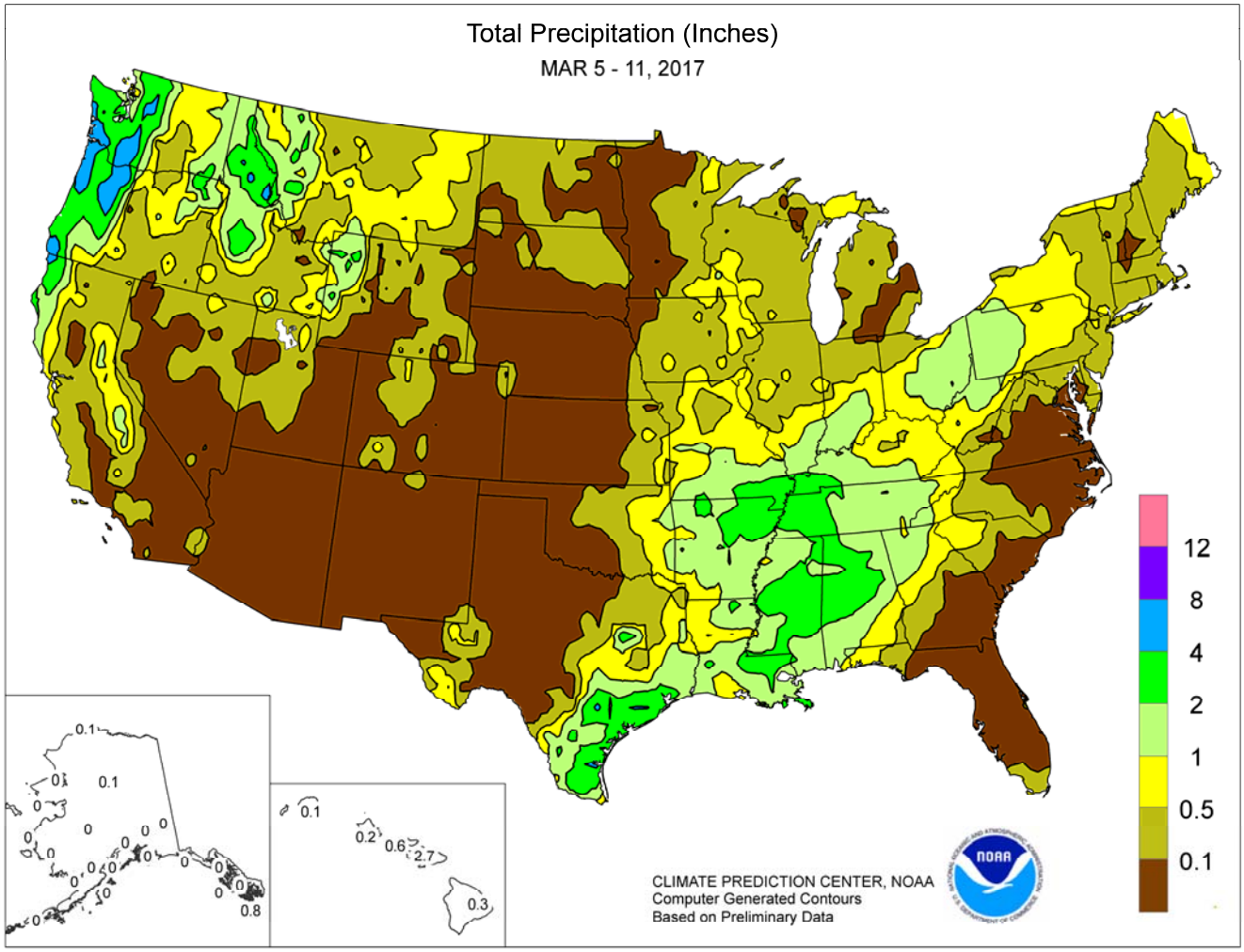
Volume 104, No. 11 http://www.usda.gov/oce/weather March 14, 2017

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

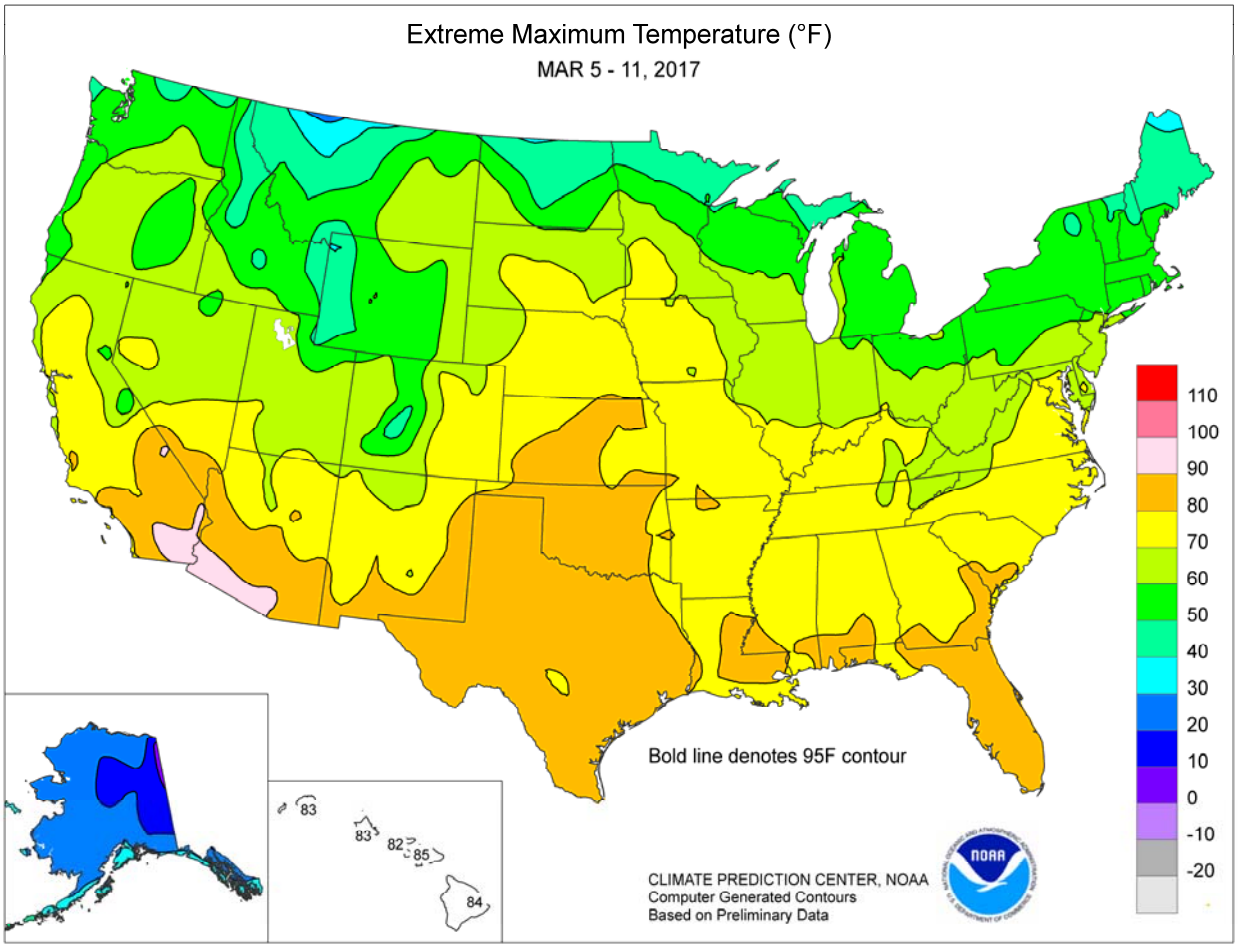
March 5-11, 2017

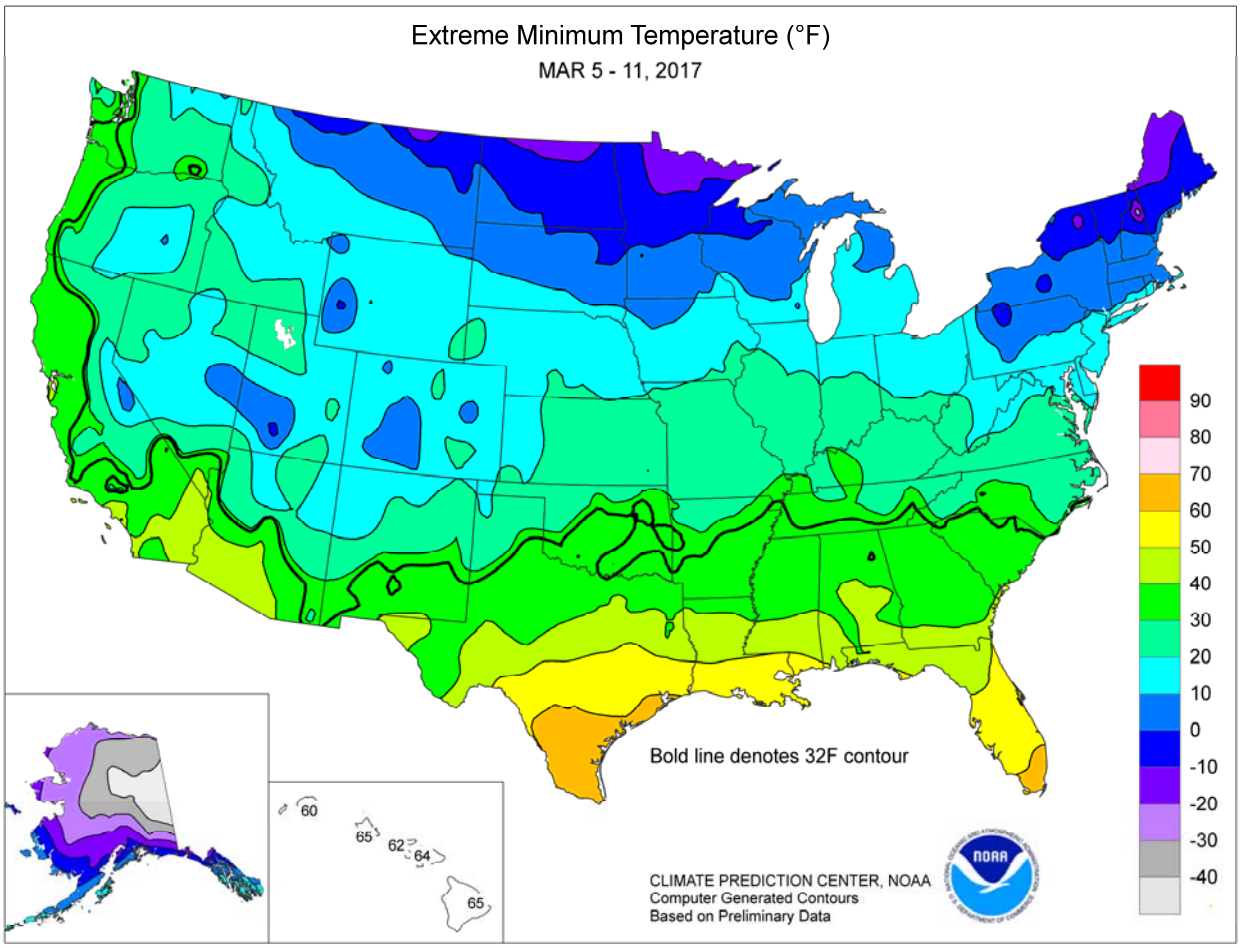
Highlights provided by USDA/WAOB

Early-week wind and warmth across the **central and southern High Plains**, combined with low humidity, cured grasses, and underlying drought, resulted in explosive wildfires and locally significant destruction of property, including fences, farm buildings, and thousands of livestock. In addition, there were at least six human fatalities. Dry weather extended beyond the **Plains** into the **Southwest**, and also affected the **southern Atlantic States**. In contrast, showery weather covered the **Northwest** and stretched from the **western and central**

(Continued on page 3)

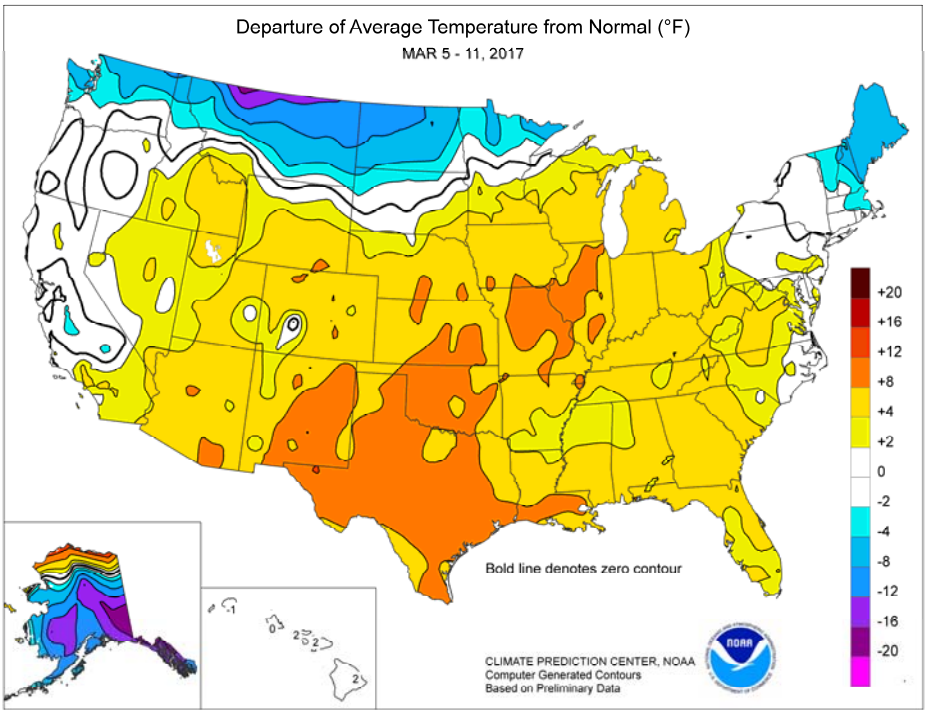
Contents


Extreme Maximum Temperature (°F)
MAR 5 - 11, 2017
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
Bold line denotes 95F contour
83
83
82
85
84
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data


Extreme Minimum Temperature (°F)
MAR 5 - 11, 2017
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
Bold line denotes 32F contour
60
65
62
64
65
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data

(Continued from front cover)

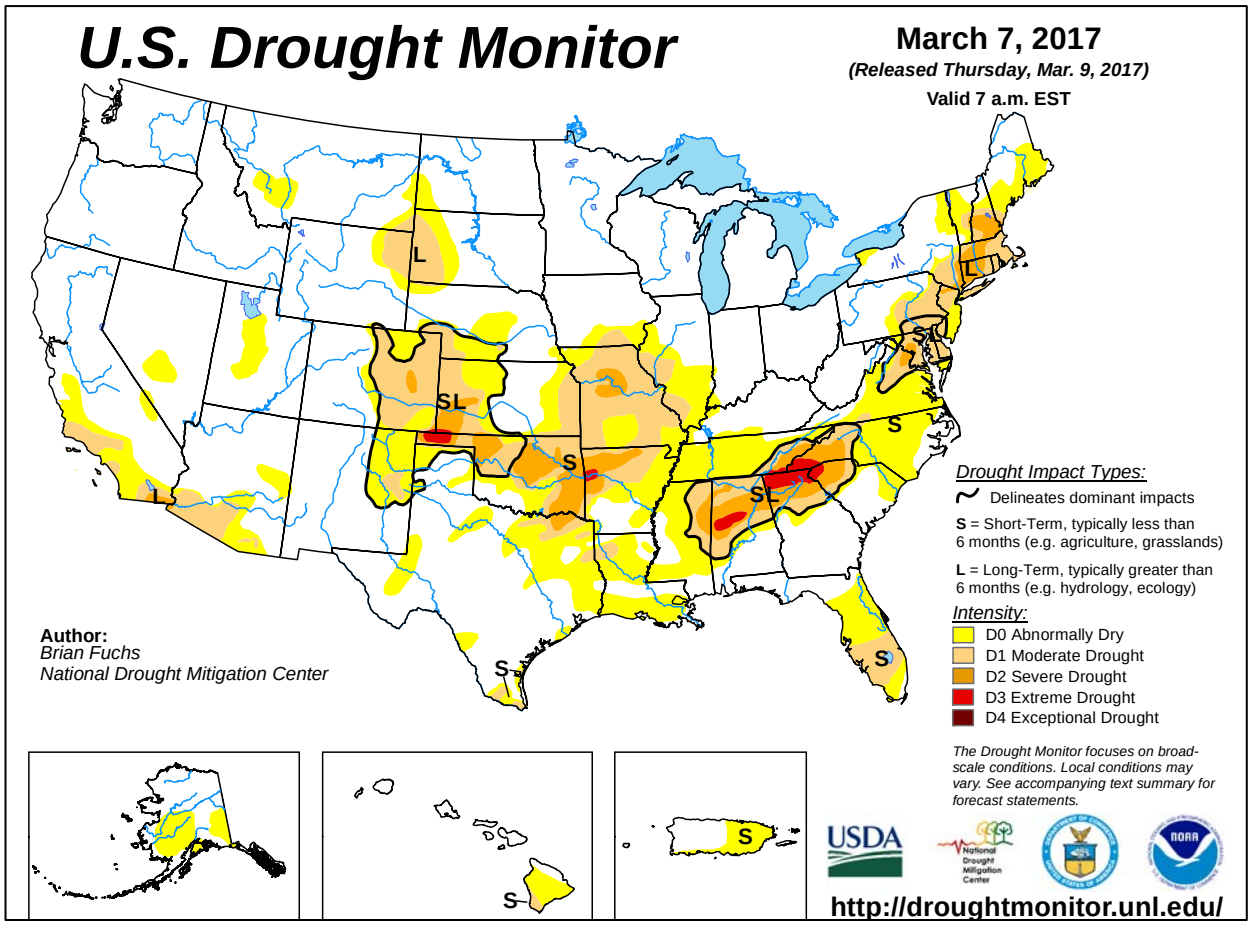
Gulf Coast States into the Ohio Valley and the lower Great Lakes region. Weekly precipitation totaled at least 4 inches in parts of the **Pacific Northwest**, and locally reached 1 to 3 inches across the **interior Southeast**. Snow was mostly confined to the **northern U.S.**, including the **northern Plains**, **Northeast**, and **Northwest**. Although early-season warmth continued in many parts of the country, unusually cold air began to settle across the **nation's northern tier**. Weekly temperatures ranged from as much as 10°F below normal in **northern sections of Montana and North Dakota** to more than 10°F above normal across portions of the **south-central U.S.** In the **Southwest**, a gradual warming trend led to an increase in the snow-melt rate. Although the **Southeast** escaped a freeze, concerns persisted regarding the potential impacts of a spring cold snap on blooming fruits and other sensitive vegetation.

