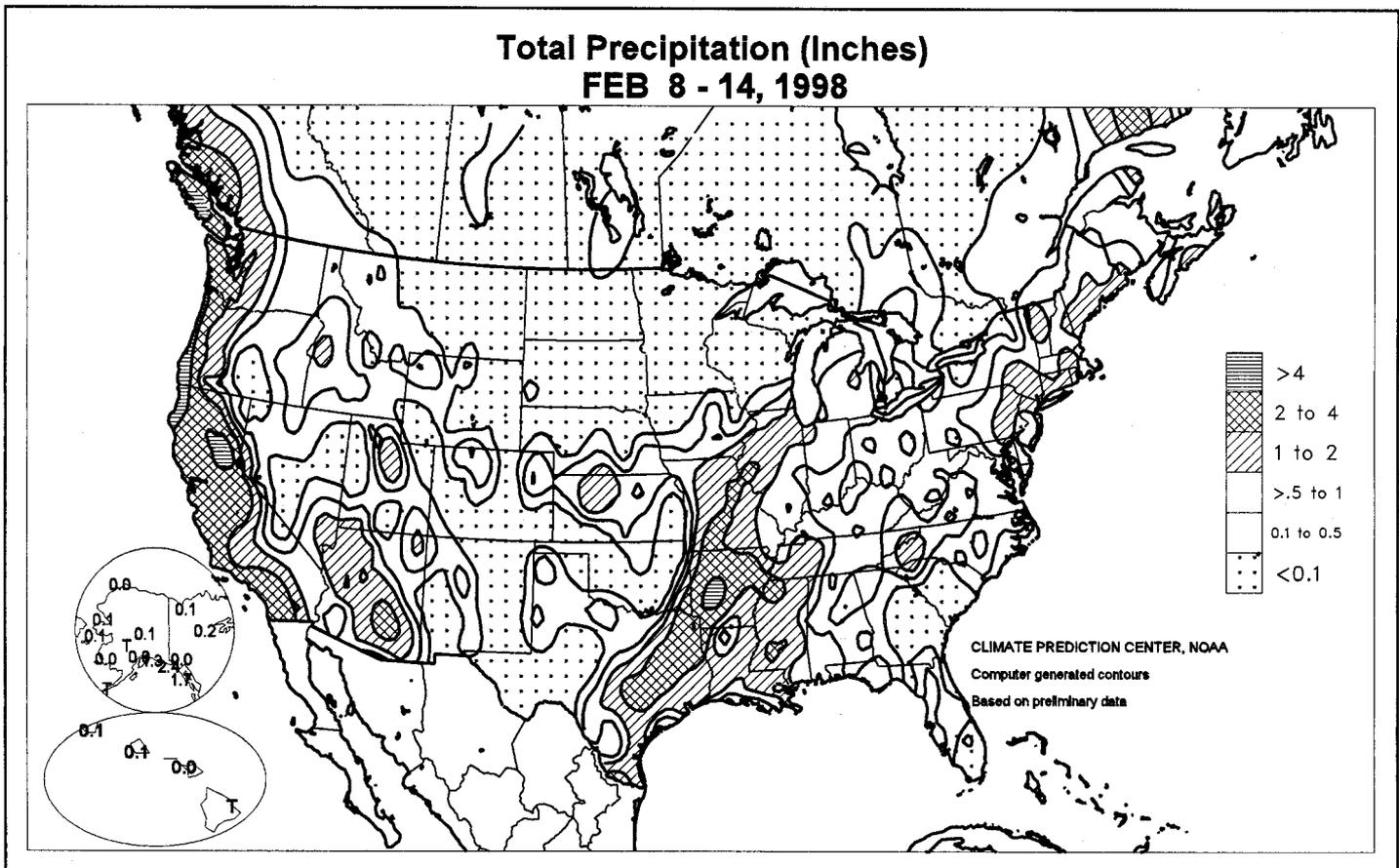


WEEKLY WEATHER AND CROP BULLETIN

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service

U.S. DEPARTMENT OF AGRICULTURE
National Agricultural Statistics Service
and World Agricultural Outlook Board



HIGHLIGHTS

February 8 - 14, 1998

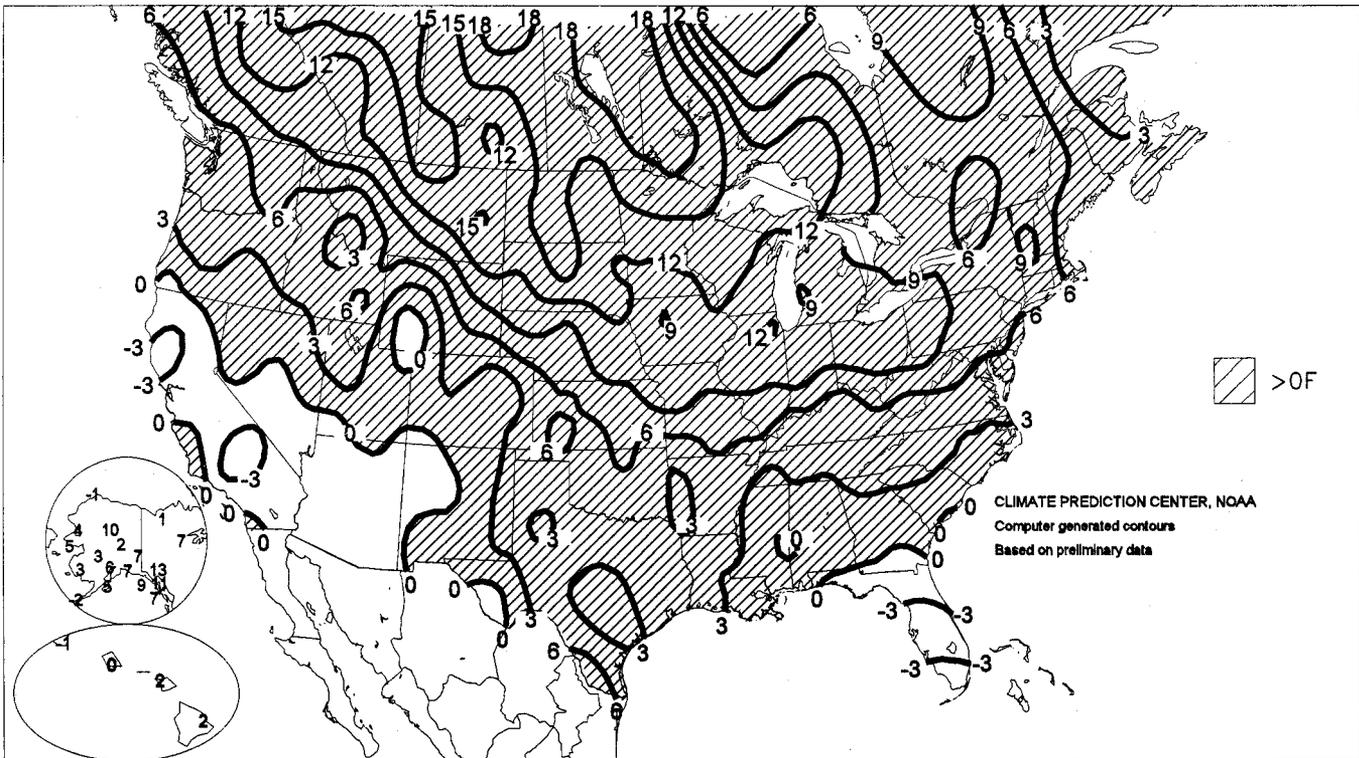
Another four storms moved ashore on the West Coast, causing additional flooding and fieldwork delays in California. The first of the four systems also delivered heavy precipitation--mostly rain--from the western Gulf Coast to Lake Michigan. The last storm affected southern Texas at week's end, easing recent dryness but delaying spring fieldwork. Most of the Southeast received only light precipitation, allowing for recovery from recent weeks' downpours. Dry spells continued on the northern Plains (4 months) and in Hawaii (more than 3 months). Very mild weather continued across the North for the fourth consecutive week, as weekly departures ranged from +3 to +17°F. In contrast, readings averaged as much as 3°F below normal in California and Florida.

(Continued on page 3)

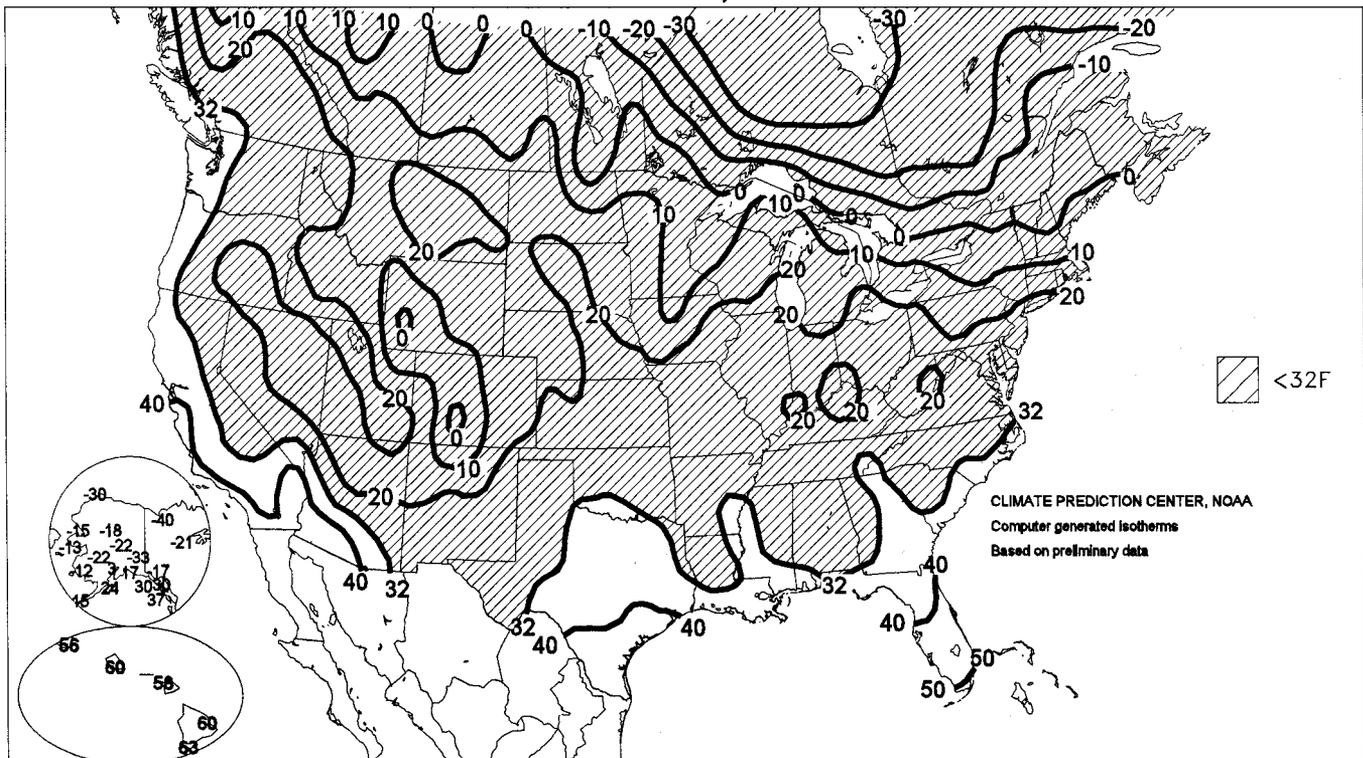
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Departure of Average Temperature from Normal (°F) FEB 8 - 14, 1998



Extreme Minimum Temperature (°F) FEB 8 - 14, 1998



(Continued from front cover)

More than a half-dozen daily-record highs were scattered across the North during the week, including 46°F in **International Falls, MN** on Sunday, 54°F in **Youngstown, OH** on Wednesday, and 49°F in **Glasgow, MT** on Saturday. Near- to above-normal temperatures also prevailed in **Alaska** (departures from -2 to +10°F) and **Hawaii** (-1 to +2°F), where warmth exacerbated already dry conditions. On Thursday, **Kahului's** high of 89°F tied their February record set in 1961. From November 1, 1997, to February 14, 1998, rainfall was only 42 percent (%) of normal in **Hilo** and 20% in **Honolulu**. Less than a quarter-inch (1% of normal) of rain fell in **Hilo** during the first 45 days of 1998. In **Alaska**, **Juneau** notched three consecutive daily records from February 10-12 (47, 43, and 46°F, respectively).

By week's end, streaks of above-normal temperatures stretched to 31 consecutive days in **LaCrosse, WI**, 27 days in **Des Moines, IA**, and 26 days in **Indianapolis, IN**. Although a 22-day run of above-normal temperatures ended on Saturday in **Buffalo, NY**, **Lake Erie** remained totally ice-free into mid-February for only the fifth time on record. The lake eventually froze in 1932 and 1950, but remained unfrozen in 1953 and 1983.

On Monday, **Goodland, KS** netted a daily-record precipitation total (0.53 inch, including 0.4 inch of snow). A day later, **Little Rock, AR** (3.06 inches) noted a daily-record total. Heavy rain continued through Wednesday in the **Midwest**, where **Columbia, MO** (1.44 inches) and **Peoria,**

IL (1.40 inches) logged daily records. With a 1.14-inch rainfall on the 11th, **Moline, IL** received a February-record, single-day total. Farther east, soils remained saturated in the **Southeast** despite a break from heavy rainfall. In **Roanoke, VA**, more rain fell during the first 48 days of this year (more than 14 inches) than during the first 167 days of 1997 (through June 16). Meanwhile in **Brownsville, TX**, 1.17 inches of rain fell on Saturday, topping their precipitation total (0.99 inch; 29% of normal) during the previous 75 days (since December 1, 1997).

Along the **West Coast**, the series of storms generated high winds and heavy surf. In **Oregon**, wind gusts on **Cape Blanco** were clocked at 82 mph on Sunday, 83 mph on Tuesday, and 86 mph on Thursday. In **central California**, the month's first-half rainfall in **San Jose** was 7.77 inches, toppling their former February record of 7.02 inches, set in 1915. Downtown **San Francisco's** month-to-date rainfall reached 10.72 inches by week's end, second only to a 12.52-inch total in 1878. By mid-February, season-to-date rainfall ranged from 150 to 250% of normal statewide, up from 100 to 200% at the end of January. The water content of the **Sierra Nevada** snowpack stood at 34 inches (155% of normal) on February 15, up from 20 inches (107%) at the end of January and 9 inches (74%) on January 1, 1998. Heavy precipitation also fell in the **Southwest**, including heavy snow in the mountains. On **Arizona's Mt. Lemmon**, near **Tucson**, 24-hour snowfalls totaled 20 inches on February 8-9 and 14 inches on February 14-15, boosting their snow depth to 74 inches.

U.S. Crop Production Highlights

The following information was released by USDA's Agricultural Statistics Board on February 11, 1998. Forecasts refer to February 1.

All oranges production for the 1997-98 season remains unchanged from the January forecast at a record-large 14.3 million tons, up 12 percent from last season's record production. Florida's production is forecast at 254 million boxes (11.4 million tons), unchanged from January but 12 percent above last season. Florida's early-midseason and

Valencia forecasts also remained unchanged from last month and are each record-large crops. Early and midseason varieties are expected to produce 146 million boxes (6.57 million tons), 9 percent above last year. The Valencia forecast is 108 million boxes (4.86 million tons), 17 percent above a year ago.

California: Heavy Precipitation Highlights

North/Central: Storminess intensified across northern and central California in early- to mid-January, setting the stage for the latest series of storms and flooding in late-January and February. A February rainfall record has already been established in San Jose (8.13 inches to date). Downtown San Francisco has received 11.24 inches, their second-highest February total. Since river flooding peaked in the San Francisco Bay area on February 3, frequent rains have caused additional minor flooding, numerous

mudslides, and agricultural fieldwork delays.

South: After an active start to the wet season in November and early-December, southern California escaped major episodes of storminess from mid-December to late-January. Since then, heavy rainfall has caused flash flooding and delayed agricultural operations during three primary periods: February 2-3, 6-8, and 14-17.

California: Season-to-Date Precipitation (Inches)

July 1, 1997 - February 17, 1998

San Joaquin Valley

<u>Location</u>	<u>Total</u>	<u>Normal</u>	<u>Pct. of Normal</u>	<u>July 1 - June 30 Normal</u>
Bakersfield	7.75	3.37	230%	5.72
Fresno	10.94	6.65	165	10.60

Sacramento Valley

<u>Location</u>	<u>Total</u>	<u>Normal</u>	<u>Pct. of Normal</u>	<u>July 1 - June 30 Normal</u>
Redding	43.93	23.36	188%	33.30
Sacramento	22.89	13.07	175	18.61

North Coast

<u>Location</u>	<u>Total</u>	<u>Normal</u>	<u>Pct. of Normal</u>	<u>July 1 - June 30 Normal</u>
Eureka	39.72	25.52	156%	37.53

S.F. Bay Area

<u>Location</u>	<u>Total</u>	<u>Normal</u>	<u>Pct. of Normal</u>	<u>July 1 - June 30 Normal</u>
Oakland	35.60	14.91	239%	21.79
SFO Airport	29.80	13.79	216	19.70
San Francisco	34.98	14.39	243	20.52
San Jose	21.14	9.59	220	14.42
Santa Rosa	38.02	22.00	173	30.30

South Coast

<u>Location</u>	<u>Total</u>	<u>Normal</u>	<u>Pct. of Normal</u>	<u>July 1 - June 30 Normal</u>
L.A. Civic Center	17.55	9.71	181	14.77
San Diego	11.84	6.45	184	9.90

Notes:

✓ Even with no more rainfall, 1997-98 seasonal precipitation will be above normal statewide.

✓ February-record rainfall:

Location: San Jose

February 1-17 Total:

8.13 inches

Former Record/Year:

7.02 inches in 1915

✓ Near-record February rainfall:

Location: San Francisco

February 1-17 Total:

11.24 inches

February Record/Year:

12.52 inches in 1878

SNOW PACK: In the Sierra Nevada, water content of the snow pack stood at 34 inches (157% of normal) on February 17, up from 20 inches (107%) at the end of January and 9 inches (74%) on January 1, 1998.

