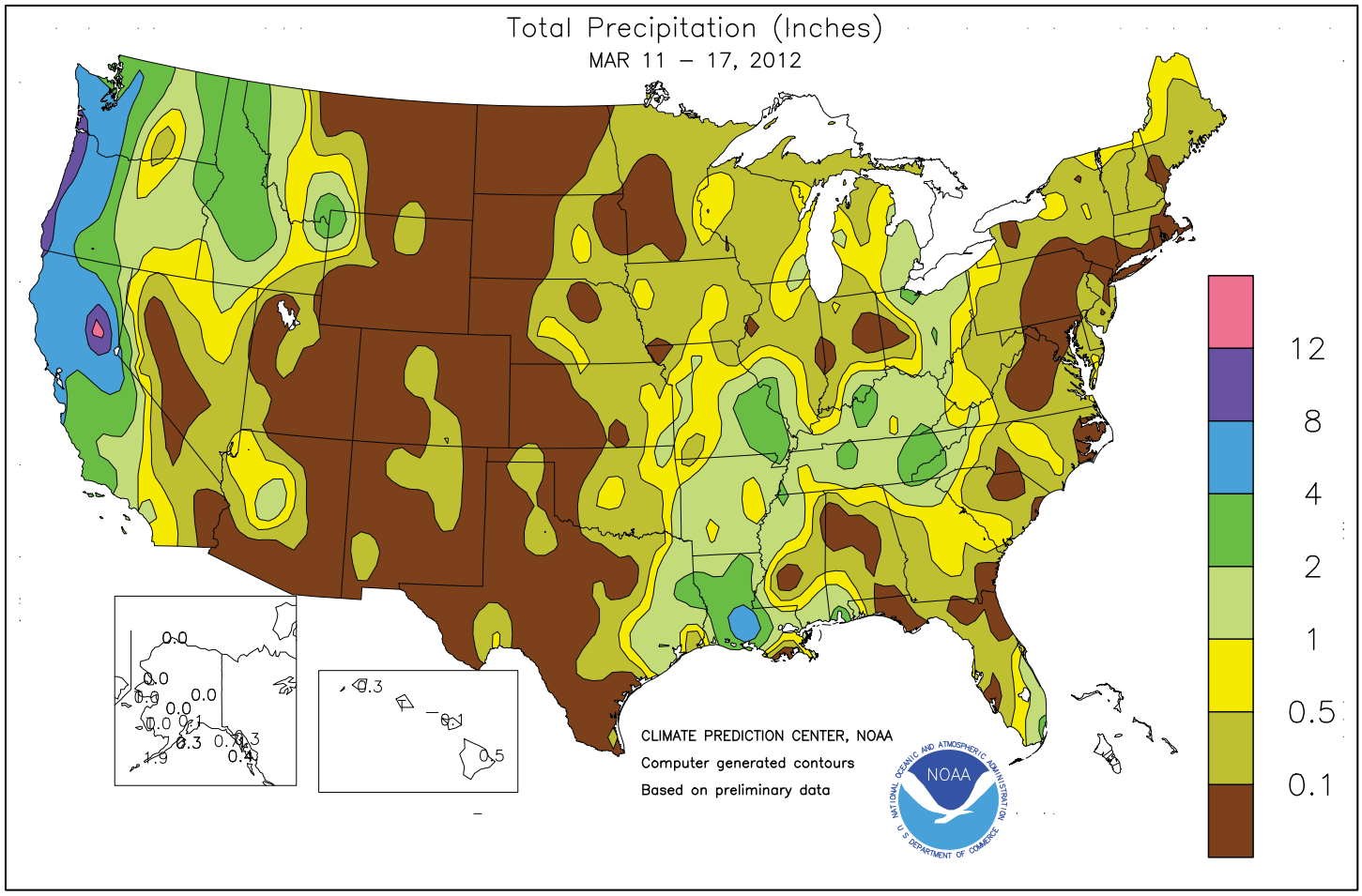
Volume 99, No. 12 http://www.usda.gov/oce/weather March 20, 2012

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 11 - 17, 2012

Highlights provided by USDA/WAOB

Historic and nearly unprecedented early-season warmth covered most areas from the **Plains to the East Coast**, promoting rapid development of winter wheat and other crops, including fruits. Weekly temperatures ranged from 20 to 30°F above normal in the **Midwest** and averaged at least 10°F above normal in all other areas **east of the Rockies**, except across **Florida's peninsula**. In fact, near- to below-normal temperatures were limited to areas along the **Pacific Coast**. Meanwhile, **northern and central California** experienced an impressive period of stormy

(Continued on page 5)

Contents

Water Supply Forecast for the Western United States.....2
Extreme Maximum & Minimum Temperature Maps.....4
Temperature Departure Map.....5
March 13 Drought Monitor &
U.S. Seasonal Drought Outlook.....6
National Weather Data for Selected Cities.....7
Winter Weather Review.....10
Winter Precipitation & Temperature Maps.....12
Winter Weather Data for Selected Cities.....15
National Agricultural Summary & Soil Temperature Map.....16
International Weather and Crop Summary.....17
February International Temperature/Precipitation Maps.....29
Bulletin Information & Record Reports.....44

Water Supply Forecast for the Western United States

Highlights

Despite a weakening La Niña, significant February precipitation fell in much of the Northwest. Unexpectedly heavy precipitation occurred during February in the eastern Great Basin (Utah) and San Juan Mountains (Colorado). Much of the Far West, including the Sierra Nevada, continued to endure extremely dry conditions.

Snowpack and Precipitation

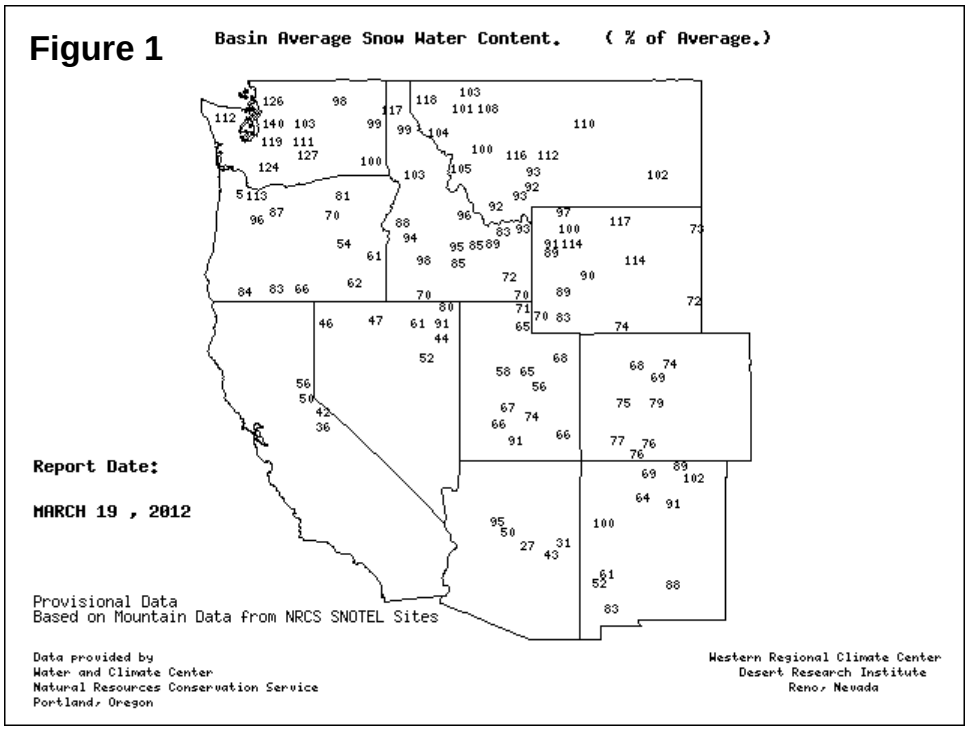
By March 19, 2012, the snow water content map reflected below-average packs across much of the West, excluding the northern tier of the region from Washington to Montana and Wyoming (figure 1). The driest regions with respect to the normal water equivalency of the snow pack included the Sierra Nevada, the Great Basin, and parts of the Southwest, where some basin-level values were less than 50 percent of average. Parts of the Southwest experienced substantial losses in snow water content during February due to warm, dry conditions. In California and the Pacific Northwest, the March 19 values reflected a significant improvement from the beginning of March as a result of widespread, mid-month storminess.

Season-to-date precipitation (October 1, 2011 - March 19, 2012) indicated that southern and western portions of the region received substantially below-average precipitation during the first 5½ months of the Western wet season. In particular, barely half of the normal season-to-date precipitation had fallen from the Sierra Nevada into parts of Arizona (figure 2). In contrast, near- to above-normal season-to-date pre-

.

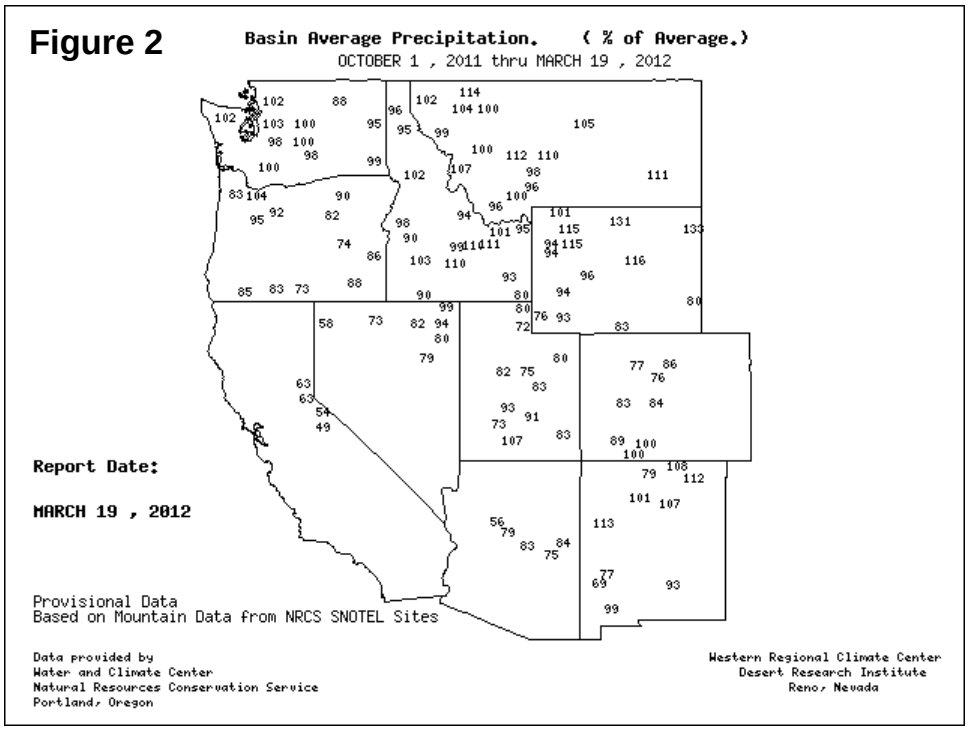
SNOTEL – River Basin Snow Water Content

Figure 1



SNOTEL – River Basin Precipitation

Figure 2



cipitation covered the northern tier of the West and many basins covering the Front Range of the Rockies—particularly across Montana, Wyoming, and New Mexico.

Spring and Summer Streamflow Forecasts

By March 1, projections for spring and summer runoff were not optimistic in basins stretching from California and the Great Basin into Arizona. Less than half of the normal streamflow can be expected in parts of the Sierra Nevada and the Great Basin, as well as parts of Arizona (figure 3). During February, streamflow prospects deteriorated in all of the aforementioned areas. Farther north, however, prospects improved across the northern tier of the West. As a result, March 1 forecasts indicated that near-normal runoff should occur in the Cascades and the northern Rockies. Streamflow prospects were only slightly less optimistic (slightly below-normal runoff expected) across much of the northern Intermountain West and the central and southern Rockies.

Reservoir Storage

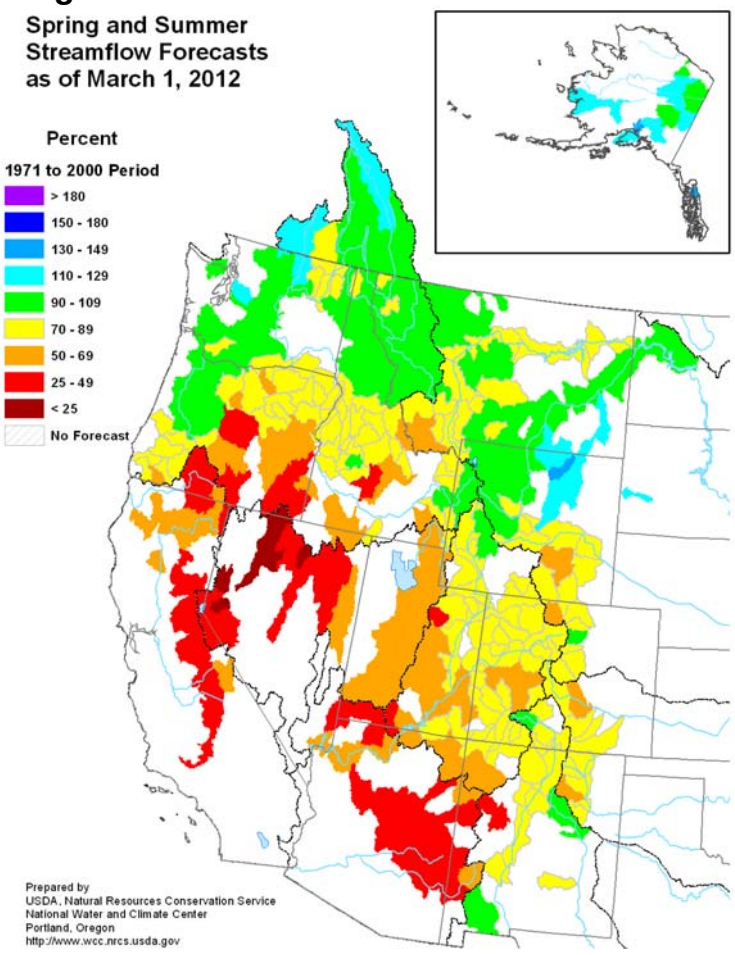
On March 1, reservoir storage as a percent of average for the date was near to above normal in every Western State except Arizona and New Mexico (figure 4). Those two states had the best start to Western wet season, but turned warm and mostly dry in January and February. Many Western States, including California, Nevada, and Utah, have a reservoir storage buffer against developing drought.

For More Information

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

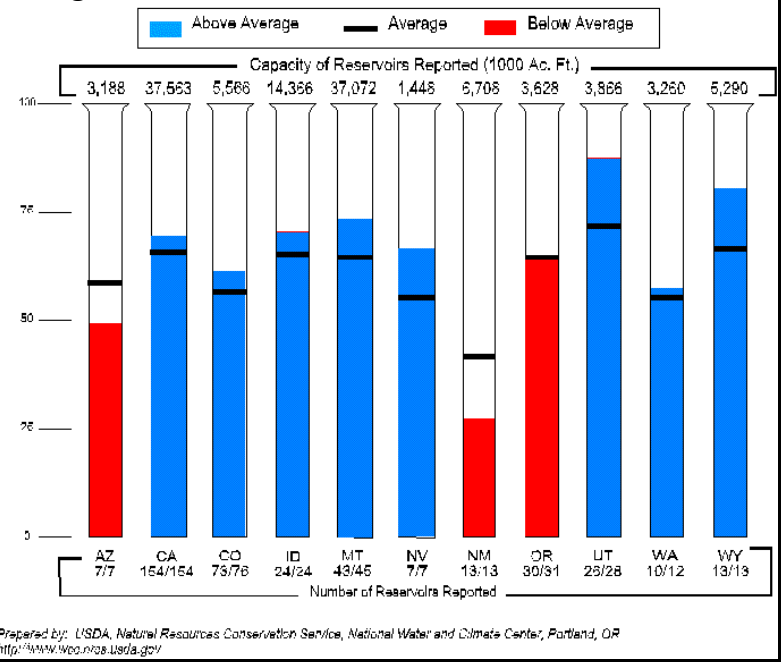
http://www.wcc.nrcs.usda.gov

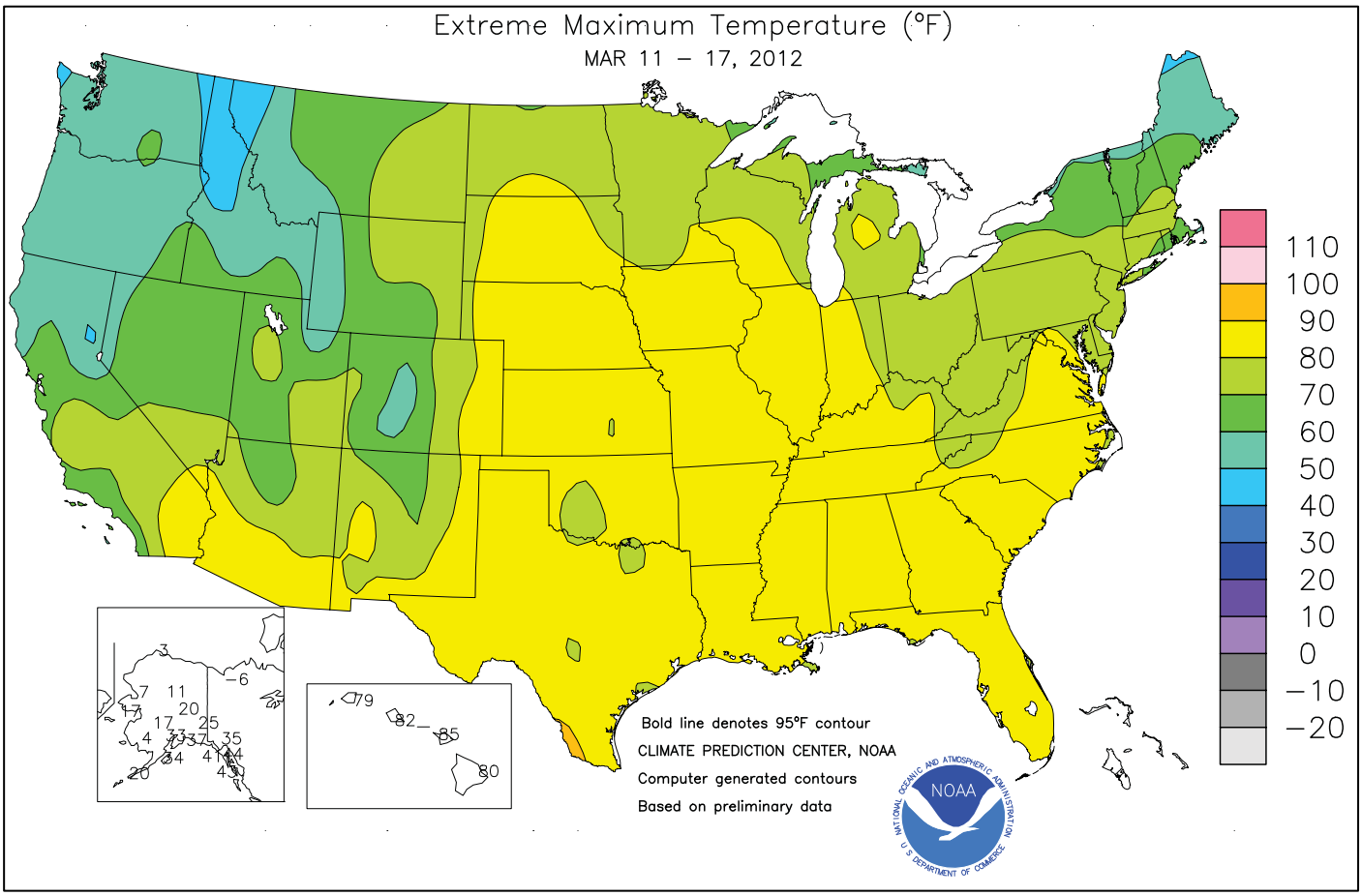
Figure 3

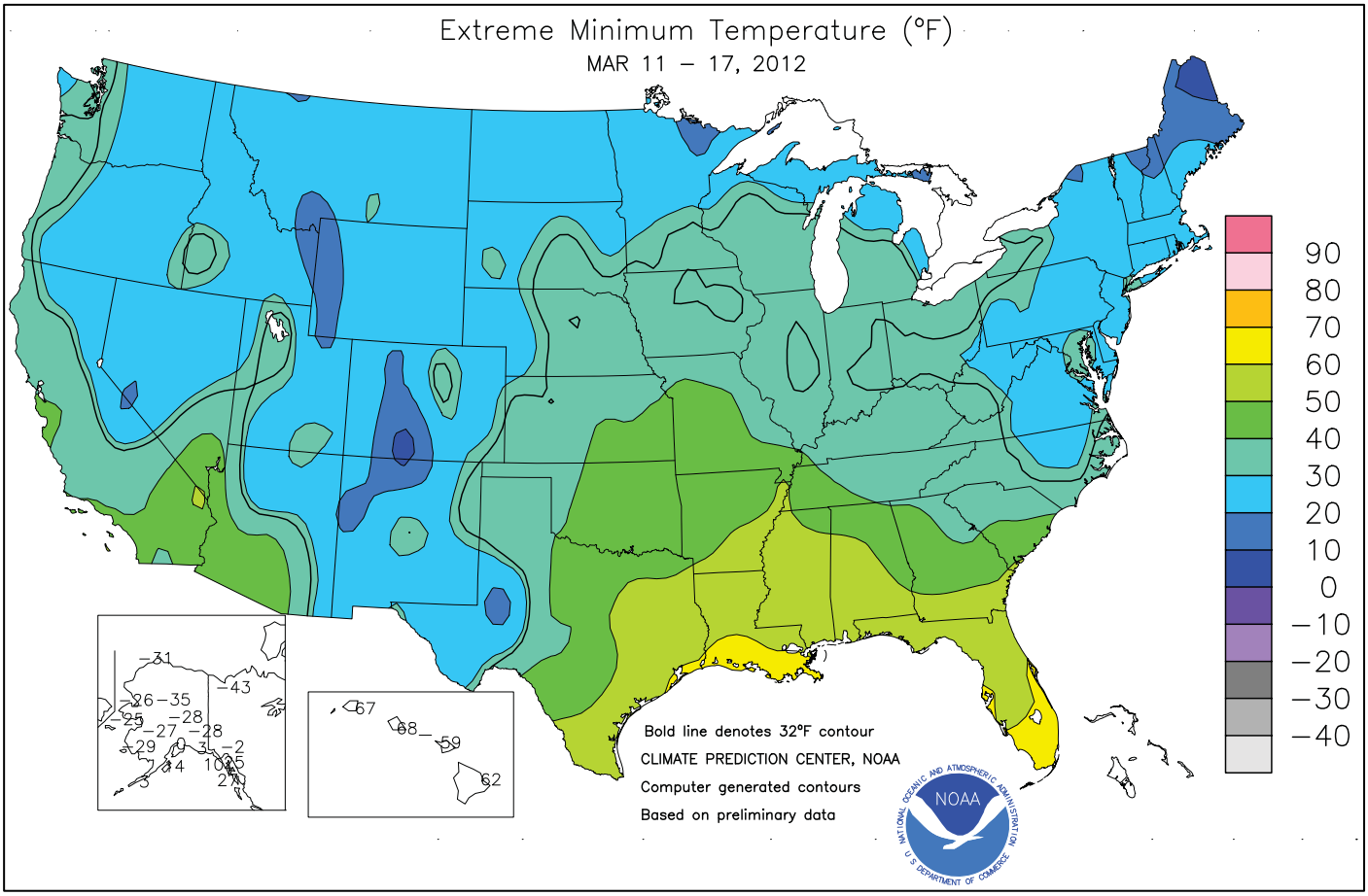


Reservoir Storage as of March 1, 2012

Figure 4

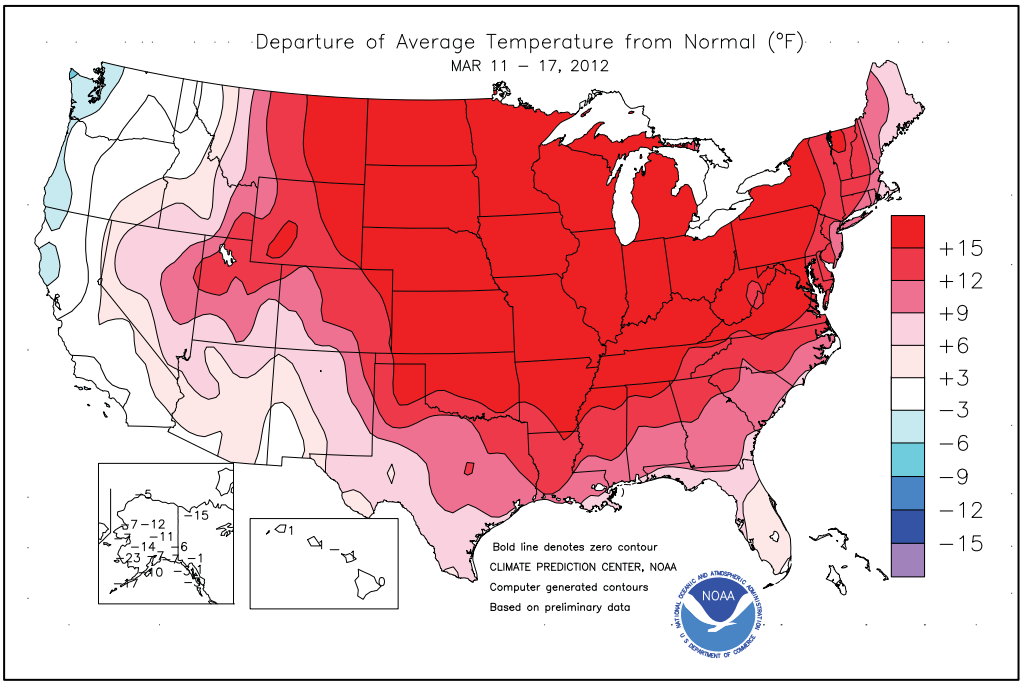



Extreme Maximum Temperature (°F)
MAR 11 – 17, 2012
110
100
90
80
70
60
50
40
30
20
10
0
−10
−20
Bold line denotes 95°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data
NOAA


Extreme Minimum Temperature (°F)
MAR 11 – 17, 2012
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)

weather, boosting the average water equivalent of the high-elevation **Sierra Nevada** snow pack from 9 to 12 inches (32 to 46 percent of normal) between March 12 and 18. Significant precipitation also fell across the **Northwest**. Toward week's end, much-needed rain and snow spread into parts of the **Southwest**. Farther east, rain across the nation's mid-section was mostly confined to the **eastern Plains**. Warm, dry, breezy weather continued to stress pastures and winter grains on the **southern High Plains**, while wheat was breaking dormancy and in need of moisture on the **northern High Plains**. Elsewhere, periods of generally light precipitation accompanied record-setting warmth across the **eastern half of the U.S.** Heavier rain (2 to 4 inches, with locally higher amounts) caused some flooding in **Louisiana**, while 1- to 2-inch totals maintained abundant moisture reserves across the **southern and eastern Corn Belt**. However, little or no rain fell along the **East Coast**, except for a few heavy showers in **southern Florida**. Drought remained a significant concern across the **lower Southeast**, including **Florida's peninsula**, where heavy irrigation has been required to maintain crop conditions.



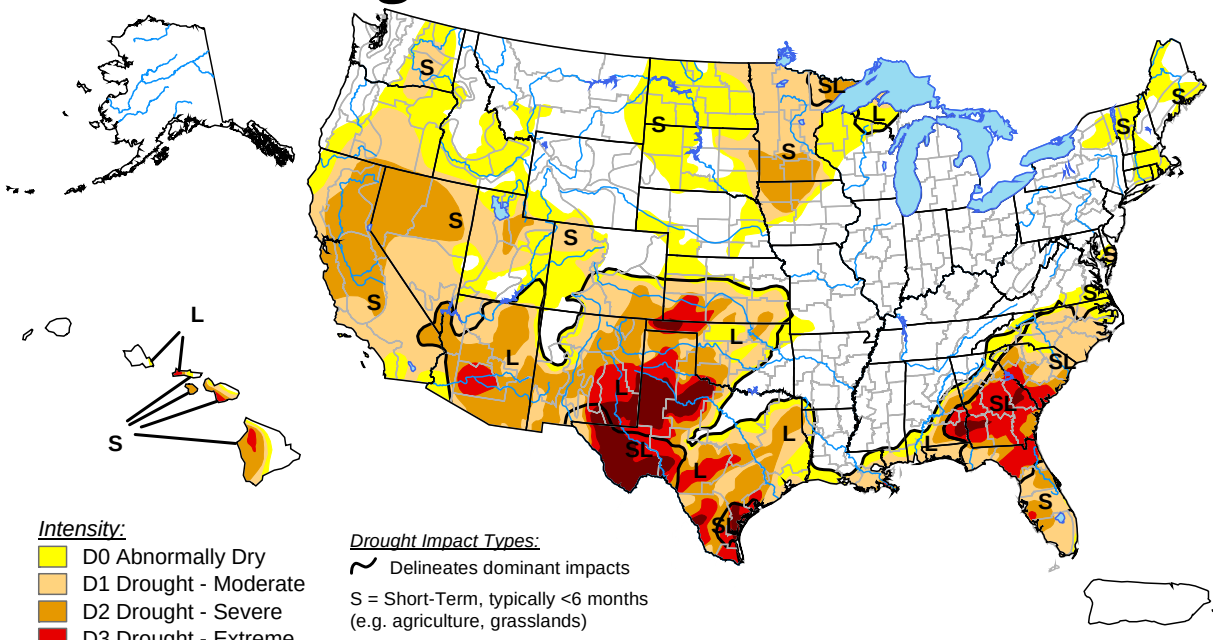
Early in the week, heavy rain spread into the **western and central Gulf Coast States**. Daily-record amounts for March 11 included 3.04 inches in **Monroe, LA**, and 2.81 inches in **Houston, TX.** Through March 17, **Houston's** year-to-date precipitation totaled 15.79 inches (186 percent of normal). In 2011, **Houston's** precipitation did not reach 15.79 inches until November 8. Later, March 12-13 rainfall locally topped 8 inches at a few locations in **Louisiana**, especially in **St. Martin and Lafayette Parishes**. Farther west, early-week snow ended across the **southern Rockies** and the **Southwest**, where **Albuquerque, NM** (1.9 inches on March 11), received its highest single-day snowfall since December 15, 2008, when 2.2 inches fell. Farther north, heavy precipitation and high winds arrived in the **Northwest**. On March 12-13 along the **Oregon coast**, gusts reached 87 mph in **Pacific City** and 81 mph at **Cape Foulweather**. In the **Washington Cascades**, **Holden Village** twice received more than a foot of snow in a 24-hour period—15 inches on March 12-13 and 14 inches on March 14-15. Elsewhere in **Washington**, **Spokane** experienced its wettest March day on record (1.18 inches on March 15), eclipsing the 0.96-inch standard from March 9, 1989. Unofficial weekly snowfall totals of 4 to 6 feet were noted in the **Sierra Nevada**, with 70 inches reported at **Squaw Valley, CA.** Closer to the **Pacific Coast**, isolated 15- to 20-inch rainfall totals were noted in the **Santa Cruz Mountains**, near **San Francisco**. **Ben Lomond, CA**, netted a weekly rainfall of 16.31 inches. At week's end, heavy precipitation spread into **southern California** and the **Southwest**. **Fresno, CA**, received a March 16-18 total of 1.78 inches, and—with a 1.51-inch sum on the 17th—experienced its wettest day since March 20, 2011, when 1.82 inches fell. In **Flagstaff, AZ**, where snow began to fall late in the day on March 17, more than one-quarter (26.4 of 92.5 inches) of the season-to-date total occurred on March 18-19. Farther north, windy conditions prevailed across the **northern High Plains**. **Cut Bank, MT**, clocked winds to 55 mph or greater on 6 days during the first half of the month, including a gust to 63 mph on March 13.

From March 14-18, **Chicago, IL**, reeled off a string of 5 days with highs of 80°F or greater. Previously, **Chicago's** earliest observance of five consecutive days of 80-degree warmth occurred more than a month later in the year—from April 23-27, 1915. **Chicago** also set a record for the most 80-degree days in March, previously set with 2 days in 1986. A multitude of **Midwestern** locations reached or exceeded 80°F earlier than ever before. Among them: **Sioux City, IA** (81°F on March 13); **Traverse City, MI** (81°F on March 14); **Grand Rapids, MI** (80°F on March 14); **Moline, IL** (81°F on March 15); **Rockford, IL** (82°F on March 15); **Madison, WI** (82°F on March 15); **Mason City, IA** (81°F on March 16); **Sioux Falls, SD** (82°F on March 16); **Rochester, MN** (81°F on March 17); and **Oshkosh, WI** (80°F on March 17). **South Bend, IN** (81°F on both March 14-15), posted consecutive 80-degree days in March for the first time since March 28-29, 1910. All-time high temperature records for March were tied or broken in locations such as **Marquette, MI** (75°F on March 17; previously, 71°F on March 8, 2000); **International Falls, MN** (77°F on March 17; previously, 76°F on March 27, 1946); **Traverse City, MI** (82°F on March 17; tied 82°F on March 29, 1910); **Chadron, NE** (83°F on March 16; tied 83°F on March 12, 2007, and earlier dates); and **Bismarck, ND** (81°F on March 16; tied 81°F on March 25, 2007, and earlier dates). Hundreds of daily-record highs were established from the **Plains to the East Coast**, with readings of 88°F noted in **Greensburg, KS** (on March 13); **Columbia, SC** (on March 15); **Borger, TX** (on March 16); and **Colby, KS** (on March 17). In **Florida**, **Sarasota-Bradenton** notched a daily-record high of 89°F on March 15.