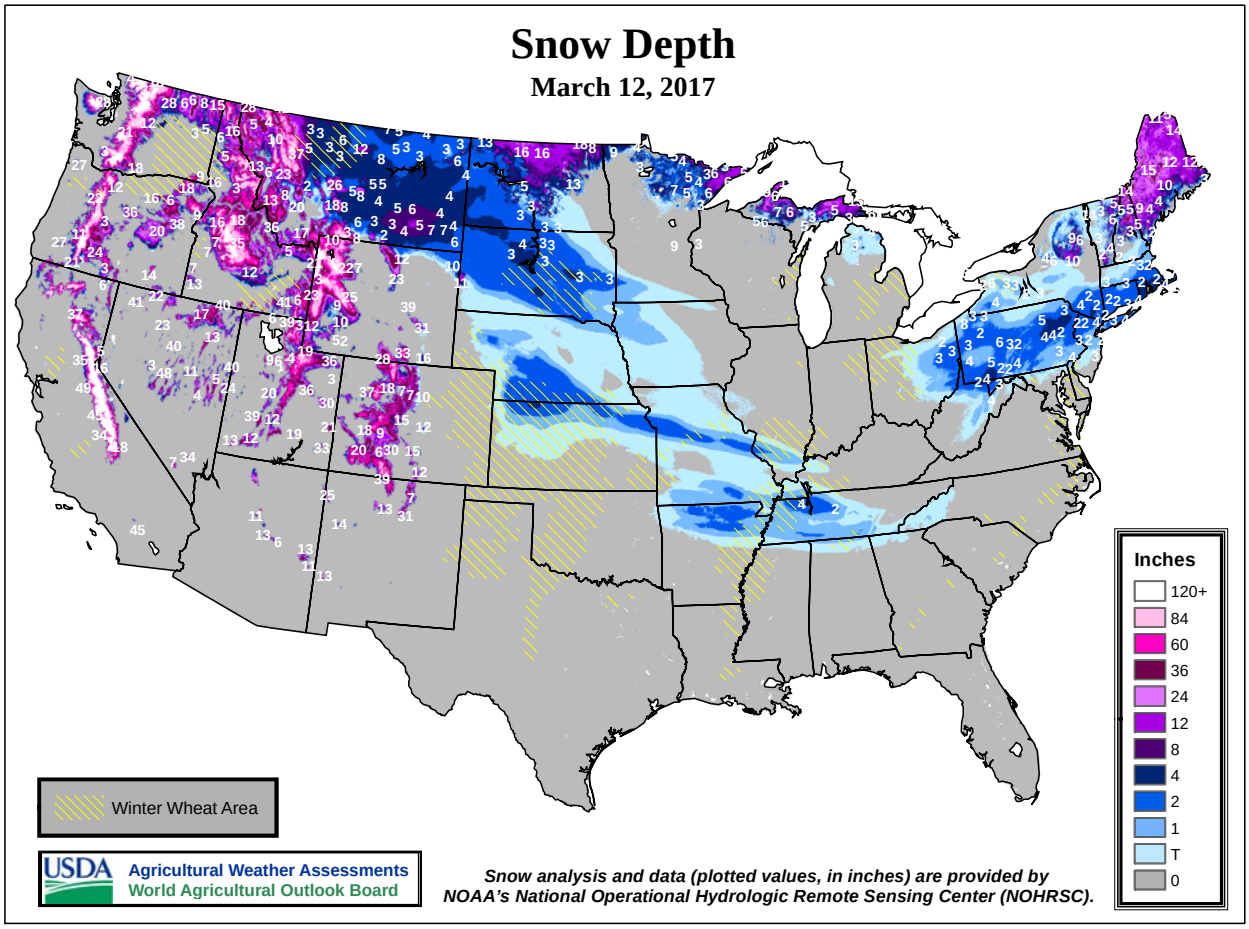


Numerous wildfires flared across the **central and southern High Plains** during the afternoon of Monday, March 6, and were not fully contained for several days. The Starbuck fire, which started in **Beaver County, OK**, and later burned into **southwestern Kansas**, consumed in excess of 715,000 acres of vegetation. The Perryton fire, in **Ochiltree, Lipscomb and Hemphill Counties** in **Texas**, burned at least 315,000 acres of grass and brush. In **Gray County, TX**, the Lefors East fire scorched some 135,000 acres and was responsible for three of the deaths—ranchers attempting to save livestock. The Selman and 283 fires collectively burned almost 120,000 acres in **Oklahoma's Harper and Woodward Counties**. And, approximately four dozen smaller fires, ranging in size from 100 to 32,500 acres, charred more than 120,000 acres of grass, brush, and trees across **Colorado**, **Kansas**, **Oklahoma**, and **Texas**. On March 6, warmth across the **nation's mid-section** resulted in daily-record highs in locations such as **Topeka, KS**, and **Sioux City, IA**—both 80°F. Elsewhere on the 6th, **La Crosse, WI**, posted its earlier ever minimum temperature above the 50-degree mark (previously, March 7, 2000). In addition, a large severe-weather outbreak struck on March 6 in **Illinois**, **Iowa**, **Missouri**, and parts of neighboring states, resulting in at least four dozen tornadoes, according to preliminary reports. In **Iowa**, wind gusts on March 6 were clocked to 77 mph in **Lamoni** and 69 mph in **Ottumwa**. A much broader area of the country experienced high winds during the first half of the week. On March 5, gusts included 67 mph in **Cedar City, UT**, and 64 mph in **Winslow, AZ**. In **Colorado** on March 6, high-elevation gusts reached 119 mph on **Eagle Mountain** and 106 mph at **Monarch Pass**, while the **Telluride Airport** recorded a gust to 78 mph. On March 7, gusts reached 67 mph in **Rugby, ND**, and **Sidney, NE**. And, on March 8, peak gusts included 64 mph in **Grand Rapids, MI**, and 60 mph in **Minneapolis-St. Paul, MN**. **La Crosse, WI**, reported gusts to 50 mph or higher on 3 days in a row (March 6-8) for the first time on record—something that had never even happened in that location on consecutive days. During the second half of the week, warmth developed across the **South** and **West** and returned across the **central U.S.** Daily-record highs for March 9 included 84°F in **Borger, TX**, and 80°F in **Dodge City, KS**. In **Florida**, daily-record highs soared to 88°F (on March 10) in **Vero Beach** and 90°F (on March 11) in **Fort Myers**. **Sandberg, CA**, which posted a high of 80°F on March 11, achieved its earliest 80-degree reading (previously, 82°F on March 14, 2013). In stark contrast, very cold air swept into the **Northeast**, where **Augusta, ME**, collected a daily-record low (-4°F on March 11). Elsewhere in **Maine** on the 11th, **Caribou** (high of -1°F) noted its latest sub-zero maximum temperature, while **Houlton** (2°F) set a monthly record for its lowest high temperature (previously, 3°F on March 3, 1950).

Early-week showers were locally heavy from the **western Gulf Coast region to the Mississippi Delta**. **Houston's Hobby Airport** received a daily-record rainfall of 4.79 inches on March 5. On March 6-7, heavy showers accompanied locally severe thunderstorms across the **Midwest** and **mid-South**. Daily-record totals included 1.73 inches (on March 7) in **Jonesboro, AR**, and 0.92 inch (on March 6) in **Rochester, MN**. Meanwhile, precipitation continued in the **Northwest**, where **Spokane, WA**, collected a daily-record snowfall (4.2 inches) for March 7. March 5-7 snowfall totaled 2.9 inches in **Pocatello, ID**, boosting its season-to-date sum to 86.4 inches. The only snowier season in **Pocatello's** history occurred from July 1992 – June 1993, when 93.3 inches fell. Toward week's end, snow blanketed parts of the **Northeast**, while some additional rain fell in the **western Gulf Coast region**. **Bridgeport, CT**, and **Islip, NY**—both with 4.0 inches—tallied daily-record snowfall totals for March 10. Farther south, **Corpus Christi, TX**, received 3.21 inches of rain on March 10-11.

Very cold weather covered much of **Alaska**, although warmth lingered across the state's northern tier. **Fairbanks** reported lows of -30°F or below on 5 consecutive days from March 5-9, including a daily-record low of -38°F on the 7th. Cold, mostly dry weather extended to **southeastern Alaska**, where **Skagway** posted a daily-record low of 8°F on March 6. In contrast, **Barrow** noted a daily-record high of 26°F on March 11. Farther south, the **Hawaiian Islands** experienced mostly a quiet week. However, heavy showers were noted in a few areas, including parts of **Maui**, during the first half of the week. **Kahului, Maui**, received 2.69 inches from March 5-9, aided by a daily-record total of 1.51 inches on the 7th. In contrast, March 1-11 rainfall in **Hilo**, on the **Big Island**, totaled just 0.35 inch (8 percent of normal).


U.S. Drought Monitor
March 7, 2017
(Released Thursday, Mar. 9, 2017)
Valid 7 a.m. EST
Author:
Brian Fuchs
National Drought Mitigation Center
Drought Impact Types:
Delineates dominant impacts
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)
Intensity:
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.
http://droughtmonitor.unl.edu/


Snow Depth
March 12, 2017
Inches
120+
84
60
36
24
12
8
4
2
1
T
0
Winter Wheat Area
Agricultural Weather Assessments
World Agricultural Outlook Board
Snow analysis and data (plotted values, in inches) are provided by NOAA's National Operational Hydrologic Remote Sensing Center (NOHRSC).

National Weather Data for Selected Cities

Weather Data for the Week Ending March 11, 2017

Data Provided by Climate Prediction Center

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS TEMP. °F		NUMBER OF DAYS PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL, IN., SINCE JAN 1	PCT. NORMAL SINCE JAN 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL	BIRMINGHAM	68	46	78	39	57	5	1.97	0.65	1.33	2.10	105	11.76	101	87	35	0	0	3	1
	HUNTSVILLE	66	43	75	35	54	4	0.69	-0.85	0.68	1.03	43	9.91	77	79	48	0	0	2	1
	MOBILE	77	54	81	48	66	8	1.28	-0.33	1.27	1.46	59	13.67	103	84	52	0	0	2	1
	MONTGOMERY	74	49	80	43	61	5	1.29	-0.23	1.00	2.00	84	16.70	130	77	36	0	0	3	1
AK	ANCHORAGE	25	5	31	-8	15	-8	0.00	-0.16	0.00	0.00	0	2.70	161	66	49	0	7	0	0
	BARROW	6	-8	26	-24	-1	15	0.11	0.11	0.07	0.14	1400	0.98	408	83	71	0	7	4	0
	FAIRBANKS	6	-27	22	-39	-11	-16	0.07	0.01	0.07	0.11	122	2.31	229	81	77	0	7	1	0
	JUNEAU	20	13	24	5	17	-15	0.00	-0.88	0.00	0.26	18	10.84	106	40	33	0	7	0	0
	KODIAK	32	23	36	21	28	-3	0.00	-1.19	0.00	0.00	0	5.55	35	60	51	0	7	0	0
	NOME	9	-9	25	-21	0	-8	0.00	-0.13	0.00	0.01	5	1.46	78	85	79	0	7	0	0
AZ	FLAGSTAFF	58	25	66	15	41	6	0.00	-0.67	0.00	0.00	0	6.89	119	77	20	0	6	0	0
	PHOENIX	81	54	89	47	67	6	0.00	-0.27	0.00	0.00	0	2.34	116	55	27	0	0	0	0
	PRESCOTT	68	34	76	24	51	9	0.00	-0.50	0.00	0.00	0	3.46	81	68	13	0	3	0	0
	TUCSON	83	50	92	40	66	9	0.00	-0.22	0.00	0.00	0	1.37	62	42	23	1	0	0	0
AR	FORT SMITH	69	45	81	33	57	7	0.70	-0.15	0.58	0.93	71	5.74	92	84	35	0	0	3	1
	LITTLE ROCK	65	43	73	34	54	3	2.16	1.18	1.27	2.64	176	7.64	91	100	44	0	0	5	1
CA	BAKERSFIELD	67	43	76	34	55	-1	0.04	-0.29	0.04	0.04	8	4.26	146	83	64	0	0	1	0
	FRESNO	66	42	75	34	54	0	0.29	-0.26	0.29	0.29	34	8.31	162	89	67	0	0	1	0
	LOS ANGELES	71	52	79	47	61	3	0.02	-0.64	0.02	0.02	2	11.50	161	71	41	0	0	1	0
	REDDING	63	45	76	37	54	3	0.74	-0.54	0.65	1.07	53	20.10	143	88	65	0	0	2	1
	SACRAMENTO	65	42	75	35	53	-1	0.14	-0.59	0.11	0.19	16	18.36	214	99	53	0	0	2	0
	SAN DIEGO	71	54	79	48	62	3	0.01	-0.53	0.01	0.01	1	6.73	131	70	43	0	0	1	0
	SAN FRANCISCO	62	46	67	42	54	1	0.67	-0.17	0.39	1.15	85	17.91	183	87	72	0	0	2	0
	STOCKTON	67	41	77	35	54	0	0.25	-0.31	0.24	0.25	28	11.73	194	95	73	0	0	2	0
CO	ALAMOSA	56	18	66	8	37	7	0.02	-0.06	0.02	0.02	17	1.67	288	72	27	0	7	1	0
	CO SPRINGS	60	29	74	19	45	9	0.00	-0.18	0.00	0.00	0	0.39	44	47	15	0	4	0	0
	DENVER INTL	61	29	72	18	45	9	0.02	-0.18	0.02	0.02	7	0.79	105	53	18	0	5	1	0
	GRAND JUNCTION	60	30	68	16	45	4	0.00	-0.20	0.00	0.00	0	1.55	111	54	26	0	4	0	0
	PUEBLO	67	28	80	21	48	9	0.00	-0.15	0.00	0.00	0	0.92	114	42	21	0	5	0	0
CT	BRIDGEPORT	46	29	61	13	37	0	0.35	-0.50	0.24	0.64	49	5.83	73	59	40	0	4	3	0
	HARTFORD	42	23	59	7	33	-1	0.30	-0.51	0.13	0.36	29	6.34	79	64	39	0	4	3	0
DC	WASHINGTON	58	37	74	23	47	4	0.18	-0.63	0.09	0.20	16	3.63	51	66	27	0	3	3	0
DE	WILMINGTON	53	31	69	14	42	3	0.28	-0.59	0.26	0.47	35	4.49	59	70	29	0	4	2	0
FL	DAYTONA BEACH	77	59	83	52	68	5	0.01	-0.81	0.01	0.22	17	4.23	59	88	49	0	0	1	0
	JACKSONVILLE	77	50	82	42	64	4	0.00	-0.84	0.00	0.31	24	5.71	70	96	44	0	0	0	0
	KEY WEST	79	70	81	69	75	2	0.09	-0.27	0.08	0.19	34	3.24	76	83	59	0	0	2	0
	MIAMI	80	66	86	60	73	2	0.00	-0.48	0.00	0.18	24	4.89	104	76	49	0	0	0	0
	ORLANDO	82	59	86	58	71	5	0.00	-0.75	0.00	0.00	0	2.93	49	81	39	0	0	0	0
	PENSACOLA	74	61	80	55	68	9	0.04	-1.39	0.04	0.04	2	15.39	126	82	50	0	0	1	0
	TALLAHASSEE	78	50	82	44	64	5	0.01	-1.47	0.01	0.49	22	10.42	85	88	42	0	0	1	0
	TAMPA	81	62	85	60	71	5	0.00	-0.69	0.00	0.00	0	2.92	49	85	41	0	0	0	0
	WEST PALM BEACH	80	64	86	60	72	3	0.09	-0.60	0.05	0.09	9	3.63	49	79	47	0	0	3	0
GA	ATHENS	72	43	78	32	57	6	0.50	-0.68	0.26	0.82	45	8.52	78	88	38	0	1	3	0
	ATLANTA	69	47	76	39	58	6	1.13	-0.13	0.52	1.29	65	11.34	97	80	36	0	0	4	1
	AUGUSTA	76	42	81	34	59	5	0.03	-1.03	0.02	0.12	7	12.35	120	85	32	0	0	2	0
	COLUMBUS	73	48	77	40	60	5	0.41	-0.91	0.28	0.77	38	15.03	133	83	29	0	0	2	0
	MACON	74	44	78	32	59	5	0.28	-0.88	0.20	0.58	32	13.78	121	82	29	0	1	2	0
	SAVANNAH	74	48	80	38	61	4	0.01	-0.72	0.01	0.11	10	8.94	112	84	40	0	0	1	0
HI	HILO	82	66	84	65	74	2	0.25	-2.62	0.18	0.76	17	19.27	84	89	75	0	0	2	0
	HONOLULU	81	67	83	65	74	0	0.17	-0.32	0.17	4.08	510	11.39	194	82	68	0	0	1	0
	KAHULUI	82	67	85	64	74	1	2.67	2.17	1.80	3.80	487	6.28	91	92	83	0	0	4	1
	LIHUE	78	63	83	60	71	-1	0.09	-0.71	0.05	4.64	368	11.12	122	88	78	0	0	2	0
ID	BOISE	53	37	63	31	45	3	0.21	-0.09	0.07	0.23	50	4.41	147	81	64	0	3	5	0
	LEWISTON	48	33	63	28	41	-2	0.94	0.72	0.53	1.68	480	4.46	183	90	69	0	4	5	1
	POCATELLO	48	31	56	21	39	4	0.24	-0.06	0.09	0.24	52	6.19	237	83	59	0	4	4	0
IL	CHICAGO/O'HARE	51	34	65	18	42	8	0.24	-0.22	0.24	0.33	47	4.72	116	57	41	0	4	1	0
	MOLINE	52	33	68	22	43	8	0.56	0.04	0.55	0.61	78	3.02	78	59	37	0	3	2	1
	PEORIA	54	36	66	22	45	9	0.46	-0.10	0.44	0.51	59	3.17	79	67	35	0	2	2	0
	ROCKFORD	50	31	66	16	41	9	0.16	-0.24	0.16	0.27	45	4.30	128	61	39	0	4	1	0
	SPRINGFIELD	57	38	68	27	48	10	0.51	-0.13	0.50	0.79	81	2.46	56	76	36	0	2	2	1
IN	EVANSVILLE	62	39	74	30	50	8	1.55	0.64	0.97	1.70	121	4.97	67	67	40	0	1	3	2
	FORT WAYNE	51	30	62	18	41	7	0.24	-0.31	0.21	0.90	106	7.37	152	73	41	0	4	2	0
	INDIANAPOLIS	56	34	68	21	45	7	1.11	0.38	0.65	1.52	136	6.97	116	76	37	0	3	3	1
	SOUTH BEND	47	29	61	15	38	4	0.23	-0.31	0.20	0.87	105	7.86	155	75	52	0	4	2	0
IA	BURLINGTON	53	36	68	23	44	8	0.55	-0.03	0.55	0.57	66	2.43	65	72	35	0	2	1	1
	CEDAR RAPIDS	49	30	68	18	40	8	0.57	0.19	0.57	0.58	104	2.75	101	75	36	0	4	1	1
	DES MOINES	51	33	77	18	42	8	0.37	0.00	0.32	0.37	66	2.88	104	65	39	0	3	3	0
	DUBUQUE	46	30	64	17	38	7	0.00	-0.47	0.00	0.07	10	3.88	114	66	45	0	5	0	0
	SIOUX CITY	51	29	80	16	40	8	0.04	-0.30	0.04	0.04	8	2.63	155	70	42	0	4	1	0
	WATERLOO	47	28	72	16	38	7	0.50	0.14	0.50	0.53	98	4.46	184	69	42	0	4	1	1
KS	CONCORDIA	60	33	82	21	46	7	0.07	-0.39	0.07	0.07	10	1.92	93	73	36	0	5	1	0
	DODGE CITY	66	30	82	22	48	7	0.00	-0.33	0.00	0.00	0	2.57	145	67	20	0	6	0	0
	GOODLAND	61	22	77	16	42	5	0.02	-0.22	0.02	0.02	6	0.95	77	55	31	0	7	1	0
	TOPEKA	61	35	80	26	48	7	0.27	-0.23	0.16	0.27	36	1.66	58	83	41	0	4	2	0