RESERVOIRS: California's network of 155 primary reservoirs, mostly in northern and central areas, were holding less water on January 31, 1998, than a year ago (after the New Year's Floods):

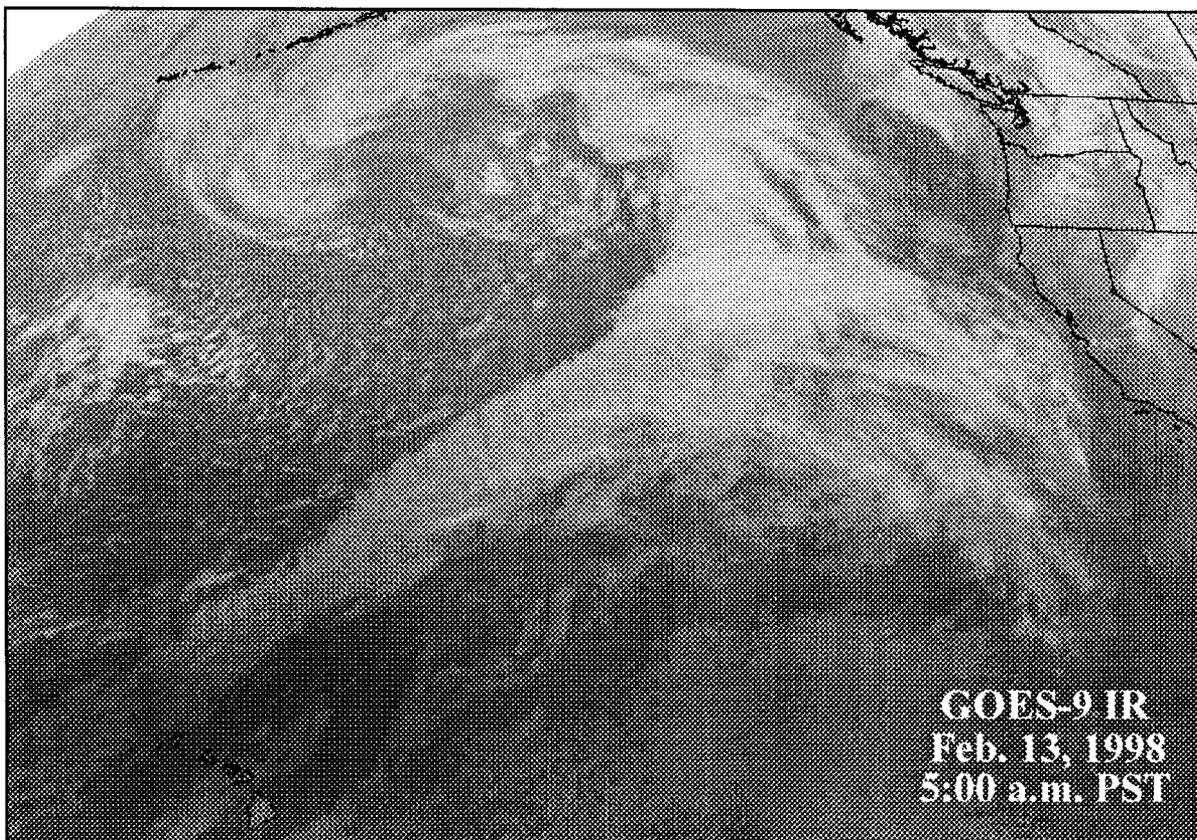
<u>Date</u>	<u>Holdings (bil. gal.)</u>	<u>Average (bil. gal.)</u>	<u>% Normal</u>	<u>% Capacity</u>
Jan. 31, 1998	8.74	7.50	117	71
Dec. 31, 1997 (a month ago)	7.55	7.05	107	62
Jan. 31, 1997 (a year ago)	10.24	7.50	136	83

--compiled from National Weather Service and California's Department of Water Resources reports, February 18, 1998

Hawaii: Dry Weather Continues

Hawaiian Rainfall (Inches)				
<i>November 1997 - January 1998</i>				
<u>Month</u>	<u>Hilo</u>	<u>Honolulu</u>	<u>Kahului</u>	<u>Lihue</u>
Nov. 1997	8.86	0.84	3.10	2.60
Normal	14.51	3.00	2.59	5.45
Dec. 1997	8.10	0.44	1.75	2.39
Normal	12.04	3.80	3.27	5.15
Jan. 1998	0.18*	0.77	0.36	3.33*
Normal	9.88	3.55	4.14	5.89
<hr/>				
Nov. - Jan.	17.14	2.05	5.21	8.32
Normal	36.43	10.35	10.00	16.49
% Normal	47.0%	19.8%	52.1%	50.5%

*Preliminary data from the Climate Prediction Center



Though a steady procession of storm systems has rolled ashore along the West Coast during the last 3 weeks, most of Hawaii has remained very dry. As is typical during El Niño from November to May, Hawaii (lower left) continues to be situated between tropical thunderstorms to the south and the polar jet stream to the north. Since the beginning of 1998, dryness has intensified across much of the State, with significant rainfall confined to the extreme northwestern islands. On the Big Island, less than a quarter-inch of rain (1 percent of normal) fell in Hilo during the first 45 days of the year.

National Weather Data for Selected Cities

Weather Data for the Week Ending February 14, 1998

Data Provided by Climate Prediction Center (301-763-8000 EXT. 7511) and the Southern Regional Climate Center

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP., °F		PRECIP.		
																90 AND ABOVE	82 AND BELOW	01 INCH OR MORE	50 INCH OR MORE	
AL BIRMINGHAM	57	34	66	27	45	1	0.73	-0.40	0.73	16.13	129	12.03	164	95	52	0	4	1	1	
AL HUNTSVILLE	53	35	63	27	44	1	0.05	-1.11	0.04	14.28	107	10.99	147	89	57	0	2	2	0	
AL MOBILE	64	42	69	35	53	0	0.21	-1.11	0.20	22.57	179	18.20	248	89	45	0	2	2	0	
AL MONTGOMERY	62	39	69	32	50	1	0.24	-1.09	0.24	13.49	108	8.98	123	89	44	0	1	1	0	
AK ANCHORAGE	30	17	39	3	24	6	0.00	-0.19	0.00	2.12	93	0.47	40	87	68	0	7	0	0	
AK BARROW	-13	-24	-3	-30	-18	-1	0.00	-0.03	0.00	0.09	30	0.01	6	76	70	0	7	0	0	
AK FAIRBANKS	6	-12	11	-22	-3	2	0.07	-0.04	0.07	2.20	146	0.15	22	85	73	0	7	1	0	
AK JUNEAU	43	34	47	30	39	11	-	-	-	-	-	-	-	94	74	0	1	-	-	
AK KODIAK	38	32	41	24	35	5	-	-	-	-	-	-	-	90	76	0	4	-	-	
AK NOME	18	0	27	-12	9	5	0.08	-0.08	0.06	2.06	104	1.12	100	80	63	0	7	2	0	
AZ FLAGSTAFF	38	18	43	5	28	-3	0.67	0.17	0.33	4.22	78	2.37	78	93	60	0	7	3	0	
AZ PHOENIX	82	47	66	44	54	-3	0.75	0.58	0.46	2.51	128	1.68	170	88	45	0	0	3	0	
AZ PRESCOTT	47	30	52	25	39	0	0.52	0.15	0.20	3.99	104	1.53	68	87	50	0	5	3	0	
AZ TUCSON	61	42	66	39	51	-3	0.59	0.42	0.33	4.74	208	1.86	152	90	43	0	0	2	0	
AZ YUMA	69	51	73	46	60	0	0.08	0.02	0.04	3.47	381	0.68	151	75	36	0	0	3	0	
AR FORT SMITH	56	34	64	29	45	4	1.22	0.62	1.18	13.50	222	9.00	296	95	58	0	2	2	1	
AR LITTLE ROCK	58	37	60	32	47	4	3.27	2.43	3.06	11.99	126	8.24	171	91	53	0	1	3	1	
CA BAKERSFIELD	57	43	61	38	50	-3	0.92	0.66	0.75	5.42	272	4.31	315	96	74	0	0	5	1	
CA EUREKA	57	44	62	37	51	2	4.24	3.06	-	26.21	177	20.48	246	-	-	-	-	6	2	
CA FRESNO	58	44	60	37	50	-1	1.34	0.90	0.79	6.55	153	5.61	196	95	72	0	0	6	1	
CA LOS ANGELES	61	50	63	46	56	-2	2.61	1.98	2.09	16.46	309	12.74	347	96	73	0	0	3	1	
CA REDDING	52	41	56	33	47	-4	3.88	2.78	1.60	27.89	199	24.41	291	96	66	0	0	6	3	
CA SACRAM/MCCLELL	55	46	57	39	51	-	2.28	-	1.24	18.78	-	16.33	-	93	74	0	0	6	2	
CA SAN DIEGO	64	54	67	50	59	0	2.50	2.11	1.41	8.33	199	6.98	271	95	69	0	0	4	2	
CA SAN FRANCISCO	58	47	59	41	51	-1	1.84	1.04	0.94	23.08	253	17.78	295	92	72	0	0	5	1	
CO ALAMOSA	37	9	42	5	23	2	0.00	-0.06	0.00	0.21	25	0.02	5	90	43	0	7	0	0	
CO CO SPRINGS	46	21	52	14	34	2	0.00	-0.08	0.00	0.13	14	0.03	7	77	31	0	7	0	0	
CO DENVER	47	23	53	17	35	2	0.00	-0.12	0.00	0.61	45	0.02	3	75	32	0	7	0	0	
CO GRAND JUNCTION	43	25	47	20	34	1	0.05	-0.06	0.03	0.70	50	0.58	72	89	48	0	7	3	0	
CO PUEBLO	53	18	57	11	35	1	0.16	0.10	0.16	0.67	78	0.28	65	81	25	0	7	1	0	
CT BRIDGEPORT	43	30	52	21	36	7	0.93	0.19	0.54	9.62	117	6.27	133	85	57	0	5	2	1	
CT HARTFORD	45	25	52	15	35	9	0.87	0.07	0.56	6.57	74	4.39	88	82	42	0	5	2	1	
DC WASHINGTON	51	34	58	29	42	6	0.46	-0.20	0.44	10.16	142	8.42	208	79	46	0	3	2	0	
DE WILMINGTON	48	28	54	24	38	6	0.50	-0.22	0.48	8.29	104	5.72	128	80	46	0	6	2	0	
FL DAYTONA BEACH	67	45	76	41	56	-3	0.26	-0.51	0.26	13.52	197	5.76	135	94	49	0	0	1	0	
FL JACKSONVILLE	65	42	76	37	53	-1	0.13	-0.85	0.11	14.62	163	4.89	93	98	50	0	0	3	0	
FL KEY WEST	73	62	78	56	68	-3	0.18	-0.27	0.16	10.11	203	5.69	193	82	64	0	0	2	0	
FL MIAMI	74	57	81	60	66	-3	0.00	-0.52	0.00	11.11	227	5.84	192	88	60	0	0	0	0	
FL ORLANDO	69	46	77	41	57	-3	0.23	-0.51	0.22	16.39	279	3.78	101	94	48	0	0	2	0	
FL TAMPA	66	50	74	45	58	-3	0.29	-0.46	0.29	23.07	414	7.50	219	91	54	0	0	1	0	
FL VALPARAISO/EGLIN	62	43	64	34	52	0	0.08	-0.93	0.08	18.77	180	13.27	214	88	51	0	0	1	0	
FL WEST PALM BEACH	72	53	81	43	63	-3	0.04	-0.60	0.04	16.54	253	11.50	283	86	54	0	0	1	0	
GA ATHENS	57	38	63	34	48	3	0.16	-0.91	0.16	16.48	152	10.57	156	86	52	0	0	1	0	
GA ATLANTA	56	36	62	32	46	2	0.16	-1.01	0.16	14.92	131	9.87	140	91	52	0	2	1	0	
GA AUGUSTA	61	35	67	30	48	2	0.07	-0.98	0.07	17.31	182	10.37	169	94	46	0	2	1	0	
GA COLUMBUS	62	39	68	34	51	2	0.31	-0.86	0.31	11.62	98	4.90	71	90	45	0	0	1	0	
GA MACON	61	37	68	31	49	1	0.13	-1.05	0.12	16.59	148	9.31	135	95	46	0	2	2	0	
GA SAVANNAH	62	39	71	35	51	0	0.02	-0.78	0.02	12.98	159	8.99	173	97	47	0	0	1	0	
HI HILO	83	64	84	60	73	2	0.01	-2.45	0.01	9.06	34	0.21	1	81	49	0	0	1	0	
HI HONOLULU	80	65	81	60	73	0	0.07	-0.49	-	1.41	17	0.97	20	83	53	0	0	2	0	
HI KAHULUI	85	62	89	58	74	2	0.00	-0.73	0.00	1.98	22	0.48	8	80	45	0	0	0	0	
HI LIHUE	79	62	83	56	70	-1	0.09	-0.74	0.07	6.04	47	3.45	46	86	59	0	0	2	0	
ID BOISE	47	33	49	30	40	5	0.52	0.25	0.20	4.06	122	3.41	171	88	52	0	2	6	0	
ID LEWISTON	49	35	53	31	42	4	0.23	0.01	0.08	2.65	89	2.05	117	90	53	0	3	4	0	
ID POCATELLO	39	26	43	21	34	6	0.20	-0.02	0.09	2.99	116	2.33	157	92	65	0	5	5	0	
IL CHICAGO/O'HARE	43	30	48	23	37	13	0.65	0.34	0.60	4.94	107	3.44	162	92	68	0	5	2	1	
IL MOLINE	39	29	45	25	34	10	1.22	0.96	1.14	5.80	136	4.04	197	97	85	0	6	4	1	
IL PEORIA	43	30	48	25	36	12	1.45	1.14	1.40	6.07	133	4.13	194	94	75	0	5	2	1	
IL ROCKFORD	39	28	46	23	33	12	0.69	0.44	0.69	3.92	102	3.08	172	95	73	0	6	1	1	
IL SPRINGFIELD	46	31	51	28	39	11	1.28	0.86	0.80	5.48	109	3.70	163	93	68	0	4	2	1	
IN EVANSVILLE	46	28	51	16	37	4	0.51	-0.21	0.51	5.94	77	3.60	89	95	59	0	4	1	1	
IN FORT WAYNE	44	28	52	22	36	12	0.37	-0.08	0.37	6.06	108	4.33	158	91	57	0	6	1	0	
IN INDIANAPOLIS	47	31	52	25	39	11	0.31	-0.26	0.31	4.16	62	2.83	83	86	60	0	5	1	0	
IN SOUTH BEND	44	27	50	19	36	10	0.68	0.24	0.67	6.58	103	4.48	144	92	61	0	6	2	1	
IA BURLINGTON	43	32	47	26	38	12	1.18	0.91	1.15	5.27	143	3.76	221	90	72	0	4	2	1	
IA CEDAR RAPIDS	39	28	47	25	34	12	0.43	0.22	0.42	2.94	97	1.78	124	96	79	0	7	2	0	
IA DES MOINES	42	28	49	22	34	11	0.33	0.09	0.31	2.95	108	1.59	113	94	74	0	7	2	0	
IA DUBUQUE	35	29	41	25	32	12	0.58	0.27	0.43	2.91	77	1.83	102	96	87	0	6	2	0	
IA SIOUX CITY	42	25	55	17	33	11	0.01	-0.13	0.01	1.04	66	0.83	105	91	68	0	7	1	0	
IA WATERLOO	35	27	37	21	31	13	0.46	0.23	0.37	2.19	87	1.54	128	95	83	0	7	2	0	
KS CONCORDIA	47	29	57	23	38	8	0.72	0.58	0.43	3.95	238	2.20	268	91	64	0	6	2	0	
KS DODGE CITY	50	31	58	27	41	7	0.18	0.05	0.18	3.52	255	0.93	129	94	57	0	4	1	0	
KS GOODLAND	46	25	55	21	36	4	0.56	0.48	0.53	1.18	128	0.64	125	91	56	0	7	2	1	
KS TOPEKA	50	29	57	22	40	9	0.27	0.05	0.18	3.71	133	1.30	96	91	54	0	5	2	0	

