1969	1990	1951	1972	1991	1994			1972	1975	1978	1968	JAN 1969	
	MAXIMUM IN 24 HOURS (IN)	55	20.5	11.8	9.1	1.8	T	T	0.0	0.0	T	T	14.5	11.9	20.5	
	YEAR OF OCCURRENCE		1972	1989	1966	1972	1991	1994			1972	1975	1978	1974	JAN 1972	
	MAXIMUM SNOW DEPTH (IN)	48	24	20	7	0	0	0	0	0	0	0	13	10	24	
	YEAR OF OCCURRENCE		1969	1969	1989								1978	1974	JAN 1969	
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	1.4	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.3	4.7		

**PRECIPITATION (inches) 2009 OLYMPIA (KOLM)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	6.27	6.18	3.98	4.14	0.93	2.46	0.41	0.36	2.21	1.84	9.77	10.92	49.47
1981	2.54	9.19	3.86	4.77	1.81	2.96	0.36	0.85	2.44	8.17	7.22	8.60	52.77
1982	7.79	9.91	4.67	3.89	0.51	1.15	0.54	0.55	1.89	6.12	5.74	10.64	53.40
1983	9.99	7.09	6.63	2.26	1.51	2.80	3.00	2.18	1.89	1.66	12.84	7.28	59.13
1984	6.97	5.49	6.42	3.67	5.48	3.74	T	0.21	1.76	5.13	12.19	4.97	56.03
1985	0.29	3.54	4.10	2.65	0.94	2.48	0.37	0.70	2.65	9.86	4.99	2.50	35.07
1986	12.14	6.84	2.29	2.87	3.20	0.92	1.11	0.01	3.38	4.12	11.09	5.20	53.17
1987	8.38	3.55	7.14	3.11	2.71	0.32	0.84	0.24	0.29	0.39	3.65	9.14	39.76
1988	5.18	2.35	5.66	4.94	3.36	2.06	0.42	0.43	1.93	2.26	10.14	5.16	43.89
1989	5.41	4.19	7.88	2.49	1.99	1.47	0.70	0.55	0.49	2.42	8.50	5.66	41.75
1990	14.53	8.52	3.54	3.29	2.06	2.86	0.32	1.79	0.03	6.34	15.06	5.05	63.39
1991	5.35	5.85	4.32	7.80	1.69	1.30	0.33	2.31	T	2.20	7.00	4.28	42.43
1992	9.45	4.19	1.50	5.15	0.19	1.15	0.36	0.82	2.44	2.80	6.82	5.28	40.15
1993	5.36	0.22	4.95	6.67	4.57	1.77	1.35	0.15	T	1.63	2.86	6.02	35.55
1994	3.80	6.38	4.83	1.82	1.44	1.90	0.29	0.80	1.52	7.65	7.75	11.49	49.67
1995	5.76	6.10	6.73	2.70	1.16	1.10	1.71	1.22	1.97	5.20	13.32	3.24	50.21
1996	7.39	11.07	2.65	7.61	3.14	1.14	.71	.42	2.21	5.46	6.25		
1997	9.22	5.03	11.79	4.80	3.10	2.94	1.18	2.45	4.57	8.18	6.07	5.50	64.83
1998	10.43	5.04	5.71	1.21	2.11	1.29	0.18	T	0.31	3.41	15.28	12.99	57.96
1999	12.25	15.50	6.95	1.42	1.54	1.84	0.58	0.69	0.12	3.85	11.93	9.97	66.64
2000	8.13	5.83	5.09	2.40	3.28	2.51	0.06	0.41	1.98	4.27	3.64	3.88	41.48
2001	3.45	2.60	3.84	3.49	1.92	2.63	0.18	2.28	0.53	3.98	13.31	11.86	50.07
2002	11.42	4.32	5.24	4.02	2.04	1.59	0.35	0.10	0.59	0.46	3.96	7.39	41.48
2003	9.60	2.17	7.62	4.72	1.14	0.28	0.14	0.34	1.17	10.72	8.67	5.99	52.56
2004	7.85	2.95	2.83	1.33	2.00	0.93	0.03	3.93	3.88	4.63	3.76	5.30	39.42
2005	5.86	1.01	6.17	4.14	4.06	1.64	0.93	0.19	1.76	5.72	7.21	8.88	47.57
2006	15.86	3.44	3.57	1.89	2.36	1.64	0.15	0.13	0.69	1.43	19.68	9.10	59.94
2007	6.04	5.52	7.00	2.33	1.22	1.30	1.85	0.67	2.24	4.88	4.04	11.71	48.80
2008	6.69	4.01	4.83	2.33	0.48	1.41	0.42	1.86	0.27	3.36	9.36	5.05	40.07
2009	8.58	1.60	5.75	3.13	4.68	0.22	0.15	1.22	2.49	5.32	10.08	4.58	47.80
POR= 62 YRS	8.01	5.71	5.12	3.33	2.09	1.54	0.72	1.16	2.00	4.69	8.26	8.03	50.66