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

Weather Data for the Week Ending March 11, 2017

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
																	TEMP. °F		PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE MAR 1	PCT. NORMAL SINCE MAR 1	TOTAL, IN., SINCE JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	WICHITA	64	37	79	27	50	7	0.00	-0.54	0.00	0.00	0	3.62	136	73	42	0	4	0	0
KY	JACKSON	61	38	72	26	49	5	0.78	-0.24	0.65	1.70	106	9.27	105	70	27	0	3	3	1
	LEXINGTON	61	37	71	26	49	6	0.42	-0.59	0.35	1.22	78	9.32	114	64	35	0	2	2	0
	LOUISVILLE	63	41	75	30	52	8	0.60	-0.40	0.51	1.05	68	7.32	91	62	28	0	1	2	1
	PADUCAH	62	41	75	31	52	8	2.26	1.32	1.25	2.53	170	7.36	83	83	36	0	1	5	2
LA	BATON ROUGE	76	58	82	53	67	9	1.32	0.23	0.83	1.38	80	12.81	98	93	57	0	0	5	1
	LAKE CHARLES	75	60	79	55	67	8	0.48	-0.27	0.39	0.55	48	7.50	75	93	68	0	0	3	0
	NEW ORLEANS	76	62	80	58	69	9	1.12	-0.02	1.12	1.12	62	8.76	67	93	63	0	0	1	1
	SHREVEPORT	72	52	78	41	62	6	1.04	0.09	0.52	1.04	69	5.18	50	93	53	0	0	4	1
ME	CARIBOU	24	6	39	-11	15	-5	0.57	0.03	0.37	1.25	151	6.87	117	74	47	0	7	3	0
	PORTLAND	37	17	54	3	27	-4	0.27	-0.58	0.14	0.35	27	8.55	100	72	33	0	6	3	0
MD	BALTIMORE	56	32	71	18	44	3	0.19	-0.71	0.13	0.21	15	4.36	55	65	36	0	4	2	0
MA	BOSTON	41	24	57	9	32	-4	0.29	-0.53	0.20	0.31	24	7.78	92	73	31	0	5	4	0
	WORCESTER	37	20	53	4	29	-2	0.24	-0.65	0.12	0.29	21	6.64	78	69	26	0	6	3	0
MI	ALPENA	38	21	58	8	29	4	0.16	-0.26	0.07	0.64	102	6.49	174	87	52	0	5	4	0
	GRAND RAPIDS	44	29	59	15	37	6	0.16	-0.28	0.16	0.38	57	5.94	140	64	42	0	4	1	0
	HOUGHTON LAKE	37	22	56	9	30	4	0.13	-0.25	0.11	0.75	132	6.23	182	77	55	0	5	2	0
	LANSING	45	28	59	12	36	6	0.07	-0.32	0.07	0.38	64	6.66	182	63	41	0	4	1	0
	MUSKEGON	45	31	62	16	38	7	0.04	-0.39	0.04	0.27	42	5.97	134	63	49	0	4	1	0
	TRAVERSE CITY	40	26	61	14	33	6	0.33	0.00	0.33	0.98	192	7.14	135	74	45	0	5	1	0
MN	DULUTH	31	12	51	-7	22	0	0.24	-0.04	0.24	0.24	59	3.20	136	75	54	0	6	1	0
	INT'L FALLS	25	8	46	-13	17	-2	0.06	-0.09	0.05	0.06	26	2.81	164	78	51	0	6	2	0
	MINNEAPOLIS	40	23	65	5	31	3	0.09	-0.21	0.09	0.14	32	1.76	78	60	41	0	5	1	0
	ROCHESTER	38	25	63	8	31	5	0.93	0.65	0.93	1.08	263	4.85	231	70	56	0	5	1	1
	ST. CLOUD	37	18	65	0	28	4	0.35	0.14	0.34	0.35	113	1.87	113	80	43	0	6	2	0
MS	JACKSON	73	50	79	39	61	6	1.85	0.67	1.16	1.86	102	12.07	101	90	52	0	0	5	1
	MERIDIAN	72	49	79	40	61	6	2.92	1.38	1.47	3.10	131	12.67	93	91	57	0	0	5	3
	TUPELO	65	43	77	35	54	4	1.07	-0.36	1.04	1.07	48	9.54	79	82	52	0	0	2	1
MO	COLUMBIA	58	39	73	27	49	8	0.71	0.06	0.41	1.27	126	2.79	56	72	37	0	2	4	0
	KANSAS CITY	57	36	76	25	46	6	0.41	-0.09	0.32	0.41	54	1.86	58	73	33	0	3	2	0
	SAINT LOUIS	61	42	74	29	52	10	0.63	-0.11	0.44	1.17	103	3.46	62	59	38	0	1	3	0
	SPRINGFIELD	61	40	80	32	51	8	0.94	0.21	0.51	1.14	103	5.60	102	71	52	0	2	4	1
MT	BILLINGS	39	21	63	12	30	-5	0.97	0.78	0.63	0.97	334	2.73	163	88	52	0	6	4	1
	BUTTE	40	24	50	17	32	4	0.43	0.27	0.28	0.45	188	1.24	100	86	44	0	7	4	0
	CUT BANK	21	4	32	-2	12	-16	0.00	-0.09	0.00	0.00	0	1.27	159	93	73	0	7	0	0
	GLASGOW	27	11	59	-5	19	-8	0.17	0.09	0.14	0.19	158	1.21	166	78	65	0	7	3	0
	GREAT FALLS	32	13	46	6	23	-8	0.27	0.08	0.20	0.37	132	1.79	122	89	49	0	7	4	0
	HAVRE	28	13	44	7	21	-8	0.11	-0.03	0.10	0.11	55	1.49	145	86	69	0	7	2	0
	MISSOULA	40	25	51	13	32	-3	1.12	0.93	0.37	1.21	403	4.51	212	97	86	0	7	7	0
NE	GRAND ISLAND	55	28	77	18	41	6	0.00	-0.37	0.00	0.00	0	1.32	75	81	39	0	5	0	0
	LINCOLN	55	32	79	16	43	8	0.01	-0.38	0.01	0.01	2	1.66	87	67	40	0	4	1	0
	NORFOLK	50	27	75	15	39	6	0.00	-0.35	0.00	0.00	0	2.24	121	69	38	0	5	0	0
	NORTH PLATTE	58	24	74	19	41	6	0.05	-0.18	0.05	0.05	15	2.04	165	78	30	0	7	1	0
	OMAHA	53	33	78	17	43	8	0.07	-0.32	0.07	0.07	12	2.17	101	62	38	0	3	1	0
	SCOTTSBLUFF	57	27	67	25	42	7	0.09	-0.11	0.07	0.09	29	2.31	162	76	42	0	7	2	0
	VALENTINE	48	21	71	15	35	3	0.00	-0.20	0.00	0.00	0	2.41	223	72	38	0	7	0	0
NV	ELY	52	18	62	2	35	1	1.10	0.88	0.87	1.10	314	4.35	236	81	41	0	7	2	1
	LAS VEGAS	73	49	83	41	61	5	0.00	-0.17	0.00	0.00	0	1.46	95	32	18	0	0	0	0
	RENO	58	31	73	26	45	3	0.34	0.12	0.34	0.34	92	9.33	375	78	50	0	4	1	0
	WINNEMUCCA	54	31	67	24	43	3	0.19	0.02	0.13	0.19	73	2.78	163	83	56	0	3	2	0
NH	CONCORD	38	17	56	2	28	-2	0.05	-0.58	0.02	0.10	10	5.33	85	70	28	0	7	3	0
NJ	NEWARK	49	31	65	14	40	1	0.35	-0.54	0.26	0.51	38	7.24	87	59	36	0	4	2	0
NM	ALBUQUERQUE	67	39	75	31	53	7	0.00	-0.13	0.00	0.00	0	1.39	124	38	13	0	1	0	0
NY	ALBANY	41	21	58	5	31	0	0.18	-0.44	0.15	0.21	22	6.19	110	65	35	0	4	2	0
	BINGHAMTON	38	19	52	2	29	0	0.69	0.08	0.43	0.81	85	7.07	118	73	51	0	5	4	0
	BUFFALO	42	24	58	7	33	2	0.72	0.11	0.60	1.05	111	6.23	95	77	42	0	5	3	1
	ROCHESTER	42	24	61	3	33	2	0.60	0.08	0.55	0.66	83	5.74	111	70	47	0	5	3	1
	SYRACUSE	39	20	55	2	30	0	0.66	0.07	0.45	0.72	80	7.30	130	78	44	0	5	4	0
NC	ASHEVILLE	59	36	72	26	48	4	0.30	-0.74	0.20	0.30	19	4.72	50	76	39	0	3	3	0
	CHARLOTTE	67	39	76	31	53	3	0.28	-0.73	0.15	0.89	57	7.80	86	74	29	0	1	2	0
	GREENSBORO	63	38	73	30	51	5	0.03	-0.83	0.02	0.84	63	6.45	81	72	30	0	2	2	0
	HATTERAS	62	41	73	30	52	2	0.01	-1.08	0.01	0.46	28	6.77	59	76	43	0	1	1	0
	RALEIGH	65	38	75	30	51	3	0.05	-0.90	0.05	1.02	69	5.45	61	69	33	0	2	1	0
	WILMINGTON	67	38	76	30	53	0	0.00	-0.99	0.00	0.09	6	5.63	58	92	35	0	3	0	0
ND	BISMARCK	29	13	47	0	21	-5	0.11	-0.03	0.06	0.15	68	1.95	165	76	63	0	7	3	0
	DICKINSON	28	12	65	1	20	-7	0.01	-0.05	0.01	0.01	11	0.79	89	82	53	0	7	1	0
	FARGO	33	12	65	-3	22	-1	0.00	-0.21	0.00	0.01	3	1.78	107	78	46	0	7	0	0
	GRAND FORKS	27	10	53	-5	18	-3	0.00	-0.16	0.00	0.01	4	1.26	84	70	48	0	7	0	0
	JAMESTOWN	28	10	53	-3	19	-5	0.00	-0.15	0.00	0.00	0	1.11	81	84	52	0	7	0	0
	WILLISTON	24	9	56	-1	17	-8	0.25	0.12	0.19	0.26	137	1.40	125	80	67	0	7	3	0
OH	AKRON-CANTON	48	29	59	14	39	5	1.53	0.86	0.68	2.02	196	10.52	181	73	44	0	4	4	2
	CINCINNATI	57	34	70	22	46	5	0.79	-0.02	0.55	2.45	194	9.67	140	71	49	0	3	3	1
	CLEVELAND	48	32	61	19	40	6	0.75	0.16	0.50	1.76	191	10.62	187	69	39	0	3	4	1
	COLUMBUS	54	34	63	19	44	5	1.20	0.60	0.55	2.28	245	8.74	154	73	43	0	3	4	1
	DAYTON	52	32	62	18	42	5	0.58	-0.06	0.30	1.44	147	6.78	116	74	41	0	3	4	0
	MANSFIELD	47	29	58	14	38	5	1.22	0.59	0.61	1.71	178	9.57	166	85	42	0	4	4	1