Based on 1961-90 normals

Weather Data for the Week Ending February 14, 1998

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN, SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP.	
																		.01 INCH OR MORE	50 INCH OR MORE	.01 INCH OR MORE	50 INCH OR MORE
KY WICHITA	50	32	59	29	41	8	0.22	0.02	0.22	3.91	166	1.26	110	90	58	0	4	1	0	0	
KY JACKSON	47	36	54	30	41	6	0.37	-0.55	0.24	8.89	89	6.68	119	89	55	0	1	3	0	0	
KY LEXINGTON	43	30	48	13	37	4	0.43	-0.33	0.39	8.57	103	5.89	136	97	69	0	4	3	0	0	
KY LOUISVILLE	47	32	51	18	40	5	0.20	-0.58	0.20	7.39	92	4.87	111	96	68	0	3	1	0	0	
KY PADUCAH	51	30	55	22	41	5	0.69	-0.25	0.65	6.26	64	3.80	75	95	54	0	4	2	1	1	
LA BATON ROUGE	65	42	76	31	54	2	1.05	-0.35	1.03	22.42	169	16.10	209	90	46	0	1	2	1	1	
LA LAKE CHARLES	68	45	74	34	56	4	1.77	0.86	1.77	17.56	153	11.83	185	95	47	0	0	1	1	1	
LA NEW ORLEANS	64	47	76	37	55	2	0.56	-0.96	0.53	22.76	165	20.20	250	88	46	0	0	2	1	1	
LA SHREVEPORT	64	41	70	31	53	4	2.22	1.23	2.19	15.33	154	9.23	157	90	47	0	1	2	1	1	
ME CARIBOU	25	6	41	-4	16	5	0.33	-0.14	0.33	7.21	109	4.40	131	85	55	0	7	1	0	0	
ME PORTLAND	36	20	46	7	28	6	1.06	0.23	1.05	8.48	87	5.89	113	86	54	0	6	2	1	1	
MD BALTIMORE	50	28	57	23	39	6	0.67	-0.10	0.63	10.79	135	8.74	190	82	49	0	5	2	1	1	
MA BOSTON	40	25	50	8	33	3	0.79	-0.12	0.79	7.93	84	5.61	104	90	61	0	5	1	1	1	
MA WORCESTER	39	24	49	8	31	7	2.13	1.28	2.01	11.97	127	9.65	179	82	45	0	6	2	1	1	
MI ALPENA	33	17	41	6	25	7	0.41	0.11	0.33	4.88	114	4.15	184	93	75	0	7	2	0	0	
MI GRAND RAPIDS	39	25	48	17	32	9	0.67	0.34	0.63	5.78	108	4.80	193	94	67	0	6	3	1	1	
MI HOUGHTON LAKE	35	19	49	10	27	10	0.44	0.16	0.28	2.90	72	2.56	125	92	68	0	7	3	0	0	
MI LANSING	39	25	49	16	32	10	0.66	0.35	0.62	4.91	111	4.02	191	95	66	0	6	3	1	1	
MI MARQUETTE	34	19	43	13	26	13	0.10	-0.32	0.10	6.00	107	3.60	120	93	63	0	7	1	0	0	
MI MUSKEGON	38	25	49	18	32	8	0.54	0.18	0.51	4.41	72	3.19	104	96	74	0	6	2	1	1	
MN DULUTH	31	19	39	13	25	14	0.04	-0.13	0.04	2.19	77	1.78	113	89	67	0	7	1	0	0	
MN INT'L FALLS	31	19	46	13	25	19	0.16	0.02	0.12	1.09	53	0.87	73	88	62	0	7	3	0	0	
MN MINNEAPOLIS	34	24	38	12	29	12	0.00	-0.19	0.00	1.95	82	1.64	125	89	71	0	7	0	0	0	
MN ROCHESTER	32	21	35	12	27	11	0.00	-0.16	0.00	2.06	98	1.68	156	94	85	0	7	0	0	0	
MN ST. CLOUD	31	18	36	3	24	11	0.00	-0.14	0.00	1.07	58	0.84	83	93	75	0	7	0	0	0	
MS JACKSON	62	38	75	32	50	3	0.00	-1.14	0.00	16.51	123	10.74	143	92	46	0	1	0	0	0	
MS MERIDIAN	61	35	73	28	48	0	0.68	-0.65	0.62	19.48	141	14.78	191	95	48	0	4	2	1	1	
MS TUPELO	55	35	71	27	45	2	1.43	0.29	0.97	11.66	88	7.95	111	89	58	0	4	2	1	1	
MO COLUMBIA	47	30	55	24	39	8	1.94	1.52	1.44	5.26	112	3.48	155	89	60	0	5	3	1	1	
MO KANSAS CITY	50	31	54	27	40	10	0.21	-0.02	0.14	3.85	123	1.52	99	84	55	0	4	3	0	0	
MO SAINT LOUIS	49	30	55	25	40	7	1.05	0.57	0.77	5.81	101	3.96	146	94	61	0	5	2	1	1	
MO SPRINGFIELD	48	29	57	22	39	5	2.25	1.78	1.41	8.28	141	5.13	190	93	57	0	5	2	2	2	
MT BILLINGS	48	29	51	27	39	10	0.01	-0.13	0.01	1.21	60	0.84	52	73	34	0	6	1	0	0	
MT BUTTE	37	13	42	3	26	4	0.05	-0.03	0.02	1.14	95	0.99	134	91	58	0	7	3	0	0	
MT GLASGOW	41	25	49	21	33	17	0.01	-0.05	0.01	0.28	32	0.27	54	91	63	0	7	1	0	0	
MT GREAT FALLS	46	27	50	23	37	10	0.00	-0.14	0.00	1.10	54	0.77	65	77	44	0	6	0	0	0	
MT KALISPELL	41	28	43	22	34	9	0.15	-0.13	0.07	1.76	46	1.19	56	91	65	0	7	4	0	0	
MT MILES CITY	50	29	54	22	39	17	0.00	-0.11	0.00	0.36	26	0.34	44	85	48	0	5	0	0	0	
MT MISSOULA	39	25	41	19	32	3	0.14	-0.05	0.08	1.99	71	1.66	99	94	70	0	7	3	0	0	
NE GRAND ISLAND	45	27	52	21	36	10	0.23	0.08	0.13	1.10	75	0.69	93	93	70	0	7	2	0	0	
NE LINCOLN	45	27	50	19	36	11	0.27	0.13	0.14	2.54	152	1.81	232	92	70	0	6	2	0	0	
NE NORFOLK	42	26	53	19	34	11	0.07	-0.09	0.04	0.64	42	0.27	34	91	62	0	6	2	0	0	
NE NORTH PLATTE	48	22	58	14	35	9	0.12	0.03	0.08	0.59	59	0.39	72	95	54	0	7	2	0	0	
NE OMAHA	43	27	48	21	35	10	0.13	-0.01	0.13	1.83	90	1.34	131	92	71	0	7	1	0	0	
NE SCOTTSBLUFF	49	23	57	17	36	7	0.13	0.02	0.13	0.70	56	0.39	57	90	35	0	6	1	0	0	
NE VALENTINE	46	24	58	15	35	11	0.00	-0.09	0.00	0.13	16	0.10	23	93	55	0	7	0	0	0	
NV ELY	41	21	47	11	31	2	0.23	0.06	0.14	0.93	52	0.70	67	88	50	0	7	4	0	0	
NV LAS VEGAS	58	43	60	38	50	0	0.16	0.05	0.13	1.31	122	1.24	175	82	38	0	0	2	0	0	
NV RENO	46	29	53	26	37	0	0.55	0.30	0.26	3.54	137	2.96	184	97	55	0	7	4	0	0	
NV WINNEMUCCA	45	26	50	19	36	0	0.39	0.25	0.13	2.91	151	2.65	252	94	52	0	7	5	0	0	
NH CONCORD	40	15	50	6	28	7	0.43	-0.20	0.43	6.00	87	4.05	108	82	39	0	6	1	0	0	
NJ NEWARK	48	31	55	24	39	7	0.80	0.06	0.71	10.77	129	6.61	135	77	42	0	6	2	1	1	
NM ALBUQUERQUE	49	27	55	23	38	-1	0.12	0.01	0.12	1.33	111	0.33	46	76	33	0	6	1	0	0	
NY ALBANY	40	20	47	7	30	8	0.69	0.14	0.57	5.97	93	4.49	130	90	48	0	6	2	1	1	
NY BINGHAMTON	39	21	50	6	30	9	0.50	-0.07	0.28	6.46	99	3.65	103	85	50	0	7	2	0	0	
NY BUFFALO	41	24	49	14	32	9	0.33	-0.25	0.29	8.92	118	5.95	155	86	53	0	6	3	0	0	
NY ROCHESTER	40	20	53	8	30	7	0.24	-0.28	0.15	8.75	150	5.87	189	90	56	0	7	3	0	0	
NY SYRACUSE	39	18	48	7	28	5	0.33	-0.19	0.28	9.22	140	5.10	151	89	50	0	7	3	0	0	
NC ASHEVILLE	48	33	55	27	41	3	0.38	-0.56	0.35	15.58	181	12.60	249	92	59	0	2	3	0	0	
NC CHARLOTTE	58	40	62	32	49	7	0.09	-0.84	0.09	11.41	126	7.33	132	75	41	0	1	1	0	0	
NC GREENSBORO	53	33	57	27	43	4	0.47	-0.34	0.47	11.00	135	8.83	184	80	41	0	4	1	0	0	
NC HATTERAS	50	44	59	39	47	2	1.10	0.07	1.06	19.10	160	13.45	182	95	83	0	0	4	1	1	
NC RALEIGH	54	31	61	28	42	1	0.11	-0.80	0.09	13.01	153	10.26	194	90	51	0	6	3	0	0	
NC WILMINGTON	57	37	65	30	47	1	0.60	-0.31	0.58	16.51	177	11.67	204	91	60	0	1	2	1	1	
ND BISMARCK	37	24	46	20	31	16	0.12	0.01	0.12	0.30	26	0.22	32	89	69	0	7	1	0	0	
ND DICKINSON	44	23	52	19	33	15	0.00	-0.08	0.00	0.18	18	0.13	25	93	58	0	7	0	0	0	
ND FARGO	31	21	39	11	26	16	0.06	-0.05	0.06	1.70	110	1.26	140	90	75	0	7	1	0	0	
ND GRAND FORKS	28	19	32	12	24	15	0.05	-0.06	0.05	1.06	67	0.50	53	91	73	0	7	1	0	0	
ND JAMESTOWN	30	21	33	17	26	14	0.13	0.02	0.13	0.71	54	0.43	52	92	75	0	7	1	0	0	
ND WILLISTON	37	23	50	18	30	15	0.02	-0.09	0.02	0.39	29	0.37	49	92	68	0	7	1	0	0	
OH AKRON-CANTON	44	28	53	19	36	10	0.44	-0.08	0.28	6.33	103	4.25	134	94	85	0	6	2	0	0	
OH CINCINNATI	45	30	48	20	37	7	0.40	-0.22	0.39	8.28	119	5.51	145	96	85	0	5	2	0	0	
OH CLEVELAND	43	29	55	19	36	10	0.29	-0.24	0.18	6.63	108	4.21	138	92	63	0	5	3	0	0	
OH COLUMBUS	47	31	53	24	39	11	0.53														

Weather Data for the Week Ending February 14, 1998

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION								RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS				
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN., SINCE Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP, °F		PRECIP.	
																		01 INCH OR MORE	50 INCH OR MORE		
OK TOLEDO	42	27	53	21	35	11	0.70	0.30	0.62	5.73	105	3.66	145	90	60	0	6	2	1		
OK YOUNGSTOWN	45	27	54	19	36	11	0.21	-0.27	0.11	8.05	134	5.34	173	98	57	0	6	2	0		
OK OKLAHOMA CITY	56	35	61	31	45	6	0.03	-0.32	0.03	6.21	195	4.20	236	90	54	0	2	1	0		
OK TULSA	55	34	62	29	45	6	0.02	-0.42	0.02	7.92	175	3.62	153	84	55	0	3	1	0		
OR ASTORIA	52	42	56	36	47	3	3.85	1.92	1.15	29.95	122	21.50	154	93	71	0	0	7	3		
OR BURNS	38	22	42	14	30	1	1.10	0.96	0.50	5.10	205	4.28	319	97	72	0	7	7	1		
OR EUGENE	54	41	63	37	48	4	1.53	0.10	0.45	12.97	67	10.74	99	81	60	0	0	6	0		
OR MEDFORD	52	38	59	34	45	3	0.57	0.08	0.17	6.91	98	5.56	150	89	52	0	0	6	0		
OR PENDLETON	52	36	57	30	44	5	0.73	0.45	0.36	4.53	122	3.48	166	86	48	0	2	4	0		
OR PORTLAND	52	42	57	39	47	4	1.60	0.62	0.48	12.39	92	9.36	127	90	69	0	0	7	0		
OR SALEM	52	40	55	35	46	3	1.67	0.53	0.53	14.87	99	11.70	141	93	68	0	0	6	1		
PA ALLENTOWN	47	25	54	19	36	8	0.92	0.20	0.75	7.50	92	5.13	111	85	48	0	6	2	1		
PA ERIE	41	27	52	19	34	9	0.50	-0.04	0.46	10.65	155	5.80	177	94	69	0	5	2	0		
PA MIDDLETOWN	49	29	56	22	39	8	0.66	-0.06	0.65	8.55	114	6.54	154	79	41	0	5	2	1		
PA PHILADELPHIA	49	31	56	27	40	8	0.48	-0.21	0.47	8.11	102	5.02	109	82	46	0	5	2	0		
PA PITTSBURGH	47	30	57	23	39	11	0.15	-0.42	0.08	5.65	86	4.36	119	85	50	0	5	2	0		
PA SCRANTON	43	26	53	17	34	9	0.43	-0.11	0.40	6.13	109	3.88	124	80	44	0	6	3	0		
PA WILLIAMSPORT	44	25	51	20	35	8	0.45	-0.22	0.43	6.80	99	5.33	138	85	48	0	6	2	0		
RI PROVIDENCE	44	28	52	17	36	7	1.31	0.43	1.00	11.26	112	8.43	149	83	51	0	5	2	1		
SC BEAUFORT	60	40	68	34	50	0	0.00	-0.80	0.00	12.99	152	9.05	170	95	55	0	0	0	0		
SC CHARLESTON	60	40	71	33	50	0	0.07	-0.72	0.07	14.90	183	9.71	194	96	51	0	0	1	0		
SC COLUMBIA	58	35	65	29	47	1	0.08	-0.93	0.08	14.85	148	10.46	162	93	50	0	2	1	0		
SC GREENVILLE	55	36	59	31	46	3	0.26	-0.80	0.24	14.30	138	10.04	162	88	46	0	1	2	0		
SD ABERDEEN	33	21	39	15	27	12	0.00	-0.09	0.00	0.81	86	0.63	117	90	76	0	7	0	0		
SD HURON	38	24	50	17	31	13	0.00	-0.15	0.00	0.67	80	0.45	89	89	69	0	7	0	0		
SD RAPID CITY	49	23	58	17	36	10	0.00	-0.11	0.00	0.23	21	0.15	25	90	43	0	7	0	0		
SD SIOUX FALLS	40	23	51	17	31	13	0.04	-0.09	0.04	0.81	55	0.57	76	89	66	0	7	1	0		
TN BRISTOL	48	34	56	27	41	5	0.23	-0.62	0.21	8.50	103	6.33	129	93	57	0	2	2	0		
TN CHATTANOOGA	52	38	58	33	45	4	0.29	-0.88	0.29	12.89	104	9.59	133	89	54	0	0	1	0		
TN KNOXVILLE	51	38	61	35	45	6	0.25	-0.73	0.25	8.69	82	6.31	103	90	60	0	0	1	0		
TN MEMPHIS	55	38	60	31	47	4	2.01	0.96	1.83	13.25	115	8.73	152	87	55	0	2	2	1		
TN NASHVILLE	51	37	58	31	44	4	0.35	-0.57	0.26	7.62	76	5.43	101	89	53	0	1	2	0		
TX ABILENE	61	40	74	35	51	5	0.05	-0.23	0.04	4.68	179	1.52	96	86	45	0	0	2	0		
TX AMARILLO	55	30	63	26	43	4	0.19	0.05	0.19	3.21	274	1.09	143	96	44	0	5	1	0		
TX AUSTIN	65	46	76	42	56	4	1.00	0.45	0.45	8.18	176	3.92	141	89	49	0	0	3	0		
TX BEAUMONT	67	47	74	38	57	4	0.90	0.04	0.85	16.45	145	9.83	150	92	60	0	0	2	1		
TX BROWNSVILLE	78	54	88	49	66	4	1.17	0.88	1.16	2.16	63	1.71	78	94	48	0	0	2	1		
TX CORPUS CHRISTI	74	49	80	40	62	4	1.22	0.70	1.10	2.87	71	2.67	97	94	53	0	0	4	1		
TX DEL RIO	72	44	84	37	58	4	0.11	-0.14	0.11	0.75	46	0.17	16	78	26	0	0	1	0		
TX EL PASO	59	39	65	29	49	1	0.10	-0.01	0.10	1.60	133	0.19	31	69	35	0	1	1	0		
TX FORT WORTH	62	42	70	38	52	5	0.24	-0.29	0.15	12.30	261	5.37	187	89	54	0	0	2	0		
TX GALVESTON	64	51	70	46	58	3	0.42	-0.15	0.42	11.48	144	6.58	148	91	71	0	0	1	0		
TX HOUSTON	69	45	77	37	57	4	0.87	0.13	0.81	11.27	136	5.85	122	94	47	0	0	2	1		
TX LUBBOCK	57	32	67	24	45	2	0.31	0.14	0.31	2.13	175	0.37	54	89	36	0	4	1	0		
TX MIDLAND	64	37	70	31	51	5	0.00	-0.16	0.00	1.96	156	0.61	88	82	30	0	1	0	0		
TX SAN ANGELO	65	38	75	32	52	4	0.01	-0.27	0.01	2.89	137	1.50	113	83	35	0	1	1	0		
TX SAN ANTONIO	67	44	73	39	55	3	0.77	0.30	0.67	7.86	189	4.31	163	94	50	0	0	2	1		
TX VICTORIA	69	46	75	41	58	2	0.76	0.24	0.56	4.22	80	2.59	80	95	55	0	0	3	1		
TX WACO	64	42	74	36	53	5	1.68	1.16	1.53	17.63	392	7.82	296	96	58	0	0	3	1		
TX WICHITA FALLS	59	37	74	34	48	4	0.44	0.10	0.43	7.17	241	3.05	180	91	51	0	0	2	0		
UT SALT LAKE CITY	44	30	50	28	37	4	0.39	0.10	0.22	3.52	113	2.88	170	94	60	0	5	2	0		
VT BURLINGTON	36	17	47	4	26	9	0.63	0.24	0.63	7.43	148	5.78	223	82	48	0	5	1	1		
VA LYNCHBURG	50	27	55	23	39	2	0.43	-0.31	0.43	13.84	183	11.12	258	90	44	0	7	1	0		
VA NORFOLK	50	38	62	29	44	4	0.51	-0.34	0.51	12.74	146	10.09	183	88	62	0	1	1	1		
VA RICHMOND	52	31	61	26	42	4	0.24	-0.53	0.16	12.42	154	10.06	210	89	52	0	6	2	0		
VA ROANOKE	50	32	56	26	41	5	0.29	-0.46	0.27	14.66	209	12.29	303	84	43	0	5	2	0		
VA WASH/DULLES	50	28	57	21	39	6	0.32	-0.37	0.31	10.15	139	8.23	202	82	44	0	6	2	0		
WA HANFORD	51	33	57	29	42	-	0.42	0.27	0.42	2.40	113	2.09	192	90	52	0	3	1	0		
WA OLYMPIA	50	36	53	32	43	2	2.15	0.67	0.75	19.80	103	13.66	123	100	78	0	1	7	2		
WA QUILLAYUTE	49	41	52	36	45	3	3.24	0.06	1.17	39.68	109	24.17	116	96	76	0	0	7	2		
WA SEATTLE-TACOMA	50	41	53	36	45	2	1.24	0.22	0.67	11.37	85	8.74	117	91	63	0	0	6	1		
WA SPOKANE	44	33	50	28	38	6	0.62	0.25	0.41	3.89	75	2.89	105	91	61	0	4	6	0		
WA YAKIMA	47	32	54	26	39	4	0.31	0.10	0.17	3.81	119	3.42	210	96	68	0	4	5	0		
WV BECKLEY	42	27	51	20	35	4	0.13	-0.59	0.07	10.30	136	8.09	186	94	59	0	6	3	0		
WV CHARLESTON	49	32	58	26	40	6	0.19	-0.55	0.16	6.91	89	5.34	123	92	56	0	5	2	0		
WV ELKINS	46	25	58	17	36	7	0.19	-0.53	0.13	7.43	93	4.90	108	88	45	0	6	2	0		
WV HUNTINGTON	48	33	56	26	41	7	0.26	-0.44	0.25	8.15	108	6.59	157	90	51	0	3	2	0		
WI EAU CLAIRE	37	20	41	8	29	14	0.00	-0.17	0.00	2.46	102	2.20	168	82	70	0	7	0	0		
WI GREEN BAY	33	23	36	18	28	11	0.01	-0.22	0.01	3.06	98	2.45	153	90	80	0	6	1	0		
WI MADISON	34	26	39	17	29	10	0.41	0.17	0.26	4.06	121	2.80	184	95	84	0	6	2	0		
WI MILWAUKEE	36	28	41	22	32	10	0.79	0.46	0.75	5.83	128	4.53	202	95	79	0	6	2	1		
WY CASPER	41	26	48	19	33	8	0.00	-0.14	0.00	0.97	66	0.49	60	80	50	0	7	0	0		
WY CHEYENNE	43	22	48	13	32	4	0.01	-0.07	0.01	0.76	81	0.22	41	73	33	0	7	1	0		
WY LANDER	34	15	39	7	24	0	0.25	0.12	0.13	2.23	172	0.38	52	89	62	0	7	2	0		
WY SHERIDAN	43	24	48	17	34	8	0.00	-0.17	0.00	1.04	58	0.41	39	88	56	0	7	0	0		

NOTE: These data are preliminary and subject to change. In the past, precipitation totals from a number of stations have been incomplete.

