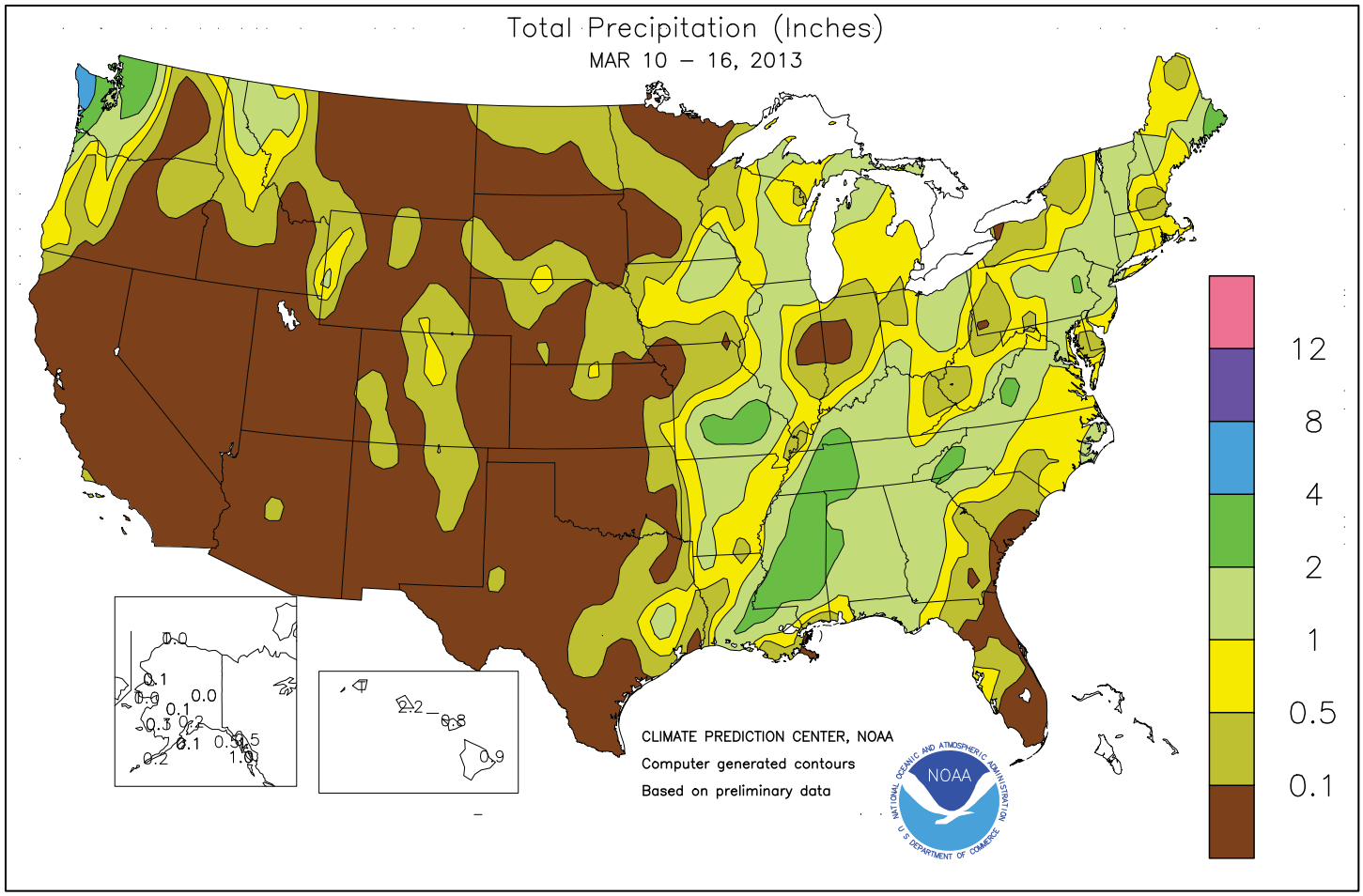
Volume 100, No. 12 http://www.usda.gov/oce/weather March 19, 2013

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

March 10 – 16, 2013

Highlights provided by USDA/WAOB

Unsettled conditions across the **eastern half of the nation** contrasted with generally warm, dry weather from the **Pacific Coast to the High Plains**. Weekly temperatures averaged more than 10°F above normal across parts of the **Intermountain West**. In contrast, frigid conditions prevailed across the **far upper Midwest**, including **eastern North Dakota**, where weekly temperatures averaged at least 10 to 15°F below normal. In the **West**, mid-March warmth caused some premature melting of high-elevation snow packs. As a result, spring and

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Contents

Water Supply Forecast for the Western United States

Highlights

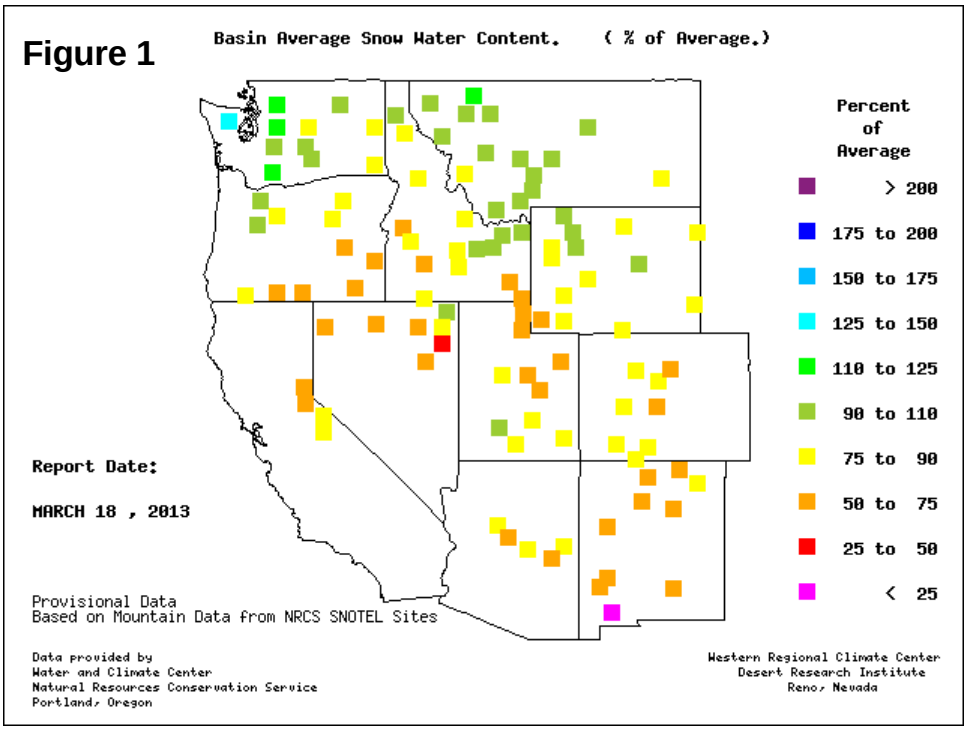
February was cooler than average across the southern two-thirds of the West. Temperatures averaged as much as 12°F below normal in northern Utah. In contrast, readings averaged up to 9°F above normal in the Montana Rockies. Typically, cold weather would have been beneficial in preserving snow packs; however, February precipitation was substantially below normal over a large part of the West. Meanwhile, Alaskan precipitation totals were greatest, relative to normal, over the Panhandle, Kenai Peninsula, Alaska Range, and parts of the Tanana Basin, but drier-than-normal conditions covered the Northern Slope and Steward Peninsula. Because of an abnormally dry February, projected seasonal water supplies in the West declined in nearly every state and basin, compared to the February 1 forecasts.

Snowpack and Precipitation

March opened with the driest conditions located in the central and southern Rockies and the Sierra Nevada. By March 18, 2013, the lowest snow water content values, relative to normal, were located in basins across the northern Intermountain West and the southern Rockies (figure 1). Slightly below-average values (75 to 90 percent of average) were common elsewhere in the West, except across the northern tier of

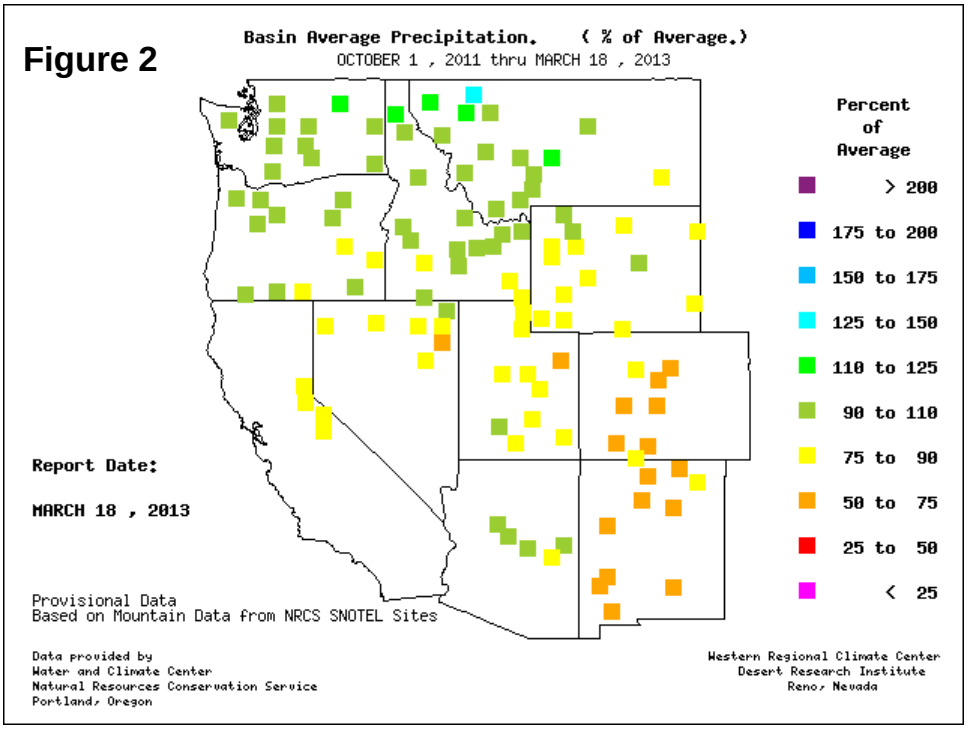
SNOTEL – River Basin Snow Water Content

Figure 1



SNOTEL – River Basin Snow Water Content

Figure 2



of the region. Snow water content values in excess of 110 percent of average were mostly limited to the northern Cascades.

Season-to-date precipitation (October 1, 2012 – March 18, 2013) indicated a fairly sharp gradient between near- to above-normal totals in the Northwest and drier-than-normal conditions along and south of a line from northern California to Wyoming (figure 2). Despite the absence of La Niña, or any strong signal from the equatorial Pacific Ocean, atmospheric and precipitation patterns across the western U.S. have trended in the direction of what normally what would be expected during La Niña—with the exception of relatively wet weather in Arizona.

Spring and Summer Streamflow Forecasts

By March 1, 2013, projections for spring and summer streamflow were indicating the likelihood of below-normal runoff across the southern two-thirds of the West (figure 3). Conversely, near- to above-average runoff can be expected from the Cascades to the northern Rockies. Overall, preliminary March 1 runoff forecasts indicated worsening conditions, compared to February 1. The most substantial forecast reductions were noted in eastern Oregon, southern Idaho, and nearly all of Nevada, Utah, Wyoming, and Colorado.

Reservoir Storage

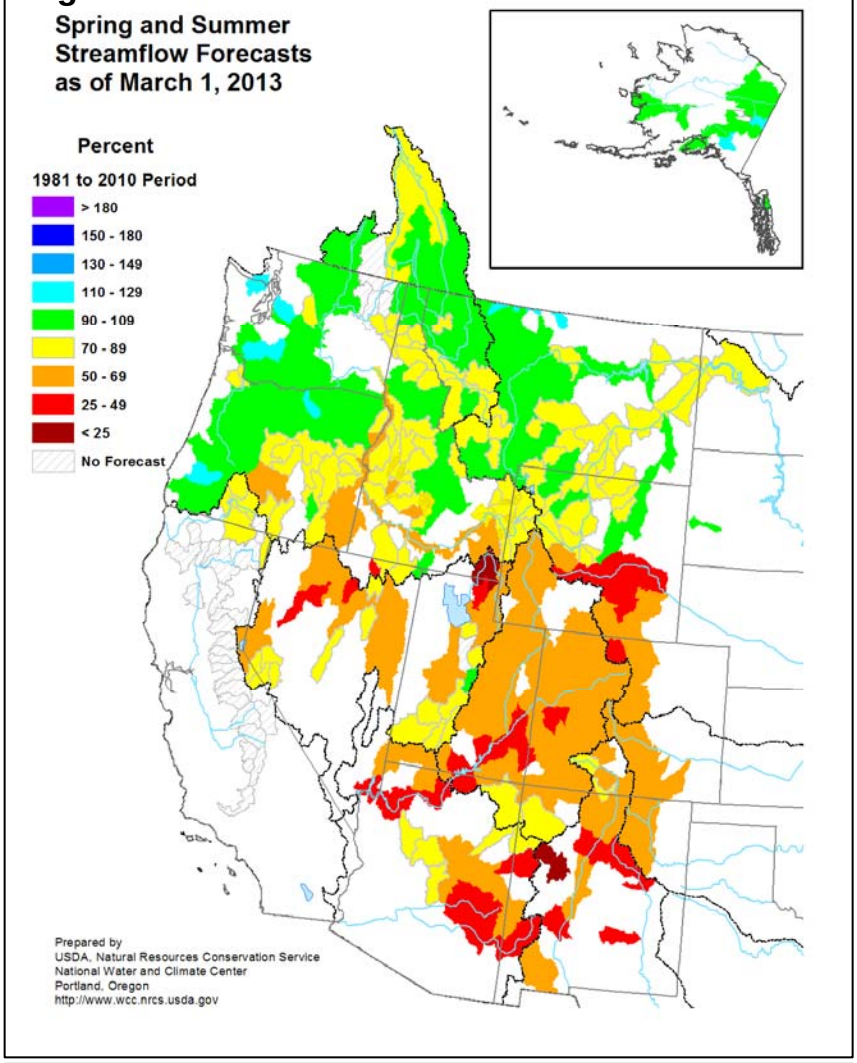
On March 1, 2013, reservoir storage as a percent of average for the date was near normal in California, Idaho, Montana, Utah, Washington, and Wyoming (figure 4). Storage was below average in the other five Western States, but was substantially below average in Colorado, Nevada, New Mexico, and Oregon.

For More Information

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

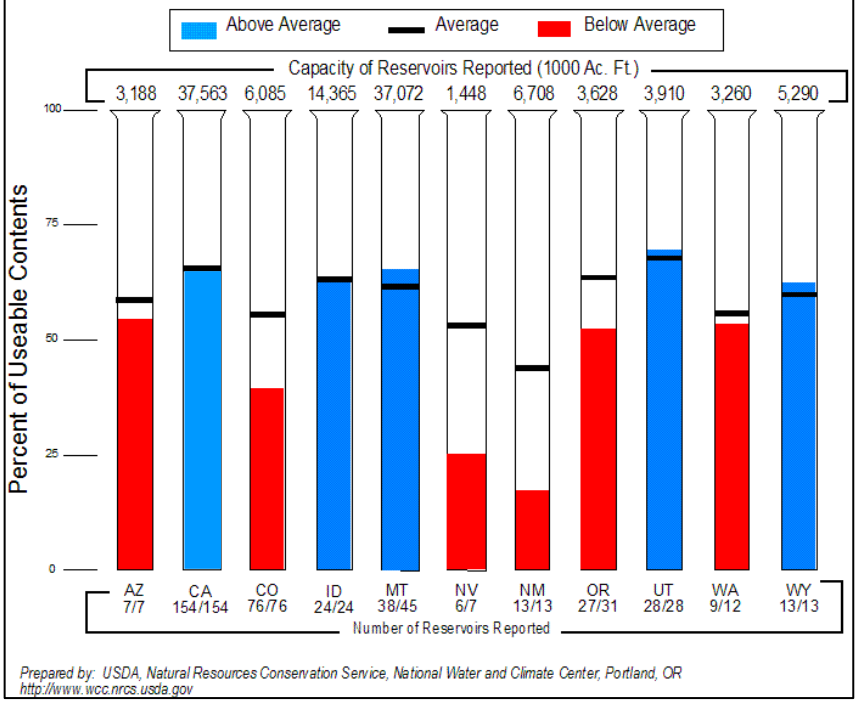
http://www.wcc.nrcs.usda.gov

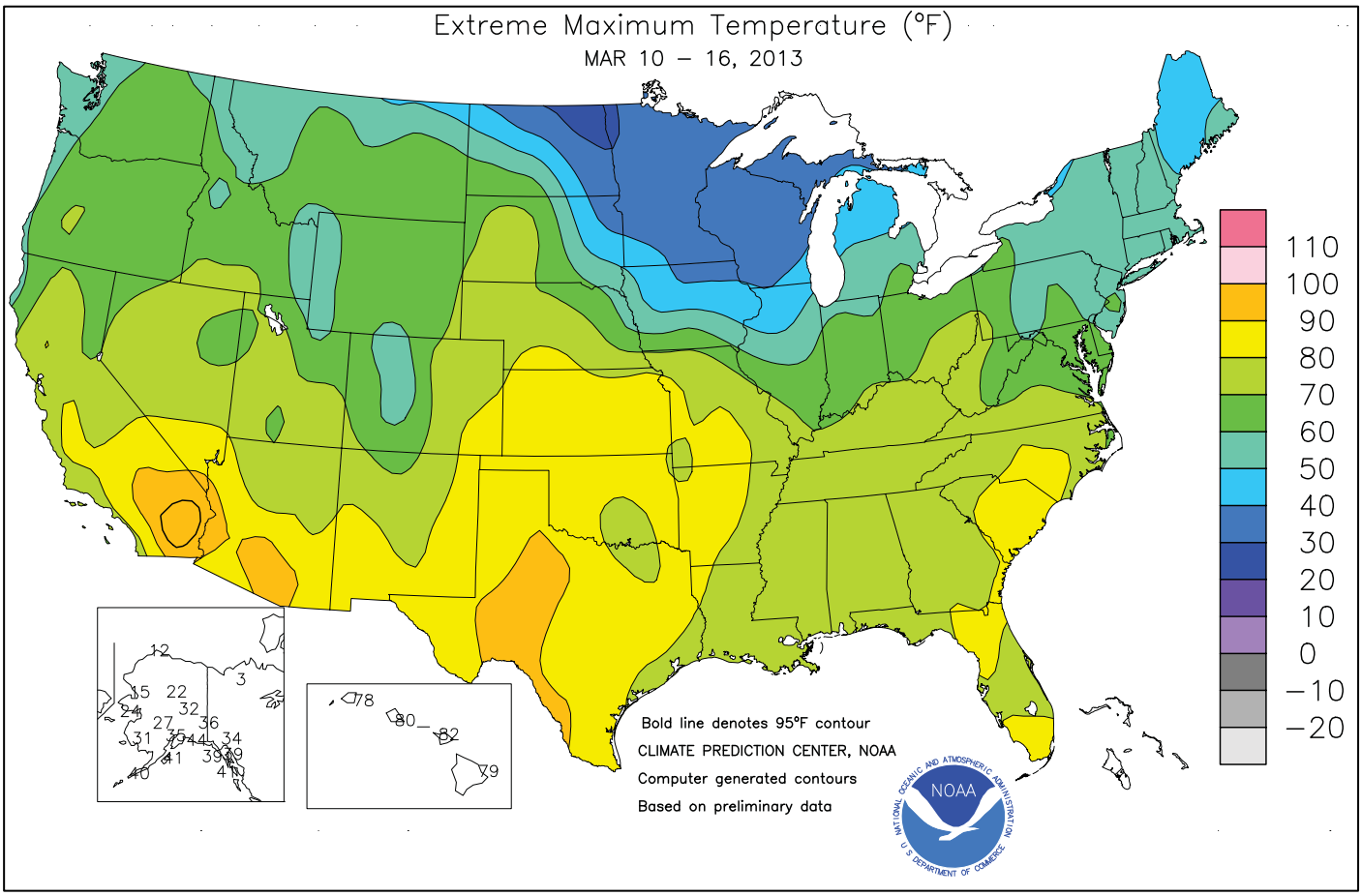
Figure 3

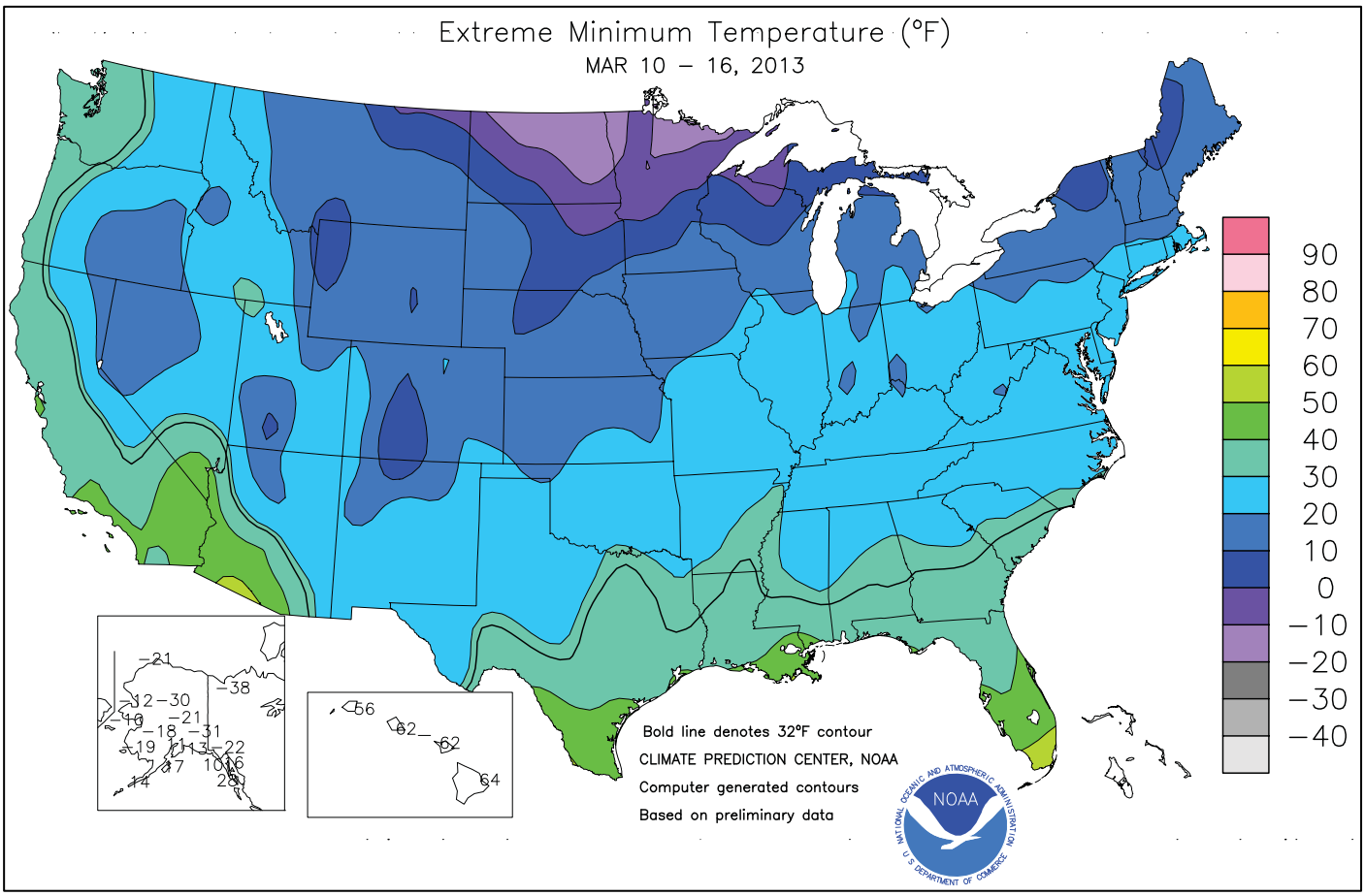


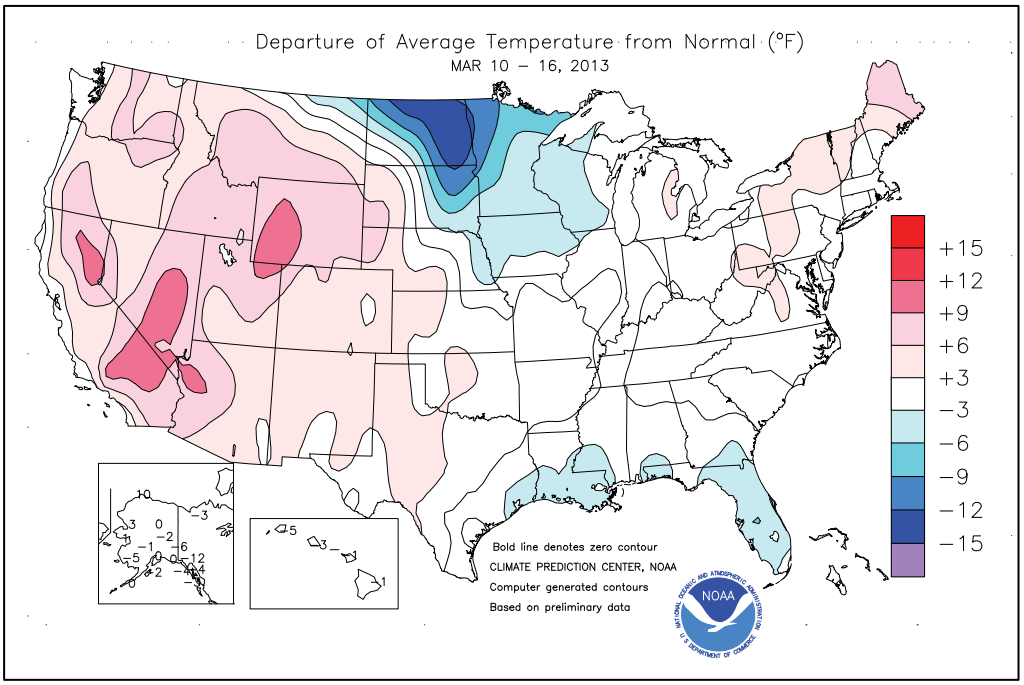
Reservoir Storage as of March 1, 2013

Figure 4




Extreme Maximum Temperature (°F)
MAR 10 – 16, 2013
110
100
90
80
70
60
50
40
30
20
10
0
−10
−20
Bold line denotes 95°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data
NOAA


Extreme Minimum Temperature (°F)
MAR 10 – 16, 2013
90
80
70
60
50
40
30
20
10
0
−10
−20
−30
−40
Bold line denotes 32°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data
NOAA



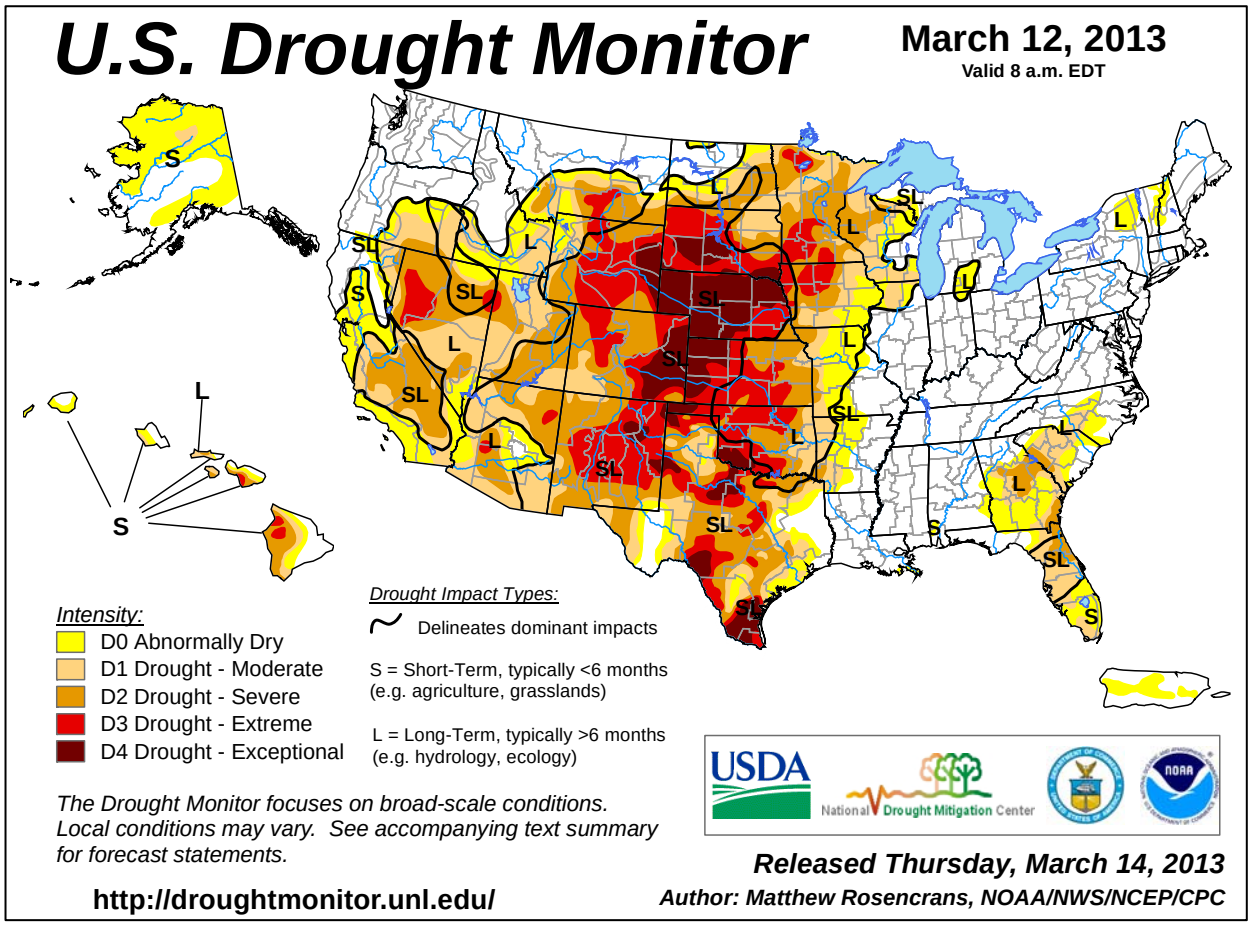
(Continued from front cover)

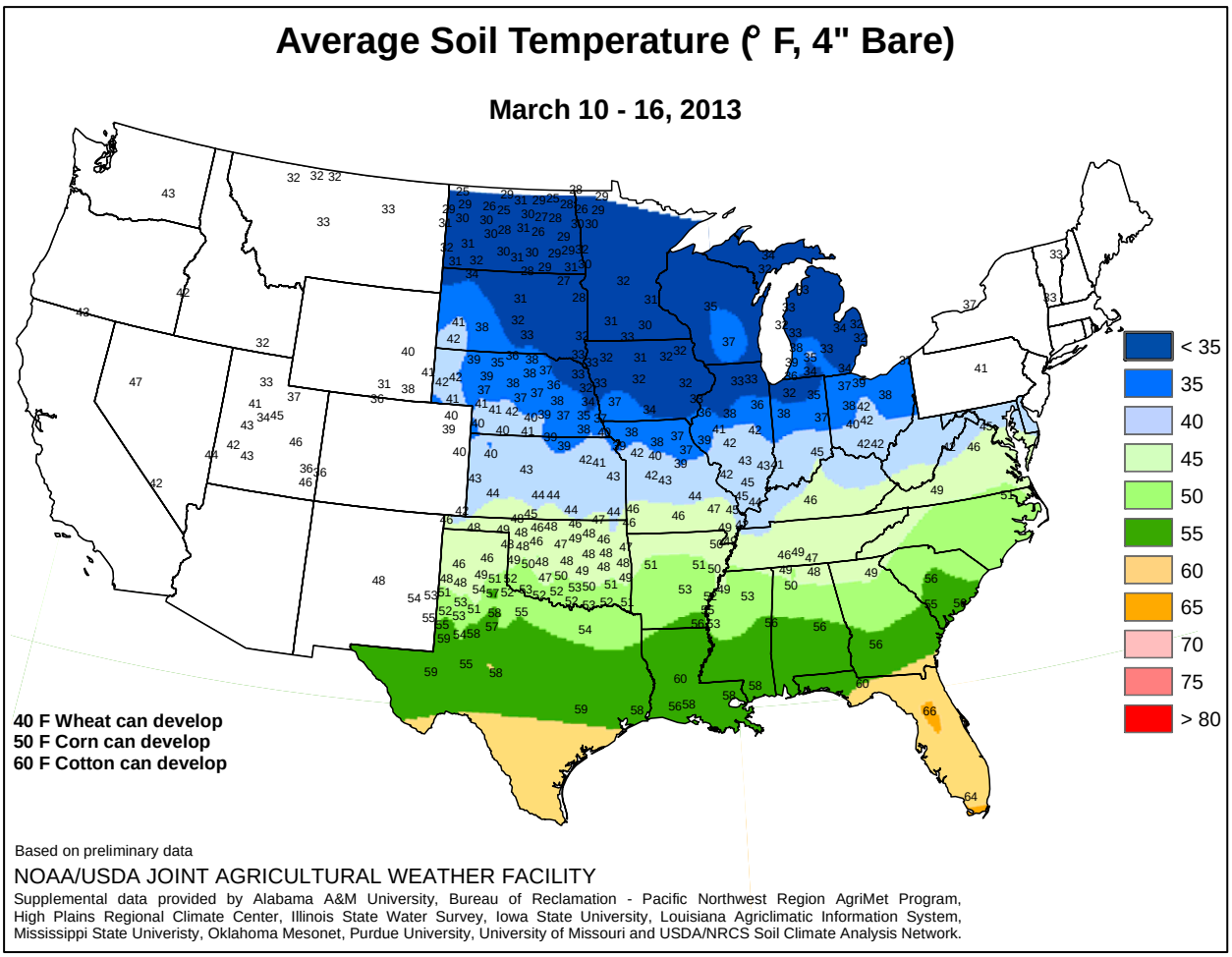
summer runoff forecasts remained mostly unfavorable from **California to the central and southern Rockies**. However, the **Western** warmth also favored fieldwork. Any significant **Western** precipitation was confined to the **northern Rockies** and the **Pacific Northwest**. Meanwhile, mostly dry weather returned to the **Plains**, following several weeks of beneficial precipitation. On the **central and southern Plains**, several days of warmth contributed to some early-season winter wheat development. Farther east, weekly precipitation totals of an inch or greater were common from the **Mississippi Valley to the Appalachians**. Continuing a recent trend, however, showers mostly bypassed **Florida's peninsula**, where growers continued to irrigate citrus and other crops. Unlike last year, when record-setting March warmth covered the majority of the nation, rain and snow accompanied generally cool conditions in the **Midwest**. An extensive snow cover persisted through week's end across the **northern Corn Belt**, although melting occurred farther south.