Based on 1971-2000 normals

***** Not Available**

Weather Data for the Week Ending March 11, 2017

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	48	30	58	14	39	6	0.17	-0.33	0.11	0.63	83	6.40	140	74	45	0	4	2	0
	YOUNGSTOWN	45	27	57	12	36	3	1.47	0.86	0.64	2.28	245	10.16	192	75	48	0	4	4	1
OK	OKLAHOMA CITY	69	44	83	35	56	8	0.00	-0.64	0.00	0.00	0	4.69	123	78	40	0	0	0	0
	TULSA	68	43	84	35	56	8	0.78	0.02	0.43	0.78	68	5.37	114	76	48	0	0	2	0
OR	ASTORIA	49	39	54	33	44	-1	4.27	2.52	1.23	6.58	237	24.46	121	90	79	0	0	7	4
	BURNS	43	24	52	8	33	-2	0.34	0.04	0.17	0.35	73	5.35	193	91	75	0	5	6	0
	EUGENE	53	41	62	33	47	2	2.26	0.85	0.48	2.60	117	15.98	98	97	88	0	0	6	0
	MEDFORD	54	40	68	30	47	1	0.23	-0.22	0.07	0.34	47	9.35	177	97	68	0	1	7	0
	PENDLETON	52	37	61	31	44	1	0.49	0.21	0.17	0.76	177	4.68	151	87	68	0	3	6	0
	PORTLAND	52	40	60	34	46	0	1.95	1.05	0.54	2.26	158	16.75	157	91	81	0	0	6	2
	SALEM	52	41	62	33	47	1	2.32	1.27	0.73	3.00	178	21.81	173	89	80	0	0	6	2
PA	ALLENTOWN	48	28	64	12	38	3	0.62	-0.14	0.38	1.35	115	6.44	87	66	38	0	4	3	0
	ERIE	46	29	65	14	37	4	0.91	0.29	0.62	1.13	118	8.55	148	61	42	0	4	3	1
	MIDDLETOWN	51	30	64	13	40	3	0.63	-0.11	0.36	1.09	93	5.47	79	75	34	0	4	2	0
	PHILADELPHIA	53	32	68	15	43	3	0.33	-0.48	0.30	0.34	27	4.55	61	59	37	0	4	3	0
	PITTSBURGH	48	29	60	15	38	2	1.10	0.43	0.39	2.23	214	8.53	140	89	42	0	3	4	0
	WILKES-BARRE	45	23	58	8	34	-1	0.93	0.40	0.40	1.12	138	7.35	137	87	38	0	4	5	0
	WILLIAMSPORT	47	26	59	10	36	2	0.78	0.13	0.44	0.99	97	6.29	97	68	42	0	4	5	0
RI	PROVIDENCE	43	25	58	11	34	-2	0.43	-0.48	0.31	0.62	44	7.80	85	58	32	0	5	3	0
SC	BEAUFORT	73	48	81	39	61	6	0.00	-0.74	0.00	0.13	11	6.04	73	93	38	0	0	0	0
	CHARLESTON	73	46	81	36	60	5	0.00	-0.85	0.00	0.10	8	4.28	51	85	30	0	0	0	0
	COLUMBIA	73	43	79	33	58	5	0.06	-0.96	0.05	0.30	19	8.94	89	78	41	0	0	2	0
	GREENVILLE	67	41	74	34	54	5	0.58	-0.68	0.30	1.46	74	7.18	68	83	30	0	0	4	0
SD	ABERDEEN	34	15	62	1	25	-2	0.07	-0.15	0.04	0.10	31	1.28	100	71	53	0	7	2	0
	HURON	40	20	67	0	30	1	0.30	0.02	0.12	0.41	100	1.82	125	81	46	0	6	4	0
	RAPID CITY	43	20	69	11	32	0	0.03	-0.14	0.03	0.03	12	1.14	105	76	41	0	7	1	0
	SIOUX FALLS	43	24	72	8	33	4	0.05	-0.23	0.04	0.14	34	1.99	139	77	52	0	6	2	0
TN	BRISTOL	60	35	68	27	47	3	0.94	0.03	0.56	2.66	186	7.75	93	87	31	0	3	2	1
	CHATTANOOGA	65	42	75	33	53	4	1.07	-0.34	0.61	1.42	65	9.84	79	88	39	0	0	4	1
	KNOXVILLE	63	40	69	32	52	5	1.24	0.06	0.66	2.20	120	8.74	84	83	33	0	1	4	2
	MEMPHIS	63	44	75	33	54	3	1.77	0.57	1.03	2.44	131	8.10	78	91	43	0	0	6	1
	NASHVILLE	64	41	77	30	53	6	1.80	0.69	0.84	2.60	151	7.50	80	81	33	0	1	4	2
TX	ABILENE	74	50	83	39	62	8	0.00	-0.30	0.00	0.00	0	3.38	131	84	57	0	0	0	0
	AMARILLO	69	34	82	25	52	7	0.00	-0.21	0.00	0.00	0	3.68	247	69	28	0	3	0	0
	AUSTIN	78	61	85	57	70	11	1.12	0.59	0.68	1.90	224	9.21	195	92	68	0	0	2	1
	BEAUMONT	76	63	82	58	69	9	0.46	-0.32	0.46	0.46	38	2.51	25	93	67	0	0	1	0
	BROWNSVILLE	83	70	86	66	76	9	0.10	-0.05	0.05	1.82	728	3.36	120	95	72	0	0	4	0
	CORPUS CHRISTI	77	66	81	63	71	7	3.40	2.99	1.84	4.80	727	7.64	185	97	86	0	0	6	2
	DEL RIO	76	62	83	57	69	8	0.01	-0.19	0.01	0.16	48	1.13	61	94	76	0	0	1	0
	EL PASO	79	49	84	43	64	9	0.00	-0.06	0.00	0.00	0	1.20	126	33	11	0	0	0	0
	FORT WORTH	76	55	84	45	66	11	0.14	-0.60	0.14	0.18	15	6.90	127	87	51	0	0	1	0
	GALVESTON	75	66	80	63	71	9	0.89	0.30	0.36	0.90	99	5.17	68	97	74	0	0	4	0
	HOUSTON	76	63	81	58	69	9	2.58	1.86	1.33	2.63	233	11.14	143	92	73	0	0	4	2
	LUBBOCK	74	45	87	34	60	11	0.00	-0.15	0.00	0.00	0	2.92	201	71	36	0	0	0	0
	MIDLAND	79	51	84	41	65	11	0.01	-0.10	0.01	0.01	5	1.85	142	73	44	0	0	1	0
	SAN ANGELO	78	53	82	39	65	10	0.00	-0.24	0.00	0.00	0	2.71	113	79	50	0	0	0	0
	SAN ANTONIO	75	62	80	57	68	8	0.30	-0.12	0.12	1.23	184	7.56	185	95	63	0	0	4	0
	VICTORIA	78	65	83	60	71	10	3.68	3.18	1.43	4.12	528	12.72	242	92	79	0	0	6	3
	WACO	75	54	82	45	65	9	2.06	1.44	1.89	2.38	240	8.54	161	96	75	0	0	2	1
	WICHITA FALLS	72	46	84	34	59	8	0.05	-0.45	0.04	0.05	7	4.01	116	81	52	0	0	2	0
UT	SALT LAKE CITY	57	35	64	27	46	5	0.27	-0.13	0.23	0.27	44	3.93	118	77	34	0	3	2	0
VT	BURLINGTON	36	17	55	0	26	-1	0.34	-0.10	0.21	0.61	91	5.28	116	76	39	0	5	4	0
VA	LYNCHBURG	60	35	71	24	48	5	0.09	-0.76	0.09	0.36	27	4.74	60	59	28	0	3	1	0
	NORFOLK	60	38	74	29	49	3	0.02	-0.89	0.02	0.31	22	5.38	62	70	35	0	2	1	0
	RICHMOND	60	37	73	26	49	4	0.07	-0.85	0.06	0.18	13	5.18	65	65	42	0	4	2	0
	ROANOKE	59	37	71	26	48	4	0.16	-0.69	0.16	0.34	26	4.98	65	56	31	0	3	1	0
	WASH/DULLES	56	32	71	19	44	4	0.27	-0.51	0.18	0.28	23	3.72	53	59	35	0	4	3	0
WA	OLYMPIA	47	35	53	33	41	-1	3.15	1.88	1.21	4.90	240	17.90	114	99	89	0	0	7	2
	QUILLAYUTE	45	33	49	29	39	-4	4.22	1.49	0.94	7.64	175	27.69	91	99	91	0	4	7	5
	SEATTLE-TACOMA	46	38	53	34	42	-3	1.95	1.06	0.75	2.45	174	15.51	145	95	83	0	0	6	2
	SPOKANE	41	30	54	25	36	-1	0.96	0.60	0.50	1.16	207	7.40	190	94	65	0	5	7	1
	YAKIMA	51	32	66	26	41	1	0.29	0.14	0.13	0.29	121	4.85	219	89	64	0	4	4	0
WV	BECKLEY	54	32	63	19	43	4	0.49	-0.34	0.27	1.07	84	7.44	100	71	47	0	3	4	0
	CHARLESTON	58	35	69	24	47	5	0.87	-0.03	0.66	1.25	89	9.55	122	81	28	0	3	4	1
	ELKINS	55	30	63	16	43	6	0.90	0.01	0.64	1.18	86	8.43	105	78	33	0	3	4	1
	HUNTINGTON	59	37	70	23	48	5	0.76	-0.12	0.60	1.29	94	9.09	119	68	28	0	3	3	1
WI	EAU CLAIRE	38	22	58	4	30	3	0.45	0.17	0.44	0.61	149	4.68	208	74	40	0	6	2	0
	GREEN BAY	41	27	59	10	34	6	0.17	-0.18	0.13	0.55	108	3.90	143	71	52	0	5	2	0
	LA CROSSE	44	29	66	13	37	7	0.36	0.07	0.36	0.59	137	4.44	170	64	36	0	4	1	0
	MADISON	44	29	63	11	36	6	0.27	-0.10	0.15	0.66	118	5.36	173	60	45	0	5	2	0
	MILWAUKEE	48	32	65	14	40	8	0.22	-0.21	0.22	0.49	75	4.50	108	52	40	0	3	1	0
WY	CASPER	49	26	56	17	37	5	0.21	0.02	0.16	0.21	72	1.76	117	77	48	0	5	4	0
	CHEYENNE	53	26	66	20	40	8	0.16	-0.03	0.16	0.16	57	1.60	137	53	31	0	5	1	0
	LANDER	51	27	61	21	39	7	0.02	-0.19	0.02	0.02	6	2.50	182	78	27	0	5	1	0
	SHERIDAN	44	22	64	16	33	0	0.47	0.31	0.23	0.56	233	2.86	181	79	61	0	7	3	0

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

February Weather Summary

Weather

Weather summary provided by USDA/WAOB

Highlights: Outrageous February warmth brought winter wheat out of dormancy as far north as the central Plains and the lower Midwest, and left many fruits in bloom by month's end across the South. Monthly temperatures averaged at least 10°F above normal at many locations across the eastern half of the U.S., shattering February average temperature records that had been set as far back as 1882, 1890, 1925, 1930, and 1932. Only the northwestern corner of the country, including Washington, was cooler than average, but even there February was far less harsh than December and January.

The U.S. warmth was in part supported by the continuation of an active Pacific jet stream that often took aim on northern and central California. As a result, California's 5-year drought all but disappeared, replaced by waves of heavy precipitation that threatened the auxiliary spillway of the nation's tallest dam (Oroville); pressured and sometimes overtopped levees in the Central Valley; and sparked some of the worst flooding on record in San Jose and environs. By the end of February, the average water content of the Sierra Nevada snowpack stood at 45 inches, 185 percent of normal. The bounty extended beyond California to most other areas of the West, maintaining favorable spring and summer water-supply prospects.

While parts of the central and eastern U.S. also experienced periods of stormy weather, erratic showers (and early-season warmth) contributed to some drought development or intensification from the central and southern Plains to the middle and southern Atlantic States. By February 26, at least one-fifth of the winter wheat was rated very poor to poor in Colorado (27 percent), Kansas (21 percent), and Texas (20 percent), accompanied by a general increase in late-winter wildfires across the central and southern Plains. Farther east, drought worsened anew in the southern Appalachians and neighboring areas, where winter rainfall failed to vanquish long-term precipitation deficits. And, a warm, mostly dry winter across Florida's peninsula maintained heavy agricultural irrigation demands.

Most of the Midwest continued to experience a relatively benign winter, with periods of record warmth interspersed with brief episodes of rain or snow. Although the Midwest remained largely free of drought, topsoil moisture shortages were becoming more apparent in the southern Corn Belt. Elsewhere, New England endured a period of wintry weather, culminating in major snow accumulations on February 9 and 12-13. However, only a few days later, sudden warmth melted much of New England's snow.

Historical Perspective: According to preliminary information provided by the National Centers for Environmental Information, the contiguous U.S. experienced its second-warmest, 50th-wettest February during the 1895-2017 period of record. The nation's February average temperature of 41.2°F was 7.3°F above the 20th century mean, while precipitation averaged 2.21 inches—104 percent of normal. The only warmer February on record occurred in 1954, when the temperature averaged 41.4°F. February 1930, with an average of 40.1°F, dropped to third place.

Statewide temperature rankings ranged from the 30th-coldest February in Washington to the warmest February on record in 16 states across the South, East, and lower Midwest—stretching from Texas to the Atlantic Coast States from North Carolina to New York (figure 1). In fact, top-ten rankings for February warmth were noted in all states except Maine and the nine states along and northwest of a line from California to the Dakotas. Meanwhile, state precipitation rankings ranged from the fourth-driest February in Virginia to the third-wettest February in Idaho (figure 2). Top-ten rankings for February dryness were also noted in Illinois, Missouri, Delaware, Maryland, and the Carolinas, while top-ten values for February wetness were recorded in Montana, Oregon, Washington, and Wyoming. Although it was only California's 13th-wettest February, the season-to-date (October-February) statewide average precipitation of 27.81 inches (179 percent of normal) supplanted the 1968-69 record of 27.34 inches.

Figure 1 Statewide Average Temperature Ranks
February 2017
Period: 1895–2017

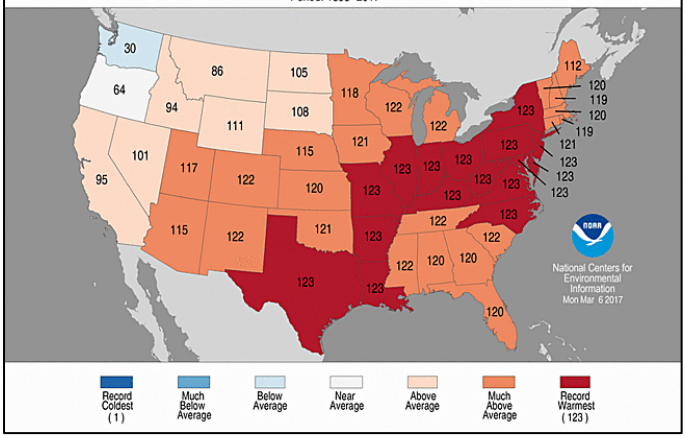
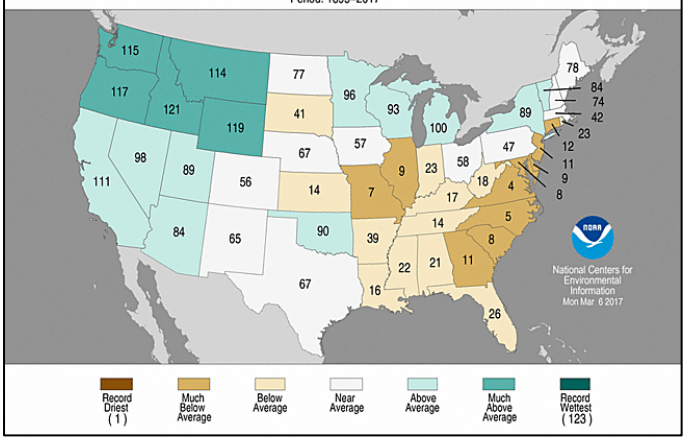


Figure 2 Statewide Precipitation Ranks
February 2017
Period: 1895–2017



Summary: Amid a mostly tranquil start to February, stormy weather returned to the Pacific Coast States. In a three-day period starting on February 3, Spokane, WA, recorded precipitation totaling 1.25 inches—including 11.7 inches of snow. Closer to the coast, Salem, OR, measured 4.89 inches of rain from February 3-5. Elsewhere in Oregon, the 5th was the wettest February day on record in Newport (4.44 inches) and Portland (2.19 inches). Previous records had been 4.00 inches in Newport on February 8, 1899, and 2.16 inches in Portland on February 6, 1996. February 5 was among the five wettest February days on record in McMinnville, OR (2.51 inches); Salem, OR (2.44 inches); and Vancouver, WA (2.15 inches). Periods of heavy rain and snow also fell across the interior Northwest, where Stanley, ID, received measurable precipitation—totaling 4.32 inches—on each of the first 10 days in February.

Farther south, early-month storms added roughly 8 inches of liquid to the already impressive Sierra Nevada snowpack, which contained 38 inches (about 180 percent of average for the date) by February 11. At lower elevations, one of California's heaviest surges of precipitation arrived starting on February 9, when daily-record totals reached 2.13 inches in Mt. Shasta City and 2.04 inches in Ukiah. Pounding rains and heavy runoff in California's Feather River basin pushed Oroville Dam's infrastructure nearly to the breaking point, as excess runoff and rising lake levels initially damaged the main spillway and later overtopped and caused erosion of the auxiliary spillway. By Sunday, February 12, evacuations were ordered for some 188,000 individuals in communities downstream of Lake Oroville due to the risk of failure of the auxiliary spillway—even as officials worked to temporarily repair the erosion and deflect pressure by releasing water through the already damaged but structurally sound main spillway. Before dawn on February 12, the surface elevation of Lake Oroville rose to 902.59 feet—1.59 feet above the height of the eroding auxiliary spillway. It was the managed lake's highest surface elevation on record; previously, water had come within a foot of the top of the auxiliary spillway in January 1997. Eight days later, on February 20, the lake's level fell below 850 feet, a target mostly achieved through water releases utilizing the main spillway.

Mostly inactive weather across the South, East, and Midwest ended abruptly, starting on February 7. On that date, a severe weather outbreak across the South featured isolated tornadoes. A particularly severe (EF-3) tornado cut a 10-mile swath with winds estimated as high as 150 mph through Orleans Parish, LA, causing dozens of injuries and moderate to severe damage to more than 600 homes and at least 40 businesses. Daily-record rainfall totals on February 7 included 1.62 inches in Apalachicola, FL, and 1.43 inches in Tuscaloosa, AL. At the same time, snow spread across the nation's northern tier. February 7 snowfall totals reached 4.0 inches in Casper, WY, and Duluth, MN—records for the date in both locations. Some rain fell in the Corn Belt, where daily-record amounts for February 7 reached 1.42 inches in South Bend, IN, and 0.99 inch in Dubuque, IA. By the 8th, a band of snow spread across the Midwest, where Lincoln, IL, netted a daily-record sum of 3.4 inches.

On February 9, snow and wind resulted in blizzard conditions in portions of the northern Atlantic States. On that date, at least 10 inches of snow fell, and wind gusts were clocked above 40 mph, at New York's LaGuardia Airport (10.0 inches and 44 mph); Bridgeport, CT (10.3 inches and 45 mph); Boston, MA (10.9 inches and 49 mph); Providence, RI (11.9 inches and 54 mph); Worcester, MA (13.0 inches and 60 mph); Islip, NY (14.3 inches and 48 mph); and Hartford, CT (15.5 inches and 40 mph). Within days, snow returned to the Northeast. Binghamton, NY, received 6.3 and 10.6 inches of snow on February 9-10 and 12-13, respectively. Similarly, Portland, ME, measured 7.7 inches of snow on February 9, followed by 22.1 inches from February 11-13. In fact, parts of Maine received historically heavy snow. For example, Bangor experienced its snowiest February day on the 13th, when 21.5 inches fell. It was also Bangor's snowiest day since December 30, 1962, when 25.5 inches accumulated. Bangor's February 12-13 snowfall totaled 24.2 inches; the only higher two-day totals on record were 32.2 inches on February 20-21, 1947; 31.0 inches on December 14-15, 1927; and 29.5 inches on December 30-31, 1962. Elsewhere in New England, February 9-16 snowfall totaled 35.2 inches in Portland, ME; 22.9 inches in Burlington, VT; and 22.7 inches in Worcester, MA.

With cold air nearly absent from the contiguous U.S., the focus was on early-season warmth. An early sign of the warmth to come occurred on February 6, when daily-record highs were set in locations such as Tulsa, OK (76°F), and Joplin, MO (74°F). (Those highs for Tulsa and Joplin would be dwarfed less than a week later, when respective highs on February 11 soared to 86 and 82°F.) Houston, TX, collected a trio of daily-record highs (81, 86, and 87°F) from February 6-8. Elsewhere in Texas, Galveston tied a February record with a high of 80°F on the 7th. Warm air also overspread the East, where consecutive daily-record highs were set on February 7-8 in locations such as Washington, DC (73 and 74°F), and Richmond, VA (74 and 75°F). A few days later, as cooler air arrived in the Midwest and Northeast, phenomenal warmth spread from the Southwest to the southern Plains. By the 10th, February records were broken in Colorado locations such as Pueblo (82°F), Denver (80°F), and Colorado Springs (77°F). With a high of 75°F on February 10, Albuquerque, NM, recorded its earliest ever high of 75°F or greater (previously, 75°F on February 18, 2016). Dodge City, KS (87°F on the 10th), registered its second-highest February reading behind 88°F on February 18, 2016. Many locations in Texas, including Childress (90 and 95°F); Lubbock (86 and 91°F); and Amarillo (89 and 88°F), collected consecutive daily-record highs on February 10-11. All-time February records were shattered on February 11 in Texas locations such as Wichita Falls (94°F) and Midland (92°F), while a high of 99°F was reported in Mangum, OK.

