

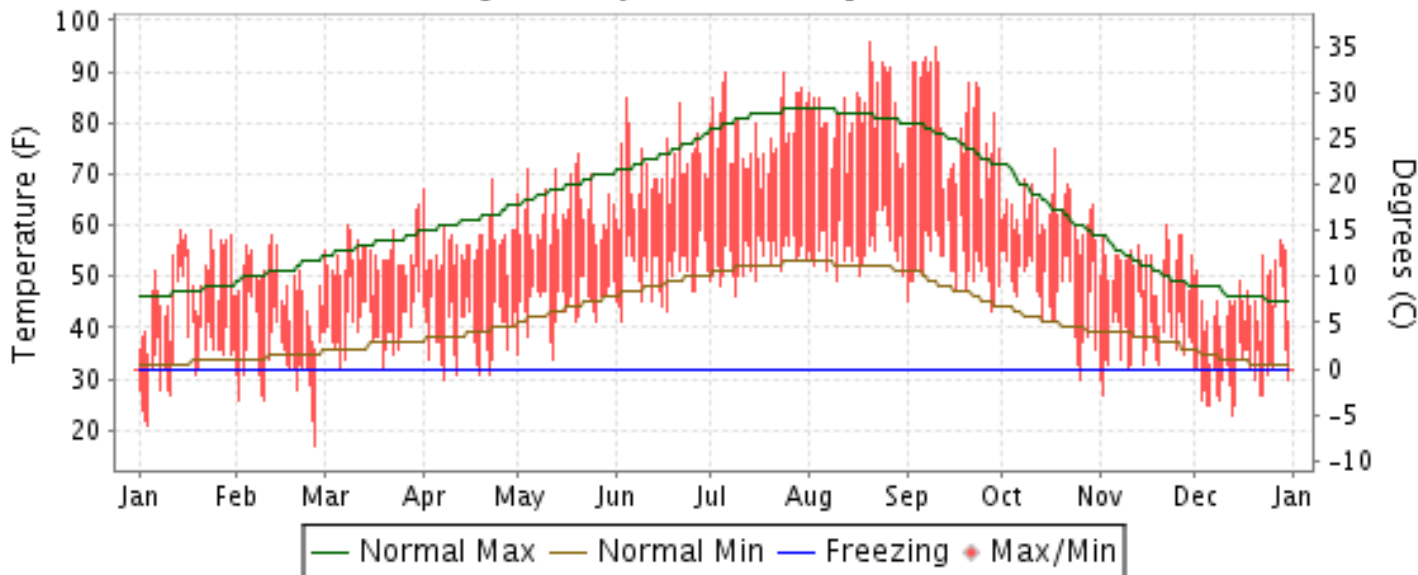


# 2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

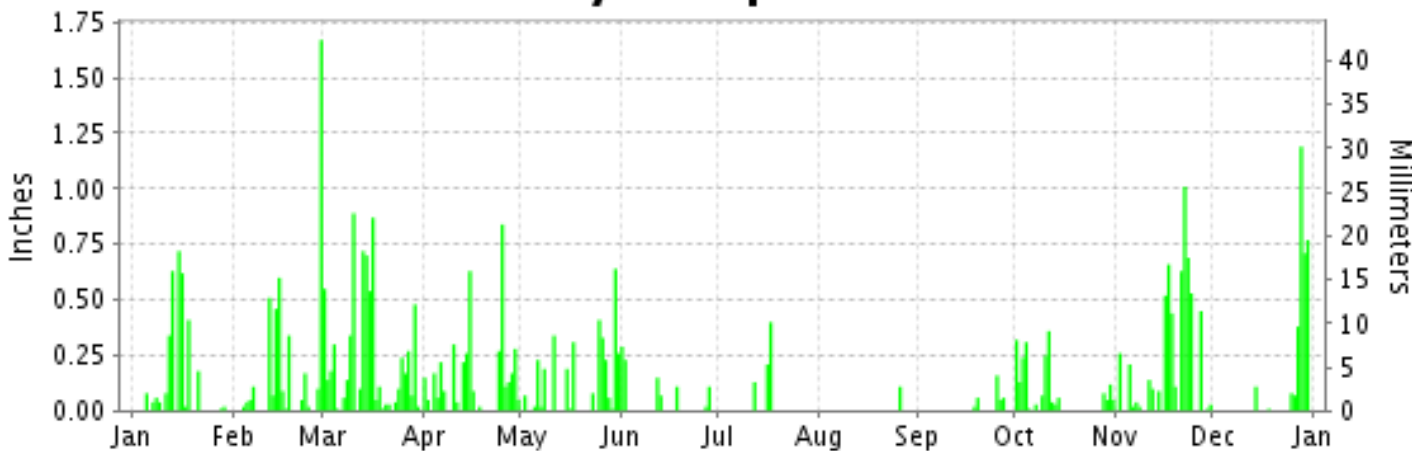
ISSN 0198-4217

## SALEM, OREGON (KSLE)

### Daily Max/Min Temperature



### Daily Precipitation



### Daily Station Pressure



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NATIONAL  
CLIMATIC DATA CENTER  
ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2011