Early in the week, snow blanketed portions of the **central Plains** and **western Corn Belt**. Record-setting snowfall totals for March 10 reached 8.8 inches in **Omaha, NE**, and 6.6 inches in **Sioux City, IA**. Elsewhere in **Iowa**, **Mason City** received 14.3 inches of snow from March 10-12. Month-to-date snowfall climbed to 20.3 inches in **Rochester, MN**, representing the snowiest March in that location since 2005. Snow eventually spread into the **Great Lakes region**, where **Marquette, MI**, netted 22.4 inches of snow on March 11-12. Meanwhile, daily-record precipitation totals reached 1.28 inches in **Springfield, IL**, and 1.13 inches—including 0.5 inch of snow—in **Waterloo, IA**. Locally heavy showers also swept across the **South** and **East**, where daily-record precipitation totals included 2.16 inches (on March 11) in **Tuscaloosa, AL**, and 2.06 inches (on March 12) in **Mt. Pocono, PA**. Periods of heavy precipitation also affected the **Pacific Northwest**, resulting in a weekly total of 10.41 inches in **Quillayute, WA**. The total in **Quillayute** was aided by a trio of daily-record amounts (5.47, 2.02, and 1.36 inches, respectively) from March 12-14. At week's end, some additional snow fell across the **nation's northern tier**, where **Marquette's** daily-record total—7.7 inches on March 16—boosted its month-to-date snowfall to 37.5 inches (184 percent of normal). In **Grand Forks, ND**, where there has been a continuous snow cover since December 9, the end-of-week snow depth climbed to 10 inches.

An early-week chill in parts of the **West** was quickly replaced by record-setting warmth during the mid- to late-week period. **Ramona, CA**, posted a daily-record low of 30°F on March 10, followed by consecutive daily-record highs (86 and 88°F, respectively) on March 13-14. **Thermal, CA**, also collected consecutive daily-record highs (97 and 100°F) on March 13-14, including its second-earliest triple-digit reading behind 100°F on February 27, 1986. Elsewhere in **California**, **Death Valley** (100°F on March 16) tied a record for its earliest triple-digit reading, previously set with a high of 102°F on March 16, 2007. Meanwhile in **Arizona**, **Tucson** tallied a trio of daily-record highs (89, 92, and 94°F) from March 13-15. Toward week's end, record-setting warmth briefly overspread the **Plains** and **Mid-South**. Daily-record highs for March 15 soared to 90°F in **Roswell, NM**; 88°F in **Lubbock, TX**; 87°F in **Salina, KS**; 83°F in **Kansas City, MO**; 81°F in **Imperial, NE**; and 80°F in **Pueblo, CO**. An early-season wildfire—the Galena fire—west of **Ft. Collins, CO**, near **Horsetooth Reservoir**, started on March 15 and charred more than 1,300 acres of vegetation. By March 16, warmth was suppressed into the **south-central and southwestern U.S.**, where records included 91°F in **Midland, TX**, and 88°F in **Tombstone, AZ**. In stark contrast, bitterly cold air overspread the **Red River Valley**, resulting in consecutive daily-record lows (-18 and -23°F, respectively) on March 16-17 in **Grand Forks, ND**.

Cold weather in **southern Alaska** contrasted with near- to above-normal temperatures in northern parts of the state. In addition, heavy snow fell early in the week in parts of **southern Alaska**, where daily-record totals for March 10 included 4.7 inches in **Anchorage** and 4.3 inches in **King Salmon**. Later in **southeastern Alaska**, March 15-16 snowfall totaled 6.4 inches in **Yakutat** and 4.0 inches in **Juneau**. Farther south, in **Hawaii**, unusually cool conditions followed early-week showers. **Honolulu, Oahu**, netted a daily-record rainfall of 1.67 inches on March 10. In addition, **Honolulu** reported its longest stretch with high temperatures of 80°F or below (7 days from March 10-16) since March 2-14, 2012. In **Lihue, Kauai**, where weekly temperatures averaged more than 5°F below normal, highs did not exceed 75°F from March 11-15.


U.S. Drought Monitor
March 12, 2013
Valid 8 a.m. EDT
Intensity:
D0 Abnormally Dry
D1 Drought - Moderate
D2 Drought - Severe
D3 Drought - Extreme
D4 Drought - Exceptional
Drought Impact Types:
Delineates dominant impacts
S = Short-Term, typically <6 months (e.g. agriculture, grasslands)
L = Long-Term, typically >6 months (e.g. hydrology, ecology)
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.
USDA
National Drought Mitigation Center
Released Thursday, March 14, 2013
Author: Matthew Rosencrans, NOAA/NWS/NCEP/CPC
http://droughtmonitor.unl.edu/


Average Soil Temperature (° F, 4" Bare)
March 10 - 16, 2013
< 35
35
40
45
50
55
60
65
70
75
> 80
40 F Wheat can develop
50 F Corn can develop
60 F Cotton can develop
Based on preliminary data
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Supplemental data provided by Alabama A&M University, Bureau of Reclamation - Pacific Northwest Region AgriMet Program, High Plains Regional Climate Center, Illinois State Water Survey, Iowa State University, Louisiana Agriclimatic Information System, Mississippi State Univeristy, Oklahoma Mesonet, Purdue University, University of Missouri and USDA/NRCS Soil Climate Analysis Network.

National Weather Data for Selected Cities

Weather Data for the Week Ending March 16, 2013

Data Provided by Climate Prediction Center

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS PRECIP	
		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	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL	BIRMINGHAM	67	40	76	29	53	0	0.99	-0.40	0.99	1.23	41	15.82	125	78	30	0	2	1	1
	HUNTSVILLE	65	38	76	27	52	1	1.32	-0.25	1.32	2.11	60	13.99	100	76	47	0	3	1	1
	MOBILE	70	43	76	38	56	-3	0.27	-1.41	0.27	0.27	7	14.45	100	84	43	0	0	1	0
	MONTGOMERY	71	40	80	32	55	-2	0.94	-0.57	0.94	1.00	29	17.77	128	80	31	0	1	1	1
AK	ANCHORAGE	31	18	35	11	25	1	0.22	0.08	0.22	0.24	69	2.70	153	67	50	0	7	1	0
	BARROW	3	-12	12	-21	-5	10	0.01	0.01	0.01	0.02	200	0.15	63	85	74	0	7	1	0
	FAIRBANKS	23	-11	32	-21	6	-2	0.00	-0.06	0.00	0.00	0	1.27	121	73	58	0	7	0	0
	JUNEAU	32	25	39	16	28	-5	0.50	-0.33	0.27	1.34	67	15.65	145	84	65	0	5	4	0
	KODIAK	37	23	41	17	30	-2	0.12	-1.04	0.09	3.06	113	19.24	116	78	60	0	7	2	0
	NOME	17	1	24	-10	9	1	0.03	-0.08	0.02	0.54	193	2.06	106	78	72	0	7	2	0
AZ	FLAGSTAFF	59	22	67	10	41	5	0.01	-0.63	0.01	1.38	91	4.88	78	84	22	0	7	1	0
	PHOENIX	85	55	95	44	70	8	0.00	-0.26	0.00	0.85	144	2.55	116	57	25	2	0	0	0
	PRESCOTT	71	35	79	26	53	10	0.00	-0.48	0.00	0.24	21	2.56	56	70	13	0	3	0	0
	TUCSON	84	49	94	41	66	8	0.00	-0.20	0.00	0.01	2	1.61	68	46	21	3	0	0	0
AR	FORT SMITH	68	38	83	32	53	2	1.15	0.26	1.15	1.66	85	10.09	146	79	36	0	1	1	1
	LITTLE ROCK	67	41	81	33	54	2	0.79	-0.25	0.79	0.89	40	10.45	114	76	33	0	0	1	1
CA	BAKERSFIELD	76	48	85	39	62	5	0.00	-0.33	0.00	0.80	105	2.23	71	78	51	0	0	0	0
	FRESNO	79	50	85	44	64	9	0.00	-0.53	0.00	0.32	26	1.79	32	77	52	0	0	0	0
	LOS ANGELES	63	51	67	48	57	-1	0.00	-0.61	0.00	0.66	44	2.16	28	90	71	0	0	0	0
	REDDING	77	43	80	36	60	8	0.00	-1.24	0.00	1.29	45	2.80	19	71	44	0	0	0	0
	SACRAMENTO	75	43	78	38	59	5	0.00	-0.69	0.00	0.23	14	1.55	17	89	35	0	0	0	0
	SAN DIEGO	66	51	71	48	59	-1	0.00	-0.54	0.00	1.22	100	3.06	55	84	63	0	0	0	0
	SAN FRANCISCO	66	45	75	43	56	2	0.00	-0.80	0.00	0.30	16	1.17	11	88	78	0	0	0	0
	STOCKTON	75	43	80	36	59	5	0.00	-0.54	0.00	0.11	9	1.61	25	88	61	0	0	0	0
CO	ALAMOSA	54	17	70	5	36	4	0.09	0.01	0.07	0.36	200	0.58	91	87	40	0	7	2	0
	CO SPRINGS	56	30	73	23	43	6	0.01	-0.19	0.01	0.09	22	1.17	113	70	25	0	4	1	0
	DENVER INTL	55	32	76	19	43	6	0.16	-0.06	0.12	0.52	116	1.60	176	68	34	0	4	2	0
	GRAND JUNCTION	60	34	68	28	47	5	0.00	-0.22	0.00	0.24	52	1.24	79	72	39	0	3	0	0
	PUEBLO	62	28	80	18	45	5	0.00	-0.19	0.00	0.10	28	0.79	83	63	30	0	5	0	0
CT	BRIDGEPORT	45	33	52	29	39	1	0.82	-0.09	0.81	1.69	86	8.71	101	76	60	0	4	2	1
	HARTFORD	47	30	54	24	38	2	1.09	0.24	1.09	1.43	77	6.94	80	71	43	0	5	1	1
DC	WASHINGTON	58	38	63	33	48	3	0.86	0.02	0.83	1.89	102	6.09	79	74	36	0	0	2	1
DE	WILMINGTON	52	33	60	27	43	2	0.86	-0.05	0.81	1.10	55	7.11	86	84	44	0	3	2	1
FL	DAYTONA BEACH	72	46	80	38	59	-5	0.03	-0.83	0.03	0.03	2	1.91	25	91	38	0	0	1	0
	JACKSONVILLE	72	43	80	34	58	-3	0.04	-0.83	0.03	0.10	5	5.83	67	88	36	0	0	2	0
	KEY WEST	75	65	79	56	70	-3	0.00	-0.38	0.00	0.17	20	1.71	38	76	52	0	0	0	0
	MIAMI	77	61	82	55	69	-3	0.00	-0.50	0.00	0.00	0	2.39	47	76	42	0	0	0	0
	ORLANDO	76	49	80	39	62	-5	0.22	-0.58	0.22	0.22	13	1.13	17	85	40	0	0	1	0
	PENSACOLA	69	47	75	40	58	-2	1.05	-0.44	1.05	1.05	32	15.31	115	77	41	0	0	1	1
	TALLAHASSEE	72	42	80	34	57	-3	0.68	-0.85	0.48	0.76	23	13.97	105	83	32	0	0	2	0
	TAMPA	73	53	80	44	63	-4	0.31	-0.36	0.31	0.32	21	1.88	29	85	38	0	0	1	0
	WEST PALM BEACH	75	58	80	49	67	-3	0.00	-0.77	0.00	0.00	0	3.19	40	80	49	0	0	0	0
GA	ATHENS	68	41	81	29	54	2	0.79	-0.39	0.70	0.90	34	12.22	104	75	34	0	1	2	1
	ATLANTA	65	41	76	29	53	0	1.09	-0.18	1.09	1.22	43	13.62	108	70	37	0	1	1	1
	AUGUSTA	70	40	80	30	55	0	0.21	-0.86	0.15	0.45	19	10.44	95	76	33	0	2	2	0
	COLUMBUS	70	43	78	35	57	1	1.01	-0.34	1.01	1.09	36	16.78	137	76	27	0	0	1	1
	MACON	69	40	77	31	55	0	0.81	-0.34	0.79	0.92	35	15.84	130	84	31	0	2	2	1
	SAVANNAH	70	44	80	35	57	-1	0.10	-0.67	0.10	0.14	8	10.44	122	78	40	0	0	1	0
HI	HILO	76	66	79	64	71	-1	0.85	-2.27	0.63	1.55	23	33.04	131	84	75	0	0	2	1
	HONOLULU	78	65	80	62	71	-3	2.20	1.75	1.65	2.20	198	5.29	85	83	74	0	0	2	2
	KAHULUI	79	65	82	62	72	-1	0.80	0.29	0.79	0.86	75	5.84	81	90	80	0	0	2	1
	LIHUE	75	59	78	56	67	-5	0.03	-0.78	0.03	0.16	9	7.07	73	83	71	0	0	1	0
ID	BOISE	63	37	71	27	50	7	0.00	-0.30	0.00	0.03	4	1.87	58	69	43	0	1	0	0
	LEWISTON	61	41	72	30	51	7	0.08	-0.14	0.04	0.10	20	1.68	65	81	62	0	1	3	0
	POCATELLO	59	33	68	27	46	9	0.00	-0.30	0.00	0.33	49	1.41	50	73	44	0	4	0	0
IL	CHICAGO/O'HARE	40	29	51	22	35	0	1.17	0.66	0.87	1.89	177	8.48	191	88	71	0	5	4	1
	MOLINE	41	27	47	22	34	-3	1.36	0.77	1.25	2.13	176	7.53	175	92	70	0	6	3	1
	PEORIA	46	29	53	21	37	-1	1.09	0.50	1.07	1.83	142	8.56	192	87	61	0	6	2	1
	ROCKFORD	36	26	44	18	31	-3	1.03	0.58	0.79	2.09	225	8.16	222	89	74	0	6	5	1
	SPRINGFIELD	48	31	61	23	40	0	1.28	0.59	1.28	1.60	108	7.32	149	90	57	0	5	1	1
IN	EVANSVILLE	55	34	67	21	44	0	0.20	-0.75	0.17	0.45	22	9.99	123	76	51	0	4	2	0
	FORT WAYNE	44	29	58	22	37	1	0.68	0.09	0.46	1.74	136	7.03	133	91	66	0	5	4	0
	INDIANAPOLIS	49	30	67	19	40	0	0.13	-0.63	0.10	0.68	41	8.48	129	85	56	0	4	3	0
	SOUTH BEND	43	28	59	18	36	0	0.29	-0.29	0.09	1.03	82	8.58	156	84	69	0	5	5	0
IA	BURLINGTON	43	28	53	22	36	-2	0.35	-0.28	0.30	1.57	118	5.53	132	92	64	0	6	3	0
	CEDAR RAPIDS	38	25	48	18	32	-2	0.62	0.19	0.61	2.22	252	4.17	138	97	70	0	6	2	1
	DES MOINES	42	26	63	18	34	-2	0.56	0.15	0.51	1.18	137	4.03	131	83	66	0	7	3	1
	DUBUQUE	35	24	40	19	29	-4	0.61	0.09	0.53	2.08	193	5.52	146	94	82	0	6	3	1
	SIOUX CITY	38	20	57	11	29	-5	0.26	-0.14	0.26	1.06	136	2.26	114	89	73	0	7	1	0
	WATERLOO	35	23	42	15	29	-4	1.16	0.75	1.13	2.30	274	5.38	197	88	75	0	7	3	1
KS	CONCORDIA	53	26	81	11	40	-1	0.25	-0.27	0.13	0.34	32	1.82	74	78	46	0	5	2	0
	DODGE CITY	62	29	83	16	46	3	0.01	-0.37	0.01	0.09	12	1.47	72	69	28	0	5	1	0
	GOODLAND	57	28	80	15	42	4	0.00	-0.27	0.00	0.19	34	1.04	73	74	46	0	5	0	0
	TOPEKA	58	29	87	21	44	2	0.00	-0.54	0.00	1.28	113	3.72	114	80	58	0	5	0	0

Based on 1971-2000 normals

***** Not Available**

Weather Data for the Week Ending March 16, 2013

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
																	TEMP. °F		PRECIP	
		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 JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	WICHITA	60	32	80	23	46	2	0.00	-0.60	0.00	0.81	65	3.83	123	75	49	0	3	0	0
KY	JACKSON	57	35	74	21	46	1	0.40	-0.62	0.36	1.76	76	9.40	98	81	35	0	3	2	0
	LEXINGTON	57	35	72	21	46	2	0.76	-0.26	0.73	0.95	41	6.93	78	79	52	0	3	3	1
	LOUISVILLE	57	36	73	24	47	2	1.15	0.13	1.04	1.66	73	8.68	99	76	43	0	2	3	1
	PADUCAH	58	34	74	22	46	0	0.40	-0.54	0.40	0.67	31	12.42	130	86	45	0	4	1	0
LA	BATON ROUGE	71	44	80	37	57	-2	2.34	1.24	1.95	2.34	93	24.38	177	94	33	0	0	2	1
	LAKE CHARLES	71	45	76	37	58	-2	1.06	0.28	1.06	1.06	62	17.65	168	89	42	0	0	1	1
	NEW ORLEANS	70	49	76	44	60	-1	0.66	-0.47	0.64	0.66	25	14.46	104	83	44	0	0	2	1
	SHREVEPORT	70	42	81	32	56	-1	0.78	-0.15	0.78	0.80	37	8.24	75	83	32	0	1	1	1
ME	CARIBOU	37	23	44	11	30	7	0.36	-0.20	0.27	0.59	48	6.49	104	84	58	0	6	3	0
	PORTLAND	42	27	48	16	34	2	0.64	-0.25	0.64	0.88	45	8.31	91	83	58	0	5	1	1
MD	BALTIMORE	54	33	59	25	43	1	0.64	-0.27	0.63	1.39	68	6.98	82	78	48	0	4	2	1
MA	BOSTON	44	30	53	21	37	0	0.29	-0.55	0.29	0.81	43	7.15	79	75	50	0	4	1	0
	WORCESTER	42	27	51	16	34	1	0.59	-0.34	0.59	1.99	98	8.86	96	86	47	0	6	1	1
MI	ALPENA	36	24	45	16	30	4	0.83	0.38	0.36	0.88	92	5.36	132	88	60	0	5	6	0
	GRAND RAPIDS	41	29	53	20	35	2	0.60	0.10	0.27	0.60	58	7.66	167	89	65	0	5	5	0
	HOUGHTON LAKE	36	24	46	15	30	2	0.87	0.45	0.39	0.94	108	6.20	166	85	65	0	6	5	0
	LANSING	41	28	56	19	34	2	0.78	0.34	0.41	0.78	85	6.00	151	80	66	0	5	6	0
	MUSKEGON	40	29	50	20	34	2	0.84	0.37	0.63	0.84	85	10.28	215	81	67	0	5	5	1
	TRAVERSE CITY	36	24	48	17	30	1	1.10	0.73	0.58	1.33	171	8.54	154	90	62	0	6	5	1
MN	DULUTH	29	13	38	2	21	-2	0.19	-0.14	0.16	1.27	195	3.82	147	80	61	0	7	2	0
	INT'L FALLS	26	-4	38	-17	11	-10	0.04	-0.14	0.04	3.06	850	6.72	365	87	52	0	7	1	0
	MINNEAPOLIS	33	21	40	14	27	-3	0.26	-0.10	0.19	1.65	232	3.84	151	83	70	0	7	3	0
	ROCHESTER	31	18	35	10	25	-3	1.11	0.76	0.62	2.65	396	4.65	197	86	75	0	7	5	1
	ST. CLOUD	31	16	38	4	24	-2	0.40	0.14	0.33	1.93	386	3.71	201	84	58	0	7	2	0
MS	JACKSON	69	41	79	33	55	-1	2.70	1.46	2.02	2.70	100	20.13	156	87	34	0	0	2	2
	MERIDIAN	69	38	77	29	53	-3	1.38	-0.20	1.38	1.39	40	20.22	137	94	51	0	2	1	1
	TUPELO	65	39	78	27	52	0	1.19	-0.27	0.79	1.39	43	13.82	106	80	43	0	2	2	1
MO	COLUMBIA	56	31	79	26	44	2	0.85	0.17	0.84	1.58	105	7.82	144	82	52	0	4	2	1
	KANSAS CITY	55	30	83	22	43	1	0.01	-0.52	0.01	1.10	96	3.99	111	79	48	0	4	1	0
	SAINT LOUIS	56	34	73	28	45	1	1.46	0.67	1.35	2.25	132	8.64	141	76	55	0	4	4	1
	SPRINGFIELD	59	32	81	24	46	1	0.99	0.20	0.95	1.77	105	7.11	117	77	58	0	5	2	1
MT	BILLINGS	58	30	69	22	44	8	0.00	-0.22	0.00	0.17	39	1.04	57	68	31	0	4	0	0
	BUTTE	49	25	58	12	37	8	0.00	-0.17	0.00	0.05	14	0.45	33	79	27	0	6	0	0
	CUT BANK	47	23	57	18	35	5	0.00	-0.11	0.00	0.02	10	0.75	85	89	48	0	6	0	0
	GLASGOW	40	18	61	11	29	0	0.05	-0.03	0.05	0.21	117	0.87	110	87	67	0	7	1	0
	GREAT FALLS	56	27	68	20	42	10	0.07	-0.13	0.07	0.12	28	1.16	72	80	34	0	6	1	0
	HAVRE	45	24	63	19	35	4	0.04	-0.10	0.03	0.19	63	1.71	151	84	62	0	6	2	0
	MISSOULA	53	31	60	23	42	6	0.06	-0.14	0.03	0.29	66	1.76	78	89	60	0	4	2	0
NE	GRAND ISLAND	52	25	74	14	38	2	0.04	-0.38	0.04	0.42	49	1.55	75	80	55	0	6	1	0
	LINCOLN	44	21	65	8	32	-5	0.39	-0.07	0.39	0.68	75	1.95	87	85	67	0	7	1	0
	NORFOLK	44	22	67	14	33	-2	0.02	-0.39	0.02	0.62	77	1.52	71	84	64	0	6	1	0
	NORTH PLATTE	56	21	79	12	39	3	0.00	-0.25	0.00	0.08	15	1.36	96	81	34	0	7	0	0
	OMAHA	41	24	59	15	32	-5	0.49	0.05	0.49	1.20	135	2.49	101	84	64	0	6	1	0
	SCOTTSBLUFF	60	27	76	16	43	7	0.00	-0.23	0.00	0.07	15	0.64	40	72	37	0	5	0	0
	VALENTINE	47	18	67	3	33	-1	3.06	2.84	2.68	4.17	907	5.40	435	83	60	0	6	3	1
NV	ELY	62	26	71	19	44	9	0.01	-0.23	0.01	0.11	21	1.56	77	74	30	0	7	1	0
	LAS VEGAS	80	54	87	46	67	10	0.00	-0.15	0.00	0.15	42	0.58	35	32	20	0	0	0	0
	RENO	71	35	77	25	53	10	0.00	-0.21	0.00	0.13	25	0.25	10	53	30	0	3	0	0
	WINNEMUCCA	66	22	74	12	44	4	0.00	-0.18	0.00	0.17	44	0.63	34	67	29	0	7	0	0
NH	CONCORD	42	24	50	16	33	2	0.28	-0.38	0.14	0.63	44	5.72	84	90	49	0	6	2	0
NJ	NEWARK	49	34	59	29	42	1	0.71	-0.23	0.68	1.86	91	8.20	91	74	53	0	3	2	1
NM	ALBUQUERQUE	68	37	77	30	52	5	0.00	-0.14	0.00	0.16	55	0.51	42	49	16	0	2	0	0
NY	ALBANY	44	26	53	18	35	2	0.82	0.16	0.81	1.57	110	4.70	77	79	47	0	5	2	1
	BINGHAMTON	40	25	53	16	32	1	0.79	0.17	0.70	0.96	69	5.51	86	74	59	0	6	4	1
	BUFFALO	43	29	65	21	36	3	0.28	-0.36	0.17	0.46	33	6.01	86	78	51	0	4	4	0
	ROCHESTER	45	28	64	19	37	5	0.24	-0.30	0.12	0.36	30	4.69	84	70	51	0	5	3	0
	SYRACUSE	45	29	60	20	37	5	0.44	-0.19	0.35	0.60	44	5.02	83	77	47	0	5	3	0
NC	ASHEVILLE	59	35	77	25	47	2	1.01	-0.04	0.86	1.70	72	13.84	135	79	47	0	3	2	1
	CHARLOTTE	67	38	79	26	53	2	0.87	-0.15	0.68	1.42	62	9.17	93	74	30	0	2	2	1
	GREENSBORO	63	36	77	28	50	2	0.82	-0.06	0.71	1.26	64	9.93	115	75	31	0	3	3	1
	HATTERAS	58	45	65	34	51	0	1.22	0.08	1.22	1.46	59	11.19	91	83	52	0	0	1	1
	RALEIGH	65	36	78	28	51	2	0.67	-0.29	0.67	1.09	50	8.27	86	76	36	0	3	1	1
	WILMINGTON	66	42	79	31	54	0	0.49	-0.50	0.49	0.56	25	7.83	75	83	32	0	2	1	0
ND	BISMARCK	35	11	62	3	23	-5	0.03	-0.13	0.01	0.52	158	1.11	86	84	68	0	7	3	0
	DICKINSON	40	17	66	10	28	-1	0.01	-0.08	0.01	0.23	144	0.31	32	89	50	0	7	1	0
	FARGO	24	3	35	-6	14	-11	0.33	0.09	0.24	0.71	148	2.90	158	82	68	0	7	5	0
	GRAND FORKS	21	-4	28	-18	9	-14	0.24	0.07	0.12	0.63	170	1.42	87	91	70	0	7	3	0
	JAMESTOWN	25	-1	40	-10	12	-14	0.08	-0.09	0.08	0.20	57	0.69	46	89	72	0	7	1	0
	WILLISTON	31	9	47	-4	20	-7	0.02	-0.12	0.01	0.74	247	1.31	107	85	75	0	7	2	0
OH	AKRON-CANTON	46	31	67	22	38	2	0.73	0.04	0.49	0.99	65	5.18	82	81	64	0	5	5	0
	CINCINNATI	52	32	68	19	42	0	1.48	0.63	1.13	2.16	116	7.76	103	85	60	0	4	5	1
	CLEVELAND	45	32	67	23	39	3	1.18	0.56	0.92	1.38	101	5.85	95	81	60	0	5	3	1
	COLUMBUS	50	33	70	24	42	2	0.75	0.13	0.52	1.54	112	5.61	92	76	55	0	5	5	1
	DAYTON	48	31	66	20	40	1	0.95	0.27	0.84	1.53	104	5.92	93	86	62	0	4	3	1
	MANSFIELD	45	29	67	20	37	2	0.73	0.04	0.62	1.00	69	5.73	92	88	62	0	5	4	1

Based on 1971-2000 normals ***** Not Available**

Weather Data for the Week Ending March 16, 2013

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS PRECIP	
		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 JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	TOLEDO	44	30	65	21	37	2	0.44	-0.09	0.26	0.44	38	6.88	139	80	59	0	5	4	0
	YOUNGSTOWN	45	31	68	24	38	3	1.07	0.42	0.55	1.23	88	5.53	96	78	56	0	5	4	1
OK	OKLAHOMA CITY	68	38	82	28	53	3	0.00	-0.66	0.00	0.31	21	4.17	97	70	33	0	2	0	0
	TULSA	66	37	84	27	52	2	0.00	-0.80	0.00	0.29	17	5.01	95	72	48	0	3	0	0
OR	ASTORIA	50	44	54	34	47	1	0.94	-0.77	0.30	2.31	58	17.67	82	95	90	0	0	7	0
	BURNS	58	25	64	16	42	6	0.00	-0.28	0.00	0.00	0	0.74	25	88	56	0	7	0	0
	EUGENE	62	43	68	31	53	7	0.08	-1.28	0.08	1.06	33	4.02	23	92	79	0	1	1	0
	MEDFORD	67	37	69	29	52	5	0.03	-0.40	0.01	0.21	21	1.66	30	85	40	0	1	3	0
	PENDLETON	61	40	67	31	51	7	0.09	-0.19	0.05	0.29	46	1.66	50	79	54	0	1	2	0
	PORTLAND	58	44	63	34	51	4	0.06	-0.81	0.06	0.56	27	5.31	47	90	75	0	0	1	0
	SALEM	59	41	66	34	50	4	0.24	-0.74	0.24	0.86	36	3.91	29	92	77	0	0	1	0
PA	ALLENTOWN	51	30	58	20	40	3	1.39	0.60	1.28	1.40	80	7.47	93	80	48	0	5	2	1
	ERIE	43	31	69	22	37	2	0.77	0.12	0.51	1.18	83	7.67	123	67	56	0	4	4	1
	MIDDLETOWN	51	31	61	24	41	2	1.13	0.39	0.85	1.34	79	6.29	84	82	42	0	5	3	1
	PHILADELPHIA	53	34	60	29	44	2	0.94	0.09	0.90	1.07	58	6.52	80	73	47	0	3	2	1
	PITTSBURGH	49	33	71	24	41	3	0.32	-0.38	0.24	0.53	34	5.10	77	78	48	0	4	5	0
	WILKES-BARRE	46	29	56	22	38	2	0.94	0.38	0.83	1.06	87	4.39	76	77	48	0	5	3	1
	WILLIAMSPORT	48	31	60	22	39	3	0.78	0.10	0.56	0.78	52	5.24	75	77	51	0	5	3	1
RI	PROVIDENCE	46	31	54	24	39	2	0.95	-0.01	0.95	1.12	54	8.08	82	73	48	0	4	1	1
SC	BEAUFORT	69	45	80	34	57	1	0.14	-0.65	0.14	0.16	9	12.09	136	79	31	0	0	1	0
	CHARLESTON	70	44	82	35	57	0	0.07	-0.83	0.07	0.08	4	10.90	120	75	34	0	0	1	0
	COLUMBIA	71	42	83	31	57	3	0.27	-0.77	0.23	0.29	12	7.01	65	72	31	0	1	2	0
	GREENVILLE	66	39	78	29	53	3	0.73	-0.54	0.66	1.27	44	10.42	91	76	31	0	2	2	1
SD	ABERDEEN	30	5	47	-8	18	-11	0.01	-0.25	0.01	0.18	35	2.01	137	83	75	0	7	1	0
	HURON	32	11	47	3	21	-10	0.00	-0.33	0.00	0.59	91	1.98	116	89	72	0	7	0	0
	RAPID CITY	54	25	73	16	40	7	0.37	0.18	0.37	0.37	93	0.98	80	62	28	0	5	1	0
	SIOUX FALLS	36	20	53	13	28	-3	0.00	-0.34	0.00	0.30	45	1.65	98	88	69	0	7	0	0
TN	BRISTOL	57	34	72	24	45	0	0.80	-0.11	0.59	2.11	101	13.96	155	87	37	0	4	3	1
	CHATTANOOGA	64	40	77	29	52	2	0.90	-0.54	0.88	1.34	42	15.02	112	82	50	0	1	3	1
	KNOXVILLE	61	38	76	25	49	1	0.90	-0.31	0.90	2.49	93	17.58	156	74	37	0	2	1	1
	MEMPHIS	63	42	77	31	53	1	1.07	-0.15	1.07	1.49	54	15.06	133	74	42	0	1	1	1
	NASHVILLE	63	39	78	23	51	2	0.89	-0.24	0.84	1.81	72	11.53	113	77	36	0	2	3	1
TX	ABILENE	76	43	90	27	59	4	0.00	-0.30	0.00	0.00	0	1.89	68	56	30	1	2	0	0
	AMARILLO	66	36	85	26	51	4	0.00	-0.23	0.00	0.13	27	3.42	206	64	22	0	2	0	0
	AUSTIN	76	40	85	31	58	-3	1.01	0.51	1.01	1.09	91	4.44	87	70	32	0	1	1	1
	BEAUMONT	71	45	77	36	58	-3	0.00	-0.81	0.00	0.00	0	11.52	106	93	39	0	0	0	0
	BROWNSVILLE	79	54	82	46	67	-1	0.01	-0.14	0.01	0.27	75	1.75	60	89	41	0	0	1	0
	CORPUS CHRISTI	80	50	84	43	65	0	0.06	-0.32	0.06	0.06	6	1.75	40	82	37	0	0	1	0
	DEL RIO	81	49	90	40	65	2	0.00	-0.19	0.00	0.00	0	1.33	67	55	26	1	0	0	0
	EL PASO	74	42	85	33	58	2	0.00	-0.06	0.00	0.00	0	0.71	72	35	12	0	0	0	0
	FORT WORTH	72	45	82	35	58	2	0.00	-0.72	0.00	0.01	1	5.75	97	73	29	0	0	0	0
	GALVESTON	69	55	75	49	62	-1	0.17	-0.44	0.17	0.17	13	9.59	119	86	47	0	0	1	0
	HOUSTON	73	45	81	36	59	-2	0.42	-0.31	0.42	0.42	25	4.95	60	87	40	0	0	1	0
	LUBBOCK	71	36	88	24	53	3	0.00	-0.14	0.00	0.00	0	2.23	144	62	24	0	2	0	0
	MIDLAND	75	40	91	29	58	3	0.00	-0.09	0.00	0.00	0	1.53	112	52	20	1	2	0	0
	SAN ANGELO	79	45	93	29	62	6	0.00	-0.21	0.00	0.00	0	1.82	72	53	24	1	1	0	0
	SAN ANTONIO	77	46	84	38	61	0	0.67	0.26	0.67	0.78	81	3.71	85	83	26	0	0	1	1
	VICTORIA	76	47	81	37	61	-2	0.30	-0.20	0.30	0.30	27	4.39	78	89	39	0	0	1	0
	WACO	72	42	82	33	57	0	0.29	-0.29	0.29	1.63	116	8.77	153	76	38	0	0	1	0
	WICHITA FALLS	73	40	88	27	56	3	0.00	-0.50	0.00	0.27	24	2.96	78	69	34	0	1	0	0
UT	SALT LAKE CITY	62	38	74	28	50	8	0.00	-0.41	0.00	0.36	40	2.56	71	75	32	0	1	0	0
VT	BURLINGTON	42	26	56	15	34	5	1.18	0.70	1.08	1.35	132	3.78	77	77	47	0	5	3	1
VA	LYNCHBURG	62	34	80	27	48	4	0.85	-0.02	0.68	1.84	94	9.47	110	71	38	0	4	3	1
	NORFOLK	61	39	72	31	50	2	0.44	-0.49	0.23	1.37	66	8.93	96	82	40	0	2	2	0
	RICHMOND	63	34	71	27	49	3	1.22	0.27	0.79	3.74	179	11.67	135	78	45	0	4	2	1
	ROANOKE	59	36	77	29	48	3	0.54	-0.32	0.44	1.47	76	10.76	131	62	41	0	3	3	0
	WASH/DULLES	56	33	62	26	44	2	1.19	0.39	1.16	2.14	120	7.47	98	80	43	0	4	2	1
WA	OLYMPIA	52	43	58	30	47	4	1.06	-0.16	0.29	2.10	72	10.05	61	95	88	0	1	7	0
	QUILLAYUTE	50	45	52	37	48	4	10.38	7.78	5.06	14.41	232	36.52	113	89	83	0	0	7	4
	SEATTLE-TACOMA	53	45	58	39	49	3	0.53	-0.33	0.17	1.52	75	7.26	64	89	81	0	0	7	0
	SPOKANE	53	38	61	30	45	7	0.03	-0.32	0.01	0.41	51	2.78	67	86	51	0	2	3	0
	YAKIMA	64	37	69	28	50	9	0.01	-0.13	0.01	0.51	150	0.64	28	77	60	0	1	1	0
WV	BECKLEY	52	33	69	20	42	1	0.47	-0.36	0.15	0.99	53	7.18	89	75	56	0	4	5	0
	CHARLESTON	56	35	75	24	46	2	0.48	-0.43	0.23	1.07	52	7.10	84	73	37	0	3	4	0
	ELKINS	52	31	67	21	42	4	0.74	-0.17	0.36	1.29	64	7.89	91	86	45	0	4	4	0
	HUNTINGTON	57	35	77	24	46	2	0.40	-0.48	0.29	1.10	55	6.78	82	73	38	0	3	3	0
WI	EAU CLAIRE	32	20	37	12	26	-3	0.59	0.25	0.31	1.22	185	3.79	152	89	59	0	7	6	0
	GREEN BAY	34	22	38	15	28	-1	0.83	0.43	0.64	1.29	159	5.94	196	84	62	0	7	4	1
	LA CROSSE	34	23	38	15	28	-4	0.80	0.45	0.49	1.53	222	3.93	137	89	68	0	7	5	0
	MADISON	34	24	40	15	29	-3	1.12	0.69	0.94	2.06	237	7.34	216	89	73	0	6	5	1
	MILWAUKEE	36	27	43	21	31	-2	1.01	0.53	0.86	1.44	144	7.64	170	87	70	0	6	5	1
WY	CASPER	55	24	68	6	40	6	0.22	0.03	0.21	0.22	51	0.99	60	77	41	0	5	2	0
	CHEYENNE	51	29	67	16	40	7	0.17	-0.04	0.14	0.23	52	1.17	88	64	41	0	5	3	0
	LANDER	57	29	68	21	43	9	0.00	-0.24	0.00	0.00	0	1.98	129	70	21	0	4	0	0
	SHERIDAN	54	26	65	15	40	6	0.05	-0.13	0.05	0.07	19	1.82	106	79	54	0	6	1	0

Based on 1971-2000 normals ***** Not Available**

Winter Weather Review

Weather summary provided by USDA/WAOB

Highlights: Generally mild weather from the Plains to the Atlantic Seaboard contrasted with colder-than-normal weather in the West. East of the Rockies, however, February was the coldest month of the winter of 2012-13—relative to normal. Conversely, frigid conditions in December and January across the Intermountain West eased somewhat toward the end of winter.

