NOAA Technical Memorandum NWS WR-223

CLIMATE OF SAN LUIS OBISPO, CALIFORNIA

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TABLE OF CONTENTS

LIST OF TABLES, MAPS, GRAPHS

SAN LUIS OBISPO, CALIFORNIA
NARRATIVE CLIMATOLOGICAL SUMMARY

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I. HISTORY

Prior to 1772, the San Luis Obispo area was inhabited by Chumash Indians. Europeans had visited the area as early as 1542, but it was not until 1 September 1772 that Father Serra, a Catholic missionary, founded Mission San Luis Obispo de Tolosa. The settlement became part of Mexico at the time of the revolution in 1822. Then, on 18 February 1850, the county of San Luis Obispo became one of the original counties in the State of California.

The City of San Luis Obispo incorporated on 19 February 1856. Railroad service reached the community in 1894. California State Polytechnic College (Cal Poly) was established in 1901.

Official weather observations at San Luis Obispo began in 1869 by the U.S. Army Signal Service, which established a nationally standardized weather observing program at about the same time. Continuous rainfall record dates from July 1869. Some temperature statistics exist from 1885, but a continuous temperature record began with U.S. Weather Bureau activity in August 1894. On 29 September 1927, responsibility for monitoring temperature and precipitation in San Luis Obispo was assumed by Cal Poly. The site and instrumentation have remained unchanged since that date.

II. TOPOGRAPHY

San Luis Obispo is a small city (1993 population: 43,415) located near the California coast, about halfway between San Francisco and Los Angeles (see Plate 1). It is situated along the foothills of the Santa Lucia Range, eight miles inland from the Pacific Ocean at Avila Beach. The city, at an elevation of 199 feet above sea level, is located at the north end of San Luis Valley, at the junction of California Highway 1 and the U.S. Highway 101.

San Luis Valley is oriented northwest-southeast, and is roughly 10 miles long by 4 miles wide. It is relatively open to the ocean toward the northwest. On the north, the valley is bounded by Cuesta Ridge and Cuesta Pass (1521 feet), on the east by the Santa Lucia Range, with elevations to almost 2900 feet, and on the south and west by the San Luis Range and Irish Hills, with elevations to about 1800 feet. San Luis Valley is drained by San Luis Obispo Creek and its tributaries. The drainage

basin is approximately 83.5 square miles.

III. GENERAL CHARACTERISTICS

The climate in the San Luis Obispo area is moderate; it is classified under the Koppen system as "Csb," or Mediterranean, with warm dry summers and a strong maritime influence. There are pronounced seasonal changes in rainfall, but relatively modest seasonal transitions in temperature---especially from cool season to warm season.

The proximity of the Pacific Ocean is strongly reflected in temperature and rainfall statistics. The dry season extends from May through the first part of October. During this period, the jet stream and storm track are not prominent; they are typically positioned far to the north of central California. The eastern Pacific Ocean is dominated by a semi-permanent high pressure area centered about 900 miles off the California coast.

The prevailing wind is an enhanced sea breeze, from the northwest. Pronounced mesoscale sea breeze patterns are common throughout coastal California, especially during the dry season. The orientation of San Luis Valley provides a natural trough, which channels and intensifies the sea breeze effect. Moreover, the prevailing northwest wind flow and subsidence from the eastern Pacific high help to establish a strong low-level temperature inversion with significant coastal stratus. This process also triggers upwelling of cool sub-surface ocean water, reducing sea surface temperatures and, thus, reinforcing fog formation. It is typical, between mid-June and mid-October, for San Luis Obispo to have fair weather, but with late night through mid-morning stratus and fog.

The wet season begins in late October and lasts through April. During this period, the Northern Hemisphere jet stream becomes active and shifts southward from the Gulf of Alaska. Pacific cold fronts, some with significant storm circulations, move southeastward across the San Luis Obispo area at irregular intervals. Strong winds, locally heavy rains, and other manifestations of winter storm activity are common from December through March. Over 73% of the annual rainfall occurs during this four-month period.

The San Luis Obispo weather record extends back for over 100 years. Statistics indicate that the last 30 years have been warmer and wetter than the 100 year normals.

IV. PRECIPITATION

Variability is the key to any description of rainfall patterns in the San Luis Obispo area. From year to year and month to month, changes in large-scale features, such as hemispheric pressure patterns and sea surface temperatures, have a great bearing on regional precipitation. There are significant variations in local rainfall amounts even

within a given storm. Anomalies may be caused by mesoscale storm tracking, topography, siting, and even the skill employed by those making the observations.

The hundred year average annual rainfall ending in 1969 was computed at 22.02 inches, the 30-year (working) average ending in 1980 was 23.00 inches, while the 30-year average ending in 1990 was 23.46 inches. Comparing ten year averages each five years from 1874 yields a minimum of 18.36 inches (1944-54) and a maximum of 26.65 inches (1974-84). This represents a 20% change from the 100 year average to these minimum and maximum 10-year averages.

The inconstancy in the record lies in the juxtaposition of wet year/dry year or wet month/dry month. For example, the 1876-77 seasonal precipitation total was very low at 8.15 inches, but was sandwiched between two rainfall years in which precipitation totaled over 30 inches. Such sequencing is common. In January 1875, over 12 inches of rain fell, but February of that year recorded only a quarter inch. In January 1976, a scant one hundredth of an inch of precipitation was documented; the next month's rainfall exceeded four inches.

========== Table 1 ==========

The cumulative frequency distribution of annual precipitation for San Luis Obispo (Cal Poly), based on record 1911-1960, is as follows:

(Probability of receiving less than the value indicated, values in inches)

Probability %								
5	10	25	33	50	67	75	90	95
8.7	10.7	14.1	16.2	19.6	23.8	25.8	32.8	36.6

The wettest time of the year, climatologically, is from January 27 through February 7. The daily rainfall average for that period is 0.18 inches. During that time, and during the wet season generally, synoptic-scale low pressure areas frequently traverse San Luis Obispo County. (Some of these systems present classic images of warm frontal advection, followed by a strong rush of cool air.) A cold front may move across the county from the north or northeast, usually resulting in relatively cold minimum temperatures, but comparatively modest precipitation amounts. The most significant rainfall usually results when a mean upper-level trough of low pressure aligns north-to-south off the northern California coast, associated with reinforcing low-level cold air from the Gulf of Alaska, then tracking a developing storm into San Luis Obispo County from the west or southwest. (See Plate 2)

Heavy rainfall events at San Luis Obispo combine synoptic-scale storm dynamics with significant orographic lifting. The maximum rainfall observed in one 24-hour period is 7.90 inches. Climate research data give projections for heavy precipitation events with return periods (RP) of up to 10,000 years. These data suggest that a 24-hour precipitation event of 7.90 inches has a frequency of once in about 350 years. Rainfall depth/duration frequencies for San Luis Obispo are tabulated below:

Table 2

Maximum Rainfall for Indicated Number of Consecutive Minutes

	5min	15min	30min	1hr	6hr	12hr	24hr	yr
RP2	0.15	0.27	0.39	0.58	1.55	2.09	2.58	19.84
RP5	0.17	0.31	0.46	0.68	1.80	2.43	3.00	28.51
RP10	0.21	0.38	0.57	0.84	2.23	3.01	3.71	34.18
RP25	0.31	0.56	0.83	1.22	3.24	4.38	5.40	41.16
RP50	0.35	0.63	0.93	1.37	3.65	4.94	6.08	46.18
RP100	0.39	0.69	1.03	1.52	4.05	5.47	6.75	51.07
RP200	0.42	0.76	1.13	1.67	4.44	6.00	7.40	55.85
RP500	0.48	0.86	1.28	1.90	5.04	6.82	8.40	63.12
RP1000	0.51	0.91	1.36	2.00	5.32	7.20	8.87	66.62
RP10000	0.63	1.12	1.67	2.47	6.55	8.86	10.92	81.53

Measurable rainfall (.01 inch or more) occurs on an average of 50 days during a year. A tenth of an inch or more occurs on 30 days and a half inch or more occurs on 13 days. Snowfall is rare. Trace amounts of snow have occurred during the months of December, January, and February. The last occurrence of snowfall was 20 December 1990. No measurable snowfall (1 inch or more) has been recorded at San Luis Obispo, but several inches of snow accumulated on Cuesta Ridge above the 2000 foot level during a 1990 winter storm.

No significant rains fall, in general, between late May and late August. Some marine layer drizzle is possible during that period, with accumulations of a hundredth of an inch or so. The "tail end" of a late-season Pacific cold front may brush by the district in late May or early June, triggering a few showers.

An easterly wave, part of the so-called "summer monsoon" in Arizona and Sonora, occasionally pushes subtropical moisture into the San Luis Obispo area during July, August or September. In these episodes, scattered thunderstorms can form over the coastal range during the afternoon and drift westward over the coastal valleys during the nighttime hours.

Moisture from decaying eastern Pacific hurricanes rarely reaches San Luis Obispo. Once during the twentieth century, an active tropical storm actually tracked northward into the Los Angeles Basin. In that event, between 24 and 26 September 1939, San Luis Obispo received 0.59 inches of rain.

V. FLOODING

Significant flooding occurs in the district on an average of once every thirteen years. Damaging floods have occurred in the San Luis Obispo Creek watershed in 1884, 1897, 1948, 1952, 1969, and 1973. Bridge washouts and other damage were reported in early floods beginning in 1884, when record rains fell during the months of January-March. Widespread flood damage did not occur in the drainage basin until January 1969. During that event, damage totaled $1.5 million and resulted mostly from erosion of stream banks and inundation of properties downstream from the city of San Luis Obispo.

The most catastrophic flood ever reported in the drainage occurred when heavy rains began in the early morning hours of 18 January 1973. San Luis Obispo Creek and Stenner Creek overflowed their banks in several locations, sending torrents of water through the commercial and residential heart of the city. Altogether, 350 acres of city property were flooded along San Luis Obispo Creek, and Highway 101 was submerged. Damage totaled $4.5 million (1975 dollars). (See Plate 3)

The drainage basin upstream of downtown San Luis Obispo at the confluence of Stenner Creek covers 23.4 square miles. In general, the loamy soils in this area drain well. It takes a heavy and extended rainfall to cause

flooding, but with increases in population, building, and resultant runoff within the drainage basin, a future severe flooding event is almost a certainty. In the 1973 flood, there were 6 to 10 hours of heavy rain over the area. Heaviest storm totals were reported in the Irish Hills, southwest of the city. The San Luis Obispo Creek drainage basin rainfall total for that storm was calculated at 6.84 inches. The Army Corps of Engineers currently estimates that a "worst case" storm would produce 9.44 inches of rain over the basin, with flood stage being reached in 7.5 hours and peak flooding in 10 hours. Property damage would be at least three to four times the 1973 flood.

VI. TEMPERATURE

A continuous temperature record for San Luis Obispo exists from 1894. The average annual temperature based on all historical data is 58.9°F, 0.2°F lower than the 1961-1990 (working) average. The historical data reflect a cool period between 1908 and 1922, warming between 1923 and 1930, and a very cool winter in 1949 (consistent with regional statistics). The warmest period overall in the historical record begins in 1976 and continues through the present.

San Luis Obispo is in close proximity to the ocean which is responsible for a maritime temperature profile, but far enough from the water so that a continental influence is also noticeable. San Luis Obispo temperatures do not exhibit the extremes found at Cuyama or Paso Robles, but present considerably more diurnal and seasonal range than coastal points such as San Simeon or Cambria.

The average annual temperature is a moderate 59.1°F. This compares with 57.3°F at Santa Maria, 59.5°F at Paso Robles, and 59.1°F at Santa Barbara Airport.

Soil temperatures at 15 cm average 50°F in January and reach a maximum of 74°F in July.

Warmest temperatures are found in late August and early September. The warm season mean temperature cycle lags behind the solar insolation cycle by more than two months. This is due in large measure to the influence of coastal sea surface temperatures, which are relatively warm and stable (at roughly 60 to 65°F) well into September. The climate record shows that the transition from warm season to cool season is comparatively rapid. Average maximum temperatures tumble 6°F between 7 and 15 November --- and 13°F between 7 November and 23 December.

The coolest time of the year, on average, is from 28 December to 7 January. Subfreezing temperatures are rare, and cold outbreaks tend to be modified fairly quickly by the maritime influence. The all-time record low of 17°F, fully 7°F below the previous low record, was set in December 1990. (See Plate 4) A very cold arctic air mass moved southward from northwestern Canada, across the Sierras toward the south central coast of California. A slightly offshore wind pattern allowed

winds to become calm, and record low temperatures were set at many sites in the district.

Hot temperatures are somewhat more common than cold ones. Historically, temperatures have exceeded 90°F in every month except January and February; the potential for 100°F or higher temperatures range from early April to early November; readings of 110°F or higher have been noted in September and October.

Maximum temperature extremes are usually associated with a mean upper-level high pressure ridge translating across the district. Hottest temperatures are frequently observed when the ridge axis is directly over or just west of San Luis Obispo. (See Plate 5)

Occasionally, record high temperatures are measured in conjunction with downslope wind conditions analogous to Santa Ana winds found in southern California. Surface high pressure over Nevada with relatively low pressure off the California coast is the general pattern recognized to cause downslope wind events at San Luis Obispo. Sea level pressure gradients of 10 mb from Tonopah, Nevada to Santa Maria, and a coincident gradient of 4 mb from Bakersfield to the coast are commonly associated with a north to east wind of 40 mph or more in the San Luis Obispo area.

When such downslope wind conditions occur in summer, the results can be devastating. The Las Pilitas Fire began in such a situation on 1 July 1985. Record heat combined with strong wind, with temperatures climbing to 104°F and relative humidities at 8%, aided fire that raced downhill from the Las Pilitas Road area near Santa Margarita Lake to the city of San Luis Obispo. The fire burned 75,000 acres during its ten-day run.