WBAN : 24227

**AVERAGE TEMPERATURE (°F) 2009 OLYMPIA (KOLM)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	31.6	39.8	42.0	48.9	52.8	56.3	62.9	62.3	59.6	51.9	46.5	43.7	49.9
1981	42.1	43.5	47.1	49.0	53.9	57.8	62.7	67.4	60.0	49.7	45.3	39.7	51.5
1982	38.0	40.6	42.6	45.8	54.1	62.9	63.1	64.4	59.5	50.8	40.2	38.6	50.1
1983	42.6	45.3	47.5	48.9	56.5	58.7	62.0	64.1	56.3	49.2	46.0	33.9	50.9
1984	41.7	43.0	46.7	46.7	51.6	57.8	63.3	63.8	58.2	48.4	43.3	35.4	50.0
1985	35.7	37.4	42.1	48.9	54.5	59.0	67.5	63.5	56.6	49.2	33.8	34.0	48.5
1986	42.0	40.2	47.2	46.3	54.4	60.8	59.7	66.5	57.2	51.4	43.4	38.7	50.7
1987	38.7	43.2	46.0	50.0	55.5	60.2	62.4	63.6	60.1	52.4	46.1	37.6	51.3
1988	37.9	42.5	43.8	48.4	53.3	56.7	62.6	62.1	57.3	53.8	43.0	39.3	50.1
1989	39.4	33.2	41.1	50.9	53.9	60.3	61.1	62.4	59.4	49.7	44.7	41.1	49.8
1990	40.3	37.4	44.2	49.6	52.5	57.7	65.8	66.0	61.1	48.5	44.0	32.6	50.0
1991	37.1	45.1	41.4	46.4	51.9	55.7	63.8	65.1	59.7	49.3	44.6	41.0	50.1
1992	41.2	45.2	47.9	50.4	57.5	63.0	64.7	64.8	58.2	51.4	43.7	37.0	52.1
1993	34.9	38.5	45.1	49.1	58.6	59.3	60.3	64.1	59.7	53.1	39.1	39.9	50.1
1994	42.9	39.4	46.5	50.7	55.9	59.1	66.3	64.6	62.2	49.1	39.5	38.2	51.2
1995	40.4	42.7	44.8	48.5	57.2	60.7	65.6	61.7	62.3	50.8	47.6	40.1	51.9
1996	38.9	40.0	44.7	49.6	50.7	57.4	65.1	63.8	56.2	49.2	42.2		
1997	39.6	40.8	44.4			57.8	63.1	65.9	60.7	49.9	45.6	38.7	
1998	40.4	43.4	45.0	48.1	53.4	58.8	66.9	64.3	60.4	49.9	44.8	37.9	51.1
1999	40.4	40.6	42.6	46.3	50.5	57.2	60.9	63.6	57.1	49.2	45.8	40.8	49.6
2000	37.6	41.4	42.9	49.4	53.4	59.6	62.7	61.2	57.6	49.5	39.3	38.6	49.4
2001	38.1	37.8	42.5	45.8	53.6	55.7	60.4	62.8	57.5	48.3	44.8	38.6	48.8
2002	39.3	39.4	40.5	46.6	51.1	59.6	63.3	62.6	57.6	48.9	44.6	41.2	49.6
2003	43.4	40.2	45.8	47.3	52.9	60.5	65.2	63.8	60.4	53.0	40.4	39.3	51.0
2004	39.2	41.9	46.0	50.2	54.9	60.3	66.0	66.6	57.1	51.8	43.1	41.1	51.5
2005	40.9	39.6	47.4	49.5	56.6	58.5	63.6	64.6	56.6	52.2	41.9	39.3	50.9
2006	42.8	39.1	43.7	48.1	54.8	60.9	65.3	62.5	59.6	49.6	43.5	38.5	50.7
2007	35.8	42.4	46.2	48.0	53.7	57.9	65.4	62.4	57.8	48.6	42.3	38.9	50.0
2008	36.2	41.2	41.1	44.2	54.6	56.6	62.6	64.0	58.6	49.6	46.5	35.0	49.2
2009	38.1	38.4	40.2	47.0	53.8	60.9	66.8	63.1	59.6	49.4	44.4	33.7	49.6
POR= 62 YRS	38.0	40.7	43.5	47.7	53.7	58.8	63.4	63.3	58.4	50.1	43.0	38.7	49.9