Winter precipitation eradicated drought across much of the lower Southeast. Even as heavy rain triggered lowland flooding across the Deep South, including Florida's panhandle, showers largely bypassed Florida's citrus belt. As a result, producers across Florida's peninsula had to rely on irrigation as warm weather pushed citrus into an early bloom during February.

Farther west, above-normal winter precipitation provided some limited relief to drought-stressed rangeland, pastures, and winter wheat on the Plains. Beneficial winter precipitation also fell across the upper Midwest. However, subsoil moisture shortages persisted, heading into spring, across the nation's mid-section. In contrast, drought was mostly eliminated before or during winter in the eastern Corn Belt.

Elsewhere, the Western wet season got off to a good start, especially in December. However, unfavorably dry conditions developed as 2013 began and persisted through January and February. As a result, water-supply prospects dimmed by the end of winter, especially from California to the central and southern Rockies.

Historical Perspective: The winter of 2012-13 was overall warm and wet. The nation's average temperature of 34.3°F was 1.9°F above the long-term mean, while the average precipitation of 7.10 inches was 110 percent (%) of normal. These numbers represented the 19th-warmest, 25th-wettest December to February during the 118-year period of record.

Winter warmth was most prevalent east of the Rockies, while chilly conditions were the rule from California to the southern Rockies. State temperature rankings ranged from the 20th-coldest February in Utah to the fifth-warmest February in Delaware (figure 1). Meanwhile, most of the eastern half of the U.S. experienced a wet winter, while pockets of dryness dotted the West. State rankings varied from the 21st-driest December-February period in California to the fourth-wettest winter in Alabama, Louisiana, and Michigan (figure 2). Top-ten values for winter wetness were also noted in Georgia, Mississippi, Illinois, and Wisconsin.

Figure 1

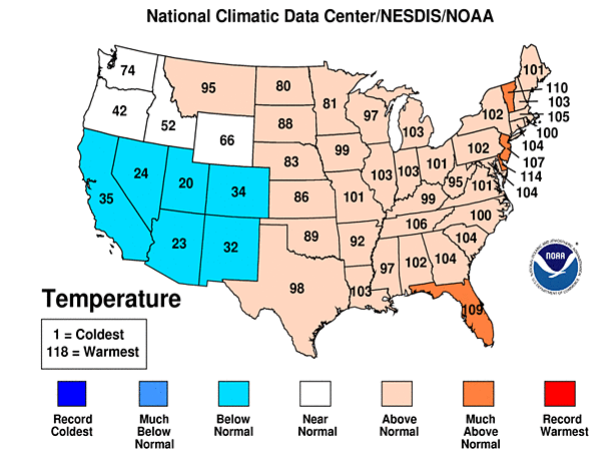
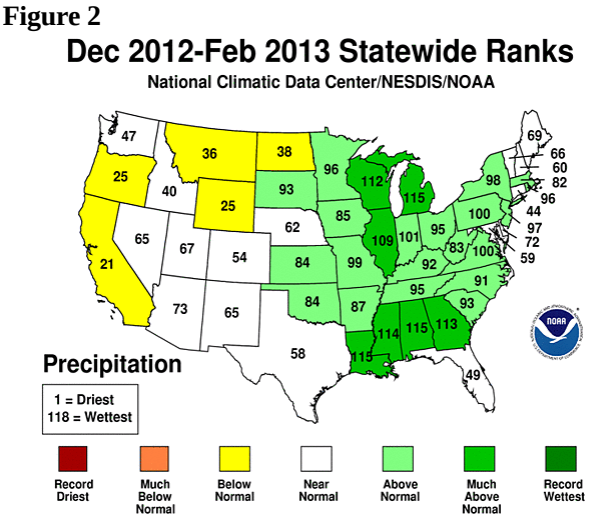


Figure 2



December: Despite occasional December precipitation across the nation's mid-section, hard red winter wheat conditions remained mostly steady or declined due to poor crop establishment and acute soil moisture shortages. In addition, drought intensified across southern portions of the Plains, especially from southern Texas into eastern Kansas. By December 30, the portion of the Plains' wheat rated in very poor to poor condition included 61% in Oklahoma, 49% in Nebraska, and 31% in Kansas. However, enough snow fell across the northern and central Plains to provide some degree of insulation from temperatures that locally and periodically fell to -10°F or lower.

In contrast, significant precipitation fell in much of the soft red winter wheat belt, particularly across the Ohio Valley. As a result, most of the wheat continued to thrive across

the Mid-South and lower Midwest. By month's end, 70% of the Illinois wheat crop was rated good to excellent. In both the Ohio Valley and the upper Midwest, enough of December's precipitation fell in the frozen form to establish a substantial snow cover.

Meanwhile, widespread precipitation also fell in much of the East, although rain was spotty across Florida. Some of the heaviest precipitation, relative to normal, fell across the Northeast and from the central Gulf Coast into the southern Appalachians.

Elsewhere, much of the West experienced unsettled weather during December. Precipitation was especially heavy from northern California into the Intermountain West. For example, the average water content of the high-elevation Sierra Nevada snow pack increased by 10 inches during the month, reaching 14 inches (approximately 140% of normal) by the end of December.

The nation's winter agricultural regions escaped significant freezes during December, although there were several chilly mornings—particularly from December 19-21—in California and the Desert Southwest. Florida's coldest morning, for the most part, occurred on December 23. Overall, December temperatures were highly variable in the West but mostly above normal across the eastern half of the nation. Western temperatures were influenced by snow cover, mainly in parts of the Intermountain region.

January: Despite sporadic January precipitation on the Plains, drought remained entrenched across the nation's mid-section. By month's end, at least half of the winter wheat was rated very poor to poor in Oklahoma (69%), South Dakota (66%), and Nebraska (50%). In Kansas, 39% of the winter wheat and 85% of the rangeland and pastures were rated very poor to poor on January 27. Precipitation was a little heavier on the northern Plains, where snow provided wheat with some protection from weather extremes. The southern Plains also received moisture from time to time, helping to offset the effects of mostly above-normal temperatures.

In fact, above-normal monthly temperatures prevailed in nearly all areas from the Plains to the East Coast, despite a late-month cold outbreak that resulted in the coldest weather in 2 years in parts of the Midwest and Northeast. January readings averaged more than 5°F above normal in much of the Southeast. In contrast, frigid weather blanketed the Intermountain region, while near- to below-normal temperatures covered the remainder of the West. Chilly weather that struck winter agricultural regions in California and Arizona at mid-month represented the area's most severe cold wave since a similarly timed event in mid-January 2007.

Meanwhile, abundant January precipitation fell from the Mississippi Valley to the Appalachians, as well as the Mid-Atlantic States. Lowland flooding affected several areas, primarily from the central Gulf Coast northeastward into the Ohio Valley. However, very little moisture spilled across the mountains into New England or the southern Atlantic States. In the latter region, the combination of warm, dry conditions led to heavy irrigation demands in Florida's winter agricultural belt.

Elsewhere, disappointingly dry weather accompanied generally cool conditions in the West. For example, the average water content of the high-elevation Sierra Nevada snow pack stood at 16 inches (about 90% of average) at month's end, compared to 14 inches (140%) on January 1. However, late-month storms provided some drought relief in the Southwest.

February: For many areas east of the Rockies, particularly across the Midwestern and Mid-Atlantic States, February was the coldest month during the winter of 2012-13. Warmth continued, however, across the Deep South, from southern Texas to Florida's peninsula, where some early planting activities and blooming were noted by the end of February.

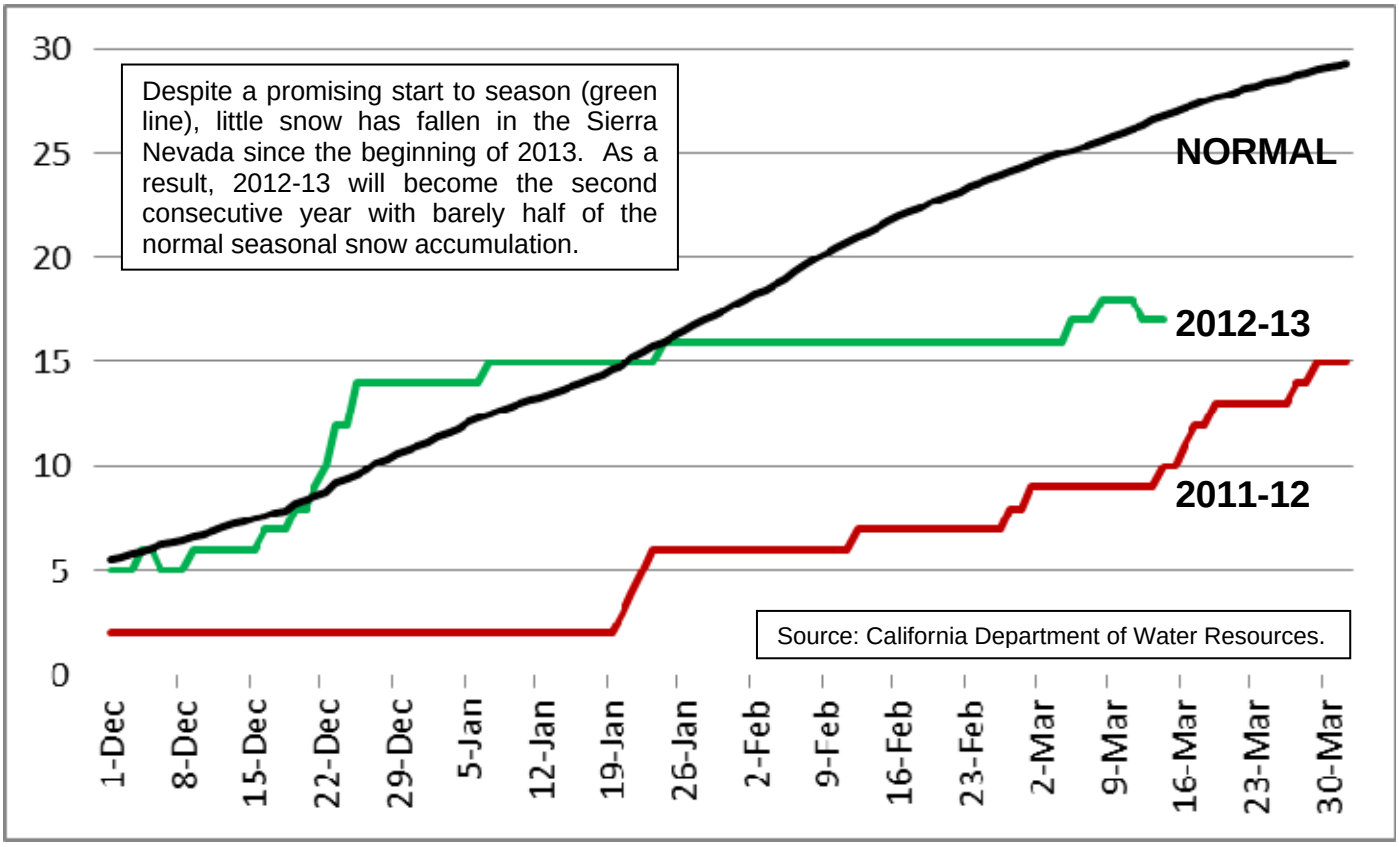
Precipitation highlights included heavy rain in the lower Southeast and several late-winter storms across the Plains and Midwest. Southeastern storms led to some record-high February precipitation totals and lowland flooding. However, rainfall largely bypassed Florida's peninsula, where producers continued to irrigate citrus and other crops.

Across the Plains and Midwest, the highest-impact storms struck during the second half of the month, from February 20-22 and 25-27. Both late-month storms produced heavy, wind-driven snow in various parts of the central and southern Plains and Midwest, stressing livestock and disrupting travel, but providing beneficial topsoil moisture and insulation for drought-stressed rangeland, pastures, and winter wheat. Still, by late February, roughly one-third to two-thirds of the hard red winter wheat was rated very poor to poor—a list headed by South Dakota (66% very poor to poor), Oklahoma (54%), Nebraska (50%), Texas (45%), and Kansas (36%).

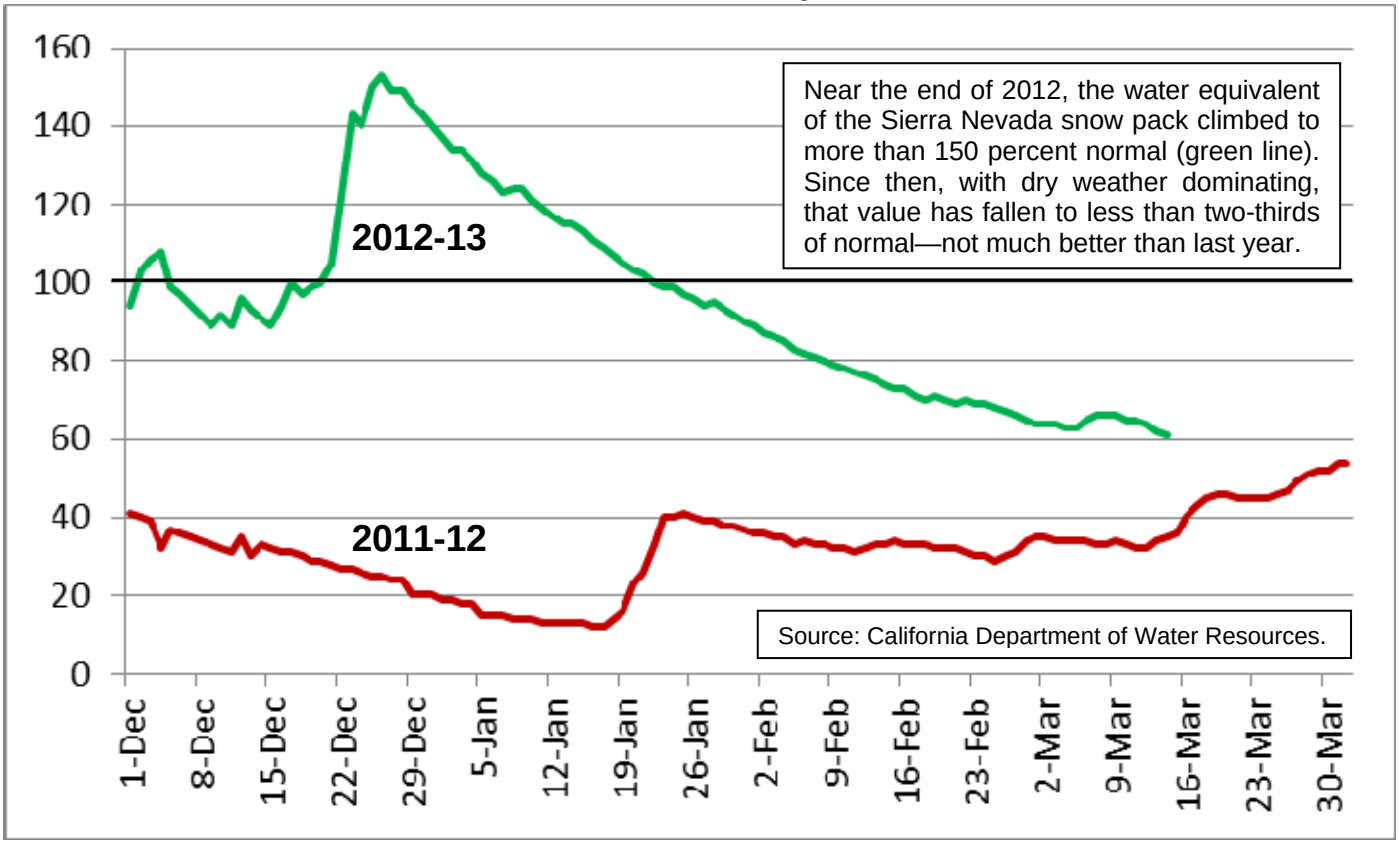
Elsewhere, drier-than-normal weather dominated during February across southern Texas and nearly all areas west of the Rockies. In fact, disappointing amounts of precipitation fell across much of the West in January-February 2013, dimming prospects for spring and summer runoff and increasing water-supply concerns from California to the central and southern Rockies. By winter's end, the water content of the high-elevation Sierra Nevada snow pack stood at 16 inches, about two-thirds of normal for the end of February.

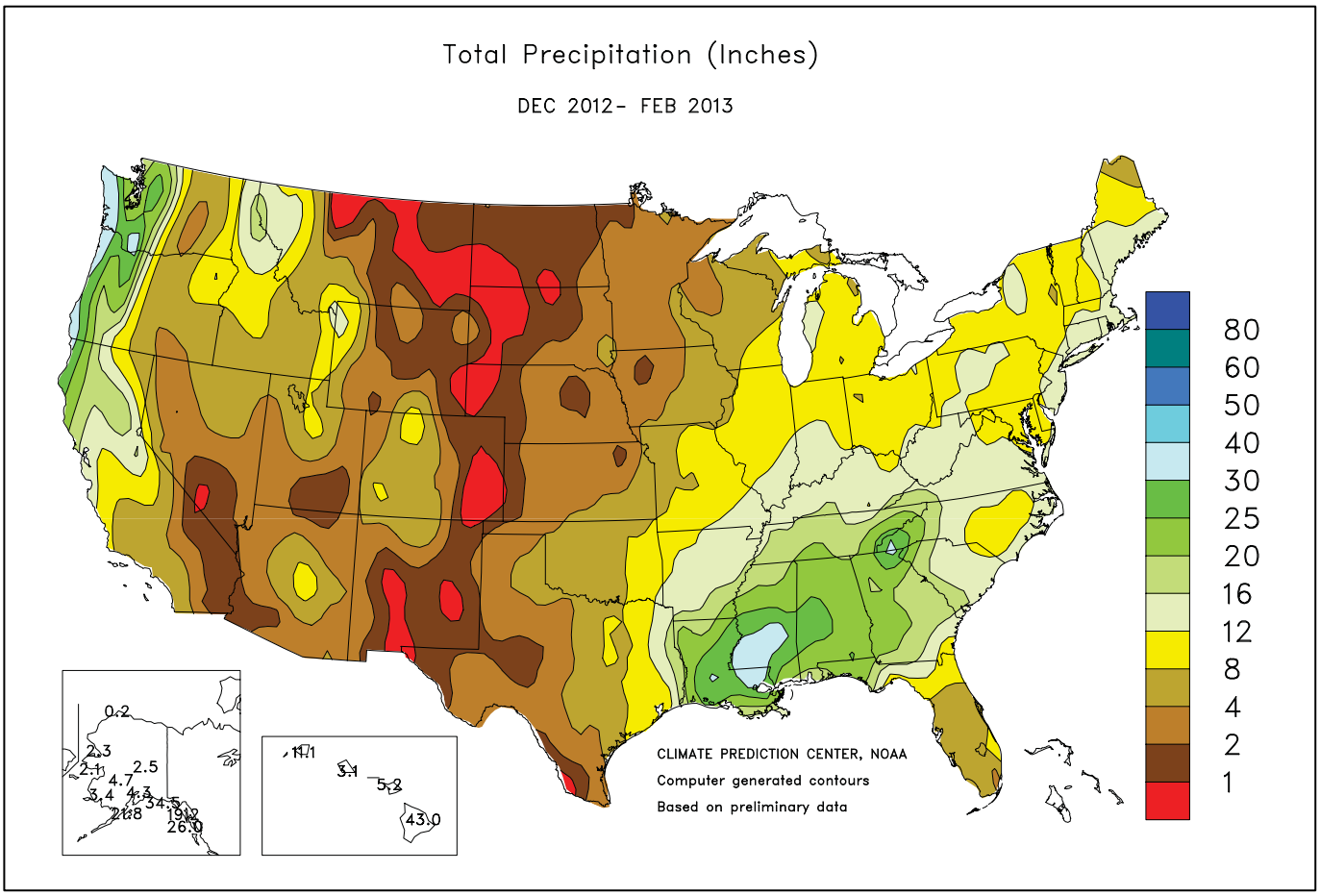
Sierra Nevada Snow Pack, 2012-13 vs. Last Year and Normal

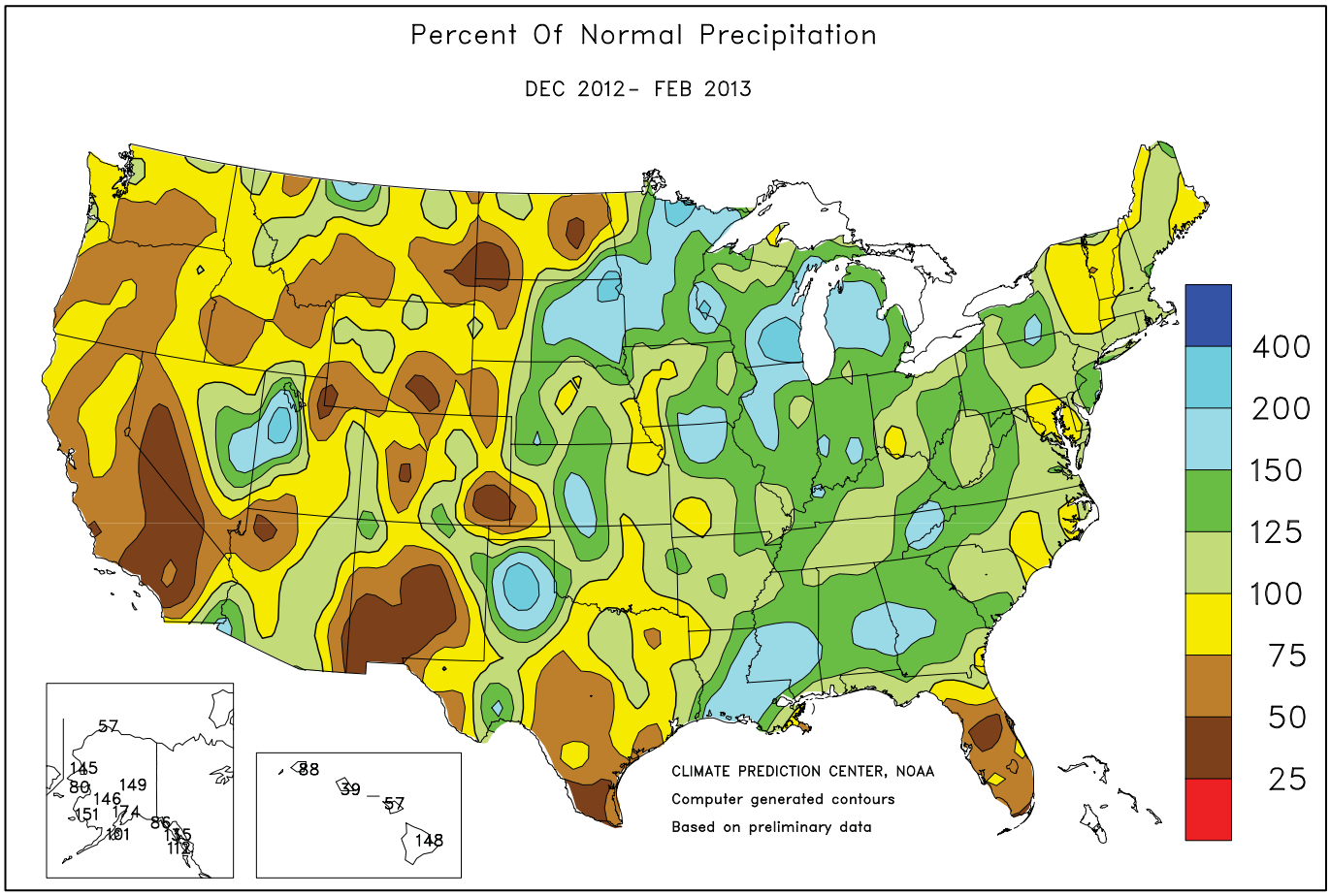
Sierra Nevada Snow Pack, Daily Liquid Equivalent (Inches)

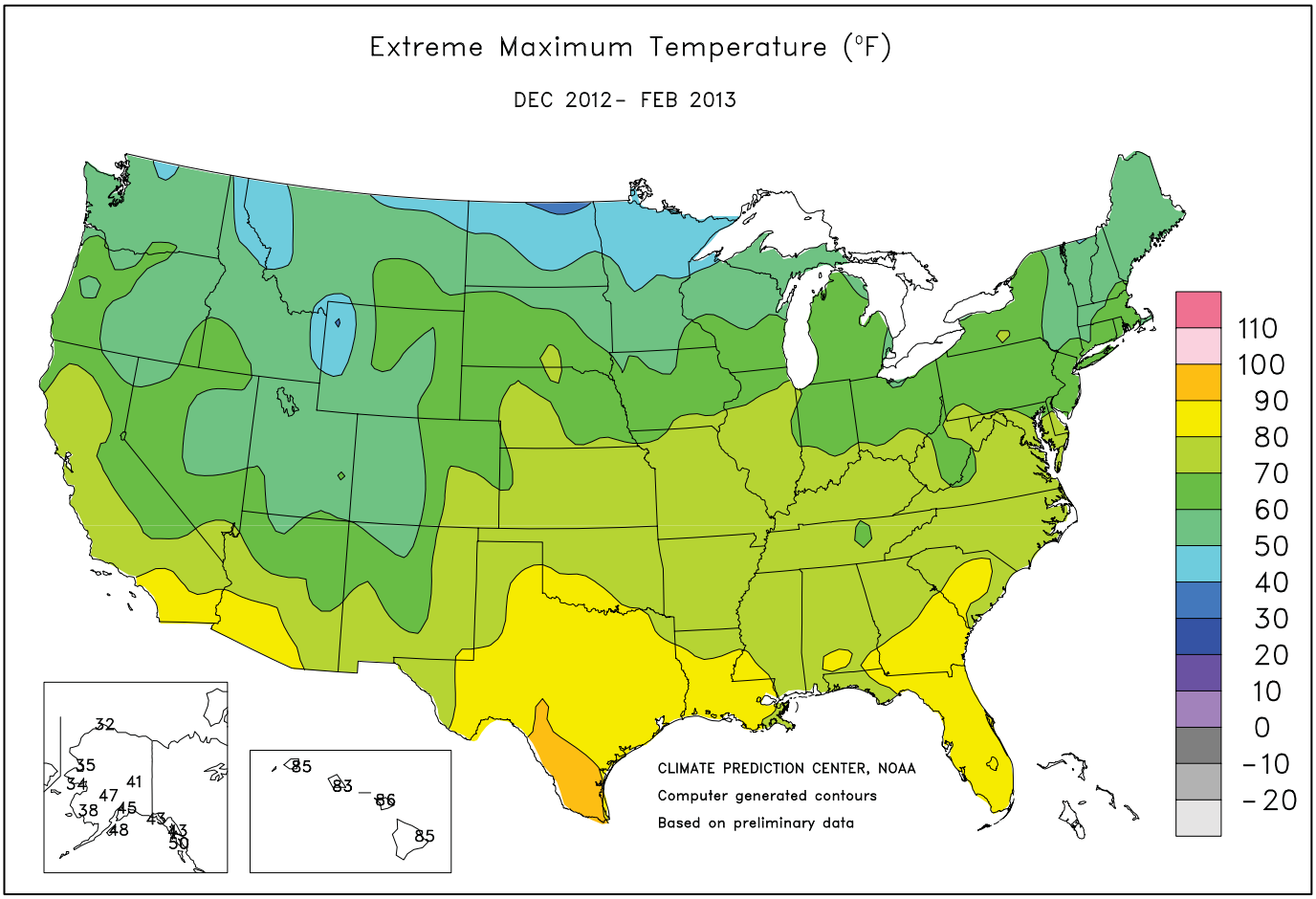


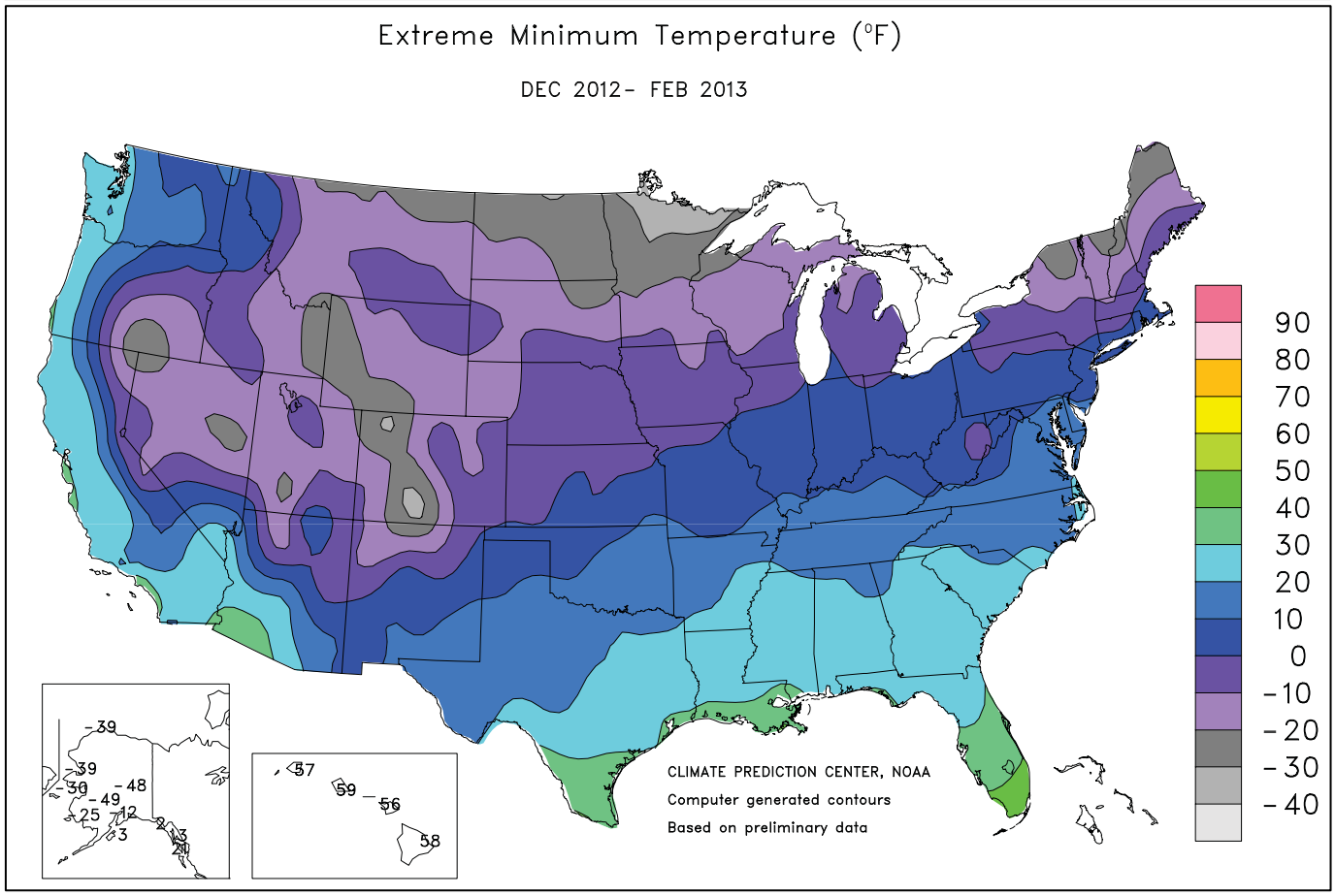
Sierra Nevada Snow Pack, Daily Percent of Normal