While mid-February showers in some areas were welcomed, heavy rain caused some flooding in the Pacific Coast States. The south-central U.S. generally benefited from the rain, which in Texas resulted in daily-record totals in locations such as Childress (2.19 inches on February 13) and Waco (2.09 inches on February 14). Meanwhile in the Northwest, rain and melting snow triggered mostly minor flooding. February 15-16

precipitation in Washington totaled 2.13 inches in Seattle and 1.18 inches in Spokane. The snow depth in Spokane decreased to 1 inch on February 16, down from 1 foot just a week earlier. Meanwhile, western Oregon was hit by heavy rain on February 16, resulting in daily-record totals in locations such as Portland (1.70 inches) and Eugene (1.69 inches). Later, torrential rain shifted into coastal southern California, where record-setting totals for February 17 climbed to 4.16 inches in Santa Barbara and 3.86 inches in Sandberg. For Santa Barbara, it was also the wettest February day on record (previously, 3.97 inches on February 8, 1985). For Sandberg, it was the wettest February day since February 12, 2003, when 4.27 inches fell. In the Desert Southwest, record-setting rainfall totals for February 18 included 0.81 inch in Needles, CA, and 0.43 inch in Las Vegas, NV.

During a flurry of Southeastern high-temperature records on February 12, monthly records were tied in Elizabeth City, NC, and Norfolk, VA—both 82°F. Daily-record highs on the 12th included 86°F in Alexandria, LA, and Houston, TX; 85°F in Vicksburg, MS; and 83°F in Danville, VA. It was Danville's second-highest February reading behind 85°F on February 27, 1977. Even more impressive warmth followed. In Iowa, for example, the 17th was the second-warmest February day on record—behind only February 24, 1930—in Des Moines (75°F), Lamoni (74°F), and Ottumwa (74°F). With a high of 73°F on the 17th, Moline, IL, tied a monthly record originally set on February 15, 1921. From February 17-22, Chicago achieved a record-setting string of 6 consecutive winter days with highs of 60°F or greater—with peaks of 70°F on February 18 and 20. Previously, Chicago's longest winter warm spell occurred from December 2-6, 1998, when highs reached or exceeded the 60-degree mark on 5 days in a row. Rockford, IL, also attained 60°F or higher from February 17-22, shattering its winter record of 3 days in a row set from February 19-21 and 23-25, 1930.

Across the Midwest and Northeast, the May-like warm spell peaked during the week of February 19-25. At the height of the warmth, multiple days rivaled some of the nation's historically balmy February days, including February 1, 1911; February 15, 1921; February 24, 1930; February 10, 1932; February 16, 1954; February 11, 1962; February 24, 1985; and February 26, 2000. Such unusual and sustained February warmth raised concerns in agricultural communities and among nurseries that a sharp spring cold snap could cause extensive damage to fruits and ornamentals. Such a freeze in April 2007, following March warmth, caused an estimated $2.3 billion in damage across the central and eastern U.S., according to the National Centers for Environmental Information. Each day from February 19-25, monthly record highs were set somewhere in the Midwest or Northeast. On the 19th, monthly record highs climbed to 74°F in Moline, IL, and 65°F in La Crosse, WI. Previous records in both locations had been set on February 15, 1921; La Crosse also reached 65°F on February 12, 1882. In subsequent days, monthly record-tying highs soared to 74°F (on February 20) in Peoria, IL, and 79°F (on February 21) in North Platte, NE. By February 22, another raft of monthly records was set in locations such as Ottumwa, IA (79°F); Milwaukee, WI (71°F); and Rockford, IL (70°F). With a high of 68°F on February 22, Appleton, WI, demolished its former monthly record (59°F on February 23, 1930, and February 26, 2000) by 9°F. In Missouri, Springfield (84°F on February 23) tied a monthly record originally set on February 1, 1911. February 24 was a historically warm day from the Ohio Valley into the Northeast, with monthly records established at dozens of sites. In Ohio, all-time winter (December-February) records from December 3, 1982, were tied or broken in Columbus (78°F), Cleveland (77°F), and Akron-Canton (76°F). Other winter records tied or set on the 24th included 79°F in Evansville, IN; 77°F in Erie, PA; and 74°F in Albany, NY. From February 17-24, Fort Wayne, IN, reached or exceeded the 60-degree mark on 8 consecutive days, toppling its February 1930 record of 7 days in a row. On February 25, during a final day of exceptional Northeastern warmth, Burlington, VT, smashed its former monthly record of 62°F by 10°F. In contrast, daily-record lows in California dipped to 1°F (on February 24) in South Lake Tahoe and 32°F (on February 23) in Sacramento.

Prior to California's late-month cool spell, a final round of heavy precipitation brought renewed flooding; maintained pressure on numerous levees; and boosted the water equivalency of the Sierra Nevada snowpack to 45 inches. Some of the worst flooding occurred on February 20-21 in and near San Jose. Late on February 20, two unofficial wind gusts in excess of 190 mph were reported near the Sierra Nevada crest, with a gust to 199 mph clocked on Mount Ward. Record-setting precipitation totals for the 20th included 2.16 inches in San Francisco and 1.87 inches in San Jose. On the other side of the Sierra Nevada, Reno, NV, also received a daily-record sum—1.05 inches on February 20). Coyote Creek near Edenvale, CA, crested 3.6 feet above flood stage on February 21, edging the February 1922 high-water mark by 0.8 foot. A record was set on the 20th along Alameda Creek near Sunol, CA—also 3.6 feet above flood stage.

As with earlier Pacific storm trains, moisture eventually reached other parts of the country. For example, much-needed rain in the southern Atlantic region resulted in daily-record amounts on February 22 in Melbourne, FL (2.50 inches), and Savannah, GA (2.08 inches). A streak of snow spread eastward from the Intermountain West, where Pocatello, ID, received 13.7 inches from February 22-24. In Wyoming, daily-record snowfall totals for February 23 reached 11.9 inches in Riverton and 9.0 inches in Casper. On the same date, 8.2 inches blanketed Sioux City, IA. The following day, February 24, daily-record amounts included 10.4 inches in Eau Claire, WI, and 6.4 inches in Rochester, MN. On the 25th in the East, Scranton, PA, collected a daily-record total (1.44 inches), while Maryland experienced only its fourth February tornado on record—an EF-1 with winds up to 90 mph that traveled more than 8 miles across Charles County. On the same date, a tornado in Conway, Franklin County, MA, was the first confirmed tornado in that state in the month of February. Just 3 days later, a much more expansive and destructive severe weather outbreak battered the Midwest and mid-South. The preliminary tally of at least five dozen tornadoes on February 28 included a trio of deadly storms—an EF-4 twister in Perry County, MO, that resulted in one fatality, and two EF-3 tornadoes in Illinois (La Salle and White Counties, respectively) that collectively claimed three lives.

The storm system responsible for the severe weather also produced heavy rain. Record-setting rainfall totals for February 28 included 1.78 inches in South Bend, IN; 1.57 inches in Cincinnati, OH; and 1.11 inches in Muskegon, MI. Farther west, the month ended on a stormy note in the Northwest—and in coastal southern California. Record-setting snowfall totals for February 27 included 2.9 inches in Spokane, WA; 2.7 inches in Lewiston, ID; and 1.9 inches in Pendleton, OR. On the same date in southern California, more than 5 inches of rain fell on Palomar Mountain, while daily-record totals reached 4.03 inches in Escondido, 2.34 inches in San Diego, and 2.30 inches in Campo.

Not surprisingly, February average temperature records were demolished from the Gulf Coast to the Great Lakes, and from the Midwest to the Mid-Atlantic Coast. In some cities and towns where climate records pre-date the official start of U.S. climate data in 1895, such as Lansing, MI, and Columbus, OH, February records from 1882 were broken. Parkersburg, WV, edged a February 1890 mark. Monthly average temperature records from February 1925 were erased in locations such as Elkins, WV, and Philadelphia, PA. And, February 1930 standards were eclipsed in Dayton, OH, and Des Moines, IA. The month's final warm spell developed across the South on February 27 with daily-record highs in Florida locations such as Fort Myers (89°F) and Naples (88°F). A day later, February 28 featured record-setting highs in both Florida locations—90°F in Fort Myers and 88°F in Naples, along with locations such as McAllen, TX (96°F); Shreveport, LA (85°F); Alma, GA (85°F); and Quincy, IL (74°F).

Alaska's weather featured plenty of precipitation in most areas and large temperature variations. Fairbanks received nearly 2 feet of snow—23.6 inches, or 288 percent of normal—representing its sixth-snowiest February. Fairbanks had 34 inches of snow on the ground on February 26, marking its greatest snow depth since April 3, 1993. February temperatures in Fairbanks ranged from -41°F on the 12th to 35°F on the 14th. About a week later, during a second warm spell, McGrath's temperature jumped 84°F, from -42 to 42°F, between February 21 and 23. Meanwhile, Anchorage reported a third consecutive below-normal monthly average temperature for the first time since March-May 2013. Nevertheless, during a mid-month period of warmth in southeastern Alaska, Sitka posted consecutive daily-record highs (56 and 52°F, respectively) on February 13-14. Other Alaskan daily-record highs on the 14th included 55°F on Annette Island and 53°F in Juneau. Southeastern Alaska's warmth was concurrent with a period of wet weather, which featured February 10-15 totals of 6.44 inches in Yakutat, 5.42 inches in Sitka, and 4.13 inches in Juneau. Later, a large portion of Fairbanks' snow, 17.1 inches, fell from February 22-25. Meanwhile, Nome was blanketed by a daily-record snowfall of 10.1 inches on February 23. In late February and early March, heavy snow developed across southeastern Alaska. Some of the heaviest snow fell on February 28 – March 1, when 24-hour totals included 24.4 inches in Annex Creek and 12.5 inches in Pelican.

Aside from briefly heavy showers on the 11th across Hawaii's western islands, along with additional rain late in the month, February was relatively quiet. On February 11, daily-record totals included 5.03 inches in Honolulu, Oahu, and 4.13 inches in Lihue, Kauai. That represented Honolulu's wettest day since December 19, 2010, when 5.41 inches fell, and wettest February day since February 27, 2004, when 5.43 inches occurred. Those downpours bypassed the Big Island, where nearly all (5.06 of 6.15 inches) of Hilo's monthly rain fell from February 26-28. During a mid-month period of tranquil weather, daily record-tying highs occurred in locations such as Lihue (85°F on February 14) and Honolulu (84°F on February 18). At month's end, a slow-moving storm—known as a "Kona low"—soaked parts of Hawaii with heavy rain, and brought significant snow (locally more than 6 inches) to the highest Big Island peaks. February 28 – March 1 rainfall totaled 4.18 inches in Lihue and 3.69 inches in Honolulu—with both locations reporting southwesterly wind gusts in excess of 40 mph on the latter date. At the state's major airport observation sites, monthly percent of normal precipitation ranged from 64 percent (6.15 inches) in Hilo to 358 percent (7.12 inches) in Honolulu.

Fieldwork

Fieldwork summary provided by USDA/NASS

Above-normal temperatures blanketed much of the nation during February. Temperatures in the Corn Belt were much higher than normal, with most of Illinois, Indiana, Iowa, Missouri, and Ohio averaging more than 9°F above normal. Conversely, portions of the Northwest, including all of Washington, recorded below-average monthly temperatures. Monthly precipitation was generally within 4 inches of normal. However, totals were more than 4 inches above normal along the Pacific Coast and in a few scattered locations in the Rocky Mountains. Elsewhere, monthly precipitation in parts of Kansas, Missouri, New Mexico, South Dakota, and western Texas totaled less than 2 percent of normal.

Kansas winter wheat condition was rated at 43 percent in the good to excellent categories on February 26, down slightly from the end of January. Winter wheat conditions also declined over the month in some Northern States due to fluctuating temperatures. In Montana, the percent of the crop in the good to excellent categories dropped 19 percentage points during the month, with 51 percent rated in these two categories on February 26. In South Dakota, winter wheat condition decreased 5 percentage points over the month to 57 percent good to excellent. Conversely, Colorado winter wheat conditions improved 4 percentage points during the month, with 40 percent rated in the good to excellent categories on February 26.

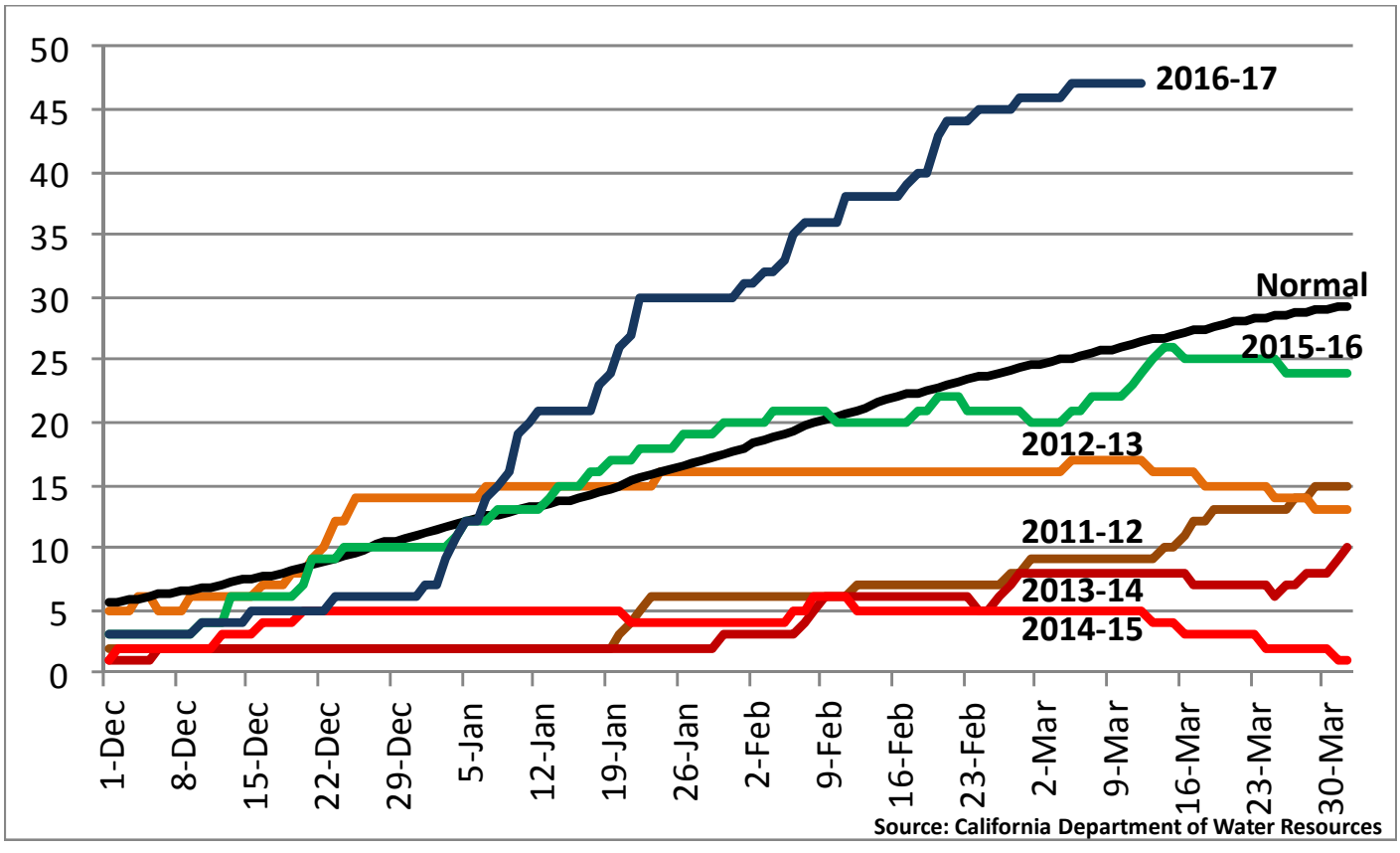
At the beginning of February, all but five weather stations in **Arizona** reported above-normal temperatures. However, at the end of the month, only 14 of 52 weather stations reported above-normal temperatures. Alfalfa conditions were mostly fair to excellent throughout the month. Alfalfa harvesting occurred on three-quarters of the state's acreage. Barley and Durum wheat planting activities were virtually complete by the end of the month. Vegetable shipping continued throughout the month. Pasture and rangeland conditions ranged from mostly fair to good for the entire month.