National Agricultural Summary

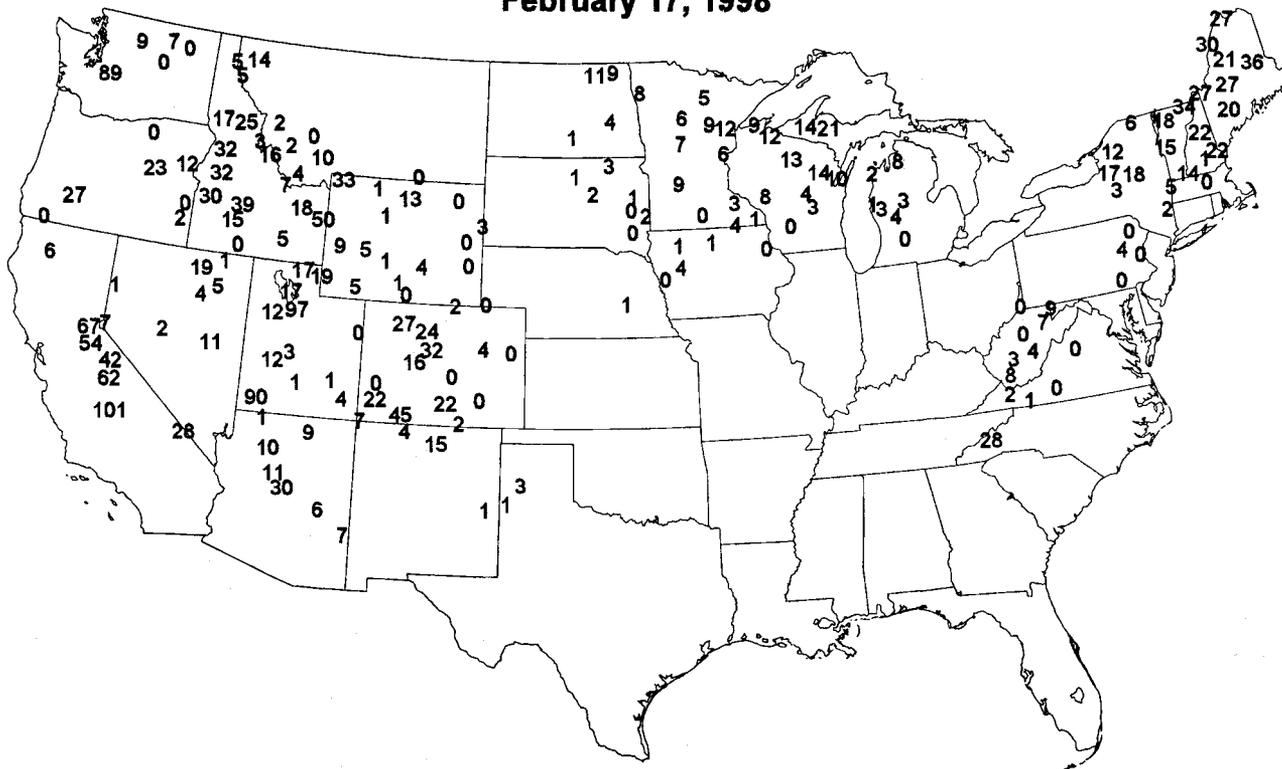
February 9 - 15, 1998

HIGHLIGHTS

Temperatures were near normal across the South but unseasonably high for this time of the year elsewhere across the United States. In the northern High Plains, where very little precipitation has fallen since early October, temperatures were as much as 15 degrees above normal. Wet snow and rain fell in the central Plains, increasing soil moisture supplies in winter wheat fields. Some snow fell in the Texas plains but was minimally beneficial to the winter wheat crop. Corn and sorghum planting was just underway in southern Texas, but soggy soils

hindered progress. Rainfall caused wet soils in the Delta and Missouri, and light precipitation fell in the Corn Belt. While the Southeast received a break from recent downpours, the Pacific coast remained wet. Fieldwork in California continued to be delayed as stormy weather caused heavy rains, strong winds, and saturated soils. Several thousand acres of small grains were lost due to severe lodging and standing water. Farmers were busy pumping water out of other crop fields. Citrus harvest was delayed.

Snow Depth (Inches) February 17, 1998



Experimental product based on preliminary data
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

The NWS co-operative observer network is the principal source of the snow depth reports.

International Weather and Crop Summary

February 8 - 14, 1998

HIGHLIGHTS

FSU-WESTERN: Overwintering conditions remained favorable for winter grains.

EUROPE: Unusually mild weather caused winter grains to begin easing out of dormancy in western Europe and rapidly melted snow in the east.

NORTHWESTERN AFRICA: Light showers maintained adequate moisture for vegetative winter grains in Morocco, while farther east, dry weather limited moisture for crop development in Algeria and Tunisia.

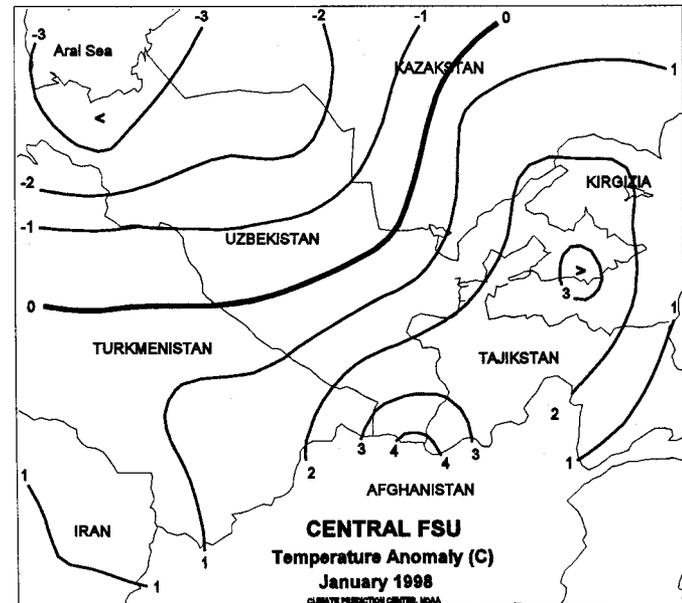
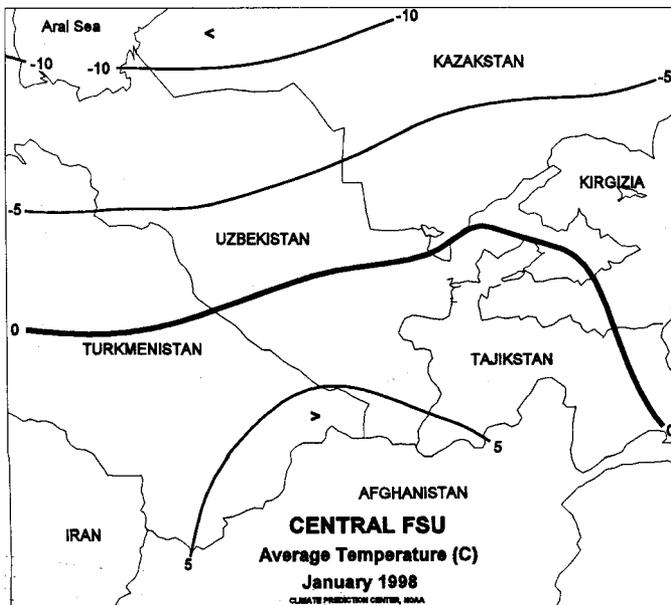
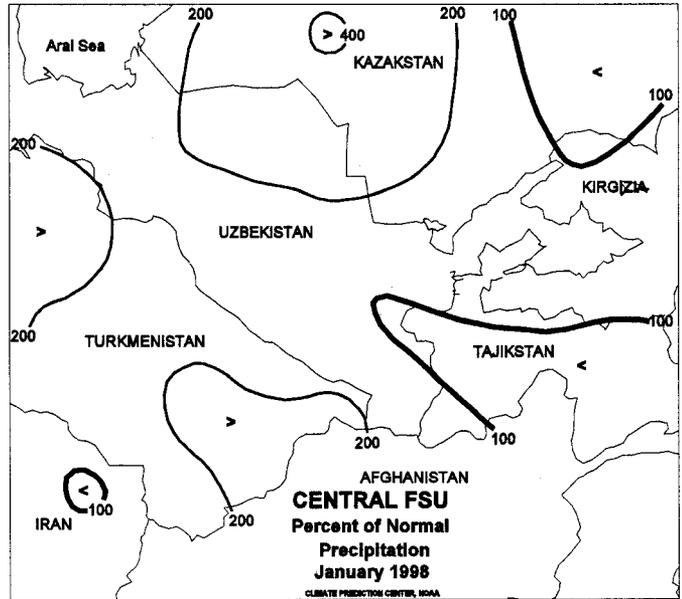
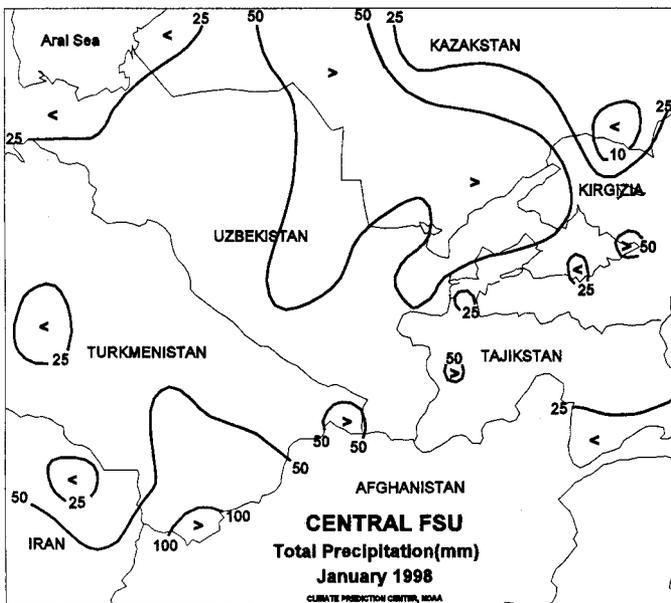
AUSTRALIA: Soaking rain covered primary sorghum and cotton areas, likely causing some flooding.

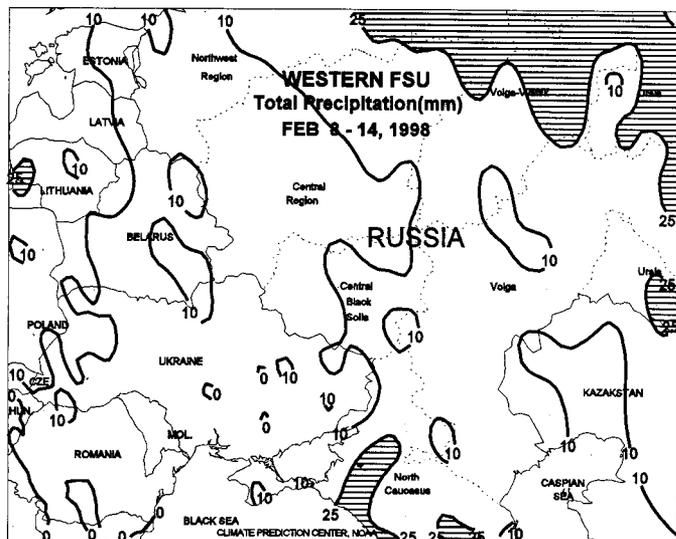
SOUTH AFRICA: Scattered showers brought some relief to reproductive corn.

SOUTHEAST ASIA: Widespread showers favored main-season rice in Java, while drought continued in the northern and eastern Philippines.

CHINA: Unseasonably warm weather caused winter wheat to lose hardness across the North China Plain.

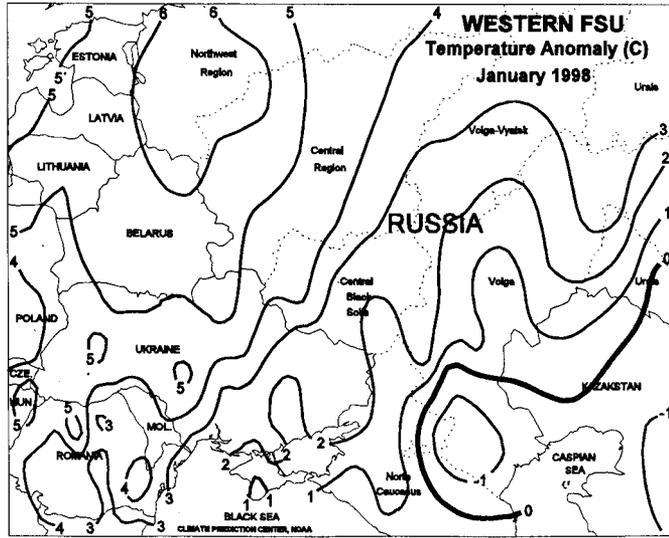
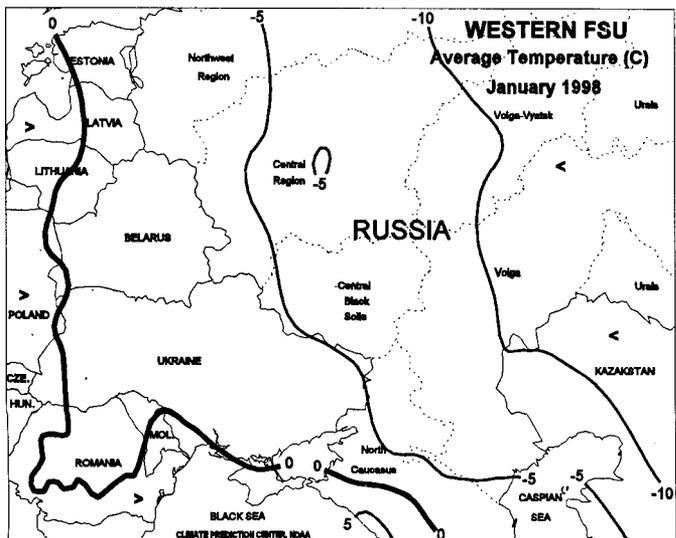
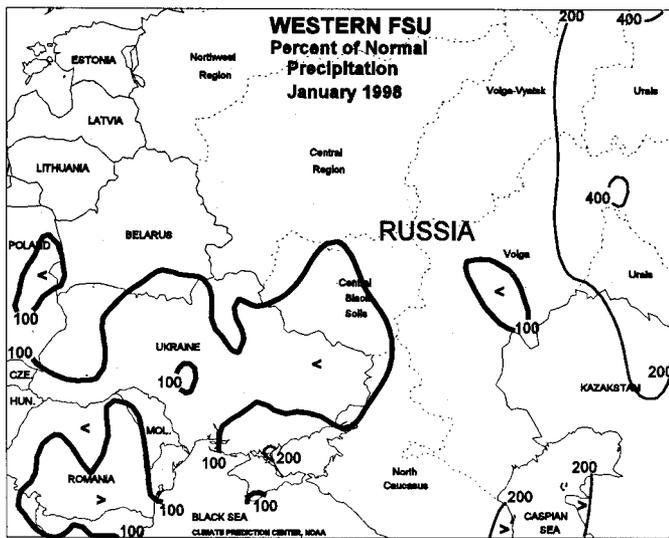
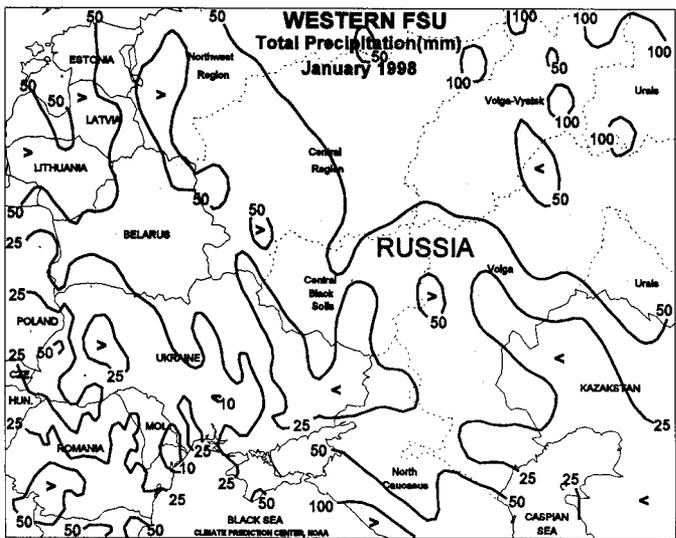
SOUTH AMERICA: Drier weather reduced summer crop disease potential across central Argentina, while showers maintained beneficial moisture for soybeans in southern Brazil.