## SALEM (KSLE)

LATITUDE: 44° 54'N      LONGITUDE: -123° 0'W      ELEVATION (FT): GRND: 205 BARO: 198      TIME ZONE: PACIFIC (UTC -8)      WBAN: 24232

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	48.9	48.3	54.0	56.3	62.8	70.9	78.5	82.5	81.1	62.5	52.3	45.4	62.0	
	HIGHEST DAILY MAXIMUM	59	58	64	69	74	85	90	96	95	75	60	57	96	
	DATE OF OCCURRENCE	24+	12	31	23	20	04	24+	20	10	18	22	28	AUG 20	
	MEAN DAILY MINIMUM	35.6	33.6	40.0	38.6	44.3	50.6	53.3	55.6	52.0	46.5	37.8	32.1	43.3	
	LOWEST DAILY MINIMUM	21	17	32	30	34	41	46	49	43	30	27	23	17	
	DATE OF OCCURRENCE	04	26	19+	08	12	03	09	10	28	26	02	13	FEB 26	
	AVERAGE DRY BULB	42.3	41.0	47.0	47.5	53.6	60.8	65.9	69.1	66.6	54.5	45.1	38.8	52.7	
	MEAN WET BULB	40.7	37.7	43.5	43.1	54.1	57.6	59.1	57.2	50.9	42.7	36.7	36.7	43.0	
	MEAN DEW POINT	38.1	33.2	40.2	37.6	42.5	48.6	51.3	52.2	50.4	48.0	40.0	34.4	43.0	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	0	0	0	2	6	8	0	0	0	16
MAXIMUM <= 32°	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
MINIMUM <= 32°	11	14	2	4	0	0	0	0	0	1	3	20	55		
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	697	663	549	517	345	134	20	9	47	320	591	806	4698	
	COOLING DEGREE DAYS	0	0	0	0	0	15	57	143	101	0	0	0	316	
RH	MEAN (PERCENT)	84	76	80	71	69	67	63	60	62	82	84	86	74	
	HOUR 04 LST	89	82	86	85	84	83	85	82	83	91	88	89	86	
	HOUR 10 LST	81	70	75	64	61	59	54	52	51	74	81	84	67	
	HOUR 16 LST	79	68	72	56	55	54	43	37	40	73	79	83	62	
	HOUR 22 LST	88	81	85	78	77	75	72	69	70	88	87	90	80	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	10	2	1	0	1	1	0	0	1	4	8	14	42	
	THUNDERSTORMS	0	0	1	0	0	0	0	1	0	0	0	0	2	
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)														
	CEILOMETER (<= 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
	MIDNIGHT-MIDNIGHT: (OKTAS)														
	CEILOMETER (<= 12,000 FT.)														
SATELLITE (> 12,000 FT.)															
NUMBER OF DAYS WITH:															
CLEAR															
PARTLY CLOUDY															
CLOUDY															
PR	MEAN STATION PRESS. (IN.)	29.98	29.88	29.69	29.87	29.80	29.79	29.78	29.77	29.78	29.86	29.82	30.08	29.84	
	MEAN SEA-LEVEL PRESS. (IN.)	30.21	30.10	29.91	30.09		30.01	30.00	29.99	30.00	30.08	30.05	30.30		
WINDS	RESULTANT SPEED (MPH)	2.7	3.8	6.4	3.8	2.2	2.1	2.8	2.9	0.3	1.9	4.7	1.5	1.8	
	RES. DIR. (TENS OF DEGS.)	18	19	18	21	23	28	33	34	33	18	18	17	21	
	MEAN SPEED (MPH)	5.5	7.5	8.2	7.3	5.2	5.4	6.1	5.0	4.7	5.0	6.4	4.2	5.9	
	PREVAIL.DIR.(TENS OF DEGS.)	18	18	17	18	17	29	34	33	36	18	18	17	17	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	26	36	40	29	23	24	20	17	26	24	32	33	40	
	DIR. (TENS OF DEGS.)	19	20	26	26	32	36	28	35	14	17	17	18	26	
	DATE OF OCCURRENCE	12	12	13	25	28	03	02	27	26	04	24	27	MAR 13	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	37	53	54	40	41	35	25	45	36	32	45	41	54	
DIR. (TENS OF DEGS.)	19	21	27	25	27	25	36	02	18	22	16	18	27		
DATE OF OCCURRENCE	12	12	13	25	03	04	06	26	26	10	24	27	MAR 13		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	3.25	4.31	7.16	4.15	3.40	0.98	0.74	0.11	0.35	2.15	5.96	3.32	35.88	
	GREATEST 24-HOUR (IN.)	1.16	1.67	1.22	0.99	0.89	0.41	0.40	0.11	0.16	0.53	1.40	1.41	1.67	
	DATE OF OCCURRENCE	15-16	28	13-14	24-25	30-31	01-02	17	26	25	10-11	21-22	27-28	FEB 28	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	14	16	27	20	17	7	3	1	5	16	19	8	153		
PRECIPITATION 0.10	6	8	18	13	10	5	3	1	1	7	13	5	90		
PRECIPITATION 1.00	0	1	0	0	0	0	0	0	0	0	1	1	3		
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 SALEM (KSLE)