**HEATING DEGREE DAYS (base 65°F) 2009 OLYMPIA (KOLM)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1980-81	81	96	158	399	549	653	701	597	551	474	336	212	4807
1981-82	100	50	161	465	585	777	831	678	686	570	330	103	5336
1982-83	78	63	170	435	738	813	687	545	535	476	275	182	4997
1983-84	98	38	255	482	566	958	712	631	560	545	408	211	5464
1984-85	80	64	205	507	644	911	903	767	704	476	320	181	5762
1985-86	15	68	245	484	932	954	704	689	542	555	332	128	5648
1986-87	158	25	244	414	642	803	812	604	583	442	293	162	5182
1987-88	100	75	153	382	562	841	834	645	650	492	360	250	5344
1988-89	108	106	242	340	656	790	789	882	735	420	336	153	5557
1989-90	128	88	164	467	604	735	760	768	640	454	380	220	5408
1990-91	39	31	116	505	622	1000	854	551	725	549	398	273	5663
1991-92	73	59	159	478	604	736	729	567	525	434	235	107	4706
1992-93	49	57	205	417	630	862	927	737	609	468	197	171	5329
1993-94	139	66	175	361	772	770	679	712	566	426	275	170	5111
1994-95	35	41	89	488	761	823	754	618	621	489	236	146	5101
1995-96	39	111	86	434	516	765	799	715	622	457	436	222	5202
1996-97	72	74	255	482	677		782	673	633			210	
1997-98	70	30	126	462	575	808	755	597	612	499	356	181	5071
1998-99	28	58	144	461	599	833	757	676	689	553	442	240	5480
1999-00	130	56	234	481	570	745	844	681	679	458	350	176	5404
2000-01	88	121	223	474	766	810	825	755	689	569	351	273	5944
2001-02	138	87	218	505	598	814	790	707	752	545	425	177	5756
2002-03	79	94	216	490	606	733	664	688	589	526	371	159	5215
2003-04	52	54	152	367	732	792	792	666	583	437	308	149	5084
2004-05	51	20	228	403	651	734	740	707	539	457	263	192	4985
2005-06	65	45	249	390	688	790	682	726	655	496	313	133	5232
2006-07	73	91	162	470	597	815	900	628	575	501	348	206	5366
2007-08	37	90	213	500	677	804	885	683	738	618	325	274	5844
2008-09	88	82	188	469	550	923	827	741	762	533	341	128	5632
2009-	56	88	161	476	610	964							