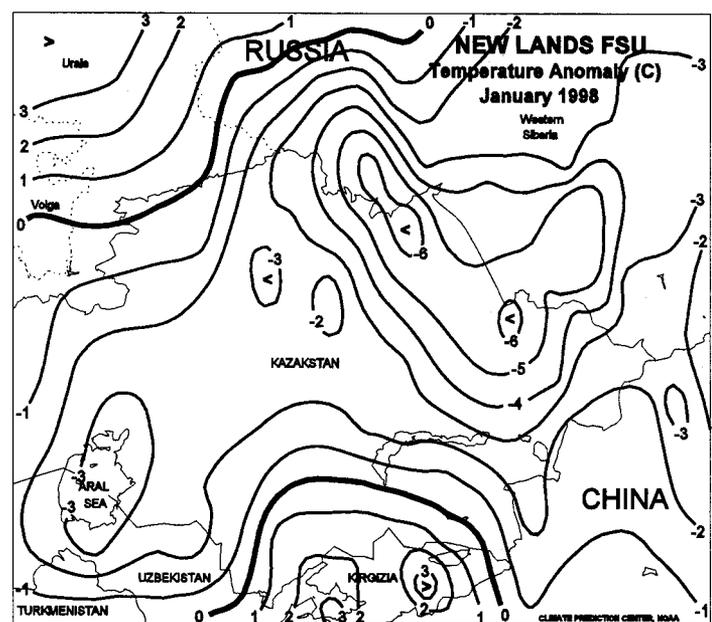
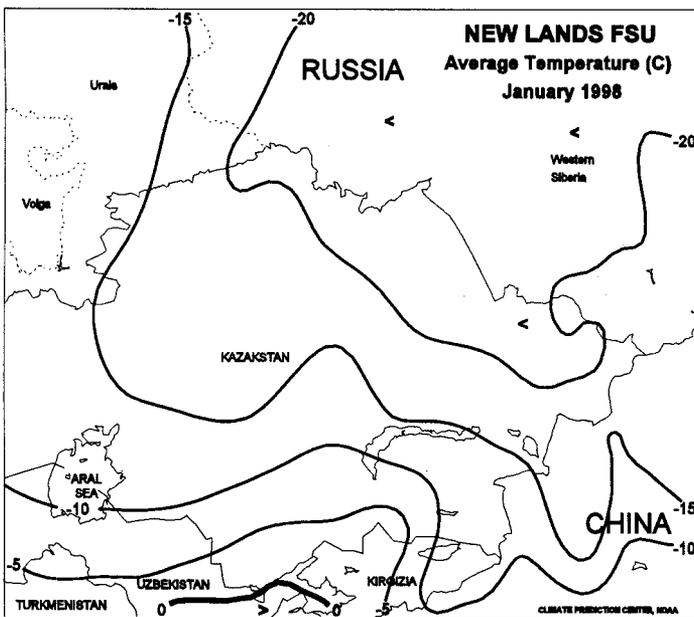
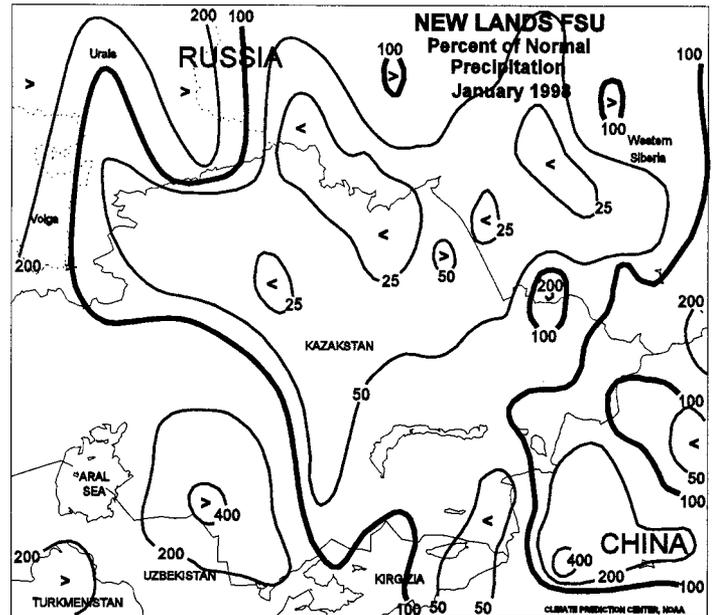
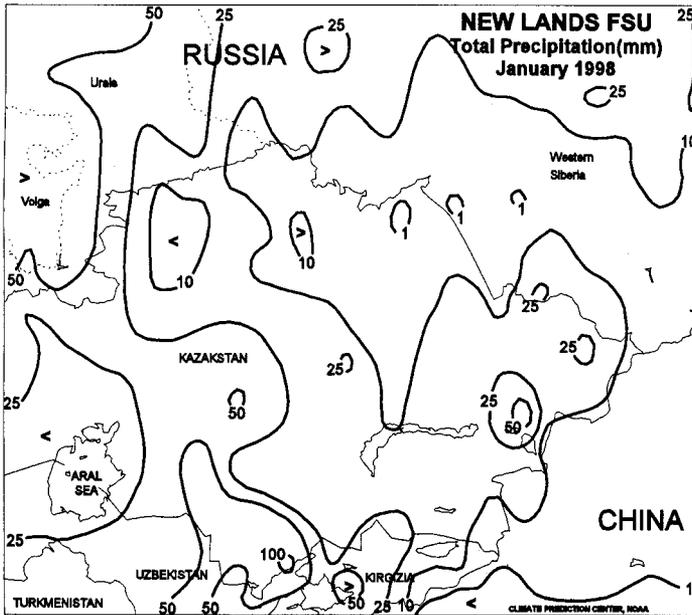


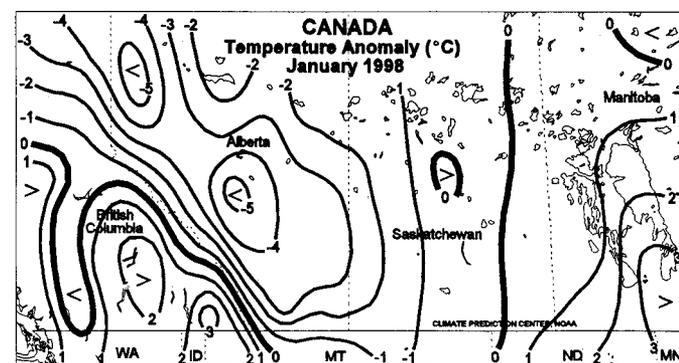
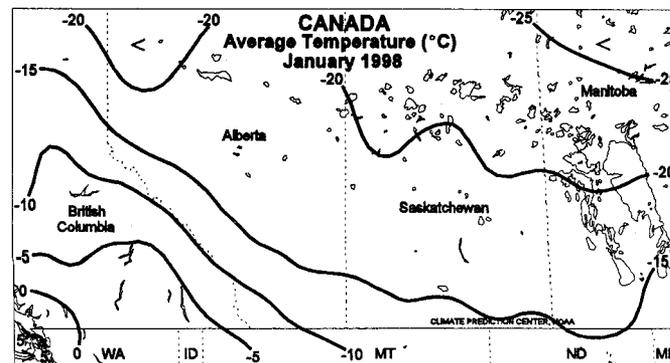
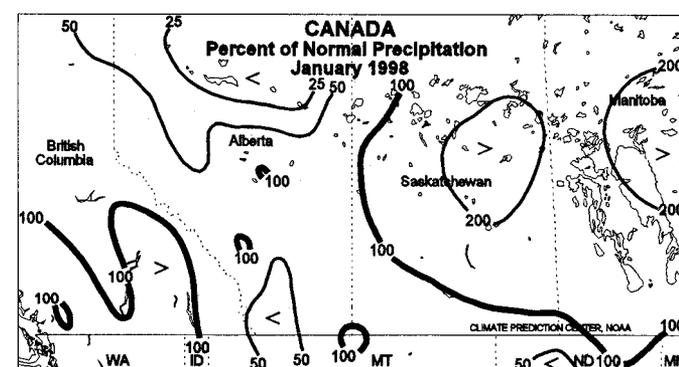
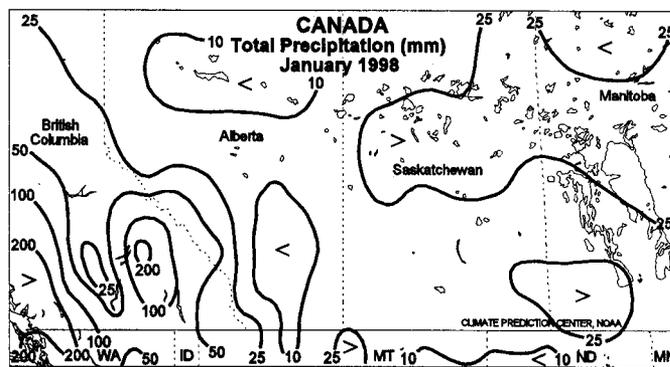
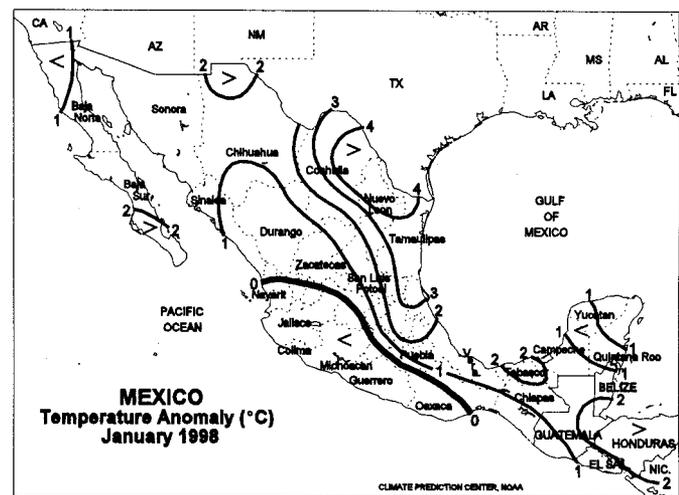
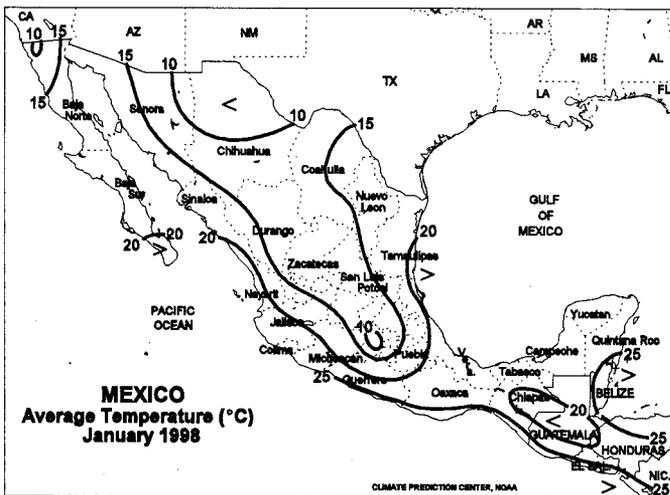
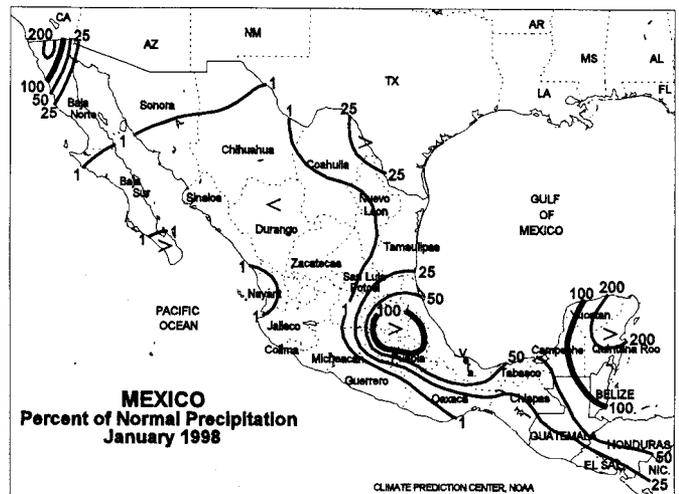
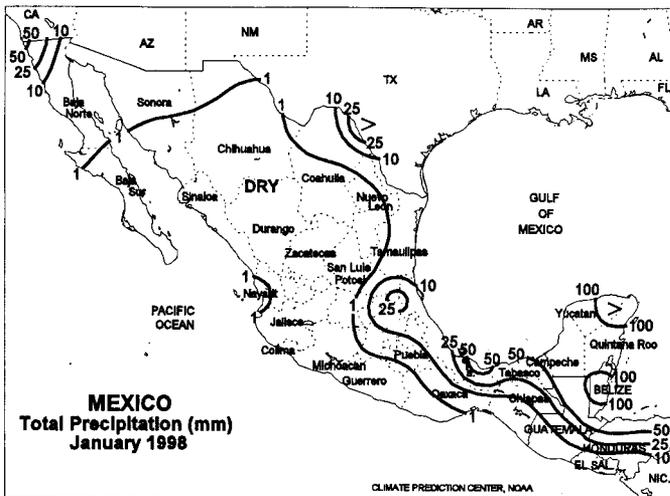


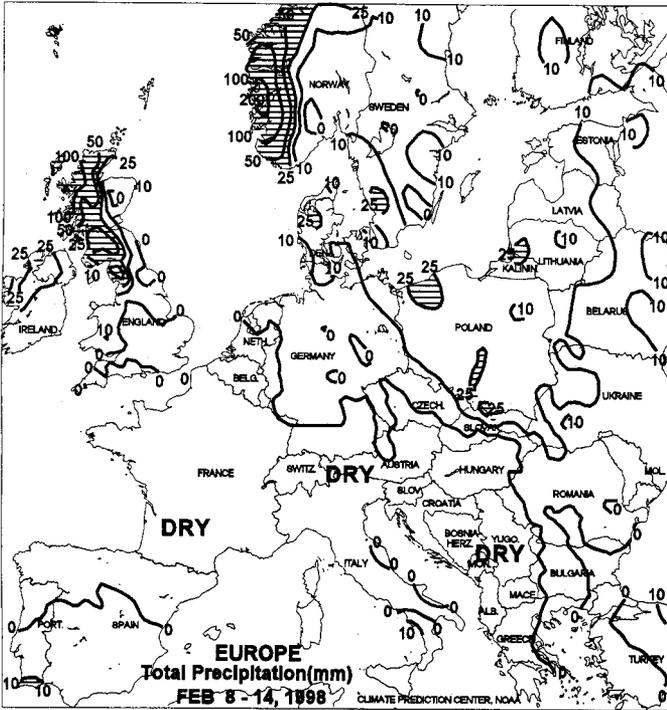
FSU-WESTERN

Overwintering conditions remained favorable for dormant winter grains. Mild weather prevailed over most winter grain areas early in the week, melting protective snow cover in the Baltics, Belarus, and western Ukraine. At week's end, colder weather once again returned to most of Russia, eastern Belarus, and northeastern Ukraine, accompanied by light snow. The lowest temperatures (less than -20 degrees C) were observed in Russia, where an adequate snow cover provided protection from potential winterkill. In January, overwintering conditions were favorable for winter grains throughout most of the former USSR. Temperatures in January averaged 3 to 6 degrees C above normal in the western half of Ukraine, western areas in Russia (Northwest Region, Central Region, and western Black Soils Region), the Baltics, and Belarus. Monthly temperatures averaged 1 to 3 degrees C above normal in eastern Ukraine and eastern winter grain areas in Russia (Volga Vyatsk Region, eastern Black Soils Region, Volga Valley, and North Caucasus). Snow cover in winter grain areas of the Baltics, Belarus, southern Ukraine, and adjacent areas in the North Caucasus region of Russia was patchy or nonexistent during January. However, temperatures in these areas were not low enough for a sufficient amount of time to threaten exposed crops. A moderate-to-deep snow cover persisted in winter grain areas of northern and central Russia during the month, protecting winter grains from periods of bitterly cold weather. Above-normal precipitation fell in Russia, Belarus, and the Baltics during January, boosting potential moisture reserves. Winter grain areas in Ukraine received below-normal precipitation in January.