A late-season cold wave gripped **Alaska**, where weekly temperatures averaged at least 10 to 20°F below normal at many interior locations. In **Fairbanks**, where the last warmer-than-normal day occurred on March 7, the temperature dipped to -28°F on the 11th. With an average temperature of -22.6°F, **Barrow** experienced its coldest March 1-17 period since 1974. Stormy weather was mostly confined to the **Aleutians**, where **Cold Bay** received weekly snowfall totaling 6.7 inches and also posted a daily-record low of 3°F on March 13. Farther south, mostly dry weather returned to **Hawaii**, following the previous week's deluge. A few heavy showers lingered across **Kauai** on March 11-12, when **Kilohana** netted 4.09 inches in a 24-hour period. Despite the return of dry weather, month-to-date rainfall through March 17 in **Lihue, Kauai**, stood at 17.75 inches (704 percent of normal).

U.S. Drought Monitor

March 13, 2012
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.

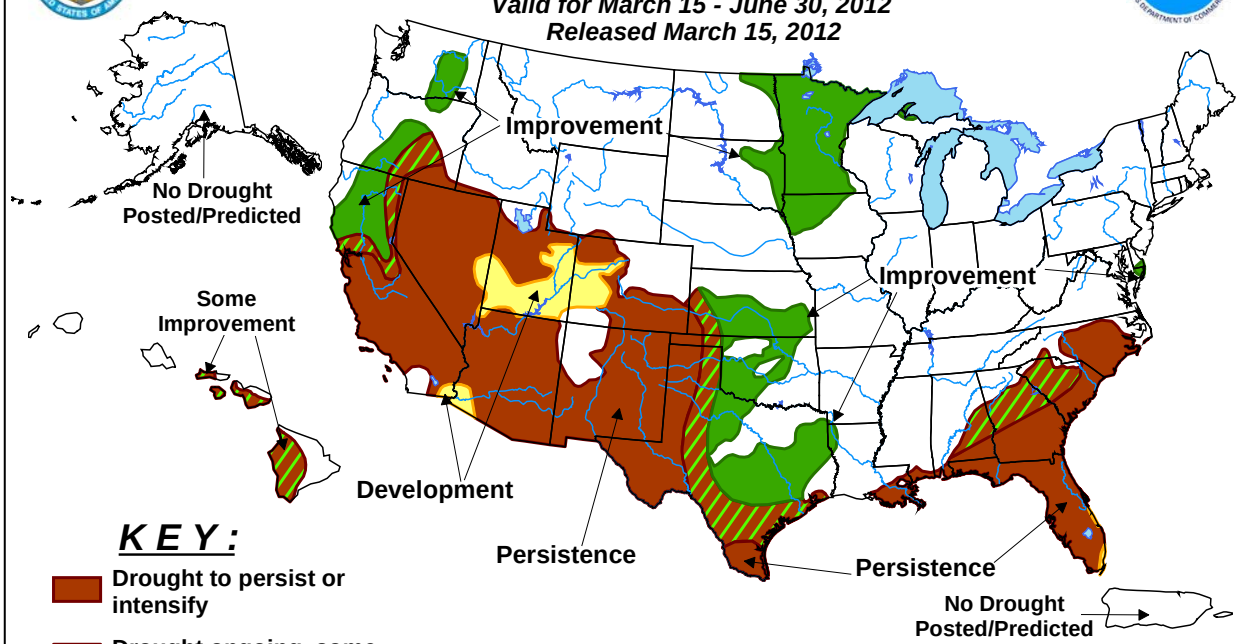
http://droughtmonitor.unl.edu/

Released Thursday, March 15, 2012
Author: Michael Brewer/Liz Love-Brotak, NOAA/NESDIS/NCDC

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for March 15 - June 30, 2012
Released March 15, 2012



K E Y :
- **Drought to persist or intensify**
- **Drought ongoing, some improvement**
- **Drought likely to improve, impacts ease**
- **Drought development likely**

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

National Weather Data for Selected Cities

Weather Data for the Week Ending March 17, 2012

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

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	79	58	86	52	69	15	0.06	-1.35	0.04	2.75	85	11.61	90	91	43	0	0	2	0
	HUNTSVILLE	78	57	85	47	67	15	1.48	-0.09	1.47	3.00	80	14.35	101	87	58	0	0	2	1
	MOBILE	79	59	84	55	69	9	1.57	-0.13	1.56	2.96	75	12.45	84	94	67	0	0	2	1
	MONTGOMERY	80	58	86	52	69	12	0.04	-1.46	0.04	1.46	40	9.49	67	91	50	0	0	1	0
AK	ANCHORAGE	26	11	33	0	19	-6	0.13	-0.01	0.13	0.53	143	3.62	202	75	61	0	7	1	0
	BARROW	-15	-24	3	-31	-20	-5	0.00	0.00	0.00	0.01	100	0.42	175	80	70	0	7	0	0
	FAIRBANKS	11	-14	20	-28	-2	-11	0.00	-0.06	0.00	0.00	0	1.11	106	78	64	0	7	0	0
	JUNEAU	40	29	44	25	34	1	0.27	-0.53	0.16	2.81	135	12.34	113	94	78	0	7	2	0
	KODIAK	28	16	34	14	22	-10	0.26	-0.90	0.15	0.84	29	12.96	77	72	67	0	7	3	0
	NOME	10	-7	17	-25	2	-7	0.01	-0.10	0.01	0.20	67	1.47	75	76	66	0	7	1	0
AZ	FLAGSTAFF	57	23	62	19	40	4	0.22	-0.40	0.22	0.22	14	1.63	26	67	15	0	7	1	0
	PHOENIX	83	54	87	51	68	6	0.00	-0.26	0.00	0.00	0	0.00	0	26	13	0	0	0	0
	PRESCOTT	67	34	72	31	51	8	0.05	-0.41	0.05	0.05	4	0.54	12	52	10	0	4	1	0
	TUCSON	82	46	85	43	64	5	0.00	-0.19	0.00	0.00	0	0.22	9	24	10	0	0	0	0
AR	FORT SMITH	79	57	87	47	68	16	1.36	0.46	1.36	4.12	196	10.72	152	85	48	0	0	1	1
	LITTLE ROCK	78	59	82	51	69	16	1.06	0.00	1.06	2.52	104	9.11	97	91	49	0	0	1	1
CA	BAKERSFIELD	72	48	77	44	60	3	0.85	0.52	0.85	0.85	106	1.58	50	68	50	0	0	1	1
	FRESNO	69	49	76	42	59	4	1.66	1.14	1.48	1.66	128	3.79	68	78	56	0	0	2	1
	LOS ANGELES	60	51	62	46	56	-2	0.49	-0.09	0.49	0.49	32	1.80	24	84	72	0	0	1	0
	REDDING	57	44	60	32	51	-1	3.05	1.83	1.88	3.10	102	10.34	69	87	73	0	1	5	2
	SACRAMENTO	59	47	63	37	53	-1	2.10	1.43	0.90	2.10	121	5.45	60	93	66	0	0	5	2
	SAN DIEGO	61	54	62	52	58	-2	0.38	-0.16	0.38	0.38	29	1.97	35	80	68	0	0	1	0
	SAN FRANCISCO	58	49	61	42	54	0	2.08	1.30	0.79	2.17	109	4.99	48	87	77	0	0	4	2
	STOCKTON	60	47	67	38	54	0	1.00	0.46	0.40	1.04	77	3.13	48	88	74	0	0	4	0
CO	ALAMOSA	63	17	68	9	40	8	0.00	-0.08	0.00	0.06	32	0.40	62	58	18	0	7	0	0
	CO SPRINGS	68	37	75	34	53	16	0.02	-0.19	0.02	0.06	13	0.37	34	40	8	0	0	1	0
	DENVER INTL	71	37	76	33	54	16	0.01	-0.21	0.01	0.04	8	1.20	126	36	10	0	0	1	0
	GRAND JUNCTION	69	38	73	25	54	11	0.00	-0.22	0.00	0.20	40	1.00	63	37	16	0	1	0	0
	PUEBLO	73	34	80	30	53	12	0.00	-0.20	0.00	0.11	27	0.74	74	40	24	0	3	0	0
CT	BRIDGEPORT	57	42	70	37	49	10	0.14	-0.78	0.12	0.65	31	5.21	59	81	65	0	0	2	0
	HARTFORD	62	38	74	27	50	13	0.06	-0.81	0.04	0.95	48	5.38	61	81	50	0	2	2	0
DC	WASHINGTON	73	49	82	35	61	15	0.03	-0.82	0.02	0.55	28	5.07	65	81	39	0	0	2	0
DE	WILMINGTON	67	44	76	31	55	13	0.03	-0.88	0.03	0.53	25	5.16	62	94	48	0	1	1	0
FL	DAYTONA BEACH	77	60	80	57	69	5	0.00	-0.87	0.00	1.75	87	3.55	45	93	54	0	0	0	0
	JACKSONVILLE	81	56	84	53	68	7	0.06	-0.82	0.06	0.65	32	1.88	21	94	44	0	0	1	0
	KEY WEST	81	72	81	71	76	3	0.53	0.14	0.35	0.67	74	6.67	144	82	62	0	0	4	0
	MIAMI	80	69	82	67	75	3	2.97	2.45	2.30	3.40	283	6.99	136	81	56	0	0	5	2
	ORLANDO	81	61	84	58	71	4	0.32	-0.49	0.32	0.63	34	3.90	59	90	62	0	0	1	0
	PENSACOLA	77	61	83	60	69	9	0.90	-0.60	0.78	2.49	71	10.73	79	94	64	0	0	7	1
	TALLAHASSEE	83	57	88	54	70	9	0.77	-0.77	0.71	4.15	115	10.30	76	91	54	0	0	2	1
	TAMPA	85	65	87	64	75	8	0.00	-0.65	0.00	1.14	70	4.11	63	86	41	0	0	0	0
	WEST PALM BEACH	79	69	81	63	74	4	0.53	-0.27	0.49	1.10	63	5.30	66	76	58	0	0	4	0
GA	ATHENS	78	52	85	39	65	12	0.73	-0.44	0.40	2.86	101	7.68	64	90	63	0	0	5	0
	ATLANTA	77	57	83	42	67	13	0.08	-1.18	0.06	3.16	103	10.53	83	82	52	0	0	2	0
	AUGUSTA	80	52	86	39	66	11	0.21	-0.86	0.21	1.20	47	3.72	33	94	59	0	0	1	0
	COLUMBUS	79	57	86	50	68	11	0.21	-1.14	0.12	1.63	51	10.73	86	91	43	0	0	2	0
	MACON	80	53	87	41	66	10	0.44	-0.70	0.23	1.34	48	7.06	57	96	46	0	0	3	0
	SAVANNAH	80	56	85	48	68	9	0.10	-0.69	0.09	3.37	186	7.47	86	93	55	0	0	2	0
HI	HILO	79	64	80	62	72	0	0.53	-2.68	0.18	7.05	98	22.62	88	84	73	0	0	6	0
	HONOLULU	80	70	82	68	75	1	0.01	-0.43	0.01	5.53	481	7.22	116	72	64	0	0	1	0
	KAHULUI	82	66	85	59	74	1	0.14	-0.38	0.13	2.48	202	2.56	35	79	66	0	0	2	0
	LIHUE	77	70	79	67	74	2	0.25	-0.56	0.11	17.76	906	30.96	316	81	66	0	0	4	0
ID	BOISE	57	41	63	37	49	6	0.91	0.61	0.31	1.11	154	4.50	138	78	51	0	0	5	0
	LEWISTON	51	38	54	31	45	1	0.68	0.45	0.27	0.70	127	3.30	125	88	69	0	1	6	0
	POCATELLO	57	35	64	27	46	9	0.44	0.14	0.17	0.45	62	2.71	94	80	59	0	3	3	0
IL	CHICAGO/O'HARE	76	48	82	41	62	26	0.19	-0.34	0.19	0.66	56	4.16	91	78	51	0	0	1	0
	MOLINE	75	48	82	33	62	25	0.27	-0.34	0.14	0.58	44	3.23	73	86	51	0	0	2	0
	PEORIA	75	50	81	35	63	24	0.27	-0.34	0.18	1.10	79	4.04	88	92	48	0	0	2	0
	ROCKFORD	74	47	82	33	61	26	0.79	0.31	0.70	1.42	138	3.96	105	87	56	0	0	4	1
	SPRINGFIELD	79	51	83	36	65	24	0.23	-0.47	0.12	0.85	53	3.92	78	93	39	0	0	3	0
IN	EVANSVILLE	76	52	82	33	64	19	0.27	-0.69	0.21	1.92	85	7.06	85	90	60	0	0	3	0
	FORT WAYNE	74	46	81	28	60	23	0.18	-0.42	0.18	0.98	71	6.08	113	90	46	0	1	1	0
	INDIANAPOLIS	76	51	81	36	63	22	0.66	-0.10	0.57	2.06	115	6.92	104	86	45	0	0	2	1
	SOUTH BEND	75	50	81	36	62	25	0.45	-0.15	0.37	1.03	76	6.30	113	82	51	0	0	2	0
IA	BURLINGTON	75	49	82	36	62	23	0.42	-0.22	0.29	0.85	59	2.52	59	93	50	0	0	3	0
	CEDAR RAPIDS	73	48	82	30	60	25	0.22	-0.23	0.21	0.84	87	2.39	77	94	40	0	1	2	0
	DES MOINES	76	49	84	36	63	26	0.40	-0.04	0.38	0.44	46	2.63	83	84	54	0	0	2	0
	DUBUQUE	71	46	81	33	59	25	0.36	-0.18	0.23	1.35	113	3.91	101	91	54	0	0	2	0
	SIOUX CITY	75	41	85	32	58	23	0.26	-0.16	0.22	0.26	30	3.02	145	94	56	0	1	2	0
	WATERLOO	74	44	82	28	59	25	0.37	-0.06	0.32	0.49	53	2.96	105	91	52	0	1	2	0
KS	CONCORDIA	75	49	82	36	62	21	0.17	-0.37	0.16	0.19	16	2.79	109	94	55	0	0	2	0
	DODGE CITY	76	42	84	35	59	16	0.15	-0.24	0.15	0.22	26	1.25	59	91	32	0	0	1	0
	GOODLAND	75	36	85	33	55	16	0.01	-0.27	0.01	0.01	2	0.52	35	59	24	0	0	1	0
	TOPEKA	76	54	84	41	65	22	0.71	0.15	0.39	0.83	67	3.57	106	91	68	0	0	2	0

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

Weather Data for the Week Ending March 17, 2012

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
	WICHITA	74	54	80	41	64	19	0.26	-0.36	0.26	0.75	55	4.38	136	95	75	0	0	1	0
KY	JACKSON	75	54	82	40	65	19	0.78	-0.23	0.75	2.96	120	11.72	121	81	38	0	0	3	1
	LEXINGTON	71	53	78	39	62	17	1.33	0.31	0.63	3.00	122	9.63	106	89	63	0	0	4	1
	LOUISVILLE	75	53	83	35	64	18	2.62	1.60	1.31	4.15	171	9.98	111	88	51	0	0	4	2
	PADUCAH	75	55	82	38	65	18	1.05	0.11	0.49	2.90	127	8.64	89	93	54	0	0	4	0
LA	BATON ROUGE	80	60	83	57	70	10	1.73	0.63	1.54	2.52	94	15.83	113	100	57	0	0	3	1
	LAKE CHARLES	81	68	83	63	75	15	2.49	1.70	2.46	4.05	219	20.86	196	92	68	0	0	3	1
	NEW ORLEANS	81	64	84	62	73	11	0.84	-0.30	0.84	1.15	41	7.67	54	93	66	0	0	1	1
	SHREVEPORT	81	64	84	54	72	14	1.72	0.79	1.72	3.44	150	10.19	92	90	55	0	0	1	1
ME	CARIBOU	39	19	52	4	29	6	0.82	0.25	0.60	1.46	110	7.42	117	89	58	0	7	4	1
	PORTLAND	51	34	62	29	42	9	0.25	-0.66	0.25	1.69	80	7.45	80	88	58	0	2	1	0
MD	BALTIMORE	71	45	80	28	58	15	0.01	-0.90	0.01	0.93	43	5.89	68	85	55	0	1	1	0
MA	BOSTON	56	39	71	30	48	10	0.14	-0.71	0.07	1.08	54	4.75	51	81	55	0	1	2	0
	WORCESTER	57	36	69	27	47	14	0.35	-0.60	0.28	1.51	69	5.96	64	89	47	0	2	2	0
MI	ALPENA	63	32	81	24	48	21	0.47	0.01	0.47	1.70	163	5.18	125	89	42	0	3	1	0
	GRAND RAPIDS	71	46	80	38	59	26	0.86	0.33	0.74	1.59	138	6.79	144	85	46	0	0	2	1
	HOUGHTON LAKE	67	35	79	26	51	23	0.77	0.34	0.77	2.10	219	6.72	176	89	52	0	2	1	1
	LANSING	72	46	79	37	59	26	0.64	0.18	0.64	1.41	140	5.02	123	84	53	0	0	1	1
	MUSKEGON	67	45	77	37	56	23	0.77	0.28	0.77	1.80	165	6.77	138	84	61	0	0	1	1
	TRAVERSE CITY	68	41	82	31	55	25	0.31	-0.08	0.31	2.12	249	4.88	87	86	34	0	1	1	0
MN	DULUTH	58	36	75	32	47	23	0.28	-0.07	0.28	0.77	107	2.55	96	74	51	0	1	1	0
	INT'L FALLS	60	31	77	19	46	24	0.30	0.11	0.30	0.48	120	2.02	107	87	37	0	5	1	0
	MINNEAPOLIS	69	45	80	34	57	26	0.30	-0.09	0.29	0.46	58	2.53	96	78	50	0	0	2	0
	ROCHESTER	70	44	81	36	57	28	0.32	-0.05	0.20	0.32	43	2.52	103	91	65	0	0	2	0
	ST. CLOUD	66	36	76	30	51	24	0.14	-0.15	0.13	0.19	33	2.00	104	90	43	0	2	2	0
MS	JACKSON	80	61	85	57	71	15	0.03	-1.23	0.03	3.01	103	15.31	117	94	50	0	0	1	0
	MERIDIAN	79	57	85	54	68	11	0.08	-1.51	0.08	5.45	145	17.78	118	96	64	0	0	1	0
	TUPELO	79	57	84	48	68	16	0.59	-0.87	0.48	2.55	73	11.91	89	91	60	0	0	3	0
MO	COLUMBIA	77	55	85	42	66	23	0.72	0.03	0.55	1.60	99	5.01	90	91	50	0	0	2	1
	KANSAS CITY	75	55	82	44	65	22	0.56	0.02	0.49	1.20	97	4.39	119	90	50	0	0	2	0
	SAINT LOUIS	79	55	86	37	67	22	2.49	1.69	1.34	2.90	157	7.24	115	78	58	0	0	4	2
	SPRINGFIELD	75	54	82	46	65	20	0.37	-0.45	0.37	0.50	27	3.81	61	87	61	0	0	1	0
MT	BILLINGS	66	37	73	32	52	16	0.00	-0.23	0.00	0.10	20	0.95	51	57	21	0	1	0	0
	BUTTE	49	27	53	23	38	8	0.52	0.35	0.27	0.57	146	0.84	60	91	41	0	7	5	0
	CUT BANK	52	25	62	19	39	9	0.01	-0.10	0.01	0.01	4	0.53	59	73	31	0	7	1	0
	GLASGOW	62	33	70	28	47	17	0.01	-0.07	0.01	0.25	125	1.14	141	67	36	0	2	1	0
	GREAT FALLS	59	31	65	26	45	13	0.04	-0.17	0.03	0.12	26	0.73	44	66	26	0	6	2	0
	HAVRE	62	27	70	24	45	14	0.04	-0.10	0.04	0.04	12	0.59	51	67	44	0	6	1	0
	MISSOULA	50	30	59	26	40	3	0.44	0.24	0.21	0.54	113	3.01	130	83	67	0	5	4	0
NE	GRAND ISLAND	76	41	84	34	59	22	0.29	-0.15	0.29	0.30	32	1.50	69	86	42	0	0	1	0
	LINCOLN	76	42	83	32	59	21	0.23	-0.25	0.23	0.23	23	2.48	106	95	64	0	1	1	0
	NORFOLK	75	41	84	34	58	22	0.16	-0.26	0.16	0.16	18	2.07	93	84	51	0	0	1	0
	NORTH PLATTE	74	32	82	28	53	16	0.52	0.26	0.52	0.52	91	1.87	127	89	29	0	5	1	1
	OMAHA	74	47	84	40	61	23	0.27	-0.19	0.26	0.27	28	2.62	103	92	64	0	0	2	0
	SCOTTSBLUFF	75	31	80	23	53	17	0.00	-0.24	0.00	0.00	0	1.02	62	62	27	0	5	0	0
	VALENTINE	73	36	84	33	55	21	0.00	-0.23	0.00	0.00	0	2.46	192	80	34	0	0	0	0
NV	ELY	58	36	62	32	47	12	0.22	-0.02	0.22	0.52	93	2.41	118	48	30	0	1	1	0
	LAS VEGAS	76	56	78	49	66	8	0.18	0.04	0.18	0.18	49	0.24	15	32	23	0	0	1	0
	RENO	55	40	61	32	48	5	0.09	-0.11	0.05	0.11	21	2.25	85	67	41	0	2	2	0
	WINNEMUCCA	59	38	65	27	48	7	0.34	0.15	0.31	0.46	110	1.75	94	60	45	0	3	2	0
NH	CONCORD	56	32	71	22	44	12	0.13	-0.54	0.12	1.40	90	5.64	82	94	52	0	3	2	0
NJ	NEWARK	64	43	76	31	54	13	0.05	-0.91	0.03	0.46	21	4.68	51	78	55	0	1	2	0
NM	ALBUQUERQUE	70	37	74	32	53	6	0.18	0.04	0.18	0.18	58	0.84	68	41	9	0	1	1	0
NY	ALBANY	61	37	70	25	49	15	0.40	-0.27	0.27	1.37	89	4.63	75	81	45	0	2	3	0
	BINGHAMTON	66	40	71	29	53	21	0.07	-0.56	0.07	1.32	88	5.61	86	73	42	0	1	1	0
	BUFFALO	65	42	73	34	54	21	0.23	-0.42	0.13	0.92	61	7.06	99	83	47	0	0	4	0
	ROCHESTER	67	41	72	36	54	21	0.10	-0.45	0.06	0.62	48	6.07	107	80	47	0	0	2	0
	SYRACUSE	65	38	68	24	52	20	0.50	-0.15	0.49	1.69	114	6.98	113	86	42	0	2	2	0
NC	ASHEVILLE	72	45	77	28	58	13	0.32	-0.73	0.16	1.64	65	7.08	68	95	52	0	1	4	0
	CHARLOTTE	77	50	84	31	64	12	1.01	-0.01	0.97	2.97	121	6.55	66	88	37	0	1	3	1
	GREENSBORO	75	50	82	36	62	14	0.36	-0.52	0.20	0.86	41	4.53	52	86	37	0	0	4	0
	HATTERAS	69	53	73	43	61	9	0.00	-1.15	0.00	1.99	74	10.45	84	93	63	0	0	0	0
	RALEIGH	77	51	84	31	64	14	0.89	-0.06	0.67	2.10	91	6.00	61	90	46	0	1	3	1
	WILMINGTON	77	50	84	35	64	10	0.14	-0.85	0.14	2.19	92	6.12	58	94	42	0	0	1	0
ND	BISMARCK	68	30	81	26	49	21	0.00	-0.17	0.00	0.03	8	0.81	61	76	35	0	5	0	0
	DICKINSON	68	30	78	23	49	20	0.00	-0.10	0.00	0.04	21	0.47	47	68	18	0	4	0	0
	FARGO	64	35	76	28	50	24	0.30	0.06	0.30	0.39	74	1.92	102	76	45	0	3	1	0
	GRAND FORKS	61	31	73	27	46	22	0.19	0.01	0.19	0.44	110	1.33	80	90	47	0	4	1	0
	JAMESTOWN	65	31	78	26	48	21	0.00	-0.18	0.00	0.02	5	0.46	30	88	35	0	4	0	0
	WILLISTON	65	28	77	23	46	18	0.00	-0.15	0.00	0.08	24	0.48	38	81	36	0	5	0	0
OH	AKRON-CANTON	70	46	77	31	58	21	0.61	-0.09	0.34	2.02	123	7.85	122	83	48	0	1	3	0
	CINCINNATI	72	50	78	36	61	18	0.41	-0.46	0.24	1.43	71	8.36	109	87	62	0	0	2	0
	CLEVELAND	70	48	77	38	59	22	1.31	0.68	0.52	2.27	155	7.74	124	83	45	0	0	4	1
	COLUMBUS	70	48	78	31	59	18	0.61	-0.02	0.37	1.75	118	7.46	120	88	62	0	1	3	0
	DAYTON	71	50	77	34	61	22	0.18	-0.52	0.17	0.90	57	6.90	106	83	47	0	0	2	0
	MANSFIELD	69	47	75	34	58	22	0.65	-0.06	0.34	1.54	97	7.67	120	90	46	0	0	4	0

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

Weather Data for the Week Ending March 17, 2012

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	72	46	78	32	59	23	2.24	1.70	1.43	3.58	289	7.78	154	85	56	0	1	2	2
	YOUNGSTOWN	69	44	77	33	57	21	0.65	-0.01	0.38	1.82	121	9.54	162	87	46	0	0	4	0
OK	OKLAHOMA CITY	75	57	80	45	66	16	0.68	0.02	0.68	1.33	85	4.42	100	90	58	0	0	1	1
	TULSA	75	59	84	47	67	17	1.01	0.20	1.01	1.41	75	3.63	67	86	69	0	0	1	1
OR	ASTORIA	47	38	52	33	43	-3	6.00	4.31	2.34	7.87	187	25.47	117	93	85	0	0	7	5
	BURNS	47	30	54	26	39	2	0.68	0.40	0.23	0.74	104	3.25	108	89	67	0	5	6	0
	EUGENE	51	39	57	33	45	-1	3.67	2.32	1.06	4.18	124	16.35	94	88	72	0	0	7	4
	MEDFORD	52	37	56	30	45	-2	1.57	1.15	0.71	1.73	162	6.68	118	90	59	0	1	5	1
	PENDLETON	56	34	61	26	45	0	0.43	0.15	0.12	0.44	66	3.37	101	84	62	0	3	4	0
	PORTLAND	50	39	56	33	44	-3	3.12	2.27	0.90	3.94	183	13.59	119	90	74	0	0	7	2
	SALEM	50	38	55	32	44	-2	4.30	3.34	1.11	4.84	195	19.30	144	91	77	0	1	7	5
PA	ALLENTOWN	67	38	76	23	52	14	0.00	-0.80	0.00	0.43	23	4.50	55	85	55	0	2	0	0
	ERIE	66	46	74	35	56	21	0.61	-0.06	0.28	1.36	88	7.65	120	79	47	0	0	3	0
	MIDDLETOWN	70	42	75	28	56	16	0.00	-0.74	0.00	0.30	17	5.58	74	92	38	0	2	0	0
	PHILADELPHIA	67	45	76	32	56	14	0.08	-0.79	0.08	0.41	20	4.84	59	86	59	0	1	1	0
	PITTSBURGH	71	44	77	28	57	18	0.79	0.08	0.46	1.84	112	7.93	118	85	34	0	1	3	0
	WILKES-BARRE	69	41	76	27	55	18	0.05	-0.52	0.05	0.92	70	3.85	66	74	33	0	1	1	0
	WILLIAMSPORT	70	38	75	25	54	17	0.01	-0.69	0.01	0.80	49	5.56	79	84	50	0	2	1	0
RI	PROVIDENCE	58	36	72	28	47	9	0.02	-0.95	0.01	0.85	38	5.74	57	87	59	0	1	2	0
SC	BEAUFORT	77	55	83	48	66	9	0.25	-0.56	0.14	4.46	240	7.82	87	92	52	0	0	5	0
	CHARLESTON	80	53	86	45	66	9	0.05	-0.86	0.04	4.02	191	6.93	75	96	47	0	0	2	0
	COLUMBIA	81	53	88	43	67	12	0.13	-0.92	0.13	0.96	39	5.18	47	87	47	0	0	1	0
	GREENVILLE	77	53	85	39	65	14	0.00	-1.26	0.00	2.15	71	7.24	62	87	39	0	0	0	0
SD	ABERDEEN	68	33	81	28	51	22	0.27	0.00	0.27	0.29	51	1.86	122	89	55	0	5	1	0
	HURON	70	38	84	32	54	23	0.57	0.22	0.52	0.58	81	3.37	190	90	37	0	1	2	1
	RAPID CITY	71	36	82	32	54	20	0.00	-0.20	0.00	0.04	9	0.73	57	59	18	0	1	0	0
	SIOUX FALLS	73	39	82	30	56	25	0.17	-0.20	0.17	0.19	26	3.37	191	90	46	0	2	1	0
TN	BRISTOL	73	45	78	29	59	13	0.11	-0.80	0.07	1.58	71	9.89	108	91	43	0	1	2	0
	CHATTANOOGA	77	54	86	38	66	15	0.93	-0.52	0.55	3.12	91	12.47	91	91	64	0	0	5	1
	KNOXVILLE	75	51	82	34	63	14	1.02	-0.19	0.74	4.03	140	13.79	120	91	46	0	0	5	1
	MEMPHIS	77	61	82	50	69	16	2.09	0.86	1.41	3.53	120	8.29	72	88	53	0	0	3	2
	NASHVILLE	77	53	83	37	65	16	1.09	-0.04	0.72	2.65	98	10.59	102	87	50	0	0	4	1
TX	ABILENE	74	57	81	44	65	9	0.13	-0.17	0.12	0.76	103	5.23	184	90	72	0	0	2	0
	AMARILLO	81	44	87	33	63	16	0.00	-0.24	0.00	0.27	52	0.95	56	77	20	0	0	0	0
	AUSTIN	79	60	81	45	70	9	0.28	-0.21	0.28	2.13	169	13.29	259	92	71	0	0	1	0
	BEAUMONT	78	66	80	59	72	10	0.15	-0.68	0.11	2.68	139	16.85	154	99	74	0	0	5	0
	BROWNSVILLE	82	67	85	55	74	6	0.12	-0.04	0.12	0.16	42	4.73	162	97	68	0	0	1	0
	CORPUS CHRISTI	82	66	85	55	74	8	0.19	-0.18	0.19	0.36	37	4.90	111	94	68	0	0	1	0
	DEL RIO	79	61	85	43	70	7	0.00	-0.19	0.00	0.04	8	1.74	86	89	68	0	0	0	0
	EL PASO	78	41	84	35	60	4	0.00	-0.05	0.00	0.00	0	0.68	69	28	8	0	0	0	0
	FORT WORTH	76	61	80	50	69	12	0.20	-0.50	0.20	1.50	85	9.56	158	91	61	0	0	1	0
	GALVESTON	76	68	78	64	72	9	0.48	-0.13	0.39	2.16	150	12.49	154	100	86	0	0	3	0
	HOUSTON	79	64	82	56	72	10	2.82	2.08	2.81	4.74	269	15.79	188	91	71	0	0	2	1
	LUBBOCK	81	48	86	36	65	15	0.08	-0.06	0.08	0.16	46	0.74	47	80	43	0	0	1	0
	MIDLAND	81	39	88	1	60	5	0.00	-0.09	0.00	0.07	27	1.26	92	81	42	0	2	0	0
	SAN ANGELO	75	54	81	41	64	8	0.01	-0.19	0.01	1.10	196	7.10	278	86	66	0	0	1	0
	SAN ANTONIO	79	62	81	48	70	9	0.43	0.02	0.43	1.16	114	10.78	243	95	65	0	0	1	0
	VICTORIA	79	65	82	54	72	9	0.21	-0.29	0.20	1.94	162	6.96	123	97	78	0	0	2	0
	WACO	75	60	78	50	68	10	0.20	-0.36	0.20	2.13	146	9.16	158	93	77	0	0	1	0
	WICHITA FALLS	77	56	81	45	66	13	0.29	-0.21	0.29	1.83	154	4.67	120	90	69	0	0	1	0
UT	SALT LAKE CITY	67	47	70	34	57	14	0.00	-0.41	0.00	0.23	23	3.14	85	46	22	0	0	0	0
VT	BURLINGTON	58	36	67	30	47	17	0.38	-0.11	0.16	0.86	77	3.71	74	86	46	0	2	4	0
VA	LYNCHBURG	75	45	82	28	60	15	0.00	-0.88	0.00	1.21	58	6.04	69	81	34	0	1	0	0
	NORFOLK	75	51	87	33	63	15	0.18	-0.76	0.08	1.87	84	6.34	67	86	41	0	0	3	0
	RICHMOND	77	49	86	30	63	16	0.22	-0.73	0.22	1.07	48	6.02	69	86	40	0	1	1	0
	ROANOKE	74	49	81	31	61	15	0.01	-0.86	0.01	1.38	67	5.28	63	75	39	0	1	1	0
	WASH/DULLES	74	44	84	31	59	17	0.03	-0.77	0.02	0.91	48	5.00	65	79	40	0	1	2	0
WA	OLYMPIA	46	36	53	32	41	-2	3.71	2.51	1.26	4.19	147	17.92	108	93	80	0	2	7	3
	QUILLAYUTE	46	35	50	31	41	-3	5.84	3.29	2.38	13.23	204	40.22	124	97	83	0	1	7	5
	SEATTLE-TACOMA	47	36	52	33	42	-4	3.76	2.91	0.89	4.57	215	15.03	131	92	78	0	0	7	4
	SPOKANE	46	32	51	27	39	0	2.10	1.76	1.22	2.10	247	5.59	134	93	61	0	5	7	1
	YAKIMA	52	32	59	26	42	0	0.29	0.15	0.16	0.29	81	2.24	96	78	52	0	3	4	0
WV	BECKLEY	68	48	75	39	58	17	0.83	0.00	0.59	2.28	114	9.48	116	77	48	0	0	3	1
	CHARLESTON	72	47	80	29	60	16	0.72	-0.19	0.29	2.39	109	7.74	90	94	48	0	1	4	0
	ELKINS	72	36	76	22	54	15	0.26	-0.64	0.25	1.70	79	7.11	81	95	33	0	2	2	0
	HUNTINGTON	73	50	80	29	61	16	1.01	0.13	0.82	2.16	101	6.71	80	91	43	0	1	4	1
WI	EAU CLAIRE	70	42	82	33	56	26	0.58	0.21	0.40	0.65	88	3.03	117	90	40	0	0	3	0
	GREEN BAY	66	42	78	36	54	24	0.53	0.10	0.53	1.18	131	3.70	119	85	50	0	0	1	1
	LA CROSSE	71	45	83	31	58	25	0.20	-0.18	0.11	0.20	26	2.72	92	94	45	0	1	2	0
	MADISON	73	46	82	41	59	27	0.31	-0.14	0.20	1.18	123	3.61	103	82	54	0	0	3	0
	MILWAUKEE	68	45	78	37	56	22	0.94	0.43	0.91	1.93	174	4.78	104	80	61	0	0	2	1
WY	CASPER	65	34	71	30	50	16	0.00	-0.19	0.00	0.19	41	1.74	104	55	29	0	2	0	0
	CHEYENNE	66	33	70	30	50	17	0.00	-0.22	0.00	0.00	0	1.03	75	47	17	0	3	0	0
	LANDER	64	37	68	27	50	15	0.00	-0.25	0.00	0.36	67	1.67	104	52	20	0	1	0	0
	SHERIDAN	67	33	74	27	50	16	0.00	-0.19	0.00	0.24	59	1.53	87	69	34	0	3	0	0

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

Winter Weather Review

Review provided by USDA/WAOB

Highlights: The winter of 2011-12 featured little in the way of sustained cold, especially east of the Rockies. However, even in a winter without much cold weather, Florida's peninsula endured a brief freeze on January 4-5 and several other minor cool snaps. Farther north, winter wheat largely escaped without significant cold-season damage, despite a general lack of snow cover and occasional high winds. Nevertheless, the southern High Plains wheat crop, not to mention rangeland and pastures, continued to suffer from aftereffects of the historic drought of 2011. Meanwhile, precipitation was considerably below normal across much of the western U.S., except for unexpectedly heavy December rain and snow in the Southwest and periods of mid- to late-winter storminess in the Northwest. Drier-than-normal conditions also plagued parts of the Atlantic Coast States, which led to worsening drought across the lower Southeast. Notable winter wetness was generally confined to the nation's mid-section, stretching from portions of the central and southern Plains into the Ohio Valley.