Table 3

Frequency of extreme temperatures at San Luis Obispo, CA (degrees F)

Years	2	5	10	25	50	100
Maximum Temp	99	102	104	107	109	111
Minimum Temp	31	29	27	25	23	22

VII. WIND

Reliable wind data are not readily available. Statistical data from a variety of sources indicate an average annual wind speed of approximately 5.0 mph at Cal Poly and 6.5 mph at the airport. Cal Poly (CIMIS) data suggest the highest average winds (of near 6.0 mph) occur during the months March through May, while lowest average winds (about 4 mph) occur in September and October. Predominant wind direction is from the northwest, consistently at the airport and, probably with somewhat less uniformity, at Cal Poly.

Strongest winds generally occur as a result of winter storms approaching San Luis Obispo from the west or southwest. These winds blow from the south or southeast and may reach gale force (39 mph or higher). Historical fastest mile wind speed data are not available, but a power plant study suggests a ten year event would reach 52 mph, a fifty year event 68 mph, and a hundred year event would peak at 78 mph. These figures are consistent with observations taken at Santa Maria, 26 miles south of San Luis Obispo.

VIII. HUMIDITY

Relative humidity averages about 75% annually. The diurnal range, reflected in CIMIS data, presents an average maximum of 90% in the early morning and a minimum of 55% in the middle afternoon. Relative humidity values tend to be somewhat higher in summer and lower in winter. Large-scale high pressure ridging with associated subsidence and offshore winds can cause a sharp reduction in relative humidity values over periods of several days. During these dry weather episodes, relative humidities frequently stay below 50% and occasionally drop below 10%.

Seasonal evapotranspiration rates vary from 0.08 inch/day in December and January to 0.22 inch/day in July. Annual evaporation loss from a standard four-foot pan is estimated at 70 inches, with roughly 2/3 of this total occurring from May through October. Evaporation from a large body of water, such as a lake, is estimated to total approximately 50 inches per year.

IX. SKY COVER, CLOUDS, AND FOG

Aviation observations in San Luis Obispo are limited in historical extent, hourly scope, consistency, and reliability. Projections based on San Luis Obispo observations taken from 1931-1960, in addition to long-term data from nearby Santa Maria, reflect a fair weather pattern in general.

San Luis Obispo averages 256 clear days (0 to 3 tenths sky cover) per year, 44 partly cloudy days (4 to 7 tenths), and 65 cloudy days (8 to 10 tenths). The average annual sky cover, including thin clouds, is 40%. Annual sunshine averages from 2800 to 3200 hours, depending on data source, or approximately 70% of possible sunshine.

Fog is most prevalent from July through September, when visibilities are reduced to one mile or less about 7% of the time. During December and January, such low visibilities occur 1 to 2% of the time. Fog occasionally hampers local aircraft operations and highway travel, but dense fog is infrequent and generally dissipates to a clear sky by 10 a.m., local time.

Air quality is generally very good, due mainly to the prevailing northwest wind flow from the Pacific and the early mixing of coastal inversions on summer mornings. Adverse visibilities, a technical reflection of air quality as computed by the California Air Resources Board, are among the lowest in the state. Projections suggest that adverse visibilities occur very rarely in the springtime, and on less than 20% of the days during the months August through October.

X. DATA SOURCES AND ANALYSIS

The climatological summary presented in this publication was derived from several sources. Temperature data from 1927 to 1948 were provided by Cal Poly. Data for San Luis Obispo from 1948 to 1992 were obtained from the Western Regional Climate Center. Additional temperatures and quality control material were secured from Jim Goodridge, and from files at the National Weather Service Office in Santa Maria.

Extreme daily high and low temperatures were calculated for each day of the year, using all available data sets. In some cases, modifications were made to reported data, as deemed necessary. Return period data were provided by Jim Goodridge.

Average daily high and low temperatures were projected throughout the year using rolling means --- nine-day centered means of median high and low temperatures for all days from 1948 through 1992.

Monthly and seasonal precipitation data from July 1869 through June 1993 were provided by Jim Goodridge, Cal Poly, and KSBY Television. Seasonal precipitation was graphed, with ten-year rolling means spaced at five year intervals. Return period data were provided by Jim Goodridge.

Other climate information and analyses were supplied by Diablo Canyon Power Plant, by the U.S. Army Corps of Engineers, and by the National Climatic Data Center in Asheville, North Carolina.

XI. ACKNOWLEDGMENTS

Special thanks to Jim Goodridge, Consulting Engineer and California State Climatologist (retired). His computer analyses and original climatological files were used extensively in the preparation of this report. His dedication to maintaining an accurate and complete weather record is in the finest traditions of the science.

Thanks to the following persons, who made significant contributions to the San Luis Obispo climatological study:

Jim Ashby, Western Regional Climate Center, Reno, Nevada

Jim Goodridge, California State Climatologist (retired), Chico, California

Sharon Graves, KSBY Television, San Luis Obispo, California

Jacquelyn Hulsey, San Luis Obispo County Airport

Ken Kenyon, San Luis Obispo Telegram-Tribune

Michael Line, Kennedy Library, Cal Poly

Clint Milne, County Engineer, San Luis Obispo County

Bill Mork, California State Climatologist

Table 4

WEATHER AVERAGES AND EXTREMES
SAN LUIS OBISPO, CALIFORNIA

DATE OF COMPILATION: AUGUST 1993

TEMPERATURE: (degrees F)

Average annual daily maximum:	71.0
Average annual daily minimum:	47.1
Mean annual temperature:	59.1
Extreme highest:	112 on 14 September 1971
Extreme lowest:	17 on 23 December 1990
Warmest minimum:	75 on 22 September 1939
Coolest maximum:	40 on 6 January 1930 also on 11 December 1932
Average annual no. of days 90 degrees or more:	12
Average annual no. of days 32 degrees or below:	3
Average date of first freeze (32 degrees):	30 December
Average date of last freeze (32 degrees):	25 January
Average annual heating degree days (base 65):	2498
Average annual cooling degree days (base 65):	335

PRECIPITATION: (inches)

Average annual rainfall:	23.46 (1961-1990)
--- Long-term average:	22.14 (1869-1990)
Maximum in 24 hours:	7.90 in January 1969
Maximum in one month:	24.63 in January 1969
Minimum in one month:	0.00 several occurrences
Maximum seasonal (July 1-June 30):	54.53 in 1968-69
Minimum seasonal (July 1-June 30):	7.20 in 1897-98
Maximum snowfall:	Trace (several occurrences)
Average annual days with measurable (=>.01) rainfall:	50
Average annual days with thunder:	2.5

WIND:

Average annual wind speed:	approximately 5 mph (Poly) approximately 6.5 mph (airport)
Prevailing wind direction:	(from) northwest
Peak wind:	78 mph (estimated 100-year maximum)

CLOUDS, FOG, RELATIVE HUMIDITY:

Average annual sky cover due to clouds/fog:	40 percent
Average annual sunshine:	2800-3200 hours
Percentage of time visibility =< 1 mile in fog:	4
.....in August.....	7
.....in January.....	1.5
Average annual relative humidity in percent:	75
.....in early morning.....	90
.....in early afternoon....	55

Table 5

AVERAGE MONTHLY TEMPERATURES AND PRECIPITATION
San Luis Obispo, CA (Poly)

MONTH	MAX TEMP	MIN TEMP	AVE TEMP	PRECIP
JANUARY	63.4	41.5	52.5	5.01 in.
FEBRUARY	64.9	43.2	54.1	4.57
MARCH	65.0	43.4	54.2	3.76
APRIL	68.0	45.0	56.5	1.64
MAY	70.1	47.0	58.6	0.34
JUNE	74.3	50.3	62.3	0.04
JULY	78.1	52.2	65.2	0.04
AUGUST	79.2	52.7	66.0	0.08
SEPTEMBER	78.8	52.5	65.7	0.43
OCTOBER	76.3	50.1	63.3	1.05
NOVEMBER	69.4	45.7	57.6	2.75
DECEMBER	64.1	41.5	52.8	3.75
ANNUAL	**71.0**	**47.1**	**59.1**	**23.46**

(BASED ON 30-YEAR RECORD 1961-1990)

DAILY AND MONTHLY WEATHER NORMALS
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF JANUARY

DAY	HIGH	LOW	PCPN	SEASON/DATE
01	61	40	.14	8.24
02	61	40	.14	8.38
03	61	40	.14	8.52
04	61	40	.15	8.67
05	61	40	.15	8.82
06	61	40	.15	8.97
07	61	40	.15	9.12
08	61	41	.15	9.27
09	61	41	.15	9.42
10	61	41	.15	9.57
11	61	41	.16	9.73
12	62	41	.16	9.89
13	62	41	.16	10.05
14	62	42	.16	10.21
15	62	42	.16	10.37
16	62	42	.16	10.53
17	62	42	.16	10.69
18	62	42	.16	10.85
19	62	42	.17	11.02
20	62	42	.17	11.19
21	62	42	.17	11.36
22	62	42	.17	11.53
23	62	42	.17	11.70
24	62	42	.17	11.87
25	62	42	.17	12.04
26	63	42	.17	12.21
27	63	42	.18	12.39
28	63	42	.18	12.57
29	63	42	.18	12.75
30	63	42	.18	12.93
31	63	42	.18	13.11

*AVE DAILY MAX TEMP:	63.4	AVE MONTHLY PRECIP:	5.01 IN.
*AVE DAILY MIN TEMP:	41.5	HEATING DEGREE DAYS:	388
*AVE MONTHLY TEMP:	52.5	COOLING DEGREE DAYS:	0

TEMPERATURES BASED ON DATA 1948-1993 (EXCEPT *1961-1990)
PRECIPITATION AND DEGREE DAY DATA BASED ON DATA 1961-1990
BASE FOR DEGREE DAY COMPUTATION IS 65 DEGREES F

DAILY AND MONTHLY WEATHER NORMALS
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF FEBRUARY

DAY	HIGH	LOW	PCPN	SEASON/DATE
01	63	42	.18	13.29
02	63	43	.18	13.47
03	64	43	.18	13.65
04	64	43	.18	13.83
05	64	43	.18	14.01
06	64	43	.18	14.19
07	64	43	.18	14.37
08	64	43	.17	14.54
09	64	43	.17	14.71
10	63	43	.17	14.88
11	63	43	.17	15.05
12	63	43	.17	15.22
13	63	44	.16	15.38
14	63	44	.16	15.54
15	63	44	.16	15.70
16	64	44	.16	15.86
17	64	44	.16	16.02
18	64	43	.16	16.18
19	64	43	.16	16.34
20	65	44	.16	16.50
21	65	44	.15	16.65
22	65	44	.15	16.80
23	65	44	.15	16.95
24	65	44	.15	17.10
25	65	44	.15	17.25
26	65	44	.15	17.40
27	64	44	.14	17.54
28	64	44	.14	17.68
29	64	44	.	.
30			.	.
31			.	.

*AVE DAILY MAX TEMP:	64.9	AVE MONTHLY PRECIP:	4.57 IN.
*AVE DAILY MIN TEMP:	43.2	HEATING DEGREE DAYS:	308
*AVE MONTHLY TEMP:	54.1	COOLING DEGREE DAYS:	0

TEMPERATURES BASED ON DATA 1948-1993 (EXCEPT *1961-1990)
PRECIPITATION AND DEGREE DAY DATA BASED ON DATA 1961-1990
BASE FOR DEGREE DAY COMPUTATION IS 65 DEGREES F

DAILY AND MONTHLY WEATHER NORMALS
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF MARCH

DAY	HIGH	LOW	PCPN	SEASON/DATE
01	64	44	.14	17.82
02	64	44	.14	17.96
03	64	43	.14	18.10
04	64	43	.14	18.24
05	64	43	.14	18.38
06	64	43	.14	18.52
07	64	43	.14	18.66
08	64	43	.13	18.79
09	64	43	.13	18.92
10	64	43	.13	19.05
11	64	43	.13	19.18
12	64	43	.13	19.31
13	64	43	.13	19.44
14	64	43	.13	19.57
15	64	43	.13	19.70
16	64	43	.12	19.82
17	64	43	.12	19.94
18	64	44	.12	20.06
19	65	44	.12	20.18
20	65	44	.12	20.30
21	65	44	.12	20.42
22	65	44	.11	20.53
23	65	44	.11	20.64
24	65	44	.11	20.75
25	65	44	.11	20.86
26	65	44	.10	20.96
27	65	44	.10	21.06
28	65	44	.10	21.16
29	65	44	.10	21.26
30	65	44	.09	21.35
31	65	44	.09	21.44

*AVE DAILY MAX TEMP:	65.0	AVE MONTHLY PRECIP:	3.76 IN.
*AVE DAILY MIN TEMP:	43.4	HEATING DEGREE DAYS:	335
*AVE MONTHLY TEMP:	54.2	COOLING DEGREE DAYS:	0

TEMPERATURES BASED ON DATA 1948-1993 (EXCEPT *1961-1990)
PRECIPITATION AND DEGREE DAY DATA BASED ON DATA 1961-1990
BASE FOR DEGREE DAY COMPUTATION IS 65 DEGREES F

DAILY AND MONTHLY WEATHER NORMALS
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF APRIL

DAY	HIGH	LOW	PCPN	SEASON/DATE
01	65	44	.09	21.53
02	66	45	.09	21.62
03	66	45	.09	21.71
04	66	45	.08	21.79
05	66	45	.08	21.87
06	67	45	.08	21.95
07	67	46	.08	22.03
08	67	46	.08	22.11
09	67	46	.07	22.18
10	67	46	.07	22.25
11	67	46	.07	22.32
12	67	46	.07	22.39
13	67	46	.06	22.45
14	67	46	.06	22.51
15	67	46	.05	22.56
16	67	46	.05	22.61
17	67	46	.05	22.66
18	67	46	.05	22.71
19	66	46	.04	22.75
20	66	46	.04	22.79
21	66	46	.04	22.83
22	66	46	.04	22.87
23	66	46	.03	22.90
24	66	46	.03	22.93
25	67	46	.03	22.96
26	67	46	.03	22.99
27	67	46	.03	23.02
28	67	46	.02	23.04
29	67	46	.02	23.06
30	67	46	.02	23.08
31			.	.

