

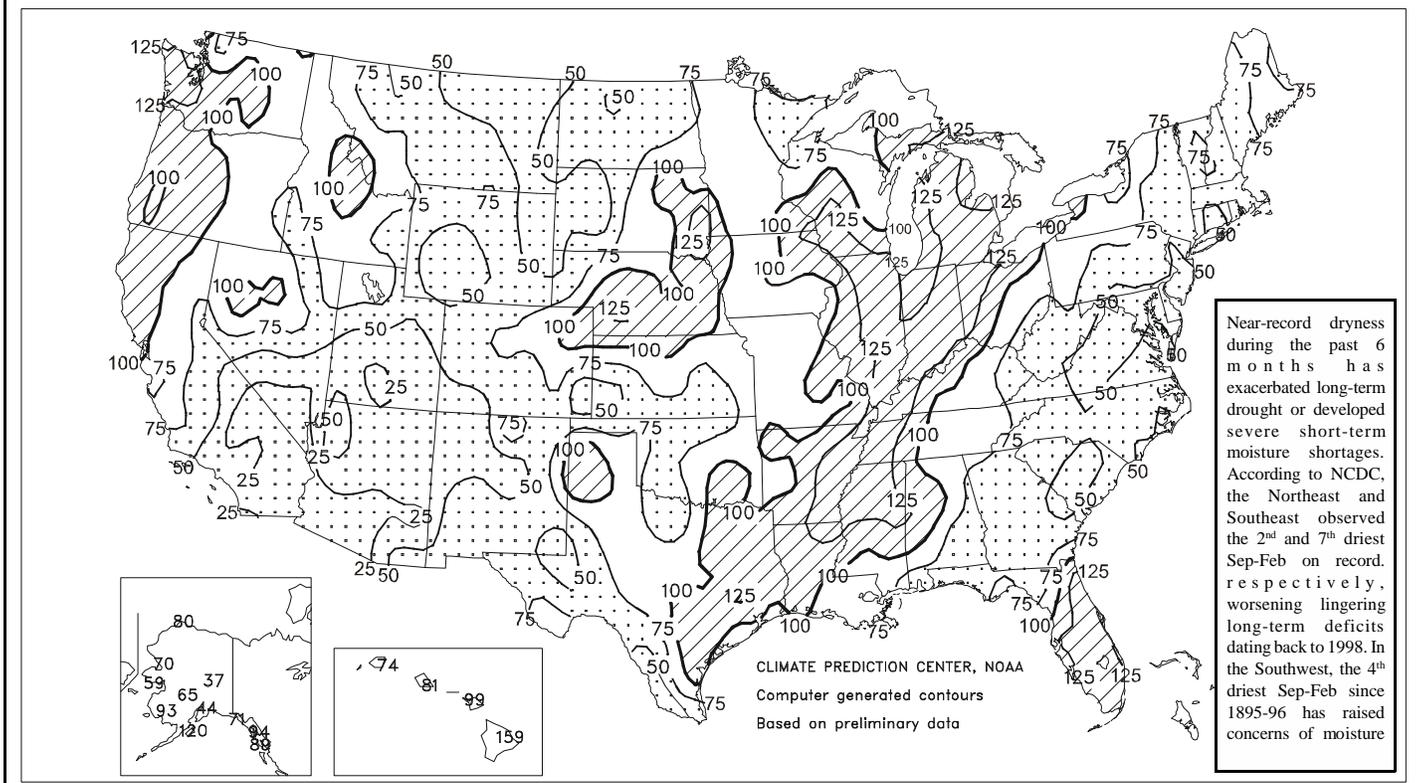
WEEKLY WEATHER AND CROP BULLETIN

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

Percent Of Normal Precipitation

SEP 1, 2001 - FEB 28, 2002



HIGHLIGHTS

March 10 - 16, 2002

Highlights provided by USDA/WAOB

A sharp frontal boundary developed across the Nation, separating cold air across the **North** and **West** from warm air in the **South** and **East**. The front, which edged southward and eastward during the week, helped to focus a band of snow across the **North** and rain in the **South**. **West of the Rocky Divide**, weekly temperatures averaged as much as 8°F below normal. Occasional frost and near-freezing temperatures were noted as far south as **California's Central Valley**. Precipitation fell heavily in the **Pacific Northwest** and maintained favorable high-elevation snow packs from the **Cascades to the northern**

(Continued on page 7)

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Water Supply Forecast for the Western United States

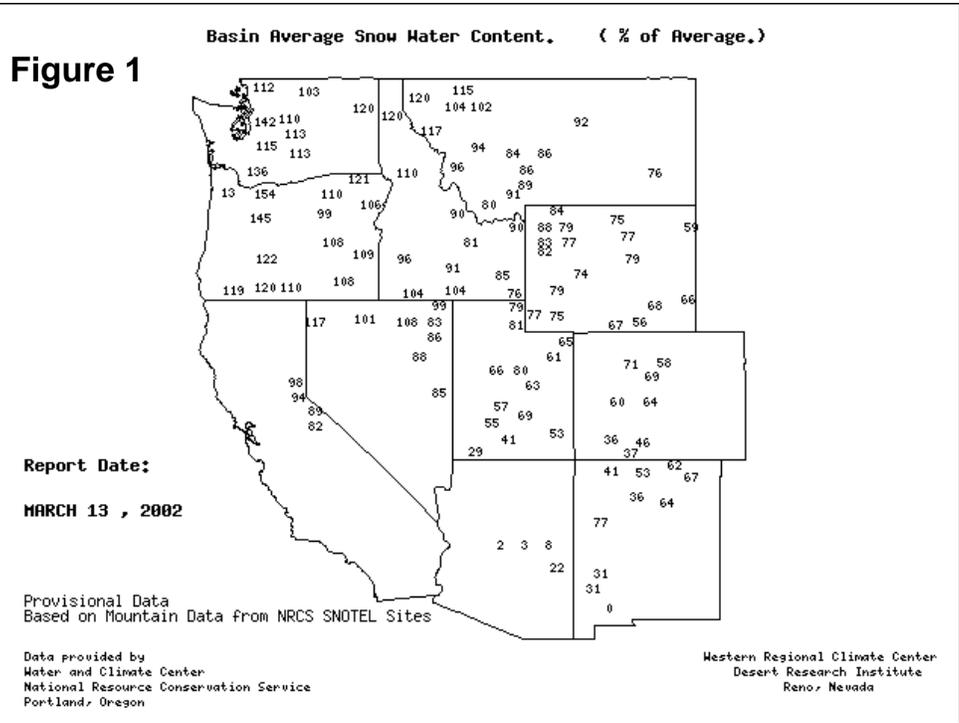
Snowpack and Precipitation

On March 13, 2002, snowpacks continued to exhibit a wide contrast, ranging from above-average totals in Pacific Northwest to well below average in the Intermountain West and Desert Southwest (Fig. 1). The entire Western snowpack diminished due to a very dry February. A significant portion of the West received less than 50 percent (%) of the average February precipitation. The northern Cascades of Oregon continued to report the highest snowpacks, generally 145 to 155% of average. Snowpacks elsewhere in Oregon, Washington, and northern Idaho were near to slightly above average.

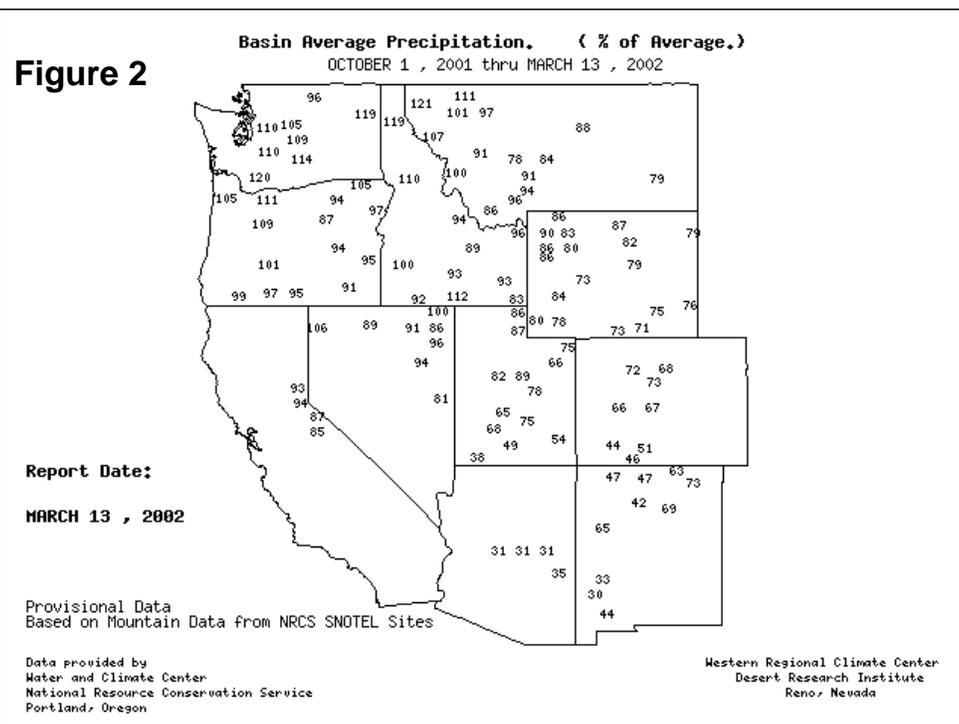
In contrast to the Pacific Northwest, snowpacks were significantly lower in the Rockies and the Desert Southwest. Snowpacks in Arizona, southwestern Utah, southern Nevada, southern Colorado, and northwestern New Mexico were less than 50% of average. Large areas of southern Wyoming, Colorado, New Mexico, and Utah reported snowpacks between 50 and 70% of average. After a near-normal start last fall, few winter storms have brought significant snow to the Rockies and Desert Southwest through the winter.

Season-to-date precipitation (October 1 - March 13) showed well-below-average totals in southern California, southern Nevada, Arizona, New Mexico, southern Utah, southwestern Colorado, much of Wyoming, and central Montana (Fig. 2). The Pacific Northwest, northern California, and northern Nevada reported near-average seasonal precipitation. The Oregon and Washington Cascades and portions of the northern Rockies reported slightly above-average seasonal precipitation.

SNOTEL – River Basin Snow Water Content



SNOTEL – River Basin Precipitation



Spring and Summer Streamflow Forecasts

The March 1, 2002, forecasts were for well-below-average water supplies in the Rockies and the Southwest (Fig. 3). In fact, extremely low seasonal snowpacks in the Southwest resulted in near-record minimum streamflow volume forecasts for Arizona, New Mexico, southern Utah, and southern Colorado. Water supplies were forecast to be generally below average in central California, northern Nevada, central Idaho, and southwestern and central Oregon. Water supplies were forecast to be near to slightly above average in the remainder of the Pacific Northwest.

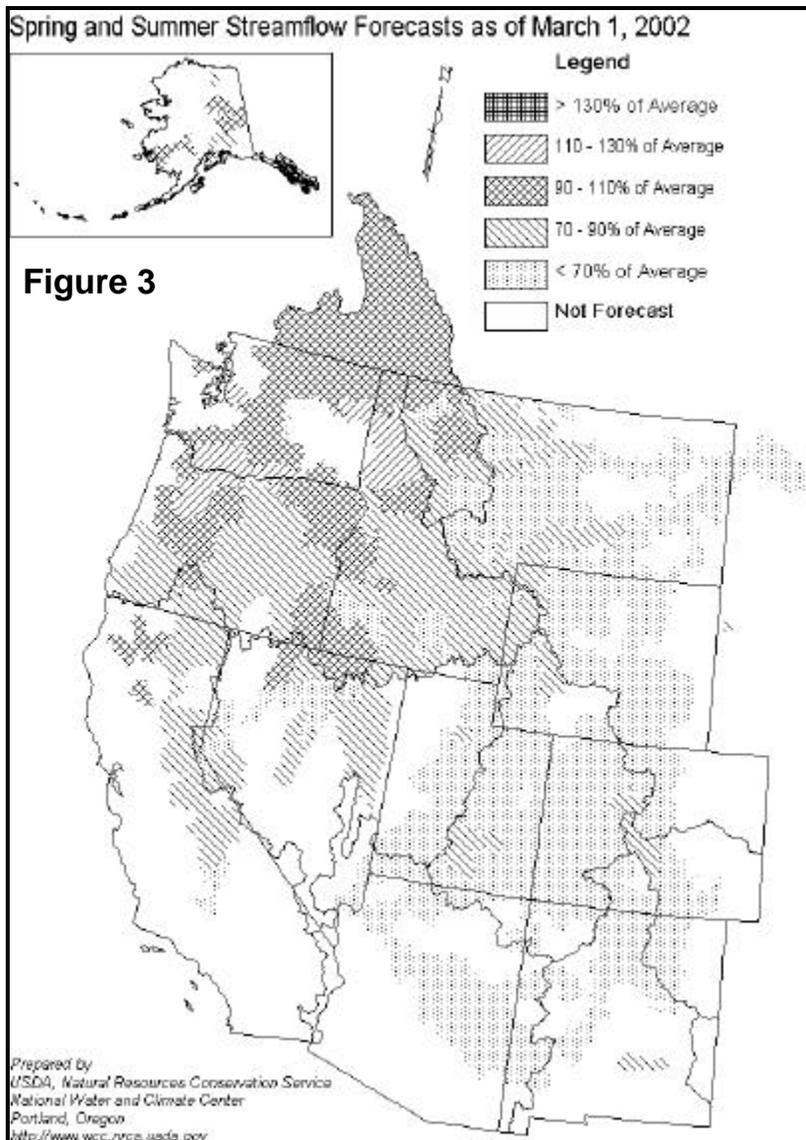
Reservoir Storage

Reservoir storage was below seasonal averages in all Western States (Fig. 4), reflecting the carryover effects of last year's drought and seasonal precipitation deficiencies that have affected most of the West. Each State's share of Western reservoir capacity appears in figure 5.

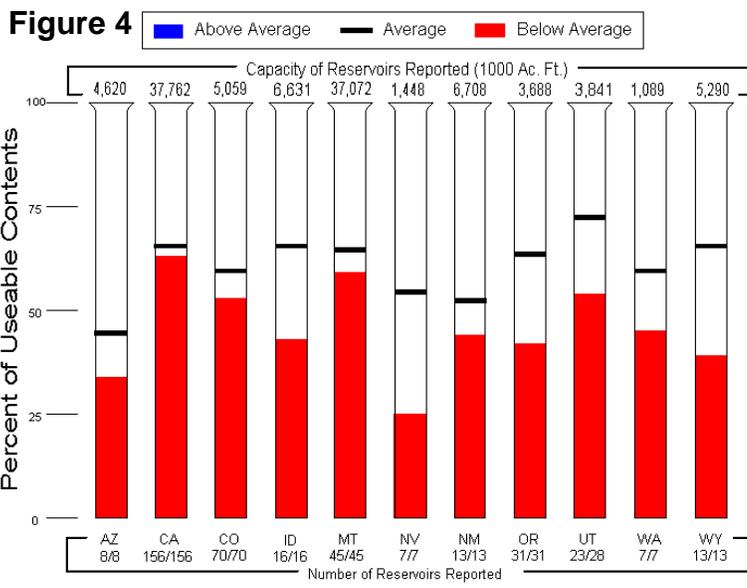
For More Information

The National Water and Climate Center Homepage provides the latest available snowpack and water supply information. Please visit:

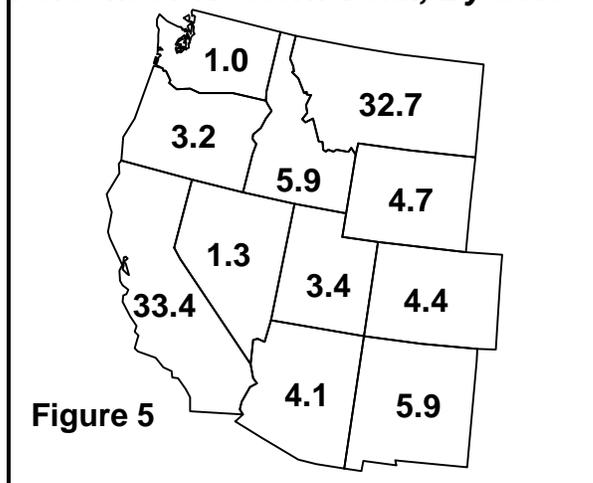
<http://www.wcc.nrcs.usda.gov>



Reservoir Storage as of March 1, 2002

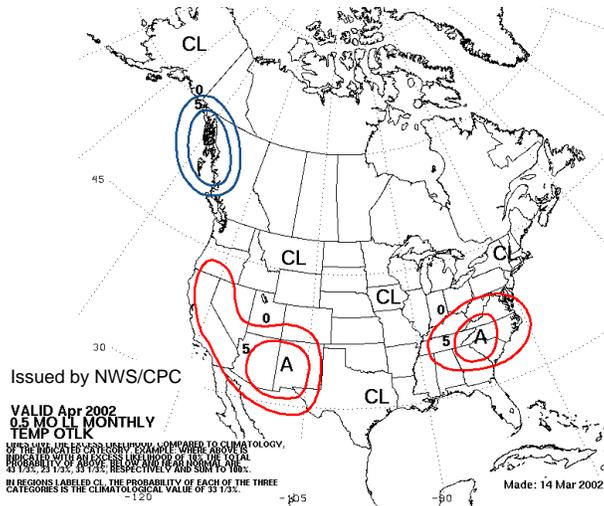


Western Reservoir Capacity
 Percent of Western Total, By State*



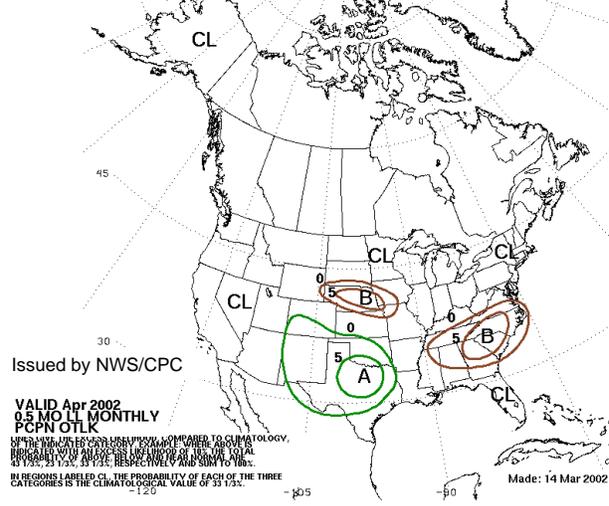
Monthly Temperature & Precipitation Outlook

Temperature Outlook: April 2002



Above-normal temperatures (A) are expected to persist across much of the Mid Atlantic and portions of the Southeast. In addition, above-normal temperatures will likely develop in the Southwest, Great Basin, and much of California. For the rest of the United States, forecast indicators favor neither above- nor below-normal temperatures, so climatology (CL) is forecast.

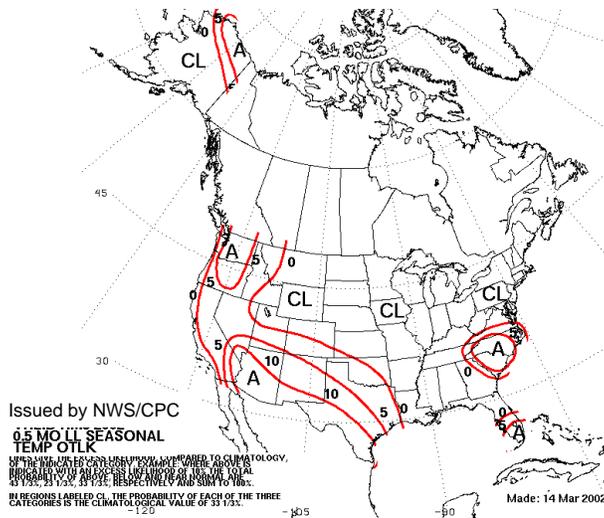
Precipitation Outlook: April 2002



Below-normal precipitation (B) is expected to accompany warmer-than-normal temperatures in the Mid Atlantic and portions of the Southeast. Dry conditions are also forecast for portions of the central Plains. Conversely, above-normal precipitation (A) is likely from the southern Plains westward to the southern Rockies. Elsewhere, there are no strong forecast indicators for above- or below-normal precipitation, so climatology (CL) is forecast.