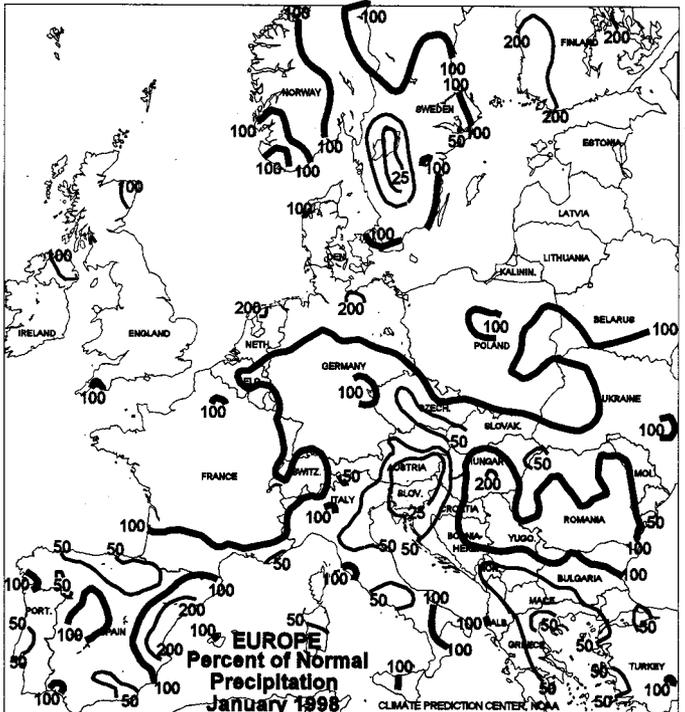


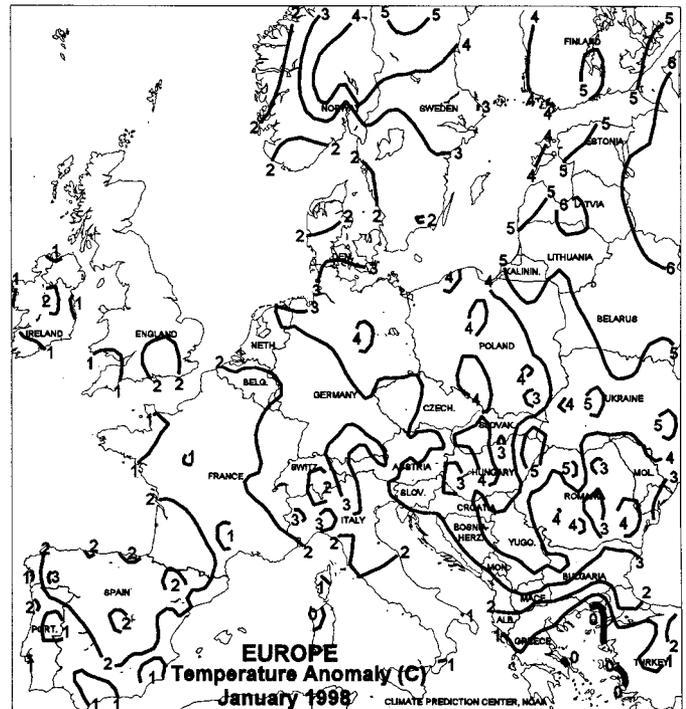




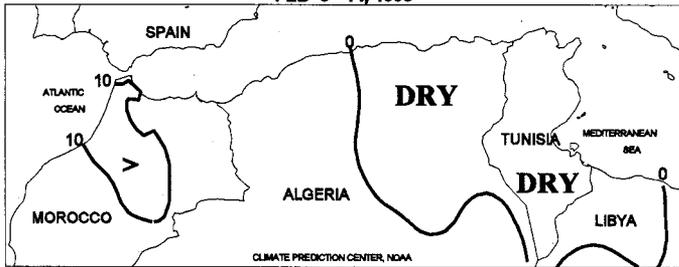
EUROPE

High pressure provided unseasonably mild, dry weather in most winter grain areas of Europe. The exception was in Poland and Scandinavia, where light precipitation (10-25 mm) fell. Weekly temperatures averaged 3 to 6 degrees C above normal in southern Europe and 4 to 9 degrees C above normal in northern areas. The mild weather likely prompted winter grains in western Europe to begin easing out of dormancy. In eastern Europe, the mild weather caused rapid melting of protective snow cover, leaving winter crops exposed to weather extremes. In January, above-normal precipitation fell in the United Kingdom, northern Germany, Poland, and southern Romania, boosting moisture supplies for the upcoming growing season. Welcomed drier weather occurred in the Iberian Peninsula, allowing late-season sugar beet harvesting delayed by excessive rainfall in December. Unusually mild weather in January provided favorable overwintering conditions for winter grains throughout most of Europe. However, on about January 25, much colder weather spread westward over the continent, dropping temperatures to below normal. Lowest temperatures (-10 to -15 degrees C) occurred in eastern Europe, where winter grains had some protective snow cover.





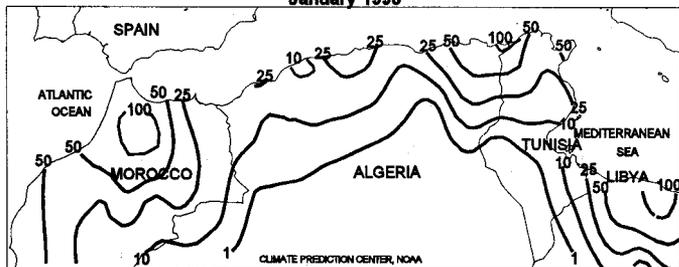
NORTHWEST AFRICA Total Precipitation (mm) FEB 8 - 14, 1998



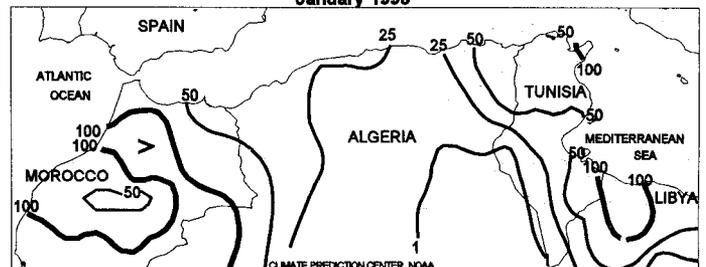
NORTHWESTERN AFRICA

Light showers (2-13 mm) fell over winter grain areas in Morocco, maintaining adequate moisture conditions for winter grains in the vegetative stage. Mostly dry weather in winter grain areas of Algeria continued a chronically dry weather pattern that has covered crop areas since mid-December. Farther east, the second consecutive week of dryness prevailed over crop areas in Tunisia. In January, below-normal precipitation covered most winter grain areas in Morocco, Algeria, and Tunisia. January's below-normal precipitation exacerbated dryness in Algeria and reduced moisture reserves for crop development in Morocco and Tunisia. Most winter grains were in the jointing stage, a time in the growth cycle when crop-moisture use increases, reaching its peak during reproduction. Winter grains usually begin to enter reproduction in mid-March. Since subsoil moisture reserves are likely limited throughout most of the region, especially in Algeria, timely rains will be needed in upcoming weeks to prevent declines in crop yield potential.

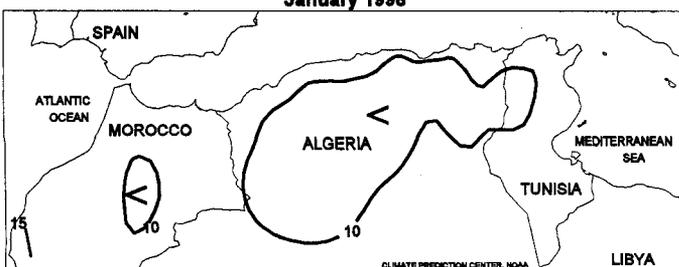
NORTHWEST AFRICA Total Precipitation (mm) January 1998



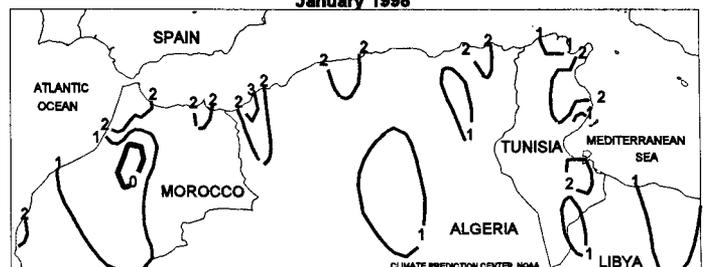
NORTHWEST AFRICA Percent of Normal Precipitation January 1998

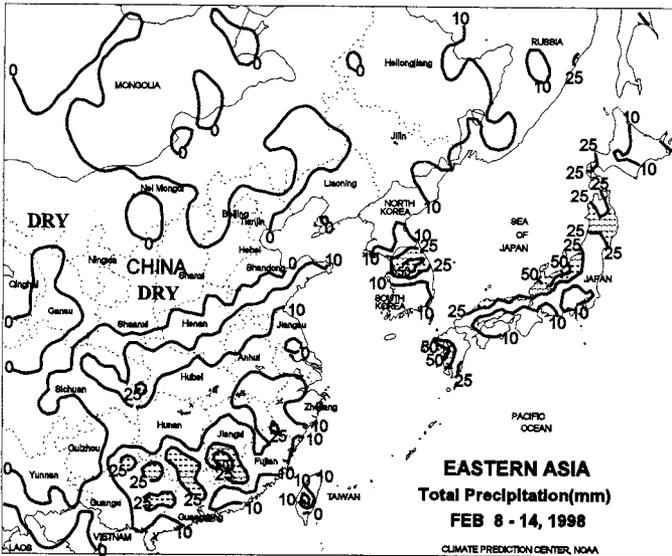


NORTHWEST AFRICA Average Temperature (C) January 1998



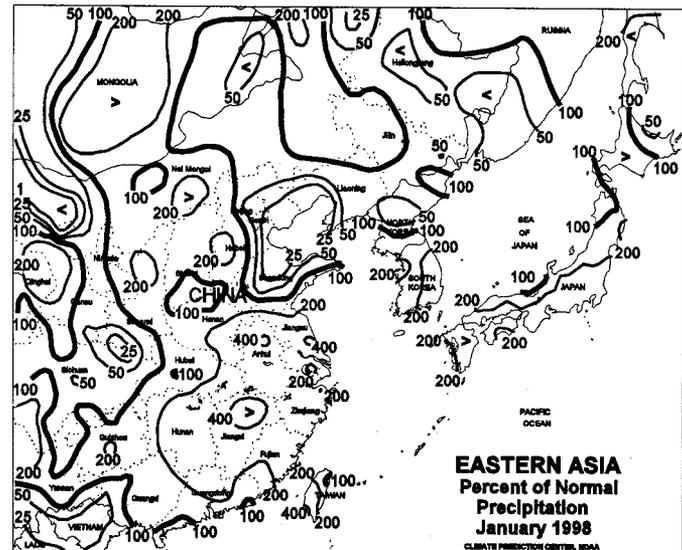
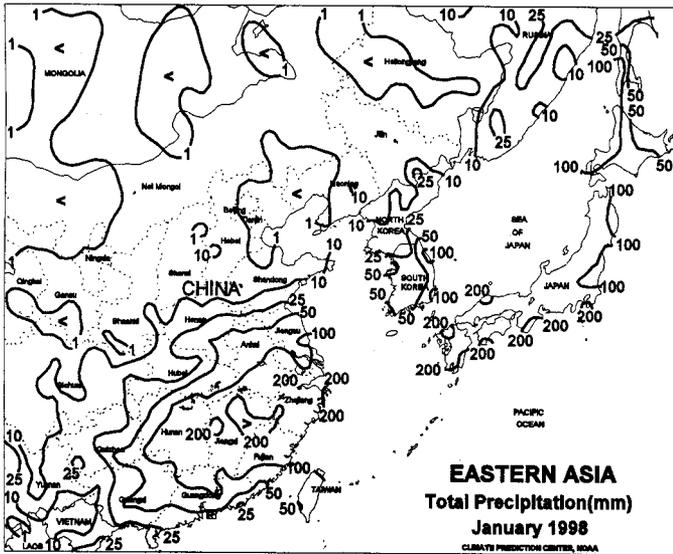
NORTHWEST AFRICA Temperature Anomaly (C) January 1998

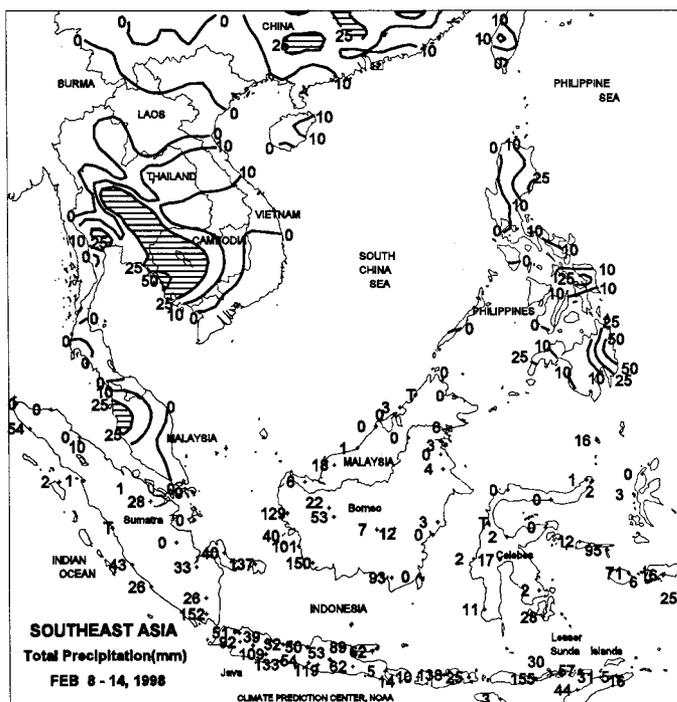
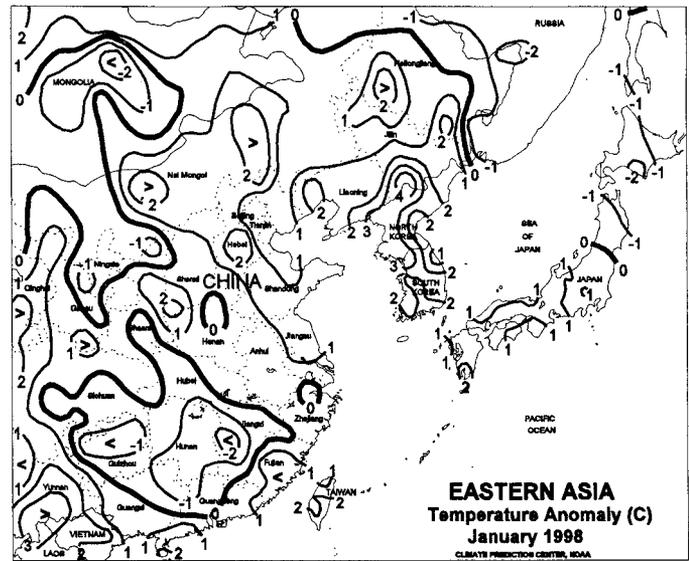
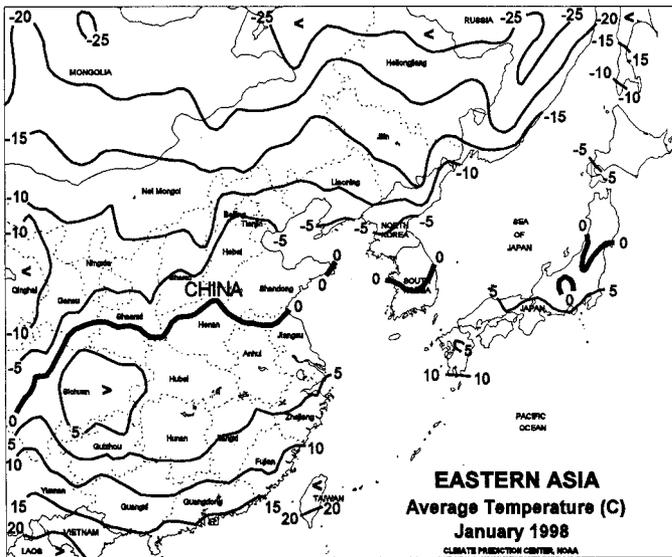