LATITUDE:  
44° 54'N

LONGITUDE:  
-123° 0'W

ELEVATION (FT):  
GRND: 205 BARO: 198

TIME ZONE:  
PACIFIC (UTC -8)

WBAN: 24232

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	47.0	51.2	56.3	61.1	67.5	74.0	81.5	81.9	76.6	64.5	52.4	46.4	63.4
	MEAN DAILY MAXIMUM	118	45.7	47.9	55.2	60.3	67.0	72.6	81.6	80.4	74.0	63.8	51.5	46.4	62.2
	HIGHEST DAILY MAXIMUM	74	65	72	80	88	100	105	108	108	104	93	74	68	108
	YEAR OF OCCURRENCE		1984	1968	1947	1957	1983	1992	1941	1981	1988	1970	2010	1993	AUG 1981
	MEAN OF EXTREME MAXS.	119	58.0	62.6	67.9	76.3	85.5	91.2	97.4	96.3	92.5	79.5	63.8	58.7	77.5
	NORMAL DAILY MINIMUM	30	33.5	34.7	36.6	38.8	43.6	48.4	52.0	52.1	47.7	41.3	37.9	33.9	41.7
	MEAN DAILY MINIMUM	119	33.0	33.3	36.7	38.9	43.9	48.2	51.9	51.5	47.2	42.5	37.4	34.6	41.6
	LOWEST DAILY MINIMUM	74	-10	-4	12	23	25	32	37	36	26	20	9	-12	-12
	YEAR OF OCCURRENCE		1950	1950	1971	1968	1954	1976	1962	1980	1972	2002	1955	1972	DEC 1972
	MEAN OF EXTREME MINS.	119	19.4	21.2	26.1	29.0	33.3	39.6	43.3	43.8	37.7	30.3	24.5	20.2	30.7
	NORMAL DRY BULB	30	40.3	43.0	46.5	50.0	55.6	61.2	66.8	67.0	62.2	52.9	45.2	40.2	52.6
	MEAN DRY BULB	118	39.5	40.6	46.0	49.6	55.5	60.4	66.8	66.0	60.6	53.1	44.4	40.5	51.9
	MEAN WET BULB	28	38.9	39.4	42.6	45.2	49.6	53.6	57.2	57.2	54.0	48.5	43.0	37.8	47.3
	MEAN DEW POINT	28	37.5	37.3	40.4	42.9	47.2	50.7	53.9	53.7	50.9	46.5	41.6	36.5	44.9
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.0	0.4	1.5	5.9	5.8	2.5	0.1	0.0	0.0	16.2
	MAXIMUM <= 32	30	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.1	2.4
MINIMUM <= 32	30	13.2	10.6	8.1	4.4	0.6	*	0.0	0.0	0.1	2.4	7.3	13.0	59.7	
MINIMUM <= 0	30	0.0	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	
H/C	NORMAL HEATING DEG. DAYS	30	765	623	574	452	301	141	39	34	116	376	592	771	4784
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	7	25	95	98	31	1	0	0	257
RH	NORMAL (PERCENT)	30	84	81	77	74	72	68	63	64	68	78	85	85	75
	HOURLY 04 LST	30	87	88	88	88	88	87	85	86	87	90	90	89	88
	HOURLY 10 LST	30	84	81	76	70	66	62	57	59	63	76	85	86	72
	HOURLY 16 LST	30	75	69	61	57	54	49	41	40	44	58	76	80	59
	HOURLY 22 LST	30	86	85	82	80	77	74	68	69	75	85	88	87	80
S	PERCENT POSSIBLE SUNSHINE														
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	48	5.9	3.7	1.6	0.8	0.3	0.1	0.0	0.2	1.4	6.2	6.0	6.4	32.6
	THUNDERSTORMS	64	0.1	0.1	0.2	0.5	0.7	0.5	0.7	0.7	0.7	0.4	0.2	0.1	4.9
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)														
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH: CLEAR	1	1.0	5.0	2.0		4.0	1.0							
	PARTLY CLOUDY			1.0	1.0			1.0							
CLOUDY	1	2.0	2.0	9.0		6.0									
PR	MEAN STATION PRESSURE(IN)	28	29.87	29.84	29.83	29.84	29.83	29.82	29.82	29.80	29.80	29.85	29.86	29.88	29.84
	MEAN SEA-LEVEL PRES. (IN)	28	30.09	30.06	30.05	30.06	30.04	30.04	30.03	30.01	30.01	30.07	30.08	30.10	30.05
WINDS	MEAN SPEED (MPH)	28	7.1	7.0	7.3	6.9	6.5	6.5	6.6	6.1	5.5	5.7	7.2	7.1	6.6
	PREVAIL.DIR(TENS OF DEGS)	33	19	19	19	19	19	36	36	36	36	19	19	19	19
	MAXIMUM 2-MINUTE: SPEED (MPH)	16	43	38	40	44	31	31	31	25	34	34	49	39	49
	DIR. (TENS OF DEGS)		17	17	26	18	20	12	34	18	19	17	17	20	17
	YEAR OF OCCURRENCE		2010	1999	2011	2010	2000	2009	2007	2004	1997	1999	1998	2006	NOV 1998
	MAXIMUM 3-SECOND SPEED (MPH)	16	60	53	54	54	41	39	45	45	48	44	68	54	68
	DIR. (TENS OF DEGS)		16	21	27	17	27	12	28	02	15	17	18	17	18
	YEAR OF OCCURRENCE		2000	2011	2011	2010	2011	2009	2007	2011	2010	1999	1998	2007	NOV 1998
PRECIPITATION	NORMAL (IN)	30	5.84	5.09	4.17	2.76	2.13	1.45	0.57	0.68	1.43	3.03	6.39	6.46	40.00
	MAXIMUM MONTHLY (IN)	74	15.40	13.01	8.56	5.72	5.56	4.19	2.63	4.17	3.98	11.17	15.23	15.01	15.40
	YEAR OF OCCURRENCE		1953	1996	1983	1996	1998	1984	1983	1968	1971	1947	1973	1996	JAN 1953
	MINIMUM MONTHLY (IN)	74	0.24	.49	0.87	0.39	0.05	0.01	0.00	0.00	0.00	0.12	0.84	1.26	0.00
	YEAR OF OCCURRENCE		1985	2005	1965	1939	1992	1951	1967	1988	1975	1988	1939	1976	AUG 1988
	MAXIMUM IN 24 HOURS (IN)	74	3.07	3.16	3.03	2.22	2.23	1.81	1.92	1.25	1.86	4.08	4.44	3.12	4.44
	YEAR OF OCCURRENCE		1972	1949	1943	1971	1991	1993	1987	1943	1951	1994	1996	1987	NOV 1996
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	17.3	15.8	16.9	14.0	11.3	7.7	3.4	3.9	6.7	11.0	18.2	18.0	144.2
	PRECIPITATION >= 1.00	30	1.2	0.8	0.3	0.1	0.1	0.2	*	*	0.2	0.4	1.3	1.5	6.1
SNOWFALL	NORMAL (IN)	30	1.3	2.1	0.1	0.*	0.*	0.0	0.0	0.0	0.0	0.*	0.4	1.9	5.8
	MAXIMUM MONTHLY (IN)	58	32.8	14.1	10.9	0.1	T	0.0	0.0	0.0	T	T	6.1	14.6	32.8
	YEAR OF OCCURRENCE		1950	1993	1951	1972	1988				1981	1990	1977	1972	JAN 1950
	MAXIMUM IN 24 HOURS (IN)	58	10.8	12.0	8.5	0.1	T	0.0	0.0	0.0	T	T	6.1	9.4	12.0
	YEAR OF OCCURRENCE'		1943	1993	1960	1972	1988				1981	1990	1977	1972	FEB 1993
	MAXIMUM SNOW DEPTH (IN)	48	12	10	7	0	0	0	0	0	0	0	4	8	12
	YEAR OF OCCURRENCE		1969	1993	1960								1977	1972	JAN 1969
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	1.8	