*AVE DAILY MAX TEMP: 68.0
*AVE DAILY MIN TEMP: 45.0
*AVE MONTHLY TEMP: 56.5

AVE MONTHLY PRECIP: 1.64 IN.
HEATING DEGREE DAYS: 267
COOLING DEGREE DAYS: 12

TEMPERATURES BASED ON DATA 1948-1993 (EXCEPT *1961-1990)
PRECIPITATION AND DEGREE DAY DATA BASED ON DATA 1961-1990
BASE FOR DEGREE DAY COMPUTATION IS 65 DEGREES F

DAILY AND MONTHLY WEATHER NORMALS
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF MAY

DAY	HIGH	LOW	PCPN	SEASON/DATE
01	67	46	.02	23.10
02	67	46	.02	23.12
03	67	46	.02	23.14
04	67	46	.02	23.16
05	67	47	.02	23.18
06	67	47	.02	23.20
07	68	47	.02	23.22
08	68	47	.02	23.24
09	68	47	.02	23.26
10	68	47	.01	23.27
11	68	47	.01	23.28
12	68	47	.01	23.29
13	68	47	.01	23.30
14	68	48	.01	23.31
15	68	48	.01	23.32
16	69	48	.01	23.33
17	69	48	.01	23.34
18	69	48	.01	23.35
19	69	48	.01	23.36
20	69	48	.01	23.37
21	70	48	.01	23.38
22	70	48	.01	23.39
23	70	48	.01	23.40
24	70	48	.01	23.41
25	70	48	.01	23.42
26	70	48	.00	23.42
27	70	49	.00	23.42
28	70	49	.00	23.42
29	70	49	.00	23.42
30	70	49	.00	23.42
31	70	49	.00	23.42

*AVE DAILY MAX TEMP:	70.1	AVE MONTHLY PRECIP:	0.34 IN.
*AVE DAILY MIN TEMP:	47.0	HEATING DEGREE DAYS:	205
*AVE MONTHLY TEMP:	58.6	COOLING DEGREE DAYS:	7

TEMPERATURES BASED ON DATA 1948-1993 (EXCEPT *1961-1990)
PRECIPITATION AND DEGREE DAY DATA BASED ON DATA 1961-1990
BASE FOR DEGREE DAY COMPUTATION IS 65 DEGREES F

DAILY AND MONTHLY WEATHER NORMALS
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF JUNE

DAY	HIGH	LOW	PCPN	SEASON/DATE
01	70	49	.01	23.43
02	70	49	.01	23.44
03	70	49	.01	23.45
04	70	49	.01	23.46
05	71	50	.00	23.46
06	71	50	.00	23.46
07	71	50	.00	23.46
08	71	50	.00	23.46
09	71	50	.00	23.46
10	72	50	.00	23.46
11	72	50	.00	23.46
12	72	50	.00	23.46
13	72	50	.00	23.46
14	72	50	.00	23.46
15	72	50	.00	23.46
16	72	51	.00	23.46
17	73	51	.00	23.46
18	73	51	.00	23.46
19	73	51	.00	23.46
20	74	51	.00	23.46
21	74	51	.00	23.46
22	74	51	.00	23.46
23	75	51	.00	23.46
24	75	51	.00	23.46
25	75	51	.00	23.46
26	75	51	.00	23.46
27	75	51	.00	23.46
28	75	51	.00	23.46
29	75	51	.00	23.46
30	75	51	.00	23.46
31			.	.

*AVE DAILY MAX TEMP: 74.3
*AVE DAILY MIN TEMP: 50.3
*AVE MONTHLY TEMP: 62.3

AVE MONTHLY PRECIP: 0.04 IN.
HEATING DEGREE DAYS: 117
COOLING DEGREE DAYS: 36

TEMPERATURES BASED ON DATA 1948-1993 (EXCEPT *1961-1990)
PRECIPITATION AND DEGREE DAY DATA BASED ON DATA 1961-1990
BASE FOR DEGREE DAY COMPUTATION IS 65 DEGREES F

DAILY AND MONTHLY WEATHER NORMALS
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF JULY

DAY	HIGH	LOW	PCPN	SEASON/DATE
01	75	51	.01	0.01
02	75	51	.01	0.02
03	75	51	.01	0.03
04	76	51	.01	0.04
05	76	51	.00	0.04
06	76	51	.00	0.04
07	77	51	.00	0.04
08	77	51	.00	0.04
09	77	51	.00	0.04
10	78	51	.00	0.04
11	78	52	.00	0.04
12	78	52	.00	0.04
13	78	52	.00	0.04
14	78	52	.00	0.04
15	78	52	.00	0.04
16	78	52	.00	0.04
17	78	53	.00	0.04
18	78	53	.00	0.04
19	78	53	.00	0.04
20	78	53	.00	0.04
21	77	53	.00	0.04
22	77	53	.00	0.04
23	77	53	.00	0.04
24	77	53	.00	0.04
25	77	53	.00	0.04
26	77	53	.00	0.04
27	77	53	.00	0.04
28	77	53	.00	0.04
29	77	53	.00	0.04
30	77	53	.00	0.04
31	77	53	.00	0.04

*AVE DAILY MAX TEMP:	78.1	AVE MONTHLY PRECIP:	0.04 IN.
*AVE DAILY MIN TEMP:	52.2	HEATING DEGREE DAYS:	56
*AVE MONTHLY TEMP:	65.2	COOLING DEGREE DAYS:	62

TEMPERATURES BASED ON DATA 1948-1993 (EXCEPT *1961-1990)
PRECIPITATION AND DEGREE DAY DATA BASED ON DATA 1961-1990
BASE FOR DEGREE DAY COMPUTATION IS 65 DEGREES F

DAILY AND MONTHLY WEATHER NORMALS
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF AUGUST

DAY	HIGH	LOW	PCPN	SEASON/DATE
01	77	53	.00	0.04
02	77	52	.00	0.04
03	77	52	.00	0.04
04	77	52	.00	0.04
05	78	52	.00	0.04
06	78	52	.00	0.04
07	78	52	.00	0.04
08	78	52	.00	0.04
09	78	52	.00	0.04
10	78	52	.00	0.04
11	78	52	.00	0.04
12	78	52	.00	0.04
13	78	52	.00	0.04
14	78	52	.00	0.04
15	78	52	.00	0.04
16	78	52	.00	0.04
17	78	52	.00	0.04
18	78	52	.00	0.04
19	78	52	.00	0.04
20	78	52	.00	0.04
21	78	52	.00	0.04
22	78	52	.00	0.04
23	78	52	.00	0.04
24	78	52	.01	0.05
25	78	52	.01	0.06
26	78	52	.01	0.07
27	78	52	.01	0.08
28	78	52	.01	0.09
29	78	52	.01	0.10
30	78	52	.01	0.11
31	79	52	.01	0.12

*AVE DAILY MAX TEMP: 79.2
*AVE DAILY MIN TEMP: 52.7
*AVE MONTHLY TEMP: 66.0

AVE MONTHLY PRECIP: 0.08 IN.
HEATING DEGREE DAYS: 31
COOLING DEGREE DAYS: 62

TEMPERATURES BASED ON DATA 1948-1993 (EXCEPT *1961-1990)
PRECIPITATION AND DEGREE DAY DATA BASED ON DATA 1961-1990
BASE FOR DEGREE DAY COMPUTATION IS 65 DEGREES F

DAILY AND MONTHLY WEATHER NORMALS
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF SEPTEMBER

DAY	HIGH	LOW	PCPN	SEASON/DATE
01	79	52	.01	0.13
02	79	52	.01	0.14
03	78	52	.01	0.15
04	78	52	.01	0.16
05	78	53	.01	0.17
06	78	53	.01	0.18
07	78	53	.01	0.19
08	78	53	.01	0.20
09	78	52	.01	0.21
10	77	52	.01	0.22
11	77	52	.01	0.23
12	77	52	.01	0.24
13	77	52	.01	0.25
14	77	52	.01	0.26
15	77	52	.01	0.27
16	77	52	.01	0.28
17	77	52	.01	0.29
18	77	52	.02	0.31
19	77	52	.02	0.33
20	77	52	.02	0.35
21	78	52	.02	0.37
22	78	52	.02	0.39
23	78	52	.02	0.41
24	78	52	.02	0.43
25	78	52	.02	0.45
26	78	52	.02	0.47
27	77	52	.02	0.49
28	77	52	.02	0.51
29	77	52	.02	0.53
30	77	52	.02	0.55
31			.	.

*AVE DAILY MAX TEMP:	78.8	AVE MONTHLY PRECIP:	0.43 IN.
*AVE DAILY MIN TEMP:	52.5	HEATING DEGREE DAYS:	78
*AVE MONTHLY TEMP:	65.7	COOLING DEGREE DAYS:	99

TEMPERATURES BASED ON DATA 1948-1993 (EXCEPT *1961-1990)
PRECIPITATION AND DEGREE DAY DATA BASED ON DATA 1961-1990
BASE FOR DEGREE DAY COMPUTATION IS 65 DEGREES F

DAILY AND MONTHLY WEATHER NORMALS
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF OCTOBER

DAY	HIGH	LOW	PCPN	SEASON/DATE
01	77	51	.02	0.57
02	77	51	.02	0.59
03	77	51	.02	0.61
04	77	51	.02	0.63
05	77	51	.03	0.66
06	77	51	.03	0.69
07	77	51	.03	0.72
08	77	51	.03	0.75
09	77	51	.03	0.78
10	77	51	.03	0.81
11	77	51	.03	0.84
12	76	51	.03	0.87
13	76	51	.03	0.90
14	76	50	.03	0.93
15	76	50	.03	0.96
16	76	50	.03	0.99
17	76	50	.03	1.02
18	75	50	.03	1.05
19	75	50	.03	1.08
20	75	50	.04	1.12
21	75	50	.04	1.16
22	74	50	.04	1.20
23	74	50	.04	1.24
24	74	50	.04	1.28
25	74	49	.04	1.32
26	74	49	.04	1.36
27	74	49	.04	1.40
28	74	49	.05	1.45
29	74	49	.05	1.50
30	74	48	.05	1.55
31	74	48	.05	1.60

*AVE DAILY MAX TEMP:	76.3	AVE MONTHLY PRECIP:	1.05 IN.
*AVE DAILY MIN TEMP:	50.1	HEATING DEGREE DAYS:	100
*AVE MONTHLY TEMP:	63.3	COOLING DEGREE DAYS:	48

TEMPERATURES BASED ON DATA 1948-1993 (EXCEPT *1961-1990)
PRECIPITATION AND DEGREE DAY DATA BASED ON DATA 1961-1990
BASE FOR DEGREE DAY COMPUTATION IS 65 DEGREES F

DAILY AND MONTHLY WEATHER NORMALS
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF NOVEMBER

DAY	HIGH	LOW	PCPN	SEASON/DATE
01	74	48	.06	1.66
02	74	48	.06	1.72
03	74	47	.06	1.78
04	74	47	.07	1.85
05	74	47	.07	1.92
06	74	47	.07	1.99
07	74	47	.07	2.06
08	73	47	.08	2.14
09	72	47	.08	2.22
10	71	47	.08	2.30
11	70	47	.08	2.38
12	69	47	.09	2.47
13	69	47	.09	2.56
14	69	46	.09	2.65
15	68	46	.09	2.74
16	68	46	.10	2.84
17	68	46	.10	2.94
18	68	45	.10	3.04
19	68	45	.10	3.14
20	68	45	.11	3.25
21	68	45	.11	3.36
22	68	45	.11	3.47
23	68	44	.11	3.58
24	68	44	.11	3.69
25	67	44	.11	3.80
26	67	44	.11	3.91
27	67	43	.11	4.02
28	67	43	.11	4.13
29	67	43	.11	4.24
30	67	43	.11	4.35
31				

*AVE DAILY MAX TEMP: 69.4
*AVE DAILY MIN TEMP: 45.7
*AVE MONTHLY TEMP: 57.6

AVE MONTHLY PRECIP: 2.75 IN.
HEATING DEGREE DAYS: 231
COOLING DEGREE DAYS: 9

TEMPERATURES BASED ON DATA 1948-1993 (EXCEPT *1961-1990)
PRECIPITATION AND DEGREE DAY DATA BASED ON DATA 1961-1990
BASE FOR DEGREE DAY COMPUTATION IS 65 DEGREES F

DAILY AND MONTHLY WEATHER NORMALS
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF DECEMBER

DAY	HIGH	LOW	PCPN	SEASON/DATE
01	66	43	.11	4.46
02	66	43	.11	4.57
03	66	43	.11	4.68
04	66	43	.11	4.79
05	65	43	.11	4.90
06	65	43	.11	5.01
07	65	43	.11	5.12
08	65	43	.11	5.23
09	65	42	.11	5.34
10	65	42	.11	5.45
11	65	42	.11	5.56
12	65	42	.12	5.68
13	65	42	.12	5.80
14	65	42	.12	5.92
15	65	42	.12	6.04
16	64	42	.12	6.16
17	64	42	.12	6.28
18	63	42	.12	6.40
19	63	42	.12	6.52
20	63	42	.12	6.64
21	62	42	.13	6.77
22	62	42	.13	6.90
23	61	42	.13	7.03
24	61	42	.13	7.16
25	61	41	.13	7.29
26	61	41	.13	7.42
27	61	41	.13	7.55
28	61	40	.13	7.68
29	61	40	.14	7.82
30	61	40	.14	7.96
31	61	40	.14	8.10

*AVE DAILY MAX TEMP:	64.1	AVE MONTHLY PRECIP:	3.75 IN.
*AVE DAILY MIN TEMP:	41.5	HEATING DEGREE DAYS:	382
*AVE MONTHLY TEMP:	52.8	COOLING DEGREE DAYS:	0

TEMPERATURES BASED ON DATA 1948-1993 (EXCEPT *1961-1990)
PRECIPITATION AND DEGREE DAY DATA BASED ON DATA 1961-1990
BASE FOR DEGREE DAY COMPUTATION IS 65 DEGREES F