According to preliminary information provided by the National Climatic Data Center, the meteorological winter of 2011-12 was overall mild and dry. In fact, it was the fourth-warmest, 20th-driest winter on record. The only warmer December-February periods occurred in 1999-2000, 1998-99, and 1991-92. It was the nation's driest winter since 2001-02. The contiguous states' winter average temperature of 36.8°F was 3.9°F above the historic mean, while the average precipitation of 5.70 inches was 88 percent of normal. State temperature rankings ranged from the 41st-coolest winter in New Mexico to the second-warmest winter in Delaware, New York, and five of the six New England states (figure 1). Top-ten values for winter warmth were observed in twenty other states from the Dakotas into the Midwest and East. Elsewhere, top-ten winter wetness was confined to Kansas, while top-ten values for dryness were

Figure 1

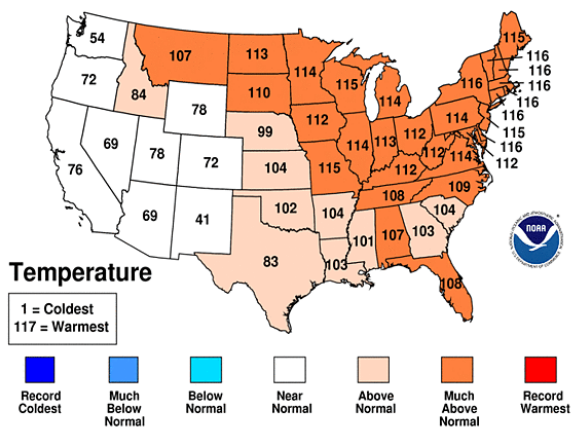
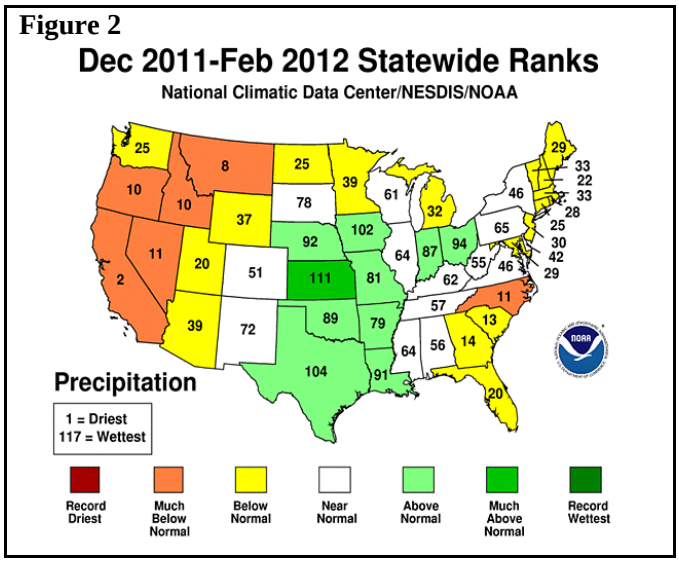


Figure 2



observed in California, Idaho, Montana, and Oregon (figure 2). California experienced its second-driest winter on record, behind 1976-77.

December: During December, mostly dry weather prevailed from the Pacific Coast into the north-central United States. In California and neighboring areas, extremely dry conditions stunted pasture growth and raised concerns about sub-par spring and summer runoff from meager mountain snow packs. On the northern Plains, mild, dry weather left winter wheat exposed to potential weather extremes.

In contrast, widespread precipitation boosted high-elevation snow packs and benefited winter wheat and drought-damaged pastures and rangeland from Arizona to the southern half of the Plains.

Wetness also extended into parts of the Midwest, where producers in the eastern Corn Belt continued to wait for fields to freeze before being able to proceed with final corn harvest efforts.

Elsewhere, highly variable conditions existed across the Southeast, ranging from wet weather in the Mid-South to dryness in the southern Atlantic region and along the central Gulf Coast.

January: The "year without a winter" gained momentum in January, with the majority of the continental United States reporting above-normal temperatures. Monthly temperatures averaged more than 10°F degrees F above normal in parts of the north-central U.S., while near- to slightly below-normal temperature were confined to southern Florida and the Pacific Northwest.

Nevertheless, cold weather caused some concerns during January. For example, an early-month freeze damaged some vegetables and other temperature-sensitive crops across Florida's peninsula on January 4-5. Later, a mid-January cold spell resulted in sub-zero readings across the northern Plains. At the time of the initial cold blast, the northern High Plains' winter wheat crop had no protective snow cover.

Much of the Plains' wheat belt also experienced drier-than-normal conditions during January, although an early-February snow storm provided much-needed moisture across central portions of the region. On both the northern and southern High Plains, mild, mostly dry, windy weather reduced wheat's winter hardiness. In contrast, periods of heavy rain provided some drought relief across the southeastern Plains, including central and northeastern Texas.

Farther northeast, slowly developing drought in the upper Midwest contrasted with unfavorably soggy conditions in parts of the eastern Corn Belt. In some of the wettest areas of the lower Midwest, numerous freeze-thaw cycles—combined with excessive soil moisture—were detrimental to the health of soft red winter wheat.

Meanwhile, drought remained a concern across much of the Deep South as the spring planting season approached. In fact, drought intensified during January in the southern Atlantic region, where mostly dry weather and occasional freezes resulted in the deterioration of pasture conditions.

Elsewhere, drought also expanded in the West, particularly from California to the Intermountain region. Despite a week of wet weather (from January 17-23), the Sierra Nevada ended the month with prospects fo r a "normal" season diminishing. The average water content of the high-elevation Sierra Nevada snow pack stood at 6 inches on January 31, less than 40 percent of average. Areas to the north, from the Pacific Northwest to the northern Rockies, fared better during January, with periods of heavy rain and snow.

February: Most areas east of the Rockies completed a fourth consecutive month with above-normal temperatures, capping a winter with only fleeting periods of cold weather. February warmth was especially prevalent across the eastern half of the nation, where pastures, winter grains, and fruit crops exhibited earlier-than-normal spring development.

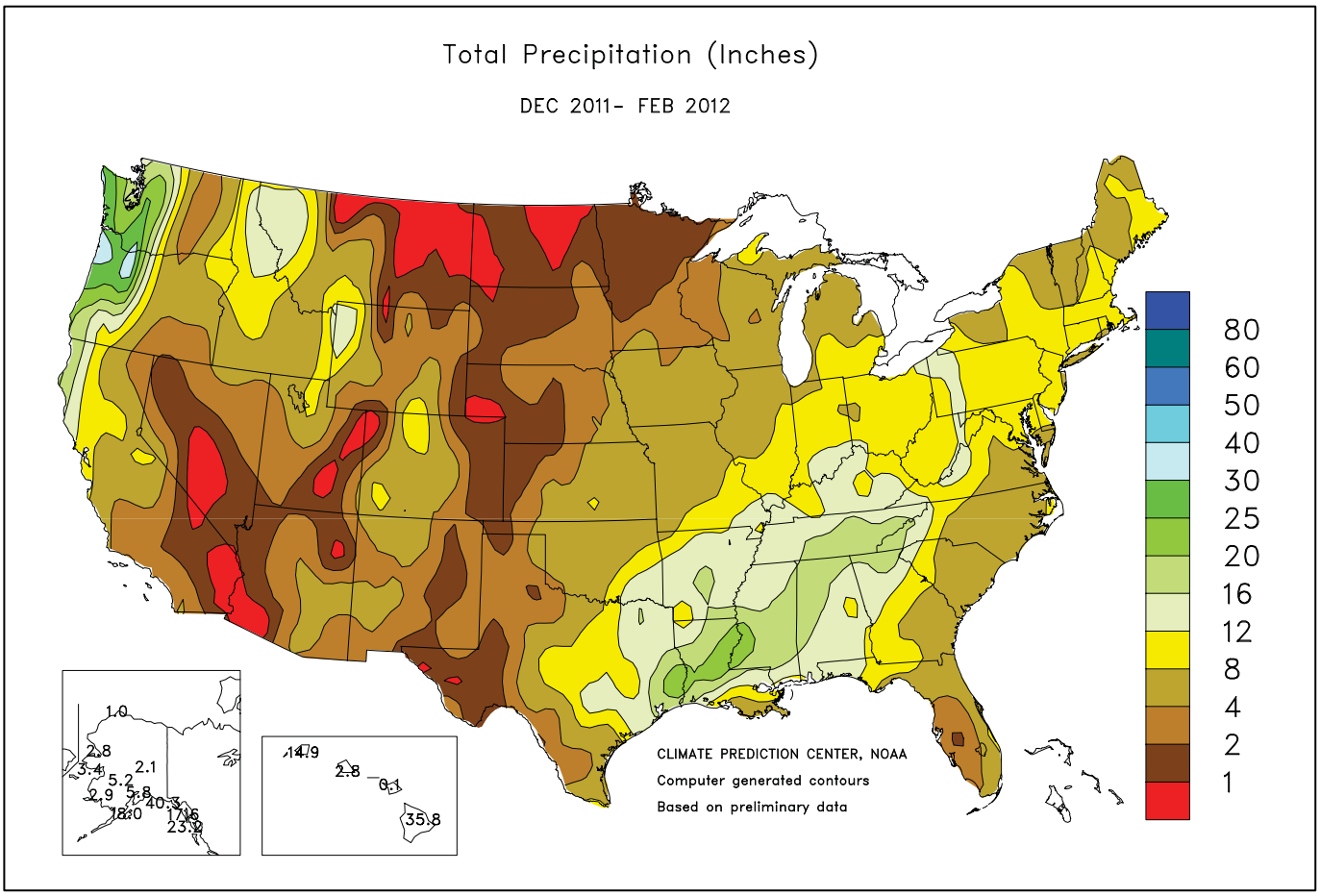
Meanwhile, portions of the West moved closer to a failed winter wet season, with California and the Great Basin expecting significantly below-average spring and summer runoff. However, much of the West—excluding Arizona and New Mexico—has a temporary buffer against developing drought in the form of abundant reservoir storage.

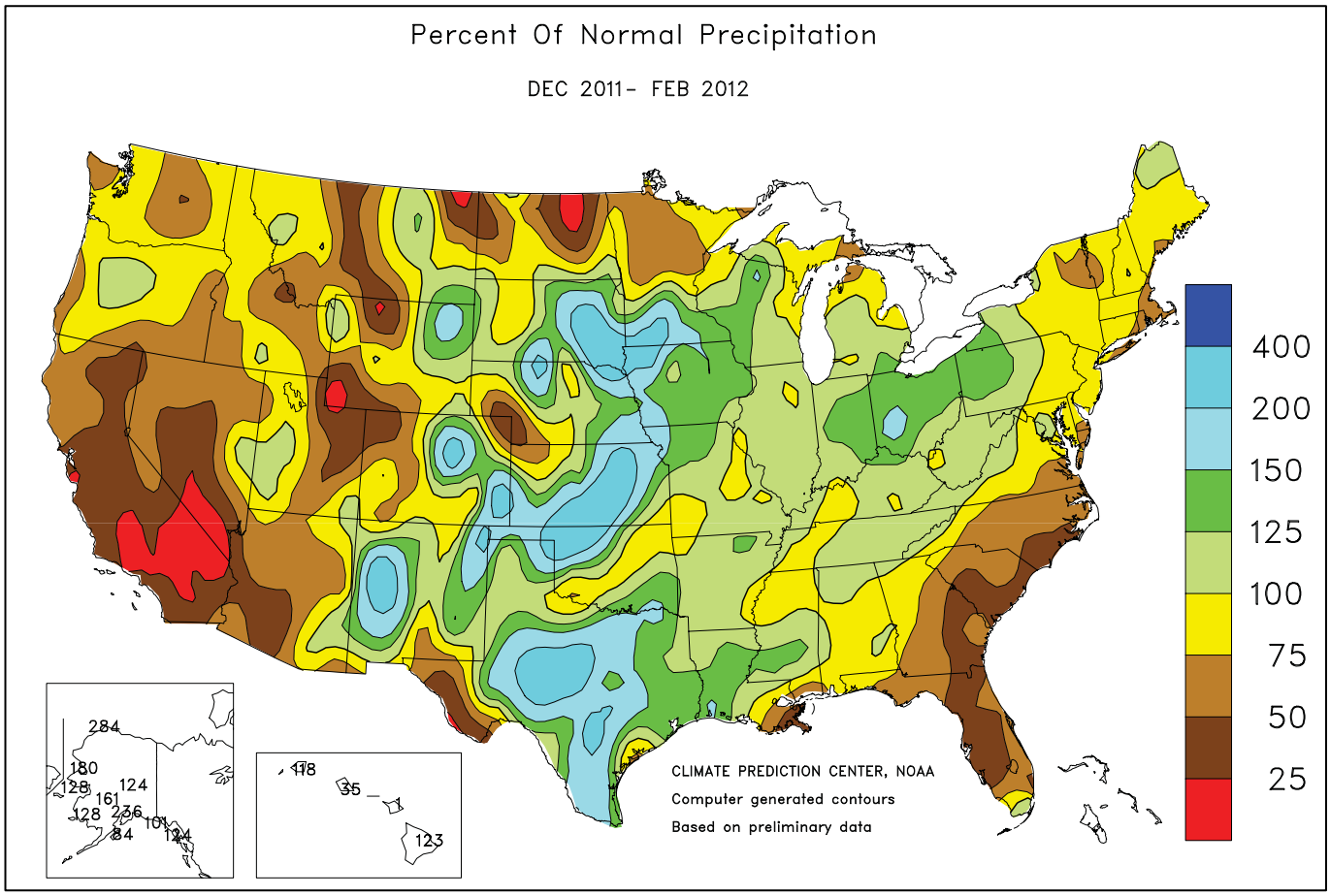
Farther east, the Plains escaped the winter without a severe cold wave, although moisture shortages and a lack of a protective snow cover caused some problems for winter wheat. In particular, the southern High Plains suffered through several February dust storms, a byproduct of high winds and soil moisture depleted by the historic drought of 2011.

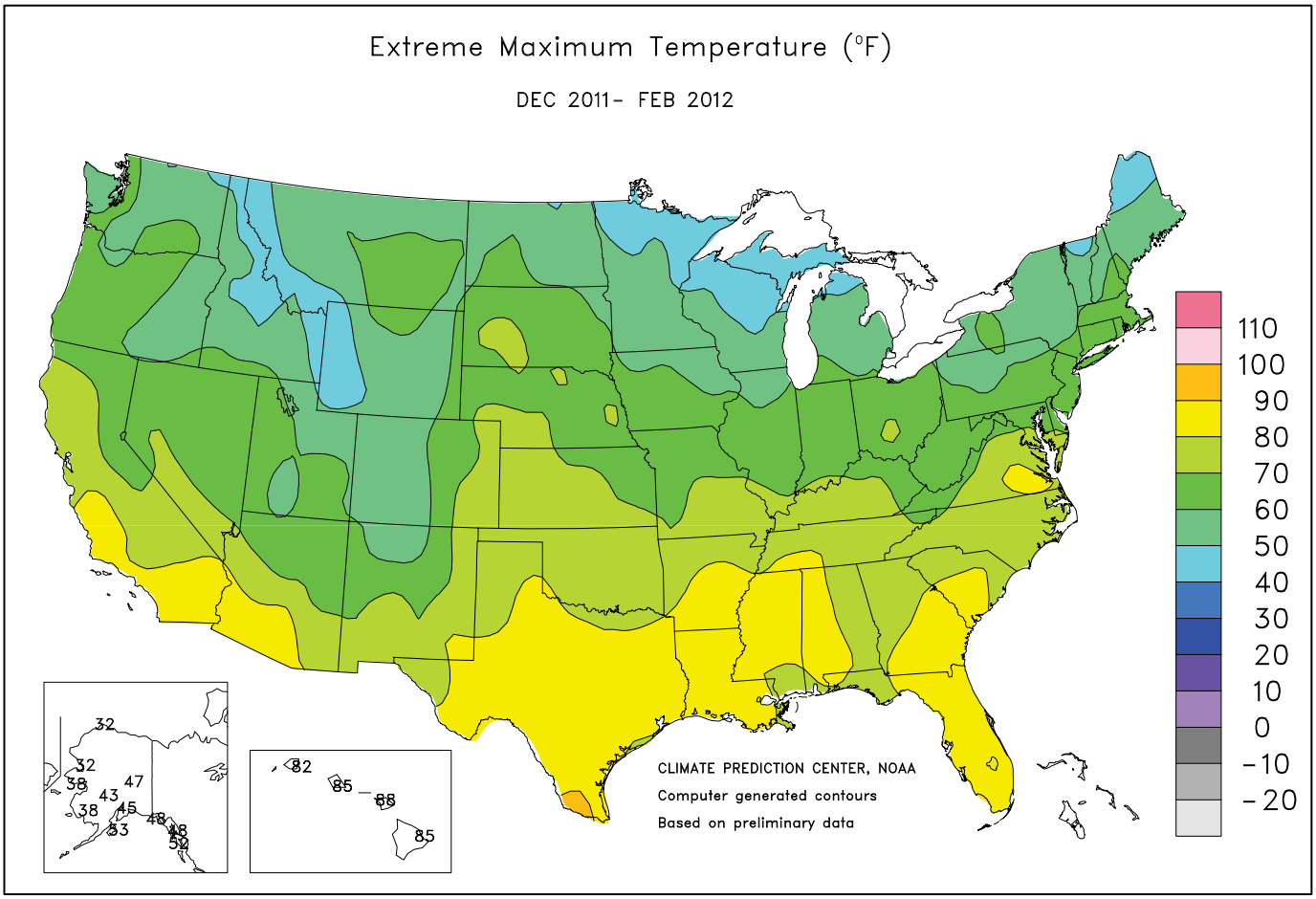
Elsewhere, late-February storminess eased dry conditions in the upper Midwest and provided snow across the nation's northern tier, while damaging thunderstorms and heavy rains swept across parts of the South, East, and lower Midwest. However, most of the late-month rain bypassed Florida's parched peninsula.

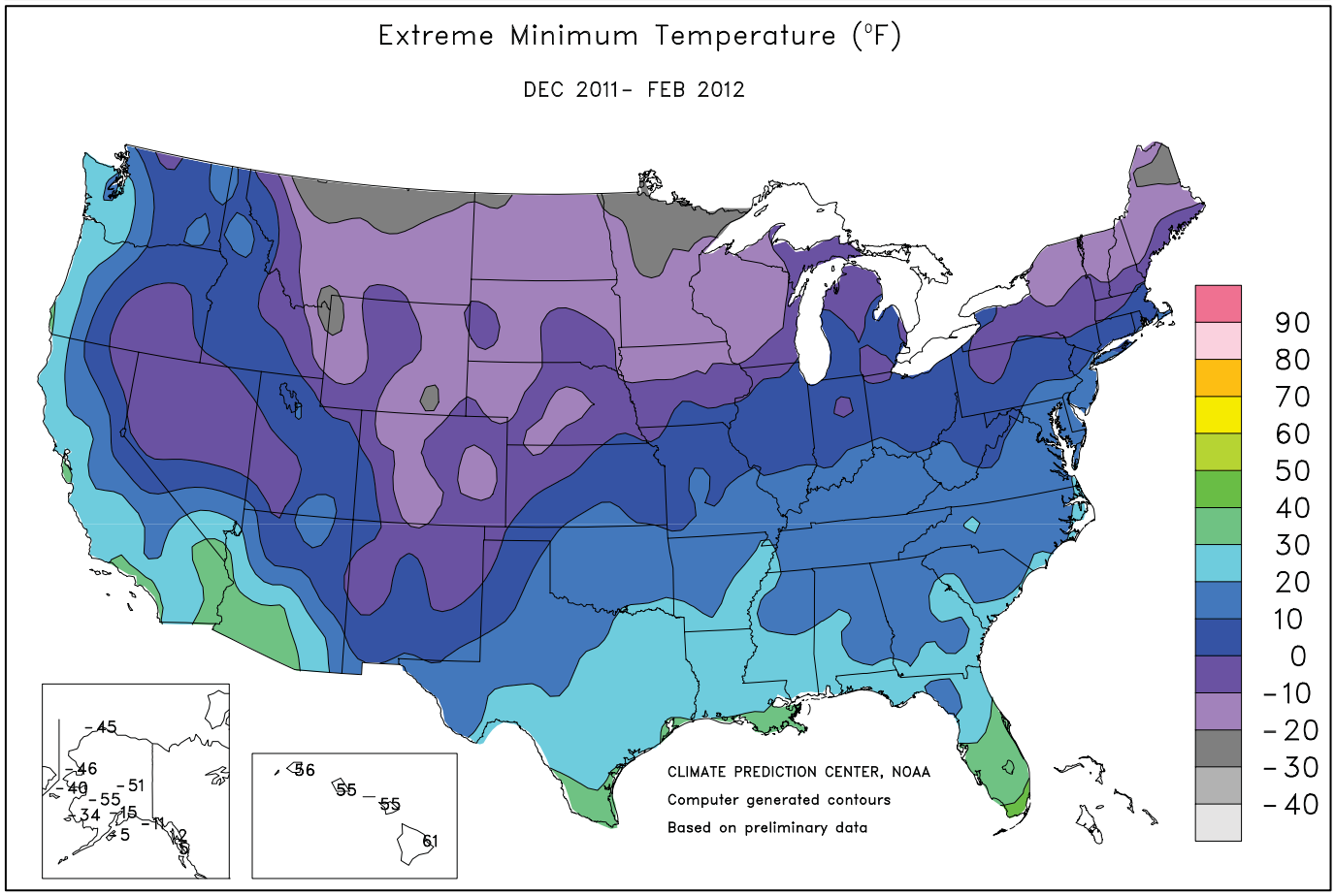
Warmest Winter on Record, Selected Locations

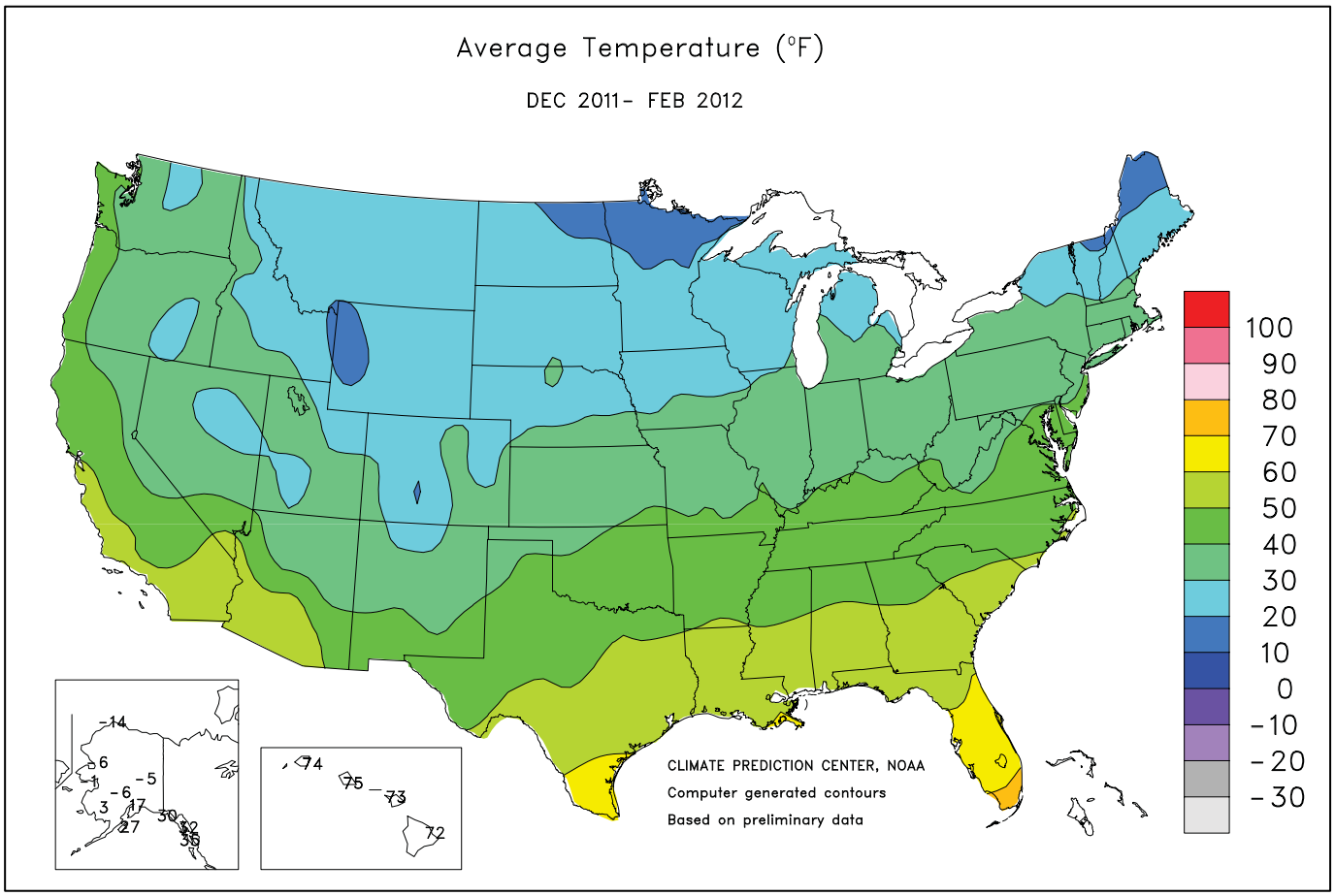
Location	Avg. Temperature (°F)	Previous Record / Year
Jackson, KY	41.6	41.2 in 1998-99
Trenton, NY	40.5	40.3 in 1931-32
Dulles Airport, VA	40.1	39.8 in 2001-02
Mt. Pocono, PA	31.2	30.4 in 1931-32
Fargo, ND	22.1	22.1 in 1986-87

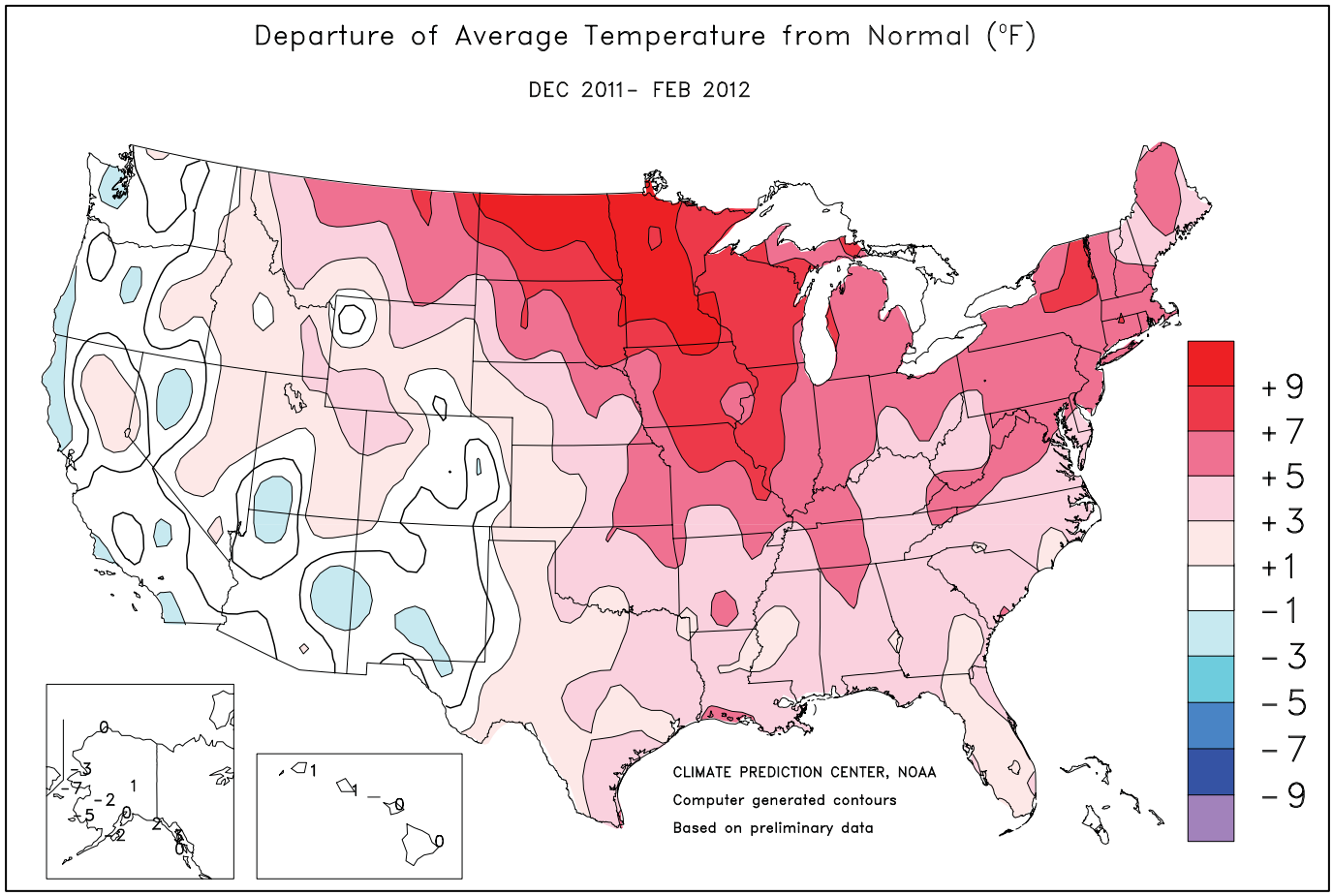

Total Precipitation (Inches)
DEC 2011- FEB 2012
80
60
50
40
30
25
20
16
12
8
4
2
1
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data


Percent Of Normal Precipitation
DEC 2011- FEB 2012
400
200
150
125
100
75
50
25
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data


Extreme Maximum Temperature (°F)
DEC 2011- FEB 2012
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data


Extreme Minimum Temperature (°F)
DEC 2011- FEB 2012
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data


Average Temperature (°F)
DEC 2011- FEB 2012
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 2011- FEB 2012
+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 2011/12