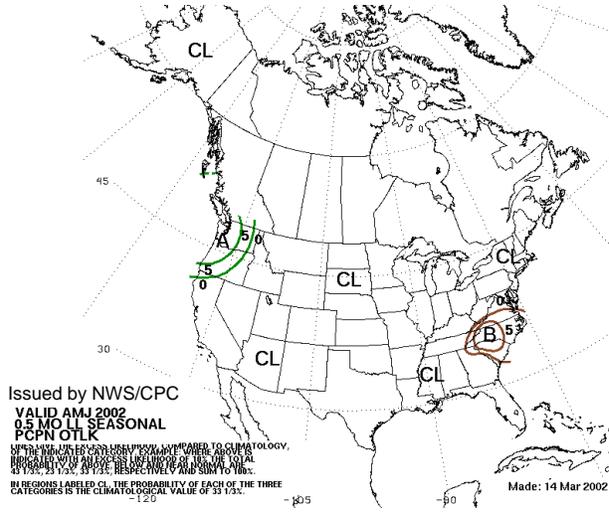
Seasonal Temperature & Precipitation Outlook

Temperature Outlook: April - June 2002



Above-normal (A) temperatures are expected to persist in portions of the Mid Atlantic and Southeast. Above-normal temperatures will also expand north and east from the Southwest to include the Pacific Northwest and the southern Plains. Southern Florida will also see an increased likelihood of above-normal temperatures. Climatology (CL) is forecast for the rest of the country, since forecast indicators favor neither above- nor below-normal temperatures.

Precipitation Outlook: April - June 2002



An area of below-normal rainfall (B) is expected over portions of the Mid Atlantic and Southeast. Wetter-than-normal (A) conditions are forecast for the coastal Pacific Northwest. For the remainder of the United States, there are no strong indicators for above- or below-normal precipitation. Therefore, climatology (CL) is forecast for the rest of the country.

Weather Data for Selected Locations in the Delta and the Bootheel

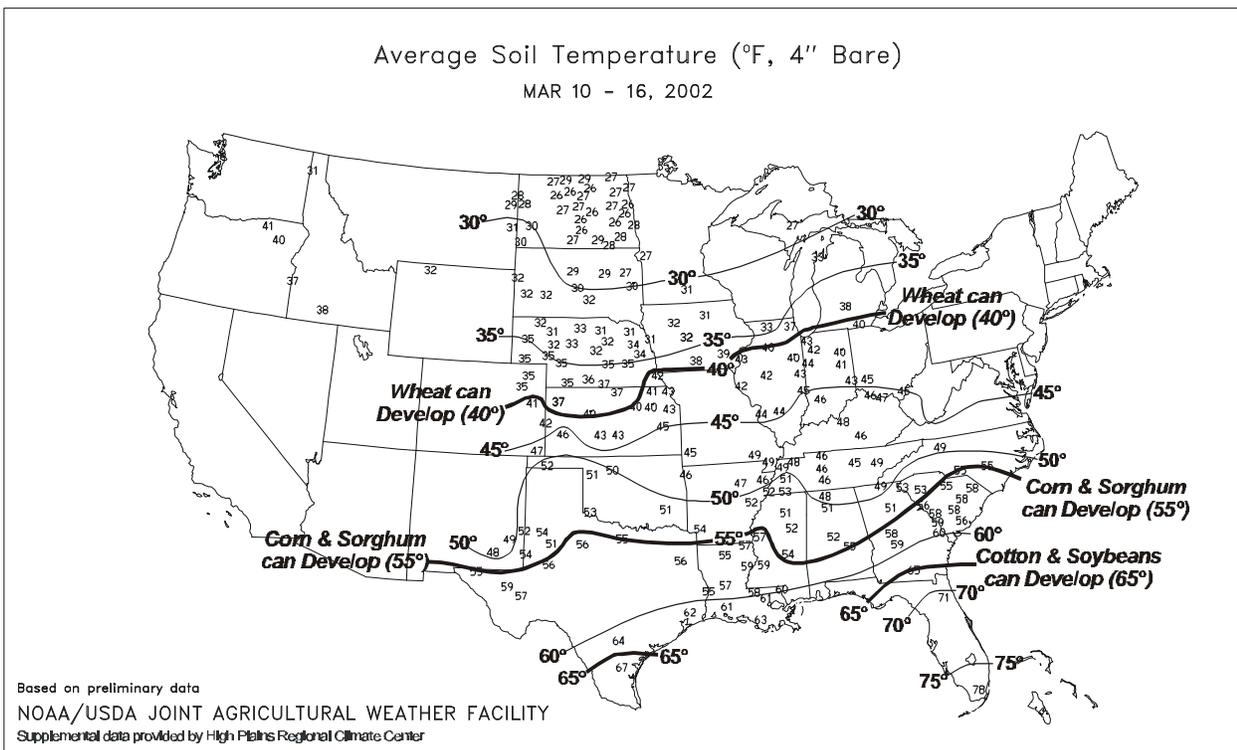
Weather Data for the Week Ending March 16, 2002

Data provided by the Mississippi State Delta Research and Extension Center (DREC), the Southern Regional Climate Center (SRCC), and the University of Missouri.

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							4-INCH SOIL TEMP, °F		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 Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP	
																90 AND ABOVE	32 AND BELOW	0.1 INCH OR MORE	5.0 INCH OR MORE
MS BATESVILLE ^x	61	38	78	27	50	-1	3.80	2.47	2.60	4.40	148	17.28	144	--	--	0	3	3	2
BELZONI ^x	64	44	83	35	54	-1	2.25	0.78	1.00	3.25	102	--	--	--	--	0	0	3	2
CLARKSDALE ^x	59	41	78	32	50	-3	3.23	1.97	1.90	3.78	135	14.66	115	--	--	0	2	2	2
CLEVELAND ^x	64	38	80	28	51	-4	2.94	1.54	1.45	3.27	106	15.54	125	--	--	0	2	3	2
GREENVILLE ^x	62	39	78	31	51	-3	2.05	0.72	1.44	2.30	78	15.95	123	--	--	0	2	3	1
GREENWOOD ^x	66	45	83	30	56	1	1.45	0.14	0.62	2.19	76	13.05	106	--	--	0	2	4	2
INDIANOLA 1S	63	44	81	33	54	--	2.39	--	0.78	2.91	--	13.54	--	57	49	0	0	4	2
INVERNESS 5E	65	46	82	36	56	--	1.82	--	0.77	2.31	--	12.40	--	60	51	0	0	4	2
LYON	60	42	80	32	51	--	2.13	--	1.46	3.22	--	--	--	57	48	0	1	3	1
MOORHEAD ^x	65	46	83	34	56	1	1.45	0.11	0.75	1.71	57	12.80	98	--	--	0	0	4	2
ONWARD	66	46	83	34	56	--	2.75	--	1.69	3.61	--	11.26	--	57	51	0	0	3	2
ROLLING FORK ^x	66	43	85	33	55	0	0.70	-0.70	0.35	1.50	48	9.39	70	--	--	0	0	3	0
SIDON	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TUNICA ^x	61	41	78	32	51	-1	3.84	2.59	3.18	5.10	185	11.47	101	--	--	0	1	3	2
TUNICA 1W	59	42	78	31	51	--	3.72	--	2.50	4.82	--	10.40	--	55	47	0	2	4	2
VANCE	60	43	80	32	52	--	2.14	--	1.04	--	--	--	--	56	48	0	2	4	2
VICKSBURG ^x	68	45	84	36	57	-1	2.02	0.55	0.89	2.33	72	10.66	75	--	--	0	0	4	2
YAZOO CITY ^x	66	45	84	33	56	-1	4.49	2.94	2.38	4.53	132	13.26	90	--	--	0	0	4	3
STONEVILLE ^x	63	40	81	31	52	-2	2.15	0.89	1.34	2.30	82	15.38	121	60	49	0	2	3	2
MO CARDWELL	58	38	75	28	48	-1	1.11	0.21	0.90	1.84	74	8.72	90	52	47	0	2	4	1
CHARLESTON	56	37	72	27	46	-1	0.43	-0.47	0.23	1.40	66	7.46	83	52	43	0	2	4	0
CLARKTON	58	38	73	27	47	-1	1.01	0.11	0.50	2.55	129	8.81	107	--	--	0	2	3	1
DELTA	54	36	69	28	45	-2	1.49	0.51	1.18	2.57	115	9.07	93	51	41	0	2	3	1
GLENNONVILLE	57	38	72	28	47	-1	0.68	-0.22	0.43	1.81	91	7.82	95	53	44	0	2	3	0
PORTAGEVILLE #1	58	39	73	29	48	0	0.71	-0.22	0.47	1.70	73	8.67	91	55	44	0	1	4	0
PORTAGEVILLE #2	58	38	73	26	48	0	0.71	-0.22	0.47	1.57	67	8.04	85	55	44	0	2	4	0
STEELE	59	40	74	29	49	1	0.92	-0.09	0.78	1.77	69	9.25	91	53	45	0	1	4	1

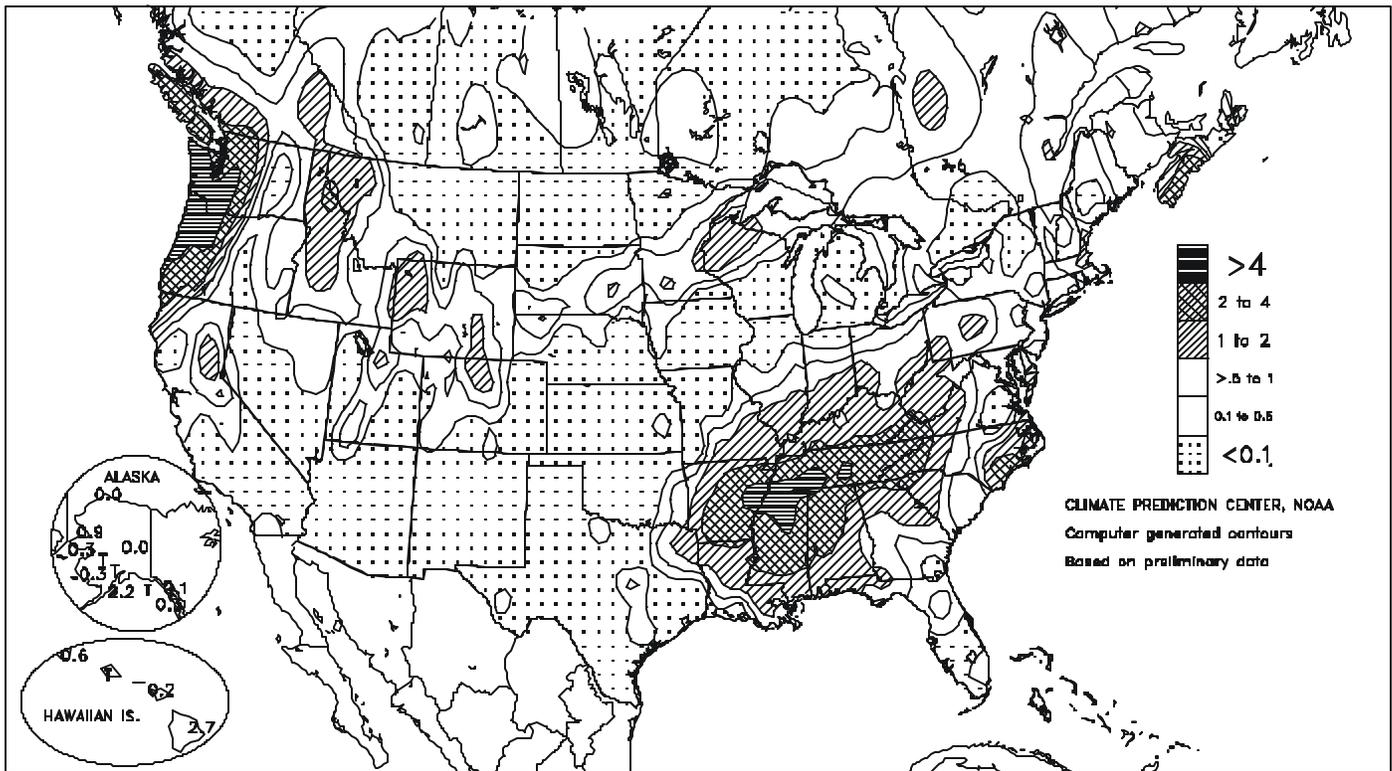
Compiled by USDA/OCE/WAOB's Stoneville Field Office. ^x Based on 1971-2000 normals.

Delta and Bootheel Weather and Crop Summary: The region experienced typical March conditions, with rapid weather transitions. A low-pressure system that moved south of the area early in the week produced enough rain to halt fieldwork, including corn planting, in many locations. A late-week cold front pushed weekly rainfall totals above normal in parts of the Delta. Fieldwork prior to the rainfall included the application of mixed fertilizer and nitrogen to cotton ground. Winter wheat remained at the seeding and tiller stages.



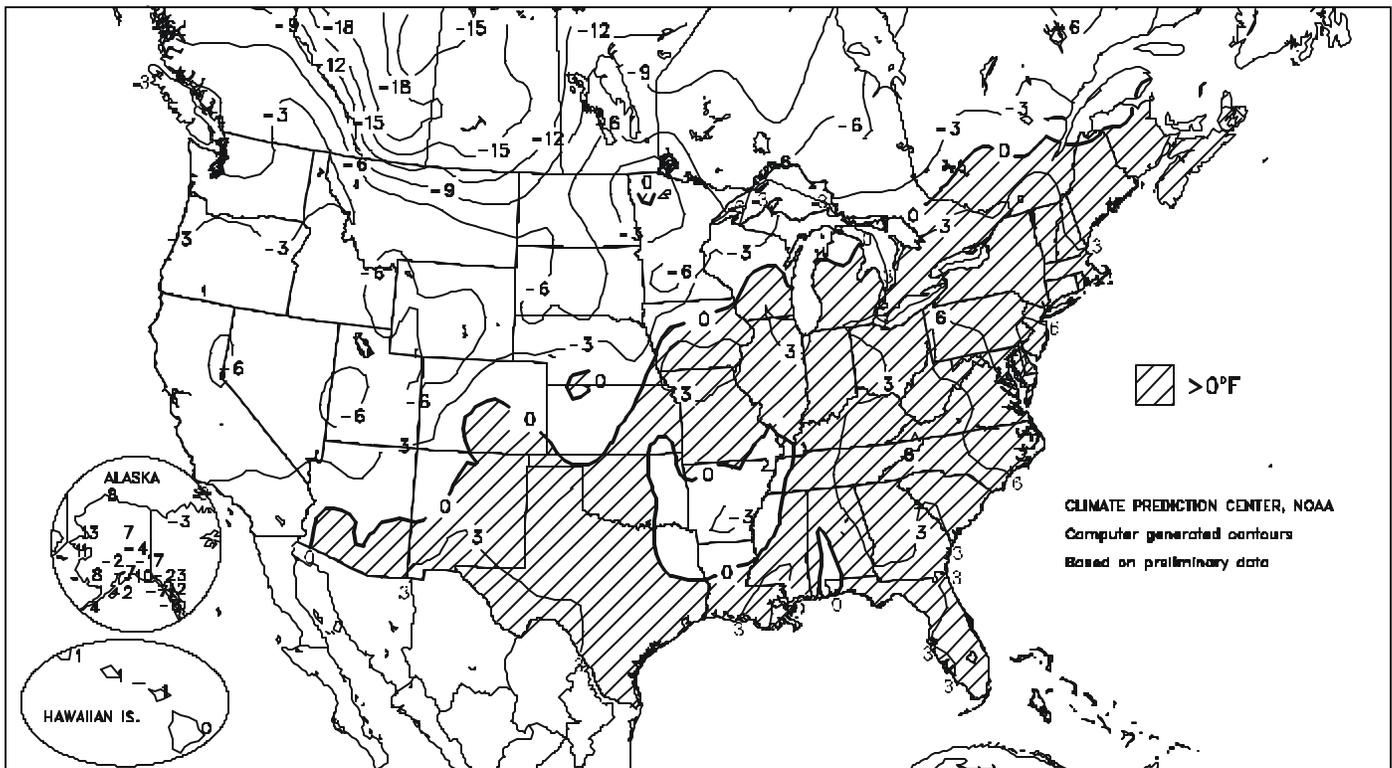
Total Precipitation (Inches)

MAR 10 - 16, 2002



Departure of Average Temperature from Normal (°F)

MAR 10 - 16, 2002



(Continued from front cover)

and south as **Wyoming, Utah, and Colorado**, extremely dry conditions persisted across the **Southwest**. Unfavorably dry weather also continued on the **High Plains**, except in a swath across **Wyoming, South Dakota, and northern Nebraska**, where heavy snow fell. Although temperatures averaged more than 10°F below on parts of the **northern High Plains**, the drought-stressed winter wheat crop lost a portion of its protective snow cover. Meanwhile, hot, windy conditions briefly overspread the **southern Plains**, lifting temperatures above 90°F in some locations and reducing topsoil moisture availability for wheat development. In contrast, late-week showers dampened the **Ohio Valley's** winter wheat crop, which began to break dormancy. Elsewhere in the **Midwest**, heavy snow blanketed much of the **northwestern Corn Belt**, maintaining stressful March conditions for livestock, following a remarkably mild winter. Across the **South**, much warmer weather (up to 10°F above normal in the **southern Mid-Atlantic region**) replaced the previous week's record-setting chill. In addition, widespread rain fell prior to midweek in conjunction with a slow-moving storm system, and again at week's end during the approach of a cold front. Weekly rainfall totaled 4 inches or more in many locations from the **northern Delta region to the southern Appalachians**, halting fieldwork and causing some flash flooding. In the **East**, topsoil moisture improvements continued to reduce the threat of wildfires and aid pastures and winter grains, despite underlying long-term drought.

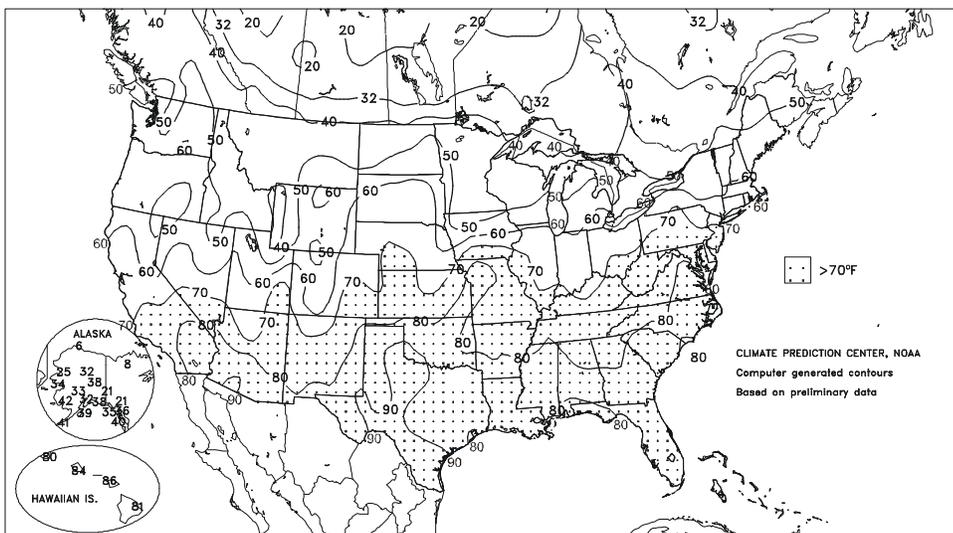
As warm weather expanded across the **South and East**, more than two dozen daily-record highs were established from March 12-16. Gusty winds and blowing dust preceded the warm air's arrival across portions of **New Mexico** and **western Texas** on March 11, lowering visibilities to as little as 2 miles in some locations, including **Midland, TX**. By March 13, daily-record highs included 79°F in **Albuquerque, NM**, and 87°F in **Amarillo, TX**. Elsewhere in **western Texas**, highs soared to 92°F in **Childress** and 95°F in **Wink**. Record warmth shifted into the **Southeast** by week's end, where Saturday's highs climbed to 87°F in **Savannah, GA**, and **Florence, SC**.

Meanwhile, cooler air overspread areas from the **Plains westward**, setting more than a dozen daily-record lows on March 15 and 16. On Friday in **southern California**, freezes were noted nearly to the **Pacific Coast** in locations such as **Paso Robles (25°F)** and **Santa Maria (31°F)**. A day later, daily-record lows included -1°F in **Chadron, NE**, -2°F in **Eureka, NV**, and -9°F in **Rawlins, WY**.