**PRECIPITATION (inches) 2011 SALEM (KSLE)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	6.11	6.02	2.81	3.80	0.73	1.36	0.33	0.41	1.83	3.04	4.92	9.26	40.62
1983	6.00	10.57	8.56	2.72	2.12	2.48	2.63	2.09	0.32	1.31	10.06	6.49	55.35
1984	2.34	5.50	4.40	3.74	3.32	4.19	0.03	T	1.19	4.31	12.70	3.71	45.43
1985	0.24	3.44	3.80	0.93	0.65	2.42	0.32	0.20	1.25	3.17	4.81	2.51	23.74
1986	6.25	8.26	2.89	1.30	2.22	0.42	1.23	T	3.12	2.71	7.24	3.86	39.50
1987	7.67	3.52	3.98	2.36	1.52	0.26	2.51	0.15	0.14	0.47	3.00	10.92	36.50
1988	6.78	0.75	3.34	3.56	2.39	1.97	0.03	0.00	0.98	0.12	9.50	3.23	32.65
1989	3.57	2.79	6.47	1.06	1.08	1.03	0.77	0.48	1.03	2.50	3.09	3.95	27.82
1990	8.51	5.31	2.39	1.67	1.94	1.09	0.47	0.85	0.42	5.63	4.91	2.82	36.01
1991	2.42	3.72	5.18	3.84	4.51	1.55	0.11	0.67	0.04	1.70	5.94	3.73	33.41
1992	4.76	4.46	0.89	4.35	0.05	1.12	0.50	0.38	0.70	3.52	4.84	7.83	33.40
1993	4.77	1.61	5.12	5.64	3.59	3.17	1.05	0.40	0.01	1.11	1.26	6.84	34.57
1994	4.28	4.21	2.56	2.16	1.61	1.14	T	0.05	1.64	7.96	7.09	4.91	37.61
1995	8.63	4.35	4.44	4.41	1.29	1.48	0.36	1.29	1.81	4.07	9.07	7.28	48.48
1996	8.26	13.01	3.08	5.72	3.21	0.74	.90	.20	1.94	4.78	10.11	15.01	66.96
1997	9.07	2.08	7.32	3.41	2.71	1.86	0.36	1.13	3.81	6.45	4.40	3.16	45.76
1998	9.06	6.18	4.96	1.63	5.56	0.98	0.10	0.04	0.68	2.52	11.70	8.66	52.07
1999	9.61	11.40	5.06	1.35	1.90	1.43	0.15	0.68	0.09	2.44	7.26	5.38	46.75
2000	7.05	6.92	2.98	1.29	1.56	0.71	0.09	0.03	0.75	2.40	2.53	3.62	29.93
2001	1.81	1.22	2.82	2.49	1.45	1.89	0.24	0.78	0.57	3.35	9.02	8.03	33.67
2002	8.93	3.54	4.47	1.77	1.35	1.22	0.07	0.02	0.98	0.47	3.84	11.20	37.86
2003	7.38	2.78	4.79	5.54	1.74	0.62	T	0.03	0.94	2.47	4.99	10.42	41.70
2004	6.65	5.10	1.43	2.13	2.06	1.78	0.09	1.04	2.08	3.30	2.14	3.89	31.69
2005	1.43	0.49	4.15	2.82	4.65	1.90	0.21	0.05	2.33	2.70	6.04	11.52	38.29
2006	13.37	2.12	4.17	2.46	2.88	0.65	0.07	T	0.54	0.65	15.15	7.35	49.41
2007	3.92	5.33	2.35	2.29	1.27	0.78	0.34	0.72	2.76	4.24	3.75	8.25	36.00
2008	8.34	1.89	3.54	1.97	0.43	0.74	T	1.28	0.41	0.96	3.59	6.02	29.17
2009	3.56	2.90	3.03	1.35	3.03	1.39	0.68	0.18	1.20	2.61	8.02	6.14	34.09
2010	5.85	4.07	5.20	4.35	3.47	2.64	0.04	0.20	2.07	5.22	6.44	9.95	49.50
2011	3.25	4.31	7.16	4.15	3.40	0.98	0.74	0.11	0.35	2.15	5.96	3.32	35.88
POR= 119 YRS	6.04	4.70	4.14	2.55	2.08	1.33	0.40	0.53	1.52	3.19	6.09	6.70	39.27