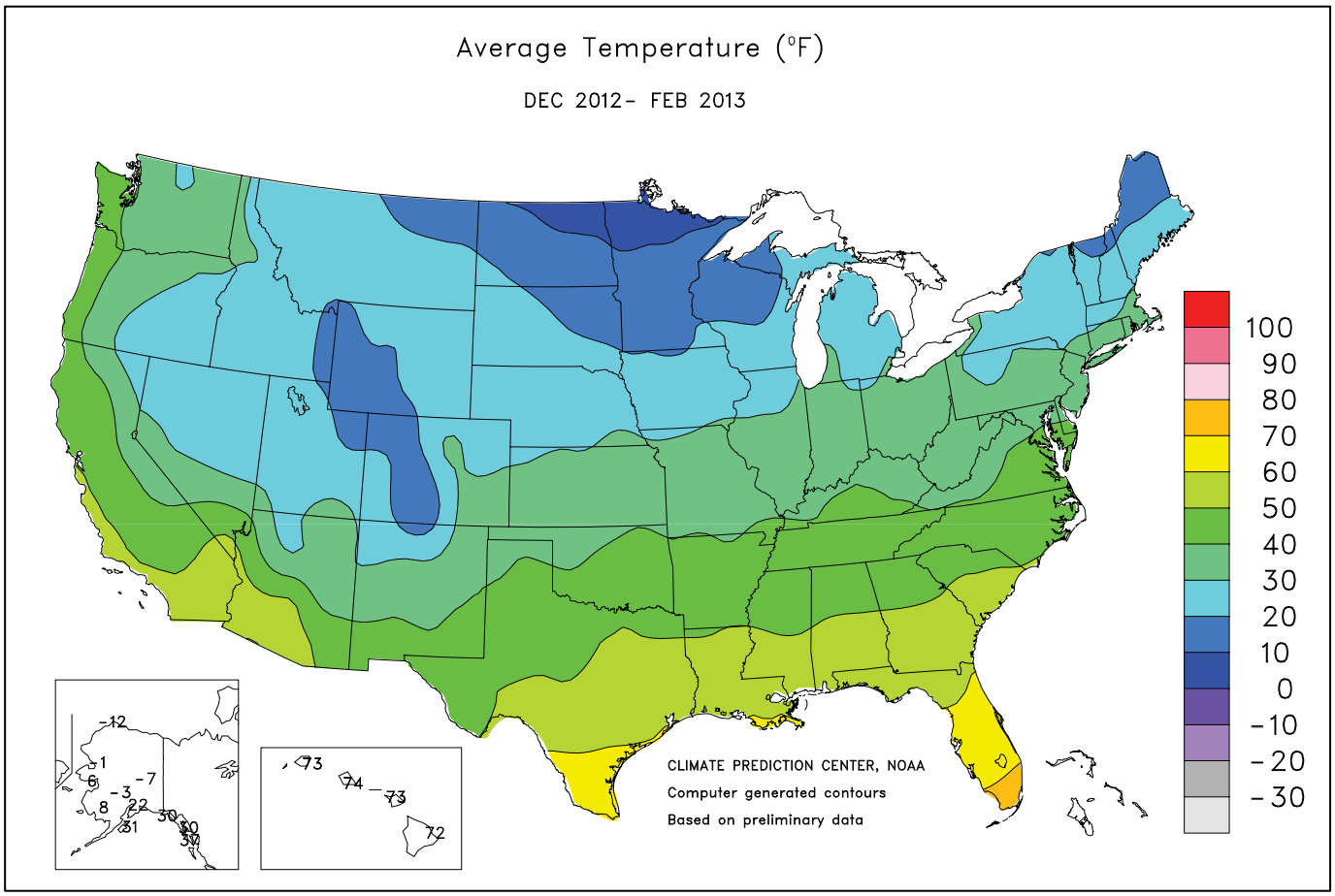


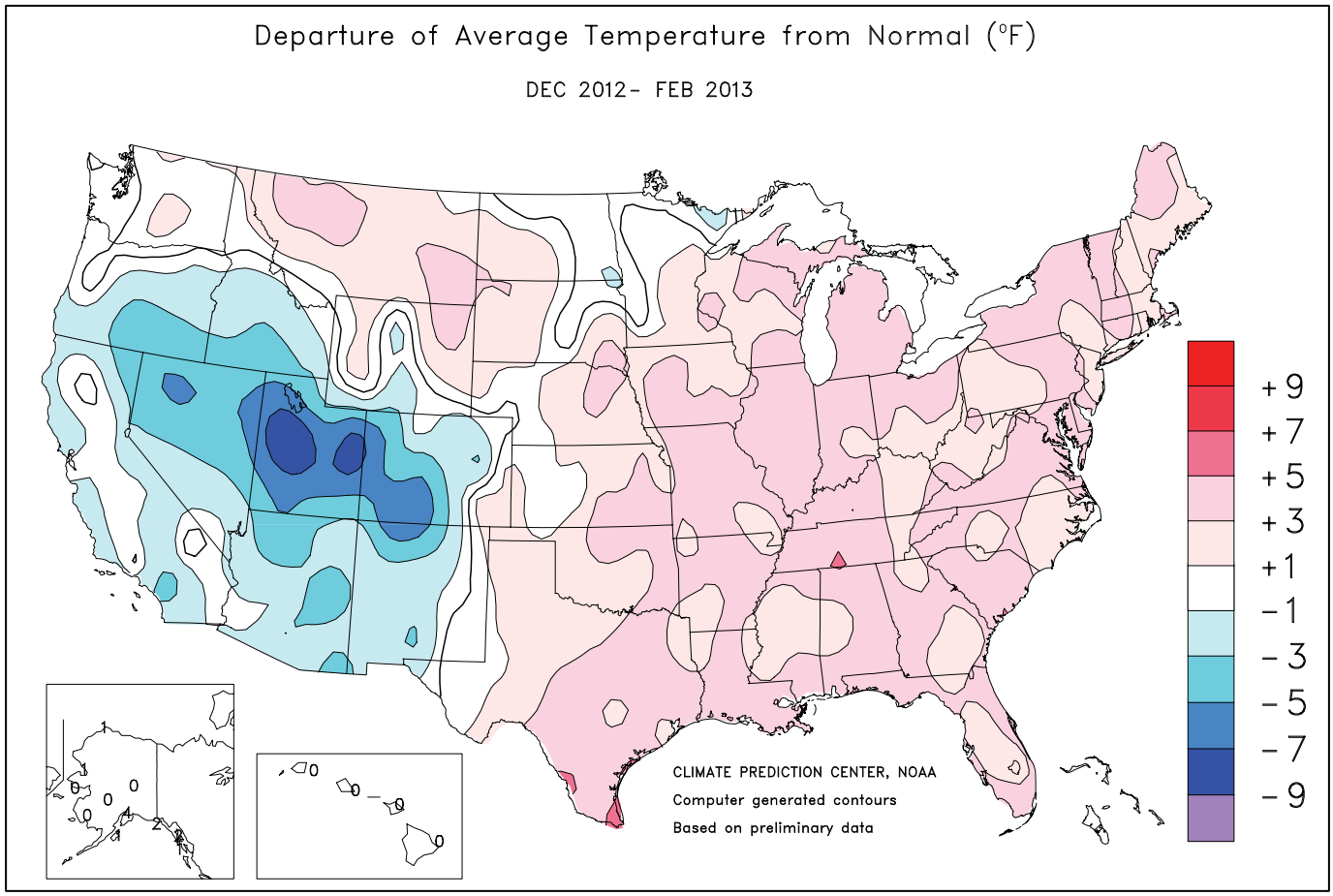

Total Precipitation (Inches)
DEC 2012- FEB 2013
80
60
50
40
30
25
20
16
12
8
4
2
1
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data


Percent Of Normal Precipitation
DEC 2012- FEB 2013
400
200
150
125
100
75
50
25
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data


Extreme Maximum Temperature (°F)
DEC 2012- FEB 2013
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
32
35
34
41
47
38
45
48
43
50
85
83
86
85
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data


Extreme Minimum Temperature (°F)
DEC 2012- FEB 2013
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
-39
39
-30
-48
-49
-25
12
3
57
59
56
58
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data


Average Temperature (°F)
DEC 2012- FEB 2013
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data


Departure of Average Temperature from Normal (°F)
DEC 2012- FEB 2013
+9
+7
+5
+3
+1
-1
-3
-5
-7
-9
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data

National Weather Data for Selected Cities

Winter 2012-13

Data Provided by Climate Prediction Center

	STATES AND STATIONS	TEMP, °F		PRECIP.			STATES AND STATIONS	TEMP, °F		PRECIP.			STATES AND STATIONS	TEMP, °F		PRECIP.	
		AVERAGE	DEPARTURE	TOTAL	DEPARTURE			AVERAGE	DEPARTURE	TOTAL	DEPARTURE			AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL	BIRMINGHAM	49	4	21.08	6.95		LEXINGTON	37	2	12.53	1.89		COLUMBUS	34	3	9.77	2.11
	HUNTSVILLE	47	5	18.63	2.57		LONDON-CORBIN	39	2	12.62	0.58		DAYTON	33	4	8.16	0.19
	MOBILE	56	4	17.66	2.15		LOUISVILLE	40	4	14.16	3.94		MANSFIELD	31	4	8.59	0.53
	MONTGOMERY	53	4	23.42	7.96		PADUCAH	40	4	15.67	3.89		TOLEDO	30	3	8.59	2.14
AK	ANCHORAGE	22	5	4.29	1.82	LA	BATON ROUGE	55	3	30.14	13.59		YOUNGSTOWN	31	3	9.49	2.16
	BARROW	-12	1	0.20	-0.15		LAKE CHARLES	57	4	21.41	8.01	OK	OKLAHOMA CITY	42	3	4.53	-0.20
	COLD BAY	30	1	9.58	-0.42		NEW ORLEANS	58	4	18.93	2.52		TULSA	42	3	5.57	-0.41
	FAIRBANKS	-7	0	2.46	0.80		SHREVEPORT	51	2	13.10	-0.26	OR	ASTORIA	43	0	29.99	2.10
	JUNEAU	30	2	19.23	4.99	ME	BANGOR	23	2	7.50	-1.71		BURNS	24	-2	2.47	-1.12
	KING SALMON	21	5	6.38	3.24		CARIBOU	17	4	8.97	0.75		EUGENE	41	0	10.41	-11.88
	KODIAK	32	2	21.82	0.29		PORTLAND	28	3	15.73	4.26		MEDFORD	39	-1	7.11	-0.36
	NOME	6	-1	2.14	-0.54	MD	BALTIMORE	38	3	8.70	-1.14		PENDLETON	36	1	2.56	-1.59
AZ	FLAGSTAFF	27	-4	5.58	-0.99	MA	BOSTON	34	2	12.27	1.32		PORTLAND	42	1	12.31	-2.65
	PHOENIX	56	1	2.57	0.05		WORCESTER	29	3	11.98	1.01		SALEM	41	0	10.45	-6.94
	TUCSON	51	-2	2.77	-0.13	MI	ALPENA	25	5	7.32	2.38	PA	ALLENTOWN	33	3	10.38	0.74
AR	FORT SMITH	45	4	11.18	2.83		DETROIT	31	4	8.92	2.62		ERIE	33	4	11.30	2.76
	LITTLE ROCK	46	3	15.16	3.51		FLINT	28	4	8.04	2.94		MIDDLETOWN	34	3	8.74	-0.27
CA	BAKERSFIELD	49	0	2.08	-1.07		GRAND RAPIDS	29	4	9.91	3.65		PHILADELPHIA	38	3	9.87	0.30
	EUREKA	44	-4	15.32	-2.51		HOUGHTON LAKE	24	3	8.17	3.56		PITTSBURGH	33	3	10.10	2.17
	FRESNO	50	3	3.50	-2.12		LANSING	28	4	7.20	1.97		WILKES-BARRE	32	3	7.25	0.16
	LOS ANGELES	56	-1	4.32	-3.56		MUSKEGON	30	4	12.48	6.04		WILLIAMSPORT	31	3	10.07	1.67
	REDDING	47	0	11.55	-5.11		TRAVERSE CITY	27	4	10.20	2.77	PR	SAN JUAN	78	1	9.41	-0.48
	SACRAMENTO	47	-1	7.47	-2.36	MN	DULUTH	15	3	3.99	1.10	RI	PROVIDENCE	33	2	12.51	0.55
	SAN DIEGO	57	-1	4.03	-1.60		INT'L FALLS	9	2	4.80	2.62	SC	CHARLESTON	54	4	14.38	3.98
	SAN FRANCISCO	50	0	7.11	-4.24		MINNEAPOLIS	20	3	3.83	1.00		COLUMBIA	51	5	10.23	-1.65
	STOCKTON	46	-1	5.80	-1.19		ROCHESTER	20	4	3.79	1.08		FLORENCE	51	4	10.61	0.03
CO	ALAMOSA	12	-6	1.03	0.24		ST. CLOUD	15	2	3.30	1.26		GREENVILLE	47	4	14.96	2.45
	CO SPRINGS	31	2	1.34	0.29	MS	JACKSON	51	4	26.14	10.63		MYRTLE BEACH	51	3	8.68	-1.93
	DENVER	31	1	1.35	0.58		MERIDIAN	50	2	27.91	11.33	SD	ABERDEEN	15	0	2.58	1.24
	GRAND JUNCTION	24	-5	2.05	0.43		TUPELO	47	4	19.52	3.58		HURON	19	1	2.51	1.07
	PUEBLO	31	0	0.99	0.01	MO	COLUMBIA	36	5	7.88	1.48		RAPID CITY	26	1	0.86	-0.37
CT	BRIDGEPORT	35	3	11.34	1.22		JOPLIN	39	3	6.22	-0.83		SIOUX FALLS	20	2	2.66	1.12
	HARTFORD	31	3	10.06	-0.34		KANSAS CITY	34	4	4.23	0.13	TN	BRISTOL	40	4	15.85	5.54
DC	WASHINGTON	41	3	7.23	-1.66		SPRINGFIELD	38	3	6.44	-1.12		CHATTANOOGA	46	4	19.25	4.19
DE	WILMINGTON	37	3	9.93	0.29		ST JOSEPH	32	2	2.47	-0.98		JACKSON	44	3	16.32	2.38
FL	DAYTONA BEACH	63	3	3.87	-4.71		ST LOUIS	38	5	8.39	1.11		KNOXVILLE	43	3	21.27	8.20
	FT LAUDERDALE	72	4	3.87	-4.42	MT	BILLINGS	29	2	1.14	-0.91		MEMPHIS	47	4	17.30	3.07
	FT MYERS	69	3	4.66	-1.25		BUTTE	19	0	0.70	-0.83		NASHVILLE	44	4	14.43	2.23
	JACKSONVILLE	58	3	8.04	-1.44		GLASGOW	18	3	1.15	0.17	TX	ABILENE	48	2	1.93	-1.44
	KEY WEST	73	2	2.21	-3.66		GREAT FALLS	29	5	1.59	-0.27		AMARILLO	40	2	3.83	2.04
	MELBOURNE	66	4	4.80	-2.48		HELENA	27	4	1.54	0.18		AUSTIN	54	2	4.18	-2.14
	MIAMI	72	3	2.90	-3.23		KALISPELL	28	4	2.24	-2.03		BEAUMONT	57	3	17.92	3.63
	ORLANDO	65	3	2.19	-4.90		MILES CITY	25	4	0.39	-0.90		BROWNSVILLE	66	5	1.80	-1.85
	PENSACOLA	58	4	16.34	2.35		MISSOULA	28	3	3.12	0.14		COLLEGE STATION	56	4	9.89	0.96
	ST PETERSBURG	66	3	4.02	-4.21	NE	GRAND ISLAND	29	4	2.79	0.91		CORPUS CHRISTI	64	6	1.72	-3.49
	TALLAHASSEE	57	4	16.48	2.39		HASTINGS	28	1	2.91	0.96		DALLAS/FT WORTH	51	4	7.69	0.85
	TAMPA	65	3	3.76	-3.48		LINCOLN	28	2	2.77	0.58		DEL RIO	57	4	1.37	-0.91
	WEST PALM BEACH	70	3	4.33	-5.11		MCCOOK	29	0	2.92	1.25		EL PASO	46	-1	0.81	-0.80
GA	ATHENS	48	4	17.18	4.39		NORFOLK	26	3	2.03	0.05		GALVESTON	60	3	12.29	2.07
	ATLANTA	49	4	18.33	4.81		NORTH PLATTE	26	0	1.65	0.35		HOUSTON	57	3	7.38	-2.97
	AUGUSTA	50	3	14.66	2.91		OMAHA/EPPLEY	28	3	3.14	0.65		LUBBOCK	42	2	2.91	1.03
	COLUMBUS	54	5	20.92	7.26		SCOTTSBLUFF	29	2	0.76	-0.92		MIDLAND	47	2	1.61	-0.15
	MACON	51	4	19.78	6.30		VALENTINE	27	3	1.52	0.41		SAN ANGELO	51	4	2.00	-0.93
	SAVANNAH	55	4	12.21	2.53	NV	ELKO	24	-4	3.43	0.48		SAN ANTONIO	56	4	3.30	-2.07
HI	HILO	72	0	42.99	13.89		ELY	23	-4	3.17	1.18		VICTORIA	59	4	5.55	-1.40
	HONOLULU	74	0	3.08	-4.85		LAS VEGAS	49	0	0.92	-0.76		WACO	52	4	7.95	0.86
	KAHULUI	73	1	5.19	-3.99		RENO	35	0	2.22	-0.78		WICHITA FALLS	45	2	3.29	-1.08
	LIHUE	73	1	11.13	-1.50		WINNEMUCCA	26	-6	2.15	-0.11	UT	SALT LAKE CITY	28	-3	3.58	-0.35
ID	BOISE	30	-2	2.93	-0.98	NH	CONCORD	26	3	9.32	1.03	VT	BURLINGTON	26	5	5.73	-0.38
	LEWISTON	37	2	2.44	-0.70	NJ	ATLANTIC CITY	37	3	14.61	5.01	VA	LYNCHBURG	40	3	10.28	0.41
	POCATELLO	24	-2	2.49	-0.76		NEWARK	37	3	11.40	0.89		NORFOLK	45	3	12.04	1.74
IL	CHICAGO/O'HARE	30	5	8.80	2.99	NM	ALBUQUERQUE	37	-1	0.47	-0.95		RICHMOND	43	4	10.76	1.11
	MOLINE	28	3	8.07	2.78	NY	ALBANY	29	4	7.18	-0.15		ROANOKE	42	4	11.87	2.70
	PEORIA	31	5	8.71	3.14		BINGHAMTON	28	4	9.75	1.68		WASH/DULLES	38	4	8.20	-0.69
	ROCKFORD	27	4	8.56	3.75		BUFFALO	31	4	9.19	-0.19	WA	OLYMPIA	39	0	17.69	-3.91
	SPRINGFIELD	33	4	9.00	3.04		ROCHESTER	31	5	7.90	0.79		QUILLAYUTE	42	1	39.64	-0.86
IN	EVANSVILLE	38	4	13.01	3.46		SYRACUSE	30	5	11.99	4.16		SEATTLE-TACOMA	41	-1	12.59	-2.34
	FORT WAYNE	31	4	7.49	0.73	NC	ASHEVILLE	42	4	16.52	5.24		SPOKANE	30	1	4.95	-0.63
	INDIANAPOLIS	33	3	10.38	2.46		CHARLOTTE	46	2	11.59	0.86		YAKIMA	35	4	2.26	-1.09
	SOUTH BEND	30	4	10.98	3.64		GREENSBORO	43	3	11.39	1.69	WV	BECKLEY	36	3	9.38	0.10
IA	BURLINGTON	30	4	6.75	1.80		HATTERAS	50	2	16.24	1.90		CHARLESTON	38	2	10.89	1.13
	CEDAR RAPIDS	26	4	3.35	-0.28		RALEIGH	45	3	10.12	-0.41		ELKINS	33	2	10.94	0.87
	DES MOINES	29	5	4.78	1.23		WILMINGTON	50	2	11.87	-0.09		HUNTINGTON	39	3	10.58	0.91
	DUBUQUE	24	3	5.80	1.41	ND	BISMARCK	17	3	1.22	-0.18	WI	EAU CLAIRE	19	3	4.42	1.55
	SIOUX CITY	24	2	2.87	1.00		DICKINSON	20	2	0.34	-0.80		GREEN BAY	22	3	7.19	3.56
	WATERLOO	24	4	4.82	1.82		FARGO	13	2	2.56	0.64		LA CROSSE	22	2	4.38	0.97
KS	CONCORDIA	32	2	2.41	0.16		GRAND FORKS	11	1	1.10	-0.71		MADISON	24	3	7.88	3.69
	DODGE CITY	34	1	2.25	0.20		JAMESTOWN	13	0	0.58	-1.00		MILWAUKEE	28	4	10.07	4.35
	GOODLAND	30	0	1.42	0.15		MINOT	13	-1	1.56	-0.25		WAUSAU	20	3	4.76	1.44
	HILL CITY	32	2	1.40	-0.14		WILLISTON	16	4	1.14	-0.36	WY	CASPER	26	2	1.16	-0.68
	TOPEKA	35	4	3.23	-0.32	OH	AKRON-CANTON	32	4	8.40	0.65		CHEYENNE	27	0	1.51	0.16
	WICHITA	37	4	3.36	0.15		CINCINNATI	36	3	11.35	2.40		LANDER	22	0	2.38	0.71
KY	JACKSON	39	2	14.03	2.52		CLEVELAND	32	4	8.40	0.49		SHERIDAN	24	1	2.25	0.23

Based on 1971-2000 normals

***** Not Available**

National Agricultural Summary

March 11 – 17, 2013

Weekly National Agricultural Summary provided by USDA/NASS

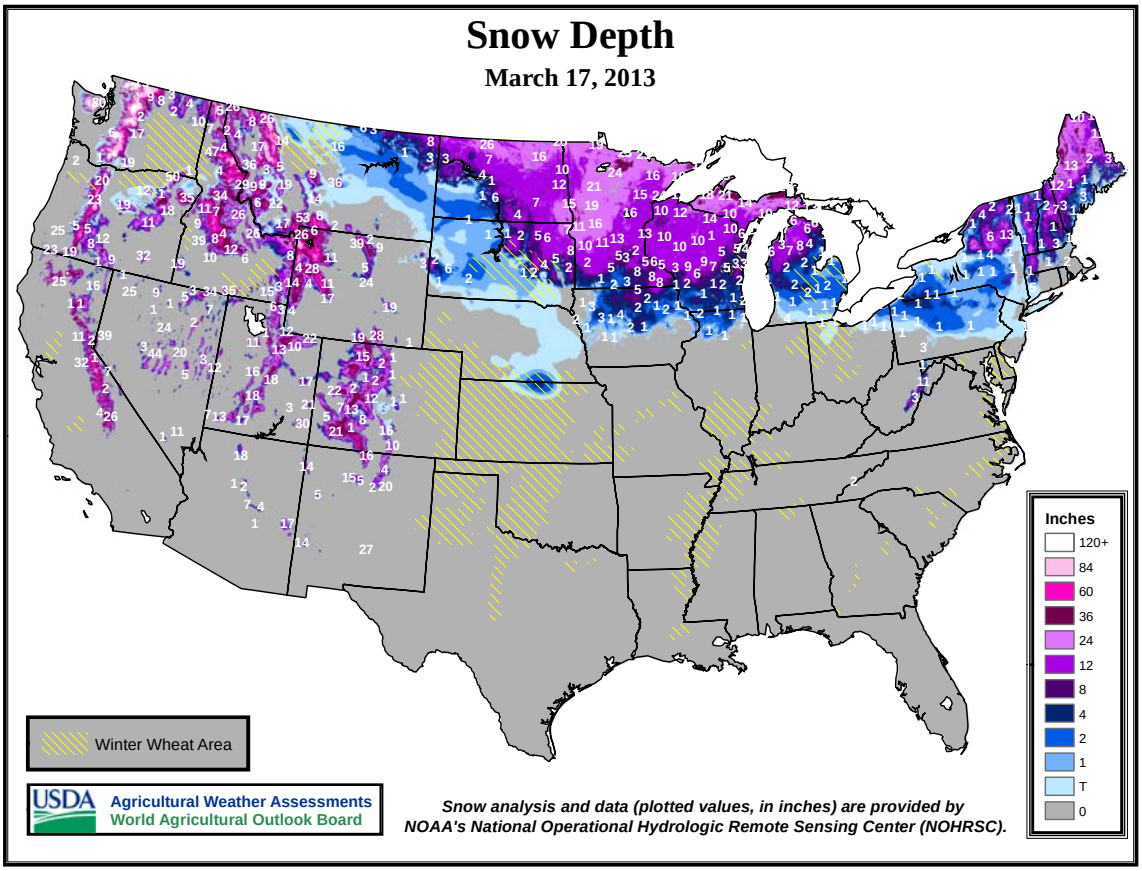
Near-normal temperatures covered much of the eastern half of the nation during the week. Elsewhere, weekly temperatures averaged more than 12°F below normal across parts of the northern Great Plains, while reading were well above average throughout the West. Precipitation was scarce in many locations; however, limited sections of the Pacific Northwest, Great Lakes region, Delta, and northern Atlantic Coast States received weekly totals in excess of 200 percent of normal.

Cool, dry weather lingered in Florida, with overnight lows dipping to 30°F in northern portions of the state. In the Panhandle, land was being prepared for peanuts. Field corn was being planted. Producers sprayed some wheat fields to treat for disease. Sugarcane harvest was ongoing, but nearing completion. Cool weather slowed vegetable growth; however, a variety of winter crops were harvested and marketed. Watermelon fields were being planted. Strawberries and onions were being harvested in Bradford County. Drought in the central and southern citrus regions intensified during the week, with the areas of moderate drought expanding. Growers were irrigating one to two times per week to keep moisture in the ground and on the trees. The Valencia harvest gained speed. Grove activity included general maintenance and fertilizer application.

Much of Kansas received only light precipitation, coupled with above-average temperatures in the west and below-average temperatures in the east. The lack of soil moisture was an ongoing concern for spring planting and for development of the wheat crop. Aided by warm weather, greening was evident in portions of the wheat crop. Producers were topdressing wheat and cool-season grasses. Jointing was underway in a limited number of wheat fields; however, overall progress was behind last year's and the average pace.

Dry weather and high winds continued to dry out topsoil across much of Texas during the week. Small grains in the Blacklands and North East Texas improved, following the previous week's rainfall. The oat crop began heading in some areas. Irrigated small grain crops in the Panhandle and South Texas showed improvement, while dryland wheat across the remainder of the state was stressed by a lack of moisture. Field preparations continued in the Plains regions. Wet conditions in the Blacklands disrupted some planting activities last week. Producers in East Texas and the Edwards Plateau planted corn, while some cotton was planted in the Upper Coast and Coastal Bend. In the Trans-Pecos, pecan orchards were irrigated last week, while fall-planted onions continued to develop. Fruit and vegetable growers in the Lower Valley and South Texas harvested cabbage, citrus, spinach, and sugarcane. Dry conditions slowed vegetable planting in East Texas.

In Arizona, temperatures were above normal and precipitation was limited. Cotton planting was underway, with 5 percent of the 2013 crop in the ground. Alfalfa remained in fair to excellent condition, depending on location. Producers were harvesting hay from approximately three-quarters of the state's alfalfa acreage. Durum wheat was reported in mostly good to excellent condition, while barley condition was mostly fair to good. A variety of fruit and vegetables were harvested and shipped.



International Weather and Crop Summary

March 10-16, 2013

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

HIGHLIGHTS

EUROPE: Cold weather returned to much of the continent, with northern snow and southern rain favoring winter crops but slowing fieldwork and crop development.

WESTERN FSU: Rain and northern snow boosted moisture for winter grains but slowed spring grain planting.

MIDDLE EAST: Intense, unseasonable heat in southern portions of the region stressed reproductive winter wheat and barley.

NORTHWEST AFRICA: Widespread showers maintained excellent yield prospects for winter wheat and barley.

EASTERN ASIA: Colder weather slowed green-up of wheat on the North China Plain after unseasonably warmer weather prompted wheat to break dormancy earlier than usual.

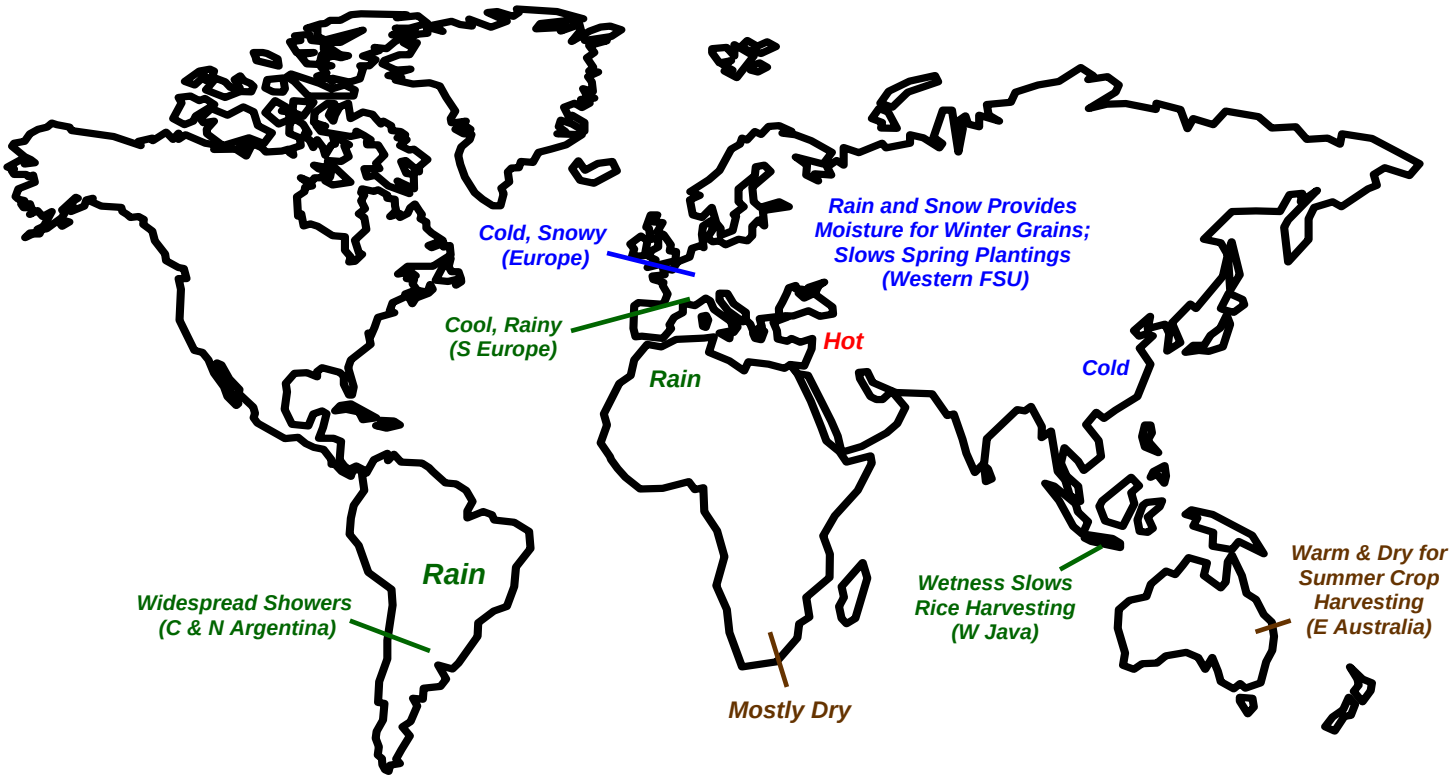
SOUTHEAST ASIA: Heavy showers in Java, Indonesia, slowed rice harvesting.

AUSTRALIA: Warm, mostly dry weather favored summer crop maturation and harvesting in eastern Australia.