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

STATES AND STATIONS	TEMP, °F		PRECIP.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL BIRMINGHAM	50	5	14.10	-0.03
HUNTSVILLE	47	5	17.72	1.66
MOBILE	57	5	11.37	-4.14
MONTGOMERY	53	4	11.45	-4.01
AK ANCHORAGE	17	0	5.83	3.36
BARROW	-14	-1	1.01	0.66
COLD BAY	25	-4	16.34	6.34
FAIRBANKS	-5	2	2.06	0.40
JUNEAU	32	4	17.65	3.41
KING SALMON	12	-4	3.88	0.74
KODIAK	27	-3	18.04	-3.49
NOME	0	-7	3.44	0.76
AZ FLAGSTAFF	31	0	3.57	-3.00
PHOENIX	57	1	1.10	-1.42
TUCSON	53	0	2.25	-0.65
AR FORT SMITH	46	5	10.04	1.69
LITTLE ROCK	47	4	14.33	2.68
CA BAKERSFIELD	51	2	0.73	-2.42
EUREKA	45	-3	12.61	-5.22
FRESNO	49	2	2.13	-3.49
LOS ANGELES	57	0	1.98	-5.90
REDDING	48	1	7.62	-9.04
SACRAMENTO	48	0	3.62	-6.21
SAN DIEGO	57	-1	2.45	-3.18
SAN FRANCISCO	51	1	2.95	-8.40
STOCKTON	47	0	2.25	-4.74
CO ALAMOSA	20	2	0.61	-0.18
CO SPRINGS	32	3	0.77	-0.28
DENVER	31	1	1.94	1.17
GRAND JUNCTION	32	3	1.15	-0.47
PUEBLO	32	1	1.47	0.49
CT BRIDGEPORT	38	6	8.26	-1.86
HARTFORD	35	7	9.43	-0.97
DC WASHINGTON	43	5	9.42	0.53
DE WILMINGTON	39	5	9.07	-0.57
FL DAYTONA BEACH	63	3	4.88	-3.70
FT LAUDERDALE	71	3	2.98	-5.31
FT MYERS	69	3	2.23	-3.68
JACKSONVILLE	58	3	3.07	-6.41
KEY WEST	73	2	6.40	0.53
MELBOURNE	65	3	4.57	-2.71
MIAMI	71	2	4.63	-1.50
ORLANDO	64	2	4.07	-3.02
PENSACOLA	58	4	15.94	1.95
ST PETERSBURG	66	3	4.17	-4.06
TALLAHASSEE	57	4	10.55	-3.54
TAMPA	66	4	3.16	-4.08
WEST PALM BEACH	69	2	5.10	-4.34
GA ATHENS	49	5	8.50	-4.29
ATLANTA	50	5	11.79	-1.73
AUGUSTA	50	3	3.80	-7.95
COLUMBUS	53	4	14.12	0.46
MACON	51	4	8.75	-4.73
SAVANNAH	55	4	5.25	-4.43
HI HILO	72	0	35.85	6.75
HONOLULU	75	1	2.80	-5.13
KAHULUI	73	1	0.08	-9.10
LIHUE	73	1	14.90	2.27
ID BOISE	35	3	3.75	-0.16
LEWISTON	36	1	2.81	-0.33
POCATELLO	28	1	2.46	-0.79
IL CHICAGO/O'HARE	33	8	6.15	0.34
MOLINE	32	7	5.31	0.02
PEORIA	33	7	5.82	0.25
ROCKFORD	30	7	4.60	-0.21
SPRINGFIELD	36	7	5.69	-0.27
IN EVANSVILLE	40	6	11.18	1.63
FORT WAYNE	32	5	8.87	2.11
INDIANAPOLIS	36	6	9.96	2.04
SOUTH BEND	32	6	7.89	0.55
IA BURLINGTON	33	7	4.99	0.04
CEDAR RAPIDS	29	7	4.43	0.80
DES MOINES	32	8	4.72	1.17
DUBUQUE	28	7	5.24	0.85
SIOUX CITY	28	6	3.54	1.67
WATERLOO	28	8	4.85	1.85
KS CONCORDIA	35	5	4.47	2.22
DODGE CITY	35	2	3.16	1.11
GOODLAND	32	2	0.92	-0.35
HILL CITY	33	3	1.23	-0.31
TOPEKA	38	7	6.15	2.60
WICHITA	38	5	7.32	4.11
KY JACKSON	42	5	12.93	1.42
LEXINGTON	39	4	11.05	0.41
LONDON-CORBIN	40	3	11.01	-1.03
LOUISVILLE	41	5	11.04	0.82
PADUCAH	42	6	13.03	1.25
LA BATON ROUGE	57	5	16.13	-0.42
LAKE CHARLES	58	5	21.50	8.10
NEW ORLEANS	60	6	7.82	-8.59
SHREVEPORT	52	3	14.63	1.27
ME BANGOR	26	5	7.35	-1.86
CARIBOU	18	5	9.28	1.06
PORTLAND	30	5	9.27	-2.20
MD BALTIMORE	40	5	9.46	-0.38
MA BOSTON	37	5	7.64	-3.31
WORCESTER	33	7	9.61	-1.36
MI ALPENA	27	7	4.48	-0.46
DETROIT	33	6	7.70	1.40
FLINT	31	7	5.85	0.75
GRAND RAPIDS	32	7	7.79	1.53
HOUGHTON LAKE	27	7	5.72	1.11
LANSING	31	7	5.83	0.60
MUSKEGON	33	7	7.30	0.86
TRAVERSE CITY	30	7	4.26	-3.17
MN DULUTH	21	9	2.33	-0.56
INT'L FALLS	17	10	2.03	-0.15
MINNEAPOLIS	26	9	3.06	0.23
ROCHESTER	26	10	3.41	0.70
ST. CLOUD	23	10	2.21	0.17
MS JACKSON	52	5	18.97	3.46
MERIDIAN	51	3	17.74	1.16
TUPELO	48	5	15.12	-0.82
MO COLUMBIA	38	7	6.92	0.52
JOPLIN	41	5	5.50	-1.55
KANSAS CITY	36	6	6.22	2.12
SPRINGFIELD	39	4	6.14	-1.42
ST JOSEPH	35	5	5.00	1.55
ST LOUIS	40	7	7.46	0.18
MT BILLINGS	31	4	1.06	-0.99
BUTTE	23	4	0.56	-0.97
GLASGOW	23	8	1.24	0.26
GREAT FALLS	30	6	0.81	-1.05
HELENA	27	4	1.90	0.54
KALISPELL	28	4	3.15	-1.12
MILES CITY	28	7	0.98	-0.31
MISSOULA	28	3	3.04	0.06
NE GRAND ISLAND	31	6	2.31	0.43
HASTINGS	30	3	2.81	0.86
LINCOLN	30	4	3.83	1.64
MCCOOK	31	2	0.96	-0.71
NORFOLK	29	6	2.70	0.72
NORTH PLATTE	29	3	1.67	0.37
OMAHA/EPPLEY	31	6	4.06	1.57
SCOTTSBLUFF	29	2	1.36	-0.32
VALENTINE	29	5	2.66	1.55
NV ELKO	29	1	1.45	-1.50
ELY	29	2	2.11	0.12
LAS VEGAS	50	1	0.20	-1.48
RENO	37	2	2.14	-0.86
WINNEMUCCA	30	-2	1.30	-0.96
NH CONCORD	29	6	8.32	0.03
NJ ATLANTIC CITY	41	7	8.38	-1.22
NEWARK	40	6	8.73	-1.78
NM ALBUQUERQUE	38	0	1.86	0.44
NY ALBANY	31	6	7.02	-0.31
BINGHAMTON	30	6	7.40	-0.67
BUFFALO	32	5	9.76	0.38
ROCHESTER	32	6	7.96	0.85
SYRACUSE	33	8	7.77	-0.06
NC ASHEVILLE	43	5	10.55	-0.73
CHARLOTTE	46	2	6.99	-3.74
GREENSBORO	45	5	6.69	-3.01
HATTERAS	52	4	11.62	-2.72
RALEIGH	47	5	5.95	-4.58
WILMINGTON	51	3	4.51	-7.45
ND BISMARCK	23	9	1.25	-0.15
DICKINSON	24	6	0.55	-0.59
FARGO	22	11	1.89	-0.03
GRAND FORKS	19	9	1.54	-0.27
JAMESTOWN	22	9	0.70	-0.88
MINOT	24	10	0.49	-1.32
WILLISTON	22	9	0.58	-0.92
OH AKRON-CANTON	34	6	10.58	2.83
CINCINNATI	37	4	13.45	4.50
CLEVELAND	35	7	10.43	2.52
COLUMBUS	36	5	11.15	3.49
DAYTON	34	5	11.34	3.37
MANSFIELD	33	6	11.22	3.16
TOLEDO	33	6	7.57	1.12
YOUNGSTOWN	33	5	12.14	4.81
OK OKLAHOMA CITY	43	4	4.94	0.21
TULSA	44	5	3.67	-2.31
OR ASTORIA	42	-1	22.45	-5.44
BURNS	29	3	2.86	-0.73
EUGENE	40	-1	17.18	-5.11
MEDFORD	39	-1	5.89	-1.58
PENDLETON	35	0	3.33	-0.82
PORTLAND	41	0	12.16	-2.80
SALEM	41	0	17.78	0.39
PA ALLENTOWN	36	6	8.24	-1.40
ERIE	34	5	11.55	3.01
MIDDLETOWN	37	6	8.54	-0.47
PHILADELPHIA	40	5	8.80	-0.77
PITTSBURGH	35	5	8.56	0.63
WILKES-BARRE	34	5	6.04	-1.05
WILLIAMSPORT	34	6	8.44	0.04
PR SAN JUAN	78	1	13.94	4.05
RI PROVIDENCE	36	5	8.84	-3.12
SC CHARLESTON	54	4	3.56	-6.84
COLUMBIA	51	5	5.33	-6.55
FLORENCE	51	4	5.42	-5.16
GREENVILLE	47	4	9.05	-3.46
MYRTLE BEACH	51	3	3.67	-6.94
SD ABERDEEN	23	8	1.90	0.56
HURON	26	8	3.03	1.59
RAPID CITY	29	4	0.98	-0.25
SIOUX FALLS	26	8	3.80	2.26
TN BRISTOL	42	6	12.41	2.10
CHATTANOOGA	46	4	15.88	0.82
JACKSON	44	3	13.20	-0.74
KNOXVILLE	45	5	14.67	1.60
MEMPHIS	48	5	13.31	-0.92
NASHVILLE	44	4	12.19	-0.01
TX ABILENE	48	2	6.40	3.03
AMARILLO	39	1	2.22	0.43
AUSTIN	53	1	16.05	9.73
BEAUMONT	59	5	18.17	3.88
BROWNSVILLE	65	4	6.12	2.47
COLLEGE STATION	56	4	15.51	6.58
CORPUS CHRISTI	62	4	5.71	0.50
DALLAS/FT WORTH	50	3	12.41	5.57
DEL RIO	54	1	2.68	0.40
EL PASO	47	0	1.42	-0.19
GALVESTON	60	3	14.74	4.52
HOUSTON	58	4	15.33	4.98
LUBBOCK	42	2	2.10	0.22
MIDLAND	46	1	2.82	1.06
SAN ANGELO	49	2	7.00	4.07
SAN ANTONIO	56	4	12.46	7.09
VICTORIA	58	3	6.37	-0.58
WACO	51	3	11.99	4.90
WICHITA FALLS	46	3	4.29	-0.08
UT SALT LAKE CITY	33	2	2.94	-0.99
VT BURLINGTON	28	7	5.08	-1.03
VA LYNCHBURG	41	4	9.44	-0.43
NORFOLK	48	6	6.03	-4.27
RICHMOND	44	5	6.98	-2.67
ROANOKE	43	5	8.09	-1.08
WASH/DULLES	40	6	8.55	-0.34
WA OLYMPIA	38	-1	18.42	-3.18
QUILLAYUTE	41	0	34.89	-5.61
SEATTLE-TACOMA	41	-1	12.70	-2.23
SPOKANE	31	2	4.50	-1.08
YAKIMA	32	1	2.29	-1.06
WV BECKLEY	38	5	11.21	1.93
CHARLESTON	40	4	8.78	-0.98
ELKINS	36	5	9.15	-0.92
HUNTINGTON	40	4	7.88	-1.79
WI EAU CLAIRE	24	8	3.58	0.71
GREEN BAY	27	8	3.92	0.29
LA CROSSE	27	7	3.93	0.52
MADISON	29	8	4.66	0.47
MILWAUKEE	31	7	5.08	-0.64
WAUSAU	24	7	3.94	0.62
WY CASPER	26	2	2.26	0.42
CHEYENNE	28	1	1.46	0.11
LANDER	24	2	2.28	0.61
SHERIDAN	27	3	1.87	-0.15

Based on 1971-2000 normals

***** Not Available**

National Agricultural Summary

March 12 – 18, 2012

Weekly National Agricultural Summary provided by USDA/NASS

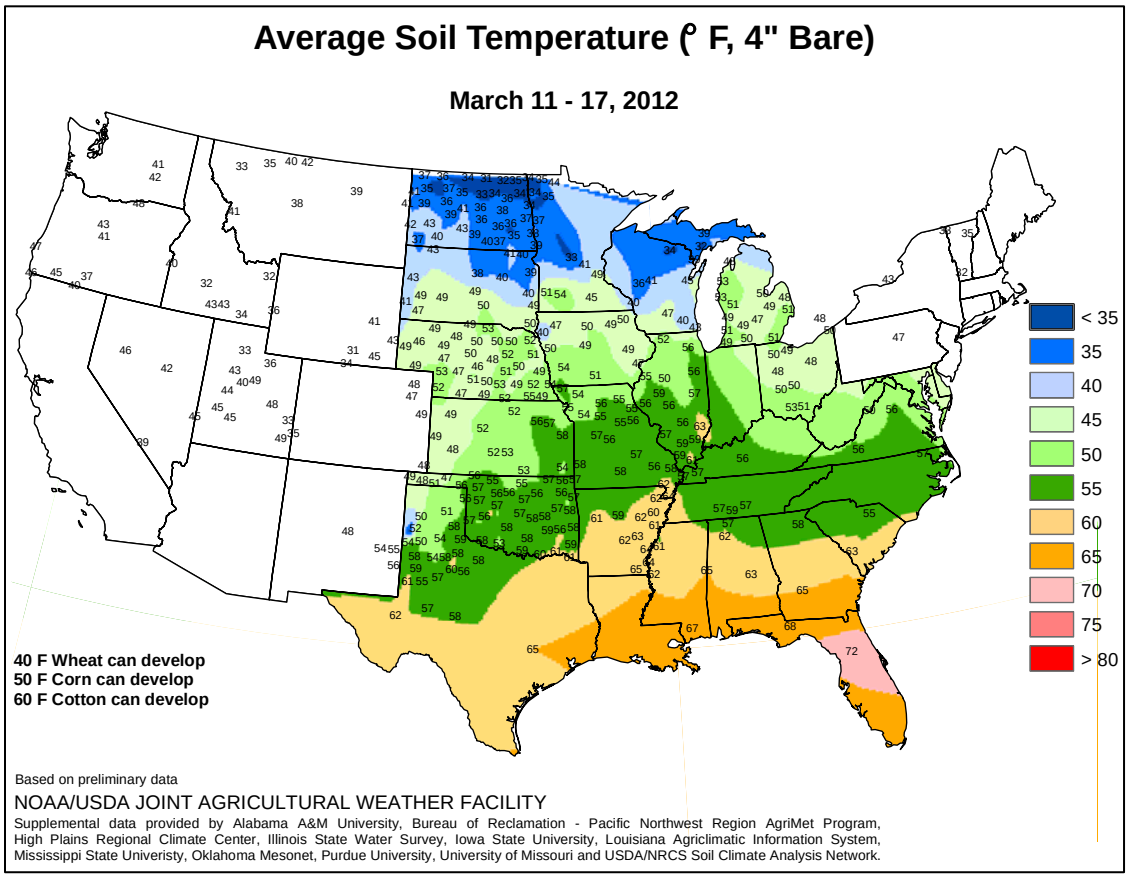
Warmer-than-normal weather continued to provide excellent conditions for spring fieldwork and crop development across much of the nation during the week. With temperatures more than 15°F above average from the Rocky Mountains to the Atlantic Coast, producers in many areas were planting their spring crops ahead of the normal pace. Precipitation was limited to locations west of the Rocky Mountains, as well as portions of the Ohio and Tennessee Valleys and the Delta. Most notably, storm systems dumped precipitation totaling 6 inches or more on many locations in northern California.

In Florida, warm weather and limited rainfall promoted an aggressive fieldwork pace for row crop, fruit, and vegetable producers. Peanut producers were planting fields in Levy County. Light harvesting of blueberries was underway, with volumes expected to increase in the coming weeks. Strawberry harvest slowed as the season drew to a close. In northern portions of the state, watermelon planting gained speed. Valencia harvest increased. Citrus growers continued orchard maintenance activities, including irrigation, hedging and topping, and care of young trees.

Parts of Texas received rain during the week, with eastern locations receiving up to 2 inches. Warm, showery weather aided oat and wheat development in most regions, with fields in central and southern Texas beginning to head. Small grain producers in these areas were busy scouting fields for signs of fungus and insects, following wet weather. Winter wheat on the High Plains remained drought-stressed and was in need of moisture. Corn and sorghum was being planted in many areas, although fieldwork in the Blacklands was delayed due to soggy conditions. Statewide, cotton producers were applying herbicides ahead of planting, with limited acreage planted in the Lower Valley. Pecan trees from the Low Plains to East Texas were budding, and fruit trees were in bloom. Orchards in the Trans-Pecos were being irrigated, and chilies were being planted. In the Lower Valley, spring onions, as well as citrus, sugarcane, and vegetables, continued to be harvested.

Temperatures in Arizona were mostly above average, with precipitation recorded at 14 of the 21 reporting weather stations. Despite recent moisture, over half of all range and pastureland remained in very poor or poor condition. Alfalfa hay harvest was currently active in approximately three-quarters of the state's fields, with conditions reported as mostly fair to good. Cotton planting was active in western portions of the state. Vegetable growers in central and western locations continued to ship a variety of crops.

With the exception of a late-week storm system, southern California remained dry, while northern portions of the state received widespread precipitation. Small grains continued to show good growth in northern fields and irrigated southern fields. Development in dryland fields in the south was lagging. Heavy rains in the rice-producing area of the state hampered some paddy draining, but ground preparation and fertilization continued. Bed formation and herbicide application continued in preparation for cotton planting. Most fruit trees were blooming, and growers made bloom sprays to control fungus. Petal fall was evident in early varieties of stone fruits and almonds. Blueberries were blooming, and bees were present to aid with pollination. A variety of citrus crops and vegetables were harvested.



International Weather and Crop Summary

March 11-17, 2012

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

HIGHLIGHTS

EUROPE: Dry, mild conditions prevailed across the continent, intensifying drought on the Iberian Peninsula while easing crops out of dormancy in Germany and western Poland.

WESTERN FSU: Mild weather in Belarus and Ukraine contrasted with cold, snowy conditions in Russia.

MIDDLE EAST: Widespread rain and snow across the northern half of the region maintained favorable moisture reserves for winter grains.

NORTHWESTERN AFRICA: Dry weather expanded across the region, increasing concerns for winter crops in Morocco while favoring adequately watered winter grains in eastern growing areas.

SOUTH ASIA: Heat began to build across India as the subcontinent transitioned into the summer season.

EAST ASIA: Winter wheat began breaking dormancy across the North China Plain.

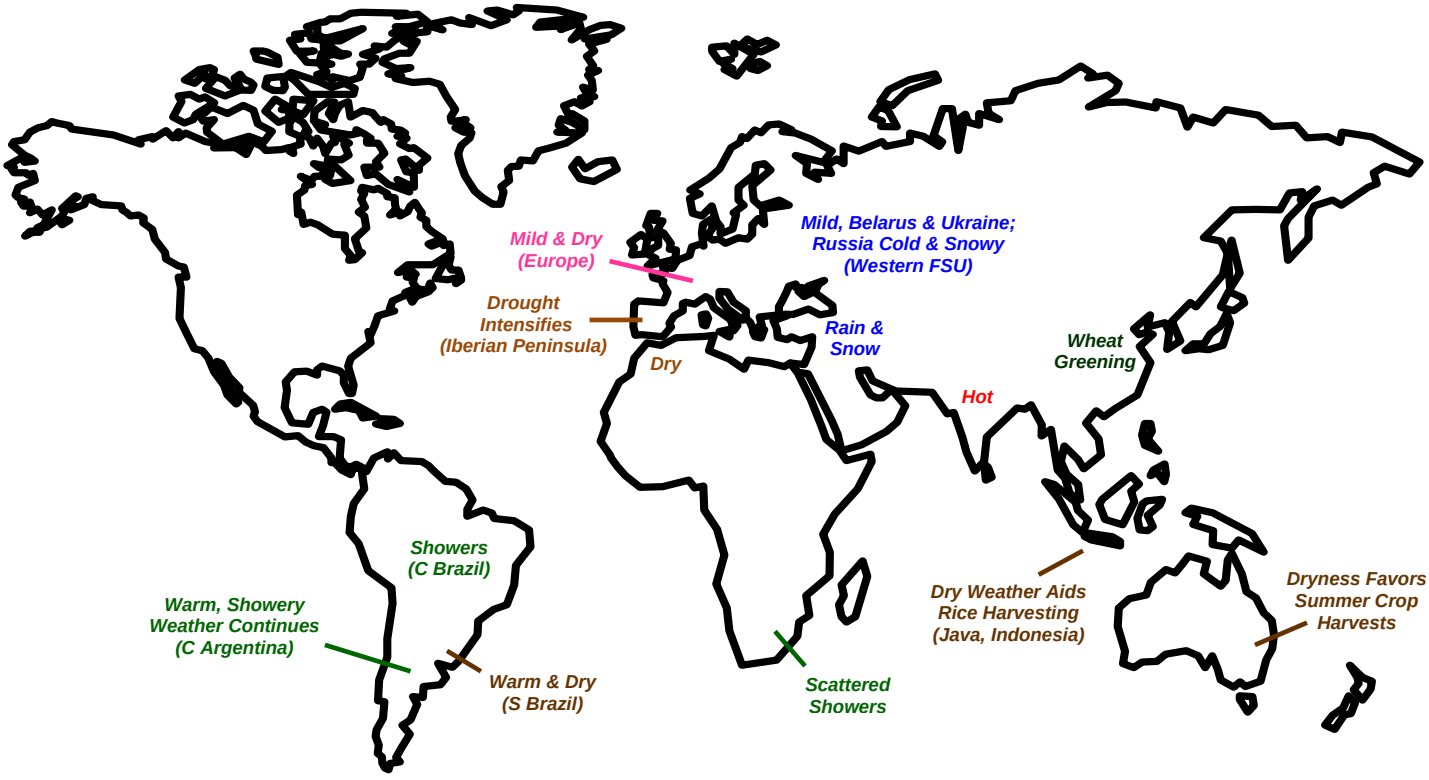
SOUTHEAST ASIA: Drier weather favored rice harvesting in Java, Indonesia.

AUSTRALIA: A pocket of mostly dry weather in eastern Australia favored summer crop drydown and harvesting, while showers in surrounding areas slowed maturation.

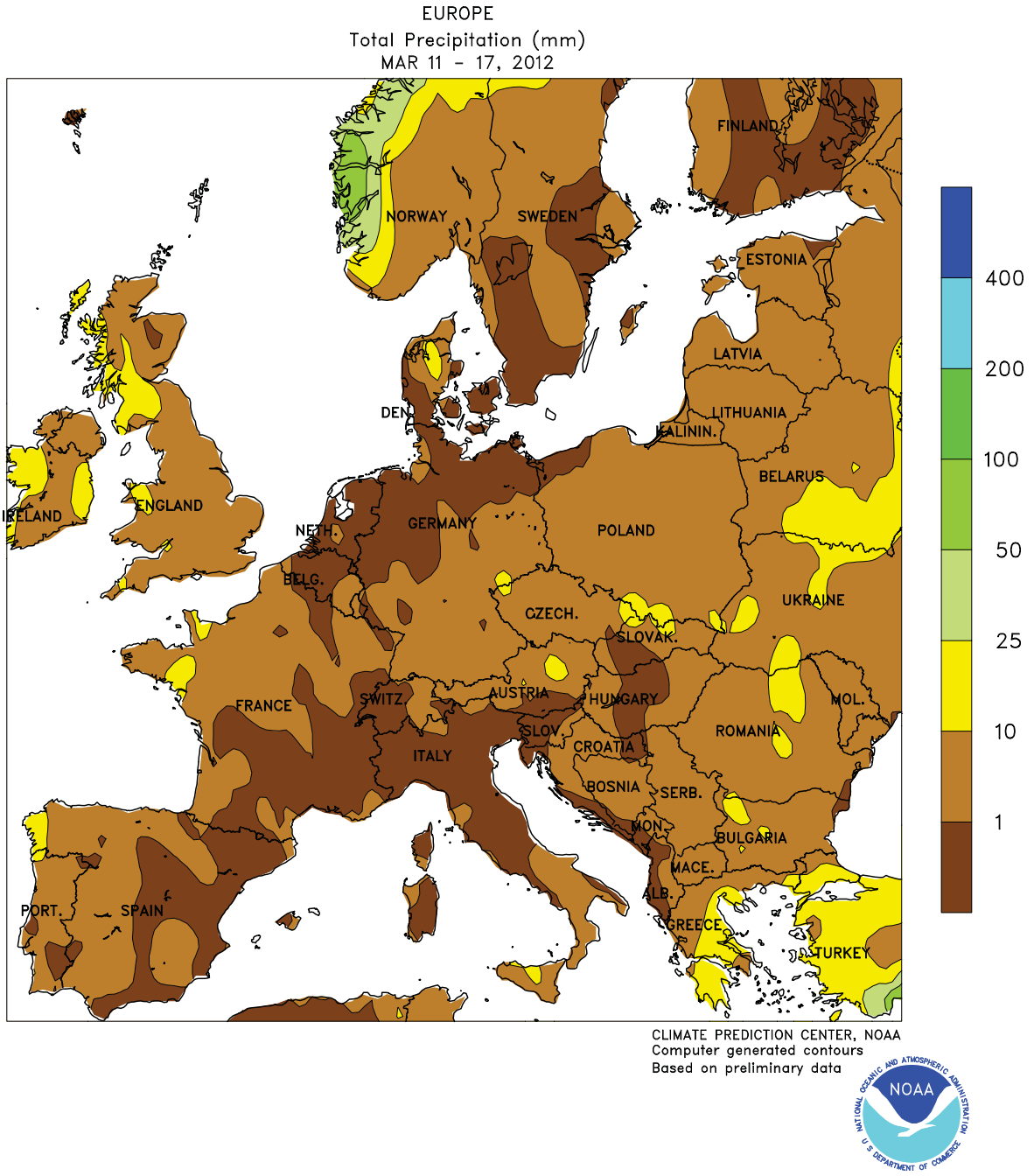
SOUTH AFRICA: Scattered showers brought localized relief from warmth and dryness.

ARGENTINA: Warm, showery weather maintained adequate to abundant levels of moisture for late-planted corn and soybeans.

BRAZIL: Unseasonable warmth and dryness persisted in southern production areas, hastening soybean harvesting but limiting moisture for second-season corn.



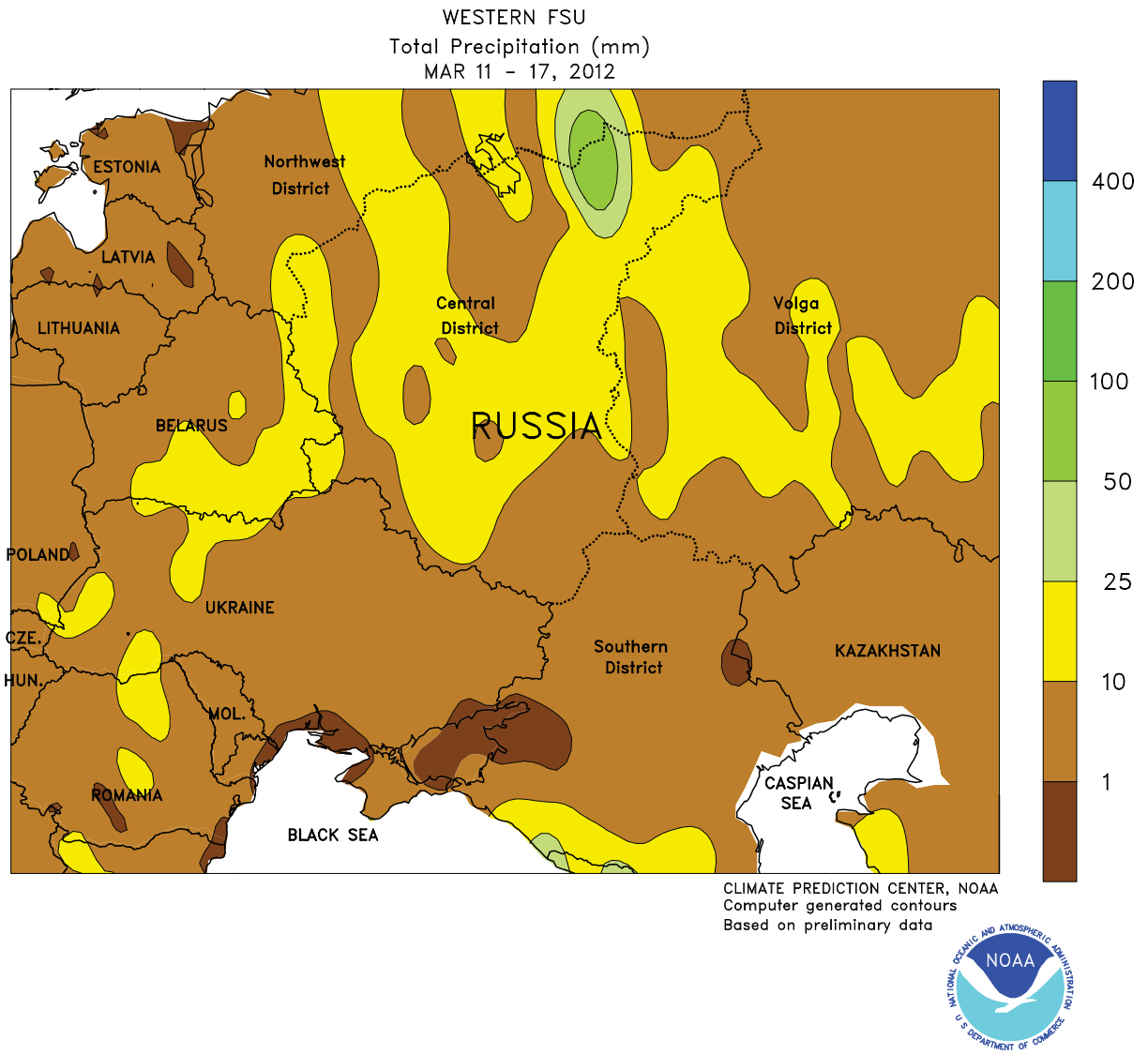
For additional information contact: mbrusberg@oce.usda.gov



EUROPE

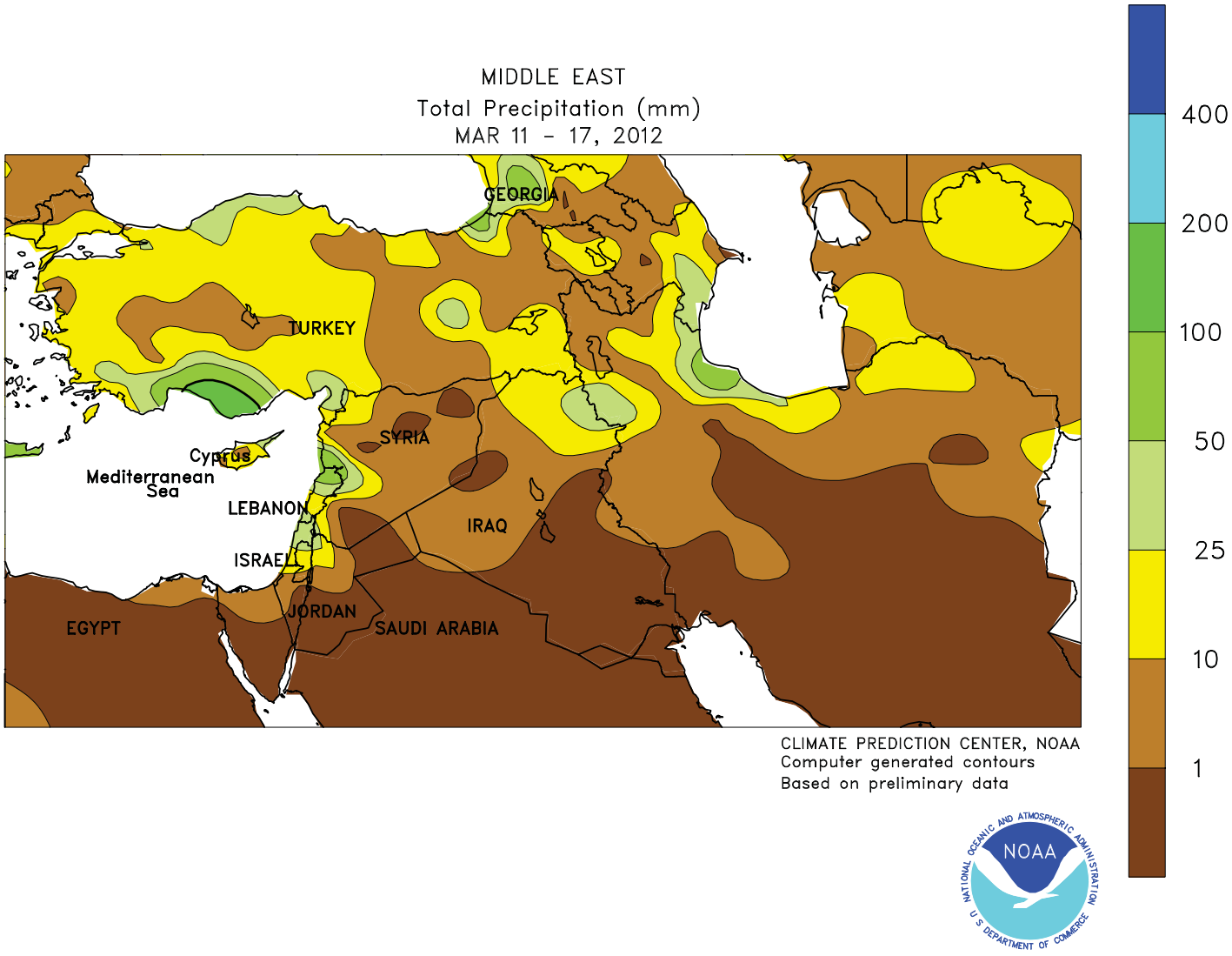
Dry, mild weather expanded across the continent, worsening drought in Spain while further easing winter crops out of dormancy in the north. Under sunny skies, temperatures averaged 2 to 6°C above normal over most major growing areas. Weekly average temperatures topped 5°C in Poland and the northern Balkans, and reached 8 to 10°C in Germany. Consequently, winter crops have broken dormancy in Germany and are easing out of dormancy in western Poland and the northern Danube River Valley. In Spain, a lack of rain further reduced prospects for vegetative (north) to reproductive (south) winter wheat and barley. However, showers were developing on the Iberian Peninsula as of March 19, although the amount and coverage will be vital in determining the amount of drought relief and crop benefit the rain brings *(additional information will appear in next week's Bulletin)*. In Italy, dry weather maintained high irrigation demands for vegetative winter wheat in the north, while soil moisture in central and southern Italy remained favorable due to recent rain.