WBAN : 24232

**AVERAGE TEMPERATURE (°F) 2011 SALEM (KSLE)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	38.6	41.6	44.5	45.9	54.7	65.1	65.7	66.4	61.4	53.4	42.4	41.1	51.7
1983	43.3	46.1	48.9	50.1	57.3	60.3	64.3	67.8	60.3	52.7	49.3	38.4	53.2
1984	43.2	44.2	48.7	47.8	52.9	57.4	65.4	66.8	61.3	51.4	44.4	37.5	51.8
1985	34.3	39.6	42.8	51.4	55.2	61.2	70.2	65.4	58.4	51.2	37.3	33.3	50.0
1986	43.2	44.4	50.2	48.4	55.3	64.2	63.5	69.9	59.0	53.7	46.7	39.6	53.2
1987	39.5	43.8	47.3	51.9	58.1	64.0	64.9	67.8	62.7	56.1	46.9	38.9	53.5
1988	39.4	43.3	45.6	51.1	53.7	60.5	66.8	65.8	62.3	56.6	46.8	40.5	52.7
1989	41.6	34.8	46.4	54.6	56.2	63.3	64.6	64.9	63.1	53.0	47.4	39.6	52.5
1990	42.8	41.3	47.8	52.8	55.2	62.3	69.6	69.1	64.9	51.2	46.9	34.4	53.2
1991	39.5	48.7	44.6	49.2	53.1	57.9	68.0	67.8	65.4	54.3	47.3	41.6	53.1
1992	44.1	47.6	50.5	53.8	60.8	65.8	68.9	68.2	62.0	55.1	46.1	39.2	55.2
1993	36.4	39.4	49.1	52.3	60.5	61.3	63.2	67.2	63.3	56.5	40.5	41.1	52.6
1994	44.3	43.0	50.2	53.2	59.2	61.7	69.1	67.1	65.2	52.7	41.7	42.3	54.1
1995	44.5	46.5	47.5	50.0	59.0	62.6	68.5	65.1	64.7	52.4	51.1	42.3	54.5
1996	41.9	42.2	47.3	51.9	53.1	60.9	70.3	67.8	60.0	52.4	45.2	42.5	53.0
1997	40.9	42.3	46.4	49.5	60.4	60.5	67.0	69.8	64.1	52.0	48.0	39.5	53.4
1998	44.0	45.5	47.3	50.5	54.6	61.3	69.6	69.0	64.5	52.4	47.7	39.9	53.9
1999	41.8	43.1	44.7	49.3	53.3	59.9	66.1	67.9	63.3	53.9	49.4	42.6	52.9
2000	40.1	44.0	44.3	51.3	55.8	63.6	66.0	65.6	62.2	53.2	41.3	40.6	52.3
2001	40.6	41.8	46.7	47.9	57.3	58.6	66.1	67.2	63.6	52.6	47.6	41.2	52.6
2002	41.1	43.3	43.8	50.4	54.0	62.0	68.8	67.1	63.2	52.1	46.4	43.2	53.0
2003	44.9	43.6	49.0	49.5	55.8	64.1	70.2	68.8	64.8	56.9	43.7	41.7	54.4
2004	39.5	43.6	49.2	52.6	56.8	63.1	70.0	70.1	60.6	54.3	43.8	42.5	53.8
2005	41.8	41.4	48.6	50.2	57.9	59.7	68.9	68.9	60.6	54.2	42.5	39.8	52.9
2006	44.4	41.5	44.6	50.9	57.1	64.3	69.8	67.4	63.4	52.0	46.9	39.6	53.5
2007	38.1	44.3	49.0	49.8	56.7	61.1	69.9	67.3	61.3	51.5	43.7	40.1	52.7
2008	37.1	43.1	43.3	46.5	57.4	59.3	68.1	67.7	63.1	51.8	47.8	37.1	51.9
2009	39.7	41.1	44.2	49.4	57.3	63.9	71.2	68.3	64.4	53.4	46.9	37.2	53.1
2010	46.3	46.3	47.2	49.7	54.4	60.0	67.5	67.4	63.7	54.6	45.4	43.9	53.9
2011	42.3	41.0	47.0	47.5	53.6	60.8	65.9	69.1	66.6	54.5	45.1	38.8	52.7
POR= 118 YRS	39.5	40.6	46.0	49.6	55.5	60.4	66.8	66.0	60.6	53.1	44.4	40.5	51.9