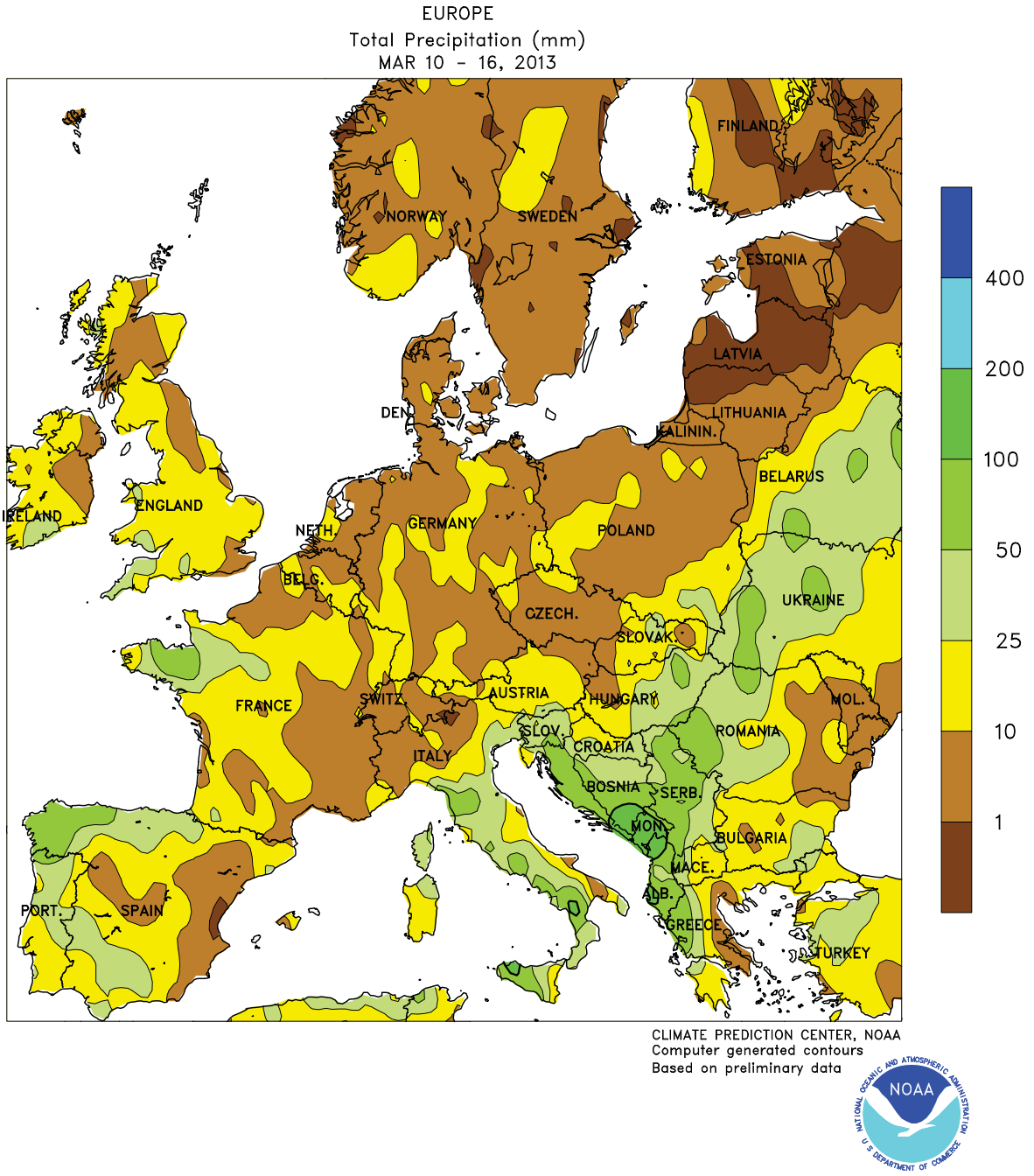
SOUTH AFRICA: Mostly dry weather continued across the corn belt, where moisture remained limited for immature, rain-fed summer crops.

ARGENTINA: Rain returned to central and northwestern Argentina, boosting moisture for summer grains and oilseeds.

BRAZIL: Widespread showers benefited most major farming areas, including recently dry cotton and soybeans in the interior northeast.



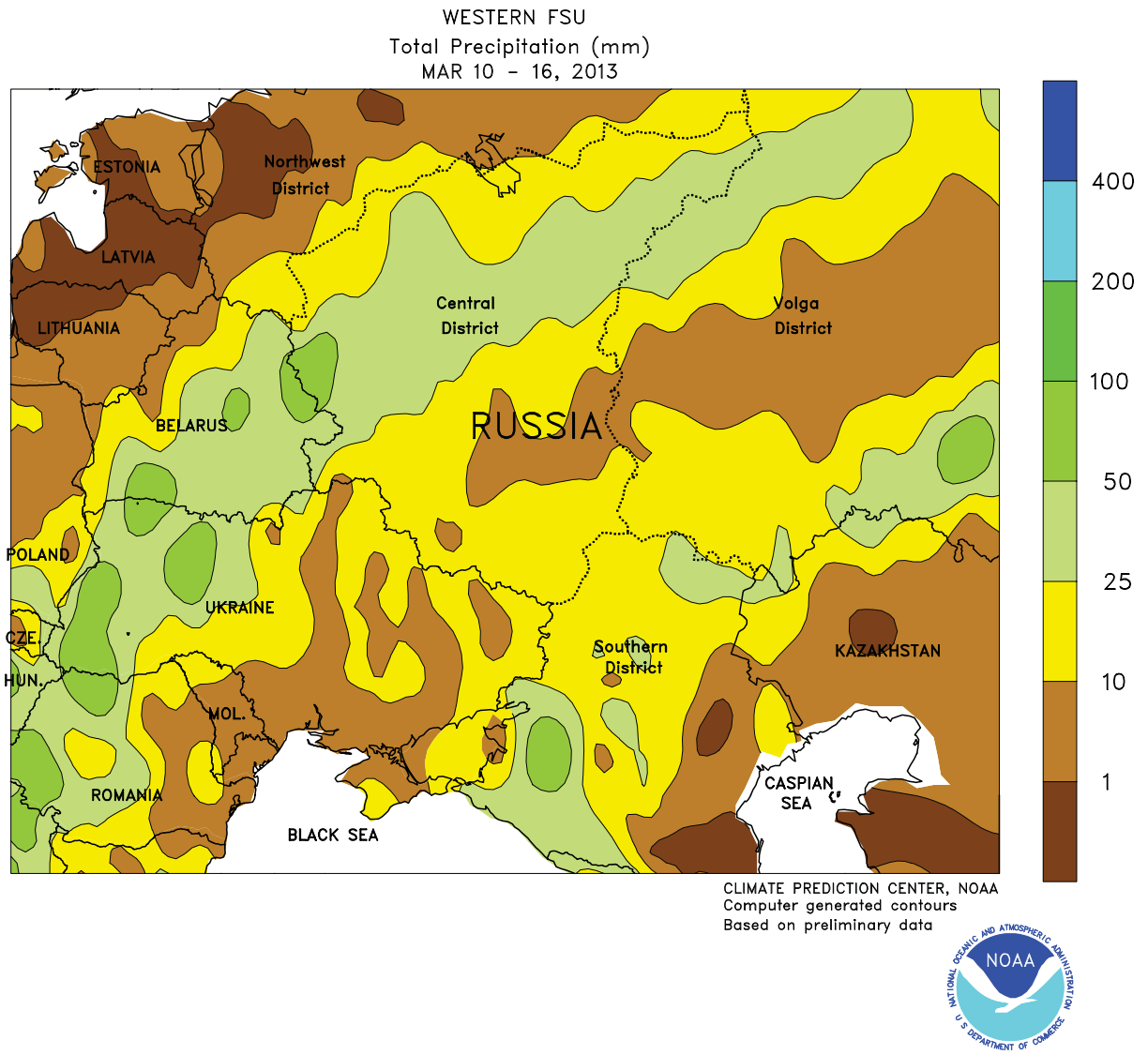
For additional information contact: mbrusberg@oce.usda.gov



EUROPE

Colder weather returned to much of the region, with rain in the south contrasting with snow in northern growing areas. A late-season winter storm produced locally heavy rain (25-100 mm) from Italy into the central Balkans, while moderate to heavy snow (5-40 mm liquid equivalent) fell from northern France and Germany into Poland and the northern Balkans. The precipitation benefited vegetative (south) to dormant (north) winter crops but hampered fieldwork, including corn planting and citrus harvesting in the Mediterranean region. A trailing cold front triggered moderate to heavy showers (10-90 mm) on the Iberian Peninsula, maintaining favorable yield prospects for vegetative winter wheat and barley while boosting irrigation reserves for warm-season crops. Temperatures averaged 5 to 8°C below normal in northern Europe, slowing winter crop growth in France and southeastern England and keeping winter crops dormant under a moderate snowpack (2-10 cm) in Germany, Poland, and the Baltic States. Mild weather (2-6°C above normal) prevailed in the Balkans, encouraging additional winter wheat growth.

For additional information contact: mbrusberg@oce.usda.gov



WESTERN FSU

Wet weather overspread the region, with a stationary front separating persistent warmth in the south from seasonably cold weather in the north. Temperatures up to 10°C above normal across the region's southern tier caused additional winter crop greening, with daytime highs topping 10°C (locally as high as 20°C) from central Ukraine into southern Russia. However, much-needed rain (10-50 mm) provided soil moisture for winter wheat in Crimea, Ukraine, and Russia's Southern District following an unfavorably dry autumn and winter. Meanwhile, a late-season winter storm produced moderate to heavy rain and snow (10-55 mm liquid equivalent) from Belarus and western Ukraine into northern and central Russia, boosting moisture reserves for dormant winter crops. At week's end, snow depths averaged 20 to 70 cm from Belarus and northern Ukraine into Russia's Volga District.

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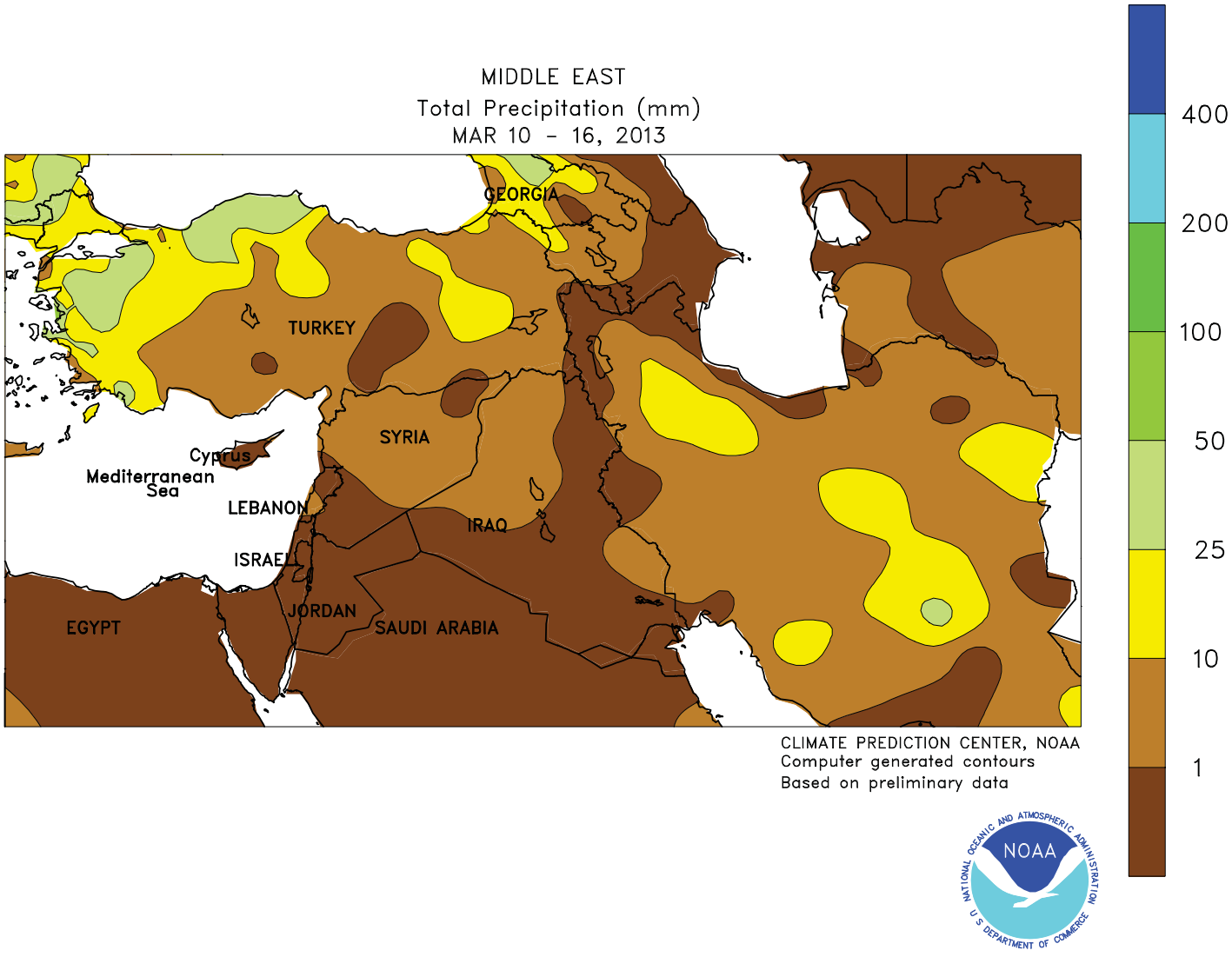

MIDDLE EAST

Unseasonable warmth intensified across the region, accelerating crop development but causing stress on southern winter grains. Daytime highs topped 30°C (locally greater than 35°C) from Lebanon and southern Syria into central and southern Iraq and southwestern Iran. The heat, which corresponded to values typically seen in mid- to late-April, increased irrigation demands and stressed reproductive winter wheat and barley. Unseasonable warmth (6-10°C above normal) was also observed across northern growing areas, causing premature melting of mountain snowpacks and accelerating winter grains out of dormancy on the Anatolian Plateau. Rain during the past week was generally light (5 mm or less) in most major crop areas, although moderate to heavy showers (10-35 mm) were reported in western Turkey and northwestern Iran.

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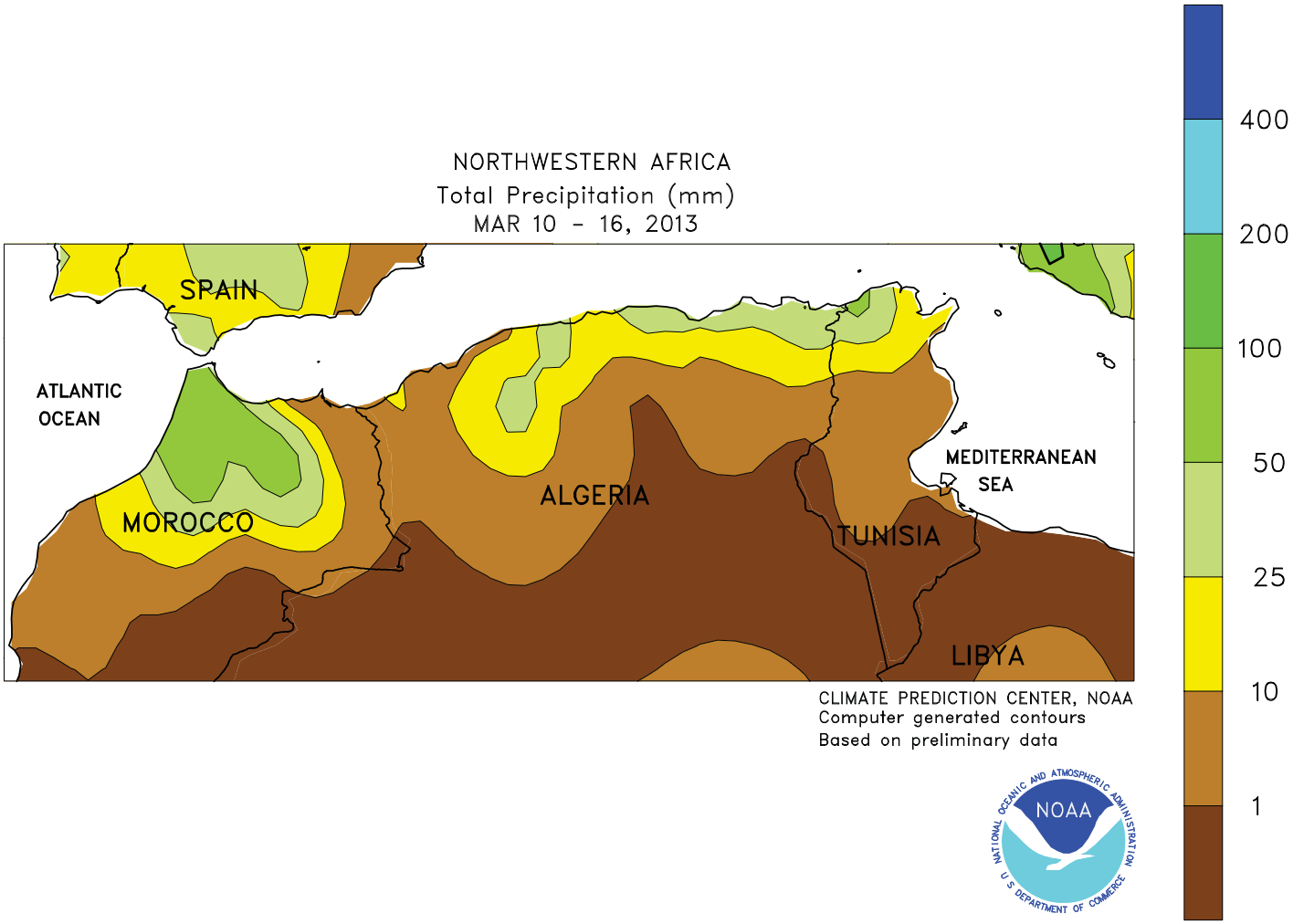

NORTHWEST AFRICA

Mostly cool, showery weather prevailed across the region. A slow-moving Mediterranean storm produced moderate to heavy showers (10-80 mm) from Morocco into Algeria and Tunisia, boosting soil moisture for reproductive (west) to vegetative (east) winter wheat and barley. However, some additional lowland flooding was likely in northern Morocco, where locally heavy rain has persisted over the past two weeks. Temperatures averaged 1 to 2°C below normal, although somewhat milder conditions (up to 1°C above normal) were reported in southwestern Morocco, where it was mostly dry.

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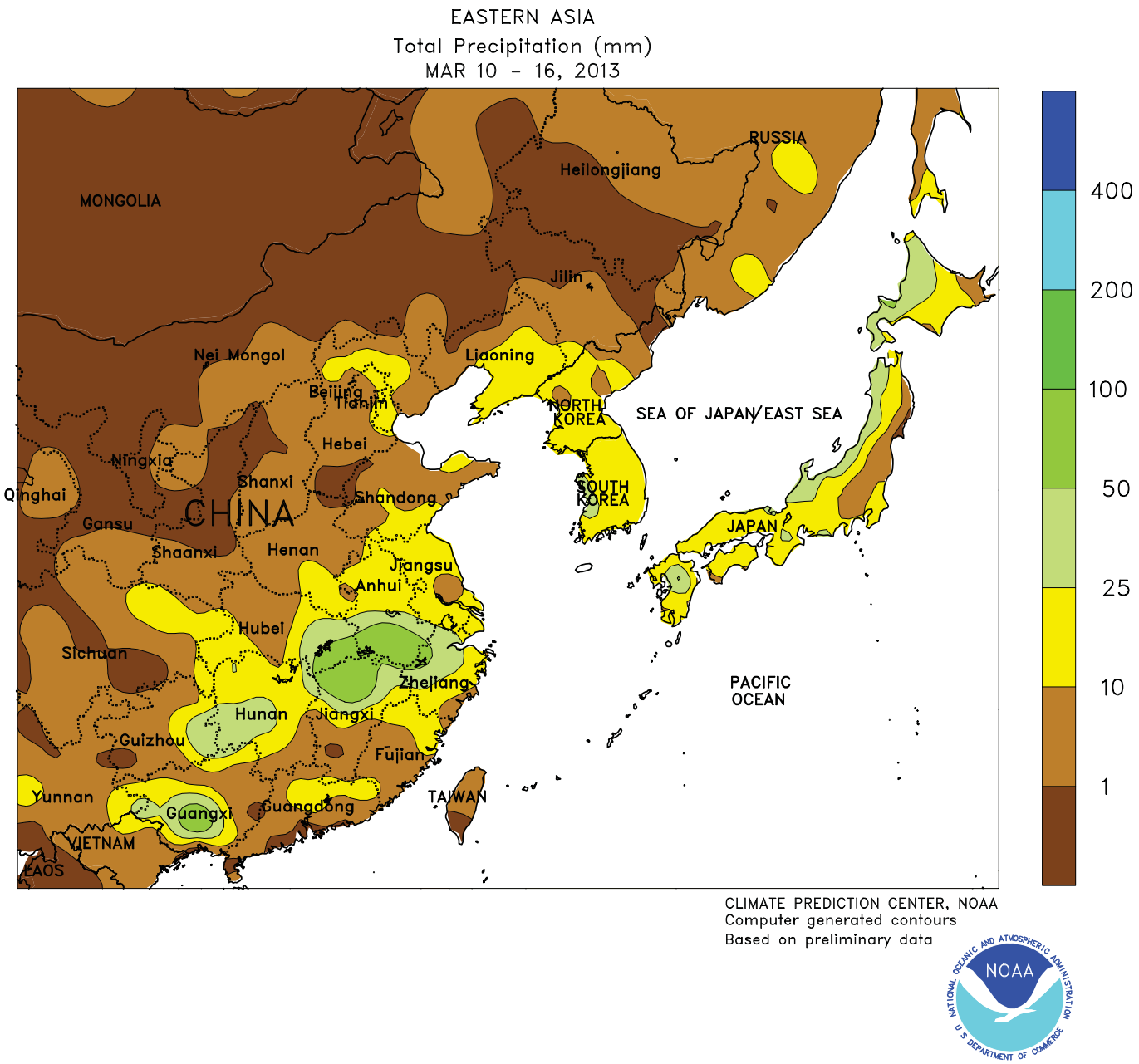

EASTERN ASIA

Winter crops were greening across China as spring planting continued. On the North China Plain, seasonably colder weather returned after a spell of unseasonable warmth accelerated green-up of winter wheat. Despite the sudden drop in temperatures, wheat was still tolerant to the sub-freezing values reported in the region. In addition, brief periods of rainfall (1-10 mm) accompanied the colder weather, helping to maintain adequate soil moisture. In the Yangtze Valley, mild weather aided winter rapeseed approaching reproduction, while 50 to 70 mm of rain in the eastern portions also benefited the crop. Lesser amounts of rain (10-25 mm) in central and western parts of the valley favored spring corn and rice establishment, with mostly dry conditions limiting moisture for rice in southern extents of China.

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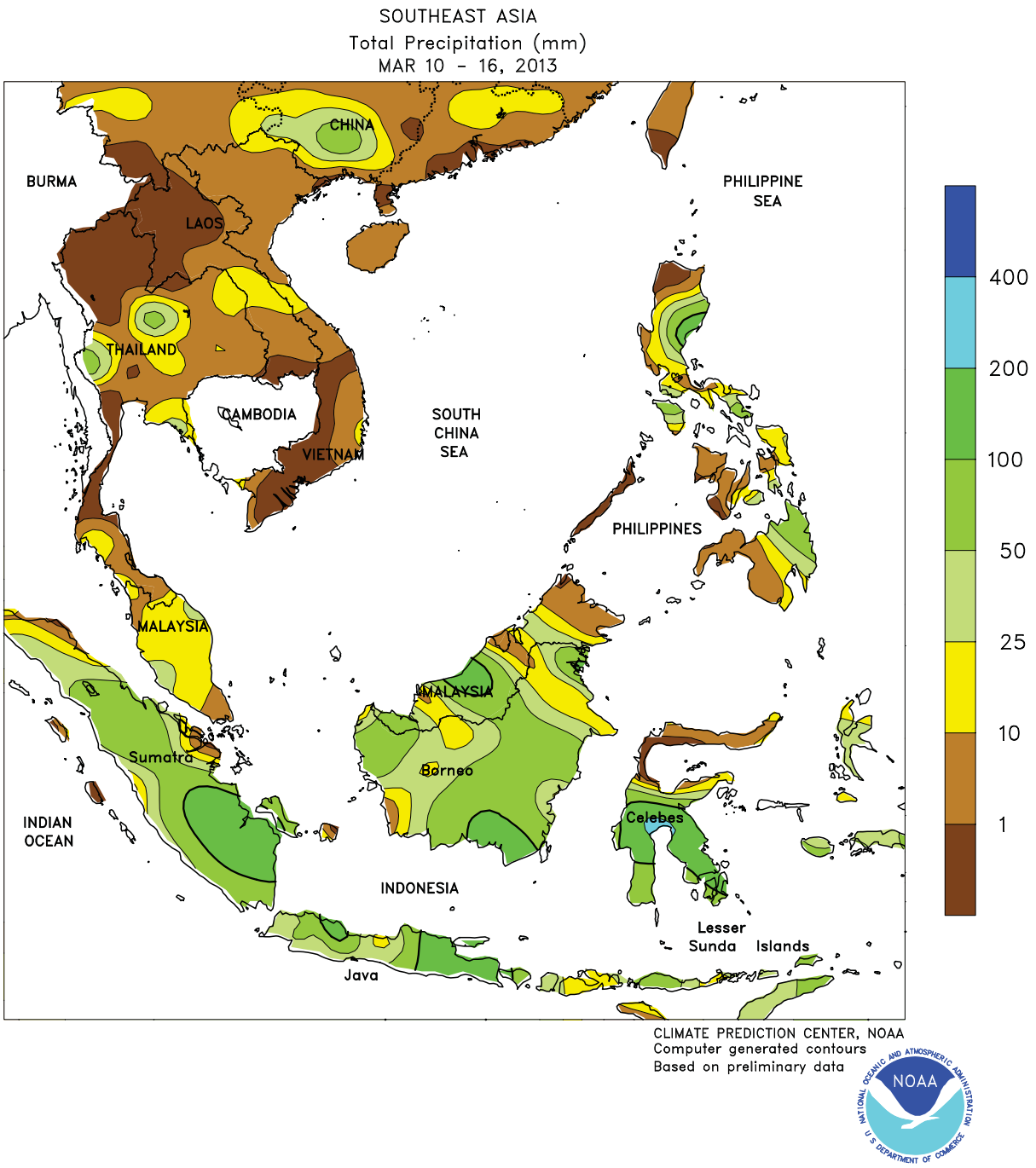

SOUTHEAST ASIA

Heavy showers (100-230 mm) across Java, Indonesia, delayed rice harvesting and caused localized flooding. At this point in the season, rainfall in Java should average about 60 mm per week. Meanwhile in the Philippines, rainfall returned to more seasonable totals (25-100 mm) after the flooding rains from last week in Mindanao. Drier weather would be welcomed at this point in the season as both winter rice and corn harvesting accelerates. In Vietnam, favorably dry weather aided winter-spring rice harvesting in the south, while continued below-normal rainfall limited available moisture for rice in the north.

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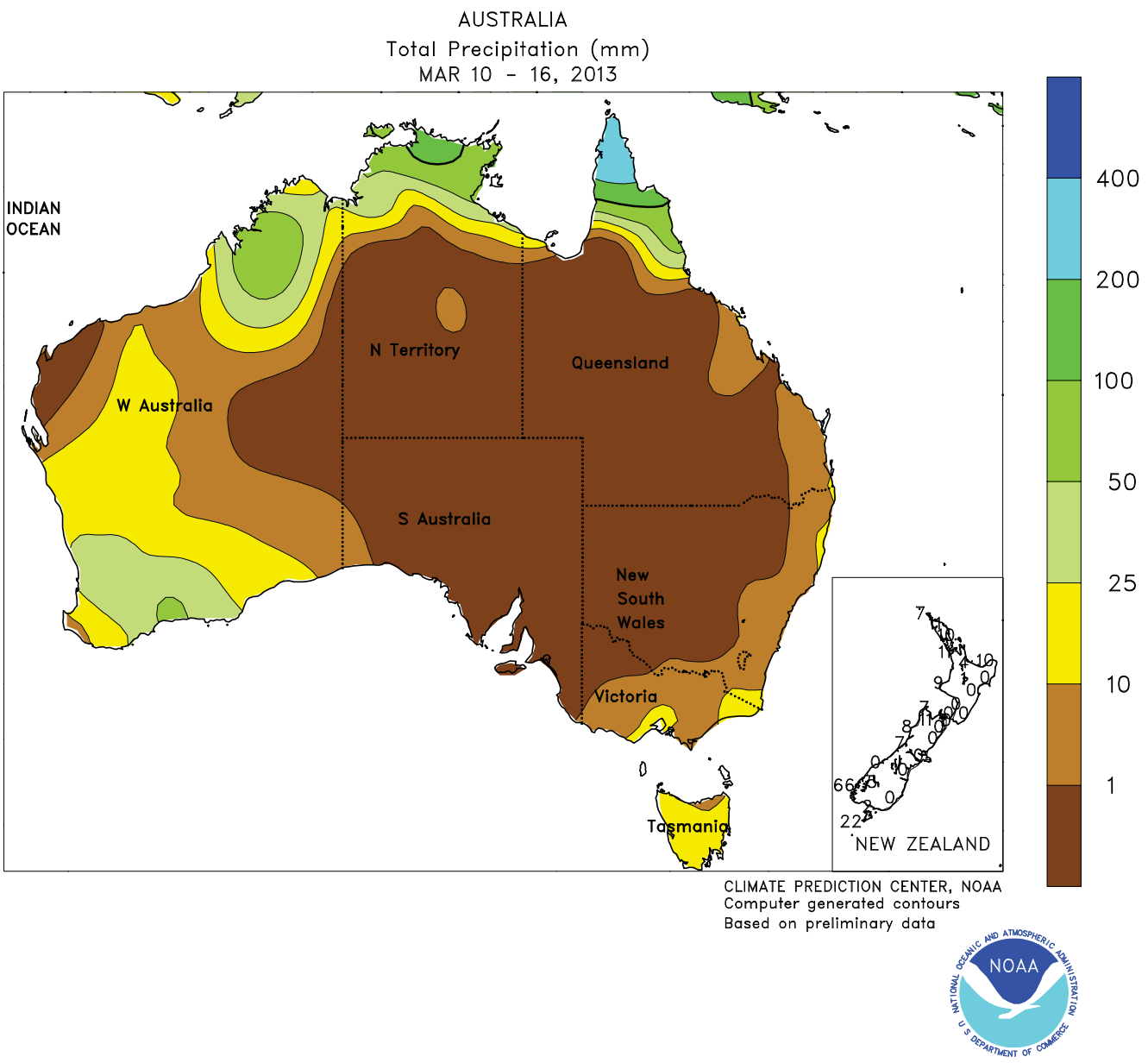

AUSTRALIA

In southern Queensland and northern New South Wales, warm, mostly dry weather favored cotton and sorghum maturation and harvesting. Temperatures in major summer crop areas averaged near to below normal (up to 2°C below normal), with maximum temperatures generally in the upper 20s to middle 30s degrees C.

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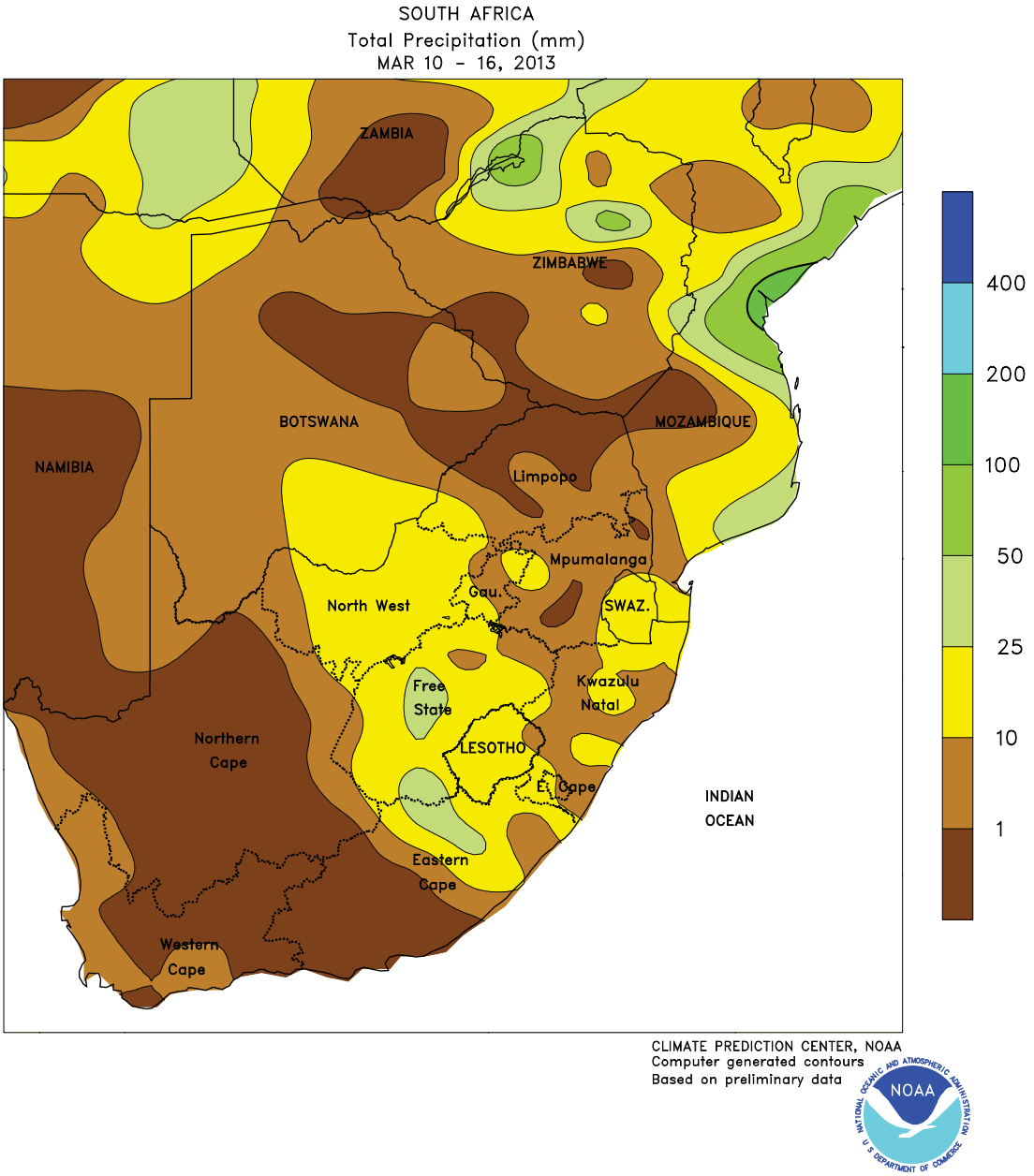

SOUTH AFRICA

Rainfall continued to be unseasonably light across the corn belt, where moisture remained limited for development of late-planted summer crops. Scattered showers led to accumulations in excess of 10 mm in sections of the west (North West and environs), but little to no rain fell over sections of the east (in and around southern Mpumalanga). Drier conditions also continued for a second week in KwaZulu-Natal, reducing moisture for sugar production in rain-fed areas. Seasonable warmth (daytime highs from 28-32°C) maintained high evaporative losses in western sections of the corn belt, but temperatures moderated in the east, averaging 1 to 3°C below normal from Limpopo to KwaZulu-Natal. Elsewhere, dry, unseasonably warm weather (temperatures averaging 1-2°C above normal with daytime highs approaching 40°C) dominated the Cape Provinces, hastening maturation of irrigated summer row crops, including corn and cotton, and support fruit harvesting in Western Cape.