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



WESTERN FSU

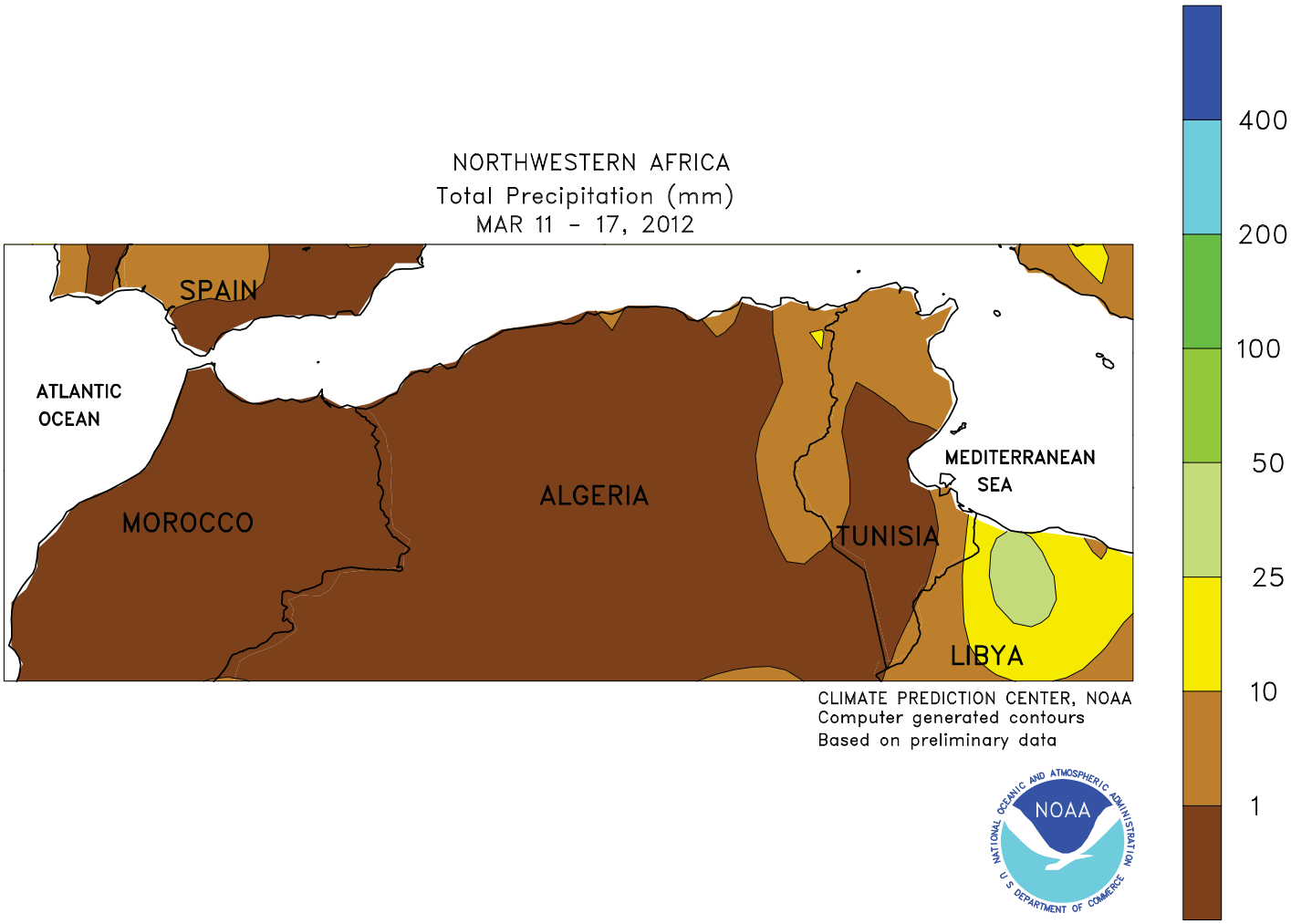
Increasingly mild conditions in the west contrasted with persistent cold in central and eastern crops districts. Temperatures averaged 2 to 4°C above normal in Belarus and western Ukraine, melting the remaining snow cover in these areas and reducing cold hardiness. In Russia, temperatures averaged up to 7°C below normal, which coupled with a fresh snow fall kept crops dormant beneath a moderate to deep snowpack (20-30 cm, locally more). However, central and western portions of the Southern District are snow free, leaving winter crops exposed to nighttime temperatures as low as -16°C; despite the cold, temperatures were not low enough to cause widespread winterkill, although some localized burnback was possible. Light to moderate precipitation (5-15 mm) fell from Belarus and northern Ukraine into central and northern Russia, with western rain contrasting with snow in Russia.



MIDDLE EAST

Unsettled, cool weather maintained mostly favorable prospects for winter grains. Precipitation totaled 10 to 110 mm (liquid equivalent) from Turkey and the eastern Mediterranean Coast into northern portions of Iraq and Iran. At week's end, a moderate to deep snowpack remained in place from central and eastern Turkey into northern Iran, although the central Anatolia Plateau is now snow free. Consequently, soil moisture remained adequate for heading (south) to dormant (north) winter crops. Temperatures averaged 2 to 5°C below normal across the northern half of the region, while milder conditions (up to 3°C above normal) accelerated crop development in southern Iran.

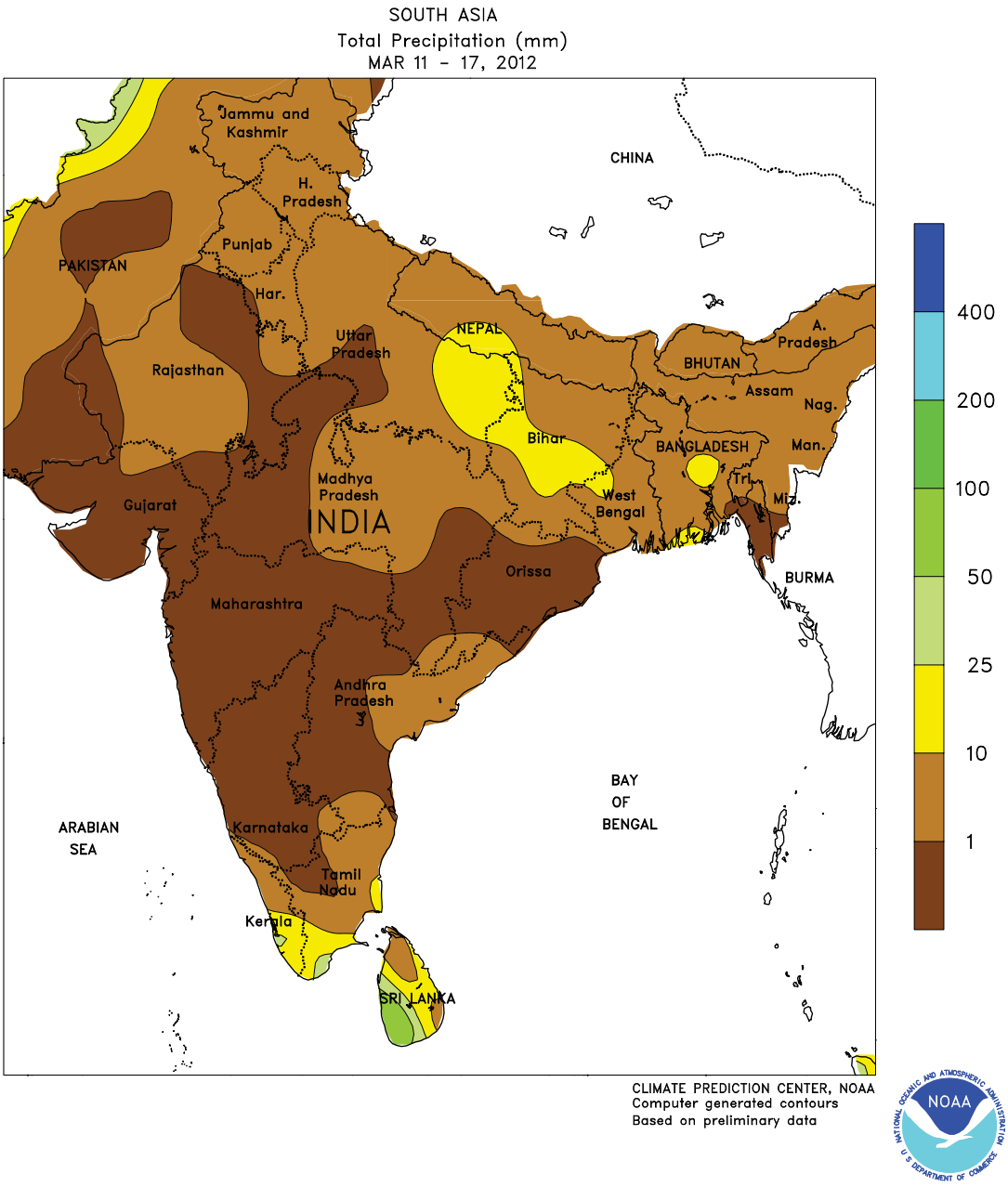
For additional information contact: mbrusberg@oce.usda.gov



NORTHWESTERN AFRICA

Dry weather expanded across the region, favoring eastern winter crops but worsening crop prospects in Morocco. In Morocco, a lack of rain since late January continued to reduce soil moisture for reproductive winter grains, with rain needed soon to prevent widespread yield reductions. Meanwhile sunny skies returned to the eastern half of the region following last week's heavy rain, promoting crop development.

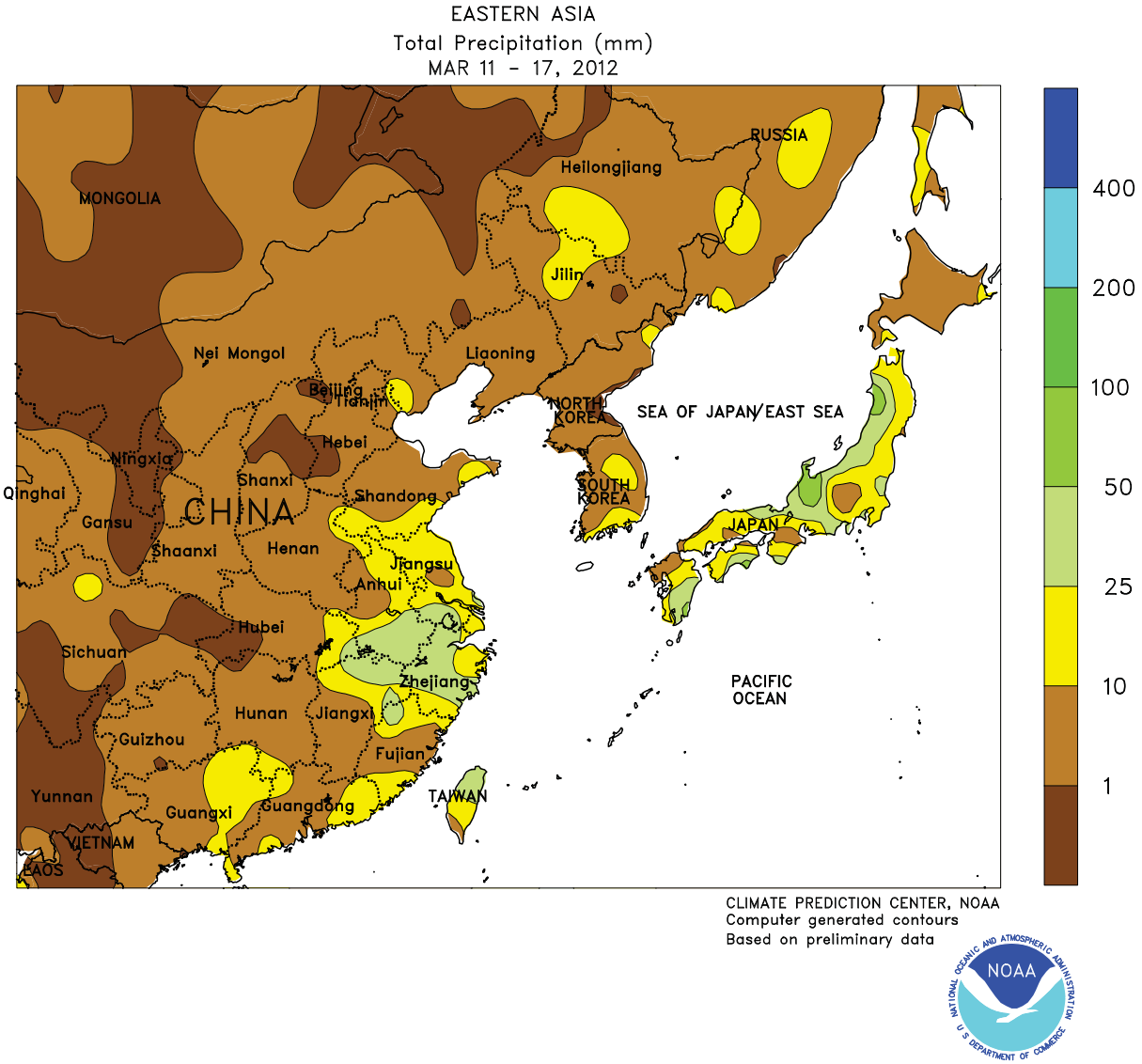
For additional information contact: mbrusberg@oce.usda.gov



SOUTH ASIA

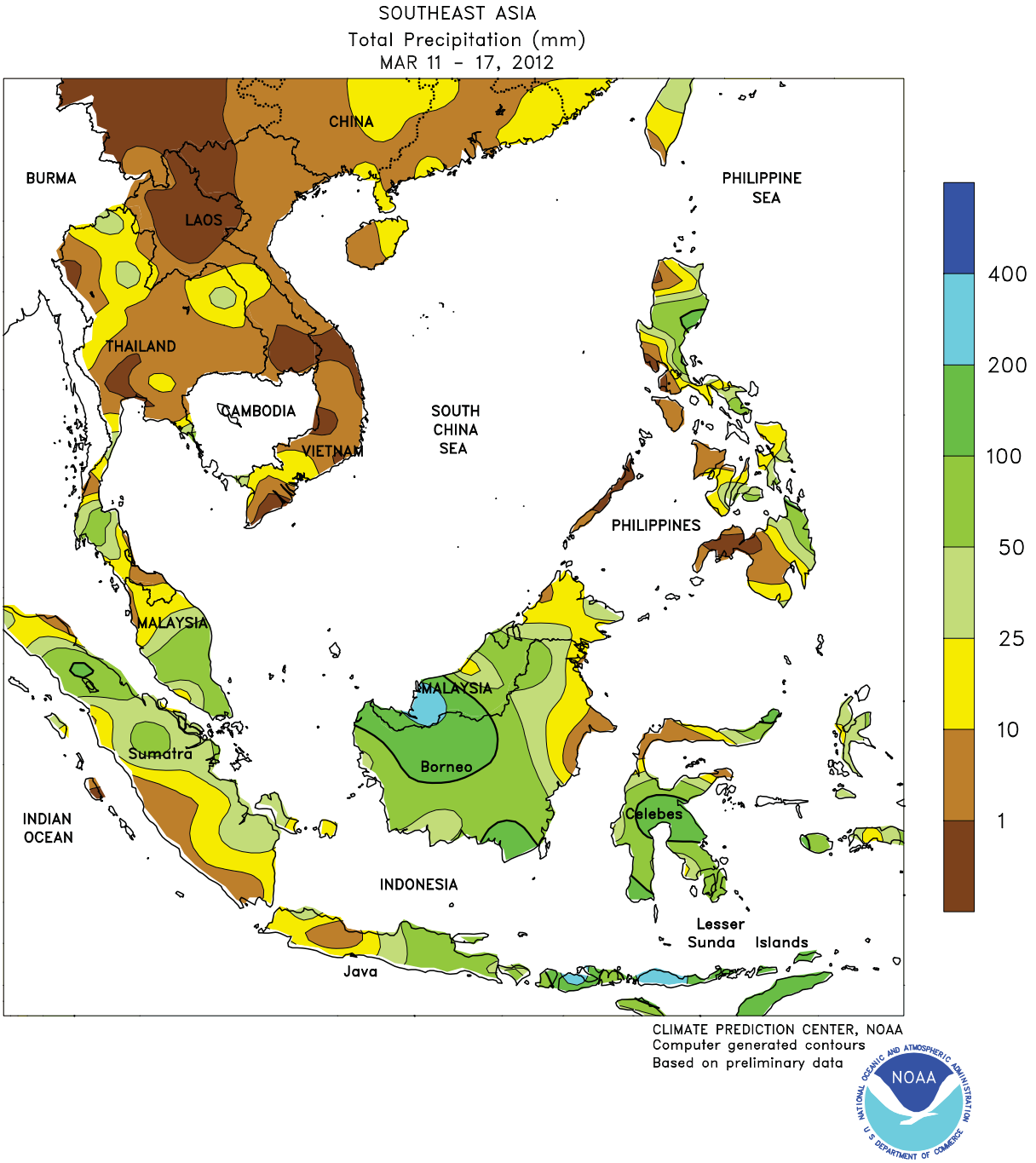
Abundant spring sunshine initiated the heating of the Indian subcontinent, typical for late March. Maximum temperatures crept into the upper 30s (degrees C) across nearly all the Indian states, with a few reports of 40°C predominantly in Maharashtra. Winter wheat and rapeseed harvesting was well underway and little affected by the heat. The hot, dry air was in fact beneficial for drydown of winter crops which also include rabi rice in the east. The heating that occurs regularly at this time of year is essential in establishing the summer monsoon later on.

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



EASTERN ASIA

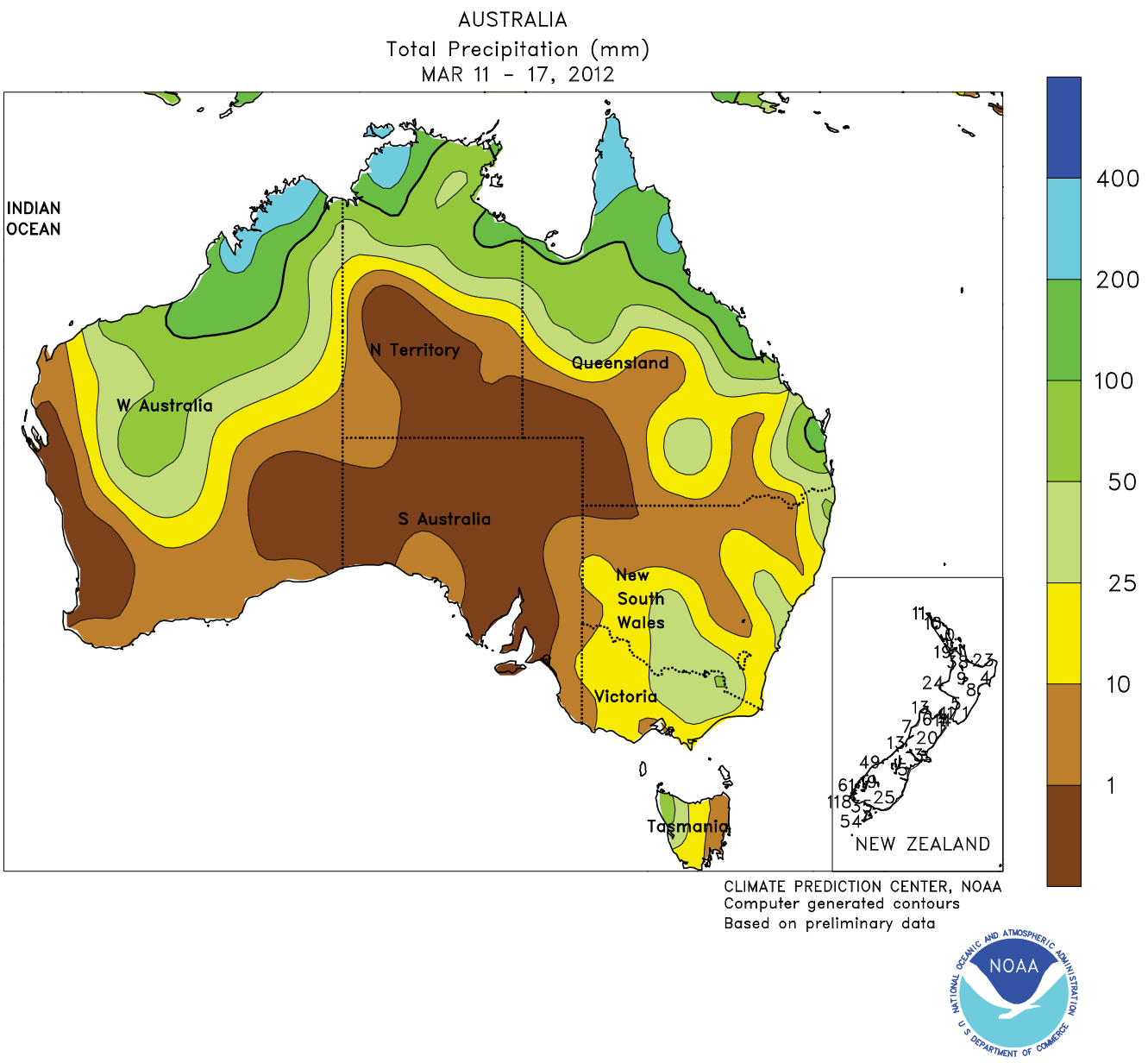
Showers passed through winter crop areas of eastern China during the latter half of the week. On the North China Plain, 1 to 10 mm of rain dampened soils for winter wheat that was beginning to break dormancy. Similar amounts of rainfall occurred in southern China, where the weather warmed sufficiently — weekly temperatures averaging over 10°C — to promote early double-crop rice transplanting. Higher rainfall totals (10-50 mm) prevailed in the eastern Yangtze Valley, benefiting winter rapeseed beginning to flower. Additionally, temperatures surpassing 10°C in eastern Sichuan and western Hubei encouraged spring corn planting.



SOUTHEAST ASIA

In Indonesia, drier weather across central Java favored rice harvesting, with heavy rain (25-75 mm) occurring outside major producing areas. Seasonable amounts of rainfall (25-100 mm) in Sumatra maintained beneficial soil moisture for oil palm, while in Kalimantan, nearly 200 mm of rain slowed oil palm harvesting. In Malaysia meanwhile, showers were generally seasonable (50-100 mm), causing few harvest delays of oil palm. In the Philippines, 25 to over 150 mm of rain maintained abundant moisture supplies for rice and corn in eastern and southern growing areas. Light showers (less than 10 mm) in northern Vietnam favored vegetative spring rice, while mostly dry conditions in southern Vietnam continued to benefit spring rice harvesting. Elsewhere in Indochina, an unseasonable dousing of rainfall — upwards of 50 mm — in Thailand provided an early boost to northern reservoir levels. Farmers are between cropping seasons with the next season beginning in early May.

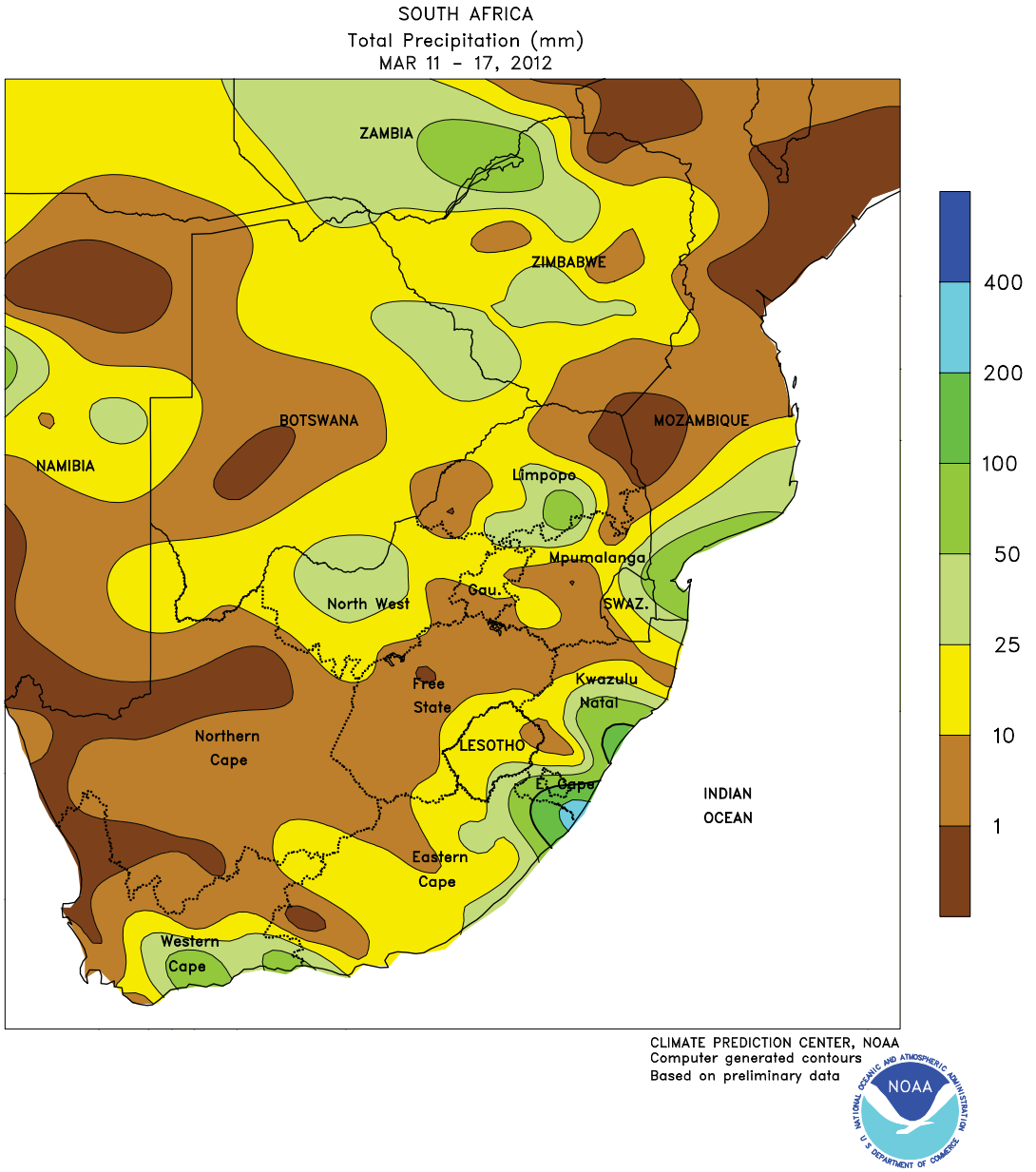
For additional information contact: mbrusberg@oce.usda.gov



AUSTRALIA

In southern Queensland and northern New South Wales, mostly dry weather (less than 5 mm) near the border region favored summer crop dry down and harvesting. Surrounding this region, showers (5-25 mm or more) benefited immature cotton and sorghum but hampered the maturation of earlier sown summer crops. Temperatures averaged near to below normal (up to 2°C below normal).

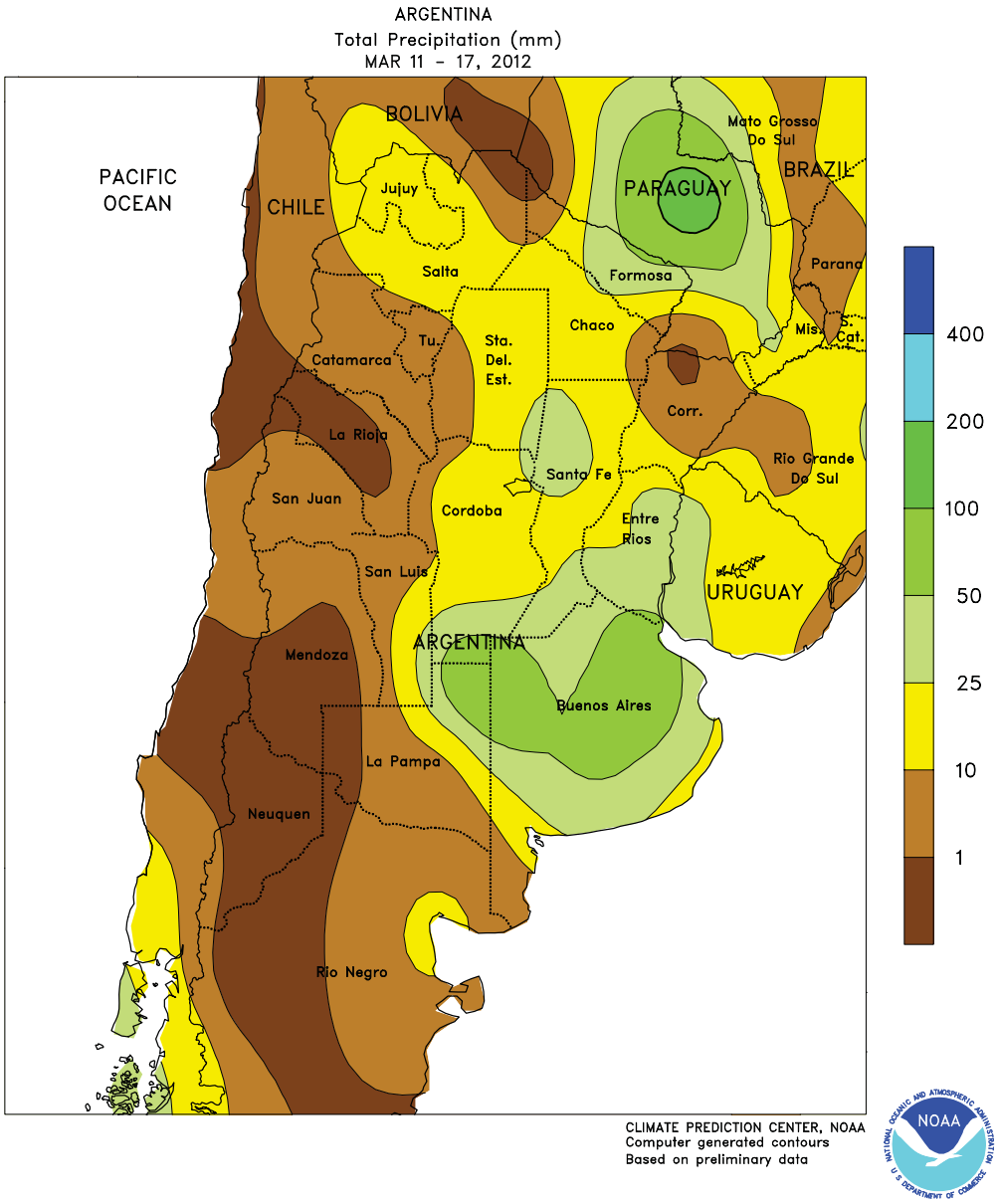
For additional information contact: mbrusberg@oce.usda.gov



SOUTH AFRICA

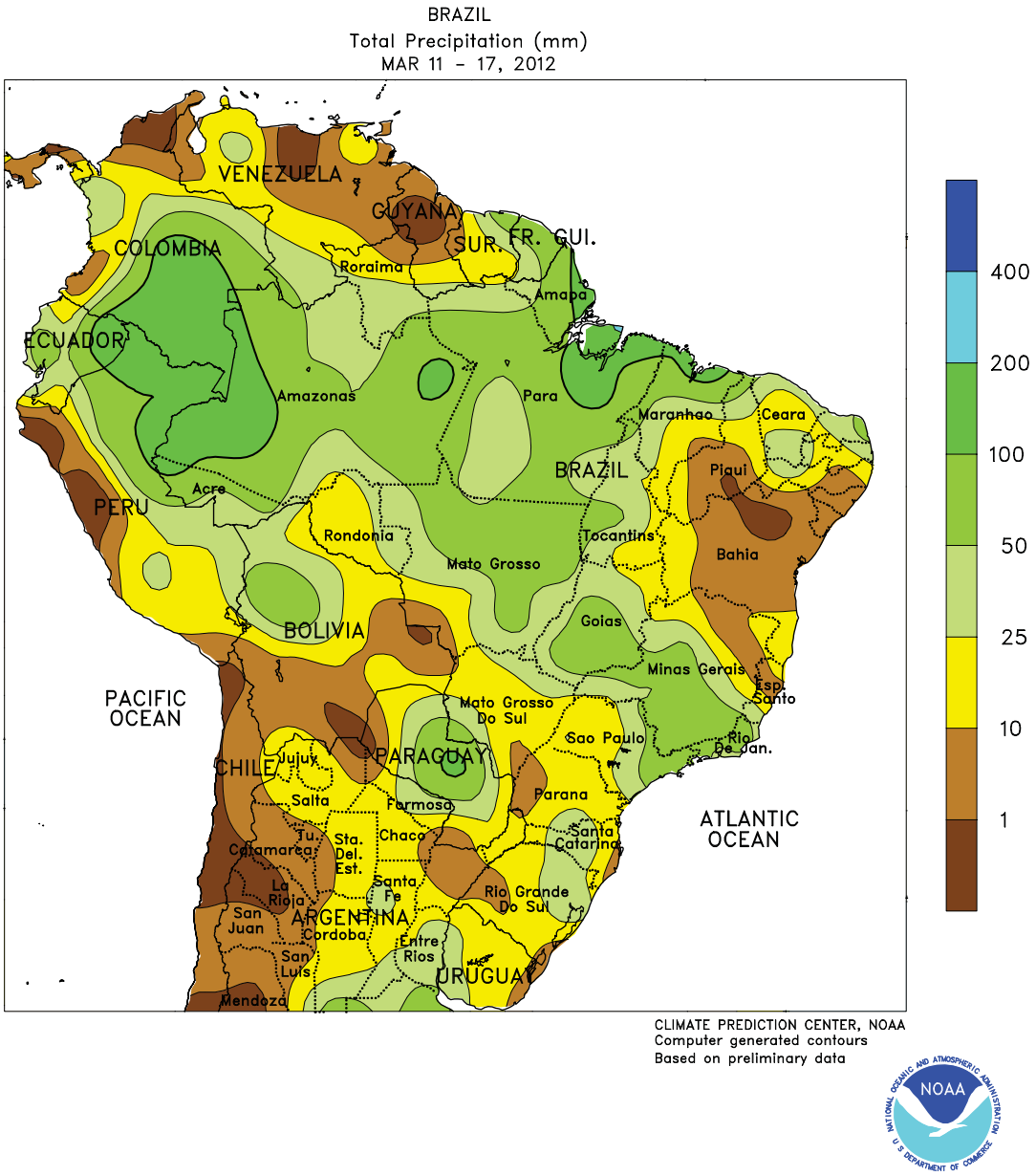
Showers increased from the previous week in some locales, offering partial relief from an extended period of untimely warmth and dryness. Northern sections of the corn belt (portions of North West, Gauteng, Mpumalanga, as well as outlying areas in Limpopo) recorded rainfall of 10 to 25 mm or more, although the continuation of near- to above-normal temperatures (daytime highs in the upper 20s and lower 30s degrees C) maintained high evapotranspiration rates. Drier conditions persisted in Free State and neighboring locations of southern Mpumalanga and northwestern KwaZulu-Natal, where accumulations fell below 10 mm. Meanwhile, locally heavy showers (25-50 mm, locally 100 mm) along the eastern Indian Coast boosted moisture for sugarcane in key production areas of KwaZulu-Natal and northeastern sections of Eastern Cape. In Western Cape, unseasonably heavy rain (10-50 mm or more) was untimely for harvests of tree and vine fruit in some southern farming areas, but the rain ushered in a seasonably cooler air mass, bringing some relief from early week temperatures that approached 40°C.