EASTERN ASIA

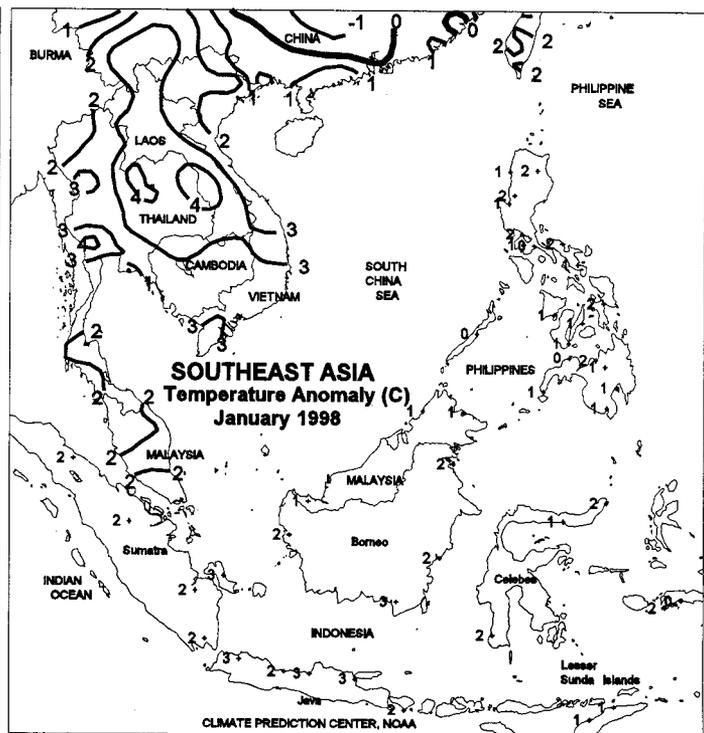
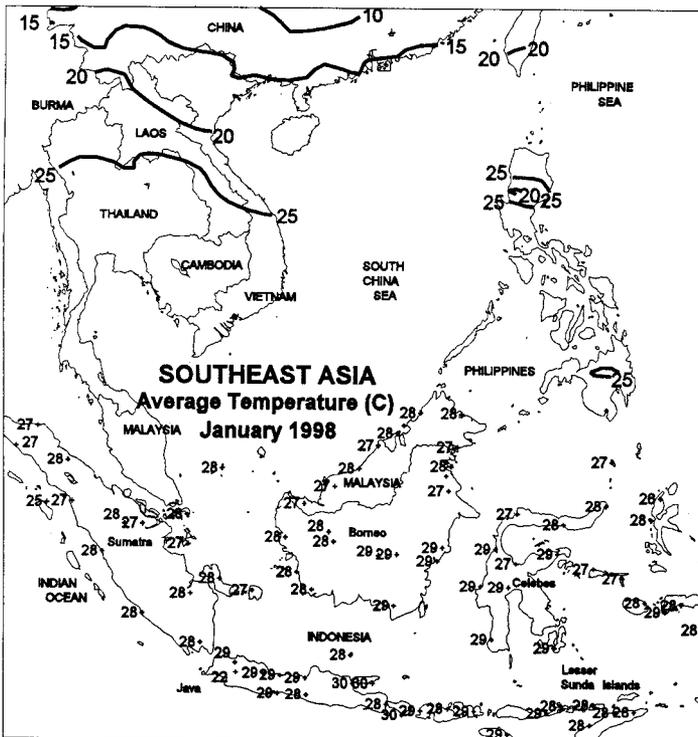
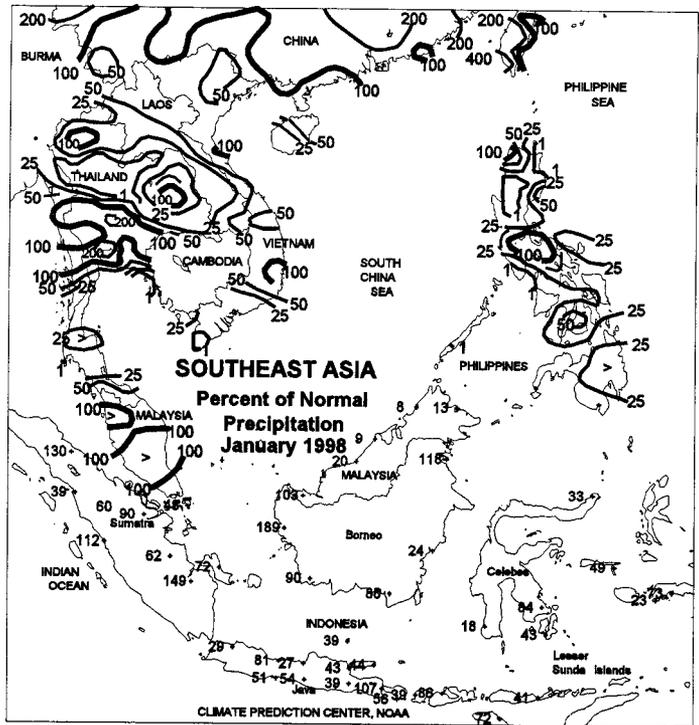
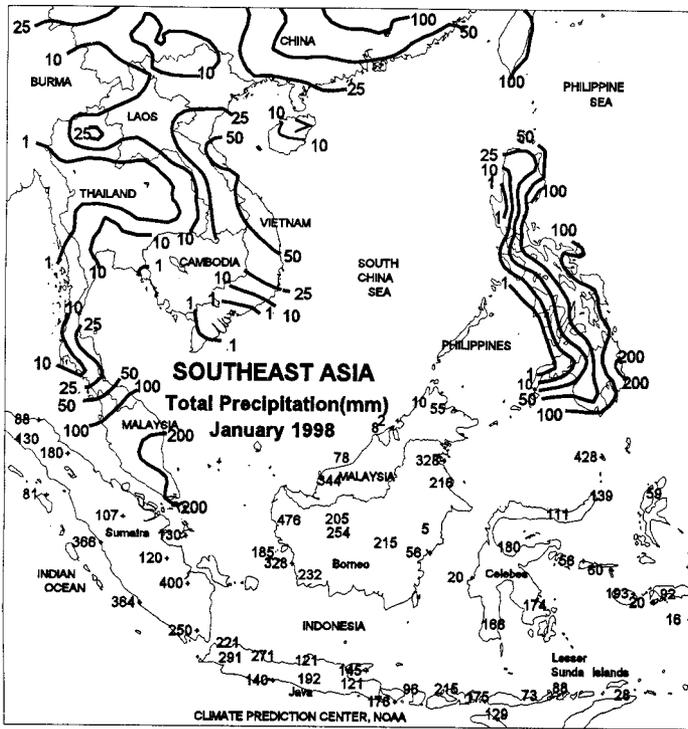
Unseasonably warm weather caused winter wheat to lose some winter hardiness across the North China Plain. Temperatures averaged 4 to 6 degrees above normal, with highs ranging from 15 to 22 degrees C. Light to moderate rain (5-25 mm) extended from southern North China Plain southward into southern China, maintaining favorable moisture supplies for winter grains and oilseeds. During January, much-above-normal rainfall (greater than 200 percent of normal) covered the Yangtze Valley and most of interior China. Seasonably light January precipitation (less than 10 mm) prevailed across the North China Plain.

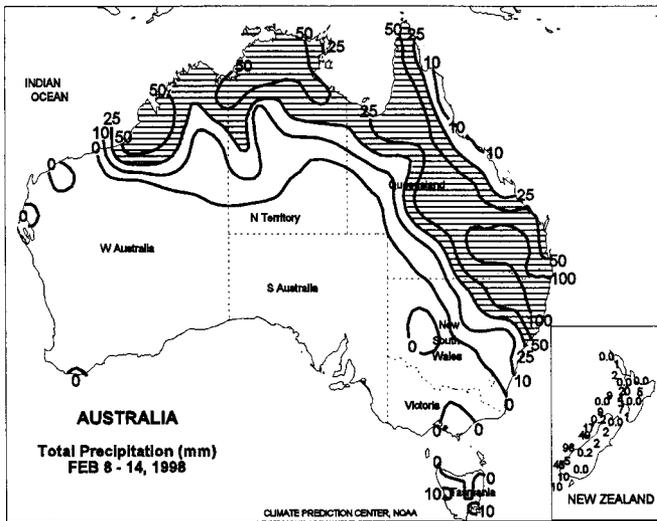




SOUTHEAST ASIA

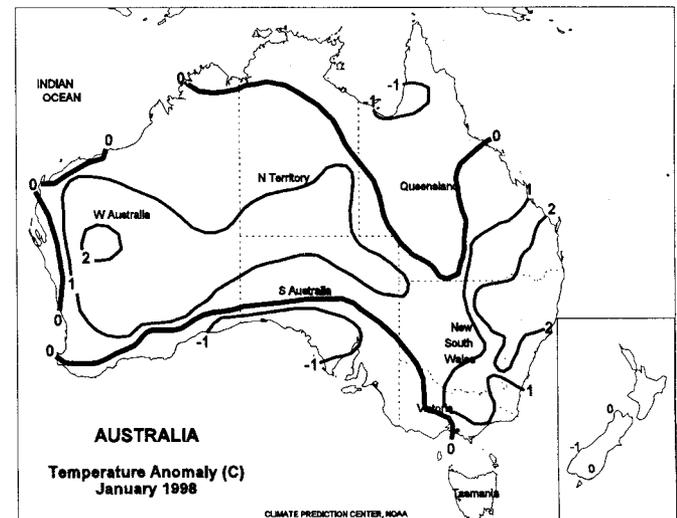
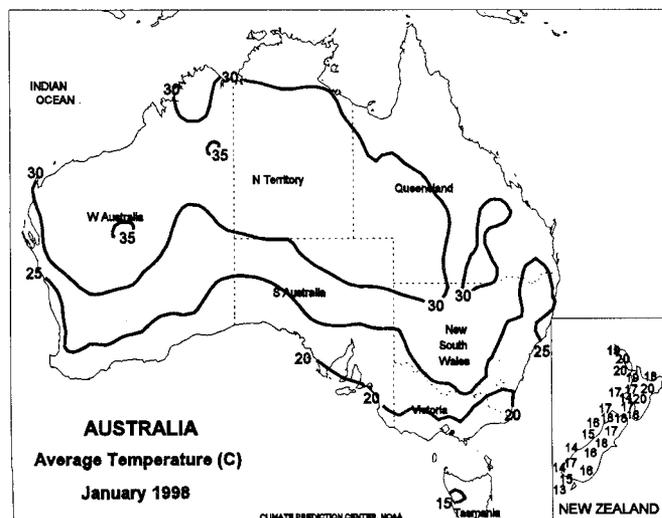
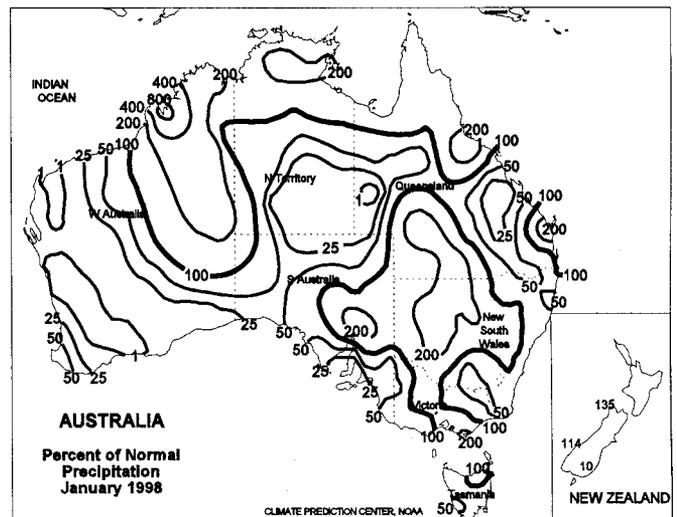
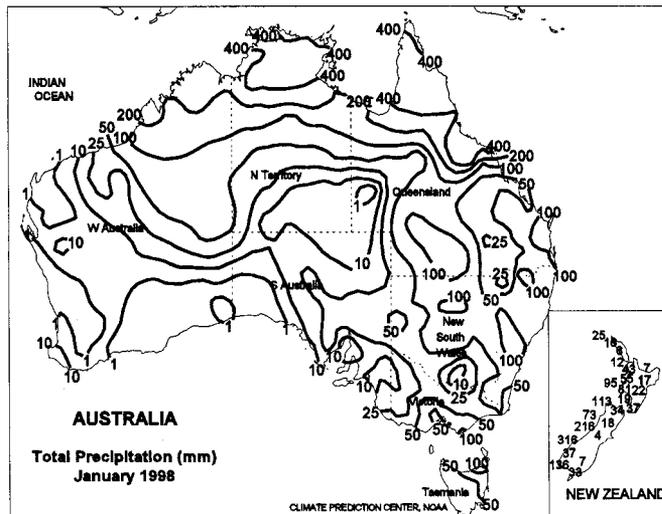
In Java and southern Sumatra, widespread heavy showers (35-120 mm) continued to benefit main-season rice and reduce long-term moisture deficits. Drought continued across the northern and eastern Philippines, as only light showers (less than 25 mm) were reported. Very dry weather (less than 15 mm) prevailed across eastern Malaysia (Sarawak and Sabah), which typically receives over 125 mm per week during early February. Scattered showers (5-35 mm) aided oil palm in peninsular Malaysia. Unseasonably heavy rain (10-50 mm) again fell across northeastern Thailand, boosting moisture supplies for second-crop rice. During January, adequate but below-normal monthly rainfall favored main-season rice in Java and southern Sumatra. Drought worsened across the northern Philippines. Above-normal January rainfall favored oil palm across the Malay Peninsula. Much-below-normal rainfall (less than 25 percent of normal) reduced moisture supplies for oil palm in eastern Malaysia (Sarawak and Sabah).

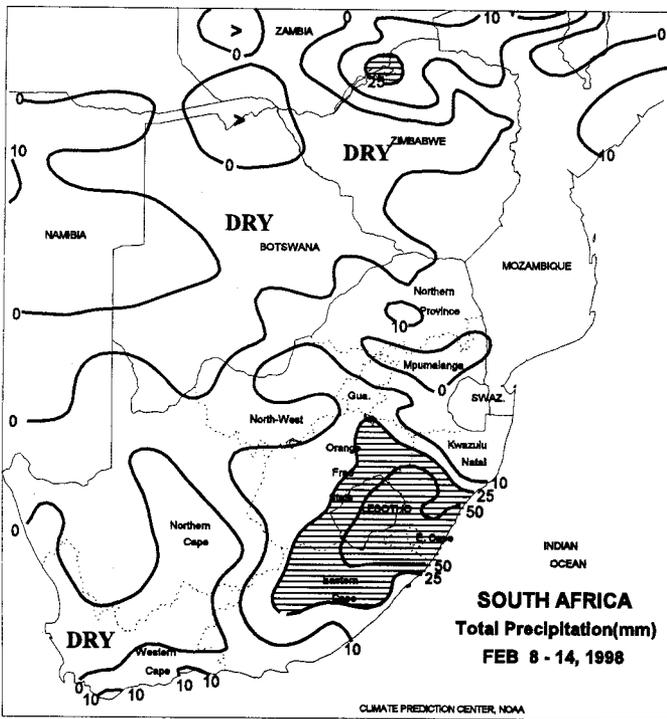




AUSTRALIA

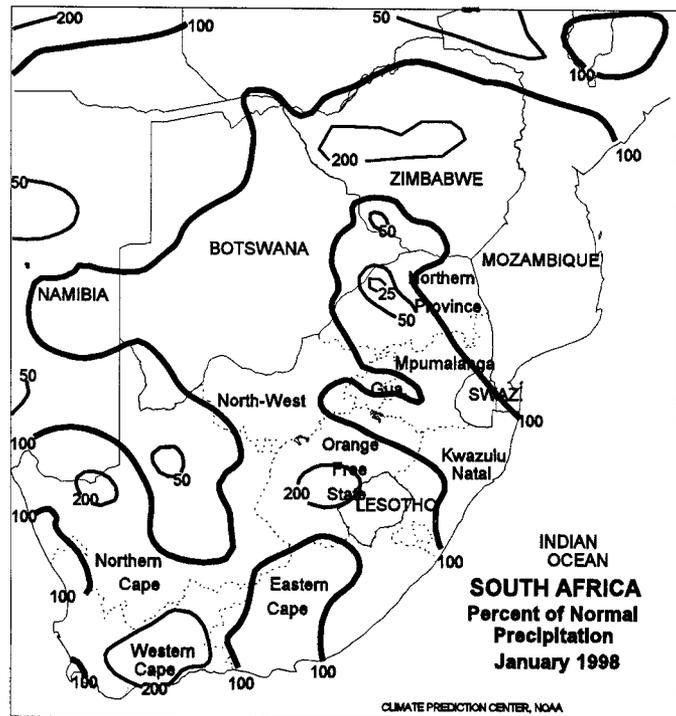
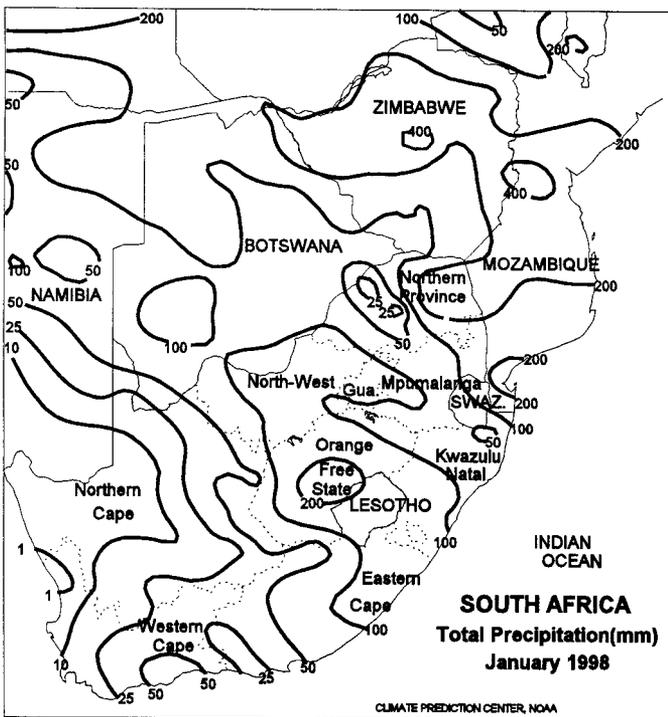
Widespread, moderate to heavy rain (25-100 mm, locally exceeding 100 mm) covered eastern Australia's primary sorghum and cotton areas. The moisture was overall favorable for immature crops, but some flooding was likely, especially in southern Queensland from Darling Downs northward. The rain also covered the southern half of the sugarcane region, but northern areas received only scattered, light showers (less than 25 mm). Rainfall diminished sharply toward the western range lands as well, with much of southwestern Queensland remaining mostly dry. Temperatures averaged near to above normal throughout the east, with highs ranging in the middle 30's C in the main summer crop zones. Rainfall was generally light (10 mm or less) over New Zealand's agricultural areas. During January, the portion of eastern Australia that experienced this week's heaviest rainfall was drier than normal, effectively sandwiched between two distinct areas of unseasonable wetness. Early in the month, an active monsoon across the north spurred heavier-than-normal rainfall across the tropics that spilled southward into the western grazing areas of Queensland and New South Wales. Flooding occurred at that time in northern sugarcane areas. In late January, heavy showers developed along the central coast, aiding southern sugarcane but missing western row crops. January temperatures averaged near to above normal, raising crop moisture demands.