RECORD HIGH AND LOW TEMPERATURES
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF JANUARY

DAY	HIGHEST	YEAR	LOWEST	YEAR
01	83	1981	31	1933/74
02	75	1969	30	1960
03	81	1994	27	1952
04	74	1964/69	28	1971
05	78	1953	29	1949
06	79	1958	29	1970
07	79	1969	27	1982
08	78	1958/62	29	1950
09	76	1962/63	29	1937
10	81	1962	27	1937/49
11	77	1967	30	1948/71
12	80	1928	29	1949
13	82	1948/83	27	1963
14	82	1983	29	1932
15	81	1983	31	1962/63
16	80	1948	31	1963
17	88 X	1976	26	1987
18	85	1976	26	1987
19	80	1961	31	1963
20	84	1961	29	1945
21	83	1976	25	1963
22	79	1976	24 X	1937
23	80	1948/76	25	1937
24	81	1968	28	1937
25	79	1968/92	31	1932/49
26	81	1959	29	1949
27	79	1951/86	29	1949
28	82	1986	27	1957
29	82	1976	27	1979
30	80	1984	31	1969
31	82	1962	30	1975

-COOLEST MAXIMUM: 40 ON 6 JAN 1930
-WARMEST MINIMUM: 62 ON 17 JAN 1965

X - RECORD FOR MONTH Y - RECORD ALL TIME

PERIOD OF RECORD: CONTINUOUS FROM SEPTEMBER 1927
DATE OF COMPUTATION: JANUARY 1994

RECORD HIGH AND LOW TEMPERATURES
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF FEBRUARY

DAY	HIGHEST	YEAR	LOWEST	YEAR
01	85	1976	31	1937
02	83	1954	30	1939/79
03	80	1954	29	1932
04	81	1954	30	1955/85
05	79	1954	30	1955
06	80	1954	33	1985
07	84	1954	33	1989
08	87	1954	31	1933
09	84	1954	30	1939
10	79	1964	31	1929/39
11	75	1955/88	31	1929
12	84	1971	30	1929
13	88 X	1971	34	1946
14	86	1930	34	1946
15	86	1991	28 X	1990
16	87	1977	28 X	1990
17	88 X	1930	30	1956
18	83	1977	32	1952/56
19	78	1965/77	34	1952
20	81	1965/91	33	1955
21	84	1982/91	32	1975
22	80	1989	34	1951
23	81	1981	30	1984
24	86	1954	30	1975
25	83	1947/54	31	1987
26	85	1932/86	29	1935
27	87	1932/86	30	1935
28	87	1986	28 X	1962
29	78	1936	38	1956
30				
31				

-COOLEST MAXIMUM: 46 ON 6 FEB 1976
-WARMEST MINIMUM: 64 ON 26 FEB 1986

X - RECORD FOR MONTH Y - RECORD ALL TIME

PERIOD OF RECORD: CONTINUOUS FROM SEPTEMBER 1927
DATE OF COMPUTATION: JULY 1993

RECORD HIGH AND LOW TEMPERATURES
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF MARCH

DAY	HIGHEST	YEAR	LOWEST	YEAR
01	80	1968	28 X	1962
02	84	1936	30	1951
03	85	1931	30	1964
04	80	1968	32	1966/76
05	84	1986	33	1945/66/85
06	88	1972	35	1985
07	84	1993	33	1964
08	86	1953	31	1971
09	82	1934	33	1935/69
10	81	1934	34	1935/62
11	82	1934	35	1969
12	84	1959	35	1969/90
13	84	1959	35	1990
14	85	1947	35	1946/50/91
15	86	1951	34	1963
16	77	1959	34	1963
17	85	1978	34	1955/63
18	85	1978	36	1955/63
19	86	1960	35	1985
20	85	1960	34	1982/87
21	85	1931	37	1942/73/82
22	83	1931	32	1982
23	82	1931/86	31	1982
24	82	1930	32	1935
25	90 X	1930	31	1936
26	88	1930	35	1985
27	89	1988	36	1985
28	85	1969	36	1937
29	85	1968	36	1967
30	84	1971	36	1949/77/85
31	85	1931	35	1949

-COOLEST MAXIMUM: 46 ON 17 MAR 1963
-WARMEST MINIMUM: 65 ON 25 MAR 1930

X - RECORD FOR MONTH Y - RECORD ALL TIME

PERIOD OF RECORD: CONTINUOUS FROM SEPTEMBER 1927
DATE OF COMPUTATION: JULY 1993

RECORD HIGH AND LOW TEMPERATURES
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF APRIL

DAY	HIGHEST	YEAR	LOWEST	YEAR
01	91	1966	35	1929/51/67
02	92	1959	34	1982
03	90	1966/85	33	1984
04	94	1961	34	1975
05	90	1961	37	1983
06	98	1989	30	1929
07	100	1989	34	1978
08	104 X	1989	33	1953
09	98	1989	31	1984
10	85	1968	34	1945
11	90	1940	34	1965/83
12	93	1947	34	1983
13	94	1947	33	1983
14	95	1985	32	1970
15	94	1964	36	1970
16	94	1966	35	1975/76
17	89	1966	34	1933
18	90	1938	33	1933/79
19	89	1950	31	1987
20	86	1958/92	31	1972
21	92	1986	34	1963/70
22	91	1986	34	1932
23	95	1946	35	1970
24	89	1946	38	1975
25	90	1992	37	1974
26	91	1992	29 X	1975
27	86	1992	33	1984
28	91	1992	33	1970
29	95	1981	35	1966/70
30	94	1959	36	1975
31				

-COOLEST MAXIMUM: 50 ON 2 APR 1967
-WARMEST MINIMUM: 66 ON 6 APR 1979, 7 APR 1979
21 APR 1958

X - RECORD FOR MONTH Y - RECORD ALL TIME

PERIOD OF RECORD: CONTINUOUS FROM SEPTEMBER 1927
DATE OF COMPUTATION: JULY 1993

RECORD HIGH AND LOW TEMPERATURES
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF MAY

DAY	HIGHEST	YEAR	LOWEST	YEAR
01	90	1929	34 X	1990
02	88	1929	34 X	1990
03	90	1970	38	1986
04	90	1987	36	1964
05	96	1987	37	1986
06	91	1989	35	1964
07	87	1941	37	1930/50/88
08	94	1984	34 X	1930
09	95	1984	36	1933
10	97	1934	34 X	1933
11	92	1973	39	1930/33/74
12	92	1937	38	1988
13	94	1976/79	39	1991
14	96	1979	40	1943/55/74
15	94	1970	37	1984
16	99 X	1970	39	1971
17	98	1970	42	1974/77/86
18	85	1970/78/86	36	1974/85
19	92	1988	36	1974
20	88	1952	40	1929/62
21	88	1988	41	1948/76
22	88	1988	38	1933
23	93	1984	40	1960/78
24	94	1942	37	1978
25	95	1942	39	1980
26	96	1951	40	1980
27	99 X	1974	39	1929
28	90	1973	40	1987
29	96	1973	41	1976
30	94	1978	40	1967/76
31	91	1969	42	1988/91

-COOLEST MAXIMUM: 53 ON 7 MAY 1964 AND 8 MAY 1964
-WARMEST MINIMUM: 71 ON 20 MAY 1942

X - RECORD FOR MONTH Y - RECORD ALL TIME

PERIOD OF RECORD: CONTINUOUS FROM SEPTEMBER 1927
DATE OF COMPUTATION: JULY 1993

RECORD HIGH AND LOW TEMPERATURES
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF JUNE

DAY	HIGHEST	YEAR	LOWEST	YEAR
01	93	1987	37 X	1991
02	92	1968	40	1933
03	93	1957/68	40	1943
04	89	1949	41	1962/76
05	102	1981	41	1939/76
06	96	1981	40	1932/76
07	96	1985	41	1950
08	97	1973	42	1976/91
09	92	1973	43	1982
10	96	1979	43	1982
11	98	1979	38	1929
12	92	1947	45	1970/90
13	94	1966	39	1988
14	91	1983	41	1978
15	97	1966/76	41	1991
16	101	1981	43	1991
17	104	1981	45	1954/91
18	98	1981	40	1933
19	99	1981	44	1979
20	108 X	1929	46	1949
21	105	1929/73	42	1991
22	98	1973	41	1933
23	93	1993	42	1933
24	101	1993	43	1935
25	103	1976	45	1952/56
26	106	1976	41	1953
27	100	1976	42	1965
28	98	1976/80	44	1953
29	97	1956	45	1971/90
30	90	1969	45	1935/49/53/55/71/84
31				

-COOLEST MAXIMUM: 55 ON 2 JUN 1980
-WARMEST MINIMUM: 74 ON 21 JUN 1929

X - RECORD FOR MONTH Y - RECORD ALL TIME

PERIOD OF RECORD: CONTINUOUS FROM SEPTEMBER 1927
DATE OF COMPUTATION: JULY 1993

RECORD HIGH AND LOW TEMPERATURES
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF JULY

DAY	HIGHEST	YEAR	LOWEST	YEAR
01	100	1931	44	1973
02	102	1985	42	1975
03	96	1929	45	1971
04	96	1985	45	1971
05	99	1985	44	1971
06	99	1989	45	1949
07	99	1957	45	1935
08	95	1985	45	1935
09	104	1985	46	1966
10	104	1959	45	1979
11	104	1959	41 X	1971
12	98	1953/57/83	46	1981
13	99	1979	47	1984
14	93	1979/83	47	1966
15	92	1981	42	1948
16	89	1934	42	1948
17	102	1988	43	1948
18	104	1936	46	1986
19	91	1951	45	1932/86
20	91	1936	47	1986
21	95	1960/67	47	1943
22	92	1931	46	1929/87
23	94	1977	45	1930
24	92	1931	48	1992
25	95	1931	49	1948
26	106 X	1973	49	1955/65
27	97	1977	48	1989
28	98	1943	45	1930
29	91	1954/77	48	1930
30	106 X	1930	45	1932
31	96	1938	49	1963/75/86/92

-COOLEST MAXIMUM: 63 ON 4 JUL 1955 AND 13 JUL 1962
-WARMEST MINIMUM: 73 ON 10 JUL 1985

X - RECORD FOR MONTH Y - RECORD ALL TIME

PERIOD OF RECORD: CONTINUOUS FROM SEPTEMBER 1927
DATE OF COMPUTATION: JULY 1993

RECORD HIGH AND LOW TEMPERATURES
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF AUGUST

DAY	HIGHEST	YEAR	LOWEST	YEAR
01	100	1993	44	1932
02	95	1980	46	1956
03	93	1955	46	1956
04	90	1929	47	1928/56
05	104	1969	48	1970/89
06	95	1983	45	1970
07	98	1983	44	1970
08	95	1975	42	1970
09	99	1971	41	1970
10	100	1971	40 X	1970
11	96	1935	48	1990
12	97	1958	48	1934
13	98	1958	48	1969/89
14	101	1962	47	1988
15	91	1963	46	1988
16	92	1983	47	1988
17	94	1962	47	1988
18	97	1984	47	1944
19	94	1986	48	1930/90
20	94	1963	47	1990
21	93	1931	46	1987
22	92	1931/72	45	1992
23	100	1931	46	1992
24	96	1931	45	1930
25	100	1931	47	1960/68
26	96	1931	45	1968
27	107 X	1944	46	1968
28	105	1962	47	1944/73
29	104	1962	46	1944/69
30	102	1977	44	1939
31	99	1947	47	1946/66

-COOLEST MAXIMUM: 55 ON 31 AUG 1942
-WARMEST MINIMUM: 69 ON 29 AUG 1977

X - RECORD FOR MONTH Y - RECORD ALL TIME

PERIOD OF RECORD: CONTINUOUS FROM SEPTEMBER 1927
DATE OF COMPUTATION: AUGUST 1993

RECORD HIGH AND LOW TEMPERATURES
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF SEPTEMBER

DAY	HIGHEST	YEAR	LOWEST	YEAR
01	105	1955	42	1963
02	110	1955	46	1930
03	105	1955	42	1930
04	97	1982	41	1930
05	99	1961	38 X	1930
06	99	1936/61	43	1930
07	95	1957/58/84	43	1954
08	103	1984	45	1928/92
09	101	1984	44	1964
10	101	1984	45	1964/91
11	102	1979	43	1928/46
12	107	1983	45	1931/34/85
13	101	1948	42	1952
14	112 X,Y	1971	43	1970
15	100	1948	43	1952/74
16	105	1979	45	1974/80/86/92
17	99	1979	43	1986
18	98	1984	41	1974
19	95	1946	41	1989
20	100	1939	44	1944/68
21	107	1943	45	1970
22	105	1939	43	1970
23	104	1949	41	1962
24	102	1978	42	1929
25	105	1978	42	1948
26	104	1993	40	1948
27	103	1963	45	1929
28	100	1970/78	43	1964
29	100	1984	42	1948
30	97	1980	41	1954
31				

-COOLEST MAXIMUM: 58 ON 1 SEP 1942
-WARMEST MINIMUM: 75 ON 22 SEP 1939

X - RECORD FOR MONTH Y - RECORD ALL TIME

PERIOD OF RECORD: CONTINUOUS FROM SEPTEMBER 1927
DATE OF COMPUTATION: JANUARY 1994

RECORD HIGH AND LOW TEMPERATURES
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF OCTOBER

DAY	HIGHEST	YEAR	LOWEST	YEAR
01	107	1980	39	1950
02	109	1980	45	1954/82
03	108	1987	42	1944
04	111 X	1987	42	1962
05	108	1987	42	1962
06	100	1971	42	1962
07	98	1971	44	1954/82/88
08	96	1948	40	1949
09	96	1980	39	1949
10	95	1988	41	1930/31/60/61
11	96	1940	41	1960
12	95	1939/50	39	1981
13	103	1950	38	1981
14	101	1961	38	1928
15	108	1961	39	1931/81
16	106	1961	40	1938
17	99	1933	41	1971/80
18	98	1933	38	1949
19	95	1940	38	1949
20	97	1964	35	1949
21	99	1929	39	1949
22	102	1929	40	1932
23	99	1965	39	1953
24	103	1959	42	1953
25	96	1965	39	1949
26	96	1993	39	1949/71
27	95	1983	38	1971
28	92	1931/65/83	30 X	1971
29	96	1931	36	1946
30	94	1939	37	1974
31	94	1966	33	1971