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



ARGENTINA

A general pattern of warm, showery weather continued, maintaining adequate to abundant moisture for late-sown corn and soybeans but causing some delays in seasonal fieldwork. Rainfall totaled 25 to more than 50 mm over most of Buenos Aires and in neighboring locations of La Pampa, Cordoba, Santa Fe, and Entre Rios; these amounts were below those recorded last week but still averaged near to above normal. After a brief period of lingering heat (highs reaching the lower and middle 30s degrees C), seasonably cooler conditions prevailed, with daytime highs mostly in the middle and upper 20s. As a result, weekly average temperatures were near to slightly above normal. Farther north, somewhat lighter rain fell, with most areas recording below-normal rainfall (amounts generally totaling 10-25 mm). In addition, weekly average temperatures were 2 to 3°C above normal across the region, with several days of high temperatures near 40°C maintaining stress on livestock and immature summer crops. According to Argentina's Ministry of Agriculture, sunflowers were 56 percent harvested, 17 points ahead of last week's pace but still lagging last year (60 percent).

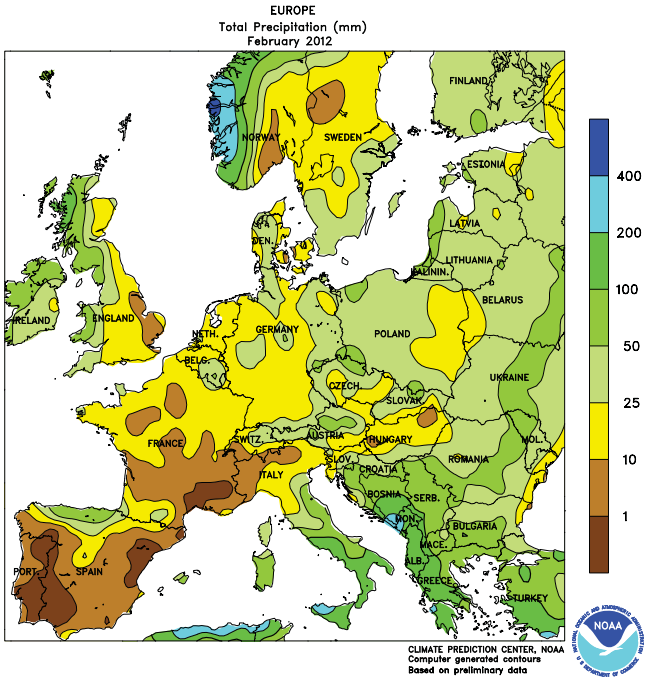


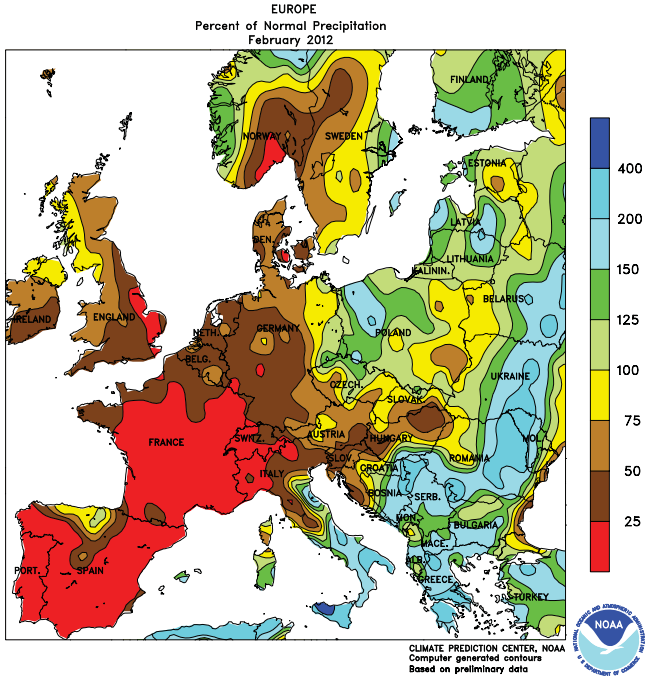
BRAZIL

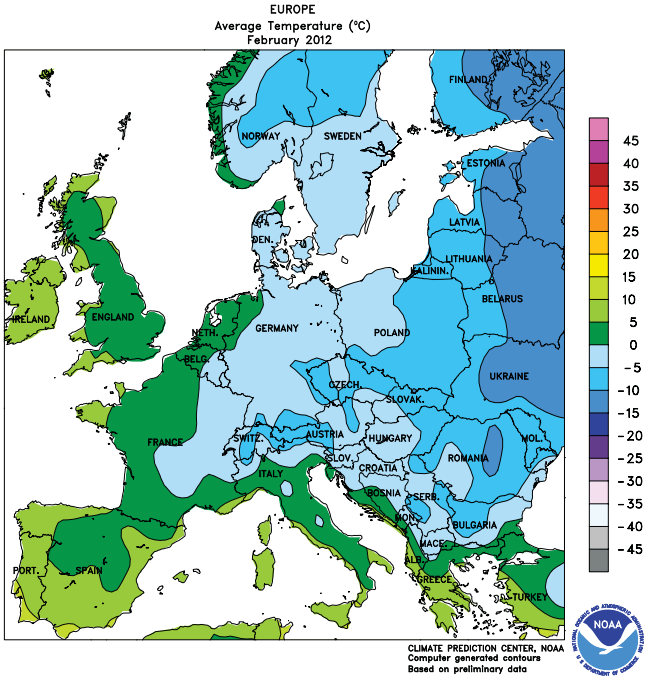
Unseasonable warmth and dryness persisted throughout much of the south, fostering rapid drydown and harvesting of soybeans but further reducing moisture available to emerging winter-grown (safrinha) corn. Rainfall totaled less than 25 mm in key production areas of Rio Grande do Sul, Parana, and Mato Grosso do Sul; the midweek showers ended a brief period of stressful warmth (highs of 35-37°C), though rainfall amounts were not sufficient to significantly improve safrinha corn prospects. Similarly, early week heat gave way to somewhat heavier rain (local showers in excess of 50 mm) in Paraguay. Meanwhile, scattered showers (10-25 mm or more) brought some relief to sugarcane and other crops in western Sao Paulo, following more than a week of warmer- and drier-than-normal conditions. Farther north, seasonably heavy rain (25-50 mm or more) returned from Mato Grosso eastward through southern Minas Gerais, increasing moisture for safrinha corn, coffee, and other regionally important crops. However, mostly dry, unseasonably warm weather (weekly average temperatures 1-2°C or more above normal, with highs in excess of 35°C) continued over parts of the northeast, including the area in and around western Bahia. Although the dryness was timely for soybean harvesting, additional moisture would be welcome for cotton and other later-maturing crops.

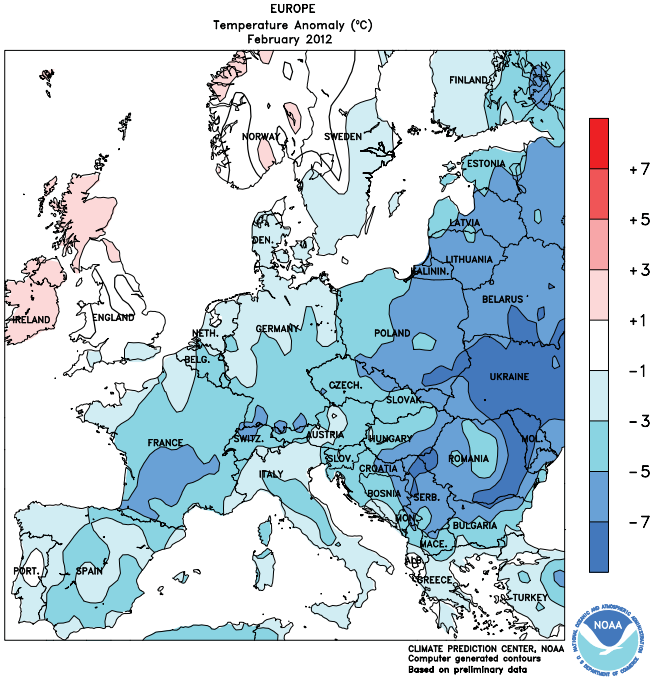
For additional information contact: mbrusberg@oce.usda.gov

February International Temperature and Precipitation Maps





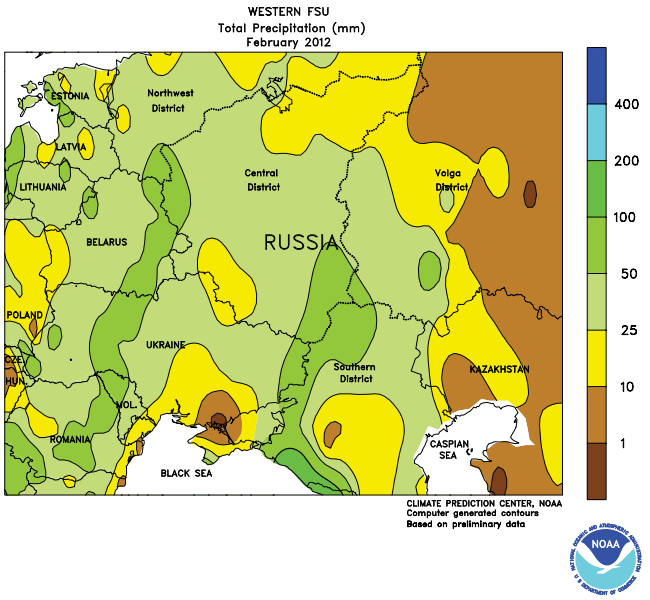


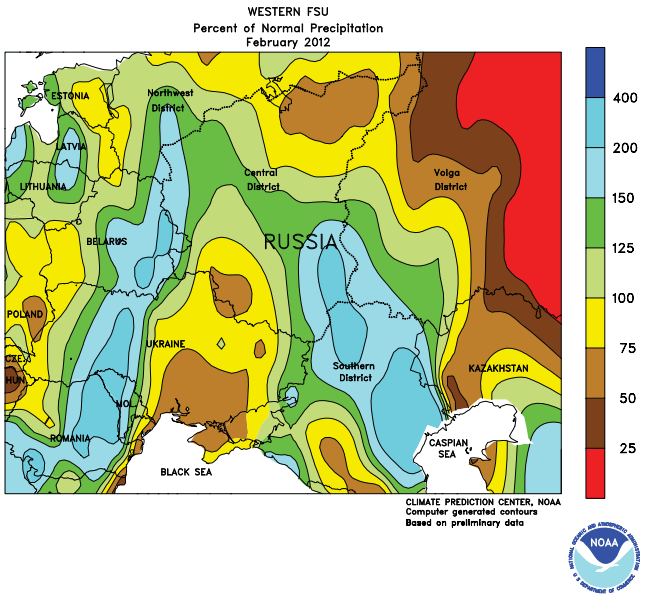


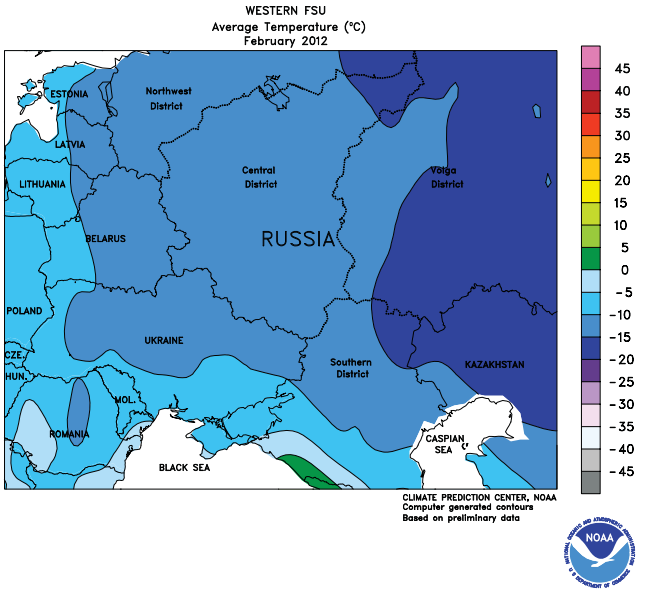
EUROPE

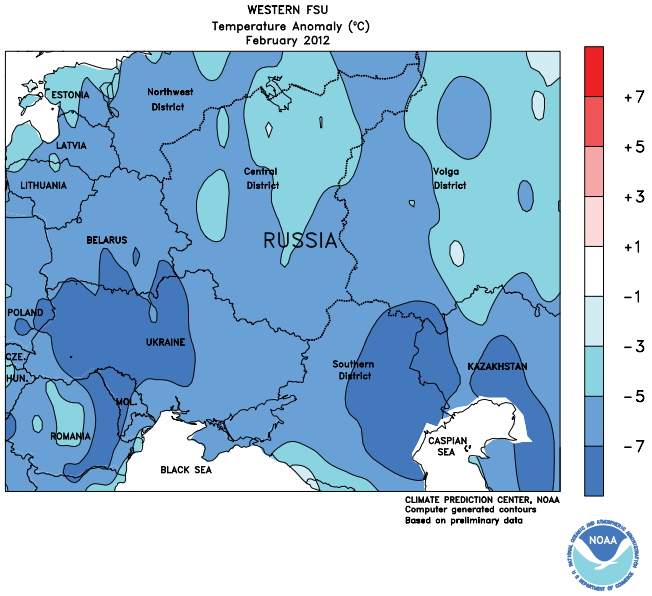
Sharply colder February weather threatened exposed winter grains and oilseeds in northern portions of France, Germany, and Poland. Bitter cold was also reported in the Balkans, although a deep snowpack protected dormant winter wheat and rapeseed. Elsewhere in southern Europe, a hard freeze was accompanied by historic snow in typically mild portions of the central Mediterranean, posing a risk to unharvested citrus and other temperature-sensitive specialty crops. Meanwhile, drought intensified on the Iberian Peninsula, reducing yield prospects for late-vegetative winter wheat and barley. Drier-than-normal conditions also expanded into France, Germany, and England, lowering soil moisture for spring growth. Winter crops in France and western Germany broke dormancy at month's end.

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





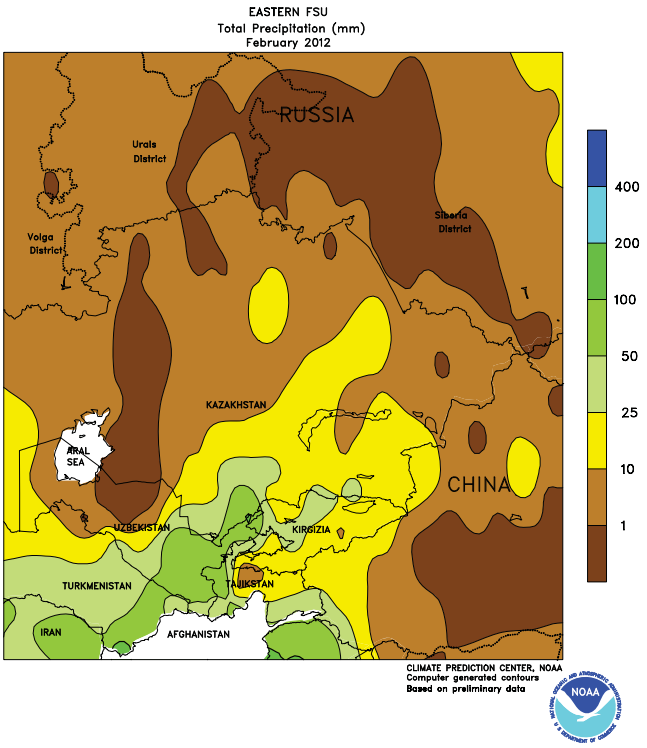


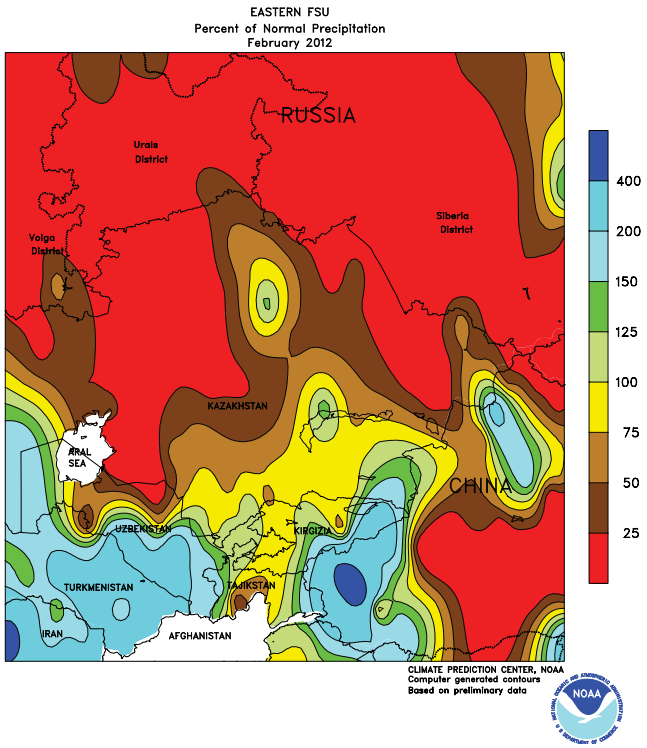


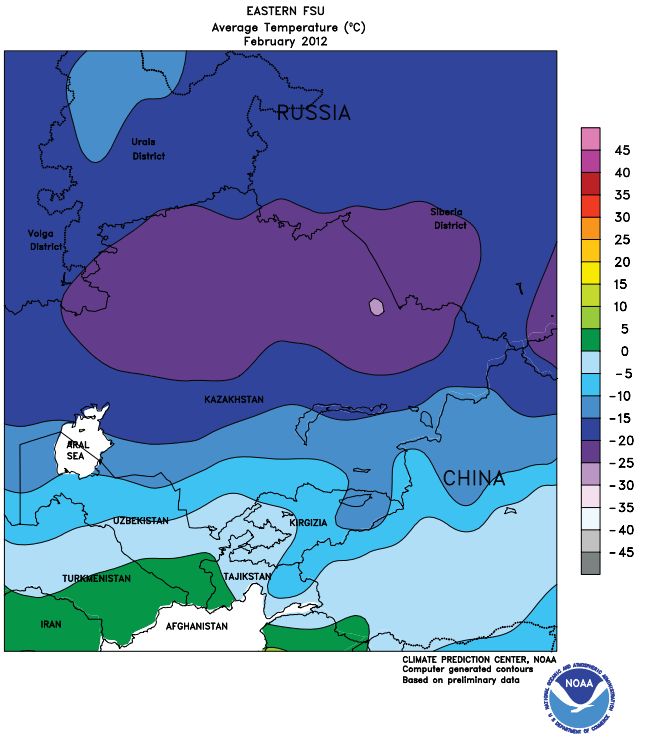
WESTERN FSU

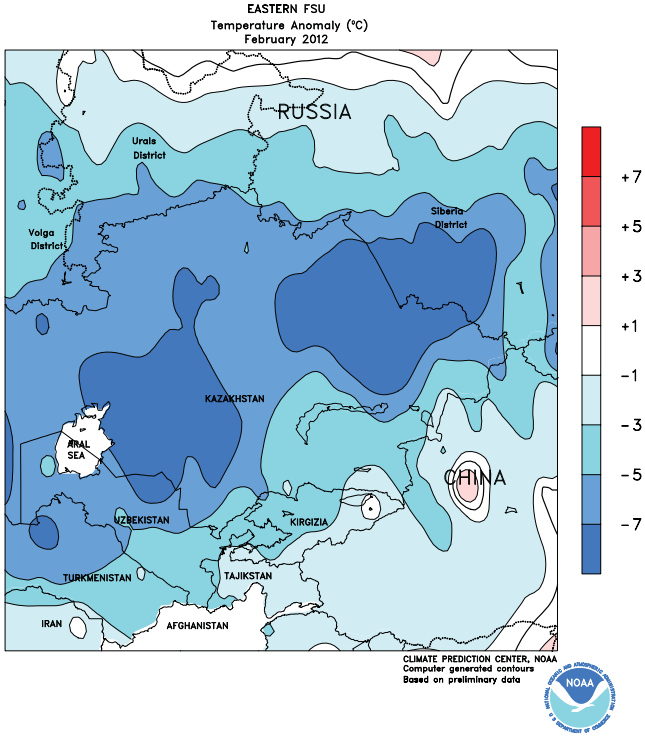
Bitterly cold weather persisted over winter grain areas during February, although most crops were protected by a deep snowpack. Winter wheat in southern Ukraine may have suffered some freeze damage or burnback with the arrival of arctic air due to an initially shallow snow cover. Above-normal precipitation in Belarus, Russia, and northern and western Ukraine boosted moisture reserves for spring growth. In contrast, drier-than-normal weather (40-80 percent of normal) returned to east-central Ukraine, lowering moisture reserves for spring growth.

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





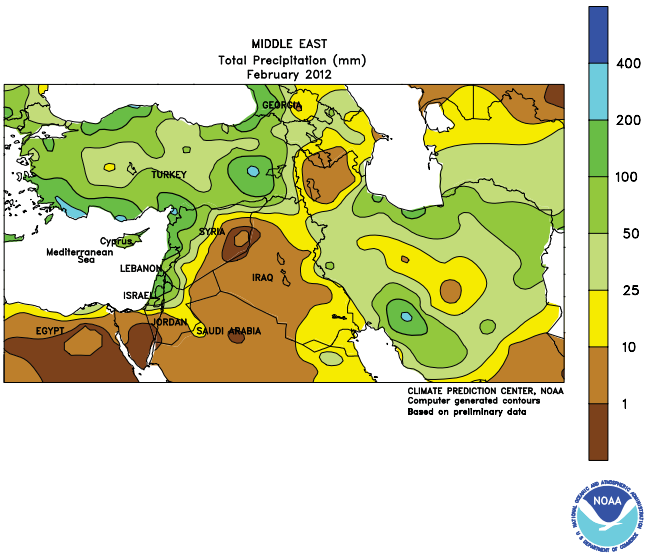


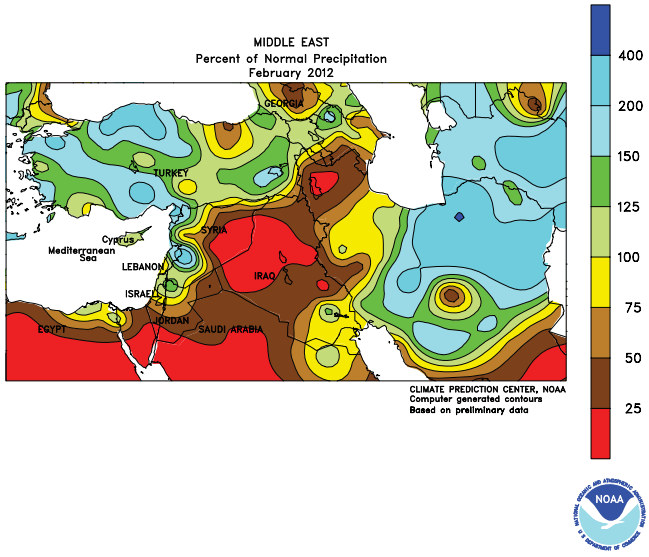


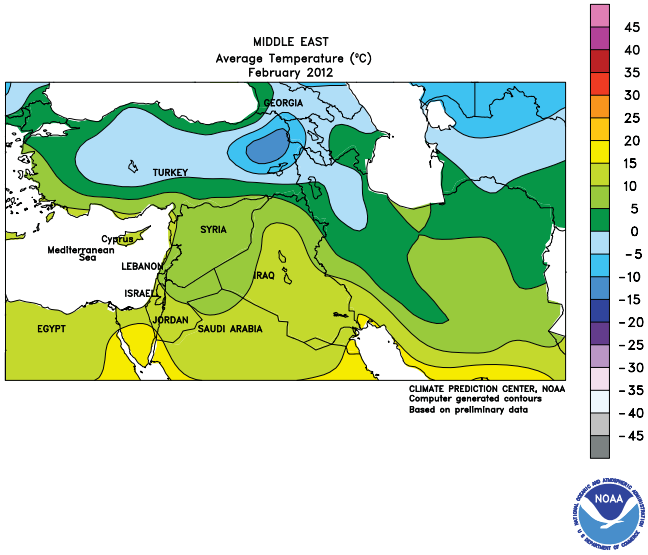
EASTERN FSU

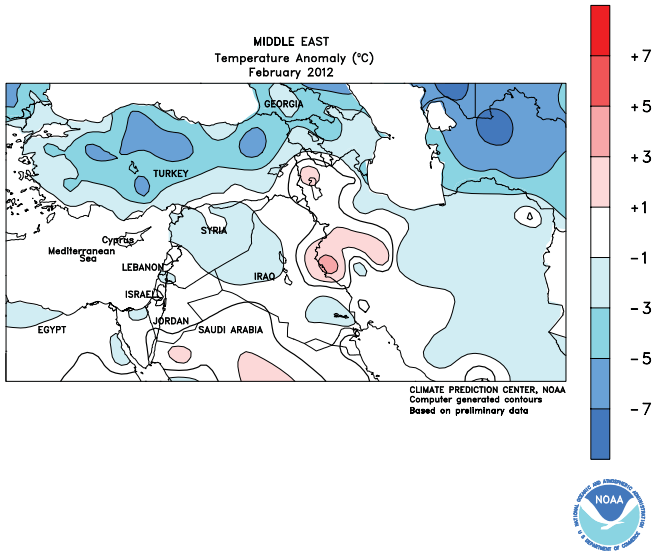
In February, bitterly cold, dry weather prevailed over Kazakhstan and Russia. Temperatures averaged up to 11°C below normal in eastern Kazakhstan and southwestern portions of the Siberia District, with nighttime readings plunging below -40°C. This is not a primary winter crop area, although any planted winter grains were protected from the cold by a deep snowpack. Meanwhile, rain and mountain snow (10-100 mm liquid equivalent) boosted irrigation reserves and mountain snowpacks across the south.

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



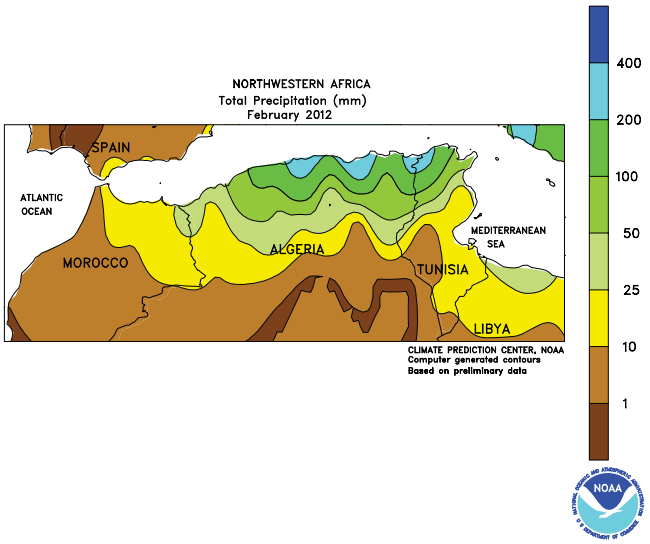


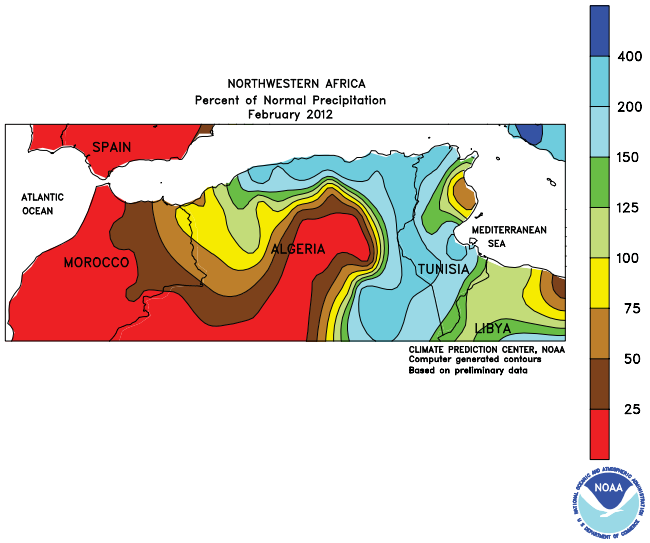


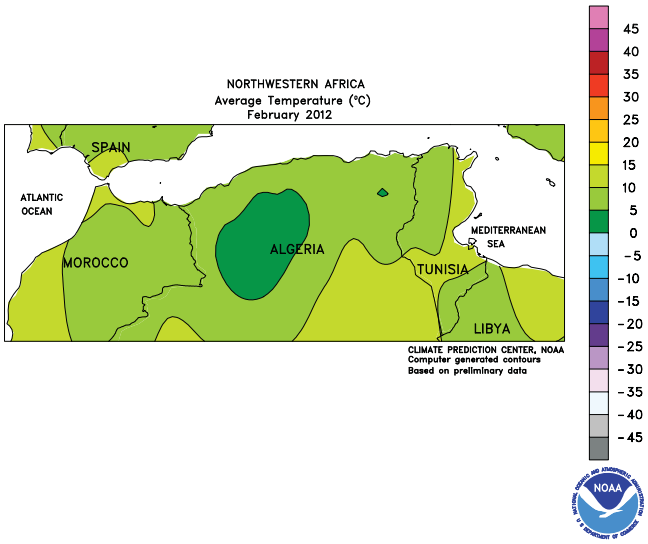


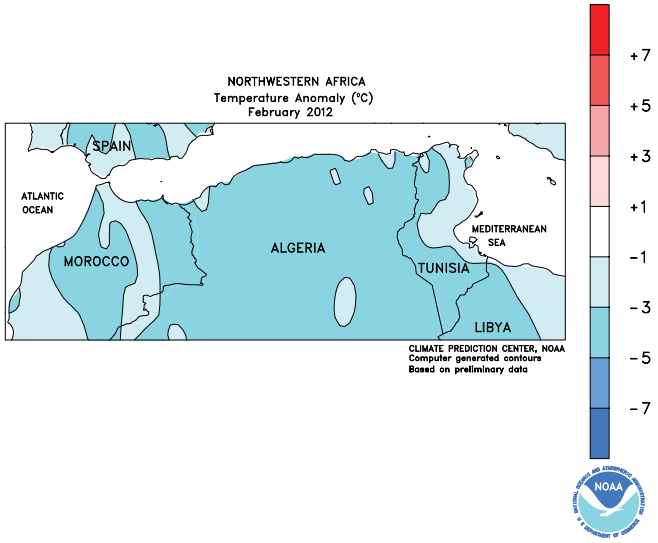
MIDDLE EAST

Much-needed rain and snow overspread the region during February, boosting soil moisture for dormant (north) to vegetative (south) winter wheat and barley. Precipitation totaled locally more than 200 percent of normal in Turkey and northeastern Iran, while a pocket of unfavorable dryness (less than 25 percent of normal) persisted in northwestern Iran. Winter crops in Turkey were insulated from incursions of cold by a deep snowpack. Overall, wheat and barley prospects remained favorable heading into the spring.