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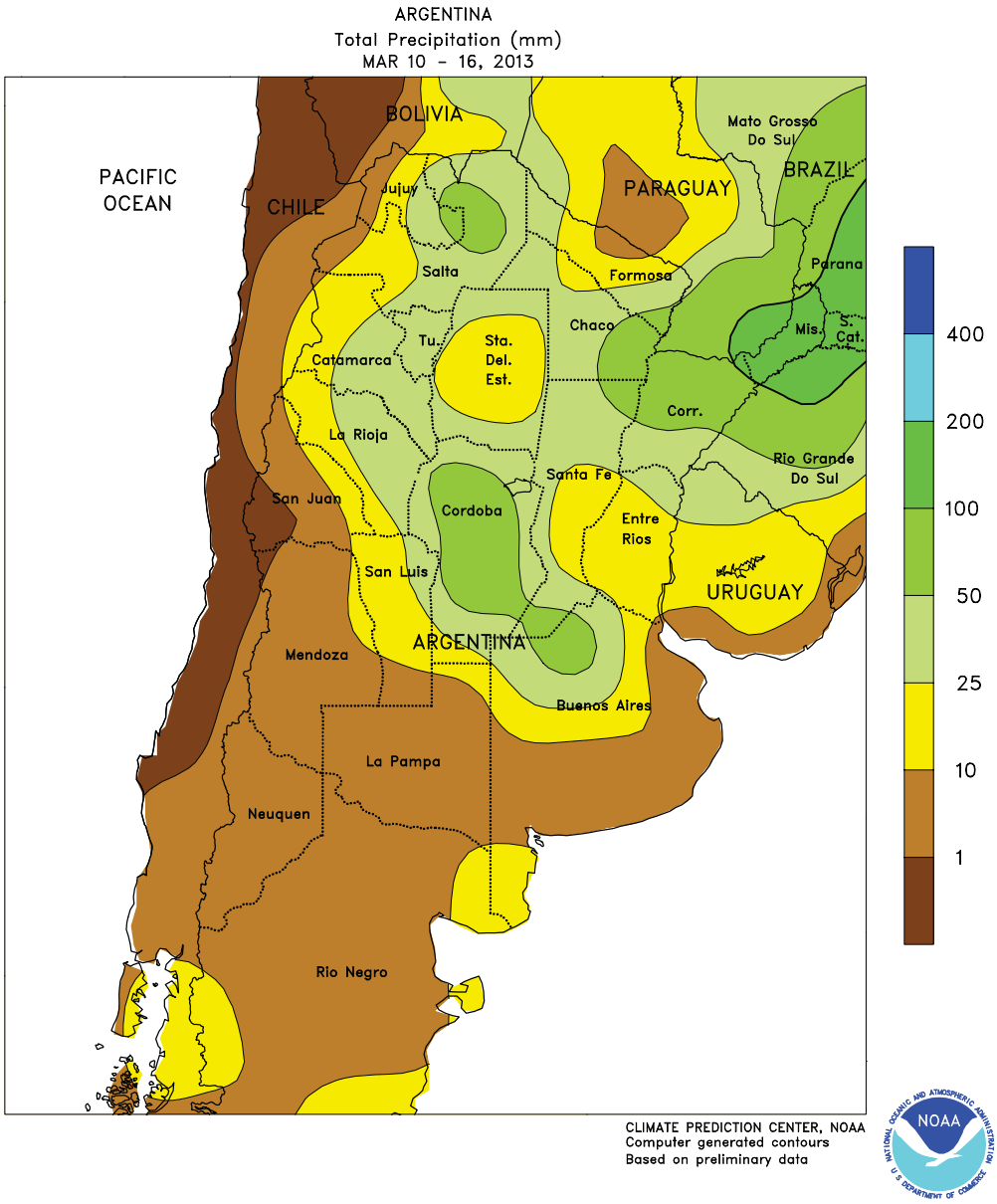

ARGENTINA

Beneficial rain returned to farming areas of central Argentina and the northwest, boosting moisture for immature summer crops. Rainfall totaled 25 to 50 mm over a large area extending from northwestern Buenos Aires to Salta and Jujuy; similar amounts also fell in the northeast (northern Santa Fe and Chaco eastward through Misiones), boosting moisture for immature cotton and late-developing summer grains and oilseeds. In contrast, drier conditions prevailed in Entre Rios and central Santa Fe, where rainfall totaled below 25 mm, as well as in La Pampa and southern Buenos Aires, where amounts were below 10 mm. Weekly temperatures averaged 4 to 6°C below normal in central Argentina, with nighttime lows falling below 5°C in southern farming districts. During the latter half of the week, temperatures dropped to 1°C in southeastern Buenos Aires, raising the possibility of frost damage to vulnerable summer crops. Meanwhile, weekly average temperatures were 1 to 3°C below normal in most northern agricultural areas, with daytime highs mostly in the upper 20s and lower 30s degrees C. According to Argentina's Ministry of Agriculture, sunflowers were 58 percent harvested as of March 14, 2 percentage points ahead of last season. Harvesting in Buenos Aires, the country's largest producer of sunflowers, was at 27 percent, compared with 35 percent last year.

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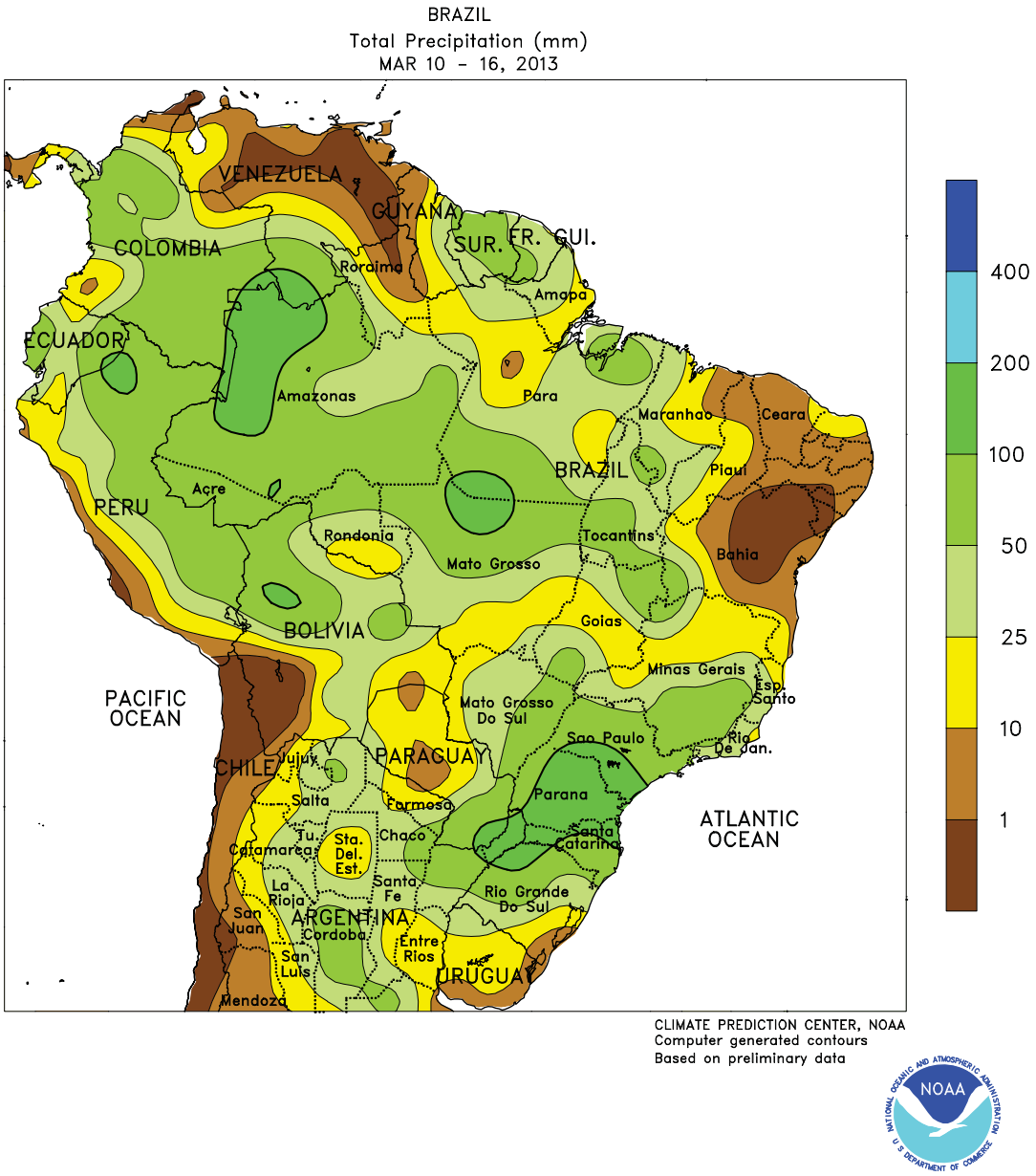
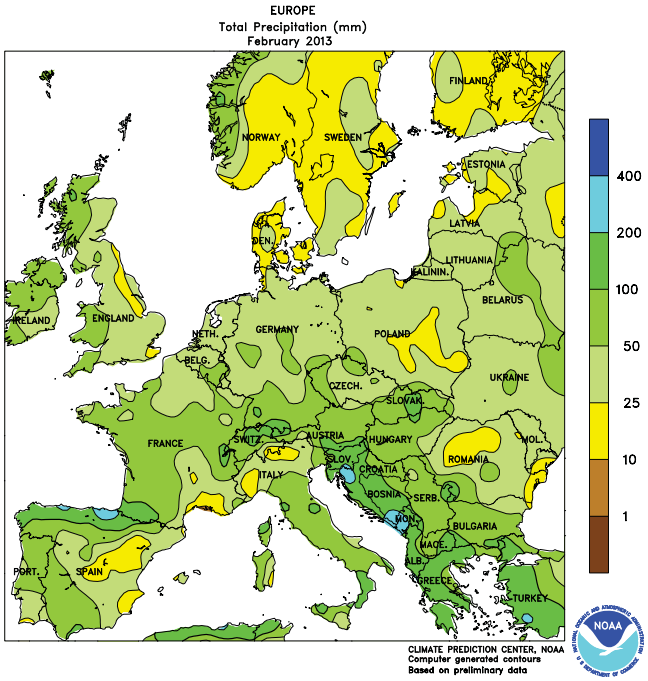


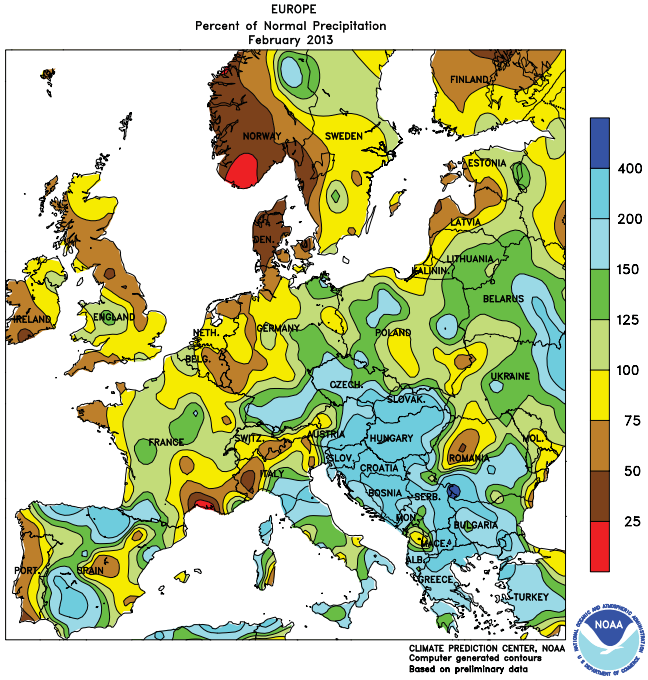
BRAZIL

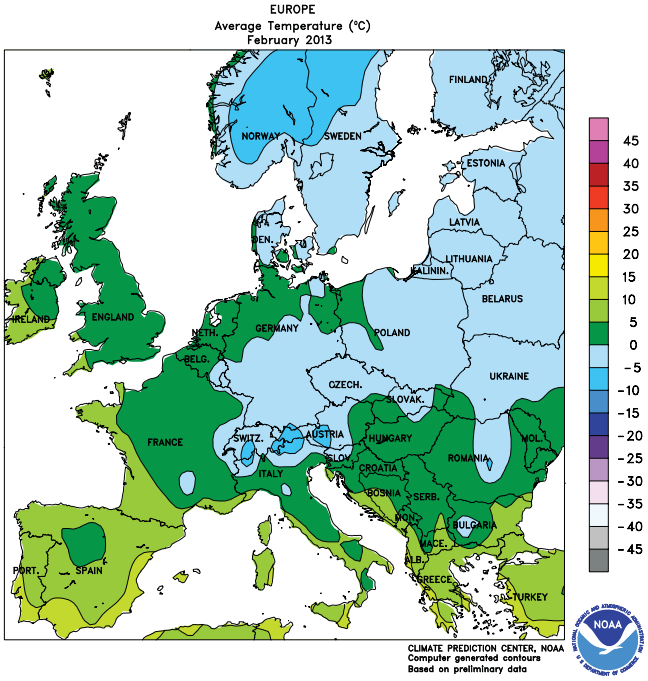
Rain maintained generally favorable conditions for corn, soybeans, and other crops in southern and central Brazil. Rainfall totaled 25 to 100 mm from Rio Grande do Sul northward, reaching as far east as previously dry sections of western Bahia. The rain in the northeast provided timely moisture for immature soybeans and cotton after recent weeks of sporadic rainfall. The rainfall also ended a brief spell of dryness in southern Mato Grosso do Sul and Sao Paulo, boosting moisture for sugarcane and winter-grown (safrinha) corn. In the Center-West Region (Mato Grosso, Goias, and northern Mato Grosso do Sul), the rainfall may have slowed soybean harvesting but was overall beneficial for safrinha corn. Weekly temperatures averaged 2 to 3°C above normal in central and northeastern production areas, with daytime highs reaching the middle and upper 30s (degrees C) in Mato Grosso and nearby sections of Goias and Tocantins. Hot weather was also recorded in the northeast, reaching as far south as northern Minas Gerais. Weekly average temperatures were near to below normal in the south, with highs reaching the upper 20s and lower 30s.

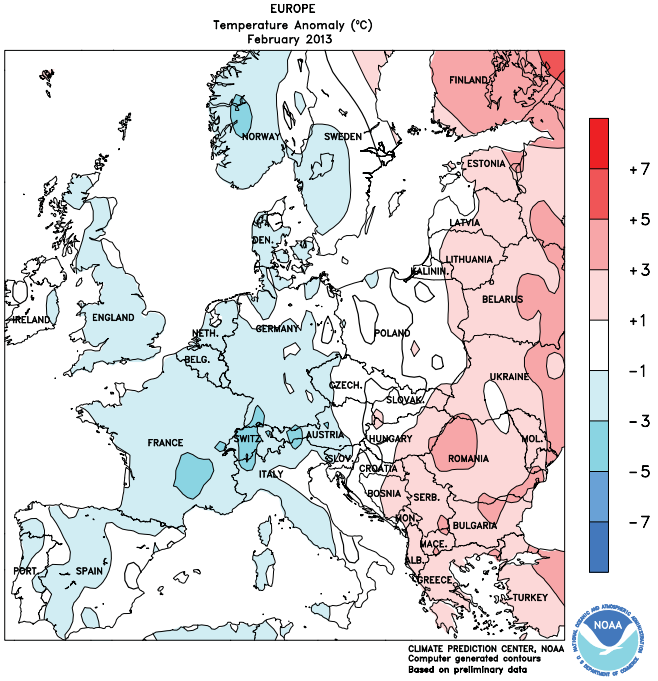
For additional information contact: mbrusberg@oce.usda.gov

February International Temperature and Precipitation Maps



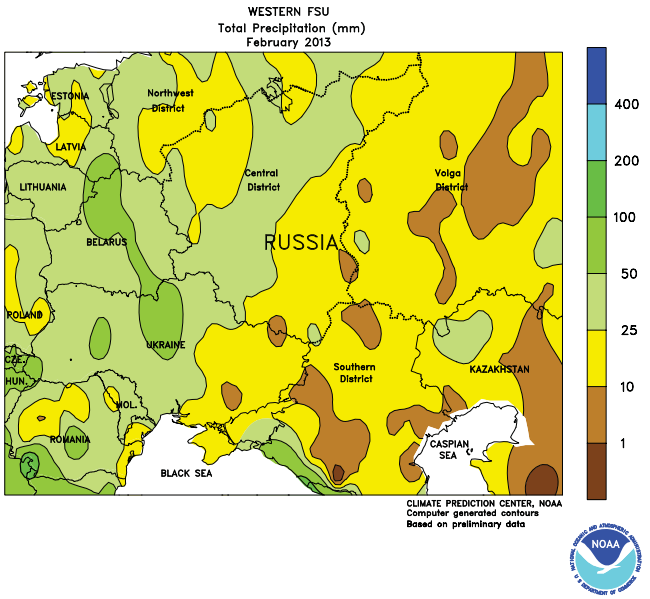


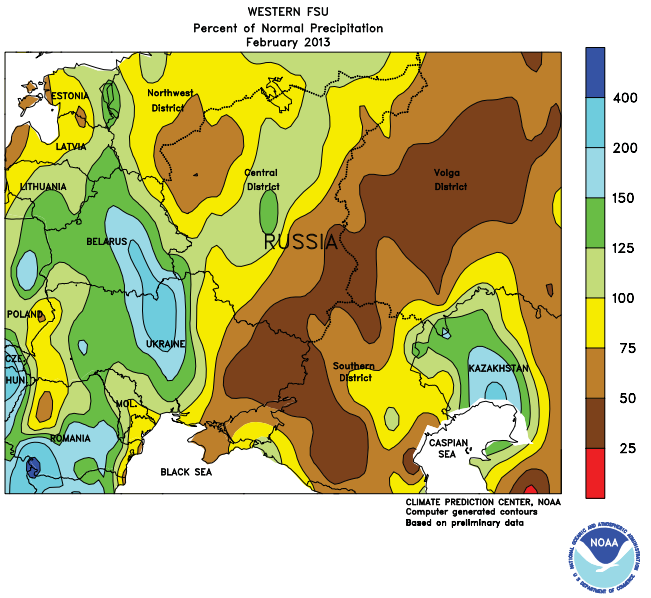


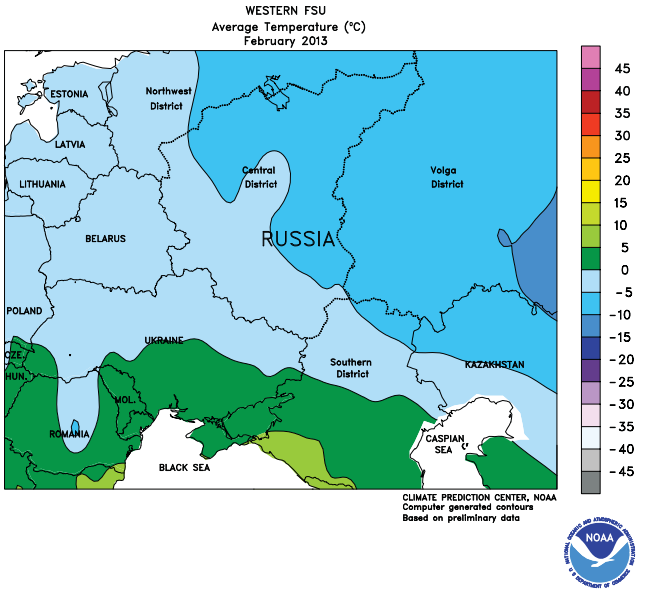


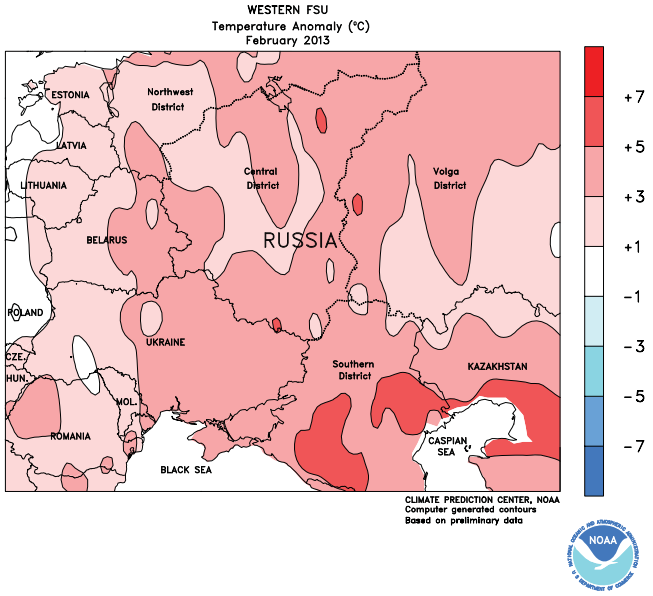
EUROPE

Below-normal temperatures and above-normal precipitation maintained favorable prospects for dormant winter grains and oilseeds across central and northern Europe during February. Conversely, winter wheat began to break dormancy in the Balkans, where wet, mild weather prevailed. Across the remainder of southern Europe, vegetative winter wheat and barley benefited from near-normal temperatures and above-normal rainfall. In addition, reservoirs and irrigation reserves increased for warm-season crops in Spain and Italy.





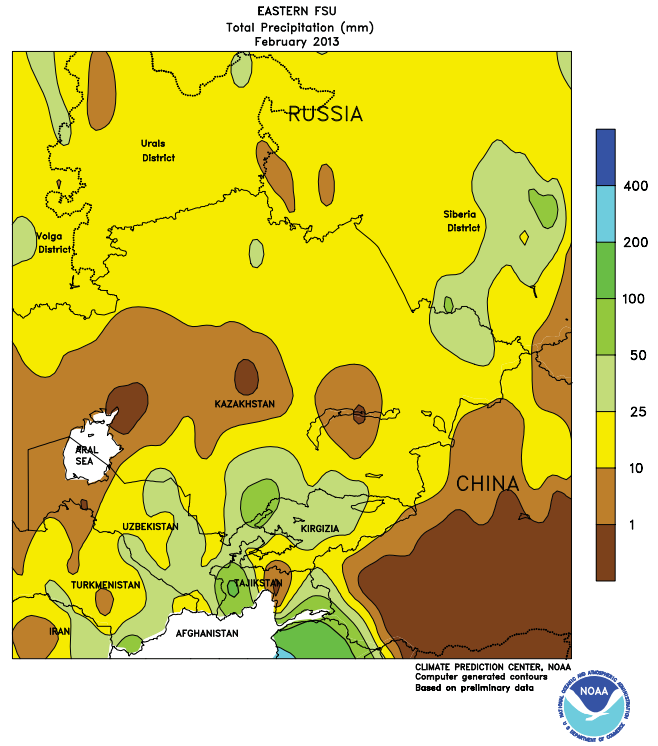


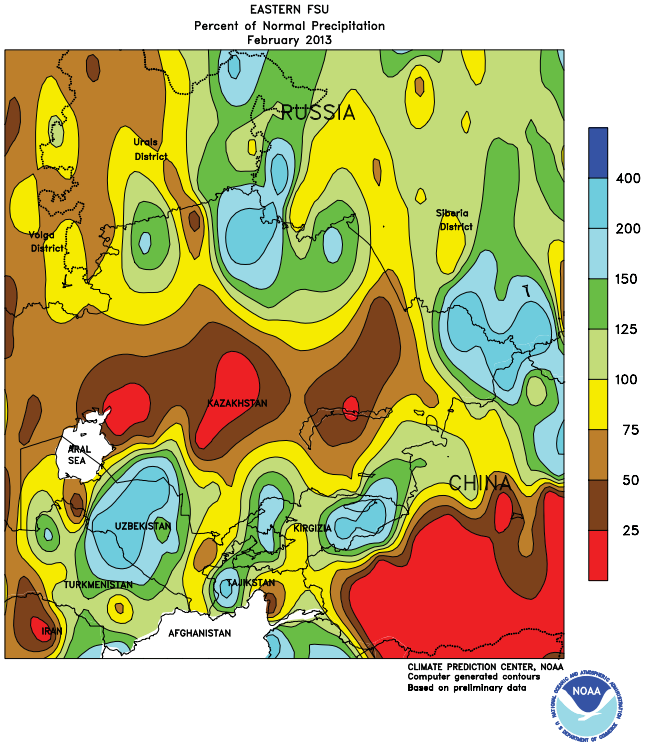


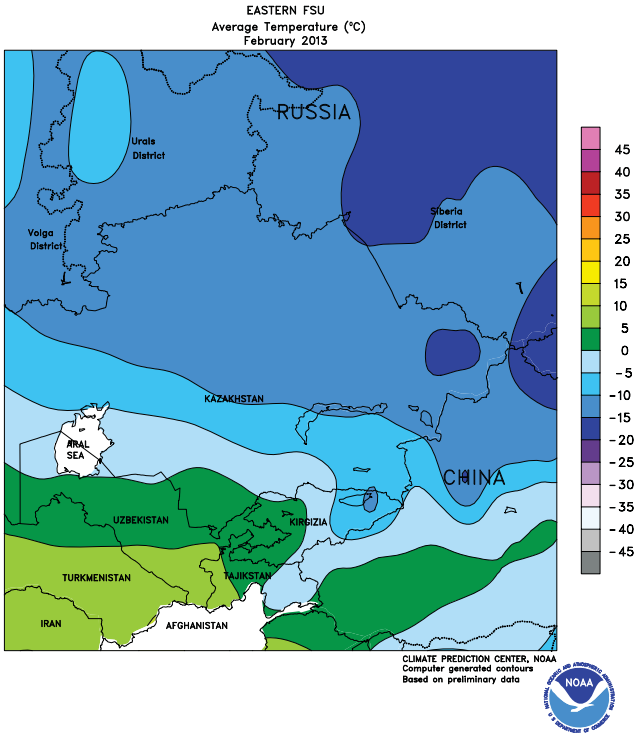
WESTERN FSU

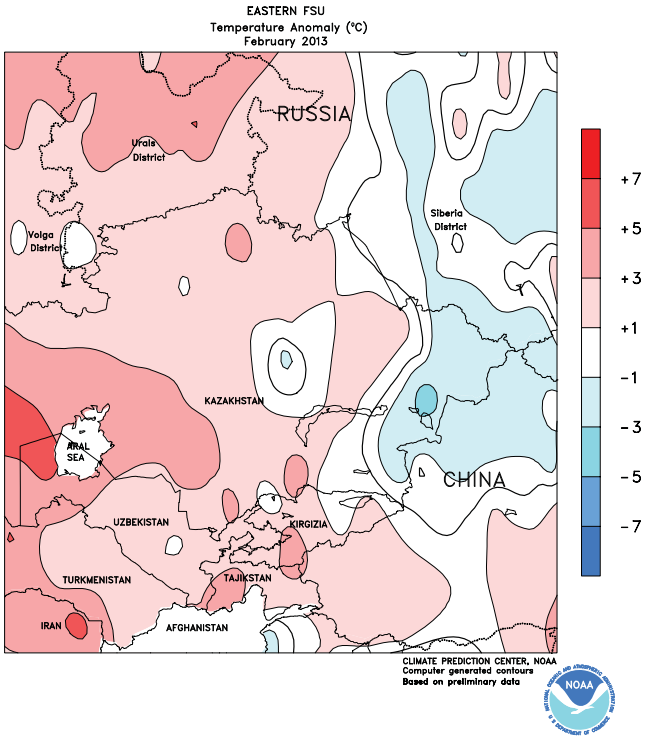
Unseasonably warm weather overspread the region during February, with above-normal precipitation in the north contrasting with dry conditions in the south. The warmth encouraged early spring grain planting in southern portions of Ukraine and Russia and eased winter grains out of dormancy. Crops in the north remained dormant under a moderate to deep snowpack, despite the above-normal temperatures. Producers in eastern Ukraine and the Southern District were in need of moisture due to the early season warmth and February precipitation, which averaged less than 50 percent of normal (locally less than 25 percent of normal).

For additional information contact: mbrusberg@oce.usda.gov









EASTERN FSU

In February, near-normal temperatures in northern portions of the region contrasted with increasingly warm weather in the south. Temperatures for the month averaged 1 to 2°C above normal in southern Russia and northern Kazakhstan, although highs remained below freezing. Consequently, spring wheat areas remained encased in a deep snowpack and agricultural activity was minimal (if any). In southern cotton areas, rain and mountain snow provided a welcome boost to irrigation reserves for cotton, which is planted in April and May. However, temperatures up to 5°C above normal may have caused some premature melting of mountain snowpacks, reducing water availability for the upcoming growing season.

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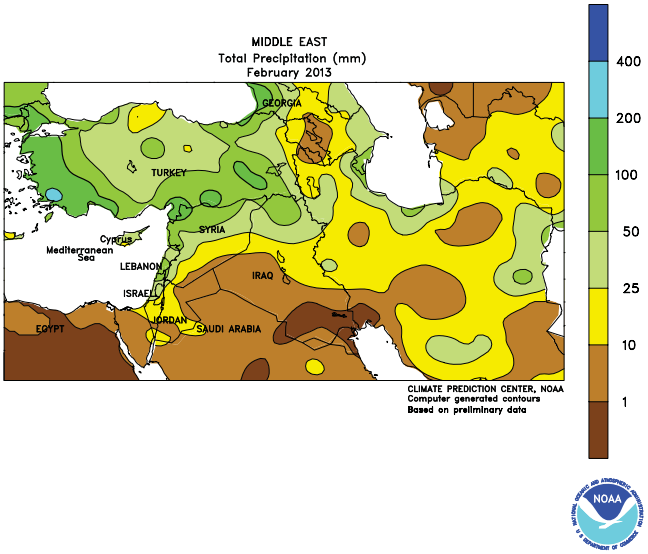
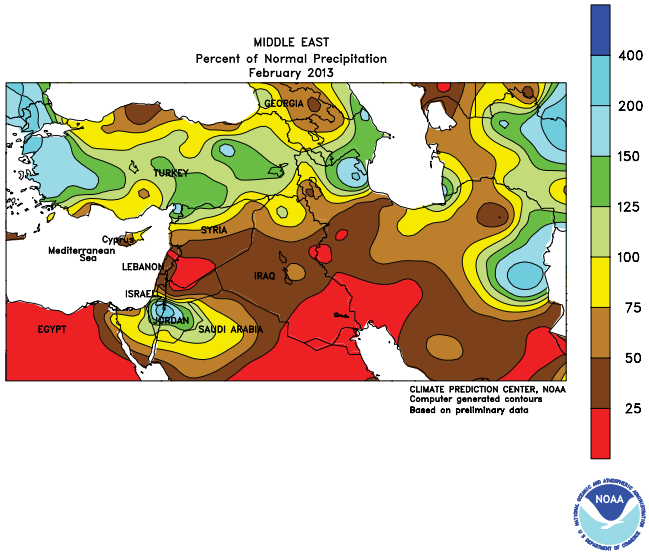
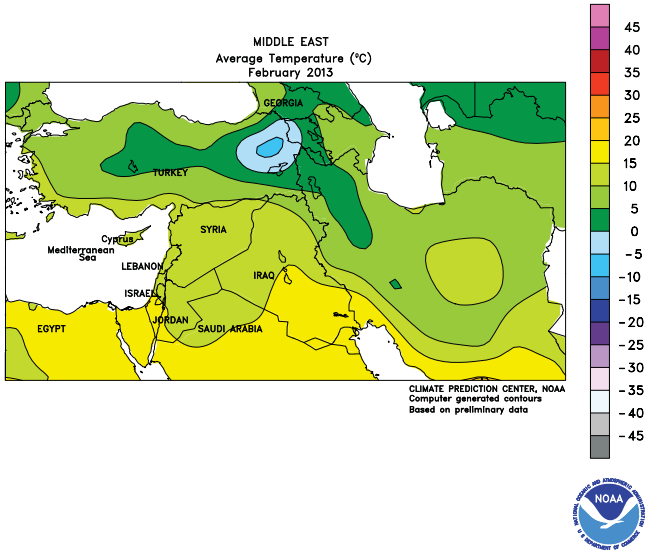
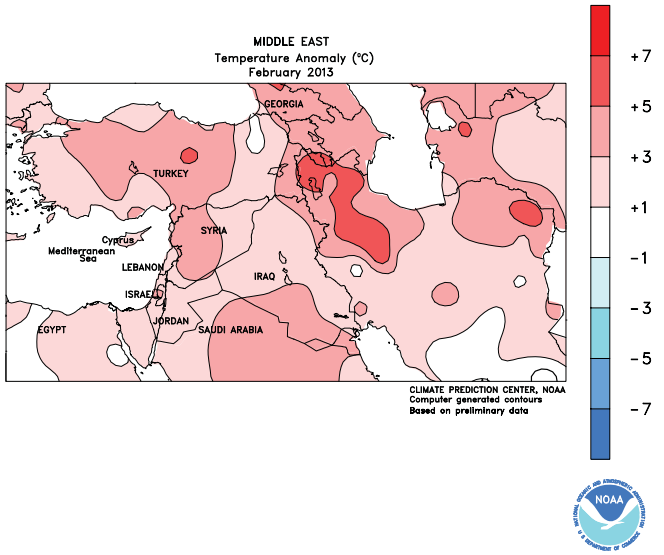


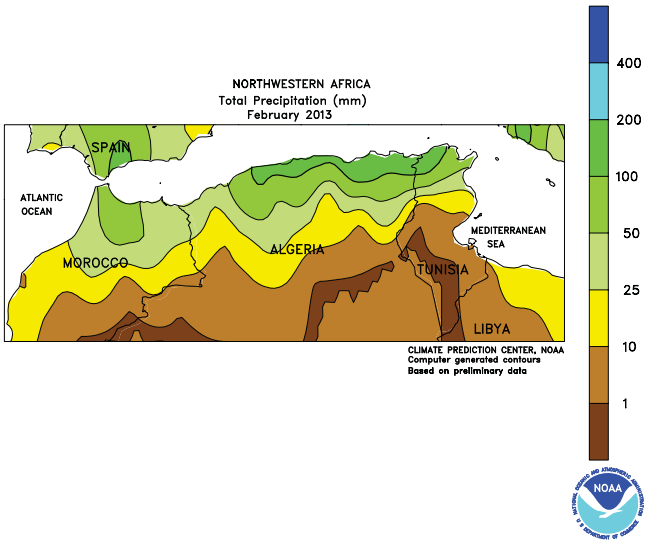


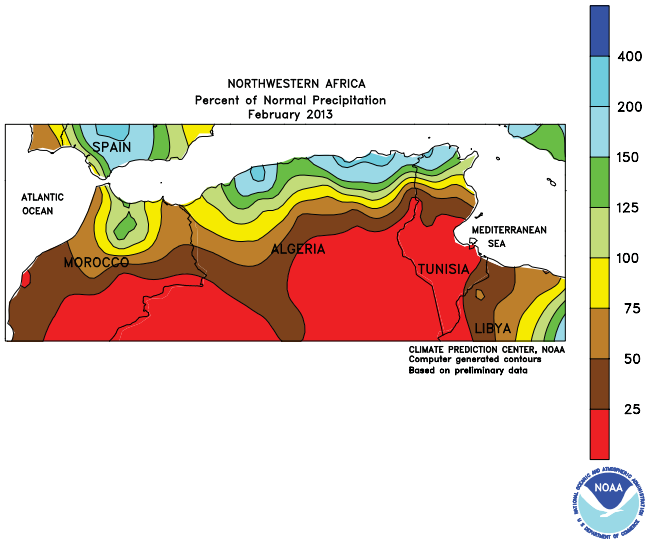


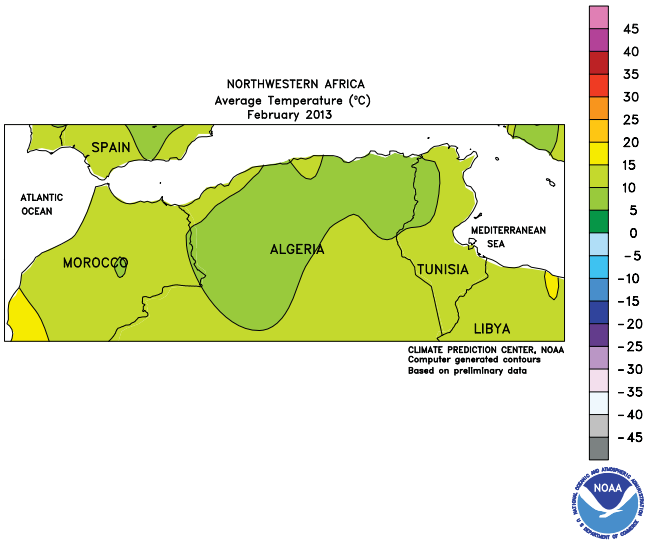


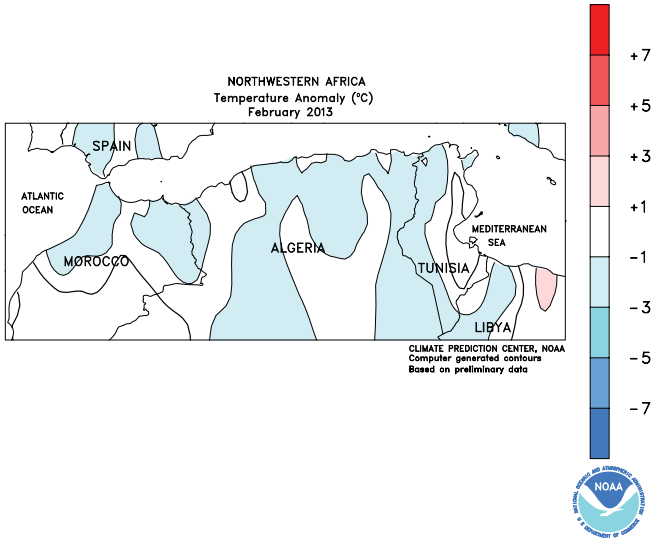
MIDDLE EAST

During February, wet, mild weather boosted soil moisture for dormant (north) to vegetative (south) winter wheat and barley in Turkey and Syria. Drier-than-normal conditions settled over Iraq and Iran, although moisture reserves remained adequate for winter crop growth heading into the spring. Temperatures for the month averaged up to 6°C above normal, initiating early snow melt and accelerating winter crops out of dormancy.