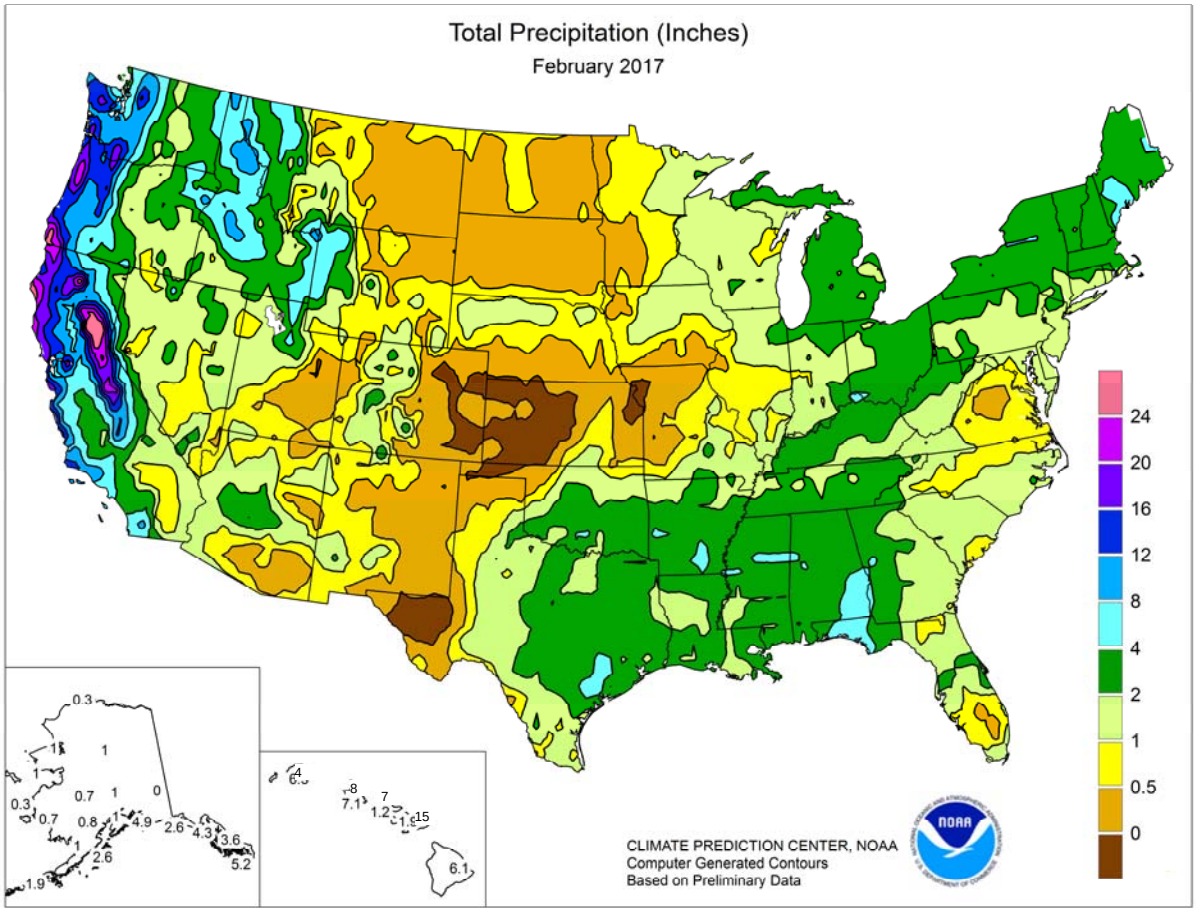
In **California**, widespread precipitation fell across the northern two-thirds of the state throughout February. At the beginning of the month, growers waited for fields to dry out sufficiently to resume planting winter grains. Rain greatly benefited the growth of already planted grains and fields crops. Navel orange harvest continued as weather permitted. Tangerines continued to be harvested. Winter vegetables continued to mature. Fields were planted with melon and sweet corn as weather permitted. At the end of the month, early varieties of nectarines and peaches were blooming in Fresno County. The Navel orange harvest resumed during the last week of the month. Almonds were beginning to bloom across the state by the end of February. Strawberry fields continued to thrive. Where field conditions permitted, bee hives were staged in preparation for the pending bloom season. Non-irrigated pasture and rangeland continued to improve due to precipitation. Range was reported to be in fair to excellent condition. Supplemental feeding of livestock continued to decline as range conditions improved.

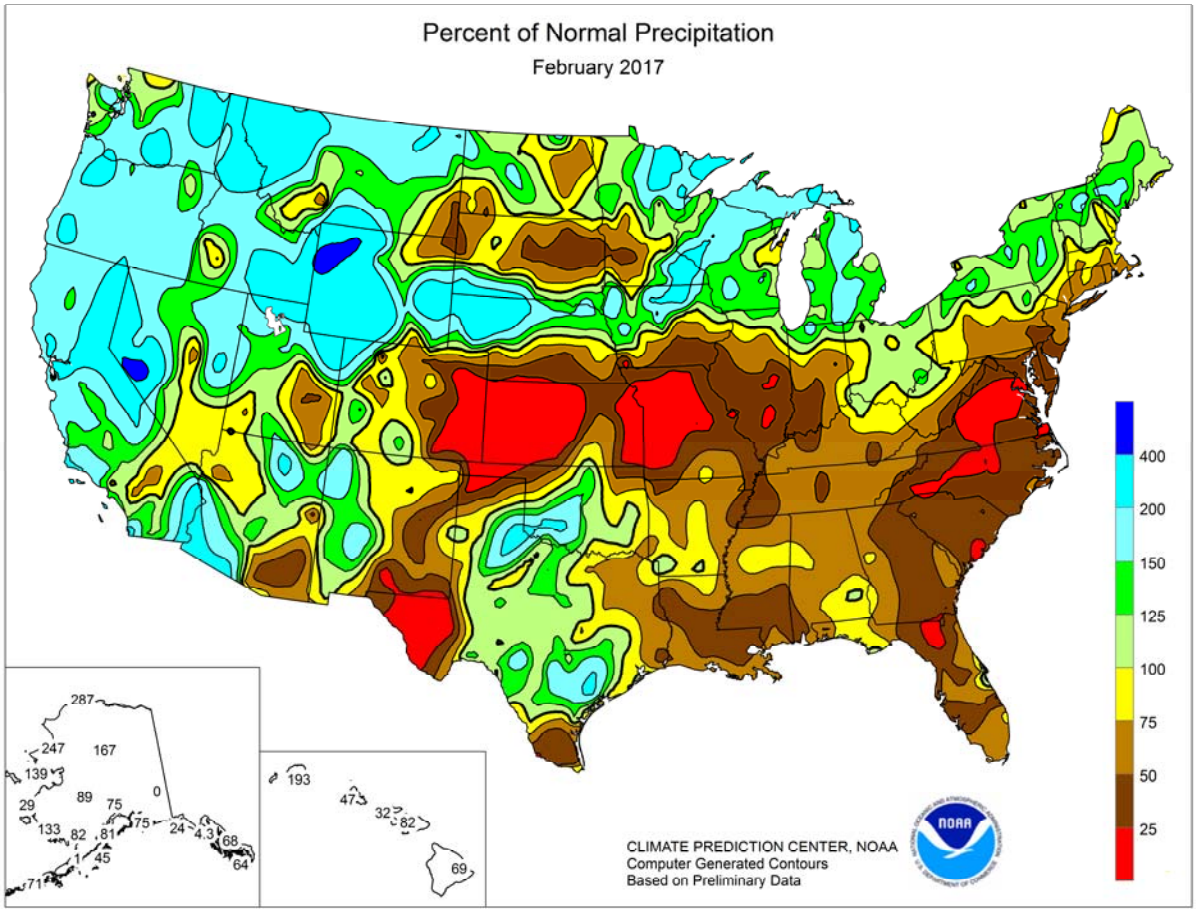
In **Florida**, February weather conditions were similar to January for most of the month: warm and dry. Nighttime temperatures dipped during the first week of February, with some areas receiving frost. Although the Panhandle remained free of abnormally dry conditions, central and southern Florida did not. By the second week of the month, all southern counties were considered abnormally dry, with the majority in a moderate drought. Producers began planting potatoes in Flagler and Putnam Counties towards the end of the month. Sugarcane harvest continued on schedule in Broward, Glades, Hendry, and Palm Beach Counties. A wide variety of vegetables, including collards, eggplant, strawberries, and zucchini were harvested and brought to market. Early and mid-season orange harvesting activities slowed down and were nearing an end for the season. Grapefruit harvest continued at levels lower than last season, but was still coming in at a fairly steady pace each week. Honey and royal tangerines continued to be harvested for the fresh market. Pasture quality continued to decline in most counties. Cattle remained in mostly fair to good condition.

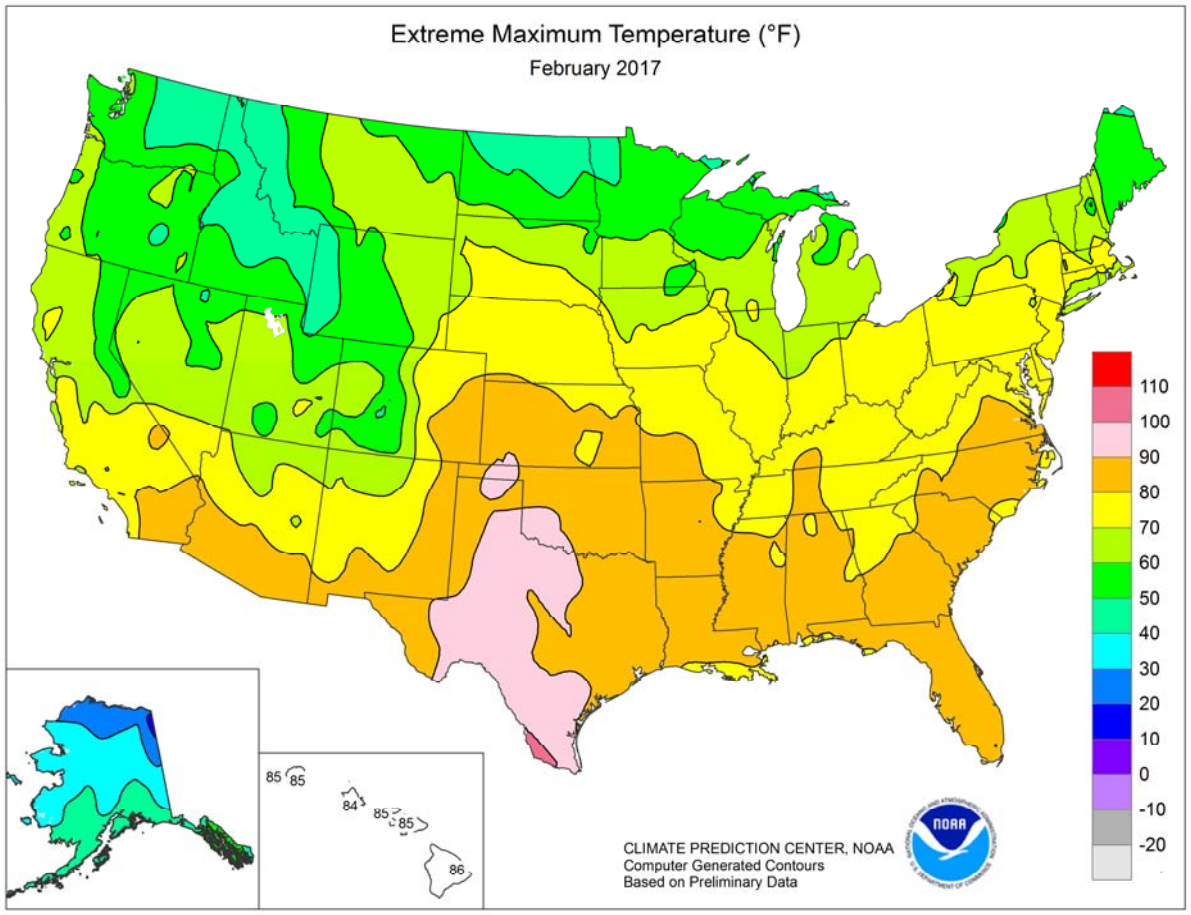
Texas experienced little to no measurable rainfall at the beginning of February. Precipitation did not fall across the state until the second half of the month, when isolated areas between South Central Texas and the Upper Coast received as much as 8 inches. Overall, the state noted mostly warm, windy weather with sporadic and isolated showers. Cotton harvest concluded during the first week of the month. Winter wheat was rated mostly fair to good during February. Pasture and rangeland conditions were rated mostly fair to good throughout the month.

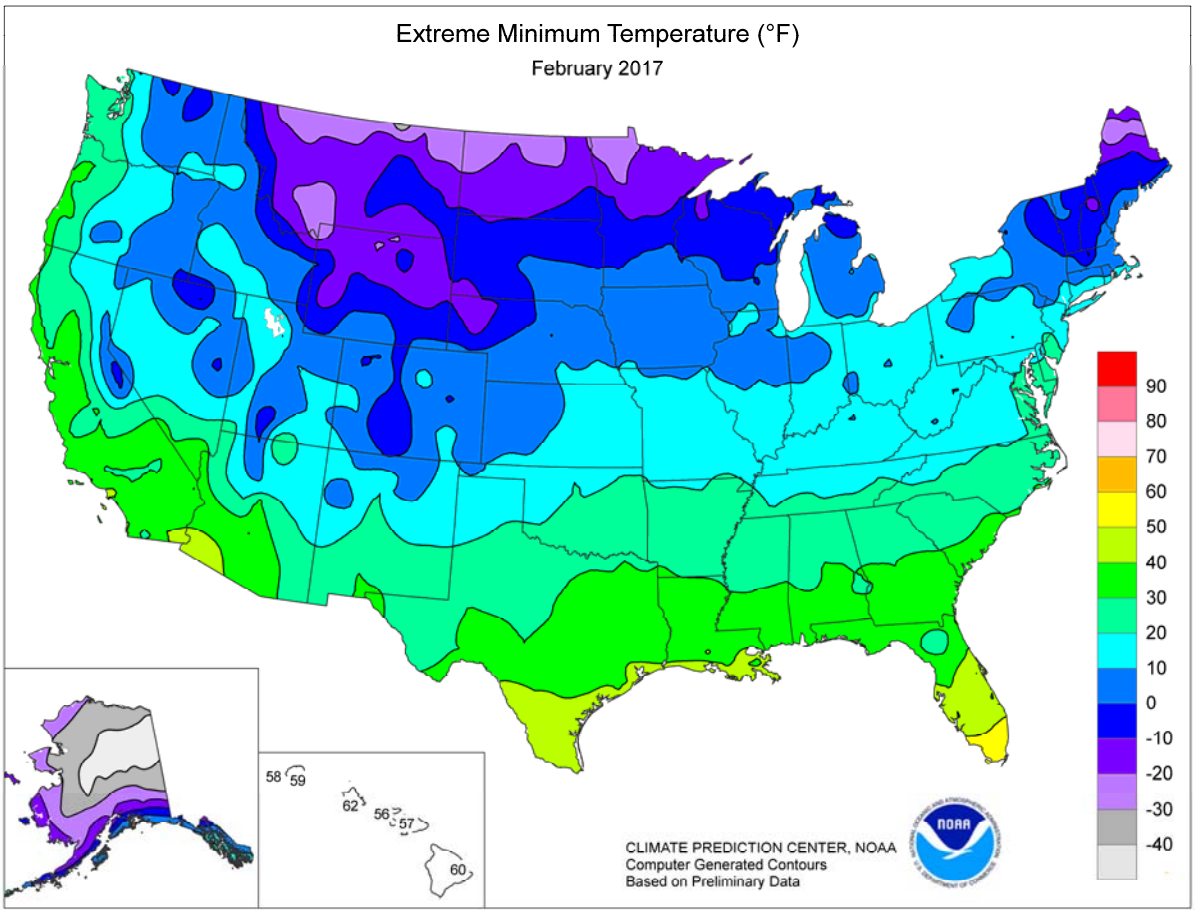
Daily Sierra Nevada Snowpack (Inches) vs. Normal