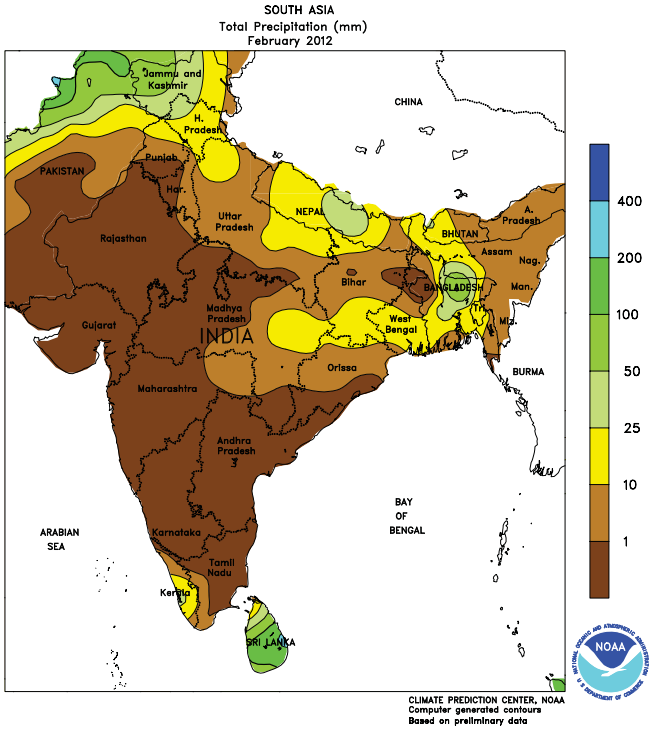


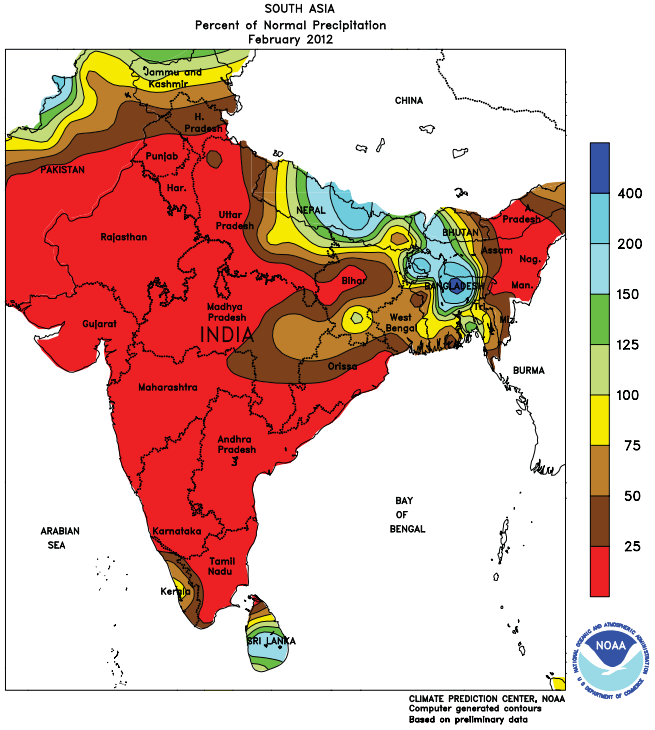


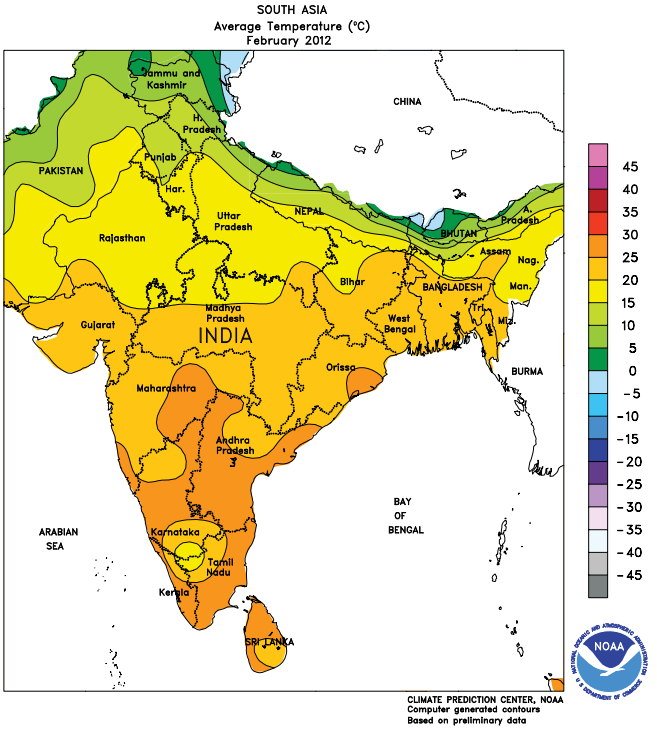


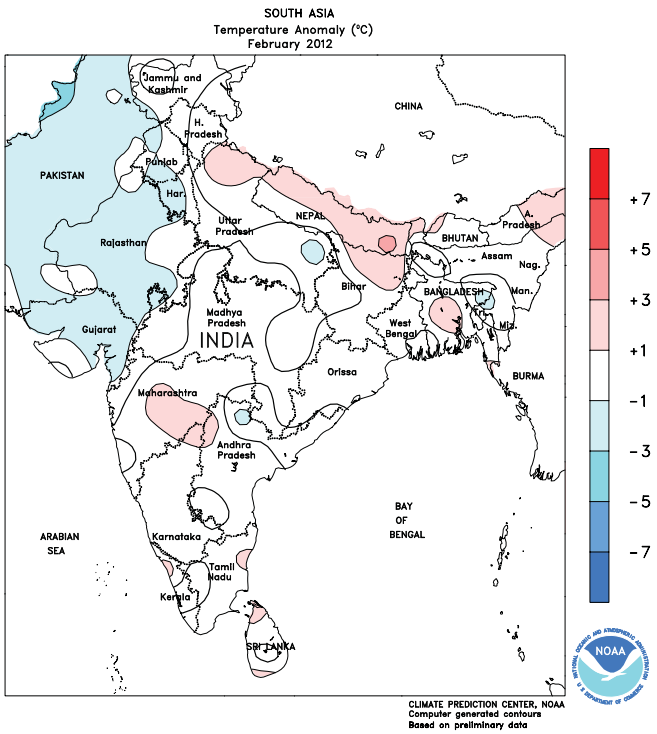
NORTHWESTERN AFRICA

In February, above-normal rainfall in Tunisia and Algeria contrasted with developing dryness in Morocco. The eastern rainfall - which totaled locally more than 200 mm - caused some flooding but was overall beneficial for vegetative winter grains. Temperatures were consistently below normal, with hard freezes posing a risk to tillering wheat and barley as well as temperature-sensitive specialty crops.



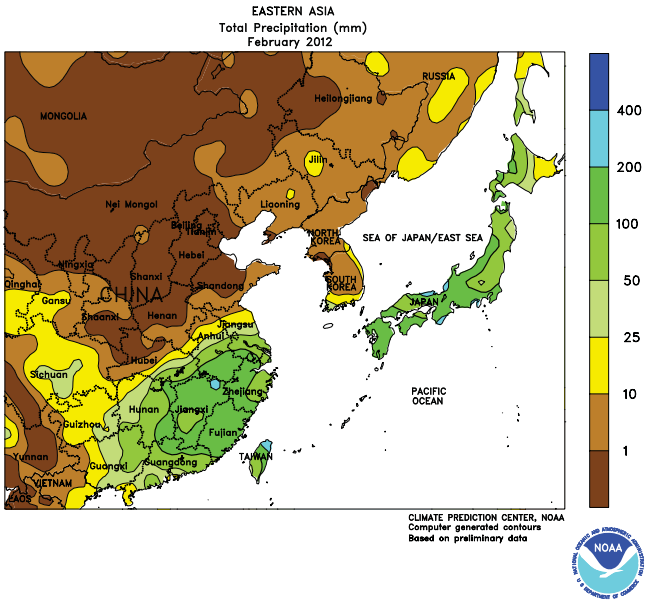


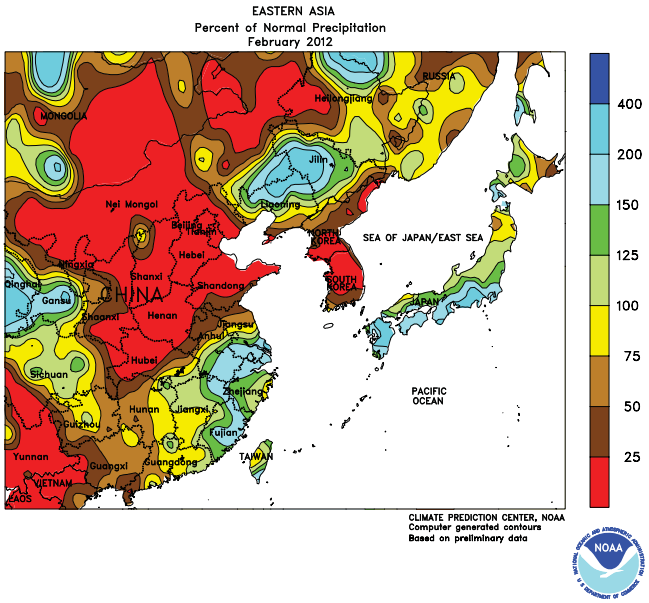


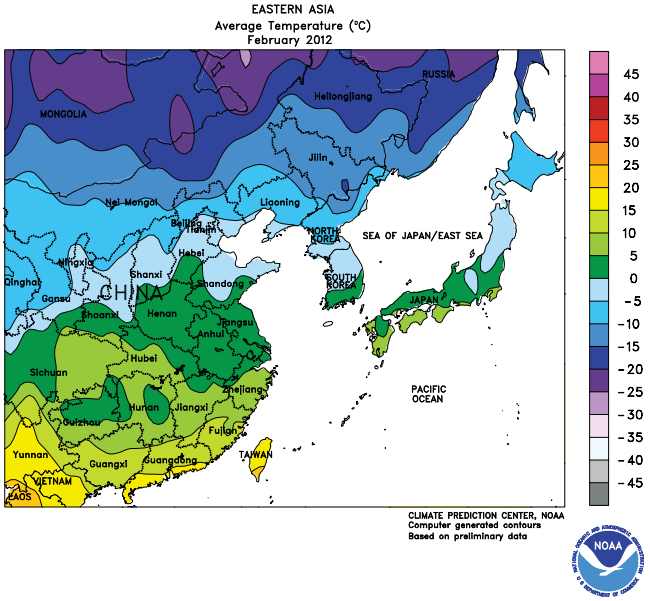


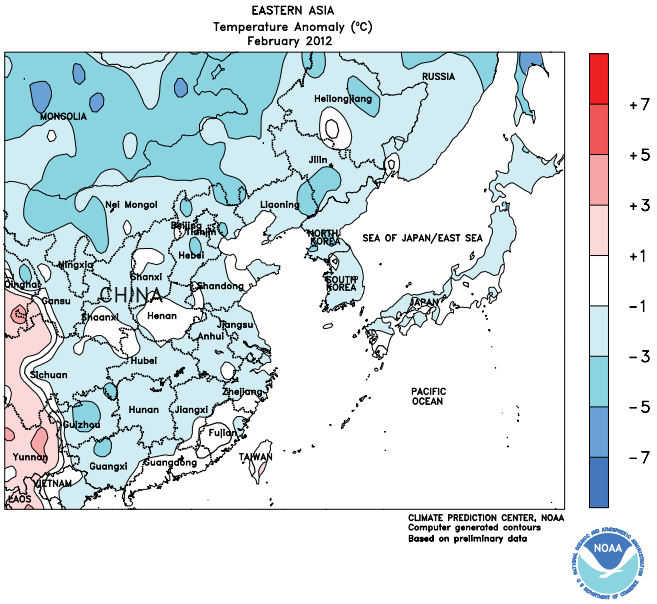
SOUTH ASIA

In February, sunny, mild weather aided winter crops in the latter stages of development. Winter rapeseed was maturing in northwest India, while wheat in northern India and Pakistan was in the filling stage of development. By month's end, warmer conditions promoted drydown and harvesting of rapeseed and rabi rice.



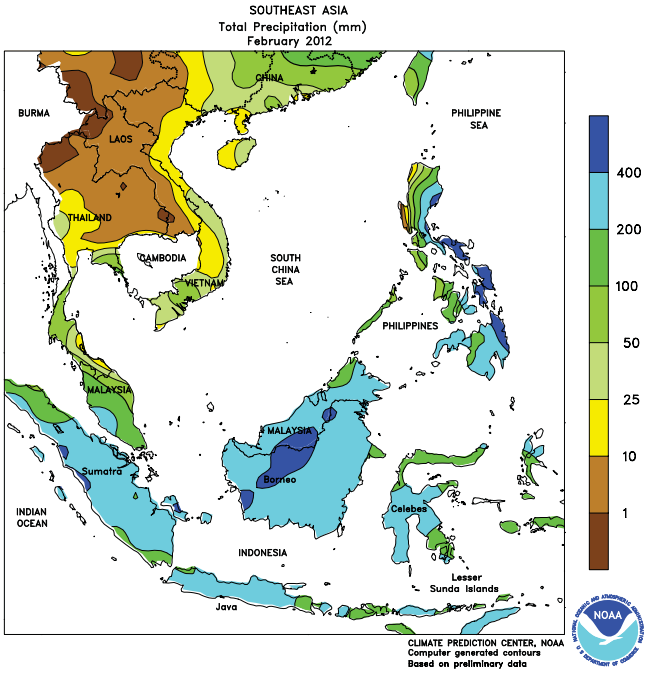


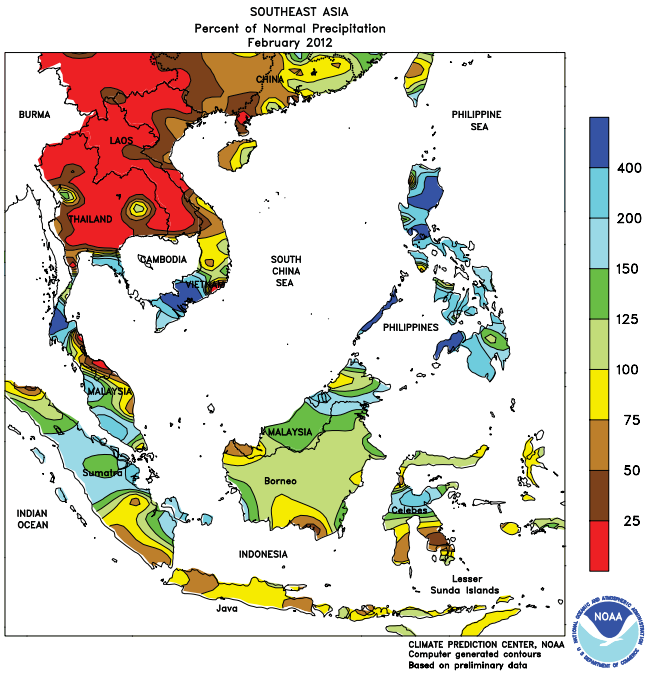


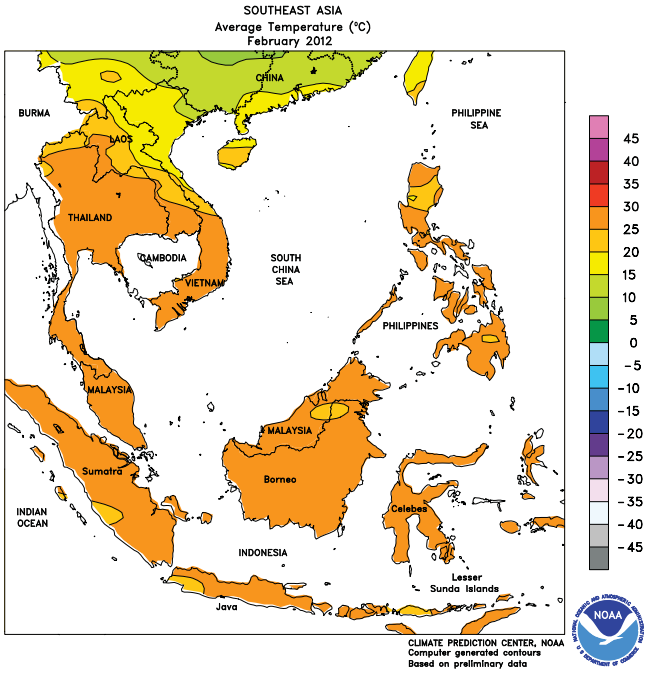


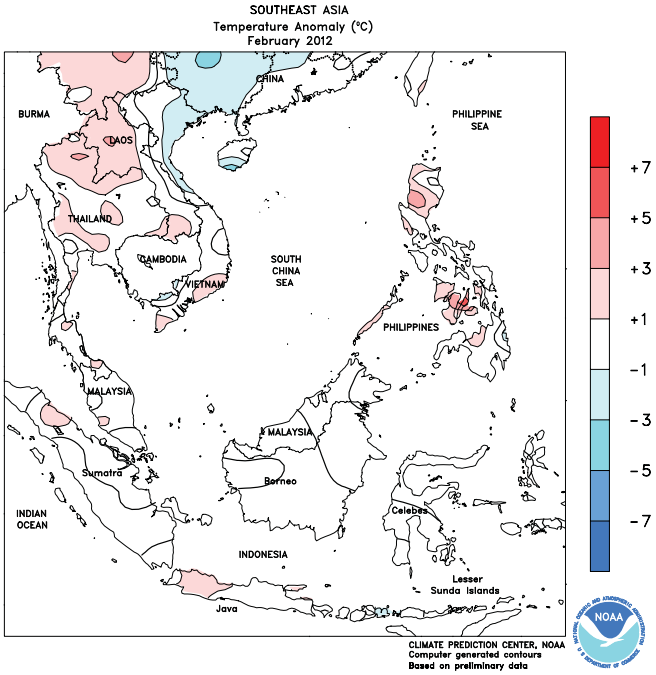
EASTERN ASIA

Generally mild weather during February favored overwintering crops in China, with widespread showers in the southeast boosting moisture reserves for spring planting. Toward the end of February, warmer weather eased winter rapeseed out of dormancy, while cold weather on the North China Plain kept winter wheat dormant.







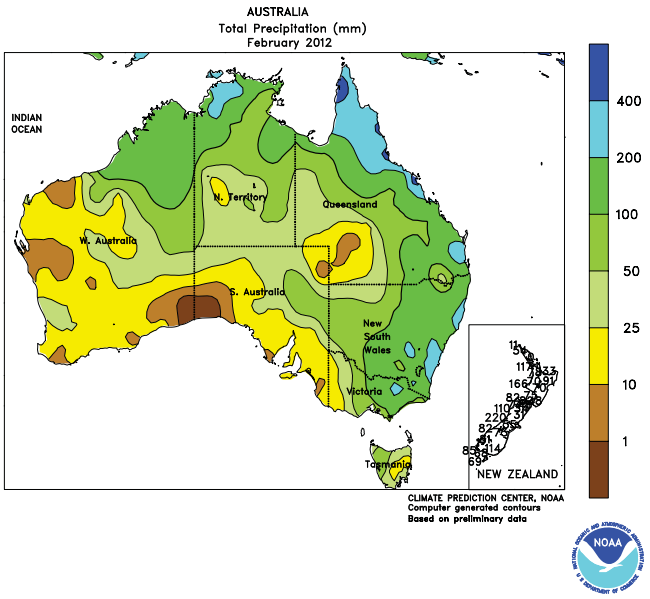


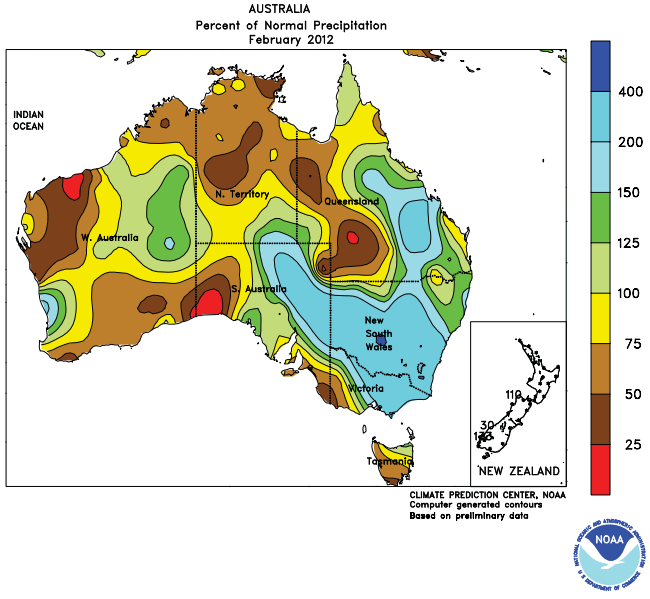
SOUTHEAST ASIA

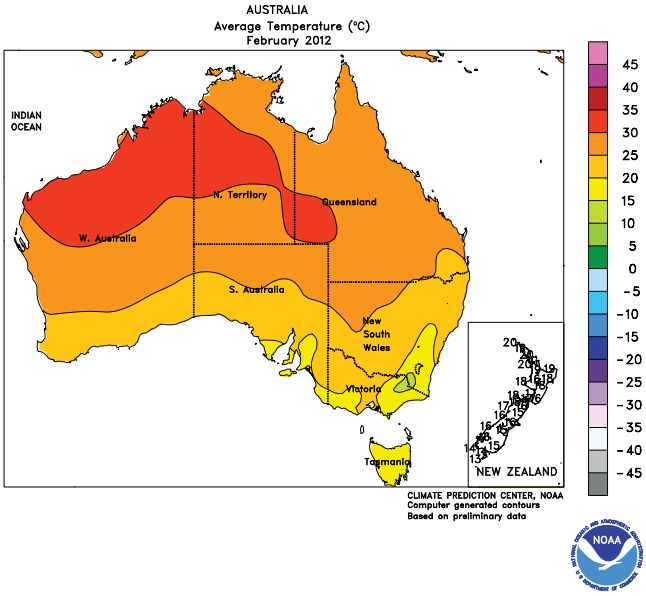
Periodic flooding from torrential rainfall caused fieldwork delays in the Philippines. Despite the delays, the rainfall maintained moisture supplies at very high levels, ensuring favorable rice and corn prospects for the first half of the year.

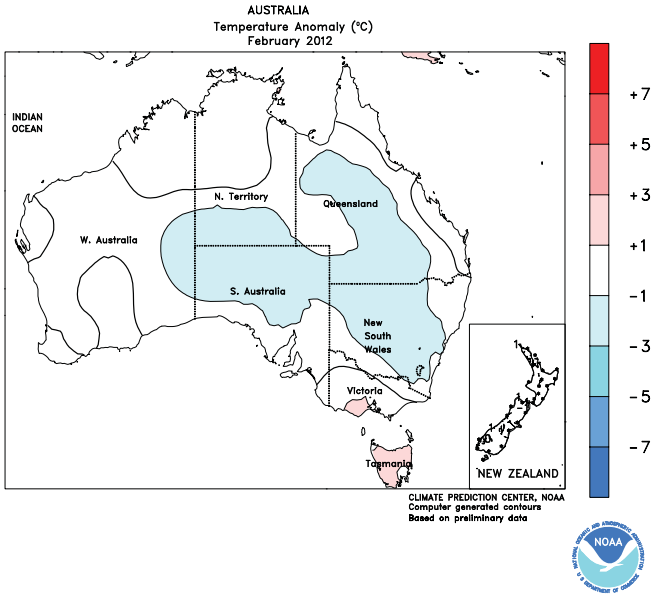
In Vietnam, mostly dry weather favored spring rice harvesting in the south, while occasional showers in the north benefited vegetative spring rice. Rice was maturing across Java, Indonesia, during February, under generally wet conditions.

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



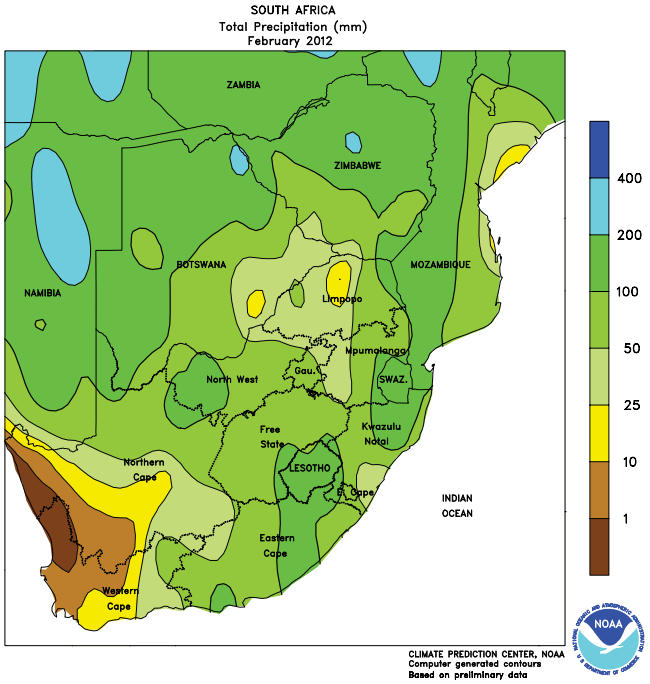


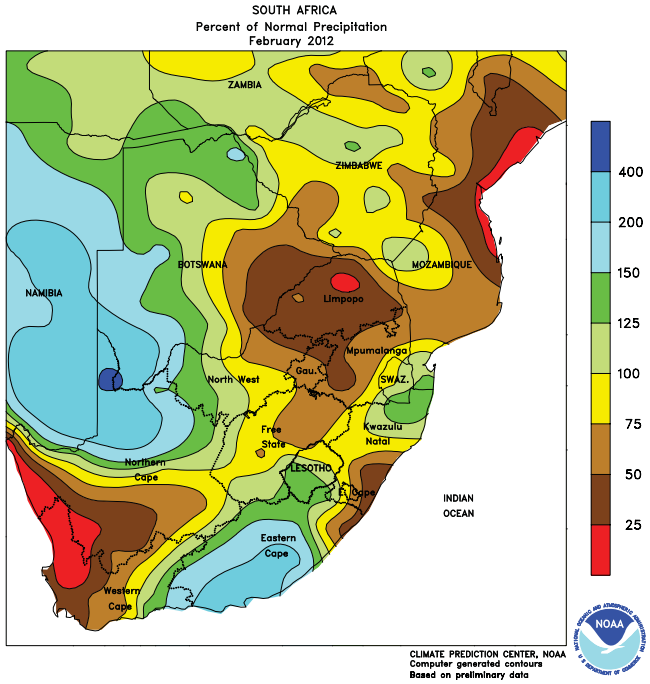


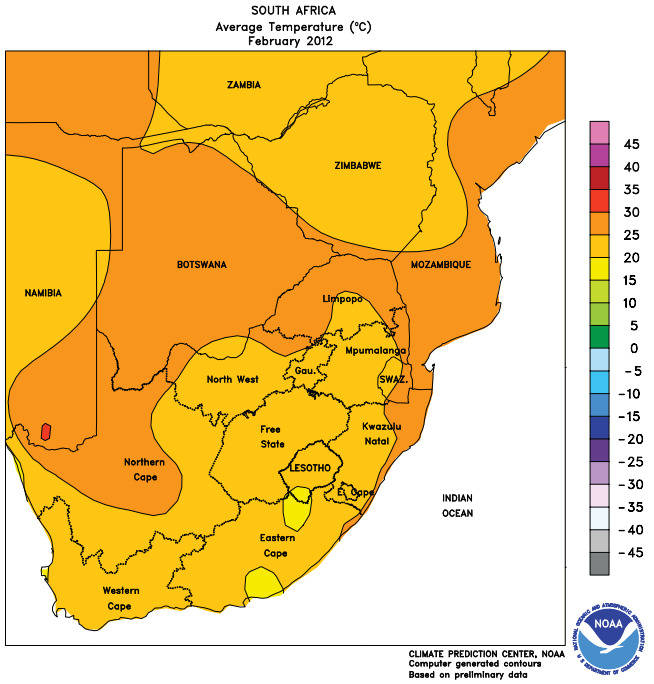


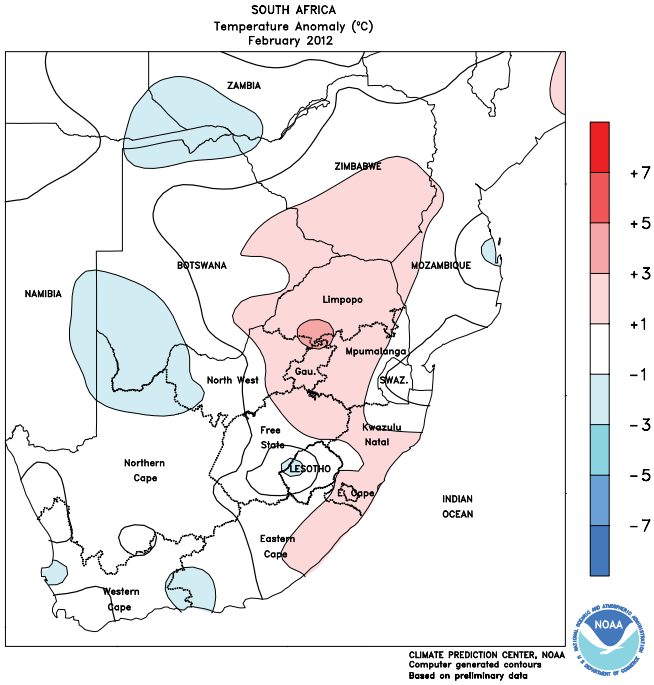
AUSTRALIA

In February, above-normal rainfall in eastern Australia maintained abundant to locally excessive moisture supplies for immature cotton and sorghum. Isolated flooding caused local crop damage. Nevertheless, the rainfall was overall beneficial for summer crops, maintaining good to excellent yield prospects.