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**COOLING DEGREE DAYS (base 65°F) 2009 OLYMPIA (KOLM)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1980	0	0	0	0	0	0	21	19	3	2	0	0	45
1981	0	0	0	0	0	2	35	131	18	0	0	0	186
1982	0	0	0	0	0	46	24	52	10	0	0	0	132
1983	0	0	0	0	18	1	10	18	0	0	0	0	47
1984	0	0	0	0	0	1	34	37	6	1	0	0	79
1985	0	0	0	0	3	7	97	30	0	0	0	0	137
1986	0	0	0	0	12	9	0	78	17	0	0	0	116
1987	0	0	0	0	8	25	26	40	12	1	0	0	112
1988	0	0	0	0	4	7	39	23	17	0	0	0	90
1989	0	0	0	0	0	20	13	14	3	0	0	0	50
1990	0	0	0	0	0	5	71	70	6	0	0	0	152
1991	0	0	0	0	0	0	42	69	7	0	0	0	118
1992	0	0	0	0	9	50	48	57	8	0	0	0	172
1993	0	0	0	0	5	6	0	49	22	0	0	0	82
1994	0	0	0	0	0	1	82	37	15	0	0	0	135
1995	0	0	0	0	2	27	65	14	10	0	0	0	118
1996	0	0	0	0	0	2	79	43	0	0	0	0	124
1997	0	0	0	0	0	0	16	66	4	0	0	0	
1998	0	0	0	0	0	1	95	45	12	0	0	0	153
1999	0	0	0	0	0	14	8	19	1	0	0	0	42
2000	0	0	0	0	0	18	24	9	9	0	0	0	60
2001	0	0	0	0	5	0	5	25	0	0	0	0	35
2002	0	0	0	0	0	21	37	28	0	0	0	0	86
2003	0	0	0	0	2	33	66	21	20	0	0	0	142
2004	0	0	0	0	0	15	88	79	0	0	0	0	182
2005	0	0	0	0	7	3	28	39	0	0	0	0	77
2006	0	0	0	0	2	18	90	20	4	0	0	0	134
2007	0	0	0	0	2	3	57	17	4	0	0	0	83
2008	0	0	0	0	9	27	21	58	0	0	0	0	115
2009	0	0	0	0	1	13	118	38	7	0	0	0	177

**SNOWFALL (inches) 2009 OLYMPIA (KOLM)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1976-77	0.0	0.0	0.0	0.0	0.0	0.0	1.8	T	0.8	T	T	0.0	2.6
1977-78	0.0	0.0	0.0	0.0	3.8	1.6	0.0	0.0	T	0.0	T	0.0	5.4
1978-79	0.0	0.0	0.0	0.0	14.8	2.5	0.1	1.5	0.0	0.0	0.0	0.0	18.9
1979-80	0.0	0.0	0.0	0.0	T	T	19.7	11.9	4.1	T	0.0	0.0	35.7
1980-81	0.0	0.0	0.0	0.0	T	3.0	0.0	0.9	0.0	0.4	0.0	0.0	4.3
1981-82	0.0	0.0	0.0	0.0	0.0	2.8	11.8	5.1	1.9	T	0.0	0.0	21.6
1982-83	0.0	0.0	0.0	0.0	T	T	0.0	0.0	0.0	T	0.0	0.0	T
1983-84	0.0	0.0	0.0	0.0	0.0	4.9	T	0.0	T	0.0	T	0.0	4.9
1984-85	0.0	0.0	0.0	0.0	T	4.7	T	13.8	T	T	T	0.0	18.5
1985-86	0.0	0.0	0.0	0.0	12.3	7.3	0.0	5.3	0.0	T	T	0.0	24.9
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T
1987-88	0.0	0.0	0.0	0.0	T	1.0	T	0.1	0.0	0.2	T	0.0	1.3
1988-89	0.0	0.0	0.0	0.0	T	T	6.8	13.8	9.0	T	0.0	T	29.6
1989-90	0.0	0.0	0.0	0.0	0.0	0.0	1.7	27.4	0.2	0.0	0.0	0.0	29.3
1990-91	0.0	0.0	0.0	0.0	T	2.2	3.0	0.0	T	T	T	0.0	5.2
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	T	0.0	0.0	T
1992-93	0.0	0.0	0.0	0.0	0.0	9.4	3.8	0.2	0.0	0.0	0.0	0.0	13.4
1993-94	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.8	T	T	0.0	T	1.3
1994-95	0.0	0.0	0.0	0.0	0.1	6.2	0.0	2.6	T	T	0.0	0.0	8.9
1995-96	0.0	0.0	0.0	0.0	0.0	0.0	3.0		0.0	0.0	0.0	0.0	
1996-97	0.0	0.0	0.0	0.0									
1997-98													
1998-99													
1999-00													
2000-01													
2001-02													
2002-03													
2003-04													
2004-05													
2005-													
POR= 49 YRS	0.0	0.0	0.0	0.0	1.3	3.9	7.2	3.6	1.9	0.1	T	T	18.0