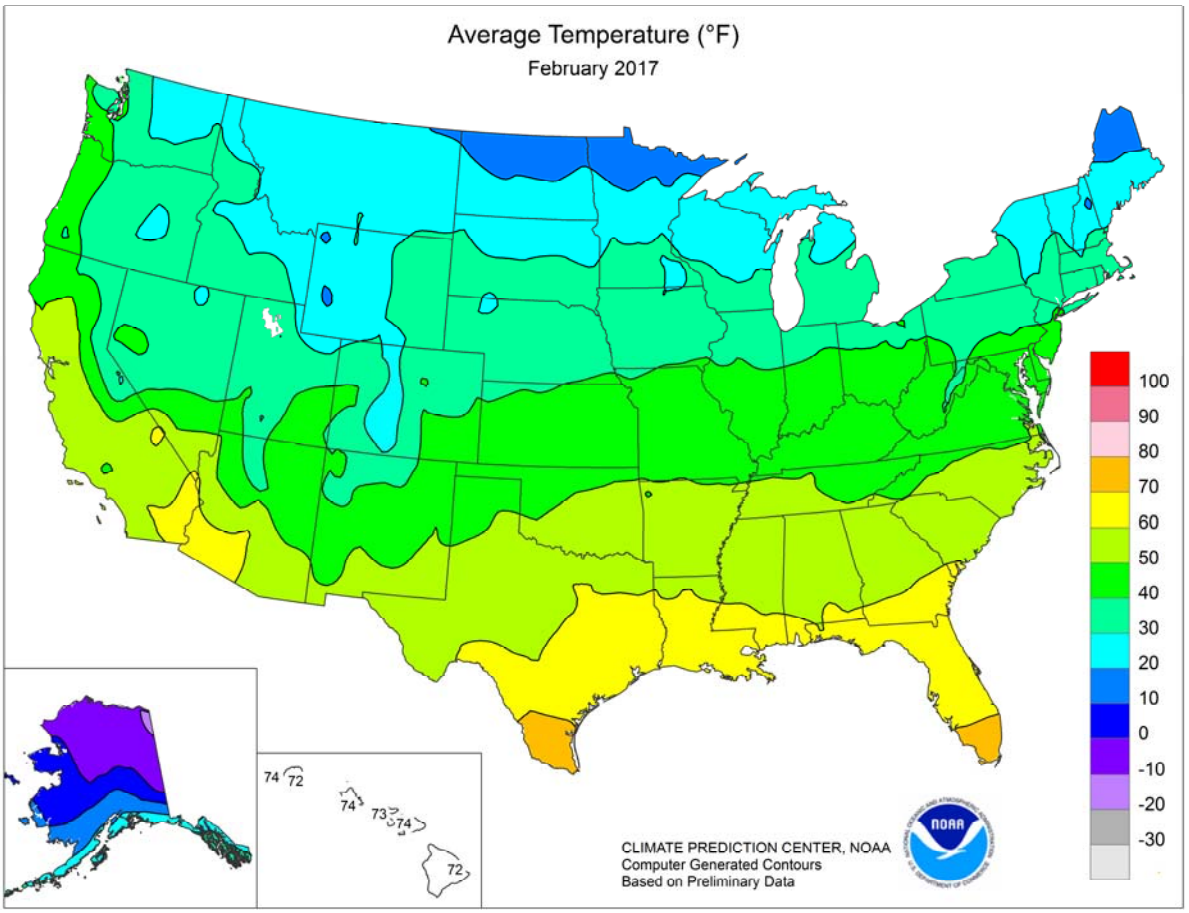


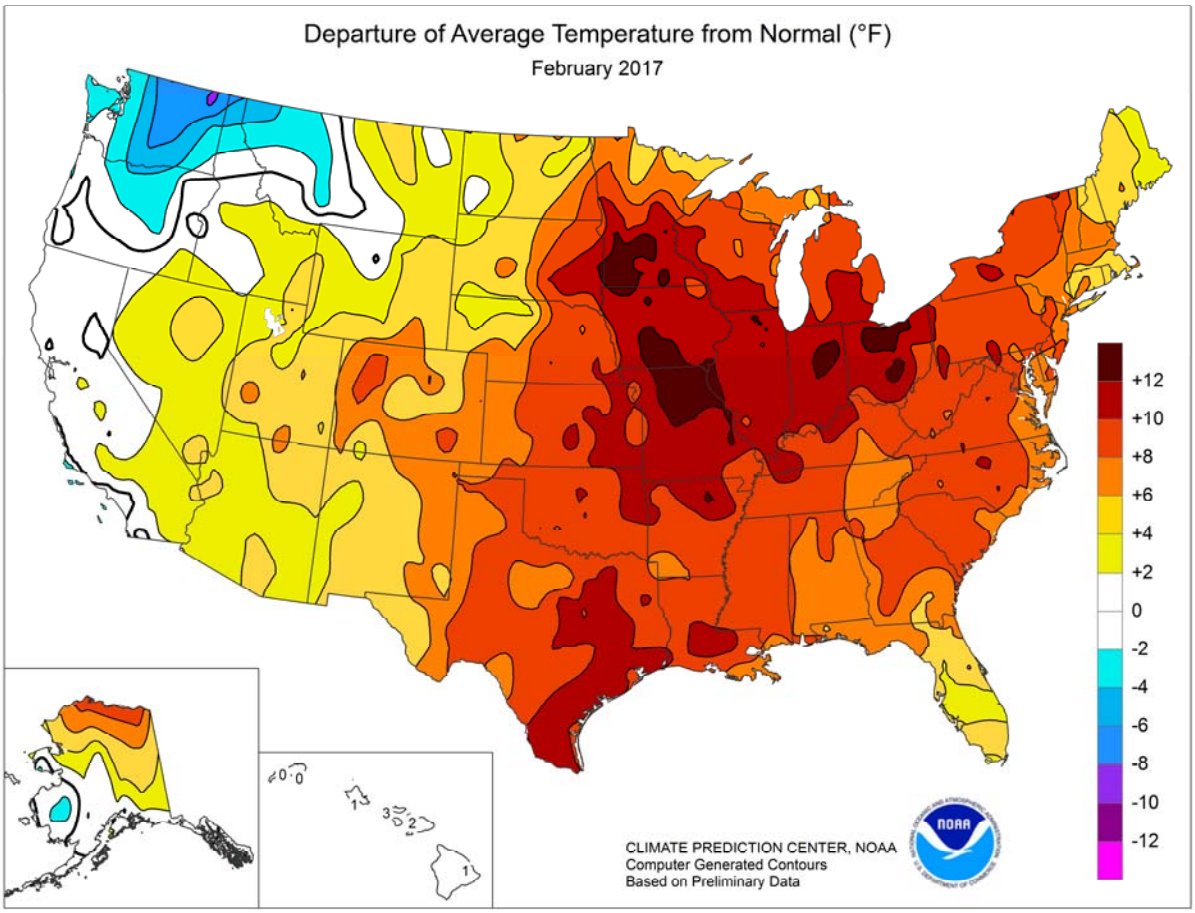

Total Precipitation (Inches)
February 2017
24
20
16
12
8
4
2
1
0.5
0
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data


Percent of Normal Precipitation
February 2017
400
200
150
125
100
75
50
25
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data


Extreme Maximum Temperature (°F)
February 2017
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
85
85
84
85
85
86
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data
NOAA


Extreme Minimum Temperature (°F)
February 2017
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
58
59
62
56
57
60
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data
NOAA


Average Temperature (°F)
February 2017
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
74 72
74 73 74
72
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data


Departure of Average Temperature from Normal (°F)
February 2017
+12
+10
+8
+6
+4
+2
0
-2
-4
-6
-8
-10
-12
0 0
1 3 2
1
CLIMATE PREDICTION CENTER, NOAA
Computer Generated Contours
Based on Preliminary Data

National Weather Data for Selected Cities

February 2017

Data Provided by Climate Prediction Center

STATES AND STATIONS	TEMP, °F		PRECIP.		STATES AND STATIONS	TEMP, °F		PRECIP.		STATES AND STATIONS	TEMP, °F		PRECIP.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL BIRMINGHAM	56	9	2.95	-1.26	LEXINGTON	47	11	3.39	0.12	COLUMBUS	42	10	2.63	0.43
HUNTSVILLE	53	9	2.48	-2.47	LONDON-CORBIN	46	7	1.24	-2.48	DAYTON	42	12	1.92	-0.37
MOBILE	61	8	1.28	-3.82	LOUISVILLE	49	11	2.06	-1.19	MANSFIELD	40	13	1.95	-0.22
MONTGOMERY	60	9	3.53	-1.92	PADUCAH	49	11	2.33	-1.60	TOLEDO	38	11	1.62	-0.26
AK ANCHORAGE	19	0	0.99	0.25	LA BATON ROUGE	65	12	1.75	-3.35	YOUNGSTOWN	38	10	2.53	0.50
BARROW	-6	10	0.34	0.22	LAKE CHARLES	64	10	2.04	-1.24	OK OKLAHOMA CITY	51	9	3.12	1.56
COLD BAY	28	0	1.85	-0.74	NEW ORLEANS	64	8	2.74	-2.73	TULSA	51	9	1.17	-0.78
FAIRBANKS	1	5	1.24	0.88	SHREVEPORT	61	10	1.58	-2.63	OR ASTORIA	43	-1	12.07	4.20
JUNEAU	30	1	4.31	0.29	ME BANGOR	23	2	2.26	-0.28	BURNS	28	-2	1.76	0.65
KING SALMON	16	0	1.04	0.32	CARIBOU	16	3	2.17	0.11	EUGENE	43	0	9.33	2.98
KODIAK	30	0	2.60	-3.12	PORTLAND	29	4	4.55	1.41	MEDFORD	45	1	4.12	2.02
NOME	3	-3	1.04	0.29	MD BALTIMORE	44	9	1.46	-1.56	PENDLETON	35	-4	2.27	1.05
AZ FLAGSTAFF	36	4	2.33	-0.23	MA BOSTON	37	6	3.22	-0.08	PORTLAND	41	-2	10.36	6.18
PHOENIX	62	4	1.24	0.47	WORCESTER	32	6	2.44	-0.66	SALEM	43	0	13.41	8.32
TUCSON	60	5	0.20	-0.68	MI ALPENA	28	9	2.85	1.50	PA ALLENTOWN	39	9	1.70	-1.05
AR FORT SMITH	54	10	2.48	-0.11	DETROIT	38	11	2.25	0.37	ERIE	38	10	2.54	0.26
LITTLE ROCK	53	8	3.53	0.20	FLINT	34	10	2.42	1.07	MIDDLETOWN	41	10	1.75	-1.18
CA BAKERSFIELD	56	3	1.46	0.25	GRAND RAPIDS	35	10	2.05	0.52	PHILADELPHIA	44	9	1.30	-1.44
EUREKA	50	1	11.10	5.59	HOUGHTON LAKE	28	8	2.51	1.26	PITTSBURGH	40	9	1.76	-0.61
FRESNO	54	3	2.52	0.40	LANSING	35	11	2.63	1.18	WILKES-BARRE	38	9	2.98	0.90
LOS ANGELES	57	-1	4.04	0.93	MUSKEGON	35	10	2.67	1.09	WILLIAMSPORT	38	9	1.87	-0.74
REDDING	51	2	7.58	2.09	TRAVERSE CITY	31	9	2.16	0.37	PR SAN JUAN	80	3	1.70	-0.60
SACRAMENTO	52	1	8.25	4.71	MN DULUTH	22	7	1.80	0.97	RI PROVIDENCE	36	5	2.22	-1.23
SAN DIEGO	60	1	3.71	1.67	INT'L FALLS	17	6	1.48	0.84	SC CHARLESTON	59	8	0.40	-2.68
SAN FRANCISCO	55	3	7.43	3.42	MINNEAPOLIS	31	11	0.64	-0.15	COLUMBIA	57	9	1.60	-2.24
STOCKTON	53	2	5.15	2.69	ROCHESTER	28	10	1.66	0.91	FLORENCE	56	8	1.61	-1.41
CO ALAMOSA	30	8	0.29	0.08	ST. CLOUD	28	12	0.78	0.19	GREENVILLE	54	10	1.20	-3.04
CO SPRINGS	40	8	0.07	-0.28	MS JACKSON	59	10	2.31	-2.19	MYRTLE BEACH	57	8	1.77	-1.73
DENVER	40	9	0.23	0.00	MERIDIAN	59	9	2.20	-3.15	SD ABERDEEN	27	8	0.17	-0.31
GRAND JUNCTION	42	8	0.54	0.04	TUPELO	54	9	2.70	-1.98	HURON	31	10	0.23	-0.34
PUEBLO	42	7	0.17	-0.09	MO COLUMBIA	46	12	0.21	-1.99	RAPID CITY	32	5	0.46	0.00
CT BRIDGEPORT	38	6	1.91	-1.01	JOPLIN	49	10	0.34	-1.91	SIOUX FALLS	32	11	0.49	-0.02
HARTFORD	34	5	2.49	-0.47	KANSAS CITY	44	11	0.06	-1.25	TN BRISTOL	46	8	2.13	-1.27
DC WASHINGTON	48	10	0.68	-1.95	SPRINGFIELD	48	11	0.39	-1.89	CHATTANOOGA	51	8	3.44	-1.41
DE WILMINGTON	43	9	1.35	-1.46	ST JOSEPH	41	9	0.05	-1.08	JACKSON	52	9	1.91	-2.34
FL DAYTONA BEACH	65	5	2.03	-0.71	ST LOUIS	48	13	0.49	-1.79	KNOXVILLE	49	7	2.57	-1.44
FT LAUDERDALE	73	5	1.57	-1.13	MT BILLINGS	30	0	0.83	0.26	MEMPHIS	55	10	1.40	-2.91
FT MYERS	71	5	0.72	-1.38	BUTTE	24	2	0.48	0.01	NASHVILLE	51	10	1.56	-2.13
JACKSONVILLE	62	6	1.35	-1.80	GLASGOW	23	4	0.55	0.29	TX ABILENE	56	7	1.45	0.32
KEY WEST	75	4	2.05	0.54	GREAT FALLS	26	0	0.57	0.06	AMARILLO	48	7	0.51	-0.04
MELBOURNE	67	5	3.43	0.94	HELENA	25	-1	0.68	0.30	AUSTIN	64	9	2.66	0.67
MIAMI	73	4	1.31	-0.76	KALISPELL	23	-4	2.78	1.63	BEAUMONT	67	11	1.11	-2.24
ORLANDO	68	5	0.95	-1.40	MILES CITY	28	3	0.39	0.05	BROWNSVILLE	73	10	1.36	0.18
PENSACOLA	64	9	3.62	-1.06	MISSOULA	28	-1	2.28	1.51	COLLEGE STATION	65	10	3.26	0.88
ST PETERSBURG	68	5	0.82	-2.05	NE GRAND ISLAND	38	10	0.25	-0.43	CORPUS CHRISTI	70	10	2.57	0.73
TALLAHASSEE	62	7	2.72	-1.91	HASTINGS	39	9	0.27	-0.40	DALLAS/FT WORTH	61	12	2.33	-0.04
TAMPA	69	6	2.02	-0.65	LINCOLN	38	10	0.55	-0.11	DEL RIO	63	7	0.78	-0.18
WEST PALM BEACH	71	4	2.54	-0.01	MCCOOK	39	7	0.14	-0.50	EL PASO	56	5	0.16	-0.23
GA ATHENS	55	9	1.19	-3.20	NORFOLK	34	8	0.99	0.23	GALVESTON	68	10	3.38	0.77
ATLANTA	56	9	1.87	-2.81	NORTH PLATTE	35	6	0.52	0.01	HOUSTON	66	11	2.42	-0.56
AUGUSTA	58	10	2.10	-2.01	OMAHA/EPPLEY	38	10	1.04	0.24	LUBBOCK	52	9	0.89	0.18
COLUMBUS	58	8	2.78	-1.70	SCOTTSBLUFF	36	6	0.90	0.32	MIDLAND	57	8	0.72	0.14
MACON	57	8	1.94	-2.61	VALENTINE	31	4	1.16	0.68	SAN ANGELO	58	8	1.23	0.05
SAVANNAH	61	8	2.22	-0.70	NV ELKO	37	6	1.57	0.69	SAN ANTONIO	64	9	3.61	1.86
HI HILO	72	1	6.15	-2.71	ELY	33	3	1.73	0.98	VICTORIA	68	11	4.84	2.80
HONOLULU	74	1	7.12	4.77	LAS VEGAS	57	5	0.56	-0.13	WACO	60	9	3.05	0.62
KAHULUI	74	2	1.93	-0.43	RENO	42	4	3.42	2.36	WICHITA FALLS	54	8	2.09	0.52
LIHUE	72	0	6.28	3.02	WINNEMUCCA	39	4	0.78	0.16	UT SALT LAKE CITY	40	5	1.69	0.36
ID BOISE	38	1	1.22	0.08	NH CONCORD	30	7	2.71	0.35	VT BURLINGTON	30	10	2.67	1.00
LEWISTON	37	-1	1.97	1.02	NJ ATLANTIC CITY	43	9	1.37	-1.48	VA LYNCHBURG	47	9	0.60	-2.50
POCATELLO	32	2	3.10	2.09	NEWARK	41	7	2.08	-0.88	NORFOLK	51	9	0.66	-2.68
IL CHICAGO/O'HARE	38	11	1.52	-0.11	NM ALBUQUERQUE	46	5	0.35	-0.09	RICHMOND	49	9	0.71	-2.27
MOLINE	38	11	0.91	-0.60	NY ALBANY	33	8	2.85	0.68	ROANOKE	48	9	0.54	-2.54
PEORIA	41	13	1.09	-0.58	BINGHAMTON	31	7	2.47	0.01	WASH/DULLES	45	10	0.71	-2.06
ROCKFORD	37	12	1.78	0.44	BUFFALO	35	9	2.26	-0.16	WA OLYMPIA	40	0	9.18	3.01
SPRINGFIELD	43	12	0.65	-1.15	ROCHESTER	35	10	2.33	0.29	QUILLAYUTE	40	-2	11.77	-0.58
IN EVANSVILLE	47	11	1.00	-2.10	SYRACUSE	33	9	3.55	1.43	SEATTLE-TACOMA	41	-2	8.85	4.67
FORT WAYNE	40	13	1.76	-0.18	NC ASHEVILLE	47	8	0.70	-3.13	SPOKANE	29	-4	4.39	2.88
INDIANAPOLIS	43	12	1.10	-1.31	CHARLOTTE	53	8	1.19	-2.36	YAKIMA	32	-3	2.40	1.60
SOUTH BEND	37	10	3.65	1.67	GREENSBORO	51	10	0.49	-2.61	WV BECKLEY	42	8	1.66	-1.30
IA BURLINGTON	40	12	0.40	-1.14	HATTERAS	55	8	1.33	-2.61	CHARLESTON	46	9	2.53	-0.66
CEDAR RAPIDS	35	10	0.67	-0.43	RALEIGH	53	10	0.66	-2.81	ELKINS	40	8	2.16	-1.04
DES MOINES	39	12	0.77	-0.42	WILMINGTON	55	6	1.33	-2.33	HUNTINGTON	46	9	2.82	-0.27
DUBUQUE	34	11	1.80	0.38	ND BISMARCK	23	5	0.76	0.25	WI EAU CLAIRE	28	9	1.73	0.93
SIOUX CITY	35	10	0.92	0.30	DICKINSON	22	1	0.24	-0.19	GREEN BAY	30	10	0.82	-0.19
WATERLOO	34	11	1.04	-0.01	FARGO	24	10	0.79	0.20	LA CROSSE	33	10	1.16	0.17
KS CONCORDIA	41	9	0.10	-0.63	GRAND FORKS	20	7	0.40	-0.18	MADISON	32	9	1.94	0.66
DODGE CITY	44	8	0.01	-0.65	JAMESTOWN	22	6	0.29	-0.23	MILWAUKEE	36	11	1.85	0.20
GOODLAND	40	8	0.01	-0.43	MINOT	22	5	0.46	-0.07	WAUSAU	26	7	1.60	0.70
HILL CITY	41	9	0.01	-0.59	WILLISTON	20	3	0.70	0.31	WY CASPER	31	4	0.81	0.17
TOPEKA	44	11	0.11	-1.07	OH AKRON-CANTON	40	12	2.36	0.08	CHEYENNE	34	5	0.67	0.23
WICHITA	46	10	0.83	-0.19	CINCINNATI	44	10	3.55	0.80	LANDER	28	2	1.11	0.57
KY JACKSON	48	10	2.86	-0.82	CLEVELAND	41	13	3.08	0.79	SHERIDAN	29	2	0.66	0.09

Based on 1971-2000 normals

***** Not Available**

National Agricultural Summary

March 6-12, 2017

Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

Above-normal temperatures blanketed much of the nation. The only major exceptions were in the upper Missouri Valley and New England, where below-normal temperatures prevailed. Temperatures averaged at least 5°F above normal across the southern Great Plains. Conditions were generally dry in the western U.S., with virtually no measurable precipitation across most of the Southwest and central Great Plains. One exception occurred in the Pacific Northwest, where some areas recorded weekly precipitation totals as high as 5 inches. Elsewhere, parts of the lower Mississippi Valley and southwestern Texas recorded weekly precipitation totals that were more than 1.5 inches above normal.