**HEATING DEGREE DAYS (base 65°F) 2011 SALEM (KSLE)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	42	27	128	356	671	732	668	524	491	439	253	135	4466
1983-84	59	3	135	376	463	821	667	597	501	511	367	231	4731
1984-85	44	12	124	418	610	846	947	706	684	403	299	132	5225
1985-86	5	51	196	423	824	975	668	574	452	494	324	82	5068
1986-87	64	3	210	345	542	779	781	586	544	389	237	89	4569
1987-88	54	16	92	272	536	803	788	622	595	411	346	145	4680
1988-89	47	41	125	264	538	752	716	841	570	308	267	90	4559
1989-90	44	39	81	367	523	779	682	658	527	363	297	103	4463
1990-91	14	16	43	419	535	939	784	449	624	464	360	210	4857
1991-92	10	32	61	329	524	717	641	498	443	332	152	56	3795
1992-93	12	22	108	303	558	792	881	711	486	373	150	117	4513
1993-94	60	32	93	257	729	734	632	610	452	349	179	114	4241
1994-95	21	7	50	379	691	699	630	514	537	443	188	118	4277
1995-96	21	42	46	385	409	698	707	654	545	387	363	122	4379
1996-97	24	28	152	387	588	690	739	630	568	458	160	130	4554
1997-98	17	0	65	395	503	783	644	538	542	434	318	113	4352
1998-99	11	9	77	384	512	770	713	606	625	461	358	170	4696
1999-00	45	26	95	336	460	687	764	601	634	405	279	88	4420
2000-01	35	43	111	356	708	752	748	642	559	508	248	192	4902
2001-02	28	18	83	378	515	730	735	602	650	430	335	124	4628
2002-03	13	38	83	393	551	670	618	593	489	456	286	89	4279
2003-04	6	4	69	251	630	717	781	614	482	367	251	95	4267
2004-05	10	4	127	325	629	689	709	658	499	437	229	160	4476
2005-06	12	7	141	329	672	772	630	651	627	411	254	76	4582
2006-07	18	23	84	395	537	780	827	573	488	449	259	132	4565
2007-08	1	11	134	409	633	764	857	628	664	550	275	205	5131
2008-09	14	38	92	402	508	853	779	661	640	460	251	58	4756
2009-10	19	23	66	355	535	854	575	516	542	452	323	153	4413
2010-11	36	35	76	319	582	648	697	663	549	517	345	134	4601
2011-	20	9	47	320	591	806							