WBAN : 24227

**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. 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.</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 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 EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER. STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED HISTORY GO TO "MULTI-NETWORK MEDADATA SYSTEM", URL IS: <a href="https://mi3.ncdc.noaa.gov/mi3qry/login.cfm">https://mi3.ncdc.noaa.gov/mi3qry/login.cfm</a></p> <p><b>NOTE:</b> 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 OLYMPIA<sup>^</sup> WASHINGTON (KOLM)

The climate of Olympia and vicinity is characterized by warm, generally dry summers and wet, mild winters.

Fall rains usually begin about mid-October, borne inland to the Cascade Mountains by frequent maritime disturbances originating in the Pacific Ocean. These rains continue with few interruptions through spring. Daytime temperatures will be in the 40s and low 50s, with nighttime temperatures in the 30s. The progression of the wet and mild Pacific disturbances is usually broken once or twice each winter by the formation of large anticyclones, which originate in Alaska and northwestern Canada, and move southward over the state of Washington. These southerly migrations of polar-continental air from the interior will normally lower daytime temperatures to about freezing and nighttime temperatures to 10 - 20 degrees. In exceptional cases, temperatures slightly below zero have been recorded in this vicinity. Often the onset of the cold weather is accompanied by a little snow, but during these cold snaps the air is dry and skies are clear. Snow in an amount sufficient to seriously hinder highway travel occurs only once every two or three years.

During the spring months, the track of the Pacific storms moves gradually farther north, and the semi-permanent Pacific anticyclone also moves northward. The effects of the maritime disturbances lessen, and the periods of improving weather between storms lengthen. During the spring and early fall, clearing skies at night will usually be followed by fog or low stratus clouds in the early morning, which normally dissipate by noon.

Daily high temperatures average 70 to 80 degrees during July, August, and September. The temperature will equal or exceed 90 degrees about 6 days each summer, but as the warm weather is usually accompanied by lowering humidity, it is seldom uncomfortably hot. Rainfall is near 1 inch per month during July and August and about 2 inches per month during the transitional period of May, June, and September. About two-thirds of the days are sunny in July, August, and September, and about half are sunny during May and June.

Olympia and vicinity are quite well protected by the Coast Range from the strong south and southwest winds accompanying many of the Pacific storms during the fall and winter. Winds which reach hurricane force along the coast, only 45 miles away, will reach only 50 or 55 mph in gusts in this vicinity. Some damage to utility lines occurs every fall and winter from trees and limbs broken or felled by the wind, but damage rarely occurs to dwellings or buildings. The prevailing wind in Olympia is southerly during most of the year, but during the fair weather in the summers the wind is gentle and from the north to east.

The length of the growing season in the vicinity of Olympia varies with distance from the waterfront and elevation above sea level. The average length of the growing season is 166 days.

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