-COOLEST MAXIMUM: 56 ON 16 OCT 1934
-WARMEST MINIMUM: 68 ON 24 OCT 1949

X - RECORD FOR MONTH Y - RECORD ALL TIME

PERIOD OF RECORD: CONTINUOUS FROM SEPTEMBER 1927
DATE OF COMPUTATION: JANUARY 1994

RECORD HIGH AND LOW TEMPERATURES
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF NOVEMBER

DAY	HIGHEST	YEAR	LOWEST	YEAR
01	96	1966	39	1978
02	98 X	1966	37	1990
03	92	1966	34	1935
04	91	1976	39	1956/57/75
05	94	1949/76	38	1957/73/82/86
06	92	1941	36	1974/86
07	90	1991	30	1986
08	90	1956	35	1935
09	95	1956	36	1938
10	96	1956	35	1946
11	90	1956/90	35	1935
12	87	1933/90	33	1985
13	87	1933	31	1982
14	87	1949	36	1930
15	88	1949	33	1930/35
16	89	1949	32	1964
17	85	1949	33	1964
18	90	1936	31	1988
19	89	1976	33	1961
20	84	1936/39/89	31	1964
21	84	1989	31	1929
22	88	1933	33	1979
23	89	1939	27 X	1931
24	89	1933	35	1940/52/55
25	88	1959	33	1931
26	85	1959	35	1952
27	87	1929	32	1987
28	83	1969	31	1974
29	81	1940/80	31	1933/75
30	83	1977	30	1933
31				

-COOLEST MAXIMUM: 50 ON 12 NOV 1978
-WARMEST MINIMUM: 68 ON 24 NOV 1949

X - RECORD FOR MONTH Y - RECORD ALL TIME

PERIOD OF RECORD: CONTINUOUS FROM SEPTEMBER 1927
DATE OF COMPUTATION: JULY 1993

RECORD HIGH AND LOW TEMPERATURES
SAN LUIS OBISPO, CALIFORNIA (CAL POLY)

MONTH OF DECEMBER

DAY	HIGHEST	YEAR	LOWEST	YEAR
01	81	1940/56	32	1931
02	85	1940	33	1978/91
03	86	1959	33	1991
04	92 X	1958	33	1948
05	82	1958	32	1948
06	84	1962	35	1972/75/78/91
07	85	1940	29	1978
08	89	1938	30	1960/78
09	86	1975	30	1978
10	85	1957	30	1972
11	81	1957	24	1972
12	83	1958	26	1972
13	81	1988	28	1972
14	82	1953	29	1967
15	82	1953	31	1987
16	81	1980	28	1967
17	85	1980	28	1971/84
18	81	1958	24	1971
19	76	1985	30	1965
20	80	1985	31	1967
21	80	1985	30	1967/90
22	76	1985	26	1968
23	77	1960/89	17 X,Y	1990
24	77	1960/89	26	1990
25	83	1947	27	1948
26	81	1947	26	1987
27	82	1980	29	1987
28	82	1929	30	1962/88
29	84	1956	29	1962
30	81	1956	28	1930
31	85	1980	30	1947

-COOLEST MAXIMUM: 40 ON 11 DEC 1932
-WARMEST MINIMUM: 63 ON 12 DEC 1958

X - RECORD FOR MONTH Y - RECORD ALL TIME

PERIOD OF RECORD: CONTINUOUS FROM SEPTEMBER 1927
DATE OF COMPUTATION: JULY 1993

Table 6

T10 D San Luis Obispo Polly

Rainfall Depth-Duration-Frequency for San Luis Obispo Poly

7/26/93 — DWR # T10 7851 00 — San Luis Obispo County — Lat 35.306°

12:42 PM — Analysis By Jim Goodridge 916 345 3106 — Long -121.663°

Data from : DWR & CD — 30S/12E-23 — Elev 300'

Maximum Rainfall For Indicated Number Of Concecutive Days

	1	2	3	4	5	6	8	10	15	20	30	60	W-YR
1948													
1949	1.75	2.01	2.17	2.21	2.24	2.27	2.44	3.95	4.52	5.39	6.84	8.09	14.67
1950	2.17	3.46	3.46	3.46	3.46	3.72	3.88	3.88	4.73	4.78	8.27	8.77	19.45
1951	1.81	1.92	1.92	1.92	2.07	2.07	2.59	2.90	3.08	3.08	3.57	6.67	15.21
1952	3.05	4.01	4.41	4.88	5.28	5.51	5.71	5.71	8.58	9.47	13.60	17.92	29.26
1953	1.61	2.68	2.91	2.98	2.98	2.98	3.22	3.82	3.82	4.78	7.25	12.55	16.90
1954	2.38	2.77	2.82	2.82	3.21	3.88	4.93	5.03	6.07	6.10	6.10	9.87	19.77
1955	2.00	2.06	2.06	2.06	2.06	2.06	2.84	4.29	4.29	4.89	5.46	8.72	17.31
1956	3.90	5.38	6.62	6.85	7.85	7.97	8.65	8.65	9.02	9.08	10.86	17.39	25.15
1957	2.19	2.48	2.58	2.82	3.11	3.11	3.48	3.48	3.50	3.76	4.70	9.14	15.98
1958	2.24	2.59	3.97	4.52	4.87	5.11	7.06	7.41	8.76	10.50	14.29	20.45	35.30
1959	2.00	2.45	3.15	3.15	3.37	3.37	4.54	5.28	6.60	6.60	6.64	9.44	11.50
1960	3.53	3.58	3.81	3.83	3.83	3.99	4.04	5.19	5.21	6.09	8.08	11.18	15.18
1961	1.92	1.96	1.96	1.96	1.96	1.97	2.58	2.68	2.68	2.87	5.08	5.43	10.93
1962	3.16	5.16	7.02	8.45	8.76	8.92	10.80	11.45	13.63	13.96	15.57	18.45	25.97
1963	4.67	5.13	5.17	5.69	5.89	5.93	5.93	6.86	11.44	11.64	11.64	16.25	24.99
1964	1.60	2.25	2.50	2.69	2.80	2.99	2.99	3.01	3.01	3.24	4.09	6.03	14.62
1965	1.76	2.36	3.31	3.72	3.72	3.72	3.72	4.12	5.78	9.50	9.50	12.35	21.72
1966	2.00	3.48	4.61	5.50	5.89	5.95	5.95	6.87	7.80	7.80	7.80	11.19	15.67
1967	2.65	4.38	5.57	6.45	7.64	7.70	7.70	8.03	8.09	10.00	11.07	12.10	33.69
1968	1.81	2.06	2.17	2.41	2.47	3.19	3.22	3.22	4.29	5.08	5.37	7.60	16.75
1969	**5.90**	**10.53**	**12.99**	**13.68**	**13.68**	**15.26**	**21.80**	**22.07**	**23.99**	**24.63**	**27.57**	**41.33**	**54.62**
1970	2.03	2.87	3.47	3.53	3.53	3.95	6.17	6.22	6.51	7.28	7.28	9.01	16.30
1971	2.25	2.62	3.93	4.30	4.65	5.02	5.37	5.70	6.56	6.99	10.12	14.72	20.65
1972	1.55	2.24	3.12	3.83	4.08	5.35	6.06	6.06	6.06	6.32	7.17	9.03	12.27
1973	4.25	6.37	8.95	9.49	9.49	9.49	9.49	10.34	12.25	12.33	15.59	24.02	40.04
1974	4.26	5.09	5.10	5.48	6.08	6.08	6.25	6.58	8.13	8.63	11.41	13.07	30.92
1975	2.90	4.40	5.05	5.57	5.96	5.96	5.97	7.81	8.31	8.35	8.37	14.27	24.17
1976	1.72	2.30	2.77	3.33	3.73	4.00	4.00	4.07	4.17	4.17	6.69	6.71	15.68
1977	1.56	2.49	2.53	2.59	3.98	4.01	4.35	4.46	4.46	4.46	4.50	4.58	11.59
1978	3.99	4.52	7.68	7.79	8.12	8.23	10.33	12.23	15.20	15.76	20.72	34.96	*40.63*
1979	1.50	1.97	2.52	2.90	3.00	3.03	3.65	4.76	4.84	4.84	7.06	11.09	19.75
1980	3.98	7.14	7.68	8.48	9.78	10.18	11.44	11.56	11.91	13.09	14.77	24.07	33.35
1981	2.85	3.72	4.48	4.81	4.86	4.86	6.11	6.16	6.23	6.58	8.04	15.63	18.48
1982	3.12	3.41	3.68	3.68	3.68	4.02	4.04	4.35	7.52	8.13	11.58	14.31	28.50
1983	3.37	4.83	5.16	5.27	7.66	7.99	8.83	9.35	10.05	12.46	15.92	27.04	47.15
1984	2.73	3.27	3.52	3.53	3.53	3.53	3.53	3.53	3.53	5.41	6.72	6.91	*12.26*
1985	1.50	1.50	1.70	1.88	2.41	2.41	2.41	2.88	3.58	3.76	5.39	7.37	*12.85*
1986	4.74	6.39	7.86	8.24	8.91	10.22	10.96	11.05	11.05	12.01	12.49	20.39	*30.48*
1987	1.43												
1988	2.00												
1989													

Rainfall Depth-Duration-Frequency for San Luis Obispo Poly

7/26/93 12:42 PM

DWR # T10 7851 00 San Luis Obispo County Lat 35.306°
Analysis By Jim Goodridge 916 345 3106 Long -121.663°
Data from : DWR & CD 30S/12E-23 Elev 300'

Maximum Rainfall For Indicated Number Of Concecutive Days

	1	2	3	4	5	6	8	10	15	20	30	60	W-YR
1990													
1991													
1992													
1993													
Average	2.65	3.63	4.33	4.65	5.02	5.26	5.97	6.45	7.35	8.00	9.66	13.90	22.89
Stdev	1.10	1.84	2.37	2.55	2.69	2.88	3.70	3.73	4.21	4.34	4.98	8.05	10.57
Rec Max	5.90	10.53	12.99	13.68	13.68	15.26	21.80	22.07	23.99	24.63	27.57	41.33	54.62
Yrs Rec	40	38	38	38	38	38	38	38	38	38	38	38	38
Z	2.87	4.11	4.13	3.95	3.43	3.71	4.98	4.70	4.42	4.08	3.72	3.92	3.22
CV	.417	.506	.547	.548	.537	.546	.619	.579	.573	.543	.515	.579	.462
Reg CV	.429	.463	.485	.491	.503	.512	.532	.516	.512	.510	.498	.503	.431
Reg Skew	1.3	1.4	1.3	1.2	1.2	1.3	1.5	1.4	1.3	1.4	1.4	1.4	1.2
FIC	1.14	1.07	1.04	1.02	1.01	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RP 2	2.74	3.48	4.04	4.29	4.57	4.70	5.21	5.70	6.56	7.08	8.58	12.32	20.96
RP 5	3.95	5.15	6.07	6.45	6.93	7.20	8.17	8.79	10.05	10.87	13.05	18.83	30.12
RP 10	4.75	6.29	7.42	7.87	8.48	8.87	10.21	10.90	12.39	13.45	16.11	23.26	36.11
RP 25	5.74	7.70	9.10	9.61	10.39	10.94	12.80	13.53	15.28	16.67	19.90	28.77	43.48
RP 50	6.47	8.74	10.32	10.86	11.76	12.45	14.69	15.45	17.38	19.03	22.68	32.81	48.79
RP 100	7.17	9.76	11.50	12.08	13.09	13.92	16.56	17.33	19.43	21.33	25.40	36.76	53.95
RP 200	7.86	10.76	12.67	13.27	14.39	15.35	18.40	19.18	21.44	23.60	28.08	40.66	59.00
RP 500	8.73	12.03	14.14	14.76	16.02	17.17	20.76	21.54	23.97	26.49	31.48	45.60	65.28
RP 1000	9.43	13.04	15.31	15.96	17.33	18.62	22.61	23.40	25.99	28.77	34.18	49.51	70.38
RP 10000	11.61	16.23	18.99	19.68	21.40	23.16	28.52	29.30	32.33	36.01	42.72	61.92	86.14