WBAN : 24232

**COOLING DEGREE DAYS (base 65°F) 2011 SALEM (KSLE)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982	0	0	0	0	5	91	68	82	27	0	0	0	273
1983	0	0	0	0	21	4	46	94	3	0	0	0	168
1984	0	0	0	0	1	10	64	73	19	5	0	0	172
1985	0	0	0	0	1	26	171	71	1	0	0	0	270
1986	0	0	0	0	28	64	25	159	34	0	0	0	310
1987	0	0	0	0	27	64	59	110	31	4	0	0	295
1988	0	0	0	0	3	16	108	75	48	10	0	0	260
1989	0	0	0	0	4	46	39	46	32	0	0	0	167
1990	0	0	0	0	1	31	165	153	46	0	0	0	396
1991	0	0	0	0	0	1	111	127	78	0	0	0	317
1992	0	0	0	1	30	83	138	128	25	0	0	0	405
1993	0	0	0	0	17	11	10	108	51	1	0	0	198
1994	0	0	0	0	8	21	155	79	61	2	0	0	326
1995	0	0	0	0	9	52	139	53	41	0	0	0	294
1996	0	0	0	0	0	6	194	119	9	4	0	0	332
1997	0	0	0	0	28	5	86	158	44	0	0	0	321
1998	0	0	0	4	3	7	163	140	68	0	0	0	385
1999	0	0	0	0	4	23	87	120	51	0	0	0	285
2000	0	0	0	0	0	53	71	71	36	0	0	0	231
2001	0	0	0	0	17	8	68	90	46	0	0	0	229
2002	0	0	0	0	0	40	139	111	35	0	0	0	325
2003	0	0	0	0	8	70	176	128	69	8	0	0	459
2004	0	0	0	0	0	43	170	168	1	0	0	0	382
2005	0	0	0	0	17	8	139	137	15	0	0	0	316
2006	0	0	0	0	19	62	173	105	45	0	1	0	405
2007	0	0	0	0	8	23	159	90	31	0	0	0	311
2008	0	0	0	0	45	42	116	127	41	0	0	0	371
2009	0	0	0	0	20	29	218	132	55	0	0	0	454
2010	0	0	0	0	0	11	121	116	43	0	0	0	291
2011	0	0	0	0	0	15	57	143	101	0	0	0	316

**SNOWFALL (inches) 2011 SALEM (KSLE)**

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	T	0.0	T	0.0	T	0.0	T
1977-78	0.0	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0	T	T	0.0	6.1
1978-79	0.0	0.0	0.0	0.0	1.5	2.9	2.2	0.6	0.0	T	0.0	0.0	7.2
1979-80	0.0	0.0	0.0	0.0	0.0	T	1.8	T	T	T	T	0.0	1.8
1980-81	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
1981-82	0.0	0.0	T	0.0	T	T	4.4	0.6	T	T	0.0	0.0	5.0
1982-83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	T	0.0	T
1983-84	0.0	0.0	0.0	0.0	T	4.3	T	0.0	0.0	T	T	0.0	4.3
1984-85	0.0	0.0	0.0	0.0	0.0	0.3	T	4.6	T	T	0.0	0.0	4.9
1985-86	0.0	0.0	0.0	0.0	2.0	6.5	0.0	3.6	0.0	0.0	0.0	0.0	12.1
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0	T
1987-88	0.0	0.0	0.0	0.0	0.0	5.8	1.0	0.0	0.0	T	T	0.0	6.8
1988-89	0.0	0.0	0.0	0.0	0.0	T	T	8.9	0.7	T	0.0	0.0	9.6
1989-90	0.0	0.0	0.0	0.0	0.0	0.0	T	9.6	0.0	0.0	0.0	0.0	9.6
1990-91	0.0	0.0	0.0	T	0.0	1.2	T	0.0	0.0	T	0.0	0.0	1.2
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	T
1992-93	0.0	0.0	0.0	0.0	0.0	7.9	10.0	14.1	0.0	0.0	0.0	0.0	32.0
1993-94	0.0	0.0	0.0	0.0	0.4	T	0.0	T	0.0	0.0	0.0	0.0	0.4
1994-95	0.0	0.0	0.0	0.0	T	1.9	0.1	3.1	0.0	T	0.0	0.0	5.1
1995-96	0.0	0.0	0.0	0.0	0.0								
1996-97													
1997-98													
1998-99													
1999-00													
2000-01													
2001-02													
2002-03													
2003-04													
2004-05													
2005-													
POR= 82 YRS	0.0	0.0	T	0.1	0.2	1.8	3.2	1.6	0.4	T	T	0.0	7.3

WBAN : 24232

**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> 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 the "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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# 2011 SALEM OREGON (KSLE)

Salem is located in the middle Willamette Valley some 60 airline miles east of the Pacific Ocean. The valley here is approximately 50 miles wide with the city about equidistant from the valley walls formed by the Coast Range on the west and the Cascade Range on the east.

The usual movement of very moist maritime air masses from the Pacific Ocean inland over the Coast Range produces, near its crest, some of the heaviest yearly rainfall in the United States. Annual totals of nearly 170 inches have been recorded in the mountains. From the ridge crest of the Coast Range, approximately 3,000 feet above sea level, there is a gradual decrease of rainfall downslope to the valley floor where annual totals are between 35 and 45 inches. As these marine conditioned air masses continue to move farther inland they are forced to ascend the west slopes of the Cascades to approximately 5,000 feet above sea level and again rainfall amounts substantially increase with elevation.