From March 13-15, a narrow band of heavy snow spread from the **northern Intermountain West to the upper Great Lakes region**, including **northern Nebraska** and portions of **South Dakota**. On Thursday, the 15-inch total in **Kennebec, SD**, shattered their single-day snowfall record for March (previously 12 inches on March 17, 1957). In **eastern Wyoming**, storm-total snowfall reached approximately 2 feet at Lusk. Elsewhere, March 13-15 snowfall included 10.8 inches in **Minneapolis, MN**, 12.0 inches in **Valentine, NE**, and 19.0 inches in **Huron, SD**. **Marquette, MI**, was blanketed by 17.9 inches of snow, leaving their month-to-date snowfall at 59.3 inches and seasonal total at 276.8 inches. **Marquette's** former seasonal snowfall record was 272.2

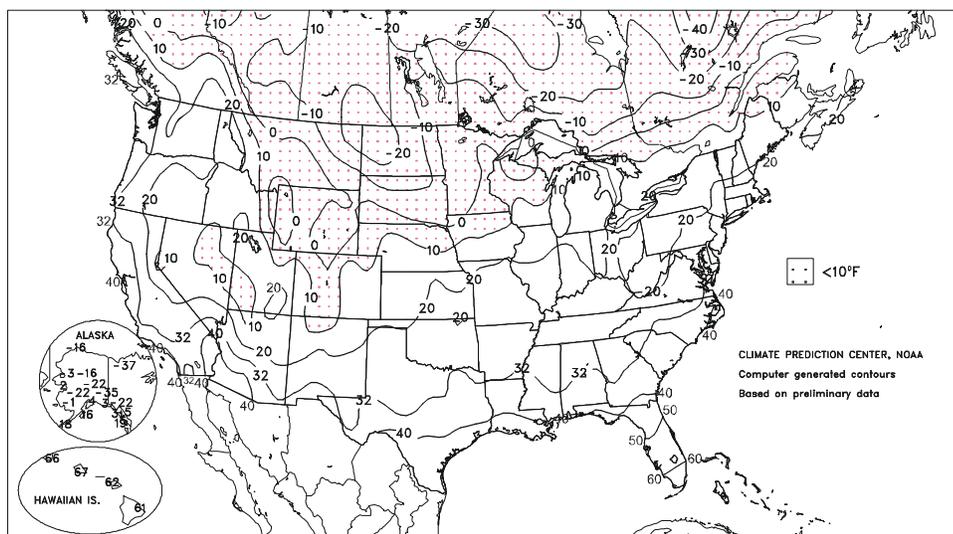
Extreme Maximum Temperature (°F)

MAR 10 - 16, 2002



Extreme Minimum Temperature (°F)

MAR 10 - 16, 2002



inches, set in 1996-97.

Farther south, two rounds of heavy rain struck roughly the same areas from the **northern Delta region to the southern Ohio Valley and southern Appalachians**. For example, **Memphis, TN**, netted 2.56 inches on March 11-12 and 5.28 inches from March 15-18. The second rainfall event produced even heavier amounts farther east, including 6.72 inches in **Knoxville, TN**, from March 16-18. Some of the rain fell at high enough rates to cause significant flash flooding, such as the 24-hour (March 16-17) total of 5.24 inches in **Wise, VA**.

In **Hawaii**, sporadic, locally heavy showers intensified and became more widespread across the western islands at week's end. On March 16-17, 24-hour rainfall totals included 5.24 inches in **Kokee, Kauai**, and 3.70 inches on the **Ahuimanu Loop**, near **Kaneohe, Oahu**. Meanwhile, temperatures contrasted sharply across **Alaska** for the second consecutive week, ranging from more than 10°F above normal across westernmost portions of the State to as much as 10°F below normal across southeastern areas. Only light precipitation was observed through midweek, when heavier amounts began to overspread **southwestern Alaska**. **Cold Bay** netted 3.53 inches of rain on March 14-15, including a daily-record total of 2.29 inches on the latter date. Later, **Kodiak Island** received 2.41 inches (8.8 inches of snow) on March 16-17.

National Weather Data for Selected Cities

Weather Data for the Week Ending March 16, 2002

Data Provided by Climate Prediction Center (301-763-8000, Ext. 7503)

STATES AND STATIONS	TEMPERATURE EF						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 Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. EF		PRECIP		
																90 AND ABOVE	32 AND BELOW	0.1 INCH OR MORE	5.0 INCH OR MORE	
AL	BIRMINGHAM	68	44	79	30	56	2	2.87	1.46	2.04	3.55	115	12.48	98	89	48	0	2	2	2
	HUNTSVILLE	66	43	79	28	54	2	1.34	-0.23	0.75	1.65	47	8.89	64	87	72	0	2	4	2
	MOBILE	70	50	82	38	60	0	2.24	0.54	2.24	3.97	106	10.36	71	87	80	0	0	1	1
	MONTGOMERY	71	47	85	34	59	2	0.77	-0.73	0.77	2.10	61	7.16	51	87	52	0	0	1	1
AK	ANCHORAGE	26	10	32	4	18	-7	0.02	-0.12	0.02	0.02	6	0.60	34	57	45	0	7	1	0
	BARROW	-1	-13	6	-16	-7	8	0.00	0.00	0.00	0.02	200	0.08	33	85	77	0	7	0	0
	FAIRBANKS	26	-15	38	-22	5	-4	0.00	-0.06	0.00	0.01	8	0.63	60	67	52	0	7	0	0
	JUNEAU	29	13	36	5	21	-12	0.08	-0.72	0.08	0.99	51	9.93	92	73	58	0	7	1	0
	KODIAK	36	25	39	16	30	-2	2.18	1.02	1.94	2.59	96	25.57	154	78	69	0	6	6	1
	NOME	25	15	34	2	20	11	0.34	0.23	0.23	0.34	121	3.12	160	70	60	0	7	2	0
AZ	FLAGSTAFF	51	19	64	7	35	-1	0.04	-0.58	0.04	0.06	4	0.15	2	63	16	0	7	1	0
	PHOENIX	78	52	88	45	65	3	0.00	-0.26	0.00	0.08	14	0.13	6	26	16	0	0	0	0
	TUCSON	75	44	85	36	59	0	0.00	-0.19	0.00	0.14	29	0.75	32	27	15	0	0	0	0
	YUMA	78	51	87	43	64	-2	0.00	-0.06	0.00	0.00	0	0.00	0	30	26	0	0	0	0
AR	FORT SMITH	62	38	79	24	50	-2	0.59	-0.31	0.57	1.29	65	6.30	91	93	49	0	1	2	1
	LITTLE ROCK	61	38	81	29	50	-3	2.43	1.37	2.09	4.24	184	11.39	123	97	52	0	2	3	1
CA	BAKERSFIELD	63	42	71	36	53	-4	0.00	-0.33	0.00	0.12	16	0.90	29	69	52	0	0	0	0
	FRESNO	62	42	70	36	52	-3	0.00	-0.52	0.00	0.47	39	1.62	29	80	62	0	0	0	0
	LOS ANGELES	65	50	68	45	58	0	0.00	-0.58	0.00	0.12	8	1.22	16	80	54	0	0	0	0
	REDDING	58	39	64	32	48	-4	0.49	-0.73	0.24	1.60	56	7.80	52	86	61	0	2	4	0
	SACRAMENTO	59	41	64	33	50	-4	0.60	-0.07	0.59	1.72	106	5.13	57	94	47	0	0	2	1
	SAN DIEGO	63	53	67	49	58	-2	0.04	-0.50	0.04	0.08	7	0.56	10	78	63	0	0	1	0
	SAN FRANCISCO	57	47	60	42	52	-2	0.25	-0.53	0.25	1.10	59	4.10	40	83	71	0	0	1	0
	STOCKTON	61	41	66	32	51	-3	0.37	-0.17	0.26	0.95	75	3.28	51	89	70	0	1	4	0
CO	ALAMOSA	51	15	65	7	33	1	0.00	-0.08	0.00	0.04	21	0.77	118	66	31	0	7	0	0
	CO SPRINGS	53	23	68	16	38	1	0.24	0.03	0.13	0.24	56	0.60	57	68	26	0	6	3	0
	DENVER INTL	50	25	64	17	37	-1	0.12	-0.10	0.12	0.36	77	0.89	96	77	42	0	7	1	0
	GRAND JUNCTION	51	26	69	18	39	-4	0.26	0.04	0.18	0.64	136	0.97	62	75	53	0	6	2	0
	PUEBLO	62	23	78	10	42	1	0.00	-0.20	0.00	0.00	0	0.50	51	58	38	0	7	0	0
CT	BRIDGEPORT	51	34	61	25	42	3	0.41	-0.51	0.23	1.24	62	3.84	44	84	70	0	2	3	0
	HARTFORD	50	27	63	24	39	2	0.62	-0.25	0.34	1.91	101	4.63	53	82	58	0	6	2	0
DC	WASHINGTON	62	41	80	30	51	5	0.78	-0.07	0.37	1.62	86	3.41	44	83	48	0	1	4	0
DE	WILMINGTON	59	36	72	24	48	6	0.52	-0.39	0.34	1.51	75	4.66	56	97	59	0	3	3	0
FL	DAYTONA BEACH	78	55	87	51	66	2	0.09	-0.78	0.06	1.39	73	6.16	79	99	54	0	0	3	0
	JACKSONVILLE	78	51	88	43	65	4	0.31	-0.57	0.29	1.30	67	6.61	75	98	50	0	0	3	0
	KEY WEST	81	71	84	69	76	3	0.03	-0.36	0.03	0.82	96	2.96	65	91	69	0	0	1	0
	MIAMI	84	69	87	66	77	5	0.02	-0.50	0.02	0.86	76	4.66	92	91	56	0	0	1	0
	ORLANDO	83	58	89	54	71	4	0.20	-0.61	0.20	0.45	26	5.01	77	97	68	0	0	1	0
	PENSACOLA	69	52	74	41	60	0	1.39	-0.11	1.37	2.86	86	9.95	75	91	67	0	0	3	1
	TALLAHASSEE	76	48	86	35	62	1	0.77	-0.77	0.77	9.24	271	16.84	126	89	56	0	0	1	1
	TAMPA	81	60	85	56	71	4	0.17	-0.48	0.16	0.54	35	5.86	90	96	59	0	0	2	0
	WEST PALM	82	66	86	61	74	4	0.44	-0.36	0.32	1.61	96	10.18	128	94	69	0	0	3	0
GA	ATHENS	69	45	81	31	57	4	0.32	-0.85	0.31	1.96	73	8.73	74	78	50	0	1	2	0
	ATLANTA	66	47	77	35	56	2	0.77	-0.49	0.69	2.67	93	10.58	84	81	63	0	0	3	1
	AUGUSTA	73	43	83	29	58	3	0.91	-0.16	0.90	2.55	105	7.55	68	92	63	0	1	2	1
	COLUMBUS	72	51	85	36	62	5	0.20	-1.15	0.13	2.39	79	8.89	72	82	42	0	0	3	0
	MACON	71	47	78	30	59	3	0.84	-0.30	0.44	3.26	124	9.41	77	87	55	0	1	4	0
	SAVANNAH	75	47	87	36	61	2	0.20	-0.59	0.18	3.64	212	7.57	88	97	58	0	0	2	0
HI	HILO	80	64	81	61	72	0	2.70	-0.51	0.92	7.09	104	52.25	205	89	75	0	0	5	3
	HONOLULU	82	68	84	67	75	1	0.04	-0.40	0.04	1.05	97	5.67	92	81	71	0	0	1	0
	KAHULUI	84	63	86	62	74	1	0.16	-0.36	0.16	0.50	43	5.25	72	89	75	0	0	1	0
	LIHUE	79	67	80	66	73	1	0.56	-0.25	0.25	1.71	93	7.91	82	87	80	0	0	4	0
ID	BOISE	47	31	53	25	39	-4	0.21	-0.09	0.14	0.69	100	1.83	57	83	61	0	4	3	0
	LEWISTON	50	36	58	30	43	-1	0.16	-0.07	0.12	0.47	90	2.24	86	77	59	0	2	4	0
	POCATELLO	39	22	47	14	30	-7	0.41	0.11	0.30	0.73	106	1.65	58	87	75	0	6	3	0
IL	CHICAGO/O'HARE	50	29	63	14	39	3	0.01	-0.52	0.01	1.99	179	4.73	105	83	62	0	4	1	0
	MOLINE	51	28	69	13	40	3	0.00	-0.61	0.00	1.40	111	3.43	79	78	53	0	4	0	0
	PEORIA	53	30	70	18	41	2	0.06	-0.55	0.06	1.28	97	5.19	116	87	51	0	5	1	0
	ROCKFORD	48	27	59	12	38	3	0.00	-0.48	0.00	1.20	122	3.68	99	85	57	0	5	0	0
	SPRINGFIELD	53	31	69	23	42	1	0.21	-0.49	0.20	1.44	95	5.31	107	84	65	0	4	2	0
IN	EVANSVILLE	55	37	71	24	46	1	0.86	-0.10	0.73	2.39	113	6.82	84	89	75	0	2	3	1
	FORT WAYNE	50	31	62	18	40	3	0.11	-0.49	0.11	1.31	101	5.70	108	84	55	0	3	1	0
	INDIANAPOLIS	51	34	66	22	42	1	0.57	-0.19	0.56	1.84	109	5.97	91	90	59	0	2	2	1
	SOUTH BEND	49	29	61	19	39	2	0.08	-0.52	0.08	1.75	137	6.32	114	81	58	0	4	1	0
IA	BURLINGTON	51	30	71	15	40	1	0.00	-0.64	0.00	1.17	85	3.67	87	83	42	0	4	0	0
	CEDAR RAPIDS	48	26	58	9	37	2	0.00	-0.45	0.00	0.53	57	2.04	66	86	45	0	5	0	0
	DES MOINES	51	27	71	10	39	2	0.00	-0.44	0.00	0.44	49	1.46	47	80	56	0	5	0	0
	DUBUQUE	44	26	54	9	35	1	0.00	-0.54	0.00	0.63	56	2.09	55	83	62	0	6	0	0
	SIoux CITY	38	21	52	2	30	-5	0.10	-0.32	0.07	0.16	19	1.07	52	86	74	0	6	2	0
	WATERLOO	43	24	55	8	34	0	0.00	-0.43	0.00	0.19	22	1.66	60	86	60	0	6	0	0
KS	CONCORDIA	53	27	66	21	40	-1	0.00	-0.54	0.00	0.13	12	1.55	62	83	50	0	6	0	0
	DODGE CITY	58	24	71	15	41	-2	0.00	-0.39	0.00	0.00	0	1.04	50	72	24	0	7	0	0
	GOODLAND	54	23	70	12	38	-1	0.00	-0.28	0.00	0.05	9	0.53	37	72	55	0	6	0	0
	TOPEKA	61	30	76	20	45	2	0.00	-0.56	0.00	0.53	45	2.79	84	83	49	0	4	0	0

Based on 1971-2000 normals

*** Not Available

Weather Data for the Week Ending March 16, 2002

STATES AND STATIONS	TEMPERATURE EF						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 Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. EF		PRECIP		
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE	
KY	WICHITA	60	31	76	24	46	1	0.00	-0.62	0.00	0.42	32	2.36	75	70	45	0	4	0	0
	JACKSON	61	40	78	25	51	5	1.44	0.43	1.08	2.16	93	7.49	78	87	46	0	2	4	1
	LEXINGTON	58	37	69	22	47	2	0.85	-0.17	0.44	1.38	60	5.15	58	88	66	0	2	2	0
	LOUISVILLE	58	40	69	27	49	3	0.82	-0.20	0.47	1.66	72	7.26	82	87	51	0	2	4	0
LA	PADUCAH	58	37	73	25	47	0	0.62	-0.32	0.44	1.93	90	7.97	83	93	53	0	2	4	0
	BATON ROUGE	75	52	87	39	63	3	0.73	-0.37	0.44	4.21	168	9.94	72	92	48	0	0	2	0
	LAKE CHARLES	72	52	83	42	62	2	0.20	-0.59	0.18	3.05	175	8.67	82	90	58	0	0	2	0
	NEW ORLEANS	73	54	84	43	64	2	0.39	-0.75	0.39	2.51	96	8.56	61	86	73	0	0	1	0
	SHREVEPORT	66	46	81	35	56	-2	0.83	-0.10	0.75	1.48	69	6.91	63	89	56	0	0	2	1
ME	CARIBOU	32	13	47	10	23	0	0.69	0.12	0.55	0.95	76	5.28	84	92	52	0	7	4	1
	PORTLAND	44	26	57	20	35	2	0.64	-0.27	0.46	0.68	34	6.14	67	93	43	0	7	4	0
MD	BALTIMORE	61	37	78	25	49	6	0.52	-0.39	0.23	1.56	76	4.10	48	84	65	0	3	3	0
MA	BOSTON	50	33	62	27	42	4	1.00	0.15	0.61	1.56	83	6.51	71	88	49	0	4	3	1
	WORCESTER	47	29	58	21	38	5	1.00	0.05	0.53	2.05	99	5.95	64	93	42	0	5	4	1
MI	ALPENA	36	20	53	14	28	1	0.04	-0.42	0.04	1.68	170	3.89	95	83	58	0	7	1	0
	GRAND RAPIDS	42	26	55	16	34	1	0.03	-0.50	0.02	1.36	125	3.97	85	89	62	0	5	2	0
	HOUGHTON LAKE	37	19	50	10	28	0	0.00	-0.43	0.00	1.67	184	5.77	153	83	67	0	7	0	0
	LANSING	44	24	59	12	34	1	0.17	-0.29	0.10	1.20	125	3.55	88	84	65	0	5	2	0
	MUSKEGON	42	28	48	16	35	2	0.00	-0.49	0.00	1.40	136	3.99	83	85	62	0	5	0	0
	TRAVERSE CITY	38	22	49	13	30	0	0.06	-0.33	0.03	1.90	235	4.72	85	88	56	0	7	3	0
MN	DULUTH	32	13	43	1	23	-1	0.10	-0.25	0.08	0.10	14	1.13	43	83	63	0	7	3	0
	INT'L FALLS	31	4	46	-4	18	-4	0.01	-0.18	0.01	0.15	39	0.26	14	77	46	0	7	1	0
	MINNEAPOLIS	34	19	46	4	27	-4	0.53	0.14	0.36	1.33	175	2.18	84	85	61	0	7	3	0
	ROCHESTER	35	21	43	3	28	-1	0.00	-0.37	0.00	0.00	0	2.34	97	91	75	0	7	0	0
	ST. CLOUD	32	9	41	-3	21	-6	0.22	-0.07	0.17	0.69	125	2.76	145	87	57	0	7	3	0
MS	JACKSON	69	48	85	33	59	3	3.32	2.06	1.73	3.79	137	12.46	96	93	54	0	0	4	2
	MERIDIAN	71	47	86	30	59	2	2.26	0.67	2.10	2.96	83	11.76	79	95	73	0	1	3	1
	TUPELO	64	44	79	28	54	2	2.34	0.88	1.55	3.10	94	13.49	103	89	79	0	2	5	2
MO	COLUMBIA	55	31	78	21	43	0	0.13	-0.56	0.06	0.99	65	4.20	77	94	48	0	6	3	0
	KANSAS CITY	60	30	81	20	45	2	0.00	-0.54	0.00	0.50	43	2.91	80	79	35	0	4	0	0
	SAINT LOUIS	56	36	75	28	46	1	0.64	-0.16	0.60	2.21	126	6.20	100	79	63	0	1	3	1
	SPRINGFIELD	58	34	78	19	46	1	0.12	-0.70	0.12	1.04	60	5.30	86	78	55	0	2	1	0
MT	BILLINGS	44	24	53	8	34	-2	0.01	-0.22	0.01	0.13	28	0.70	38	81	43	0	6	1	0
	BUTTE	36	9	45	-3	22	-8	0.01	-0.16	0.01	0.35	95	0.79	58	86	44	0	7	1	0
	GLASGOW	30	8	46	-14	19	-11	0.03	-0.05	0.03	0.19	100	0.69	86	86	77	0	7	1	0
	GREAT FALLS	41	18	49	-1	29	-3	0.11	-0.10	0.07	0.33	75	0.90	55	86	44	0	7	2	0
	HAVRE	31	8	43	-7	20	-11	0.02	-0.12	0.02	0.07	23	0.52	46	92	83	0	7	1	0
	KALISPELL	38	28	42	12	33	-1	0.18	-0.07	0.08	0.29	51	1.44	45	89	73	0	5	7	0
	MISSOULA	41	27	48	20	34	-3	0.23	0.03	0.16	0.44	98	1.70	75	91	72	0	7	6	0
NE	GRAND ISLAND	48	23	69	13	35	-2	0.00	-0.44	0.00	0.11	12	0.92	43	91	75	0	7	0	0
	LINCOLN	50	23	63	12	36	-2	0.00	-0.48	0.00	0.55	57	1.55	68	87	59	0	7	0	0
	NORFOLK	43	21	61	5	32	-4	0.03	-0.39	0.03	0.09	10	0.81	37	80	65	0	7	1	0
	NORTH PLATTE	48	21	70	16	34	-3	0.01	-0.25	0.01	0.22	41	0.30	21	90	46	0	7	1	0
	OMAHA	49	25	62	11	37	-1	0.00	-0.46	0.00	0.59	63	1.26	50	83	56	0	7	0	0
	SCOTTSBLUFF	48	20	64	1	34	-2	0.17	-0.07	0.10	0.20	40	0.25	15	78	57	0	6	3	0
	VALENTINE	42	17	68	4	29	-5	0.24	0.01	0.13	0.25	52	0.51	40	86	76	0	6	2	0
NV	ELY	43	17	59	5	30	-5	0.08	-0.16	0.08	0.20	38	1.29	64	78	49	0	7	1	0
	LAS VEGAS	65	43	75	33	54	-4	0.00	-0.14	0.00	0.09	26	0.09	6	33	23	0	0	0	0
	RENO	47	30	62	21	39	-4	0.05	-0.15	0.04	0.34	68	1.17	45	72	48	0	5	2	0
	WINNEMUCCA	45	25	58	15	35	-6	0.39	0.20	0.16	0.52	130	2.26	122	81	63	0	5	4	0
NH	CONCORD	47	24	58	21	35	3	0.42	-0.25	0.37	1.02	69	5.00	74	93	42	0	7	3	0
NJ	NEWARK	56	36	68	26	46	5	0.33	-0.63	0.26	1.34	64	3.67	41	82	65	0	2	2	0
NM	ALBUQUERQUE	64	34	79	25	49	2	0.00	-0.14	0.00	0.00	0	0.42	34	36	14	0	3	0	0
NY	ALBANY	50	27	60	23	38	4	0.46	-0.21	0.36	0.65	45	4.76	78	89	49	0	6	2	0
	BINGHAMTON	47	27	62	16	37	5	0.21	-0.42	0.12	0.92	65	5.02	78	83	62	0	5	2	0
	BUFFALO	45	28	63	19	37	4	0.50	-0.15	0.24	1.51	106	8.20	117	88	60	0	5	4	0
	ROCHESTER	48	27	68	20	37	4	0.11	-0.44	0.09	0.75	62	5.29	95	86	66	0	5	3	0
	SYRACUSE	48	27	63	21	38	6	0.26	-0.39	0.17	0.73	52	4.32	71	89	50	0	6	4	0
NC	ASHEVILLE	63	40	76	25	51	6	1.05	0.00	0.51	1.96	82	6.90	67	80	59	0	2	3	1
	CHARLOTTE	66	43	82	31	54	2	0.75	-0.27	0.65	2.38	103	8.60	87	85	50	0	1	3	1
	GREENSBORO	63	43	76	27	53	5	0.41	-0.47	0.34	1.35	68	5.71	66	85	50	0	1	2	0
	HATTERAS	65	54	69	47	59	7	2.93	1.78	2.76	3.66	144	14.14	115	94	67	0	0	3	1
	RALEIGH	66	47	83	29	56	6	0.33	-0.62	0.22	1.09	50	8.33	86	81	61	0	1	2	0
	WILMINGTON	72	49	85	36	60	6	1.72	0.73	1.44	3.62	160	7.42	71	97	47	0	0	3	1
ND	BISMARCK	33	8	51	-19	20	-8	0.00	-0.17	0.00	0.49	144	0.98	75	84	66	0	7	0	0
	DICKINSON	34	12	47	-20	23	-6	0.06	-0.04	0.06	0.15	83	0.63	64	95	59	0	7	1	0
	FARGO	33	13	53	-9	23	-3	0.00	-0.24	0.00	0.07	14	0.40	22	80	56	0	7	0	0
	GRAND FORKS	35	12	53	-2	23	-1	0.00	-0.18	0.00	0.03	8	0.12	7	84	48	0	7	0	0
	JAMESTOWN	33	9	51	-13	21	-6	0.00	-0.18	0.00	0.06	16	0.27	18	88	52	0	7	0	0
	WILLISTON	31	6	41	-28	18	-10	0.01	-0.14	0.01	0.59	190	1.57	127	90	75	0	7	1	0
OH	AKRON-CANTON	50	31	67	17	41	4	0.72	0.02	0.62	1.51	97	5.62	89	79	53	0	3	2	1
	CINCINNATI	53	34	64	19	44	1	1.51	0.64	1.19	2.39	126	6.53	86	89	55	0	2	3	1
	CLEVELAND	49	31	67	20	40	3	0.28	-0.35	0.25	1.20	87	5.84	95	84	54	0	3	3	0
	COLUMBUS	53	34	70	19	44	3	0.69	0.06	0.61	1.39	100	5.04	82	85	55	0	2	3	1
	DAYTON	50	33	65	18	42	3	0.67	-0.03	0.62	1.84	122	4.66	73	86	52	0	2	3	1
	MANSFIELD	48	31	64	18	39	3	0.52	-0.19	0.52	1.68	112								