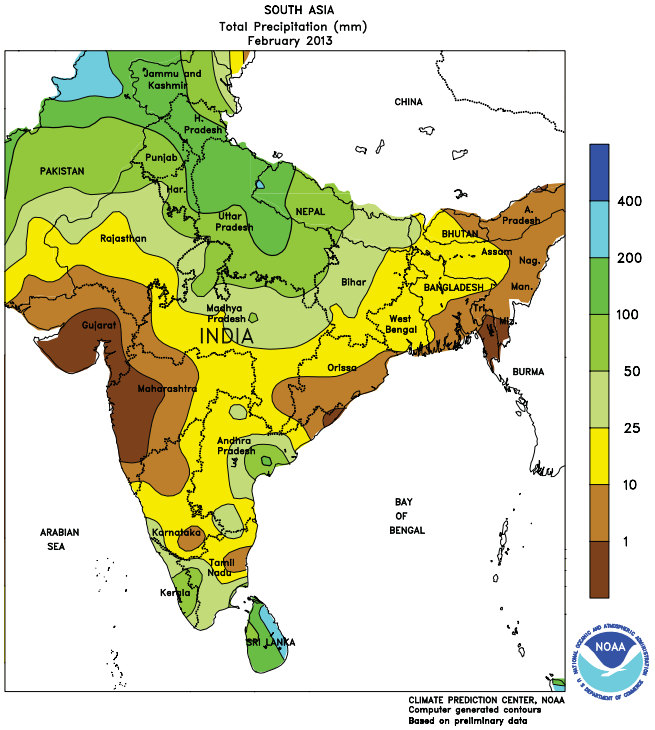


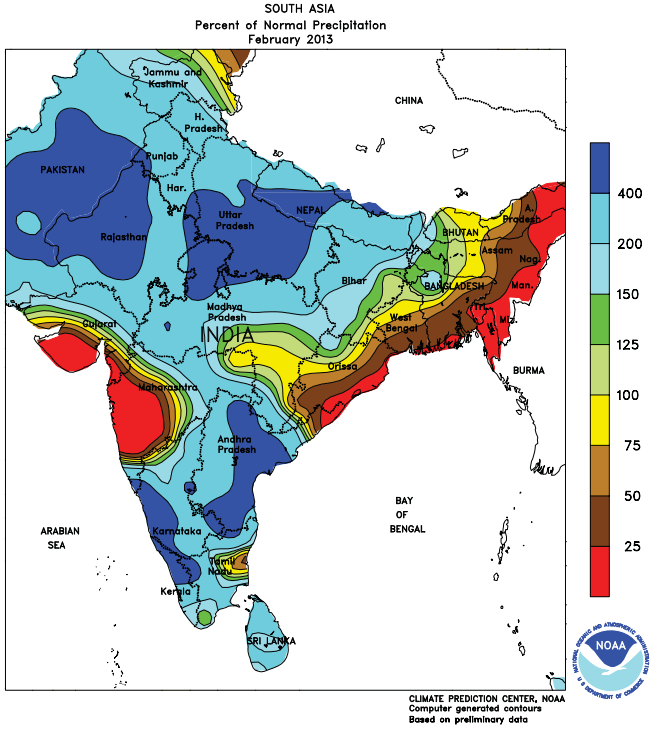


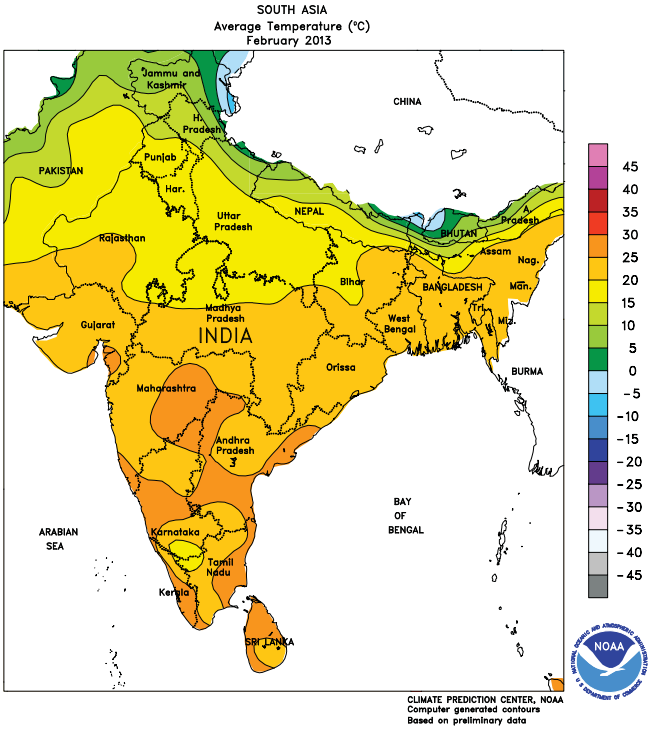


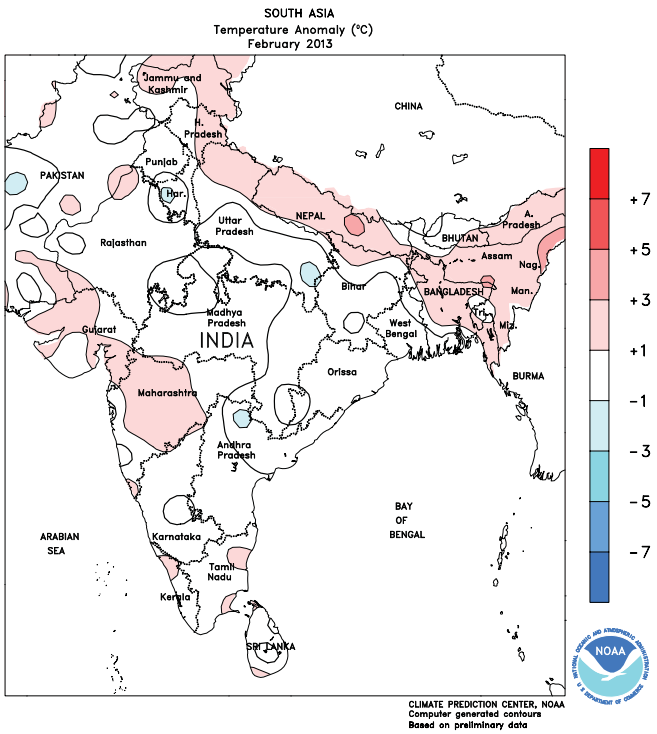
NORTHWESTERN AFRICA

In February, above-normal rainfall in Tunisia and Algeria maintained excellent prospects for vegetative winter wheat and barley. In contrast, drier-than-normal conditions settled over Morocco; however, rain returned to Morocco by month's end, sustaining favorable yield prospects for winter grains. Temperatures were below normal, although there were no hard freezes in primary crop areas.





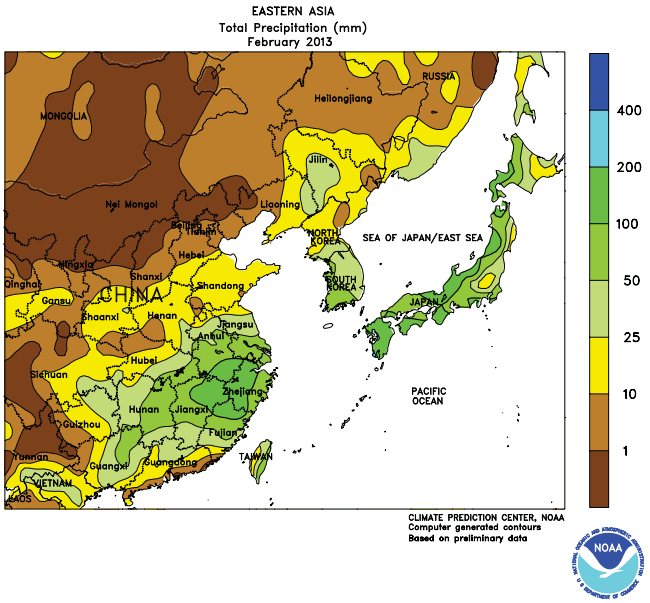


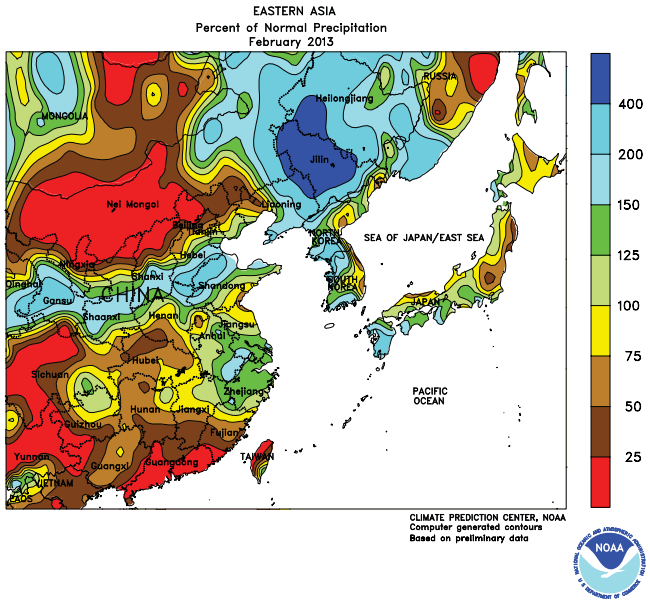


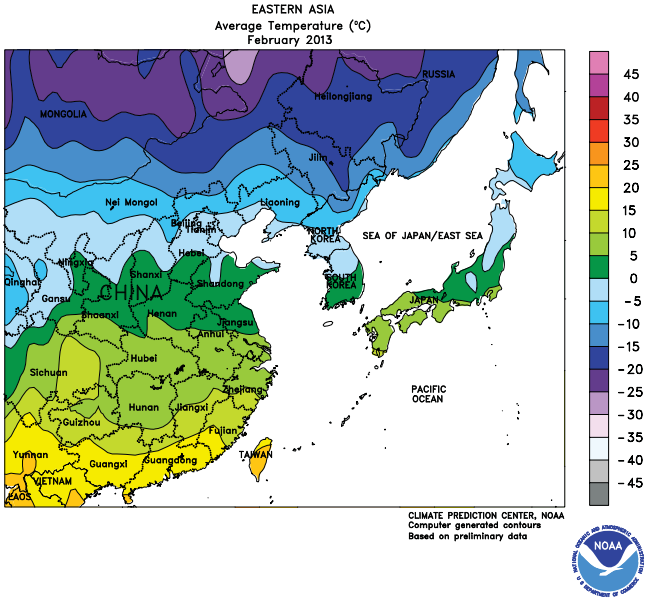
SOUTH ASIA

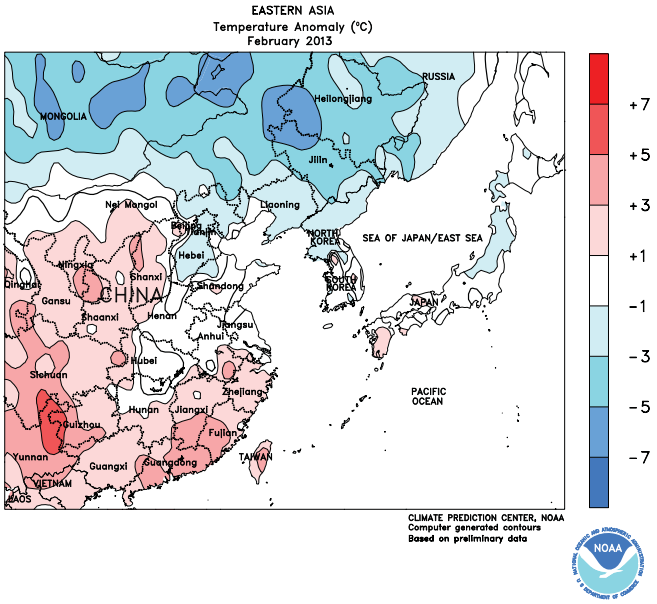
In February, unseasonably heavy and widespread rainfall throughout India provided an unexpected boost to moisture supplies of irrigated rabi crops. In northern India, upwards of 100 mm of rain — occurring predominantly during the latter half of the month — benefited filling wheat. The above-normal rainfall extended into central and southeastern portions of India as well, benefiting rabi rice and groundnuts. In contrast, showers (50 mm for the month) in Rajasthan, although lighter than other areas, slowed rapeseed maturation.

For additional information contact: mbrusberg@oce.usda.gov



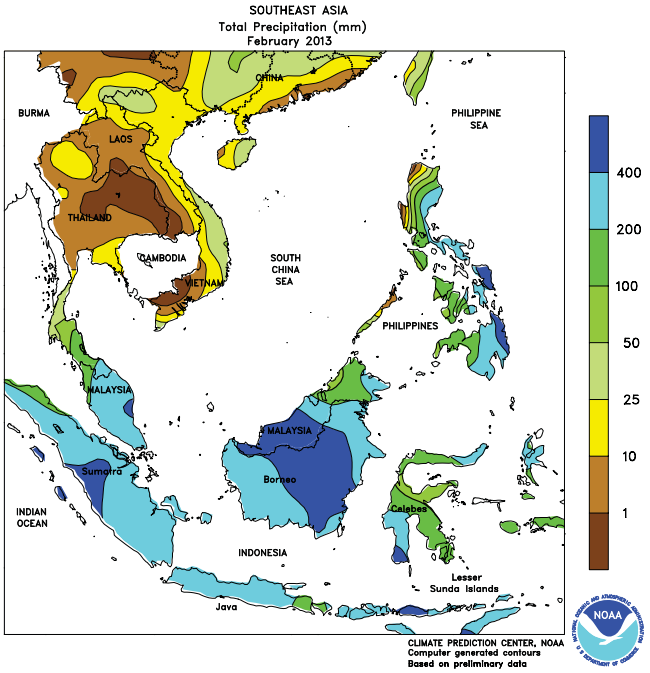


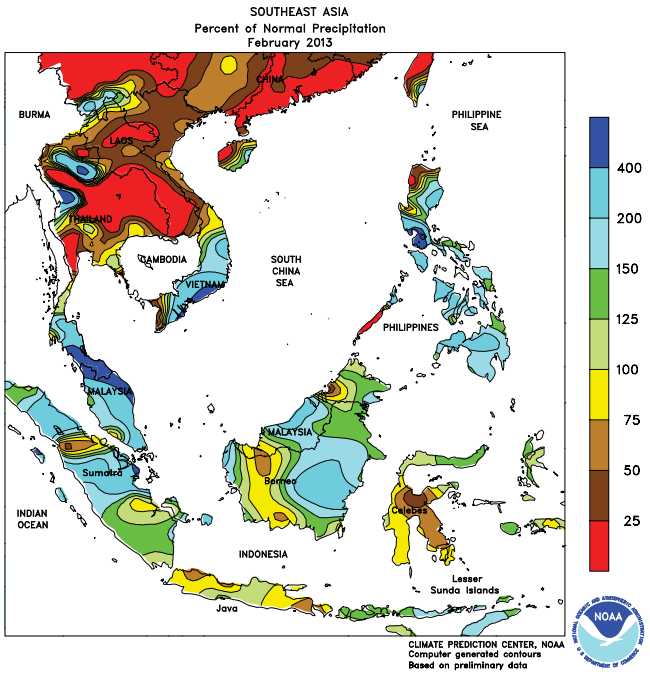


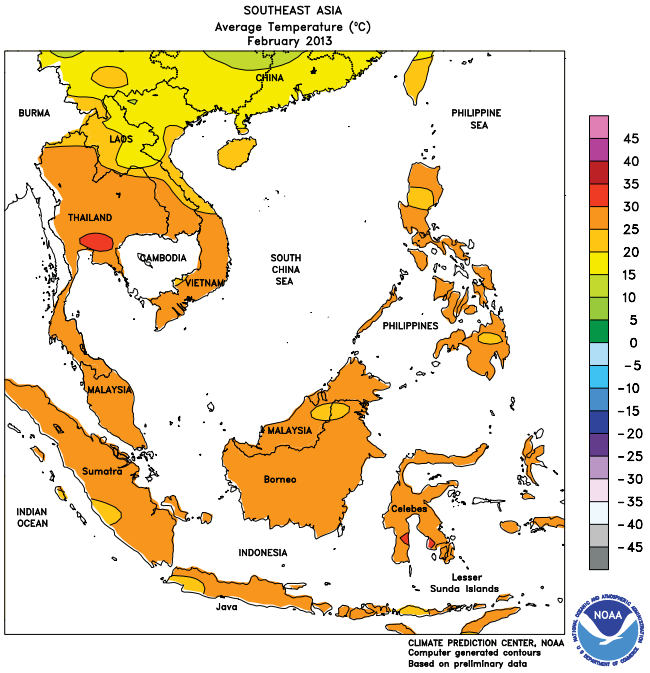


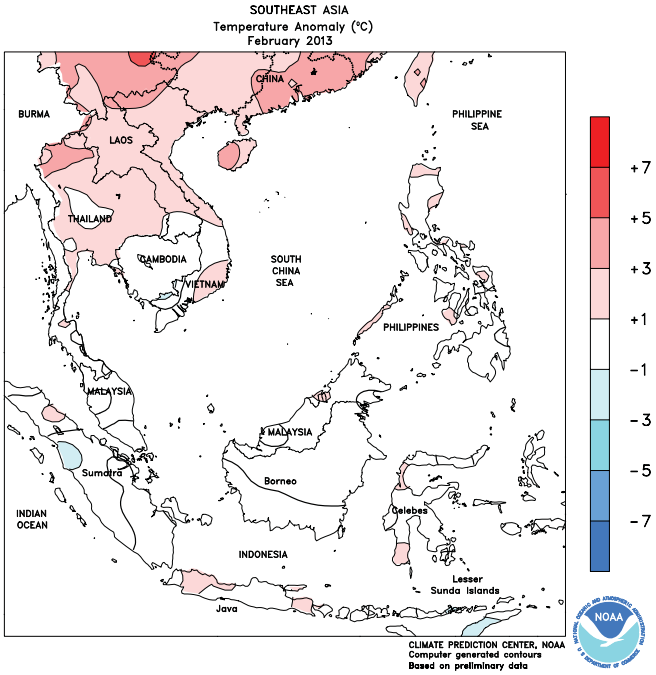
EASTERN ASIA

Near-normal rainfall and temperatures during February aided overwintering wheat, as well as rapeseed that was greening by month's end. Despite below-normal rainfall in minor producing areas of southwestern China, yield prospects remained favorable for winter grains and oilseeds. Similarly, below-normal rainfall in southern China did little to hamper early rice transplanting toward the end of February.



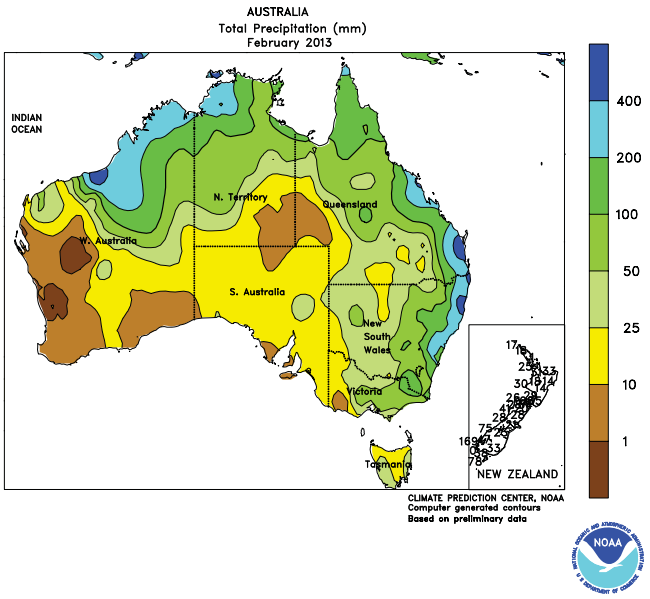


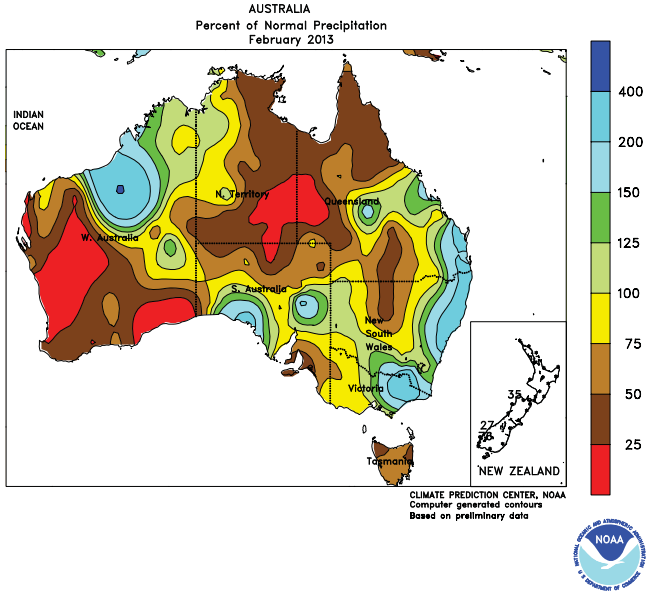


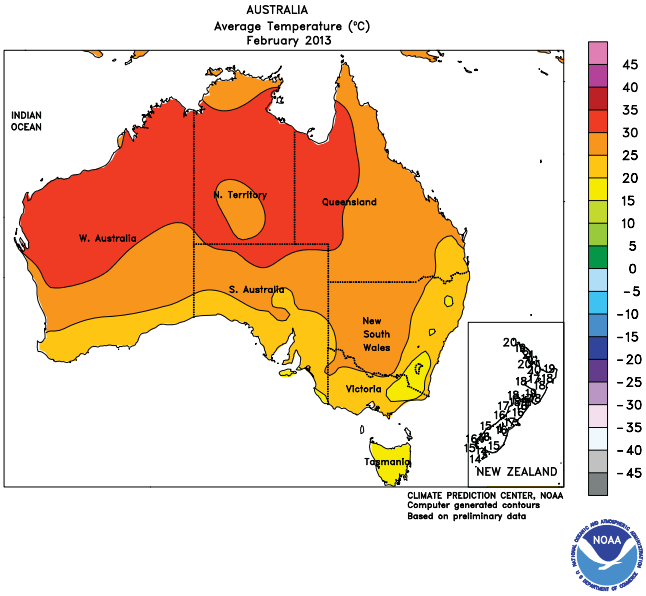


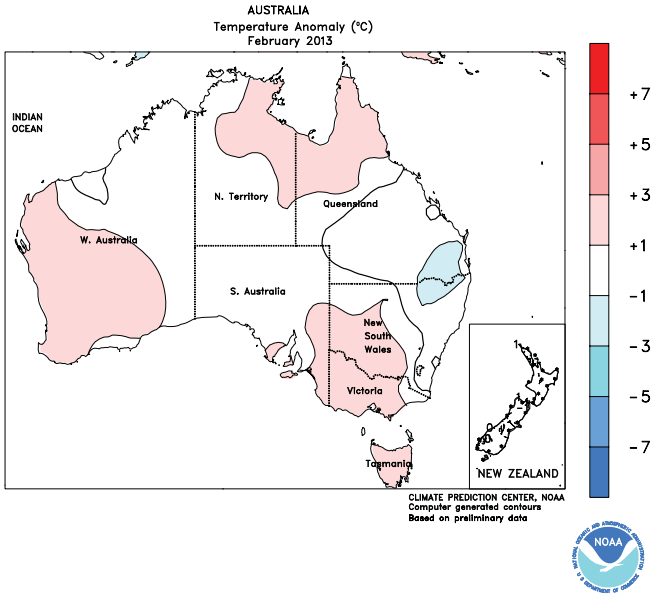
SOUTHEAST ASIA

Rainfall was generally near normal across Java, Indonesia, for February, maintaining abundant moisture supplies but slowing rice maturation. In the Philippines, excessive rainfall caused flooding in the east and south. However, damage to rice and corn was likely localized, and prospects remained favorable for the first half of the year. In Vietnam, winter-spring rice harvesting was underway in the south under favorably dry weather.



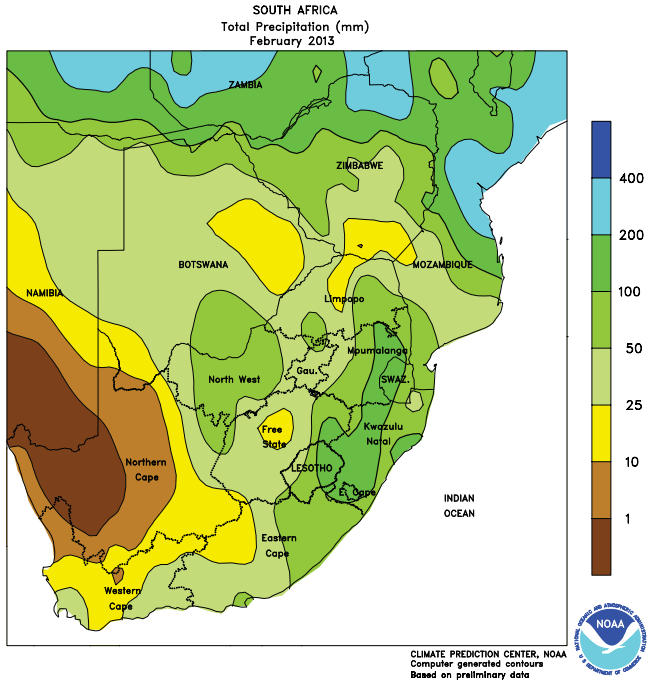


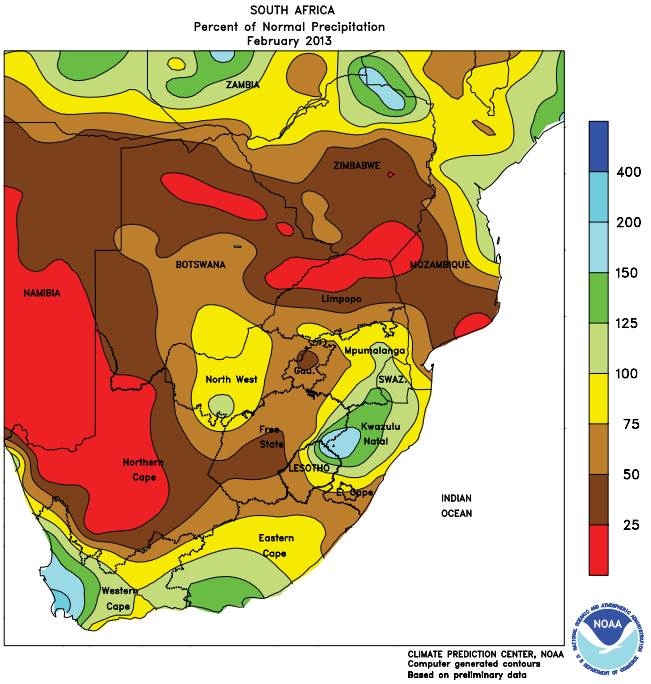


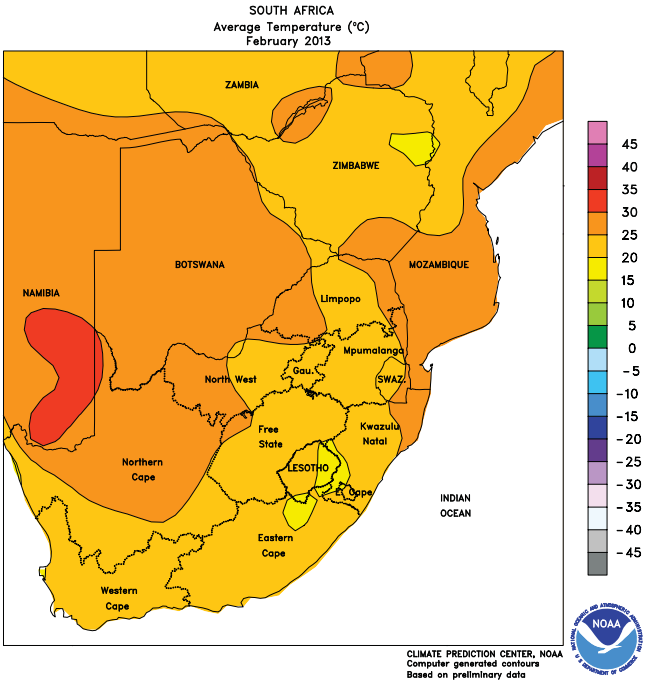


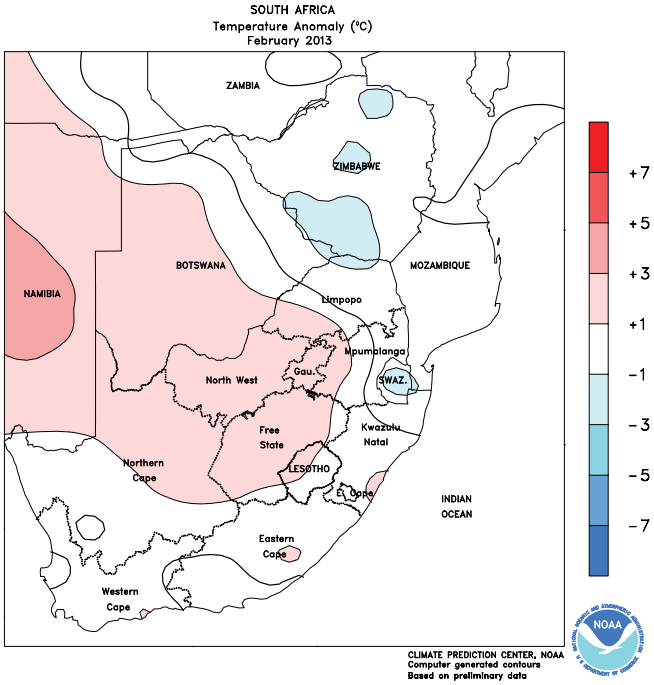
AUSTRALIA

Following extreme heat in January, occasional showers and seasonably warm weather favored summer crop development in February. The showers helped maintain local moisture supplies for immature cotton and sorghum, while periods of dry weather aided maturation of the earliest planted crops.