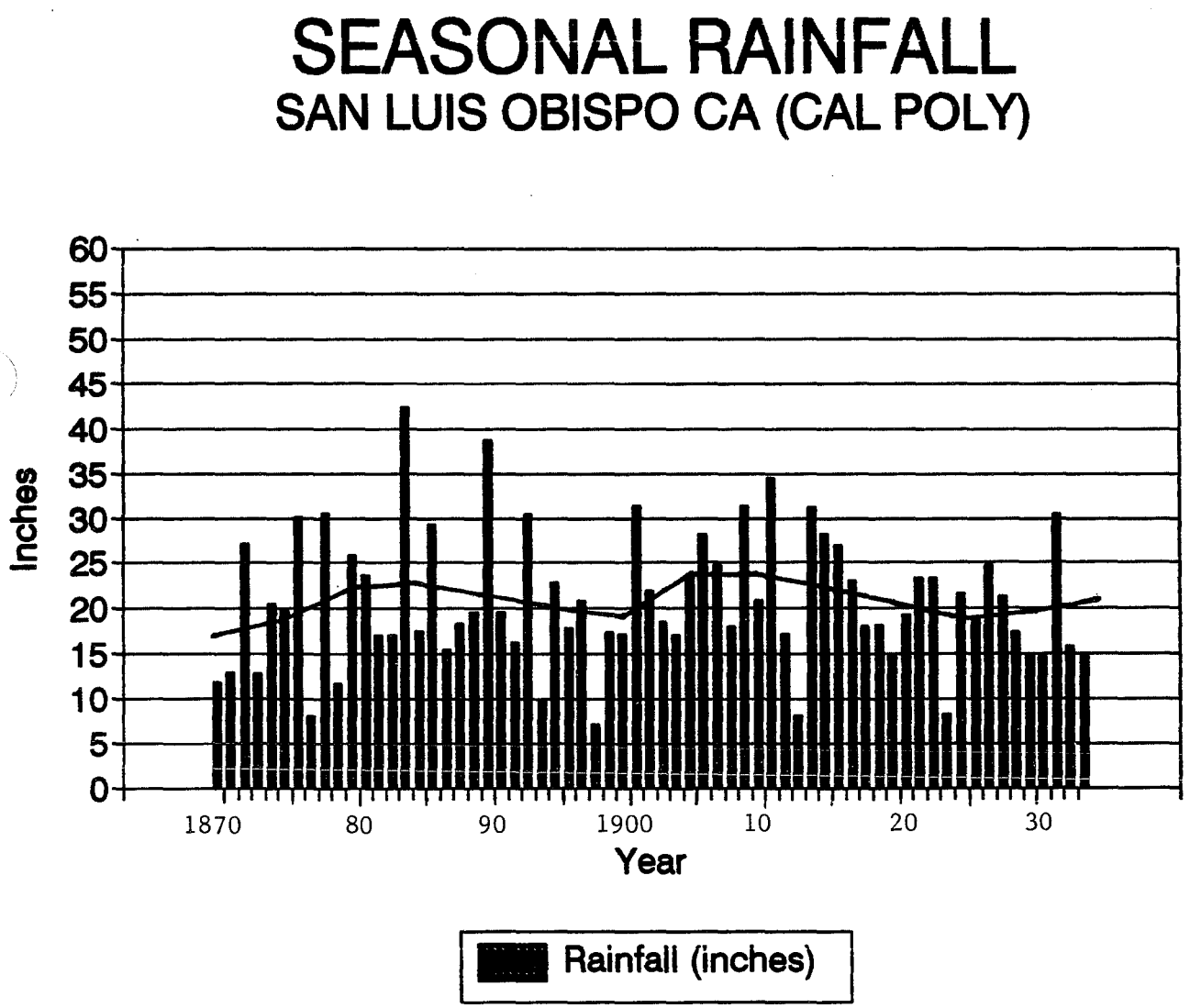


TABLE 7. Seasonal rainfall at San Luis Obispo CA (Cal Poly)
1869-70 to 1933-34
Ten year averages computed at five year intervals

SEASONAL RAINFALL
SAN LUIS OBISPO CA (CAL POLY)

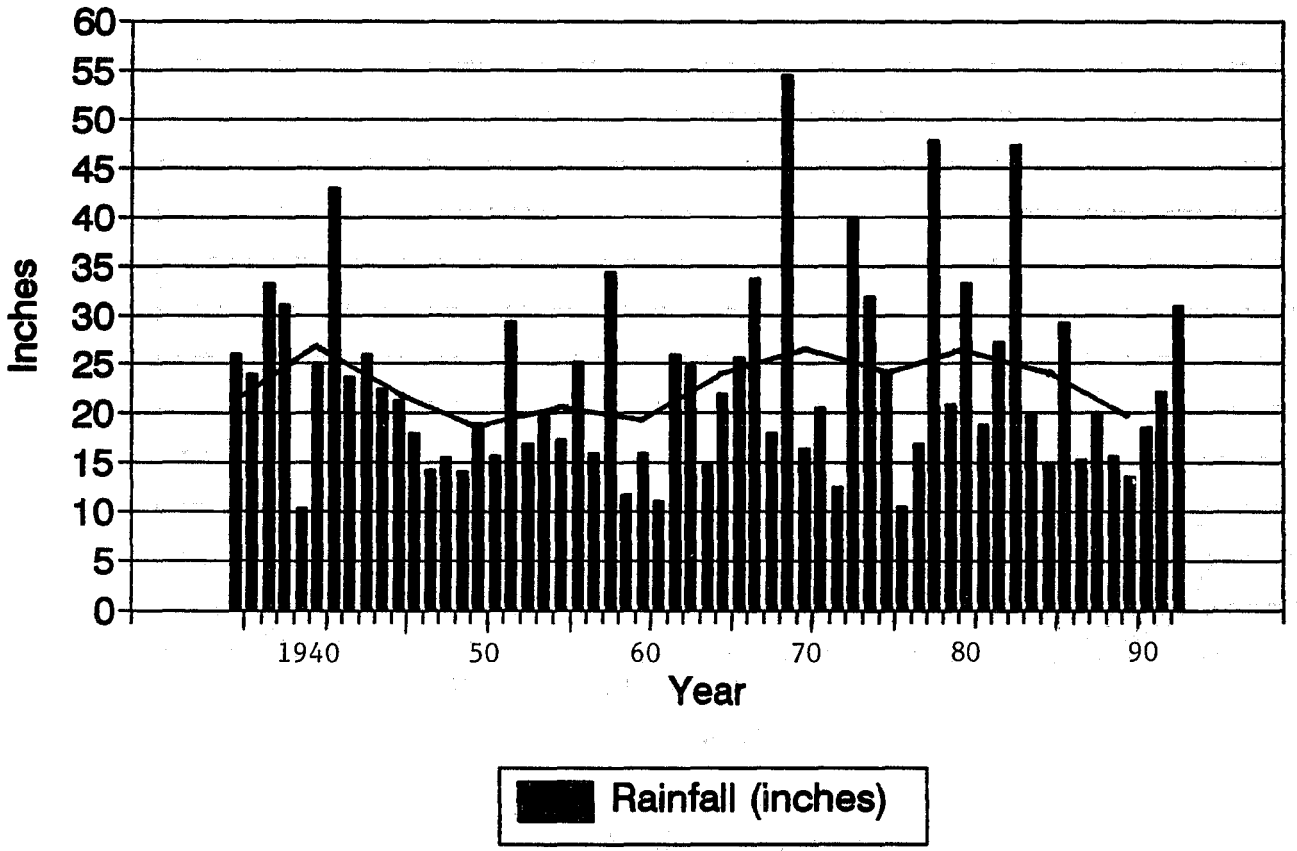


TABLE 7. Seasonal rainfall at San Luis Obispo CA (Cal Poly)
1934-35 to 1992-93
Ten year averages computed at five year intervals

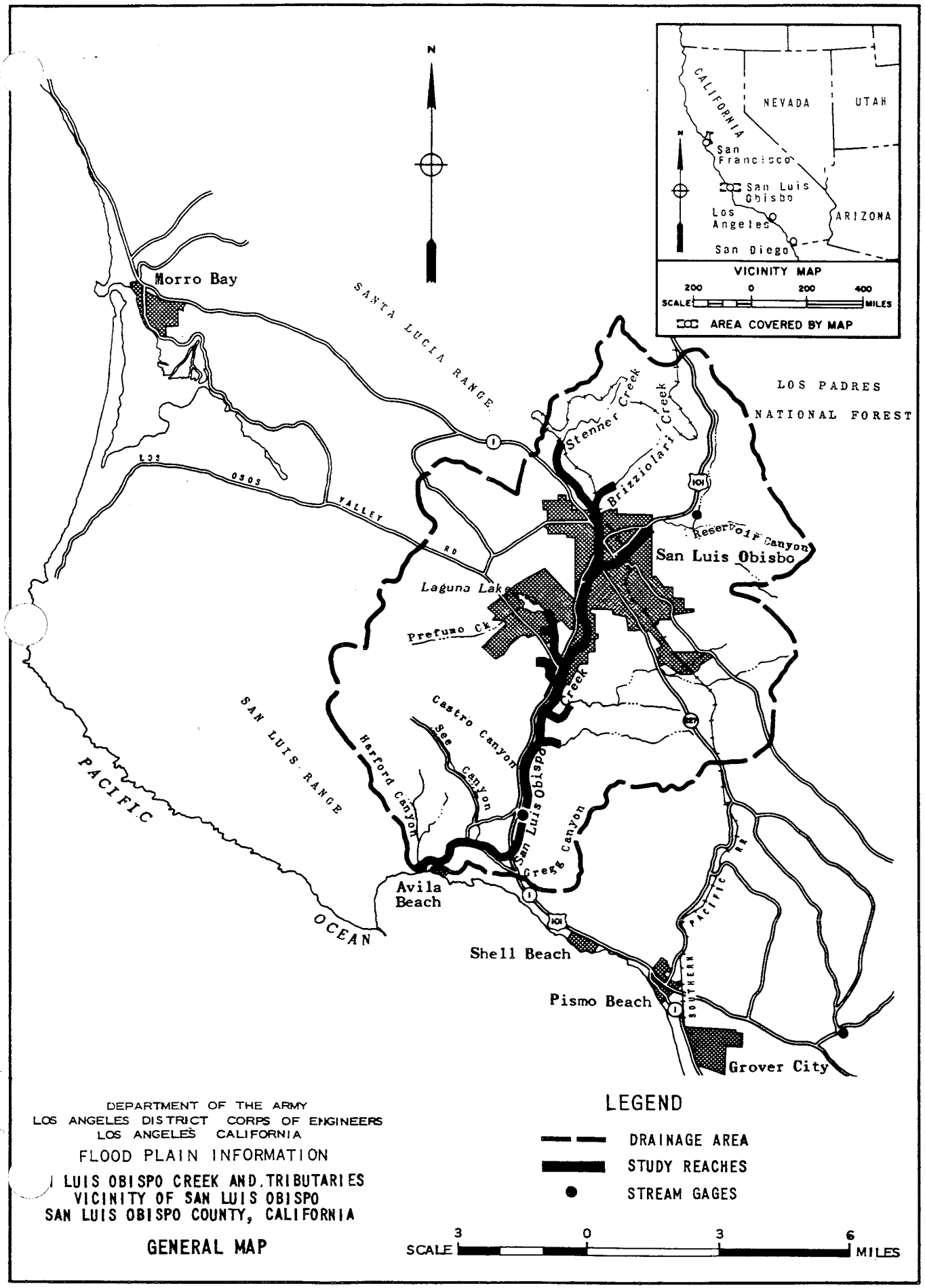
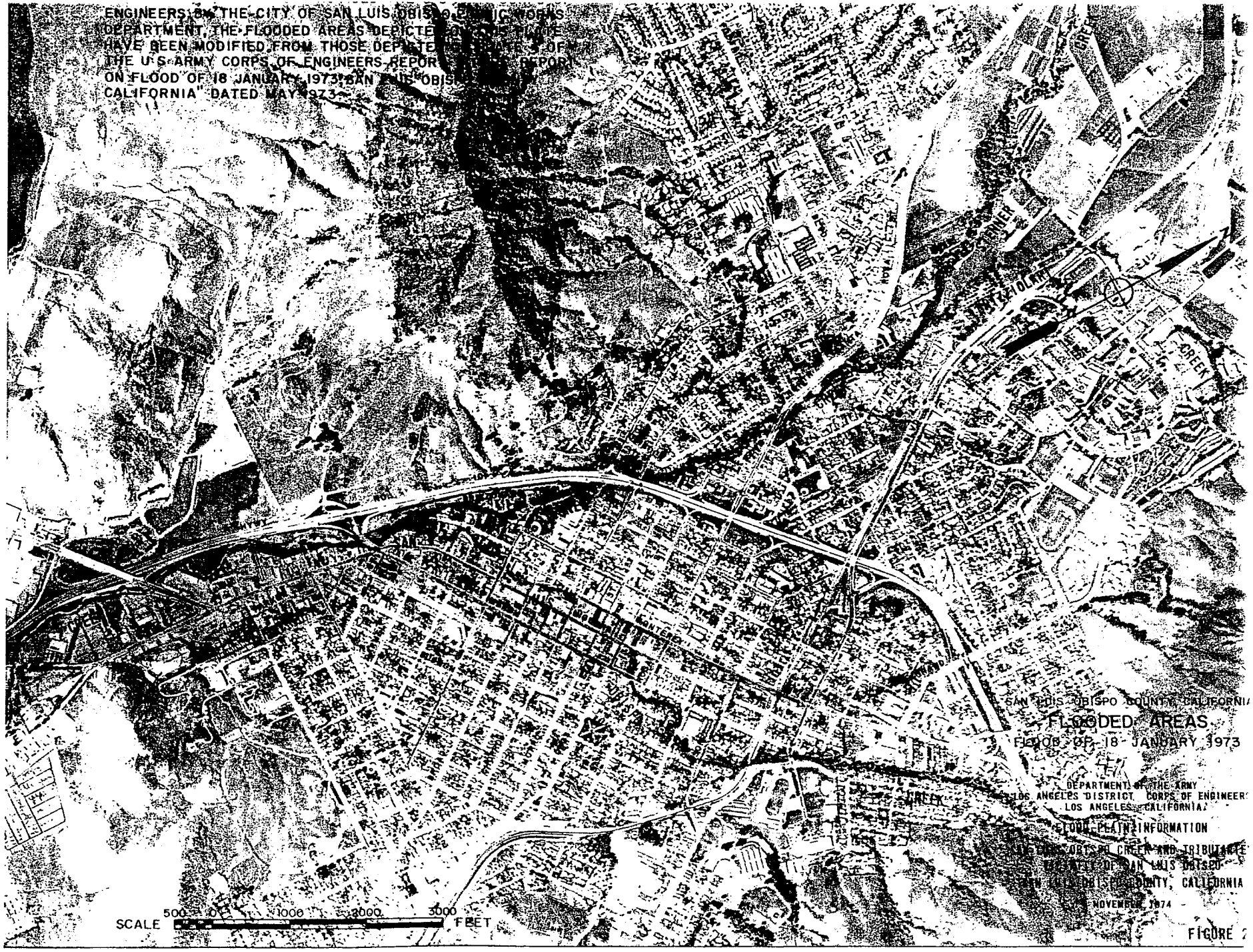
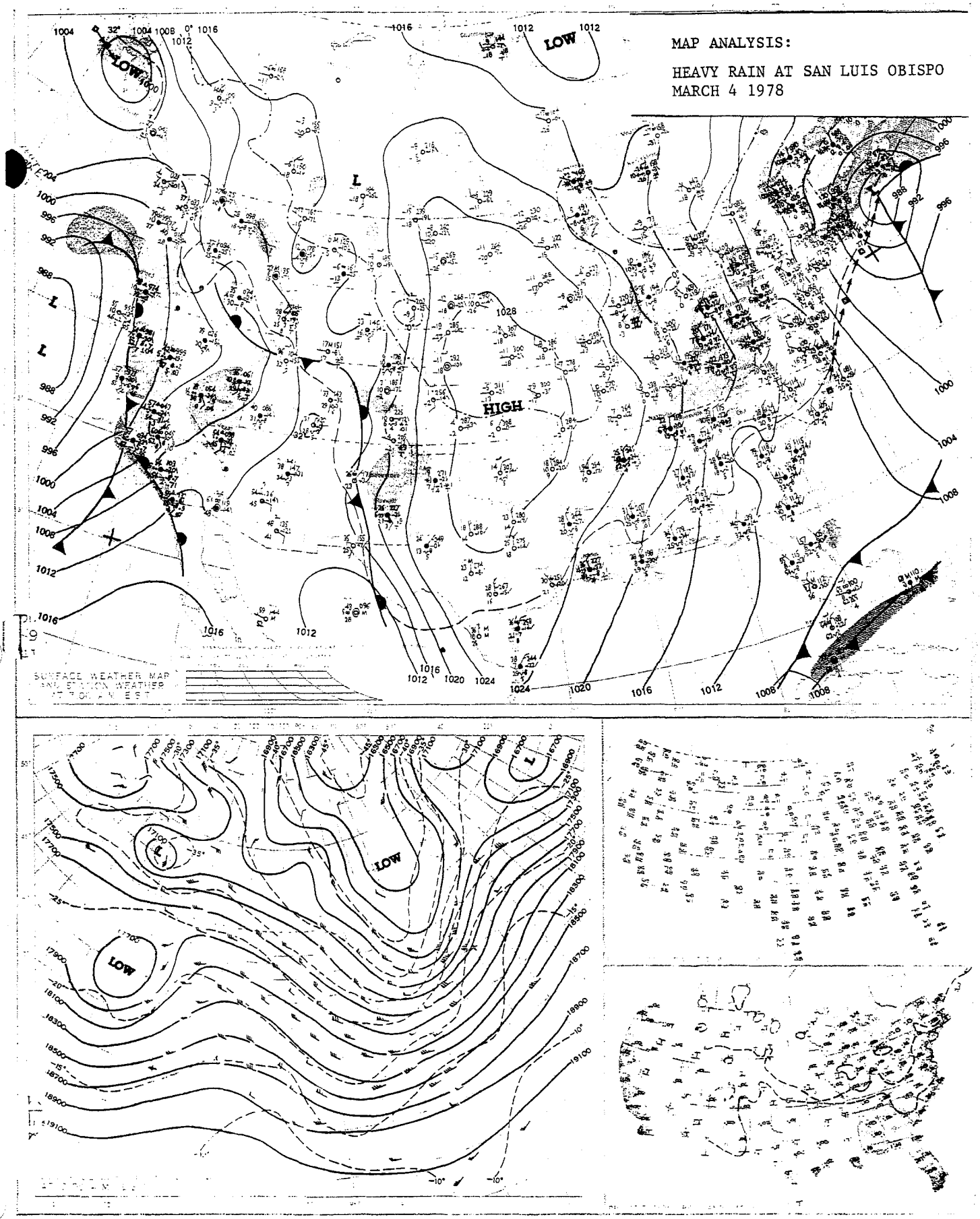