Weather Data for the Week Ending March 16, 2002

STATES AND STATIONS	TEMPERATURE EF						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 Mar 1	PCT. NORMAL SINCE Mar 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. EF		PRECIP	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
OK TOLEDO	50	31	65	19	40	4	0.10	-0.44	0.10	0.96	82	5.28	106	81	59	0	3	1	0
OK YOUNGSTOWN	51	30	68	16	41	5	0.46	-0.20	0.41	0.99	69	5.64	97	77	55	0	4	2	0
OK OKLAHOMA CITY	64	35	85	21	50	0	0.00	-0.66	0.00	0.34	23	3.43	79	74	35	0	2	0	0
OK TULSA	61	38	80	26	50	0	0.00	-0.81	0.00	0.58	33	4.15	78	71	52	0	2	0	0
OR ASTORIA	48	40	52	34	44	-2	3.72	2.03	1.37	4.54	115	24.16	113	90	82	0	0	7	2
OR BURNS	37	24	43	15	31	-6	0.16	-0.12	0.10	0.35	52	1.62	55	89	73	0	6	4	0
OR EUGENE	49	39	54	33	44	-2	2.30	0.95	0.70	3.94	125	14.20	83	90	83	0	0	7	2
OR MEDFORD	50	35	62	32	43	-4	0.22	-0.20	0.14	0.70	70	3.94	71	97	57	0	1	6	0
OR PENDLETON	51	35	59	30	43	-2	0.22	-0.06	0.12	0.52	83	1.85	56	78	58	0	2	5	0
OR PORTLAND	48	40	54	35	44	-3	1.97	1.12	1.14	3.04	150	12.80	114	90	80	0	0	7	1
OR SALEM	48	38	53	31	43	-3	2.08	1.12	1.24	3.70	159	16.35	123	93	84	0	2	7	1
PA ALLENTOWN	54	33	67	22	43	5	0.16	-0.64	0.08	1.34	76	3.34	42	80	63	0	4	3	0
PA ERIE	47	31	69	22	39	4	0.28	-0.39	0.15	0.65	45	7.83	125	82	62	0	3	3	0
PA MIDDLETOWN	57	35	75	26	46	6	0.35	-0.39	0.31	1.73	102	4.57	61	85	52	0	3	2	0
PA PHILADELPHIA	60	38	73	27	49	7	0.41	-0.46	0.25	1.31	69	4.29	53	82	63	0	2	3	0
PA PITTSBURGH	55	34	70	18	44	5	0.60	-0.11	0.35	1.04	67	3.98	60	88	50	0	2	2	0
PA WILKES-BARRE	52	33	68	21	43	6	0.33	-0.24	0.32	1.01	81	3.74	65	80	46	0	4	2	0
PA WILLIAMSPORT	52	34	69	24	43	6	0.57	-0.13	0.47	1.55	101	4.47	64	73	55	0	4	2	0
RI PROVIDENCE	52	30	65	25	41	3	0.70	-0.27	0.50	2.07	97	6.61	66	87	66	0	5	3	1
SC BEAUFORT	73	51	87	42	62	5	0.01	-0.80	0.01	1.22	69	4.91	55	99	51	0	0	1	0
SC CHARLESTON	74	50	86	42	62	5	0.35	-0.56	0.25	2.52	126	7.15	78	10	48	0	0	2	0
SC COLUMBIA	71	47	84	30	59	4	0.55	-0.50	0.39	1.90	81	6.30	58	88	63	0	1	2	0
SD GREENVILLE	67	44	82	32	55	4	1.20	-0.06	0.99	2.50	87	8.74	76	83	42	0	1	3	1
SD ABERDEEN	36	12	59	-10	24	-5	0.10	-0.17	0.09	0.30	56	0.60	40	83	69	0	7	2	0
SD HURON	37	14	67	-7	26	-5	0.15	-0.20	0.15	0.16	23	1.19	68	88	61	0	7	1	0
SD RAPID CITY	40	16	67	4	28	-6	0.31	0.11	0.17	0.37	88	0.62	50	85	61	0	6	2	0
SD SIOUX FALLS	37	15	57	-3	26	-5	0.49	0.12	0.49	0.69	97	1.13	65	85	73	0	7	1	0
TN BRISTOL	62	40	75	20	51	5	0.70	-0.21	0.44	1.02	49	6.22	69	93	49	0	2	3	0
TN CHATTANOOGA	67	44	77	30	55	4	1.53	0.08	0.88	2.46	76	9.73	72	84	60	0	2	3	2
TN KNOXVILLE	64	44	76	27	54	5	1.02	-0.19	0.57	1.47	54	11.22	99	85	57	0	2	3	1
TN MEMPHIS	62	43	77	32	52	-1	3.45	2.22	2.02	4.06	147	9.76	86	88	52	0	1	4	2
TX NASHVILLE	64	41	80	28	53	4	1.02	-0.11	0.70	1.62	64	8.56	84	89	57	0	2	3	1
TX ABILENE	73	43	91	26	58	2	0.00	-0.30	0.00	0.00	0	1.65	59	45	32	1	1	0	0
TX AMARILLO	67	31	88	24	49	2	0.00	-0.24	0.00	0.00	0	1.37	82	52	17	0	4	0	0
TX AUSTIN	73	47	85	33	60	-1	0.01	-0.48	0.01	0.08	7	2.44	48	72	48	0	0	1	0
TX BEAUMONT	73	54	84	41	64	2	0.04	-0.79	0.02	0.42	23	4.78	44	95	53	0	0	3	0
TX BROWNSVILLE	82	59	93	48	71	3	0.08	-0.08	0.05	0.19	54	1.26	44	94	70	1	0	3	0
TX CORPUS CHRISTI	79	56	92	41	68	2	0.02	-0.35	0.02	0.05	5	0.62	14	91	67	1	0	1	0
TX DEL RIO	81	54	91	44	67	4	0.00	-0.19	0.00	0.00	0	0.04	2	49	29	2	0	0	0
TX EL PASO	73	46	83	36	59	3	0.00	-0.05	0.00	0.00	0	1.22	124	29	12	0	0	0	0
TX FORT WORTH	69	44	86	29	57	0	0.02	-0.68	0.02	0.12	7	5.97	101	87	40	0	1	1	0
TX GALVESTON	70	57	75	46	64	1	0.05	-0.56	0.05	1.29	95	4.20	52	95	66	0	0	1	0
TX HOUSTON	74	53	80	41	63	1	0.04	-0.70	0.04	1.27	77	3.42	41	88	61	0	0	1	0
TX LUBBOCK	71	35	89	25	53	3	0.00	-0.14	0.00	0.00	0	1.13	73	45	28	0	4	0	0
TX MIDLAND	71	40	85	31	55	0	0.00	-0.09	0.00	0.00	0	1.06	79	41	25	0	1	0	0
TX SAN ANGELO	75	43	90	28	59	3	0.00	-0.20	0.00	0.00	0	1.42	57	46	29	1	1	0	0
TX SAN ANTONIO	76	49	87	41	63	2	0.04	-0.37	0.04	0.13	14	0.93	21	75	38	0	0	1	0
TX VICTORIA	75	52	82	41	63	0	0.03	-0.47	0.02	0.14	12	0.99	18	80	62	0	0	2	0
TX WACO	71	47	86	32	59	1	0.00	-0.56	0.00	0.07	5	2.73	48	81	48	0	1	0	0
TX WICHITA FALLS	70	40	91	28	55	2	0.00	-0.50	0.00	0.02	2	2.24	59	56	36	2	1	0	0
UT SALT LAKE CITY	45	29	53	22	37	-6	0.80	0.39	0.53	1.25	134	2.75	76	84	48	0	6	3	1
VT BURLINGTON	46	24	63	18	35	5	0.39	-0.10	0.29	0.68	65	3.93	80	87	47	0	7	3	0
VA LYNCHBURG	63	38	79	23	50	5	0.52	-0.36	0.26	1.46	74	4.83	56	84	53	0	2	3	0
VA NORFOLK	65	46	83	38	56	8	0.93	-0.01	0.68	1.52	73	7.12	76	90	51	0	0	2	1
VA RICHMOND	65	41	81	26	53	6	0.09	-0.86	0.05	1.14	54	5.55	64	87	65	0	2	2	0
VA ROANOKE	62	42	81	28	52	6	0.71	-0.16	0.38	1.62	83	4.05	49	77	58	0	1	3	0
VA WASH/DULLES	60	39	78	27	49	7	0.53	-0.27	0.26	1.46	81	3.16	41	84	61	0	1	3	0
WA OLYMPIA	46	37	52	32	41	-2	3.21	2.01	1.50	3.62	127	19.40	117	94	85	0	1	7	2
WA QUILLAYUTE	46	37	50	29	41	-3	4.90	2.35	1.75	5.91	97	34.36	107	98	83	0	1	7	5
WA SEATTLE-TACOMA	45	38	50	32	41	-5	2.11	1.26	1.06	2.17	109	12.83	113	94	83	0	1	6	1
WA SPOKANE	43	30	50	26	37	-2	0.40	0.06	0.25	0.53	66	2.70	65	91	63	0	6	5	0
WA YAKIMA	52	27	58	20	39	-3	0.00	-0.14	0.00	0.30	91	1.46	63	85	63	0	5	0	0
WV BECKLEY	57	36	74	17	47	6	0.96	0.13	0.55	1.55	82	4.50	56	88	67	0	2	4	1
WV CHARLESTON	61	37	78	20	49	5	0.96	0.05	0.63	1.58	77	5.64	66	92	47	0	2	4	1
WV ELKINS	59	33	76	13	46	7	0.49	-0.41	0.26	0.75	37	5.72	66	92	38	0	2	5	0
WV HUNTINGTON	62	39	78	21	50	5	0.12	-0.76	0.12	0.78	39	4.43	53	88	47	0	2	1	0
WI EAU CLAIRE	35	17	45	5	26	-4	0.54	0.17	0.46	1.86	262	3.94	155	90	51	0	7	3	0
WI GREEN BAY	38	23	49	10	31	1	0.05	-0.38	0.05	1.74	202	3.83	124	86	62	0	7	1	0
WI LA CROSSE	41	22	49	7	31	-2	0.05	-0.33	0.03	0.78	105	3.42	117	89	46	0	6	2	0
WI MADISON	43	25	53	9	34	2	0.00	-0.45	0.00	1.04	113	3.84	111	84	63	0	5	0	0
WI MILWAUKEE	42	27	56	12	35	1	0.00	-0.51	0.00	0.76	72	3.66	80	79	60	0	5	0	0
WY CASPER	39	17	56	-8	28	-6	0.51	0.32	0.36	0.54	123	0.74	45	86	63	0	6	2	0
WY CHEYENNE	43	21	61	2	32	-1	0.50	0.28	0.25	0.82	178	1.62	120	78	58	0	6	2	0
WY LANDER	39	18	53	5	28	-7	0.45	0.20	0.35	0.54	106	1.02	65	82	64	0	7	2	0
WY SHERIDAN	39	18	62	0	28	-6	0.31	0.12	0.27	0.35	90	0.76	44	87	62	0	7	3	0

Based on 1971-2000 normals

*** Not Available

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

National Agricultural Summary

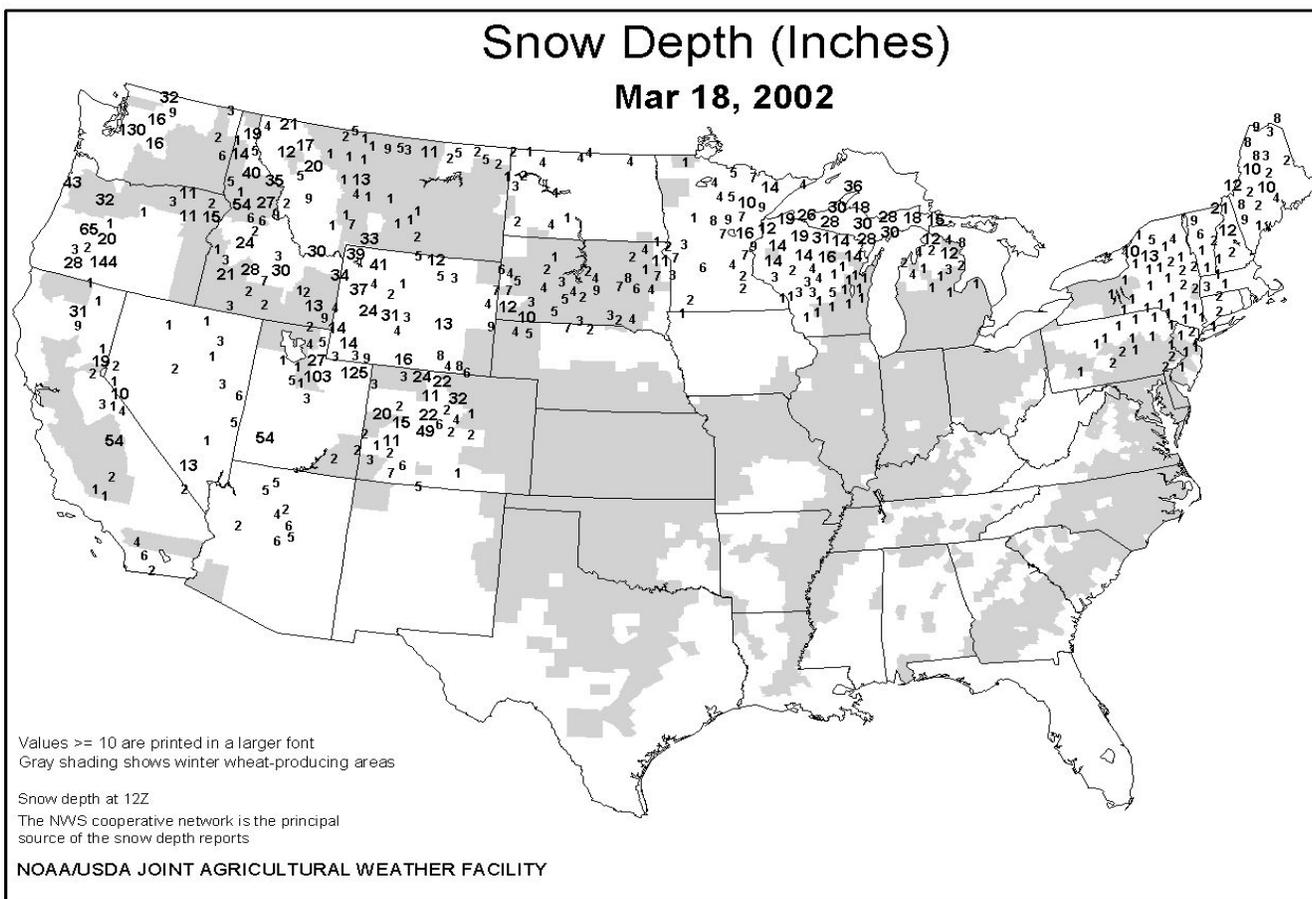
March 11 - 17, 2002

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

Heavy rain drenched soils and halted fieldwork in interior areas of the Mississippi Delta, most of the Tennessee Valley, and adjacent parts of the Southeast. Along the Gulf Coast and Atlantic Coastal Plain, widespread, light rainfall briefly delayed field preparations, but provided much-needed topsoil moisture for winter grains and forages. However, subsoil moisture reserves remained very short. Above-normal temperatures also contributed to favorable growing conditions in the Southeast, although overnight lows were near or below freezing in interior areas. Dry weather favored fieldwork in the southern Great Plains, but topsoil moisture shortages limited progress. Wind and blowing soil also hampered fieldwork. In Texas, corn and sorghum planting was scattered and slow,

but remained ahead of normal. Corn emergence lagged behind normal due to topsoil moisture shortages. Dry soils stressed winter wheat throughout the Great Plains, but moisture supplies were adequate for the soft red winter wheat in the Corn Belt. Cold, windy weather provided harsh conditions for winter wheat fields across the northern Great Plains. One percent of the Texas wheat crop was headed, compared with the average of 2 percent. Stormy weather returned to the Pacific Northwest, providing beneficial ground water supplies and mountain snowpack accumulations. In California, below-normal temperatures limited crop development. Rain briefly delayed field and orchard work in scattered areas of California's valleys.