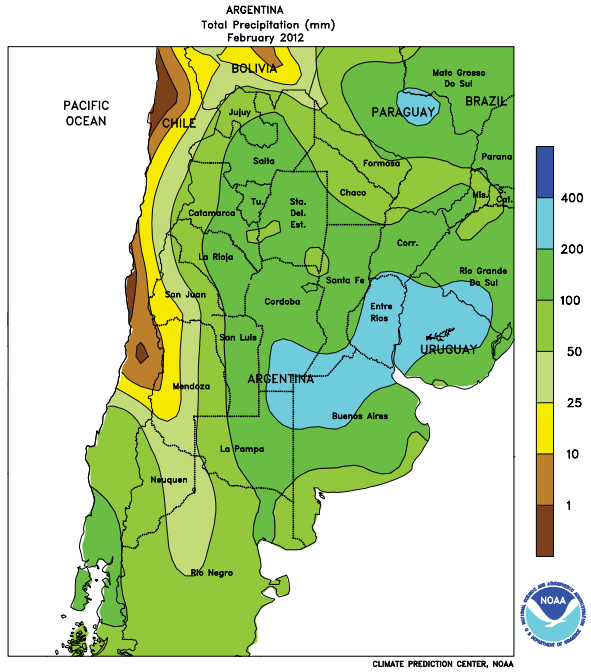


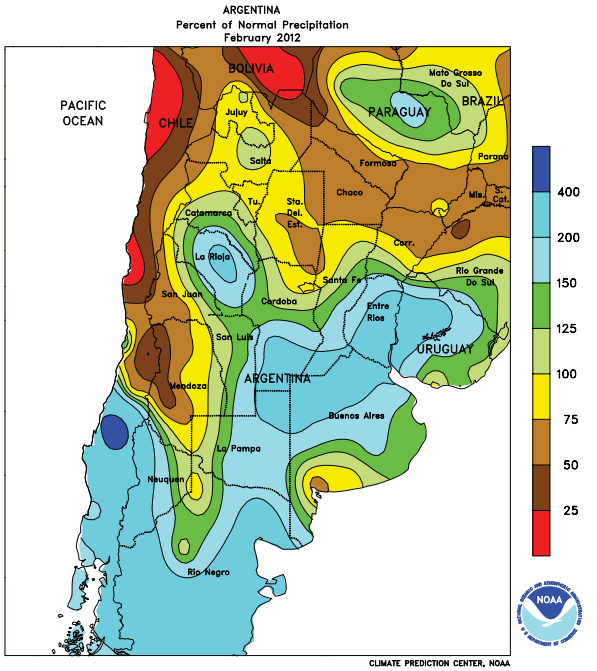


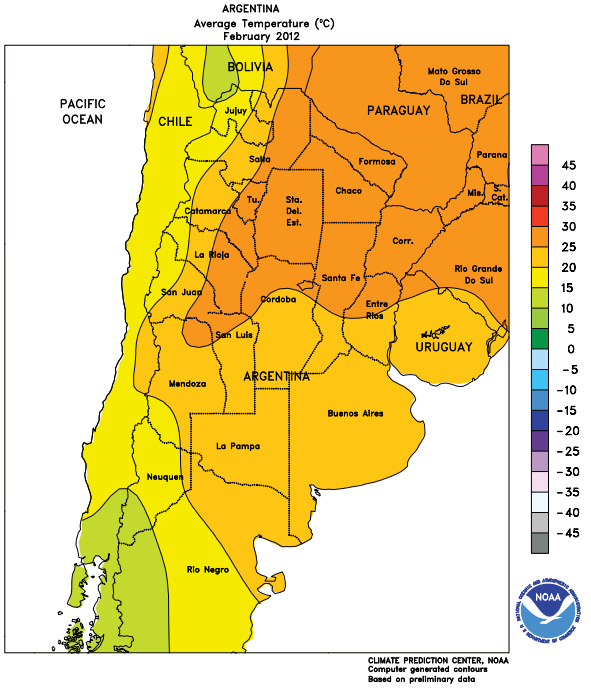


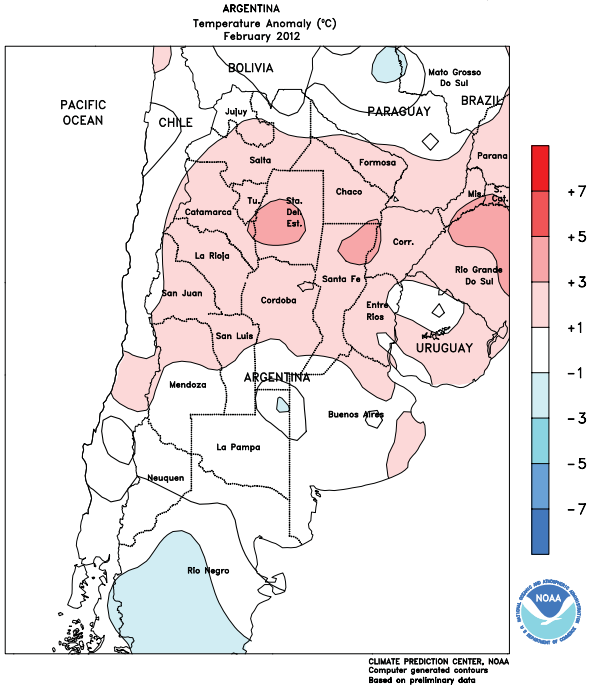
SOUTH AFRICA

In February, warmer- and drier-than-normal weather dominated the eastern half of the region, reducing moisture for rain-fed summer crops. The onset of unseasonable warmth and dryness, which began during the latter part of January, was especially untimely for reproductive to filling corn. Traditionally higher yielding farming areas of the eastern corn belt (in and around Mpumalanga) were particularly hard hit, with rainfall totaling less than half of normal and monthly average temperatures 2°C or more above normal. Daytime highs often reached the lower and middle 30s (degrees C), compounding stress on crops in vulnerable stages of development. Similar conditions prevailed in the rain-fed sugarcane areas of southern KwaZulu-Natal, which experienced a third month of unseasonable dryness. Elsewhere, fairly frequent showers maintained mostly favorable irrigation reserves in Eastern Cape and in Northern Cape's Orange River Valley. Mostly dry, seasonably warm weather advanced tree and vine crops toward maturity in Western Cape, but daytime highs occasionally reached stressful levels (near to above 40°C) for crops and livestock.



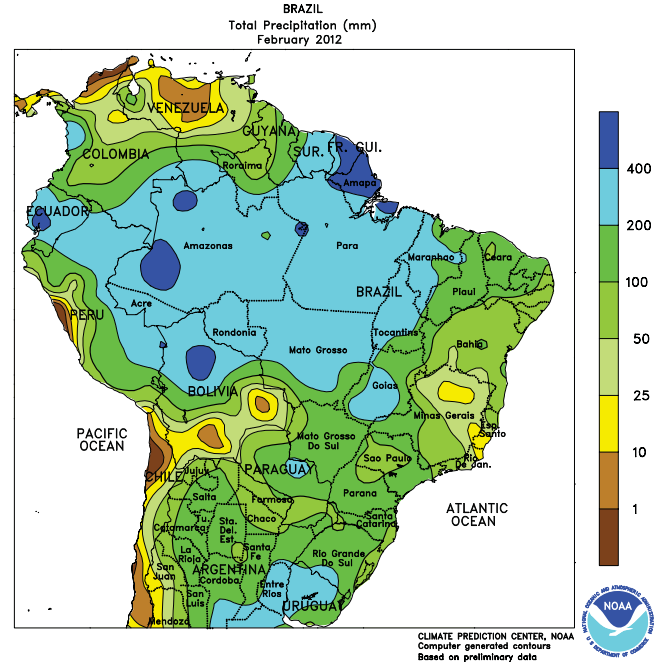


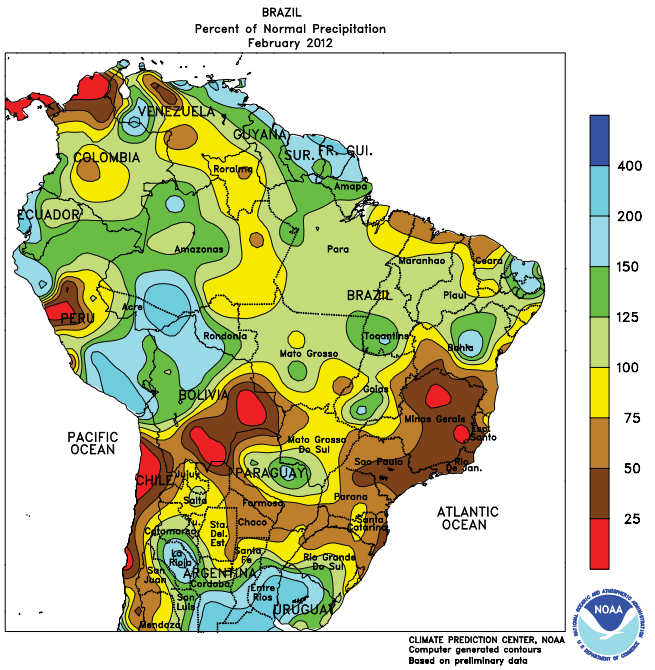


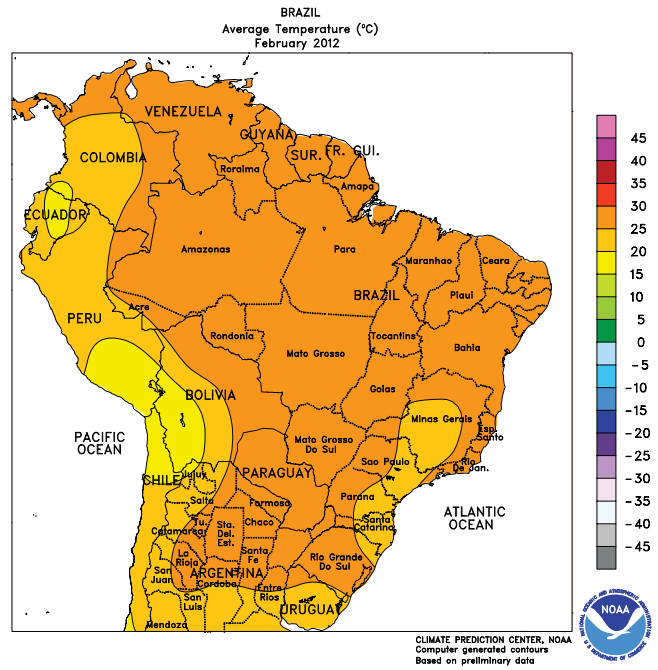


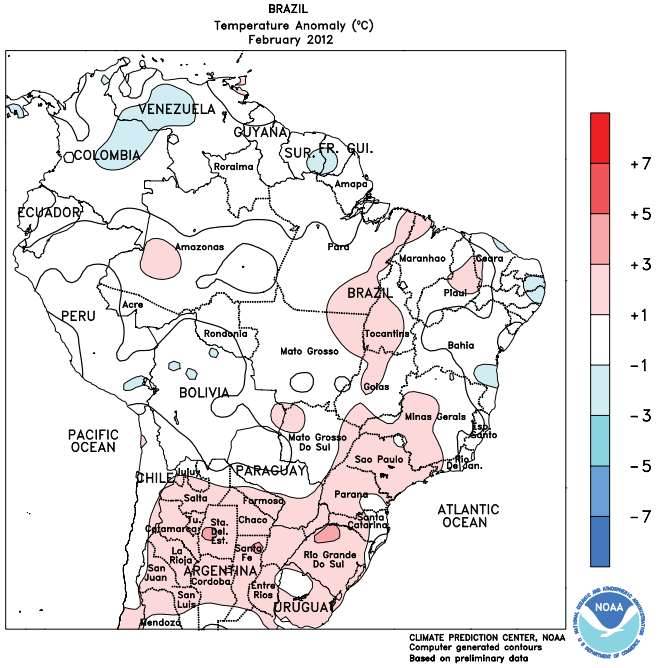
ARGENTINA

During February, wet, occasionally warm weather favored soybeans and other late-planted summer crops in central Argentina's main farming areas, although the moisture came too late to significantly improve prospects for drought-damaged crops planted earlier in the season. Monthly rainfall accumulations over 200 mm were reported in the high-yielding farming areas in and around northern Buenos Aires. Amounts were mostly near to above normal elsewhere in the region, although rainfall totaled below 100 mm in the less-intensive corn and soybean areas of southernmost Buenos Aires. Monthly average temperatures were generally 1°C above normal as hot weather (highs at or above 35°C) returned briefly during several relatively dry periods. Shower activity was highly variable farther north, with pockets of below-normal rainfall centered over Chaco. Monthly average temperatures were 2 to 4°C above normal across the north, with highs reaching 40°C on several occasions. The warmth and dryness accelerated drydown and harvesting of sunflowers, while promoting rapid maturation of the mostly rain-fed cotton crop.



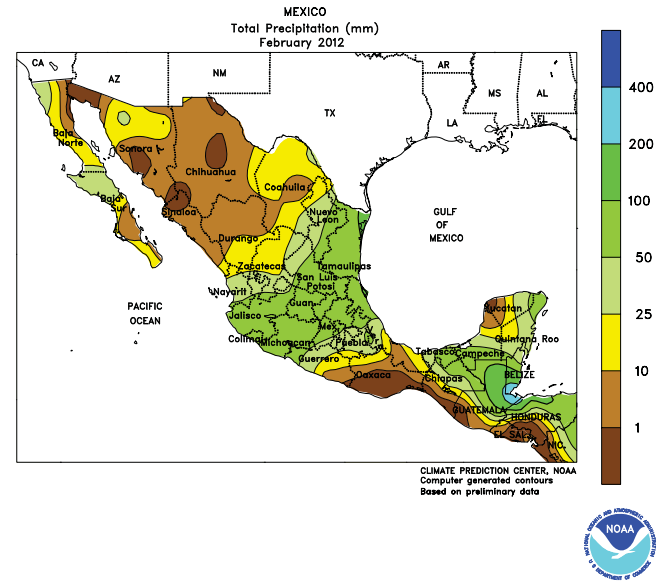


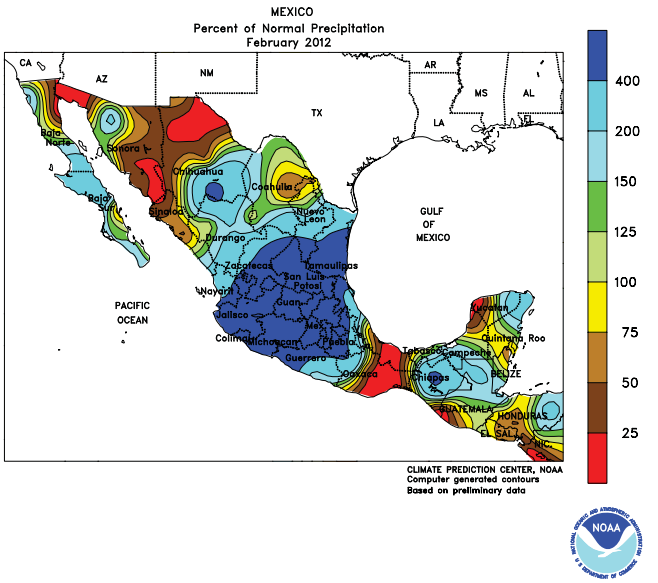


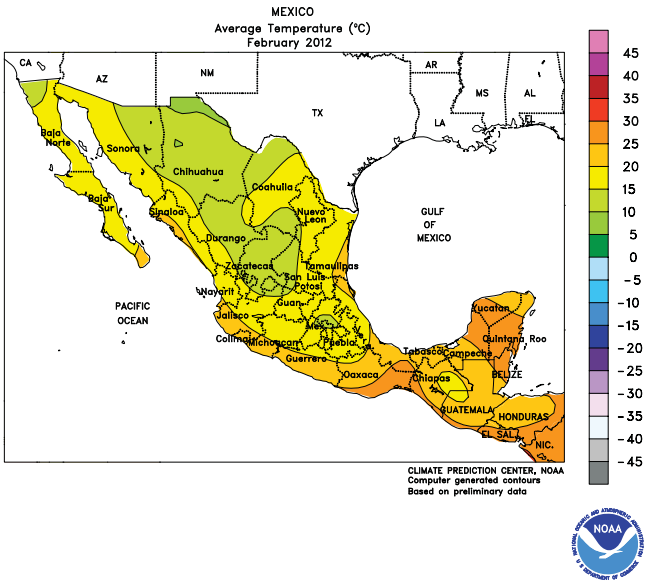


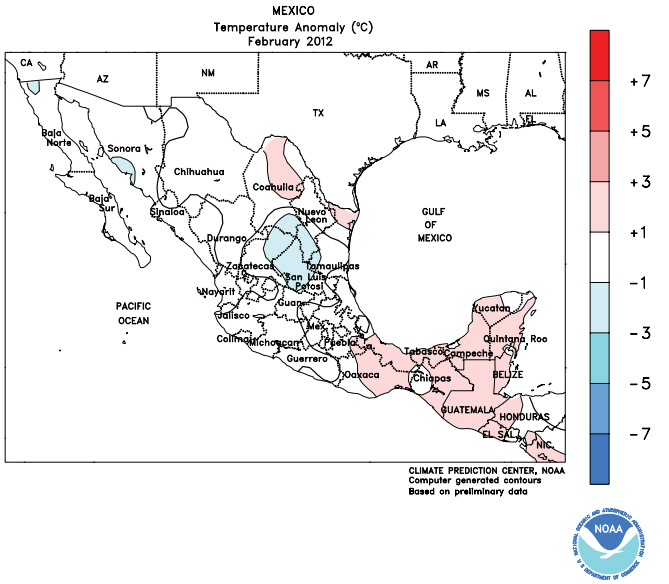
BRAZIL

In February, unfavorable warmth and dryness caused varying degrees of stress on soybeans and other summer crops in key southern production areas. This was especially true for Rio Grande do Sul, where temperatures averaged 3°C above normal and daytime highs of 35°C or higher were common as summer crops advanced through reproductive and filling stages of development; otherwise, conditions fostered rapid drydown and harvesting of soybeans in other southern states where crops were farther along in development. Rainfall rebounded somewhat during the latter half of the month, and much of the south recorded near- to above-normal rainfall during the second half of February. The moisture was timely for germination and establishment of secondary (safrinha) corn but came too late to significantly improve prospects for all but the latest-planted soybeans. Elsewhere, drier- and warmer-than-normal conditions also reduced available moisture for sugarcane and coffee in the southeast (Sao Paulo, Minas Gerais, and Espirito Santo). Rainfall was near to above normal in the Center-West region (Mato Grosso, Goias, and northern Mato Grosso do Sul) and northeastern interior; sporadic dryness promoted rapid soybean harvesting but additional rain would have been welcome for cotton and safrinha corn. Seasonably drier conditions along the northeastern coast aided routine fieldwork, including harvesting of sugarcane and cocoa.



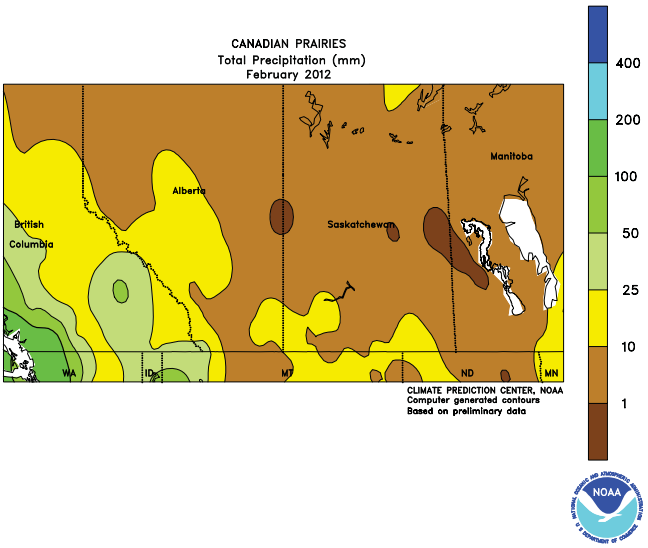


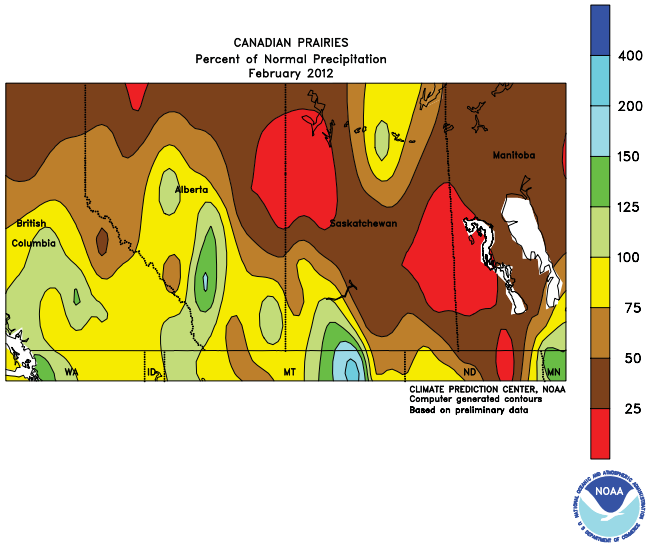


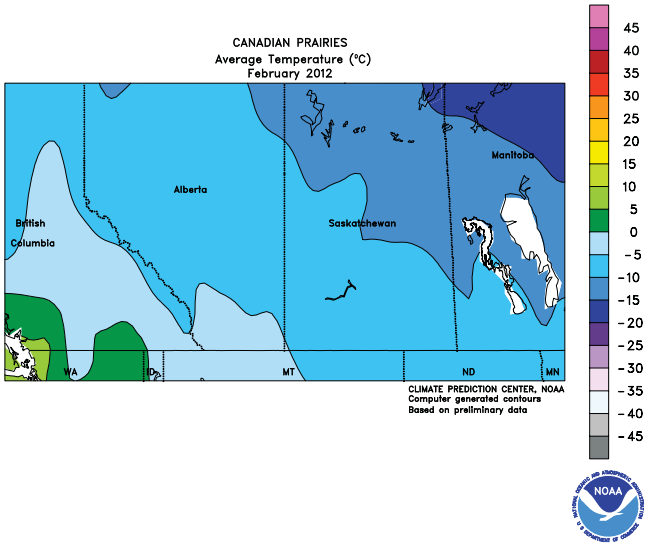


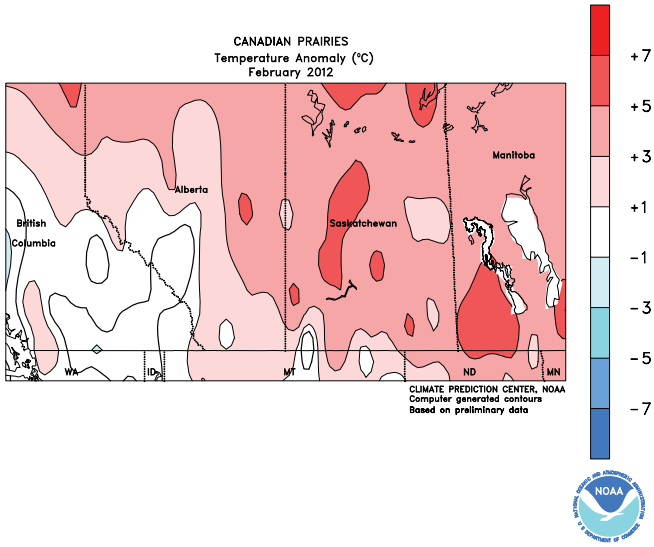
MEXICO

During February, unseasonably wet weather boosted moisture reserves across central and northeastern Mexico. The rain, which came mostly during the early part of the month, was timely for germination and establishment of winter sorghum, most of which is rain-fed and grown in Tamaulipas. On the southern plateau, locally heavy rainfall (monthly totals in excess of 50 mm) helped to replenish local reservoirs but came too early in the year to promote planting of corn or other rain-fed summer crops. A similar pattern brought above-normal rainfall to northern Veracruz but somewhat drier conditions prevailed in eastern sections of the southern Pacific Coast. Meanwhile, locally heavy showers were scattered throughout the Yucatan Peninsula. Dry, albeit mild, weather promoted growth of irrigated winter crops in the northwestern part of the country. Despite occasional cool weather, no significant freezes were reported in any of the region's main agricultural areas. Elsewhere, monthly average temperatures were near to slightly above normal. According to the government of Mexico, total national reservoir capacity was at 48.0 percent as of February 29, compared with 73.8 percent last year and 74.4 percent in 2010.



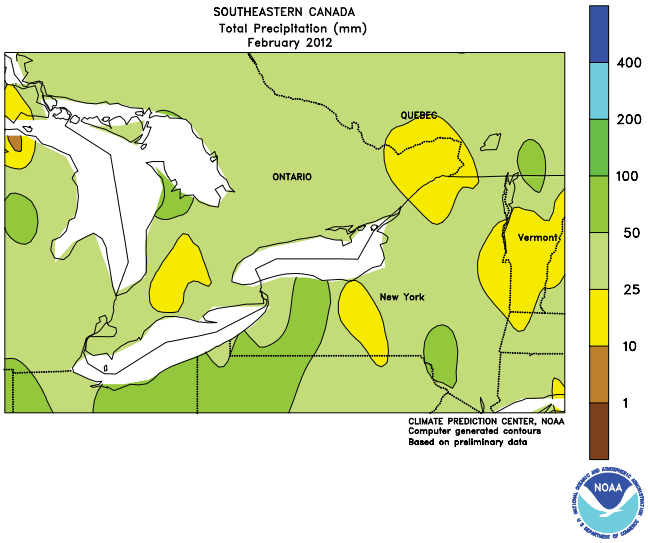


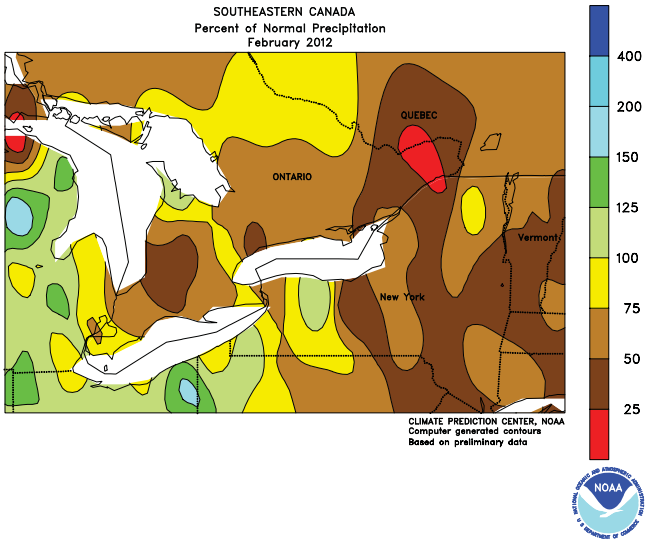


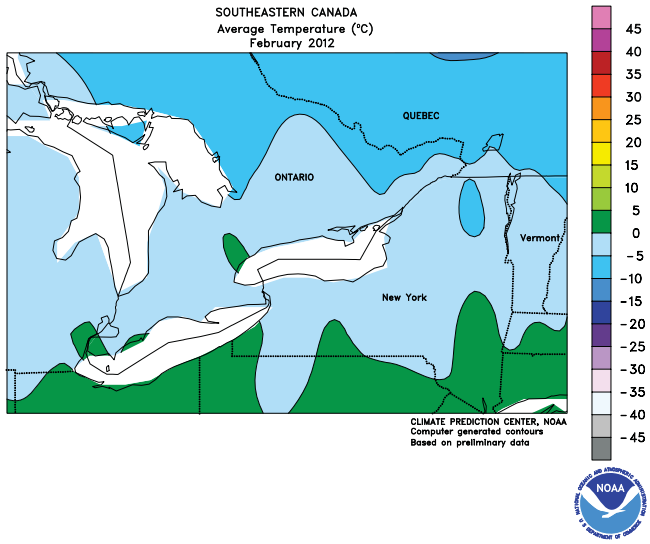


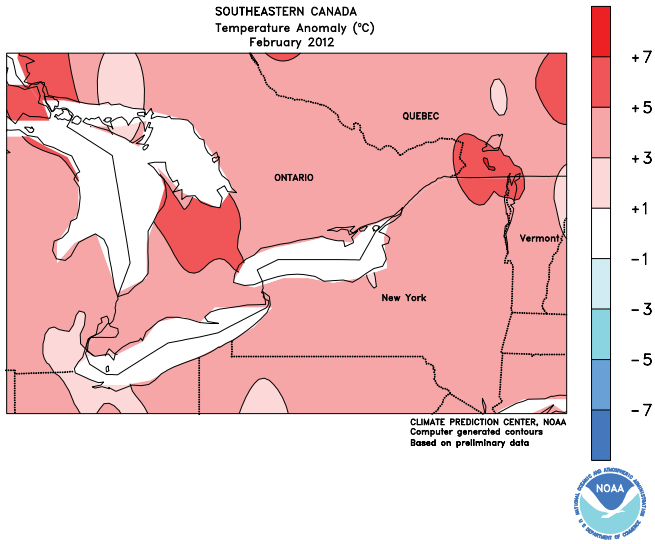
CANADIAN PRAIRIES

In February, warmer- and drier-than-normal weather continued throughout the Prairies. Monthly average temperatures were 3 to 6°C above normal in most major agricultural areas, the exception being southern Alberta, where temperatures averaged closer to normal. However, in spite of the generally warm pattern that dominated during the month, the region experienced 2 outbreaks of bitter cold (lows falling below -20°C), one around February 10 and the other toward month's end. Snow cover offered some protection to overwintering grains and pastures in Manitoba but snow was patchy to non-existent in large parts of Saskatchewan and Alberta during both events. In addition to depleting the protective layer of snow cover, the warmth and dryness further increased drought concerns throughout the Prairies, as precipitation totaled below 10 mm in nearly all major farming districts for the entire month.







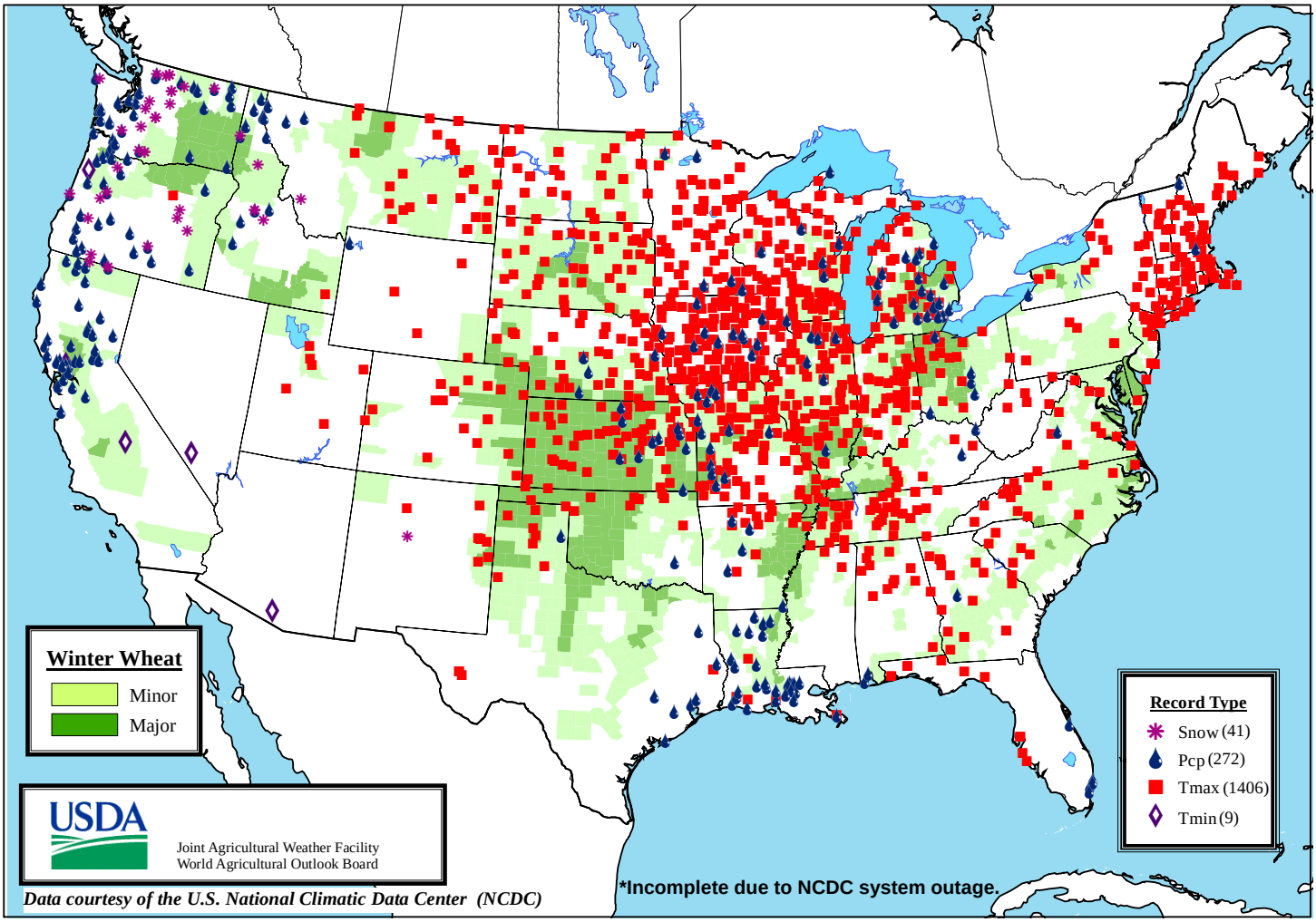


SOUTHEASTERN CANADA

The trend of warmer-than-normal weather that has affected eastern Canada since last autumn continued during the month of February. On average, Ontario experienced unseasonable warmth nearly every day, resulting in monthly average temperatures of 2 to 4°C or more above normal. Low temperatures occasionally fell below -20°C, but snow cover offered some protection to overwintering wheat on the coldest days. Precipitation was near to below normal in western parts of the province, although an outbreak of locally heavy rain and snow occurred during the latter part of February. Precipitation was below normal in Ontario's eastern districts. In Quebec, a similar pattern of warmth existed, although a relatively higher number of seasonably cooler days were observed. Consequently, more days were seen with nighttime lows below -20°C but as in Ontario, snow cover offered some protection to overwintering wheat and pastures. February precipitation was below normal in Quebec's agricultural districts, with monthly totals generally ranging from 15 to 35 mm.

Daily Weather Records (ASOS & COOP)

March 11-15, 2012*



Data courtesy of the U.S. National Climatic Data Center (NCDC)

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.

Correspondence to the meteorologists should be directed to:
***Weekly Weather and Crop Bulletin*, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 4443B, Washington, DC 20250.**
Internet URL: **http://www.usda.gov/oce/weather**
E-mail address: ***brippey@oce.usda.gov***

The *Weekly Weather and Crop Bulletin* and archives are maintained on the following USDA Internet URL:
http://www.usda.gov/oce/weather/pubs/Weekly/Wwcb/index.htm

U.S. DEPARTMENT OF AGRICULTURE
World Agricultural Outlook Board
Managing Editor.....***Brad Rippey*** (202) 720-2397
Production Editor.....***Brian Morris*** (202) 720-3062
International Editor.....***Mark Brusberg*** (202) 720-3508
Editorial Advisors.....***Charles Wilbur and Brenda Chapin***
Agricultural Weather Analysts.....***Tom Puterbaugh, Harlan Shannon, and Eric Luebehusen***

National Agricultural Statistics Service
Agricultural Statistician and State Summaries Editor……
Julie Schmidt (202) 720-7621

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service/Climate Prediction Center
Meteorologists.....***David Miskus, Brad Pugh, and Adam Allgood***