N
CALIFORNIA
NEVADA
UTAH
ARIZONA
San Francisco
San Luis Obisbo
Los Angeles
San Diego
VICINITY MAP
200 0 200 400
SCALE MILES
AREA COVERED BY MAP
Morro Bay
SANTA LUCIA RANGE
LOS PADRES
NATIONAL FOREST
Los Osos Valley Rd
Stenner Creek
Brizziolari Creek
Reservoir Canyon
San Luis Obisbo
Laguna Lake
Prefumo Ck.
San Luis Obispo Creek
Castro Canyon
See Canyon
Harford Canyon
Gregg Canyon
SAN LUIS RANGE
PACIFIC
OCEAN
Avila Beach
Shell Beach
Pismo Beach
Grover City
Pacific Ave
Southern Pacific RR
DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT CORPS OF ENGINEERS
LOS ANGELES CALIFORNIA
FLOOD PLAIN INFORMATION
SAN LUIS OBISPO CREEK AND TRIBUTARIES
VICINITY OF SAN LUIS OBISPO
SAN LUIS OBISPO COUNTY, CALIFORNIA
GENERAL MAP
LEGEND
DRAINAGE AREA
STUDY REACHES
STREAM GAGES
SCALE 3 0 3 6 MILES

PLATE 1

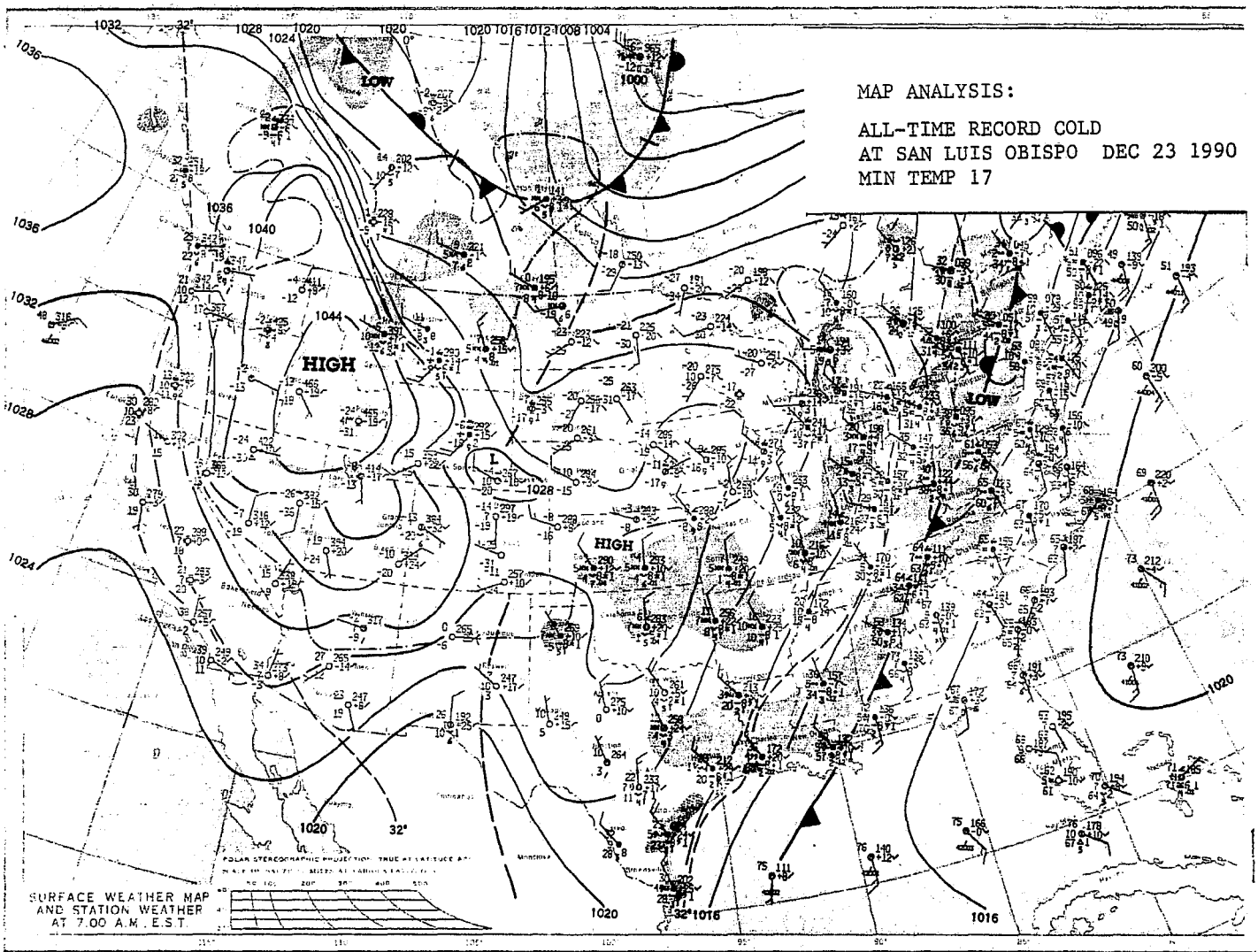


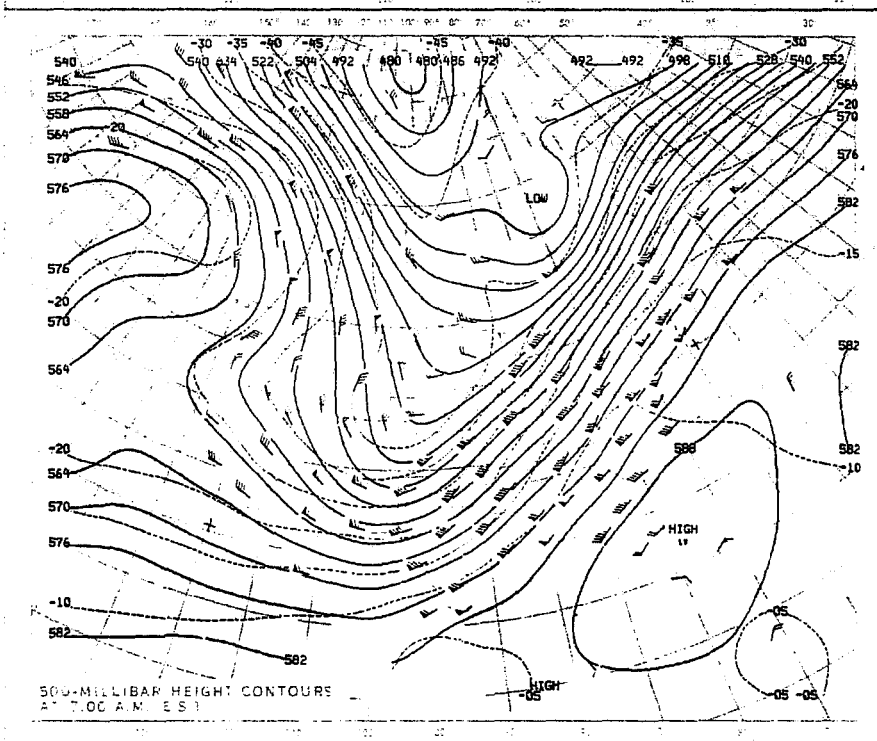
Flood Plain Map
Plate 2

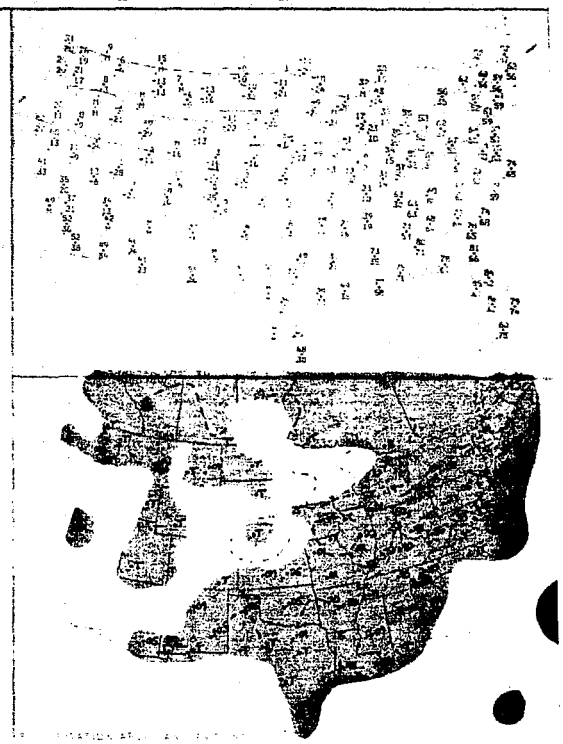
Plate 3


MAP ANALYSIS:
HEAVY RAIN AT SAN LUIS OBISPO
MARCH 4 1978
LOW
HIGH
SURFACE WEATHER MAP

SUNDAY, DECEMBER 23, 1990







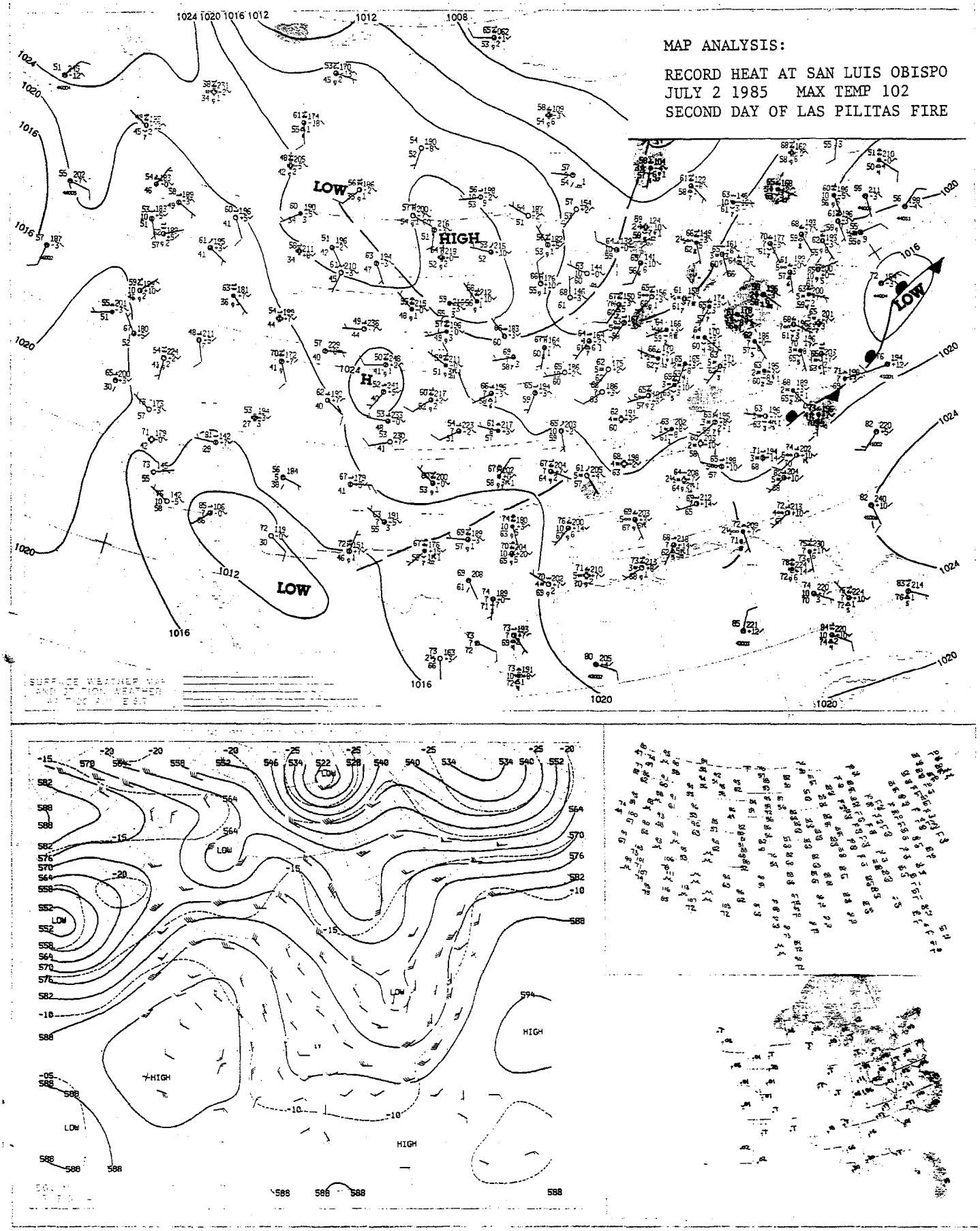

MAP ANALYSIS:
RECORD HEAT AT SAN LUIS OBISPO
JULY 2 1985 MAX TEMP 102
SECOND DAY OF LAS PILITAS FIRE
LOW
HIGH
LOW
LOW
HIGH
HIGH
HIGH
LOW
LOW
LOW
LOW
LOW

TABLE 8

SUNRISE AND SUNSET AT SANTA MARIA, CALIFORNIA

NO. 1046

PACIFIC STANDARD TIME

DAY	JAN.		FEB.		MAR.		APR.		MAY		JUNE		JULY		AUG.		SEPT.		OCT.		NOV.		DEC.	
	Rise A.M.	Set P.M.	Rise A.M.	Set P.M.	Rise A.M.	Set P.M.	Rise A.M.	Set P.M.	Rise A.M.	Set P.M.	Rise A.M.	Set P.M.	Rise A.M.	Set P.M.	Rise A.M.	Set P.M.	Rise A.M.	Set P.M.	Rise A.M.	Set P.M.	Rise A.M.	Set P.M.	Rise A.M.	Set P.M.
1	7 10	5 01	7 01	5 31	6 32	5 57	5 49	6 23	5 11	6 47	4 49	7 10	4 52	7 19	5 11	7 05	5 34	6 29	5 56	5 46	6 22	5 08	6 51	4 50
2	7 10	5 02	7 00	5 32	6 30	5 58	5 48	6 24	5 10	6 48	4 49	7 11	4 52	7 19	5 12	7 04	5 35	6 27	5 57	5 45	6 23	5 07	6 52	4 50
3	7 10	5 03	6 59	5 33	6 29	5 59	5 46	6 24	5 09	6 48	4 49	7 11	4 52	7 19	5 13	7 03	5 36	6 26	5 58	5 43	6 24	5 06	6 53	4 50
4	7 10	5 04	6 58	5 34	6 28	6 00	5 45	6 25	5 08	6 49	4 48	7 12	4 53	7 19	5 13	7 02	5 36	6 25	5 59	5 42	6 25	5 05	6 54	4 50
5	7 10	5 05	6 58	5 35	6 26	6 01	5 44	6 26	5 07	6 50	4 48	7 12	4 53	7 19	5 14	7 01	5 37	6 23	5 59	5 41	6 26	5 04	6 55	4 50
6	7 10	5 05	6 57	5 36	6 25	6 02	5 42	6 27	5 06	6 51	4 48	7 13	4 54	7 19	5 15	7 00	5 38	6 22	6 00	5 39	6 27	5 03	6 55	4 50
7	7 10	5 06	6 56	5 37	6 24	6 03	5 41	6 28	5 05	6 52	4 48	7 13	4 54	7 19	5 16	6 59	5 39	6 20	6 01	5 38	6 28	5 02	6 56	4 50
8	7 10	5 07	6 55	5 38	6 22	6 03	5 40	6 28	5 04	6 52	4 48	7 14	4 55	7 18	5 16	6 58	5 39	6 19	6 02	5 36	6 29	5 02	6 57	4 50
9	7 10	5 08	6 54	5 39	6 21	6 04	5 38	6 29	5 04	6 53	4 48	7 14	4 55	7 18	5 17	6 57	5 40	6 18	6 03	5 35	6 30	5 01	6 58	4 50
10	7 10	5 09	6 53	5 40	6 20	6 05	5 37	6 30	5 03	6 54	4 48	7 15	4 56	7 18	5 18	6 56	5 41	6 16	6 03	5 34	6 31	5 00	6 59	4 51
11	7 10	5 10	6 52	5 41	6 18	6 06	5 35	6 31	5 02	6 55	4 47	7 15	4 57	7 17	5 19	6 55	5 42	6 15	6 04	5 32	6 32	4 59	6 59	4 51
12	7 10	5 11	6 51	5 42	6 17	6 07	5 34	6 32	5 01	6 56	4 47	7 16	4 57	7 17	5 19	6 54	5 42	6 13	6 05	5 31	6 33	4 59	7 00	4 51
13	7 10	5 12	6 50	5 43	6 16	6 08	5 33	6 32	5 00	6 56	4 47	7 16	4 58	7 17	5 20	6 53	5 43	6 12	6 06	5 30	6 34	4 58	7 01	4 51
14	7 10	5 13	6 49	5 44	6 14	6 08	5 32	6 33	4 59	6 57	4 47	7 17	4 58	7 16	5 21	6 51	5 44	6 10	6 07	5 29	6 35	4 57	7 01	4 52
15	7 09	5 14	6 48	5 45	6 13	6 09	5 30	6 34	4 59	6 58	4 47	7 17	4 59	7 16	5 22	6 50	5 44	6 09	6 07	5 27	6 36	4 57	7 02	4 52
16	7 09	5 15	6 47	5 45	6 11	6 10	5 29	6 35	4 58	6 59	4 48	7 17	5 00	7 15	5 22	6 49	5 45	6 08	6 08	5 26	6 37	4 56	7 03	4 52
17	7 09	5 16	6 46	5 46	6 10	6 11	5 28	6 36	4 57	7 00	4 48	7 18	5 00	7 15	5 23	6 48	5 46	6 06	6 09	5 25	6 38	4 55	7 03	4 52
18	7 08	5 17	6 45	5 47	6 09	6 12	5 26	6 36	4 56	7 00	4 48	7 18	5 01	7 14	5 24	6 47	5 47	6 05	6 10	5 24	6 39	4 55	7 04	4 53
19	7 08	5 17	6 44	5 48	6 07	6 13	5 25	6 37	4 56	7 01	4 48	7 18	5 02	7 14	5 25	6 46	5 47	6 03	6 11	5 22	6 40	4 54	7 05	4 53
20	7 08	5 18	6 42	5 49	6 06	6 13	5 24	6 38	4 55	7 02	4 48	7 18	5 02	7 13	5 25	6 44	5 48	6 02	6 12	5 21	6 41	4 54	7 05	4 54
21	7 07	5 19	6 41	5 50	6 04	6 14	5 23	6 39	4 54	7 03	4 48	7 19	5 03	7 13	5 26	6 43	5 49	6 00	6 13	5 20	6 42	4 53	7 06	4 54