March 7 ENSO Update

The evolution toward a warm episode in the tropical Pacific continued during February 2002. Warmer-than-normal sea surface and subsurface temperatures developed throughout the equatorial Pacific during the month (Figs. 1 and 2). By late in the month, equatorial SST anomalies exceeded $+1^{\circ}\text{C}$ from 165°E to 180°W (Fig. 1), and in the extreme eastern equatorial Pacific near the South American coast. The warming of surface and subsurface waters along the South American coast was due to the arrival of the oceanic Kelvin wave that has been propagating eastward from the central equatorial Pacific since mid-December. These conditions are often observed in the early stages of El Niño.

Several of the atmospheric indices indicate that El Niño/Southern Oscillation (ENSO) conditions have not developed to assure sustained growth of the event. Those indices include the Southern Oscillation Index (Tahiti-Darwin SOI) and lower- and upper-tropospheric wind indices. [Note, these indices are often inconsistent in the early stages of El Niño, and they develop El Niño characteristics as the event evolves.] In contrast, enhanced rainfall has been observed over the tropical west-central Pacific, from Papua New Guinea eastward to the date line (180°W) since the beginning of 2002. Enhanced rainfall also developed in late February over the warmer-than-normal waters between the west coast of South America and the Galapagos Islands. These features reflect the warming in the sea surface temperatures, and are possibly the first atmospheric effects of a developing El Niño. The latest statistical and coupled model predictions show a spread from slightly cooler-than-normal conditions to moderate warm-episode conditions during the remainder of 2002. The coupled models and some statistical techniques that incorporate subsurface oceanic conditions indicate a slow evolution to weak or moderate warm-episode (El Niño) conditions during the next several months. Other techniques indicate that conditions will remain near normal or even return to slightly colder than normal for the remainder of 2002. The recent evolution in oceanic conditions supports the forecasts of a continued evolution toward El Niño.

This discussion is a team effort of NOAA and its funded institutions. Weekly updates for SST, 850-hPa wind, OLR and the equatorial subsurface temperature structure are available on the Climate Prediction Center homepage at: <http://www.cpc.ncep.noaa.gov> (Weekly Update). Forecasts for the evolution of El Niño/La Niña are updated monthly in CPC's Climate Diagnostics Bulletin Forecast Forum.

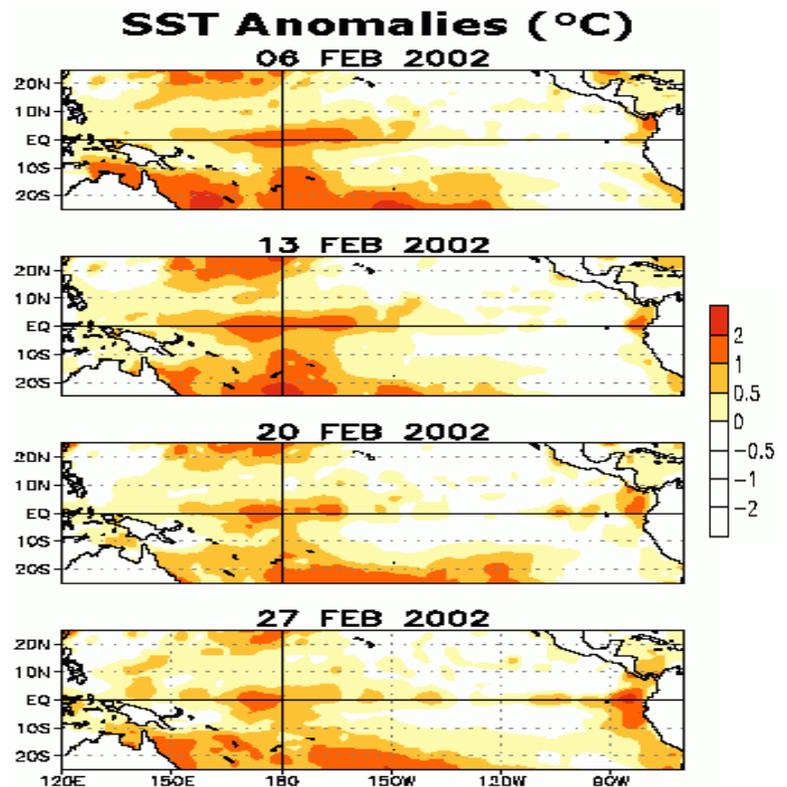


Figure 1. Recent weekly sea surface temperature (SST) anomaly patterns. Departures from average (anomalies) are computed based on the 1971-2000 period means. Units are $^{\circ}\text{C}$. Image has been altered so that only positive anomalies are shaded for easier viewing.

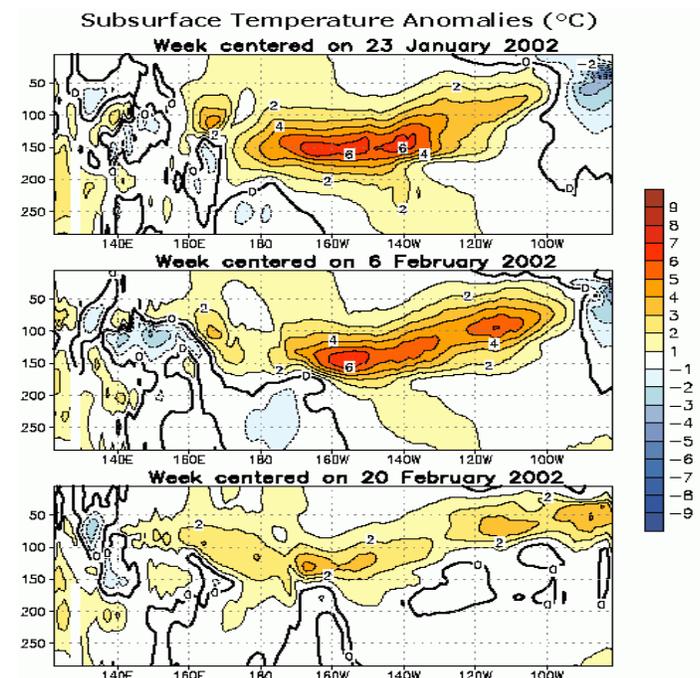


Figure 2. Depth-longitude cross section of anomalous equatorial ocean temperatures ($^{\circ}\text{C}$) for recent weeks. Contour interval is 1°C . Anomalies are computed based on the 1981-2000 period means.

International Weather and Crop Summary

March 10 - 16, 2002

International Weather and Crop Highlights and Summaries provided by USDA/WAOB

HIGHLIGHTS

FSU-WESTERN: Continued, unusually mild weather prompted further greening of winter grains in Ukraine and southern Russia and helped raise soil temperatures to favorable levels for early spring grain planting.

MIDDLE EAST: Warm, showery weather benefited vegetative to reproductive winter wheat.

EUROPE: Widespread rain in Spain benefited vegetative winter grains and boosted reservoir levels for summer crop development.

SOUTH AMERICA: Widespread rain eased dryness across central Argentina, benefiting immature summer crops but slowing early harvesting. In southern Brazil, mostly dry weather continued to favor soybean harvesting, but heavy rain alleviated dryness in Rio Grande do Sul.

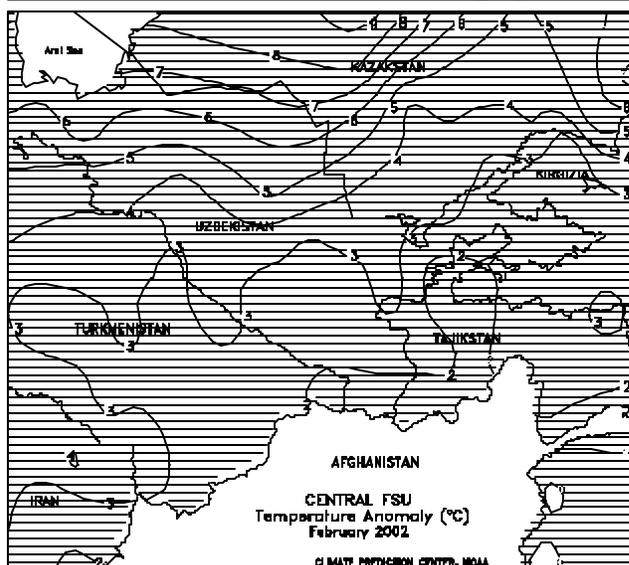
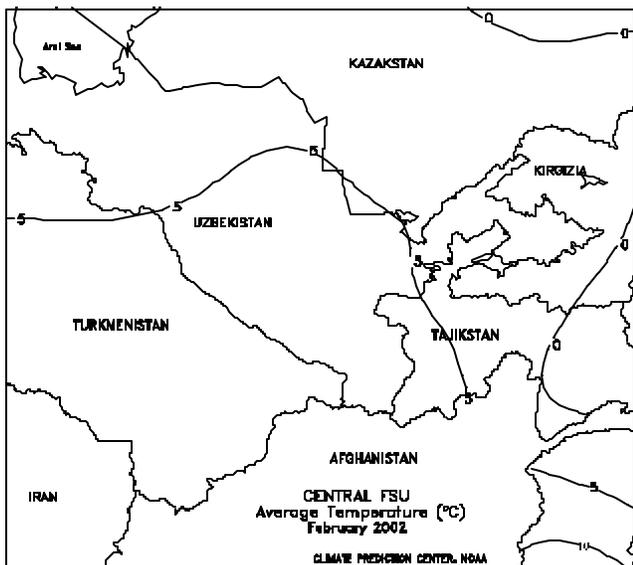
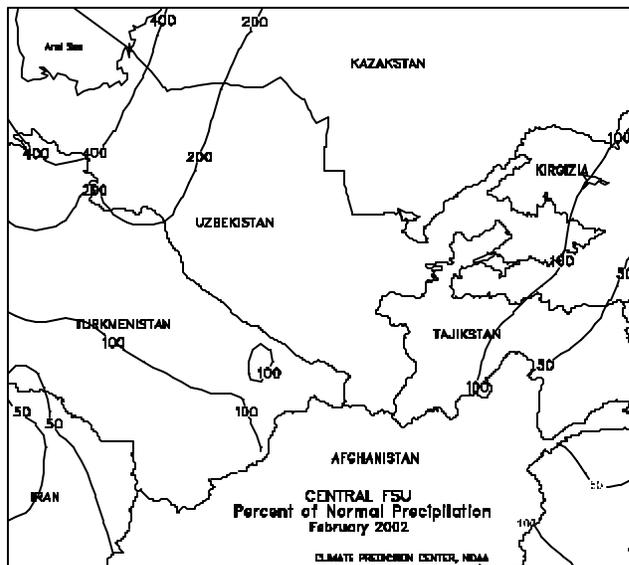
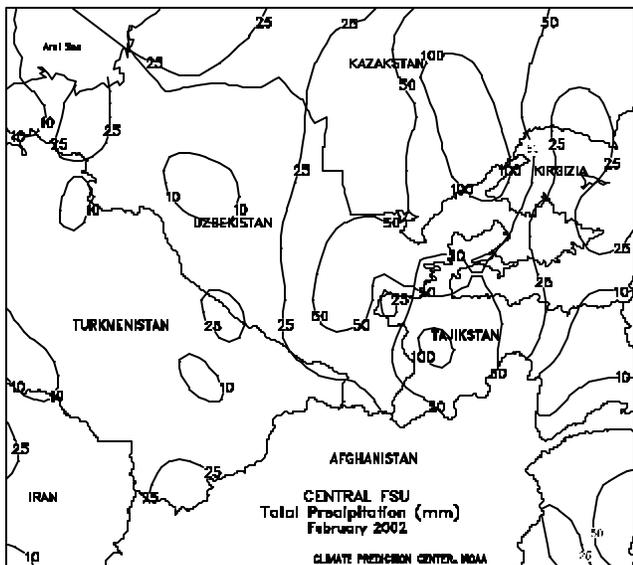
AUSTRALIA: Warmth and dryness spurred sorghum harvesting and favored late cotton development.

EASTERN ASIA: Dry weather returned to the North China Plain, necessitating supplemental irrigation for vegetative winter wheat.

SOUTHEAST ASIA: Showers slowed harvest activities in Java, Indonesia, while drier weather favored harvesting in the Philippines and Vietnam.

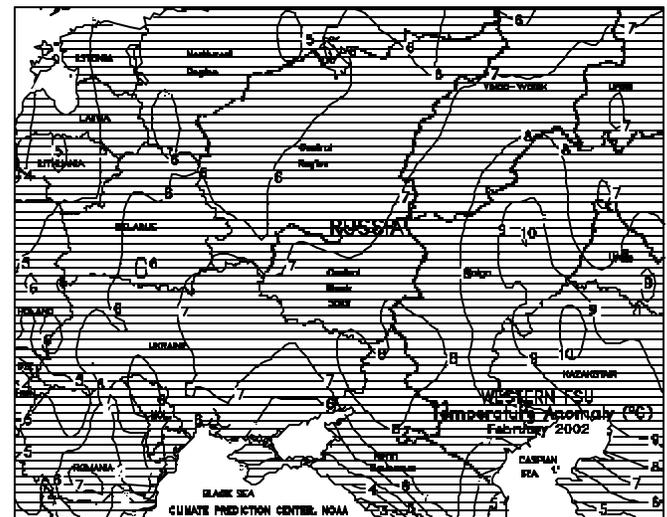
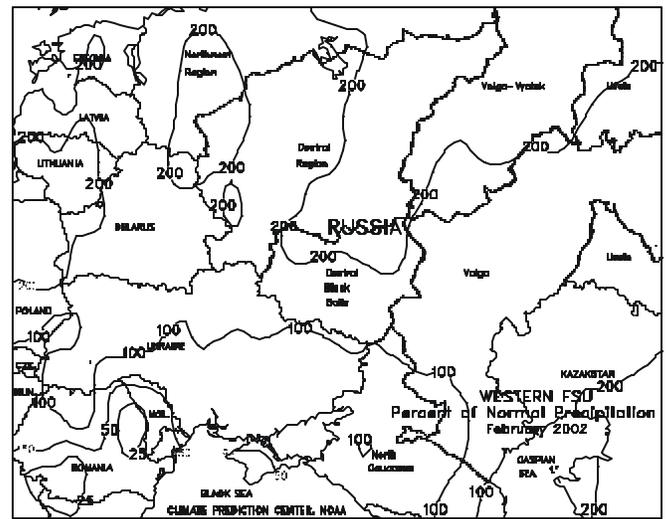
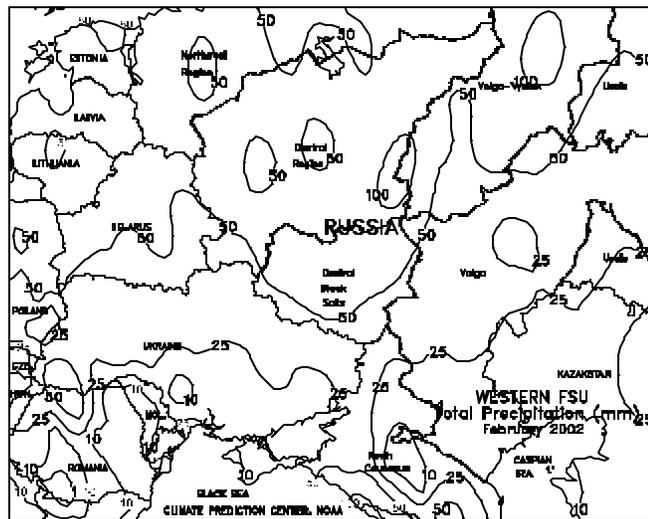
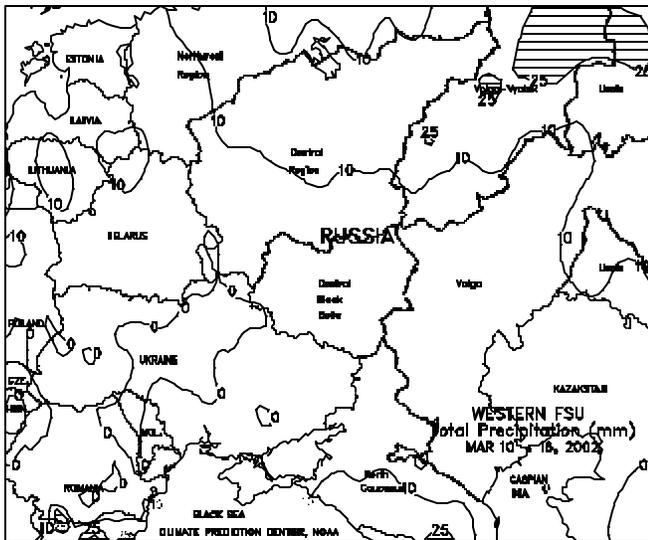
NORTHWESTERN AFRICA: Showers continued to provide moisture to heading winter grains in Morocco.

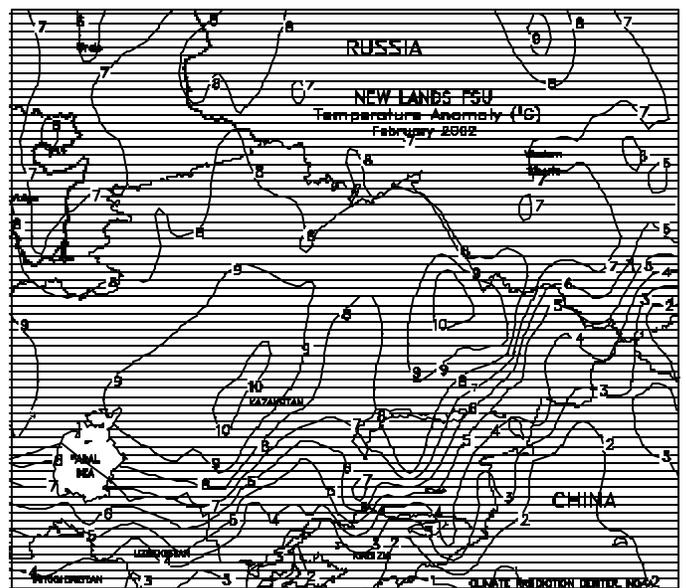
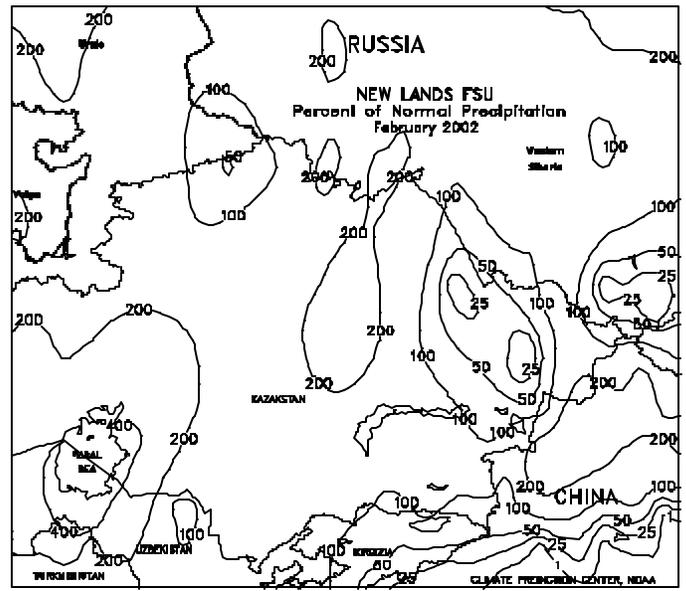
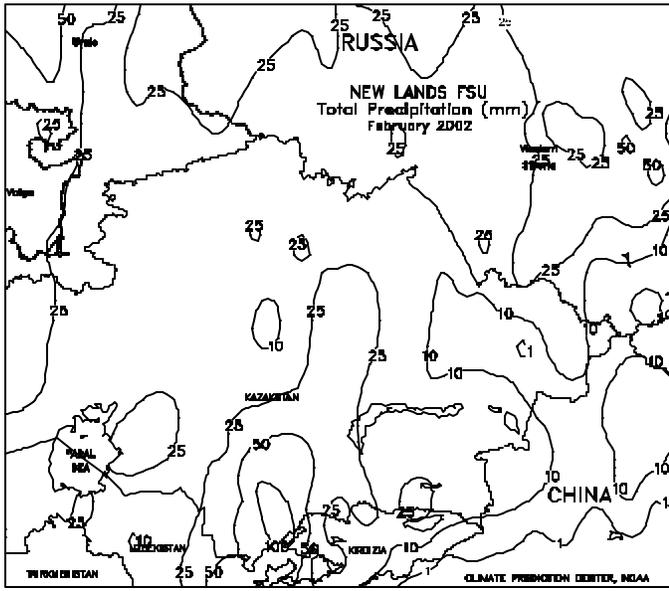
SOUTH AFRICA: Scattered showers and seasonable warmth aided late summer crop development across the corn belt.