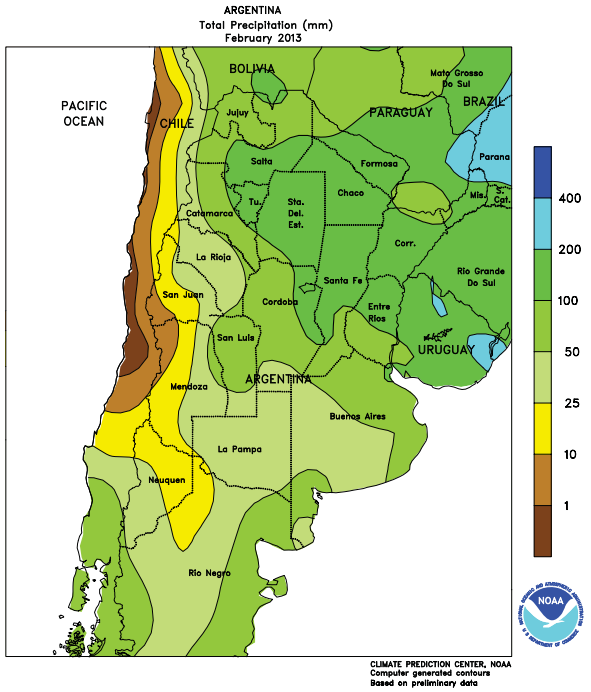


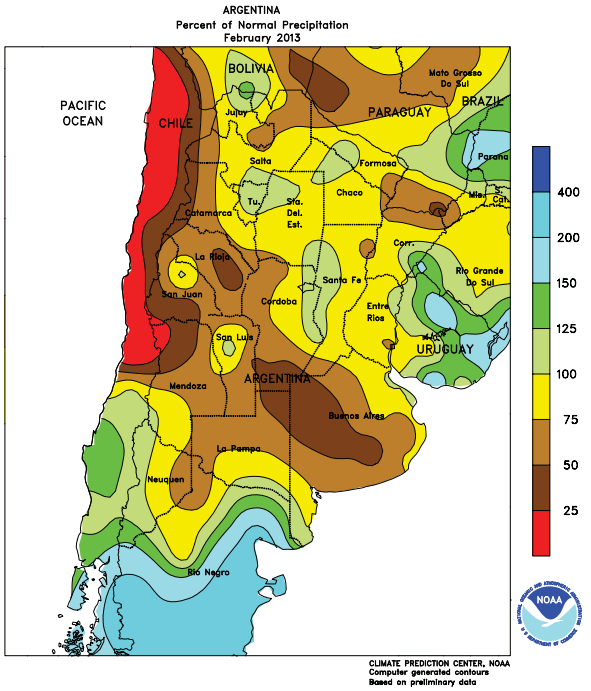


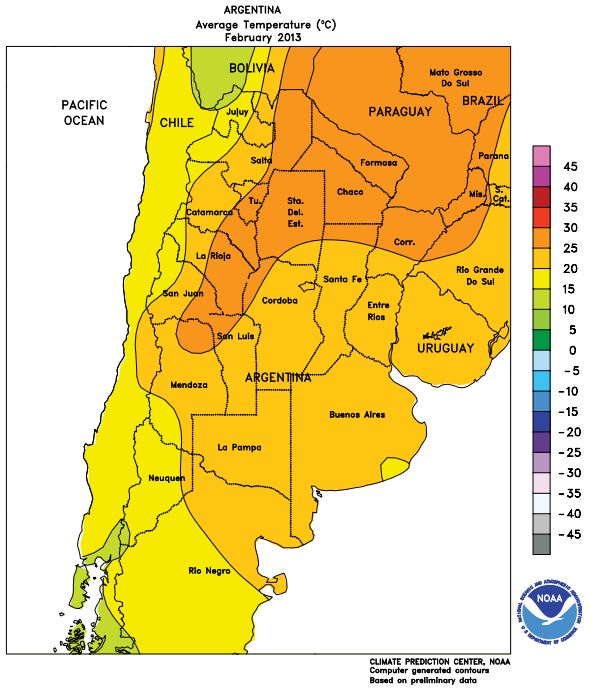
SOUTH AFRICA

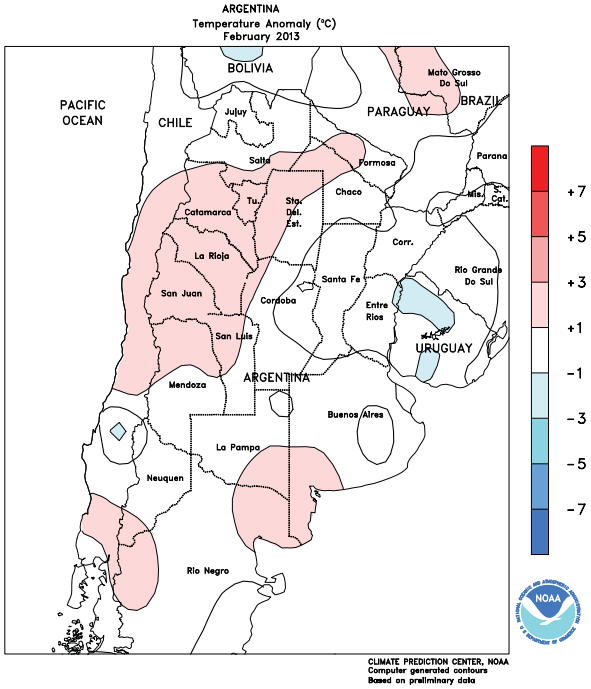
In February, warmer- and drier-than-normal weather reduced moisture for corn and other rain-fed summer crops. Monthly rainfall totaled 25 to 100 mm across the corn belt, in some areas representing less than 50 percent of the normal monthly amount. Monthly temperatures averaged 2 to 3°C above normal in the western corn belt (North West and central Free State), with daytime highs often in excess of 35°C. The warmth and dryness were particularly untimely in these areas, as later-planted crops were advancing through reproduction and susceptible to damage from drought and heat. Temperatures were also near to above normal in eastern sections of the corn belt (in and around southwestern Mpumalanga), with daytime highs in the lower 30s (degrees C) hastening maturation of mostly filling crops. Elsewhere, scattered showers and seasonable warmth sustained generally favorable conditions for rain-fed sugarcane in southern KwaZulu-Natal. In contrast, mostly dry, occasionally warm weather dominated the Cape Provinces, spurring development of irrigated summer row crops. In Western Cape, however, light showers may have caused some minor delays in the harvesting of tree and vine crops.

For additional information contact: mbrusberg@oce.usda.gov



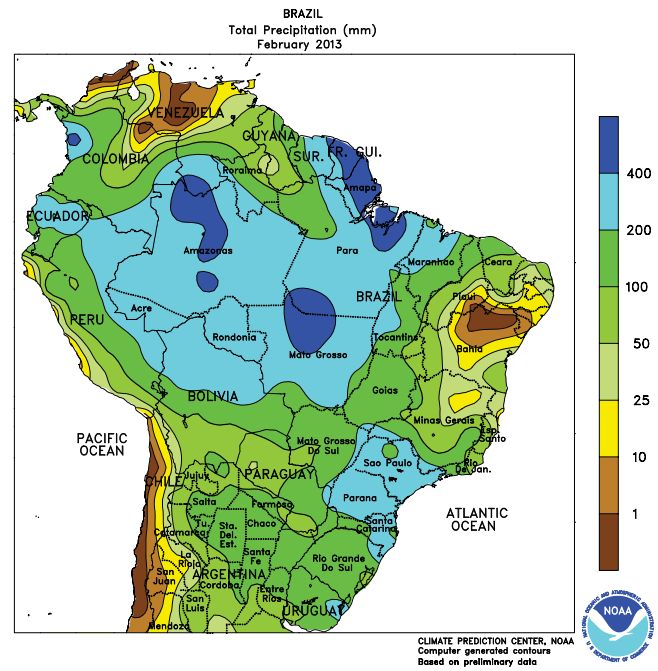


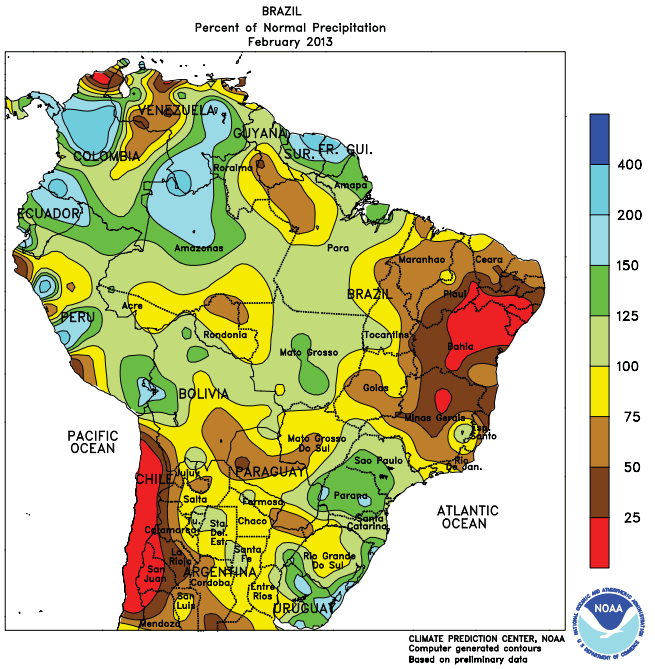


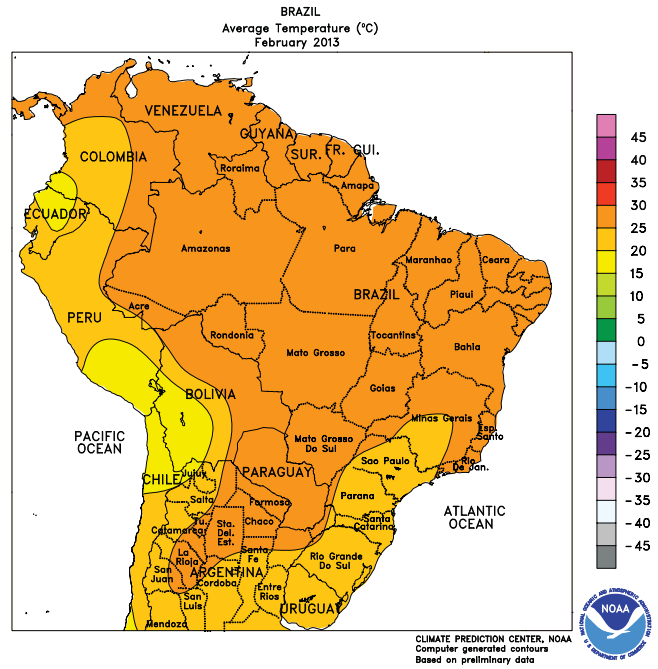


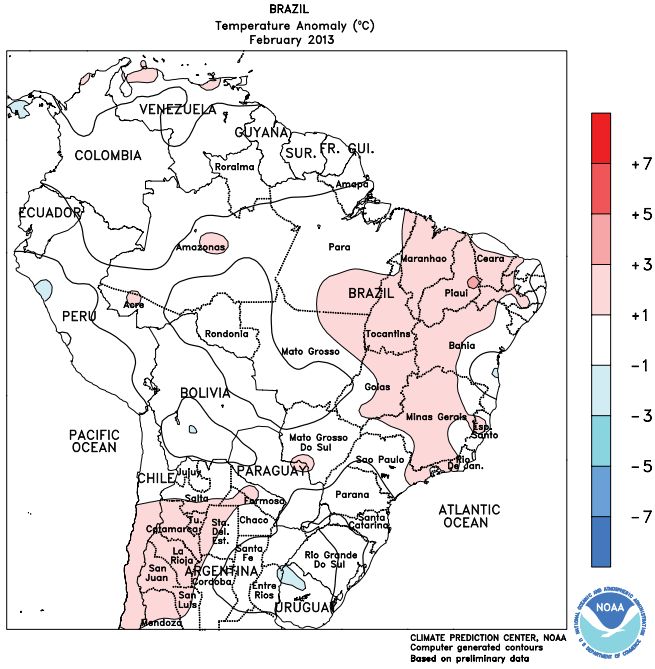
ARGENTINA

During February, beneficial rain returned to central Argentina, helping to stabilize the condition of summer grains and oilseeds following January's dryness. The rain first arrived in the lower Parana River Valley (northern Buenos Aires and neighboring locations in Santa Fe and Entre Rios), then developed later in the month farther south and west (southwestern Buenos Aires, La Pampa, and southern Cordoba). The rain came too late to fully reverse the effects of the dryness on filling to maturing corn, but the moisture was timely for later planted crops, in particular soybeans. Monthly average temperatures were near to slightly above normal, although daytime highs were generally in the upper 20s and lower 30s (degrees C). Elsewhere, above-normal rainfall increased moisture for crops in previously dry sections of the northwest (northern Cordoba to Formosa). However, unseasonable warmth (monthly temperatures averaging 1-2°C above normal, with daytime highs frequently at or above 40°C) maintained high crop moisture demands and losses to evaporation.





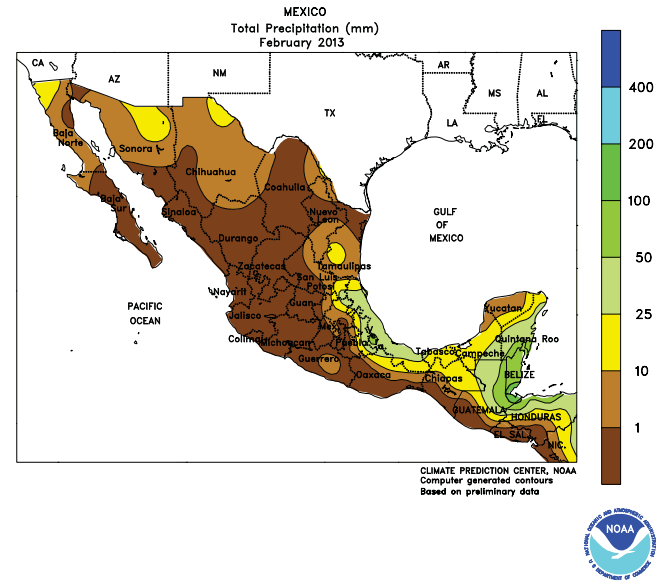


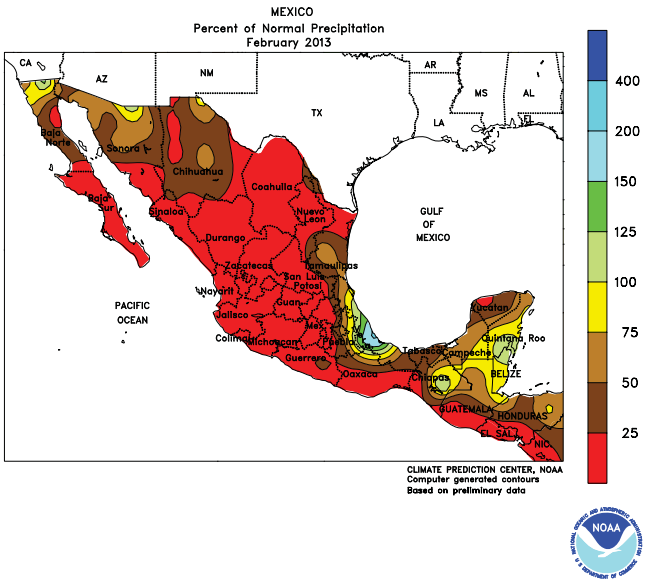


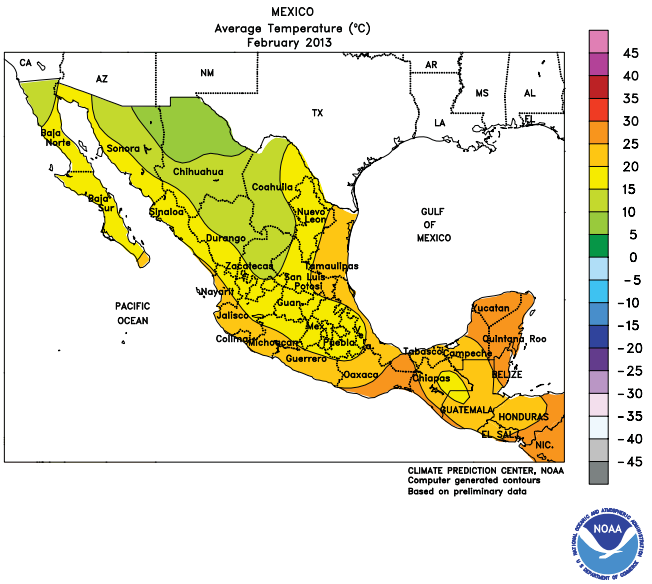
BRAZIL

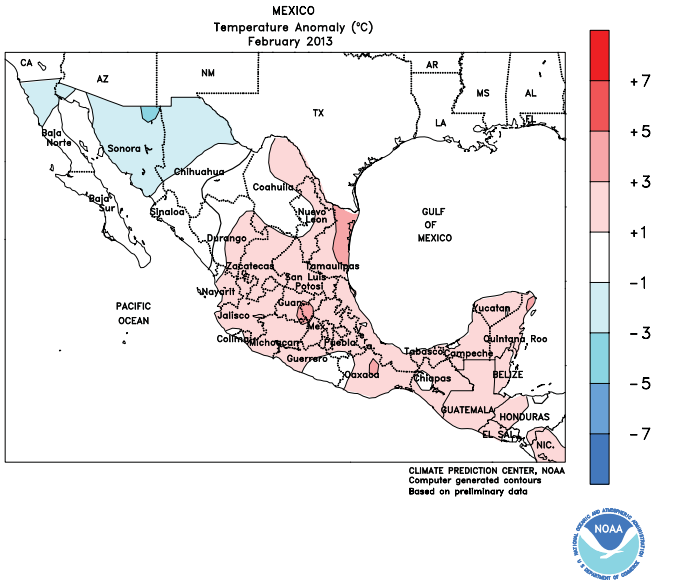
During February, near- to above-normal rainfall maintained generally favorable conditions for soybeans, corn, and other crops in key production areas of central and southern Brazil. Monthly rainfall totaled more than 150 mm in most locations stretching from Rio Grande do Sul northward, with amounts in excess of 300 mm in sections of Parana and Mato Grosso. The wet weather extended eastward into Sao Paulo, with somewhat lighter amounts (50-100 mm) in southern Minas Gerais, maintaining adequate moisture for sugarcane and coffee. An exception to the seasonable wetness occurred in the northeastern interior, where crop areas in the vicinity of western Bahia were unseasonably dry, limiting moisture for soybeans and cotton. February average temperatures were 2 to 3°C above normal in these drier areas, with daytime highs occasionally in excess of 35°C. Elsewhere, monthly temperatures averaged 1 to 2°C above normal; daytime highs reached the upper 30s (degrees C) in Mato Grosso, while daytime highs elsewhere mostly ranged in the upper 20s and lower 30s, except for a few hot days early in the month.

For additional information contact: mbrusberg@oce.usda.gov



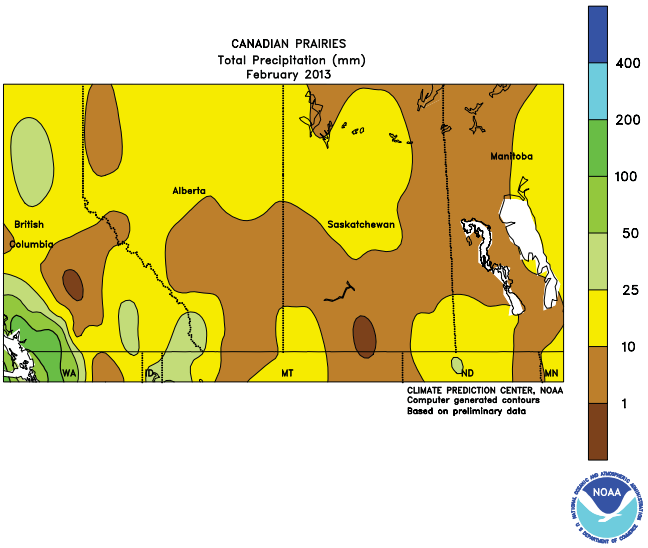


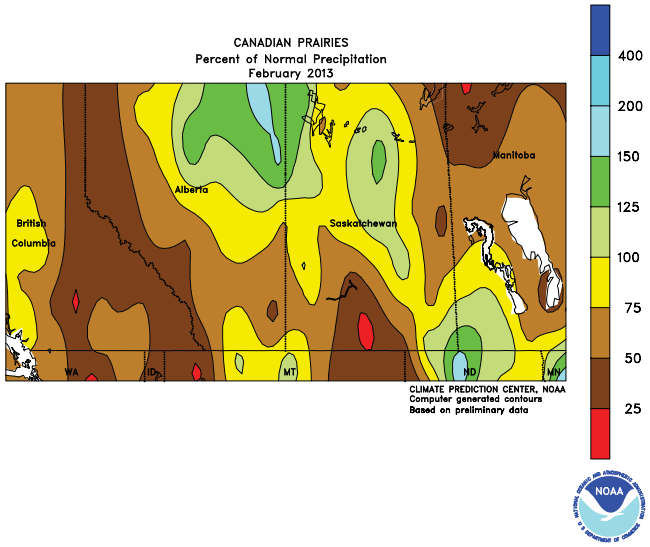


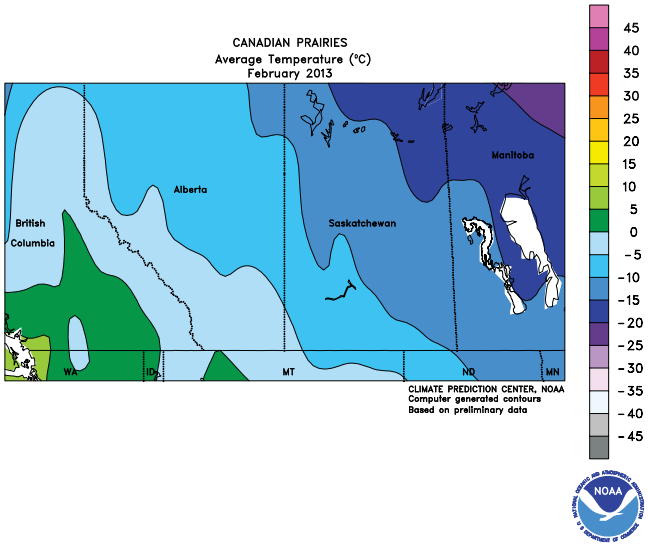


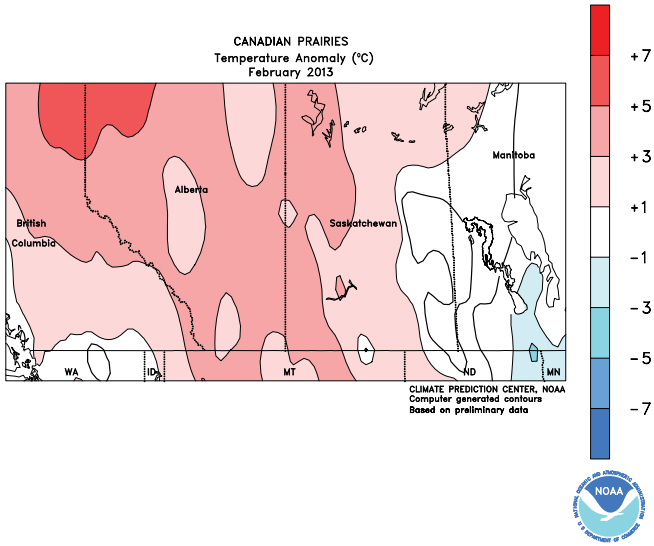
MEXICO

In February, dry weather dominated much of northern and central Mexico, as seasonal rains were generally confined to the Gulf Coast. Monthly average temperatures were near to slightly below normal in the northwest, owing to several outbreaks of unseasonable cold. However, freezing temperatures stayed well north of Sinaloa's winter corn and vegetable growing areas. In the northeast, warmer- and drier-than-normal weather (monthly temperatures averaging more than 3°C above normal, with rainfall totaling less than 10 mm for all of February) reduced moisture for rain-fed winter sorghum. Seasonably dry weather dominated the southern plateau but scattered, locally heavy showers boosted moisture reserves for winter-grown crops in Veracruz. As in the northeast, monthly temperatures were up to 3°C above normal in the southeast and rainfall was below normal. Seasonal fieldwork continued, including the harvest of coffee. According to the government of Mexico, total national reservoir capacity was at 40.4 percent as of February 28, compared with 48.0 percent last year, and 73.8 percent in 2011. In the northwest (Sinaloa and Sonora), total reservoir capacity was at 30.0, ahead of last year (28.8 percent) but still well behind 2010 (60.2 percent).



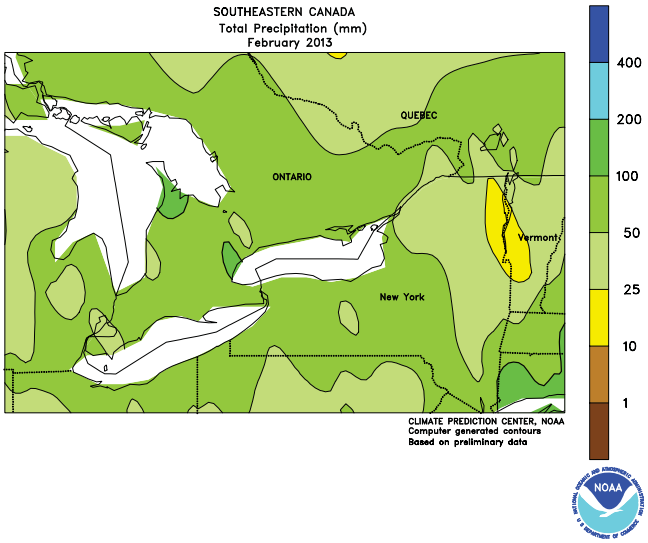


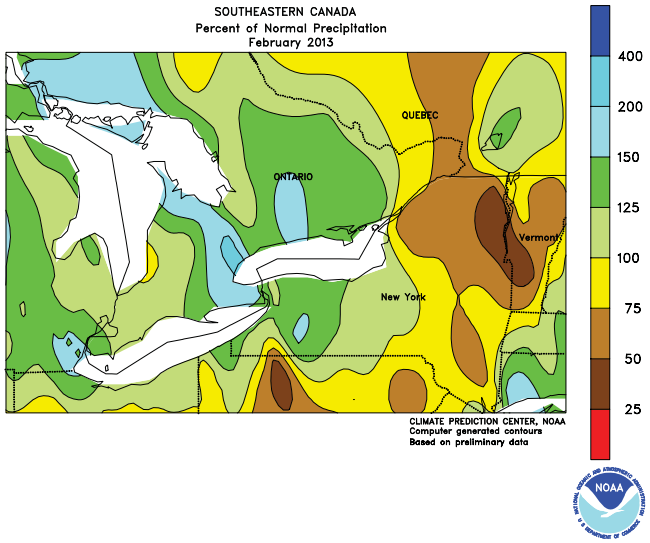


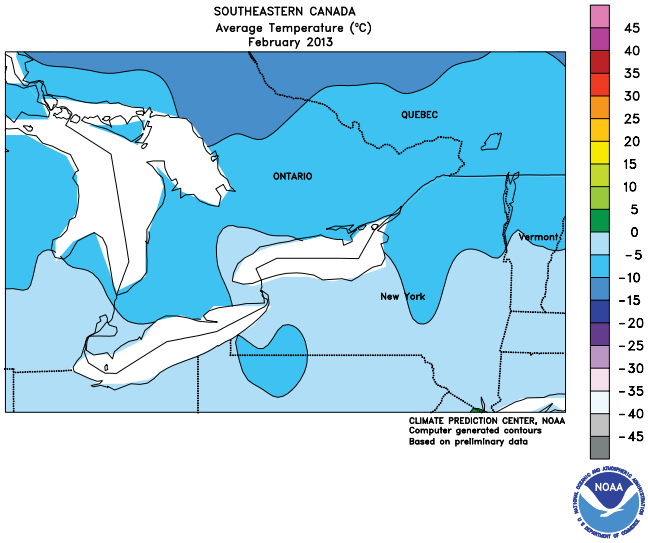


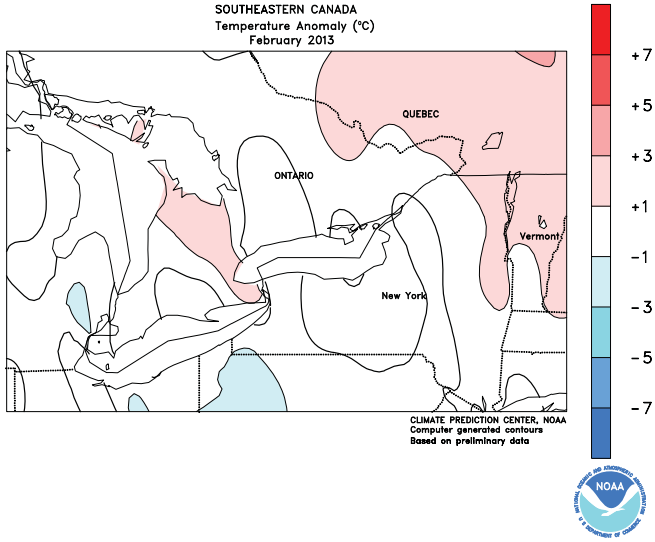
CANADIAN PRAIRIES

For a second month, temperatures averaged above normal across the Prairies, although the weather was sufficiently cold to keep winter grains and pastures dormant. Monthly average temperatures were near to slightly above normal in Manitoba and eastern Saskatchewan but considerably higher farther west, with temperatures averaging more than 6°C above normal in Alberta's Peace River Valley. Despite the relative warmth, however, nearly all locations recorded minimum temperatures at or below -20°C. In the eastern Prairies, moderate to deep snow cover (more than 20 cm, locally in excess of 50 cm) kept overwintering grains and pastures protected from the cold. Farther west, where monthly precipitation was near to below normal, the patchy nature of the snow cover raised concern for potential winterkill. Toward month's end, much of the snow cover in Alberta had eroded due to several days with highs in excess of 5°C.







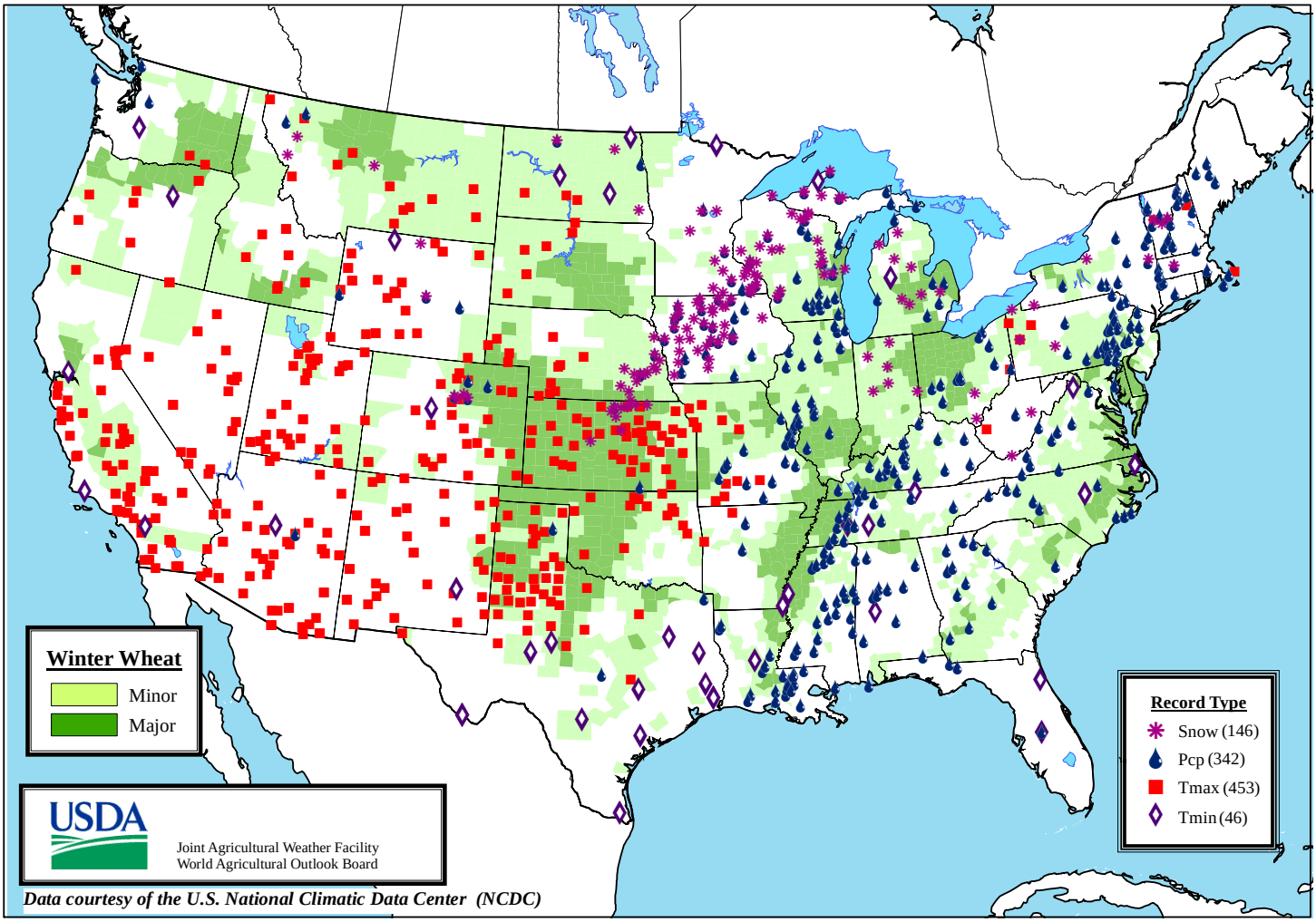


SOUTHEASTERN CANADA

Milder-than-normal weather continued for a third consecutive month across the region's main agricultural districts. February average temperatures were 1 to 2°C above normal in Ontario and up to 5°C above normal in Quebec. Monthly precipitation was near to above normal, with some locations recording amounts in excess of 50 mm (liquid equivalent). During the early part of February, much of the precipitation fell in the form of snow, maintaining a protective blanket of snow cover on days when nighttime lows fell below -20°C. However, warmer conditions, accompanied by a mixture of rain and snow, eroded the protective layer of snow in many locations at month's end.

Daily Weather Records (ASOS & COOP)

March 10-16, 2013



The *Weekly Weather and Crop Bulletin* (ISSN 0043-1974) is jointly prepared by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) and the U.S. Department of Agriculture (USDA). Publication began in 1872 as the *Weekly Weather Chronicle*. It is issued under general authority of the Act of January 12, 1895 (44-USC 213), 53rd Congress, 3rd Session. The contents may be redistributed freely with proper credit.

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