Most of this precipitation in both the valley and its bordering mountain ranges occurs during the winter. At Salem, 70 percent of the annual total occurs during the five months of November through March while only 6 percent occurs during the three summer months, with practically all of it falling in the form of rain. In the immediate area, there are only three or four days a year with measurable amounts of snow. Its depth on the ground rarely exceeds 2 or 3 inches, and it usually melts in a day or two. The few thunderstorms that occur each year are not generally severe and seldom do they, or the hail that occasionally accompanies them, cause any serious damage. A tornado in the immediate metropolitan area has never been recorded.

The seasonal difference in temperatures is much less marked than that of precipitation. There is a range of about 28 degrees between the temperature for January, the coldest month, and July, the warmest. Highs of 100 degrees or more seldom occur, and only in a few years since records began in 1892, have 0 degree or lower temperatures been observed. There is an average growing season of six and a half months.

The mild temperatures, long growing season, and plentiful supply of moisture are ideal for a wide variety of crops. In dollar value of agricultural returns, this is the most productive area in Oregon. Large orchards of sweet cherries are grown and processed here for maraschino cherries. Hops, filberts, walnuts, cane, and strawberries each contribute many millions of dollars to the annual farm income. A wide variety of vegetables is raised for both the fresh market and to support a large number of processing plants located in Salem. This climate is also suitable for the production of a number of specialty crops including mint, several seed crops, and nursery stock, particularly roses and ornamental shrubs.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is October 22 and the average last occurrence in the spring is May 5.

# Station History

SALEM, OR

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
SALEM MCNARY FIELD	1995-07-01	1995-11-01	44° 54'	-122° 59'	196		ASOS, COOP
MCNARY FIELD	1928-06-01	1928-08-06	44° 55'	-123° 00'			AIRWAYS
SALEM MCNARY FIELD	1978-01-01	1981-12-31	44° 55'	-123° 00'	197		COOP, WXSVC
SALEM MCNARY FIELD	2003-08-01	2007-07-19	44° 54'	-123° 0'	205	116 FT WSW	ASOS, COOP
SALEM MCNARY FIELD	1968-01-01	1978-01-01	44° 55'	-123° 1'	200		COOP, WXSVC
SALEM MCNARY FIELD	1982-01-01	1995-07-01	44° 55'	-123° 00'	196		COOP
SALEM AP	1928-08-06	1948-01-01	44° 55'	-123° 00'			AIRWAYS
SALEM MCNARY FIELD	1950-07-18	1951-01-01	44° 55'	-123° 00'	210		AIRWAYS, COOP
SALEM MCNARY FIELD	1981-12-31	1982-01-01	44° 55'	-123° 00'	197		COOP
SALEM MCNARY FIELD	1995-11-01	1998-01-01	44° 54'	-122° 59'	205	.6 MI ESE	ASOS, COOP
SALEM MCNARY FIELD	2007-07-19	Present	44° 54'	-123° 0'	205		ASOS, COOP
SALEM AP	1948-01-01	1950-07-18	44° 55'	-123° 00'	210		AIRWAYS, COOP
SALEM MCNARY FIELD	1998-01-01	2003-08-01	44° 54'	-122° 59'	205		ASOS, COOP
SALEM MCNARY FIELD	1951-01-01	1968-01-01	44° 55'	-123° 1'	200		AIRWAYS, COOP

# Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
PRECIP	1928-06-01	1982-01-01	DAILY	2400	UNIV	RCRD	
PRECIP	1995-11-01	2003-08-01	DAILY	2400	TB	RCRD	
PRECIP	2003-08-01	Present	DAILY	2400	PCPNX		
TEMP	1928-06-01	1982-01-01	DAILY	2400			
PRECIP	1993-09-21	1995-07-01	DAILY	2400	UNIV	RCRD	
TEMP	1995-07-01	1995-11-01	DAILY	2400	HYGR		
TEMP	2003-08-01	Present	DAILY	2400	HYGR		
PRECIP	1995-11-01	2003-08-01	HOURLY	2400	TB	RCRD	
PRECIP	1995-07-01	1995-11-01	HOURLY	2400	UNIV	RCRD	
TEMP	1982-01-01	1993-09-21	DAILY	2400			
PRECIP	1995-07-01	1995-11-01	DAILY	2400	UNIV	RCRD	
PRECIP	1982-01-01	1993-09-21	HOURLY	2400			
TEMP	1993-09-21	1995-07-01	DAILY	2400	HYGR		
PRECIP	1993-09-21	1995-07-01	HOURLY	2400			
PRECIP	2003-08-01	Present	HOURLY	2400	TB	RCRD	
PRECIP	1982-01-01	1993-09-21	DAILY	2400	UNIV	RCRD	
TEMP	1995-11-01	2003-08-01	DAILY	2400	HYGR		

\* 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.info@noaa.gov](mailto:ncdc.info@noaa.gov)

NOAA/National Climatic Data Center

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Asheville, NC 28801-5001

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