FSU-WESTERN

The ninth consecutive week of unseasonably warm weather continued to prevail across the region, with weekly temperatures averaging 5 to 10 degrees C above normal in Ukraine, Russia, Belarus, and Moldova. The unusually mild weather pattern caused snow cover to rapidly diminish during the week. By week's end, winter grain areas in Ukraine, Belarus, the Baltics, and southern Russia (North Caucasus, lower Volga Valley, and the southern half of the Central Black Soils Region) lacked snow cover. The mild weather in northern Russia (Central Region and Volga Vyatsk) rapidly diminished the depth of snow cover. In Ukraine and the North Caucasus region in Russia, winter wheat began breaking dormancy about 2 to 3 weeks earlier than usual. Furthermore, extreme maximum temperatures in these areas ranged from 15 to 21 degrees C, warming topsoils to favorable levels for early spring grain planting. Dry weather prevailed over most of the region during the week, allowing early spring fieldwork. In February, unseasonably mild weather provided favorable overwintering conditions for winter grains in Russia, Ukraine, Belarus, and the Baltics. Monthly temperatures averaged 6 to 9 degrees C above normal in these areas, causing winter grains to lose some winter hardiness and melting protective snow cover. Major winter wheat areas in Ukraine and southern Russia remained snow-free during most of the month. Winter grains in northern Russia had moderate to deep snow cover. Near- to above-normal precipitation fell from the Baltics and Belarus, eastward across northern Ukraine and most of Russia, boosting moisture reserves. Below-normal precipitation fell in southern Ukraine and extreme southern Russia, limiting moisture recharge.

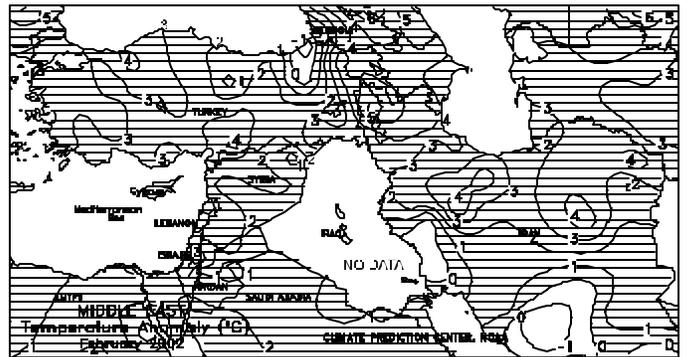
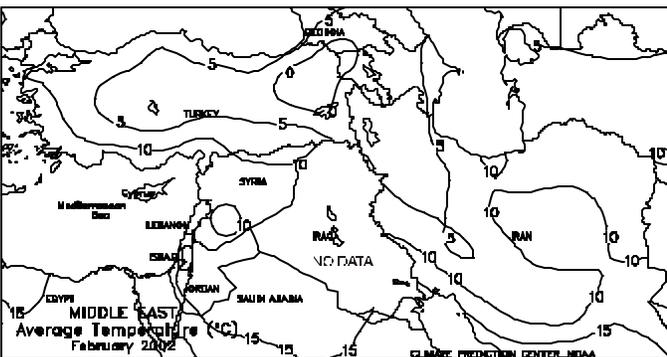
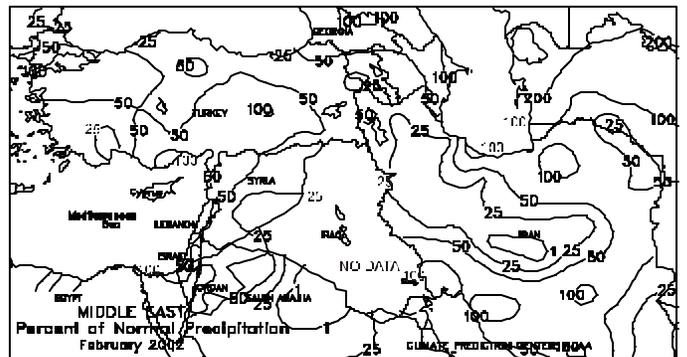
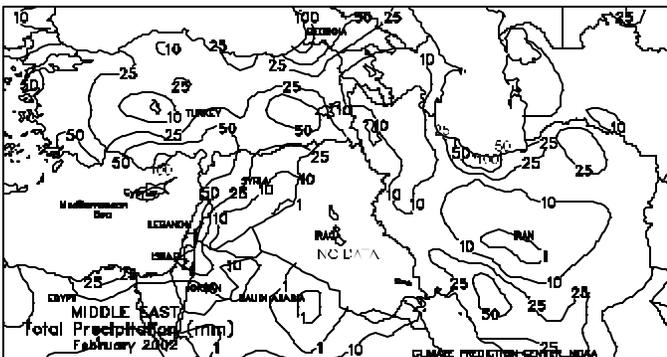






MIDDLE EAST

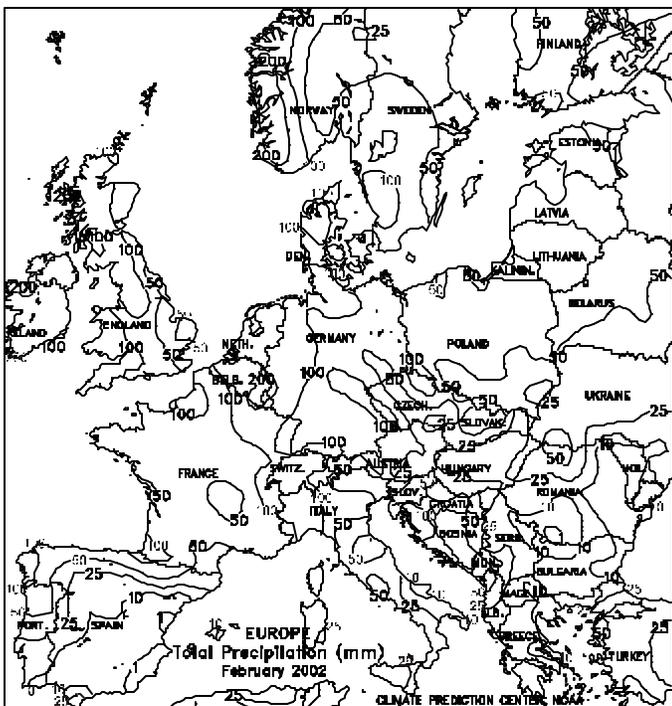
Unseasonably warm weather (3-7 degrees C above normal) continued to accelerate winter wheat development throughout the region, with sub-freezing temperatures confined to higher elevations in central Turkey and western Iran. Showers (5-25 mm) swept across Turkey, Syria, and Israel, boosting moisture reserves for development of vegetative to reproductive winter grains. This system was approaching western Iran at week's end. In February, the warmer-than-normal weather helped to ease winter wheat out of dormancy earlier than usual and accelerated vegetative growth rates. However, freezing weather limited crop development in the coldest locations of Turkey and Iran. Rainfall was near to below normal, although timely mid- and late-month showers benefited vegetative to reproductive winter crops in southeastern Turkey, Syria, and Israel. Scattered showers brought local relief from long-term dryness in sections of Iran, but additional rain is still needed in primary winter wheat areas in the northwest to ensure normal crop development.

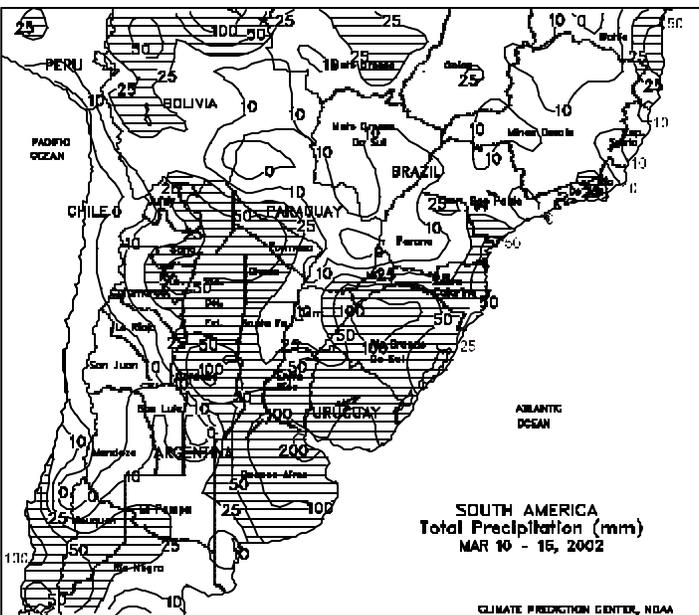
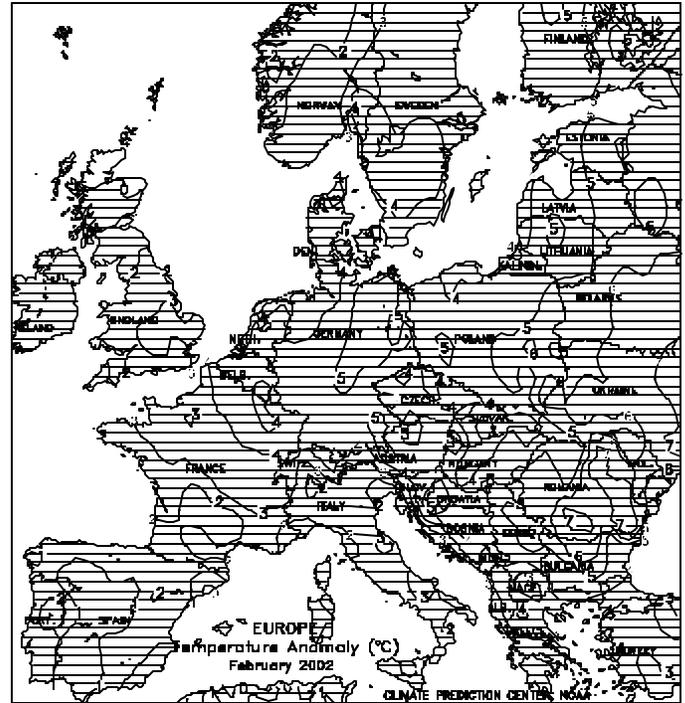
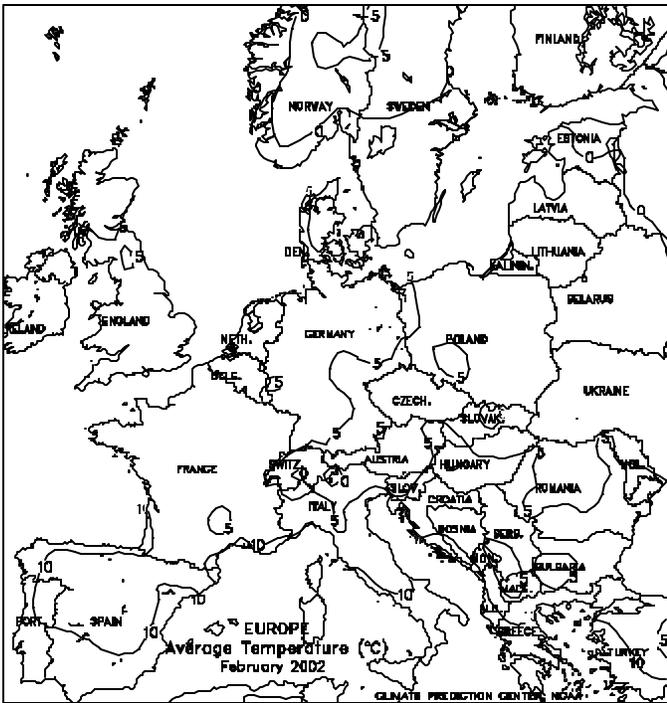




EUROPE

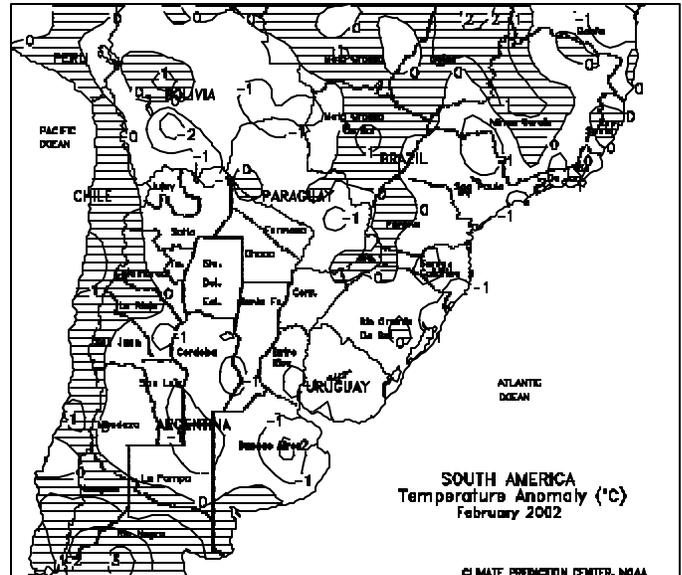
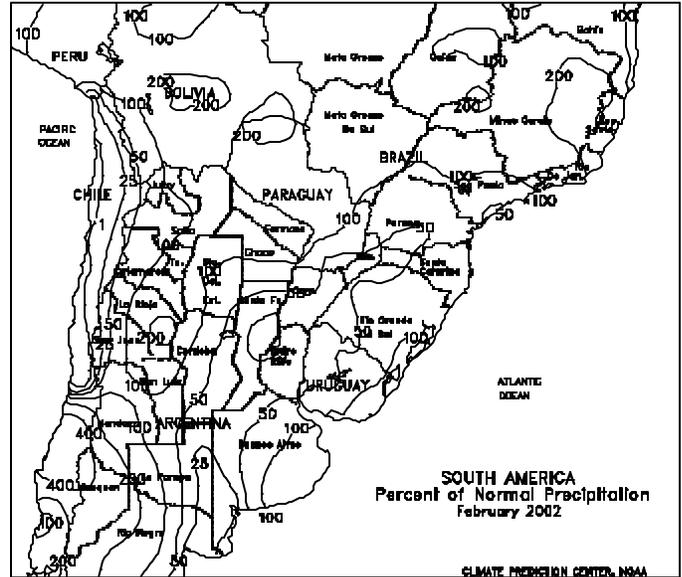
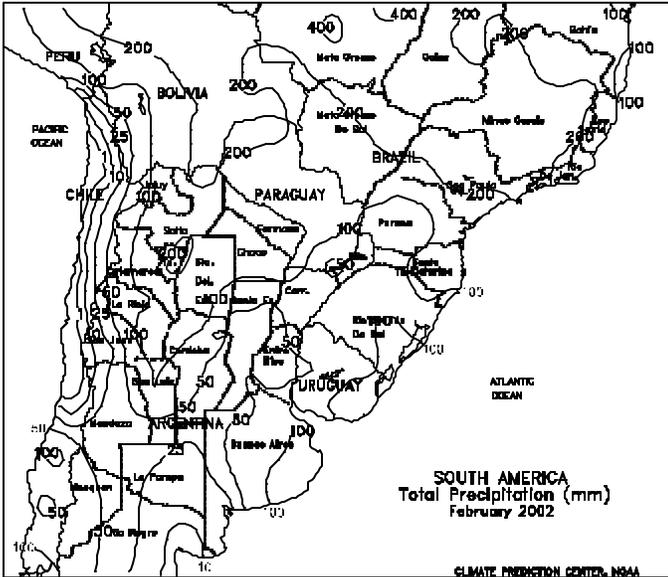
Scattered showers (5-35 mm) in England, France, the Benelux countries, northern Germany, northern Poland, and Scandinavia kept topsoils moist, limiting fieldwork in preparation for spring planting. Widespread, heavier rain (15-85 mm or more) fell across all but extreme eastern Spain, benefiting vegetative winter grains and boosting reservoir levels for summer crop development. In contrast, dry weather prevailed in northern and central Italy, southern Germany, and east-central Europe. Winter grains remained dormant in southern Germany but are greening in east-central Europe. In extreme southern Italy, showers (15-20 mm) helped durum wheat development. Widespread rain (10-80 mm) fell across Greece and the extreme southern Balkans, providing some relief from long-term dryness. The remainder of southeastern Europe, including much of the lower Danube River Basin, remained dry, increasing concerns about crop prospects in this basin. Unseasonably mild weather continued across the continent, with temperatures averaging between 1 and 4 degrees C above normal in the east and between 3 and 7 degrees C above normal in the west. In February, unseasonably mild weather continued across Europe, causing winter grains to lose cold hardiness in the north. Although the increasingly mild weather supported new crop growth in parts of southern Europe, below-normal rainfall in southern Spain and extreme southeastern Europe hindered this development. Near-normal rainfall in northern Italy improved moisture supplies for future summer crop development following winter dryness, while frequent rainfall in northern and central Europe maintained abundant moisture supplies for dormant winter grains.

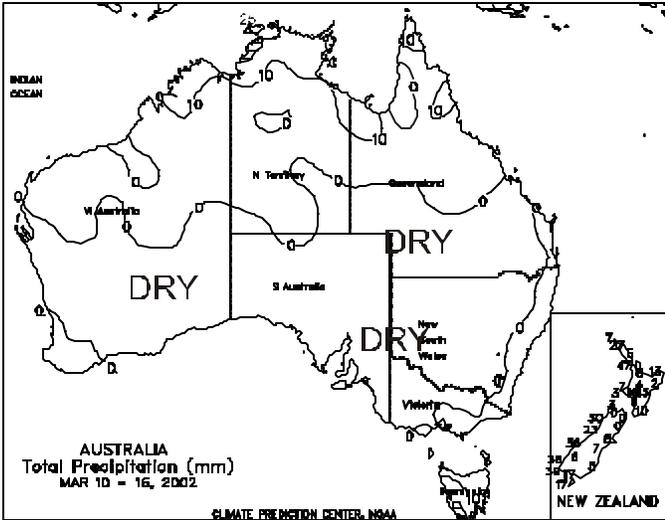




SOUTH AMERICA

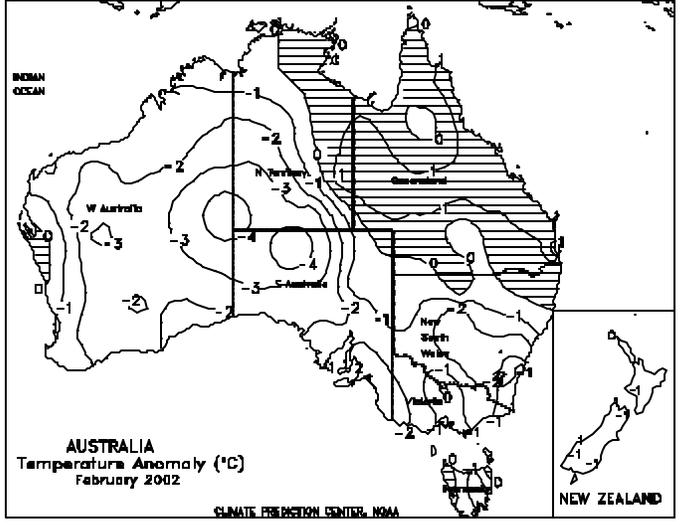
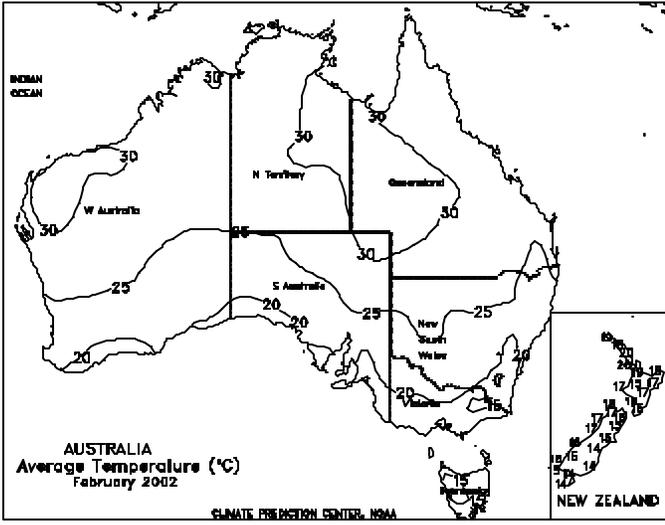
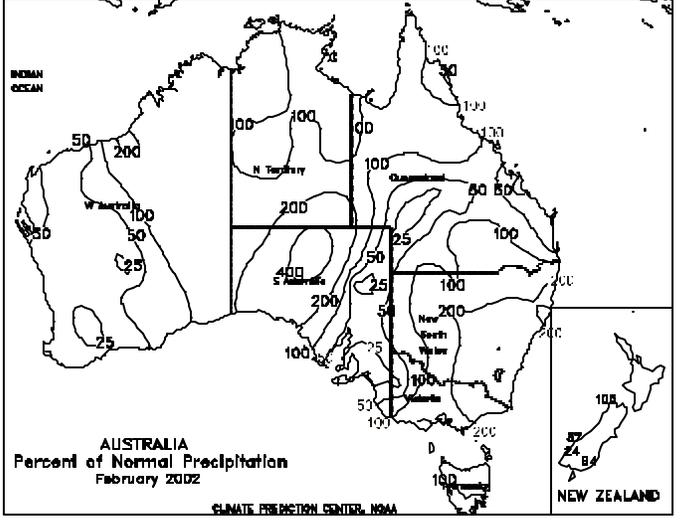
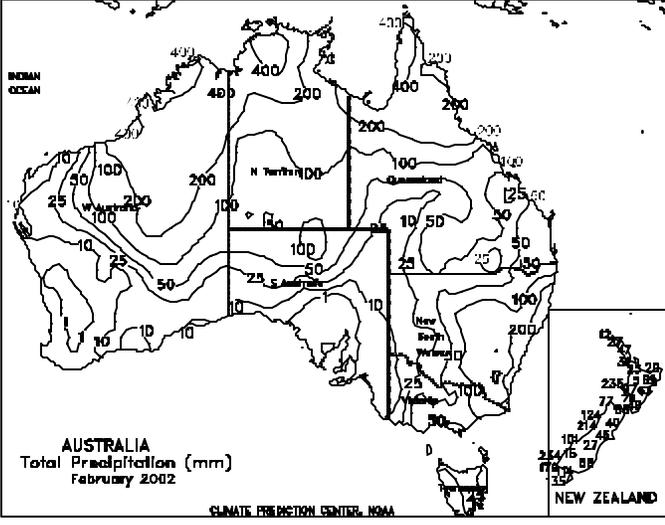
In central Argentina, widespread rain (25-100 mm or more) eased dryness across most major growing areas, benefiting immature summer crops, especially second-crop soybeans. The heavy rain, however, slowed summer crop harvesting. Only southwestern Cordoba received light rain (less than 10 mm). In northern Argentina, drier weather (5-20 mm) did not significantly slow early harvesting. In southern Brazil, heavy rain (50-100 mm) alleviated lingering dryness in Rio Grande do Sul. Elsewhere in southern Brazil, generally dry weather (less than 15 mm) favored soybean maturation and harvesting. According to Safras, a Brazilian grain trade analyst firm, as of March 15, nationwide soybeans were 24 percent harvested, compared with the 5-year average of 21 percent. In February, below-normal rainfall across portions of central Argentina reduced soil moisture and stressed filling summer crops, especially second-crop soybeans. Near- to above-normal rainfall favored summer crops in central and southern Buenos Aires. Slightly below-normal temperatures reduced crop water use and helped to ease crop stress. In southern Brazil, slightly below-normal February rainfall reduced soil moisture for filling soybeans in Rio Grande do Sul, but not to the extent of January's drought. Elsewhere, rainfall maintained adequate to abundant soil moisture for filling to maturing summer crops, but excessive rainfall in Mato Grosso may have damaged maturing soybeans.