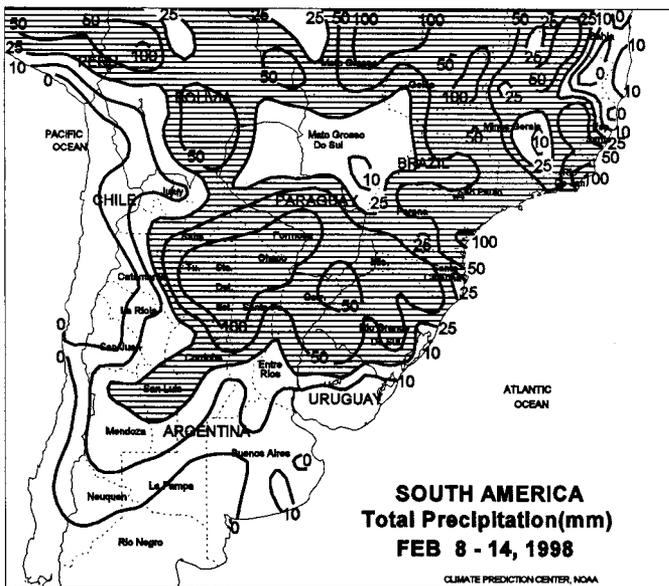
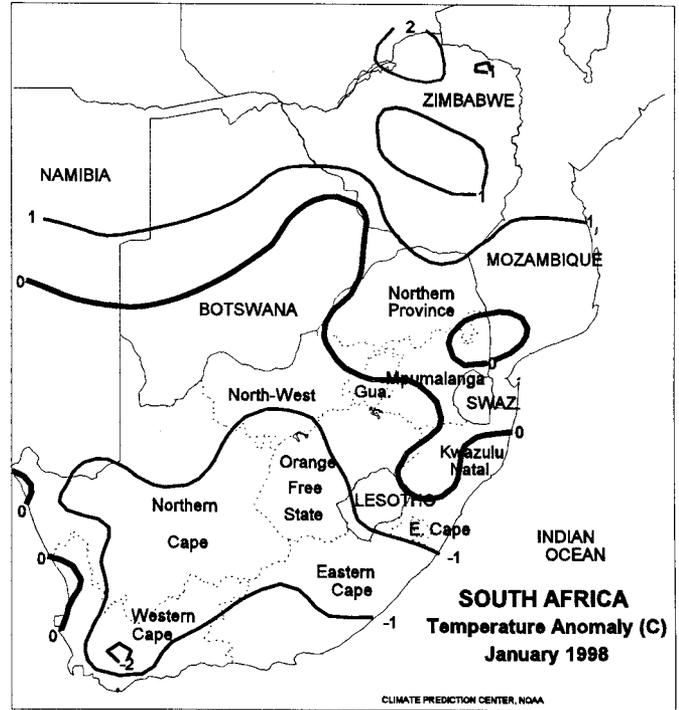
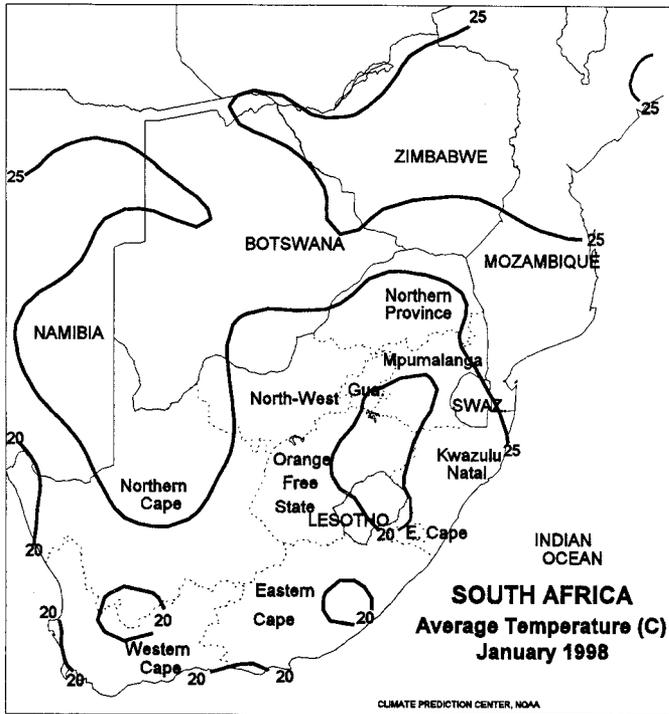




SOUTH AFRICA

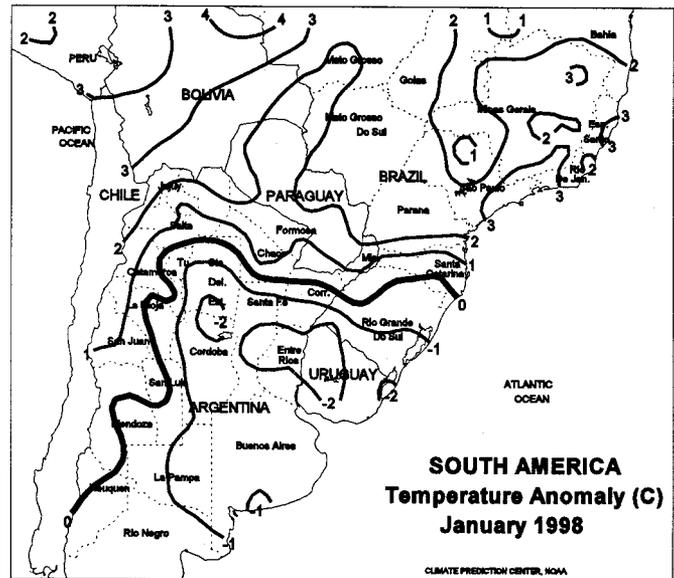
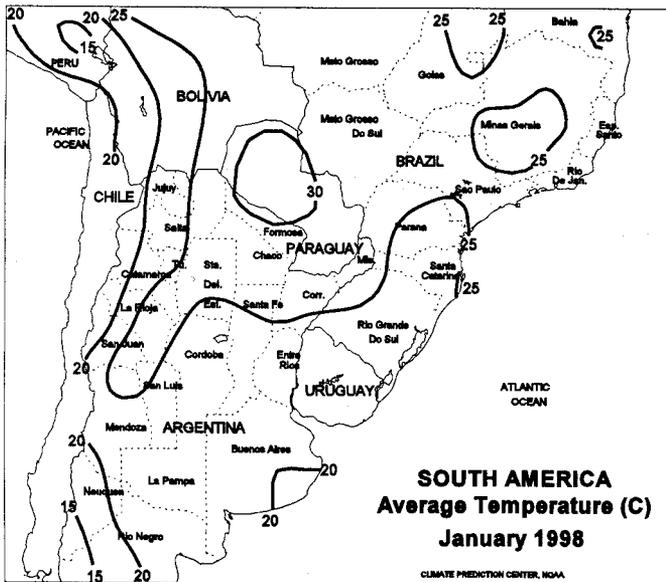
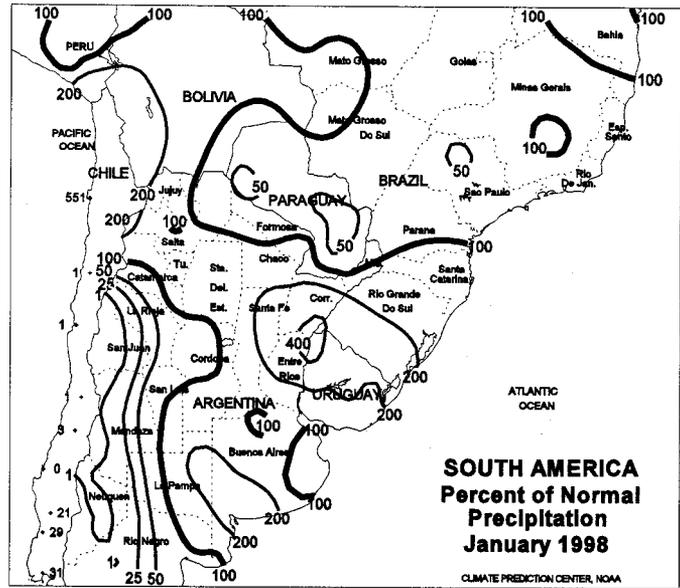
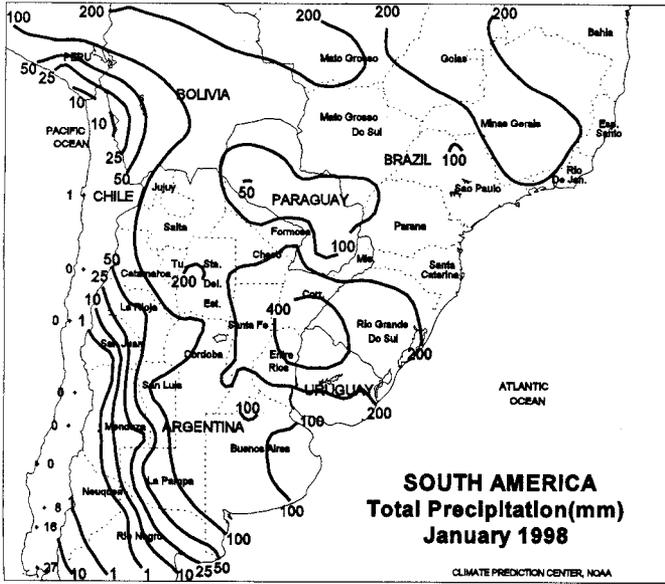
Scattered showers swept across the corn belt, bringing some relief to reproductive corn. The heaviest rain (25-50 mm or more) fell from southeastern Free State to the southern coast of Kwazulu-Natal, with lighter showers (5-31 mm) covering the northern and western corn areas. Rainfall also continued to be unseasonably light (2-12 mm) in Kwazulu-Natal's northern sugarcane areas. The late-planted portion of the corn crop, which has not yet silked, needed more rain to offset long-term moisture deficits that limit the crop's yield potential. Temperatures averaged above normal for the week, although the rains brought daily highs down to more seasonable levels late in the week. Elsewhere in southern Africa, warm, dry weather dominated much of the area south of Lake Malawi, reducing moisture for reproductive summer crops. In January, rainfall averaged near to above normal across South Africa's corn belt, with temperatures averaging near to below normal for much of the month. Rainfall totaled only about 70 percent of normal (80-100 mm for the month) in traditionally higher yielding sections of the north and east, but the timing was favorable. However, some locations went 3 weeks without significant rain in late January and early February which, along with a summer heat wave, caused stress and dried topsoils.





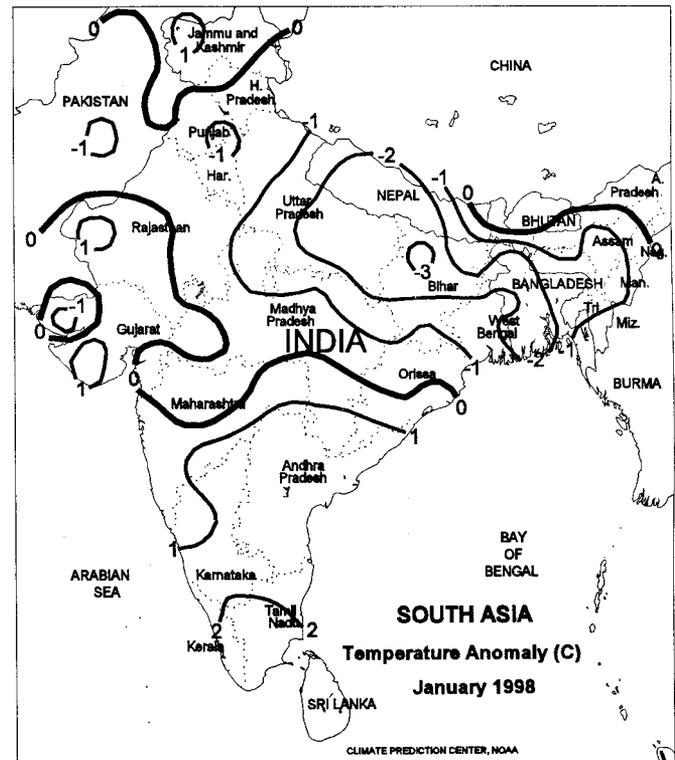
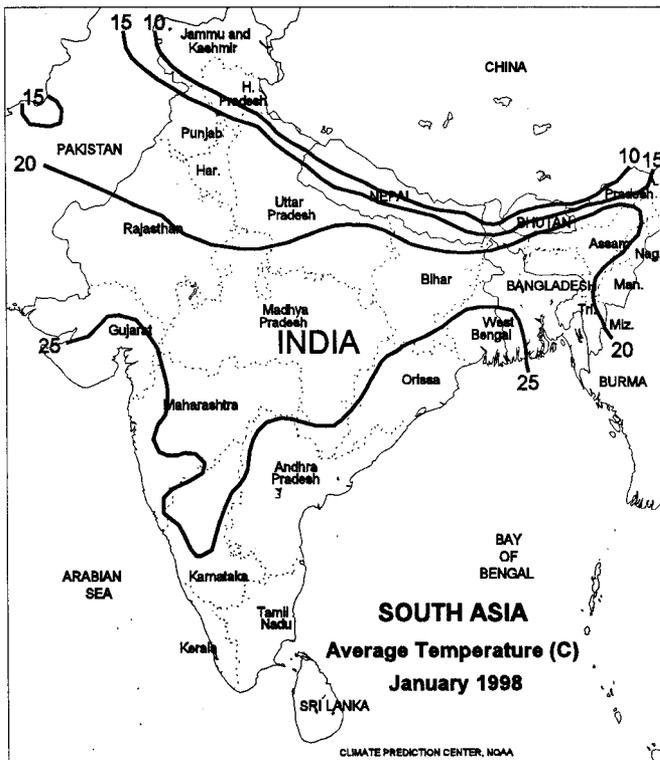
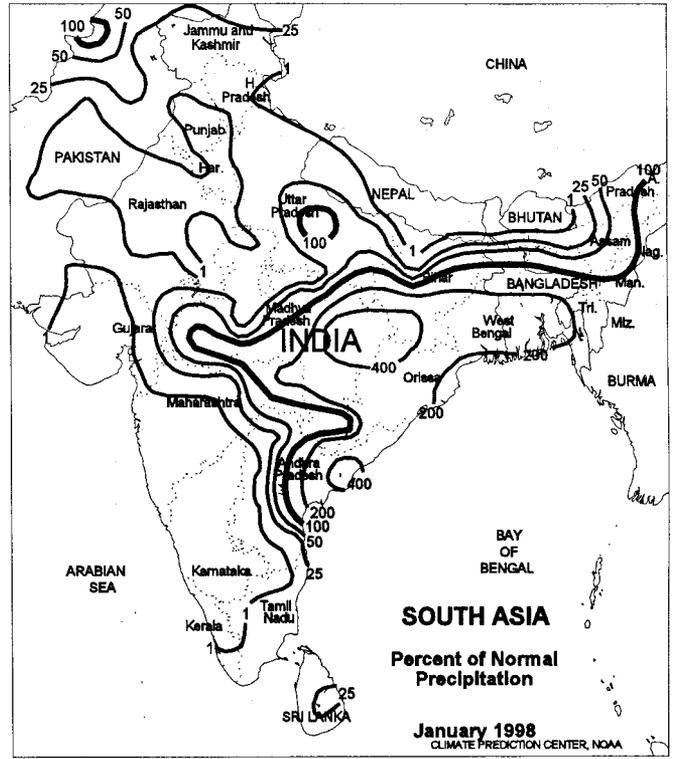
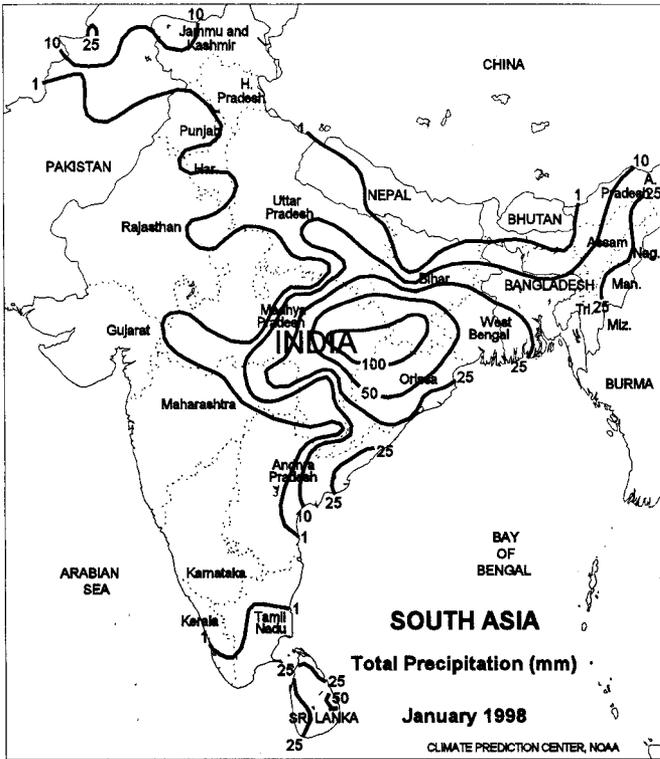
SOUTH AMERICA

Light, early-week rain (5-20 mm) maintained soil moisture for reproductive to filling corn and soybeans in central Argentina. Drier, slightly warmer weather later in the week helped to reduce summer crop disease potential. However, weekly temperatures still averaged 3 to 4 degrees below normal. Early-week heavy showers (60-130 mm) possibly caused some flooding in the cotton areas of northern Argentina and southern Paraguay. In southern Brazil, widespread moderate showers (25-80 mm) covered the main soybean areas, maintaining adequate soil moisture for filling soybeans. Temperatures averaged 2 to 3 degrees C below normal in Rio Grande do Sul, near normal in Parana, and 2 to 3 degrees C above normal elsewhere. In January, above-normal rainfall and below-normal temperatures produced ideal growing conditions for corn and soybeans in central Argentina. However, the wet, cool weather increased disease potential for maturing sunflowers. In southern Brazil, above-normal rainfall prevailed in Rio Grande do Sul, with near-normal rainfall elsewhere.



SOUTH ASIA

In January, unseasonable rain (25-100 mm) covered a large portion of the eastern rice belt centered over northern Orissa. Much of the rain came late in the month and possibly resulted in localized flooding. Consequently, temperatures in the northeast averaged 1 to 3 degrees C below normal, slowing development of winter grains and oilseeds, including rice. Elsewhere, dry weather dominated, with temperatures averaging above normal over India's southern interior. Winter wheat and rapeseed farmers would welcome any February rainfall for their reproductive crops.



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Correction: On page 9 of last week's *Weekly Weather and Crop Bulletin*, the U.S. monthly temperature and precipitation table carried the wrong date heading. The heading should be "January 1998," not "December 1998."

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