22	7 07	5 20	6 40	5 51	6 03	6 15	5 22	6 40	4 54	7 03	4 49	7 19	5 04	7 12	5 27	6 42	5 50	5 59	6 13	5 19	6 43	4 53	7 06	4 55
23	7 06	5 21	6 39	5 52	6 02	6 16	5 20	6 40	4 53	7 04	4 49	7 19	5 05	7 11	5 28	6 41	5 50	5 58	6 14	5 18	6 44	4 53	7 07	4 55
24	7 06	5 23	6 38	5 53	6 00	6 17	5 19	6 41	4 53	7 05	4 49	7 19	5 05	7 11	5 28	6 39	5 51	5 56	6 15	5 16	6 45	4 52	7 07	4 56
25	7 05	5 24	6 37	5 54	5 59	6 17	5 18	6 42	4 52	7 05	4 49	7 19	5 06	7 10	5 29	6 38	5 52	5 55	6 16	5 15	6 46	4 52	7 07	4 56
26	7 05	5 25	6 35	5 55	5 57	6 18	5 17	6 43	4 52	7 06	4 50	7 19	5 07	7 09	5 30	6 37	5 53	5 53	6 17	5 14	6 46	4 52	7 08	4 57
27	7 04	5 26	6 34	5 56	5 56	6 19	5 16	6 44	4 51	7 07	4 50	7 19	5 07	7 09	5 31	6 35	5 53	5 52	6 18	5 13	6 47	4 51	7 08	4 58
28	7 03	5 27	6 33	5 57	5 55	6 20	5 15	6 44	4 51	7 07	4 50	7 19	5 08	7 08	5 31	6 34	5 54	5 50	6 19	5 12	6 48	4 51	7 09	4 58
29	7 03	5 28	6 33	5 57	5 53	6 21	5 14	6 45	4 50	7 08	4 51	7 19	5 09	7 07	5 32	6 33	5 55	5 49	6 20	5 11	6 49	4 51	7 09	4 59
30	7 02	5 29			5 52	6 21	5 12	6 46	4 50	7 09	4 51	7 19	5 10	7 06	5 33	6 31	5 56	5 48	6 21	5 10	6 50	4 51	7 09	5 00
31	7 01	5 30			5 50	6 22			4 50	7 09			5 10	7 05	5 34	6 30			6 22	5 09			7 09	5 00

Add one hour for Daylight Saving Time if and when in use.

I certify that the above data are the result of an accurate and true computation by the Nautical Almanac Office, United States Naval Observatory, an agency charged by Federal Statute (9 Stat. L, 374, 375) with the duty of making such computations and publishing the results.

E. W. WOOLARD
Director Nautical Almanac
U. S. Naval Observatory

C. G. CHRISTIE
Captain, USN
Superintendent
U. S. Naval Observatory

142 The Usefulness of Data from Mountaintop Fire Lookout Stations in Determining Atmospheric Stability. Jonathan W. Corey, April 1979. (PB298899/AS)
143 The Depth of the Marine Layer at San Diego as Related to Subsequent Cool Season Precipitation Episodes in Arizona. Ira S. Brenner, May 1979. (PB298817/AS)
144 Arizona Cool Season Climatological Surface Wind and Pressure Gradient Study. Ira S. Brenner, May 1979. (PB298900/AS)
146 The BART Experiment. Morris S. Webb, October 1979. (PB80 155112)
147 Occurrence and Distribution of Flash Floods in the Western Region. Thomas L. Dietrich, December 1979. (PB80 160344)
149 Misinterpretations of Precipitation Probability Forecasts. Allan H. Murphy, Sarah Lichtenstein, Baruch Fischhoff, and Robert L. Winkler, February 1980. (PB80 174576)
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151 NMC Model Performance in the Northeast Pacific. James E. Overland, PMEL-ERL, April 1980. (PB80 196033)
152 Climate of Salt Lake City, Utah. Wilbur E. Figgins (Retired) and Alexander R. Smith. Fifth Revision, July 1992. (PB92 220177)
153 An Automatic Lightning Detection System in Northern California. James E. Rea and Chris E. Fontana, June 1980. (PB80 225592)
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158 Hydrology Practicum. Thomas Dietrich, September 1980. (PB81 134033)
159 Tropical Cyclone Effects on California. Arnold Court, October 1980. (PB81 133779)
160 Eastern North Pacific Tropical Cyclone Occurrences During Intraseasonal Periods. Preston W. Leftwich and Gail M. Brown, February 1981. (PB81 205494)
161 Solar Radiation as a Sole Source of Energy for Photovoltaics in Las Vegas, Nevada, for July and December. Darryl Randerson, April 1981. (PB81 224503)
162 A Systems Approach to Real-Time Runoff Analysis with a Deterministic Rainfall-Runoff Model. Robert J.C. Burnash and R. Larry Ferral, April 1981. (PB81 224495)
163 A Comparison of Two Methods for Forecasting Thunderstorms at Luke Air Force Base, Arizona. LTC Keith R. Cooley, April 1981. (PB81 225393)
164 An Objective Aid for Forecasting Afternoon Relative Humidity Along the Washington Cascade East Slopes. Robert S. Robinson, April 1981. (PB81 23078)
165 Annual Data and Verification Tabulation, Eastern North Pacific Tropical Storms and Hurricanes 1980. Emil B. Gunther and Staff, May 1981. (PB82 230336)
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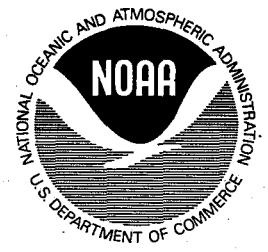

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