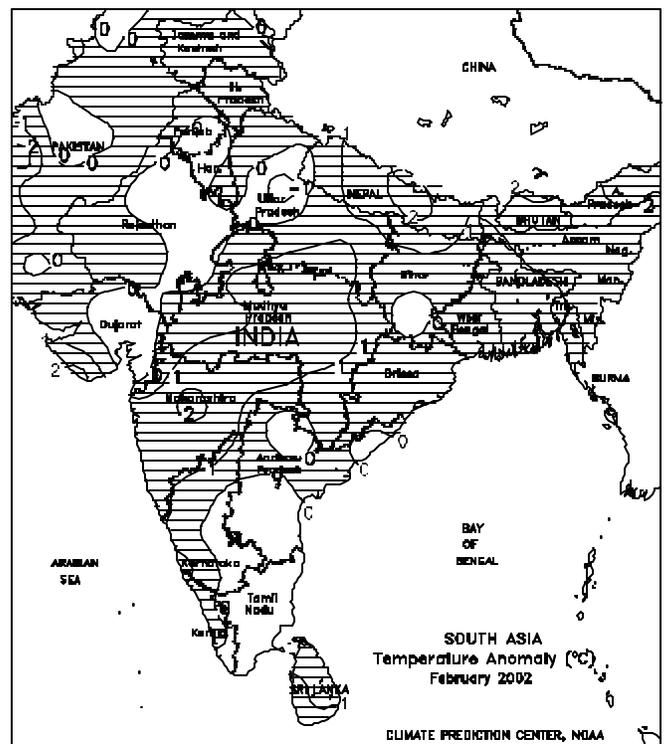
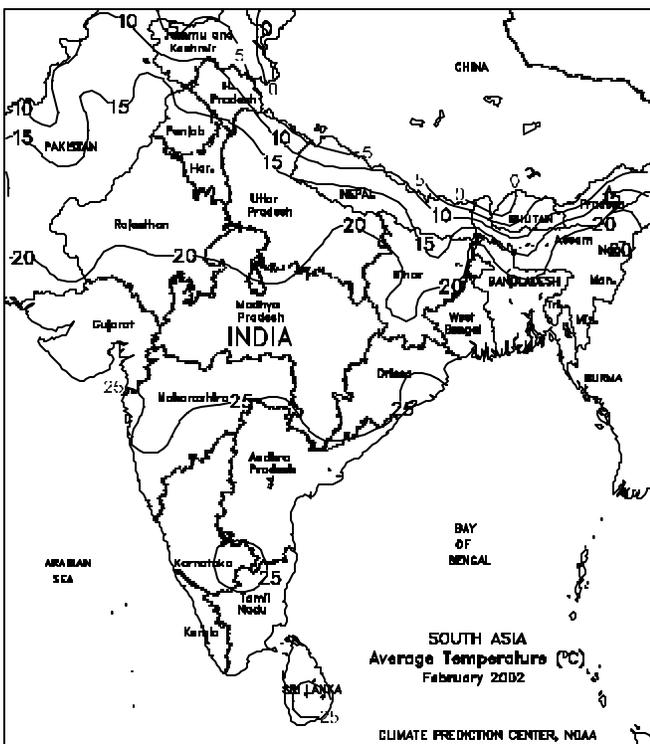
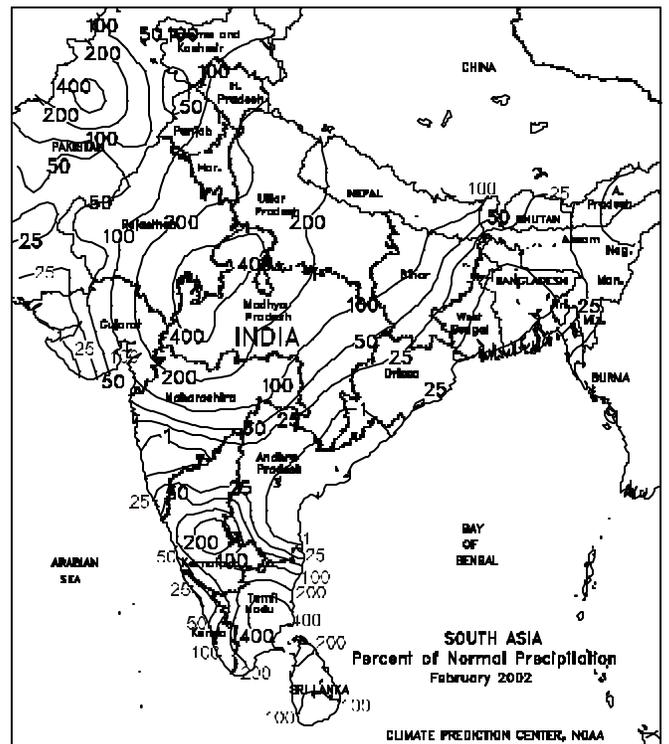
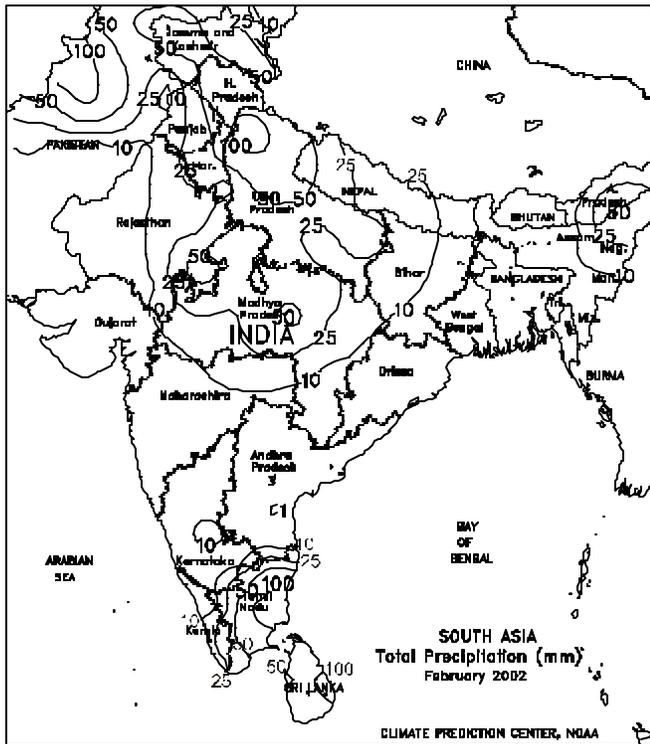
AUSTRALIA

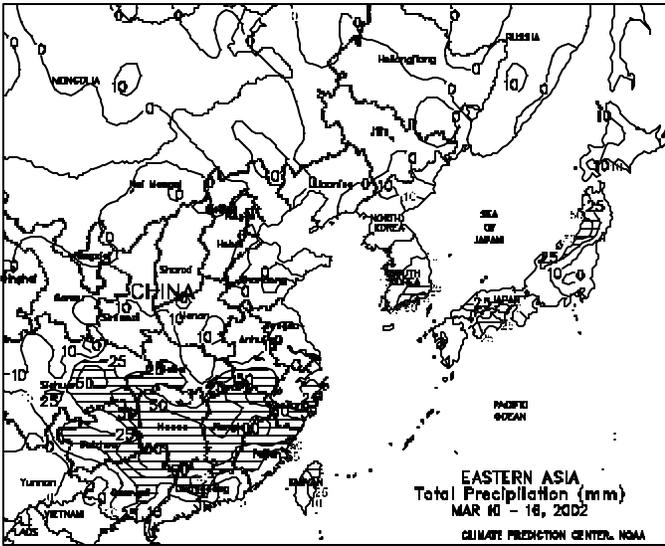
Dry, seasonably warm weather continued in primary summer crop areas of the east (southern Queensland and northern New South Wales). Conditions are favorable for sorghum harvesting and late development of cotton, which is usually harvested beginning in April. Warm, mostly dry weather maintained high moisture demands in grazing and summer crop areas of Western Australia and the southeast (South Australia to southern New South Wales). In New Zealand, light to moderate showers (5-25 mm or more) covered most small grain and pasture areas, but pockets of dryness continued along the east coast of South Island. In February, frequent showers and generally seasonable temperatures benefited immature sorghum and cotton in New South Wales. The moisture also aided pasture growth in the southern and western parts of the state, as well as in Victoria. However, warmer- and drier-than-normal weather persisted in summer crop areas of Queensland for much of February, further accelerating development of drought-stressed sorghum. Late-month showers came too late to significantly improve the condition of Queensland's interior summer crops, but the moisture was welcomed in coastal sugarcane plantations. Mostly dry weather dominated Western Australia and South Australia, but below-normal temperatures lowered moisture demands of livestock, pastures, and immature summer crops.



SOUTH ASIA

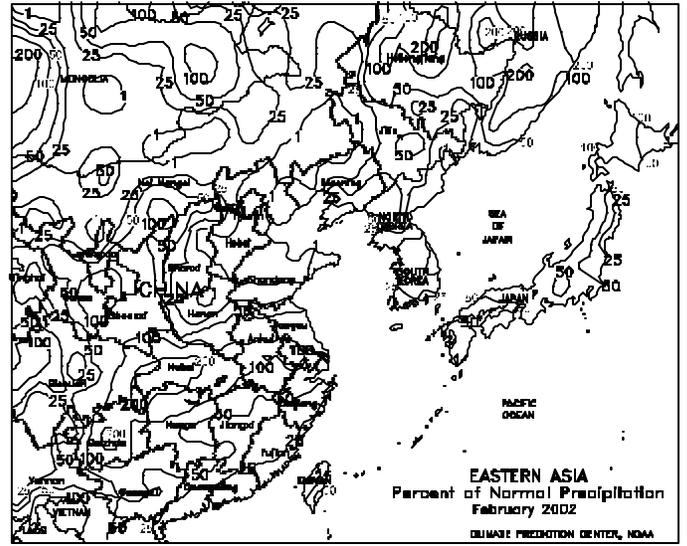
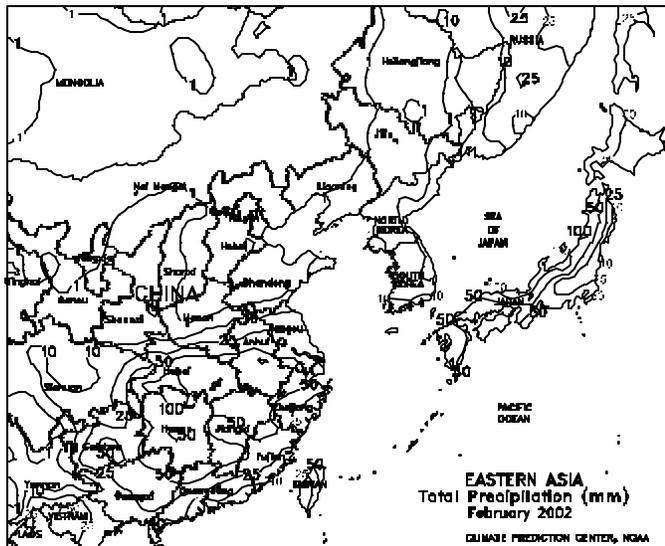
In February, beneficial rainfall (10-50 mm or more) improved winter crop prospects across much of Pakistan and northern India. The moisture was especially timely for reproduction of rainfed winter grains and oilseeds, which can account for 5 to 20 percent of the total production in a given year. Seasonably warm weather maintained crop water use and subsequent irrigation requirements of winter-grown crops, including rice, throughout the region.

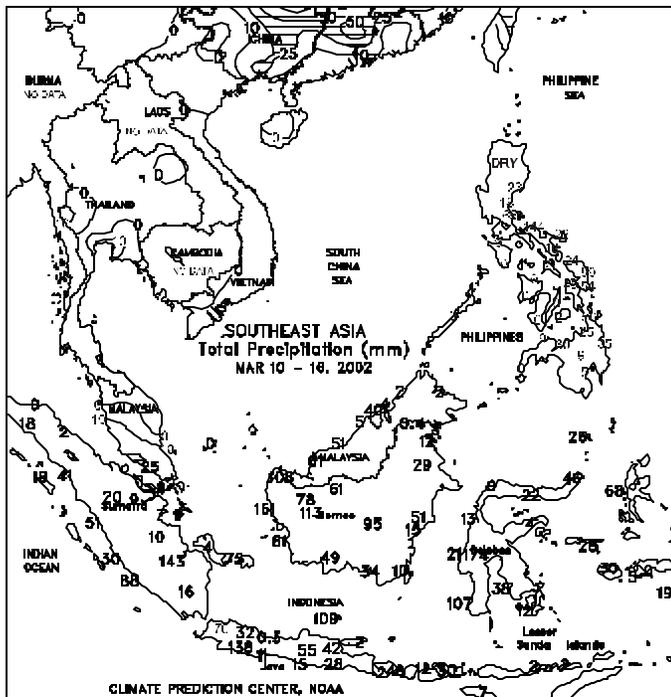
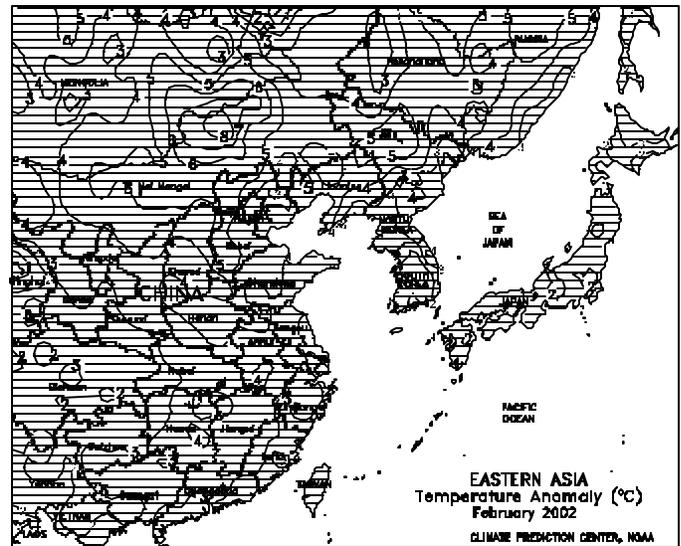
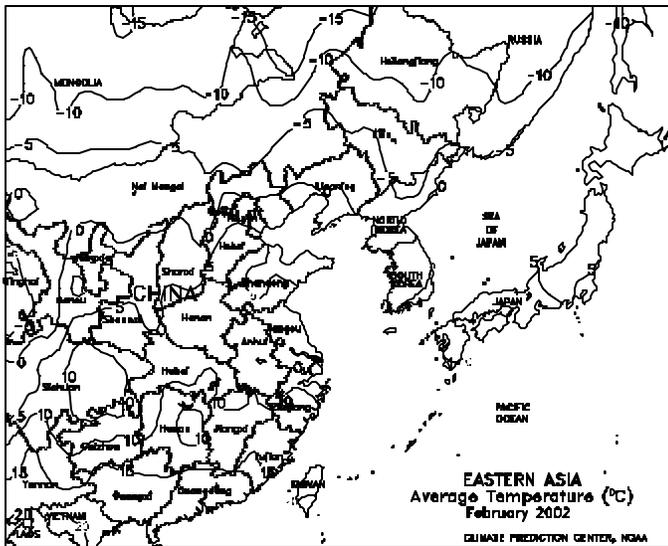




EASTERN ASIA

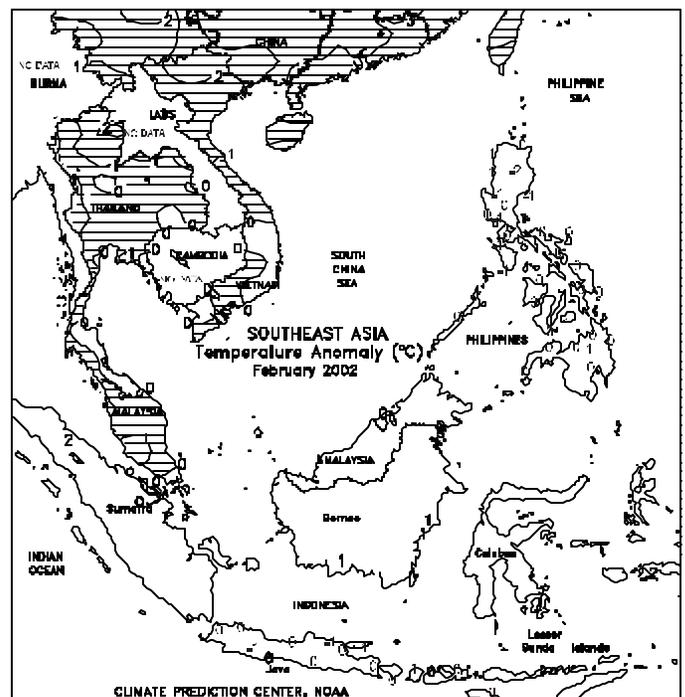
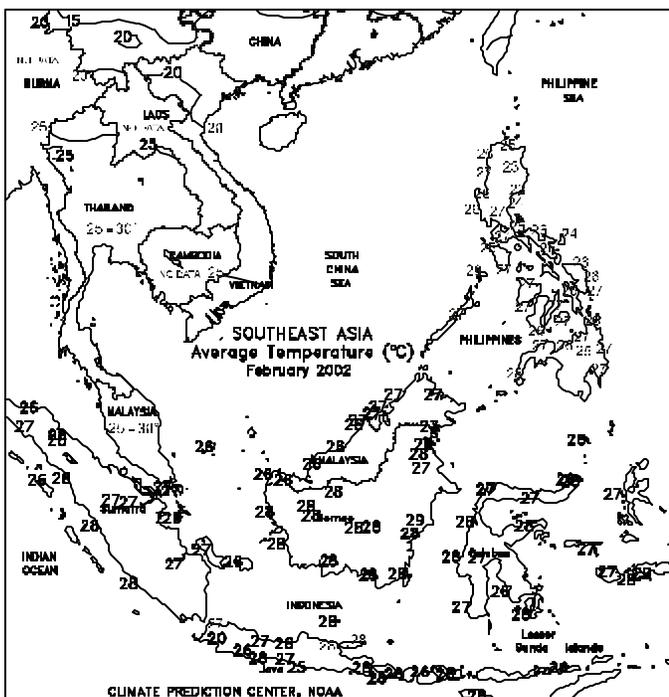
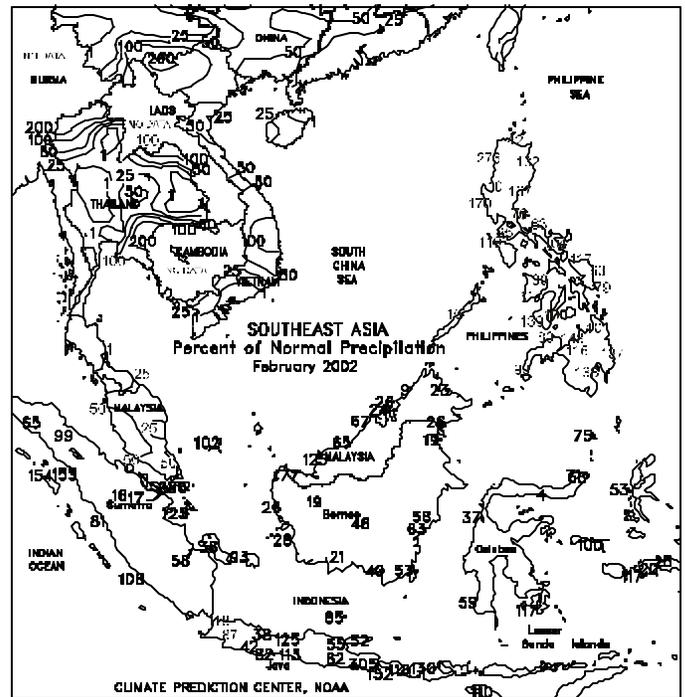
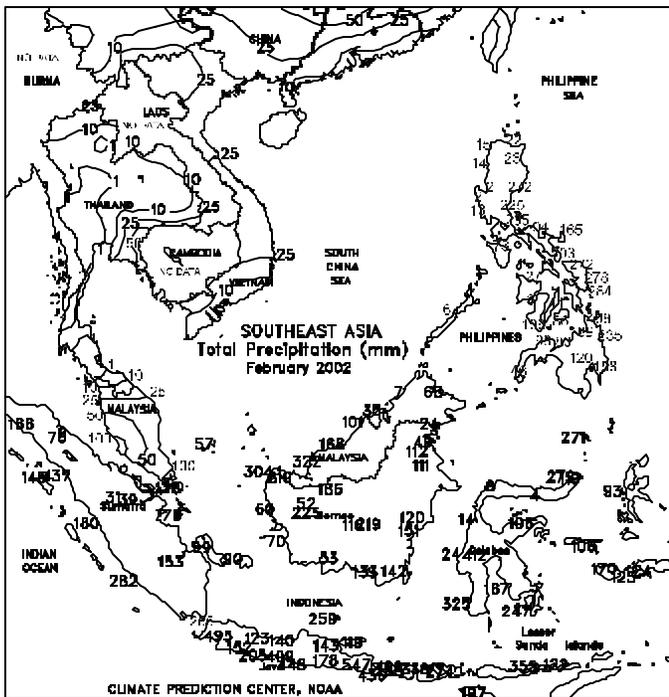
Dry weather returned to most of the North China Plain, where supplemental irrigation is needed to provide moisture for vegetative winter wheat. Light rain (less than 10 mm) favored wheat across central Henan, northern Anhui, and Jiangsu. Across the region, spring rainfall will be needed to alleviate lingering autumn dryness after a seasonably dry winter. In Manchuria, soil temperatures increased sufficiently for pre-planting fieldwork to begin across Liaoning. Across the Yangtze Valley and interior southern China, widespread rain (20-60 mm) boosted moisture supplies for winter and summer crop planting. Beneficial rain (10-50 mm) fell across Guangdong and Fujian, but more rain is needed for sugarcane along the coast. Temperatures averaged 4 to 7 degrees C above normal across eastern China and 8 to 10 degrees C above normal across Manchuria, aiding pre-planting field preparations. During February, unseasonably warm weather (monthly temperatures 4-6 degrees C above normal) across the North China Plain prompted winter wheat to break dormancy earlier than normal. Seasonably dry weather continued across the region, necessitating supplemental irrigation. In the Yangtze Valley, near- to above-normal February and early-March rainfall boosted moisture supplies for winter crops. Across the southern coastal provinces, however, much-below-normal February rainfall reduced moisture supplies for sugarcane, winter crops, and early rice as well as summer fieldwork.

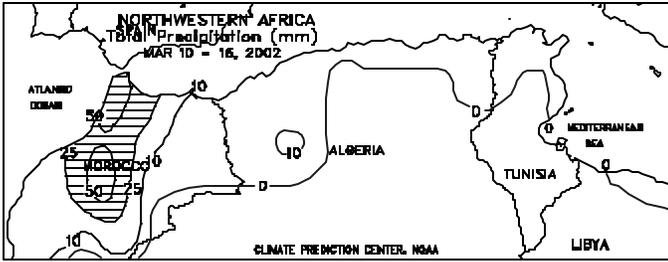




SOUTHEAST ASIA

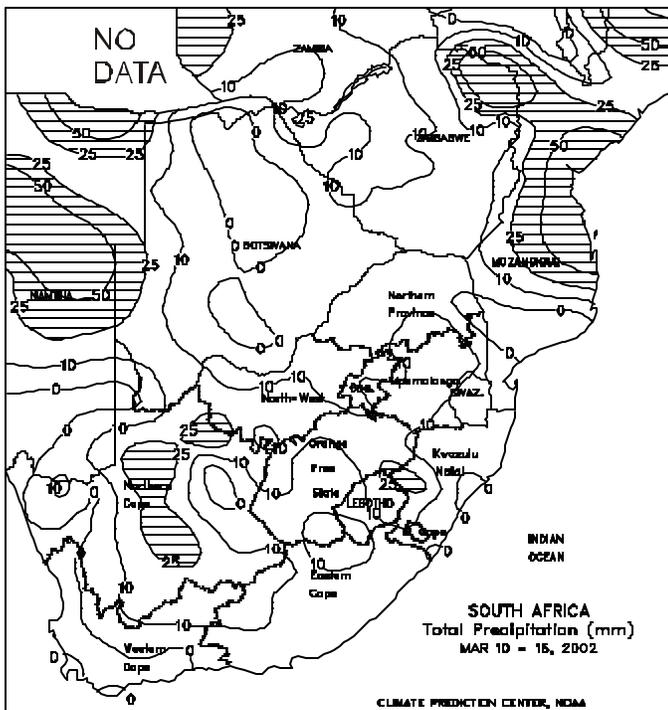
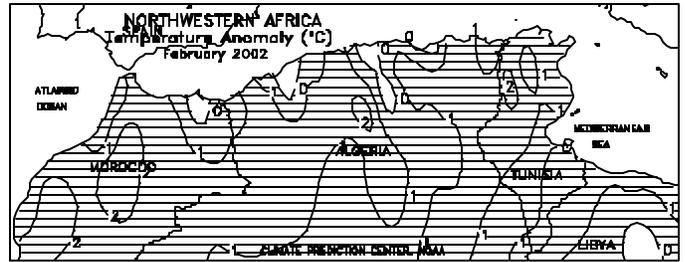
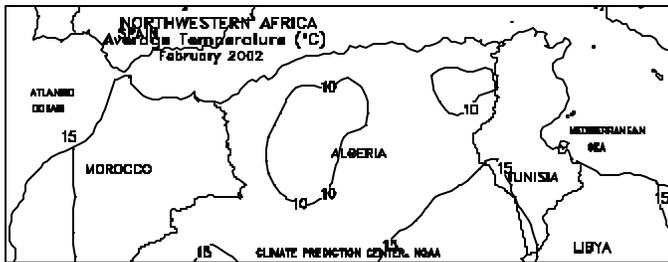
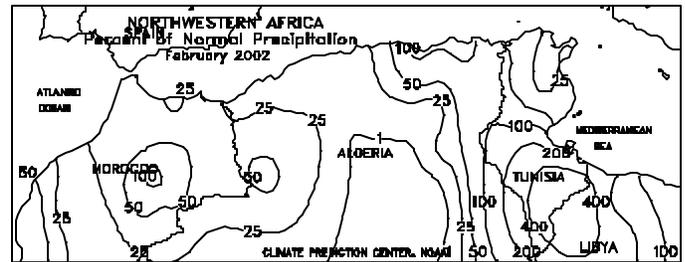
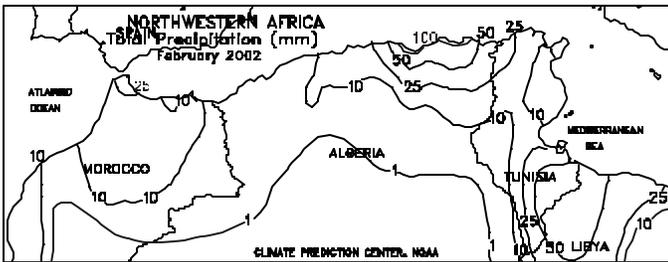
Showers slowed main-season rice harvesting in Java, Indonesia. In peninsular Malaysia, light showers (10-25 mm) provided limited moisture to oil palm. Harvest activities continued in the Philippines and Vietnam. In February, dry weather reduced moisture supplies for oil palm in peninsular Malaysia. In Java, Indonesia, heavy showers caused flooding and some damage to main-season rice. Warm weather favored development of winter and spring rice in northern Vietnam. Near-normal rainfall boosted moisture supplies for second-season crops in eastern and southern Luzon and Mindanao, Philippines.





NORTHWESTERN AFRICA

Showers (10-50 mm) continued in Morocco, helping to ease long-term dryness and providing moisture for winter grains in or nearing the heading stage. Lighter showers (less than 10 mm) kept topsoils moist in Algeria, while only dampening topsoils in Tunisia. Temperatures continued to average 1 to 3 degrees C above normal, increasing evapotranspiration rates especially in eastern areas. In February, drought developed across most of Morocco, Algeria, and Tunisia, stressing winter grains in the vegetative stage. Since early March, light to moderate showers have overspread most of the region, stabilizing crop conditions.

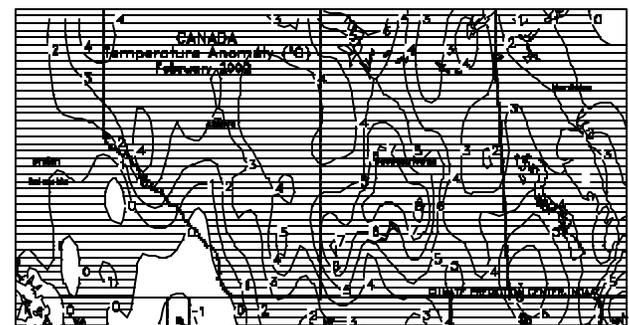
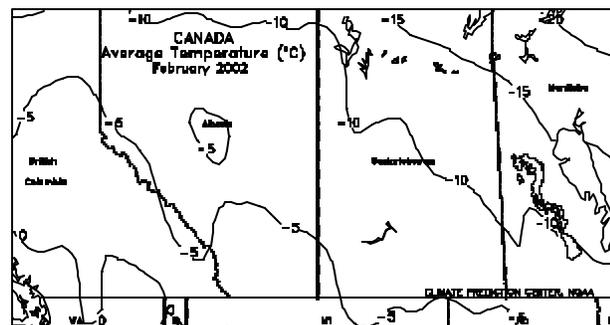
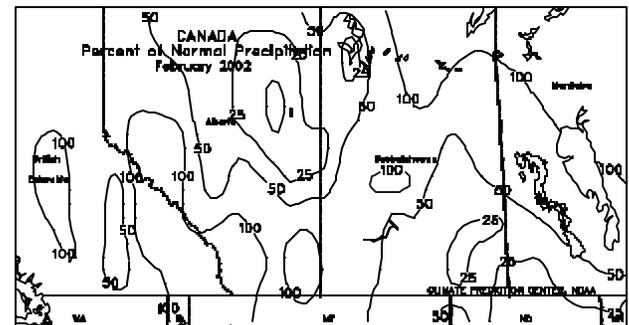
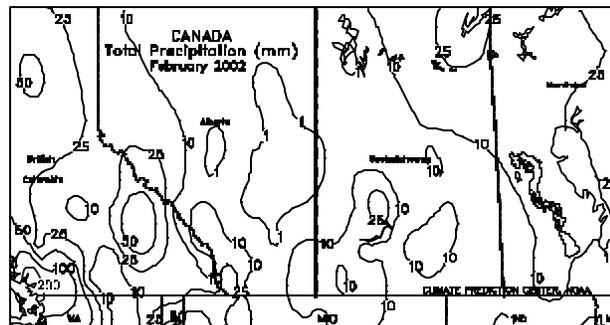
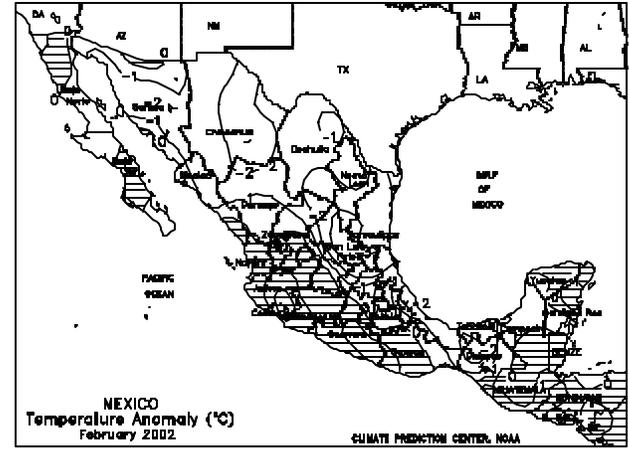
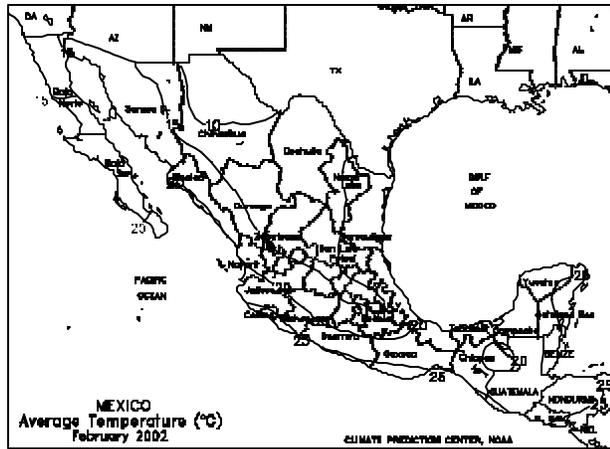
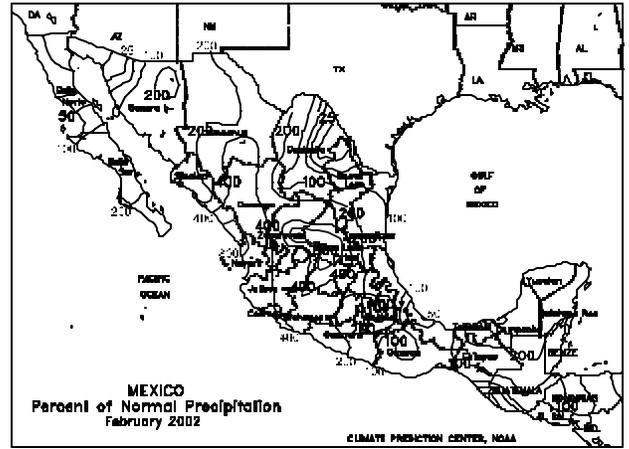
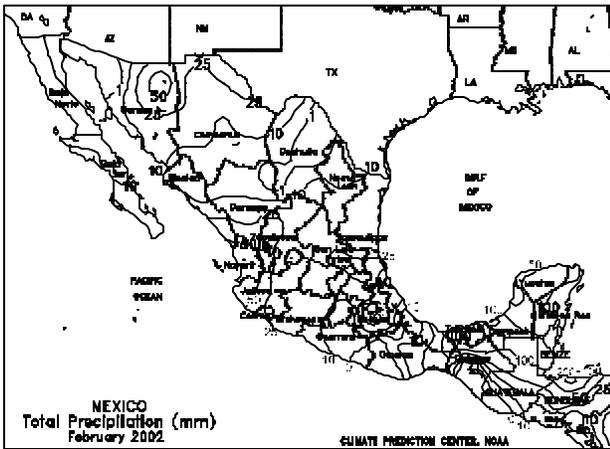


SOUTH AFRICA

Warm, showery weather maintained mostly favorable conditions for filling summer crops throughout the corn belt. However, mostly dry weather developed in KwaZulu-Natal and Eastern Cape, increasing irrigation requirements of sugarcane and other summer crops. Dry, locally hot weather (highs in the upper 30s degrees C) maintained high moisture demands for fruit and vegetables in Western Cape. During February, a drying trend gripped much of the corn belt, forcing reproductive summer crops to rely on subsoil moisture for development. However, below-normal temperatures lowered crop moisture requirements and substantially reduced the potential for significant stress on corn, sunflowers, and other summer crops. Scattered showers brought some relief to the corn belt by month's end. Elsewhere, February rainfall was also below normal in KwaZulu-Natal and the Cape Provinces, increasing the dependency of sugarcane and other summer crops on supplemental irrigation. Above-normal temperatures enhanced the effects of dryness in orchards and vineyards of Western Cape.

MEXICO

In February, above-normal rainfall fell across north-central (Chihuahua and Durango) and central Mexico, increasing moisture for winter crops. The rainfall also increased reservoir levels in northwestern Mexico (Sonora, southern Chihuahua, and Sinaloa). Despite above-normal rainfall in eastern Chihuahua, actual amounts were less than 10 mm, providing little relief for low reservoir levels that ultimately flow into the Rio Grande. In the northwest, below-normal rainfall reduced moisture supplies for winter sorghum planting. Above-normal rainfall fell across the Yucatan and southeastern Mexico (Oaxaca, Tabasco, and northern Chiapas). Temperatures averaged 1 to 2 degrees C below normal across northern Mexico and near to slightly above normal elsewhere.



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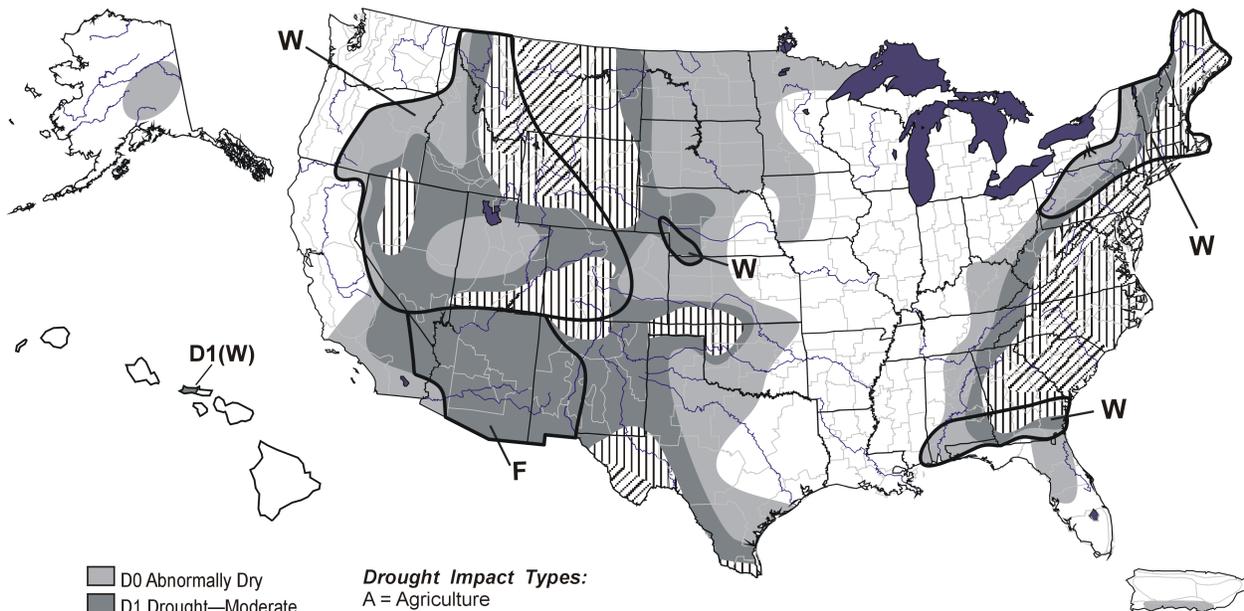
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U.S. Drought Monitor

March 12, 2002
Valid 8 a.m. EST



- D0 Abnormally Dry
- D1 Drought—Moderate
- ▨ D2 Drought—Severe
- ▩ D3 Drought—Extreme
- ⊠ D4 Drought—Exceptional

Drought Impact Types:
A = Agriculture
W = Water (Hydrological)
F = Fire danger (Wildfires)
— Delineates dominant impacts
(No type = All 3 impacts)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/monitor/monitor.html>



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