Arizona: Alfalfa conditions were rated mostly fair to good, depending on location, with harvesting taking place on three-quarters of the state's acreage. Durum wheat heading was estimated at 7 percent complete, while conditions were rated mostly good to excellent. Barley heading was estimated at 8 percent complete, while conditions were rated mostly fair to good. Cotton planting was estimated at 6 percent complete. Central Arizona growers shipped anise, beets, bok choy, broccoli, cabbage (green and red), carrots, cauliflower, celery, cilantro, collard greens, kale greens, kohlrabi, green onions, parsley, and Swiss chard. In western Arizona, growers shipped anise, arugula, bok choy, broccoli, cabbage (green and red), cauliflower, celery, Chinese cabbage, cilantro, endive, escarole, frisee, kale greens, lettuce (Boston, green leaf, iceberg, red leaf, romaine and other), parsley, radicchio, spinach, and Swiss chard. Pasture and range conditions were rated mostly fair to good.

California: Temperatures rose 10 to 20°F from the previous week, with a drier pattern taking hold over much of the state. Rainfall was largely confined to the northern one-third of the state. Mountain snowpack decreased for the first time since last fall. Alfalfa broke dormancy, but growth was slow. Growers started preparing ground for the upcoming cotton season by tilling, making furrows, and applying herbicides. Herbicides were applied to some vineyards to combat the increase in weeds, following an exceptionally wet winter. Early varieties of stone fruit, including cherries, apricots, and plums, were blooming in the San Joaquin Valley. Harvest of Cara Cara and Navel oranges, lemons, and mandarins continued. Orange groves were hedge-rowed and skirted. A few seedless tangerine groves were netted to prevent cross pollination during the pending bloom. As field conditions permitted, walnut and pistachio orchard pruning resumed. Almond bloom was progressing, with some areas nearing completion. Fungicides were applied in some almond orchards. In San Joaquin County, sunshine and warm weather allowed farmers and growers back into the fields. Winter crops of broccoli, cabbages, and cauliflower were harvested and sold at local markets. Growers planted tomatoes and prepared fields for eggplant. Warming spring conditions and plentiful precipitation promoted lush forb and grass development. Non-irrigated pasture and rangeland continued to improve, with fair to excellent conditions reported. Supplemental feeding of livestock continued to diminish as range conditions improved. Bees were active in almond and early stone fruit orchards. Lambing season in Fresno County was underway. Sheep grazed stubble fields, idle cropland, and dormant alfalfa.

Florida: There were 6.7 days suitable for fieldwork. Precipitation ranged from no rain in several locations, including Alachua (Alachua County), Immokalee (Collier County), and Palmdale (Glades County) to 0.90 inch in Jay (Santa Rosa County). Average temperatures ranged from 60.9°F in DeFuniak Springs (Walton County) to 73.6°F in Ft. Lauderdale (Broward County). It was another warm, dry week for most of the state.

Wildfires burned 7,500 acres in Collier County. Daily temperatures in the citrus region continued to be well above average during the week. Early-midseason orange harvest has been completed. Valencia orange harvest ramped up, with most processors on track to reopen for this variety very soon. Honey tangerine color improvement was reported, along with continued good internal quality. White and red grapefruit harvest decreased, with some packing houses finishing those varieties for the season. Bloom progressed unevenly across the state, with some areas hitting full bloom while others had already arrived at the fruitlet stage. In some locations, marble-sized fruit was reported. Growers sprayed bactericides and pesticides to combat greening, while also pushing dead and dying trees and abandoned groves to reduce potential psyllid habitat. Strawberry harvest continued in Brevard, Hillsborough, and Manatee Counties. Growers in Glades and Hendry Counties reported shipping large volumes of cabbage for St. Patrick's Day. Crops coming to market included avocado, bitter melon, boniato, cabbage, eggplant, green beans, malanga, pepper, radishes, squash, sweet corn, tomato, zucchini, and other tropical fruits. Cattle producers continued to use supplemental feeding, as pastures remained dry and quality continued its seasonal decline. Cattle remained in mostly fair to good condition. Field corn planting activities occurred in Lafayette County. Sugarcane harvest continued on schedule in Glades, Hendry, and Palm Beach Counties.

Kansas: Weekly temperatures averaged 4 to 6°F degrees above normal across the majority of the state. Precipitation was limited to eastern counties and a few northern areas, with amounts generally less than one-half inch. Warm, windy conditions affected the entire state. Wildfires caused damage in many areas, most notably Clark and Comanche Counties. There were 6.1 days suitable for fieldwork. Topsoil moisture was rated 26 percent very short, 41 percent short, and 33 percent adequate. Subsoil moisture was rated 19 percent very short, 38 percent short, and 43 percent adequate. Winter wheat condition was rated 7 percent very poor, 16 percent poor, 37 percent fair, 38 percent good, and 2 percent excellent. Winter wheat jointed was 5 percent, equal to last year, and near the 5-year average of 2 percent. Cattle and calf conditions were rated 2 percent poor, 24 percent fair, 67 percent good, and 7 percent excellent. Calving progress was 53 percent complete. Cattle and calf death loss was rated 1 percent heavy, 57 percent average, and 42 percent light.

Oklahoma: The state averaged less than an inch of precipitation, highlighting a continuation of warm, dry weather. Three large wildfires started in the northwest and burned more than 800,000 acres. Drought conditions were rated 74 percent moderate, up slightly from last week, with most of the increase occurring in the same areas as the fires. Topsoil and subsoil moisture conditions were rated mostly short to adequate. There were 5.8 days suitable for fieldwork. Winter wheat jointing reached 22 percent, 3 percentage points ahead of the 5-year average. Canola blooming reached 4 percent, equal to the 5-year average. Rye jointing reached 13 percent, 8 percentage points behind the 5-year average. Oats jointing reached 2 percent, 7 percentage points behind last year but equal to the 5-year average. Rangeland and pastures were rated at 64 percent fair to good. Livestock condition was rated at 88 percent fair to good.

Texas: There were 5.7 days suitable for fieldwork. Winter wheat condition was rated 75 percent fair to good. Some producers in the Northern and Southern High Plains reported that their wheat fields where jointing. Wheat and oats in South Texas were entering the heading stage. Oats condition was rated 82 percent fair to good. Cotton was being planted in the Coastal Bend, South Texas and the Lower Valley. Corn was being planted in the Blacklands. Rains delayed the planting of corn in the eastern parts of the state. Some of the corn and sorghum planted in South Central Texas and the Coastal Bend had emerged. Sorghum planting was underway in the Lower Valley. Vegetable planting and peach pruning continued in North East Texas. Summer tree fruits were blooming on the Southern Low Plains. Harvest of sugarcane, citrus, and vegetables continued in the Lower Valley. Cattle condition was rated mostly fair to good. Major wildfires were reported in parts of the Northern High and Low Plains. Pasture conditions were rated mostly fair to good across the remainder of the state.

March 9 ENSO Update

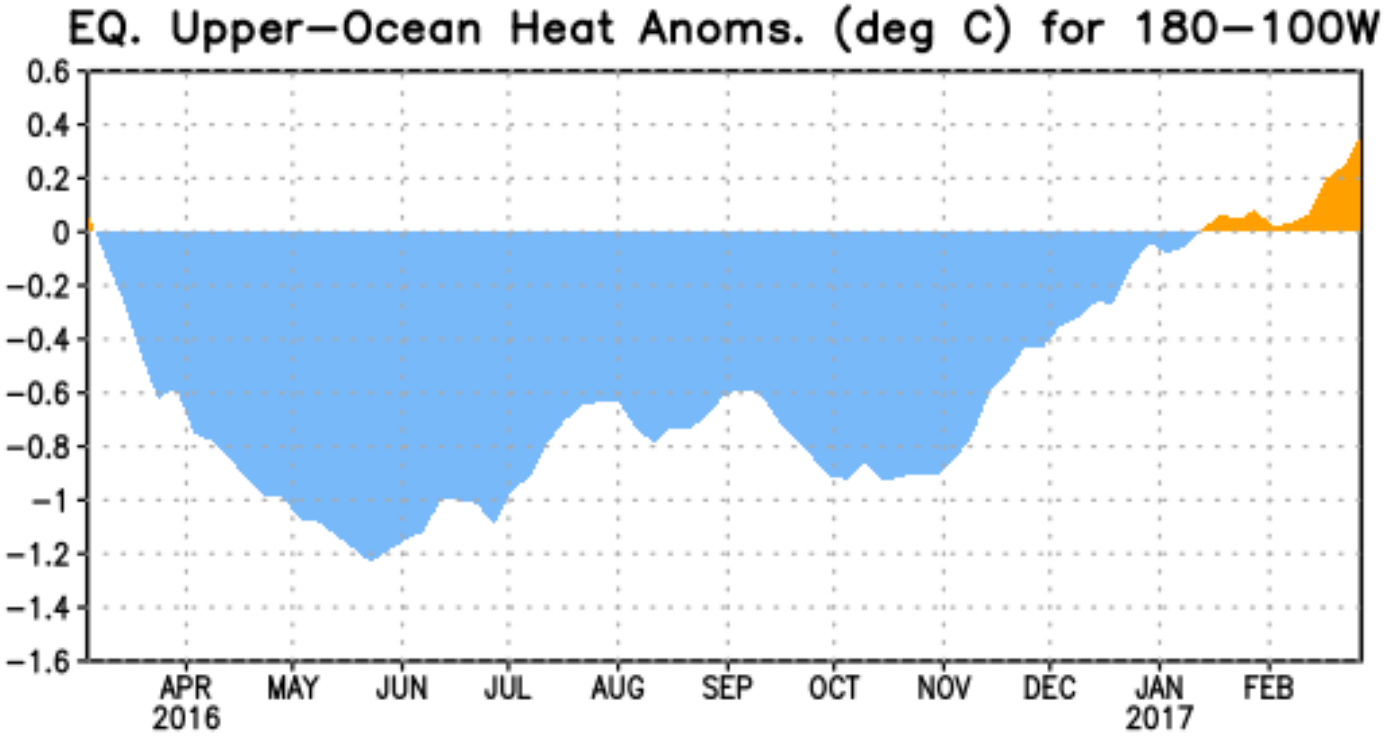


Figure 1: Area-averaged upper-ocean heat content anomaly (°C) in the equatorial Pacific (5°N-5°S, 180º-100ºW). The heat content anomaly is computed as the departure from the 1981-2010 base period pentad means.

ENSO Alert System Status: Not Active

Synopsis: ENSO-neutral conditions are favored to continue through at least the Northern Hemisphere spring 2017, with increasing chances for El Niño development into the fall.

ENSO-neutral conditions continued during February, with near-average sea surface temperatures (SSTs) across the central equatorial Pacific and above-average SSTs in the eastern Pacific. The latest weekly Niño index values were near zero in the Niño-4 and Niño-3.4 regions, and +0.4 and +2.2°C farther east in the Niño-3 and Niño-1+2 regions, respectively. The upper-ocean heat content anomaly increased during February and was slightly positive when averaged across the central and eastern Pacific (Fig. 1), a reflection of generally above-average temperatures at depth. Atmospheric convection remained suppressed over the central tropical Pacific and enhanced over the Maritime Continent. The low-level easterly winds were slightly enhanced over the western tropical Pacific and were weaker than average over the eastern Pacific. Also, upper-level westerly winds were anomalously easterly over portions of the western and eastern Pacific. Overall, the ocean and atmosphere system is consistent with ENSO-neutral conditions.

Most models predict the continuation of ENSO-neutral (3-month average Niño-3.4 index between -0.5°C and 0.5°C) through the early Northern Hemisphere summer (May-July). However, some dynamical model forecasts, including the NCEP CFSv2, anticipate an onset of El Niño as soon as the late Northern Hemisphere spring (March-May 2017). Because of typically lower skill in forecasts made at this time of the year, and the lingering La Niña-like tropical convection patterns, the forecaster consensus favors ENSO-neutral during the spring (March-May) with a ~75% chance. Thereafter, there are increasing odds for El Niño toward the second half of 2017 (50-55% chance from approximately July-December). In summary, ENSO-neutral conditions are favored to continue through at least the Northern Hemisphere spring 2017, with increasing chances for El Niño development into the fall (click CPC/IRI consensus forecast for the chance of each outcome for each 3-month period).

This discussion is a consolidated effort of the National Oceanic and Atmospheric Administration (NOAA), NOAA's National Weather Service, and their funded institutions. Oceanic and atmospheric conditions are updated weekly on the Climate Prediction Center web site (El Niño/La Niña Current Conditions and Expert Discussions). Forecasts are also updated monthly in the Forecast Forum of CPC's Climate Diagnostics Bulletin. Additional perspectives and analysis are also available in an ENSO blog. The next ENSO Diagnostics Discussion is scheduled for **13 April 2017**. To receive an e-mail notification when the monthly ENSO Diagnostic Discussions are released, please send an e-mail message to: ncep.list.enso-update@noaa.gov.

International Weather and Crop Summary

March 5-11, 2017

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

HIGHLIGHTS

EUROPE: Warm weather encouraged winter crop greening in eastern growing areas, while rain alleviated lingering short-term dryness over France and Germany.

WESTERN FSU: Unseasonable warmth further eroded the region's remaining snowpack and accelerated winter wheat greening in southern portions of Ukraine and Russia.

MIDDLE EAST: Showers improved soil moisture supplies for winter grains in Turkey, while crops broke dormancy in Iran.

NORTHWESTERN AFRICA: Sunny skies and above-normal temperatures promoted wheat and barley development, though topsoil moisture has declined in Algeria.

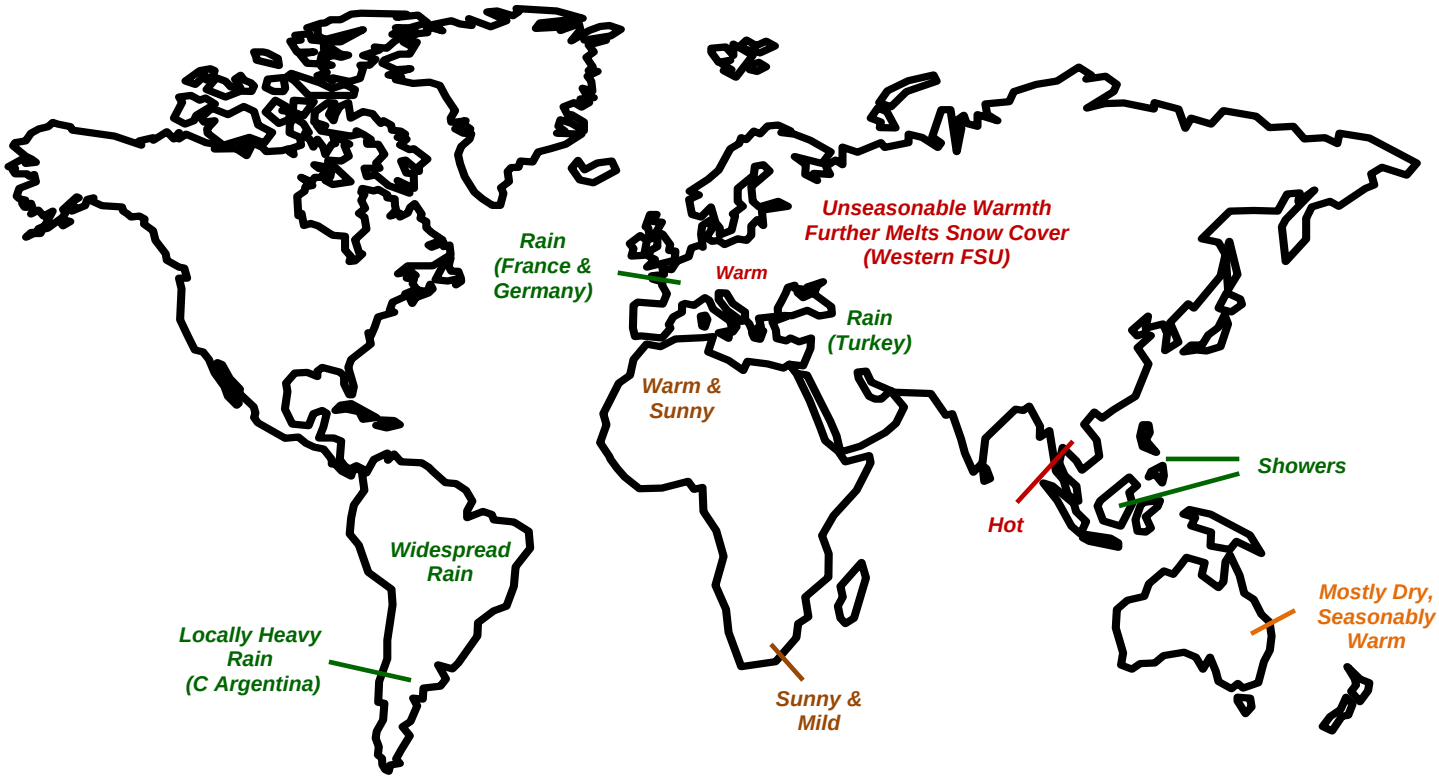
SOUTHEAST ASIA: Seasonably hot, mostly dry weather prevailed in northern portions of the region, aiding rapid drydown of winter rice, while showers in southern areas benefited spring sown varieties.

AUSTRALIA: Mostly dry, seasonably warm weather and adequate topsoil moisture favored summer crop development.

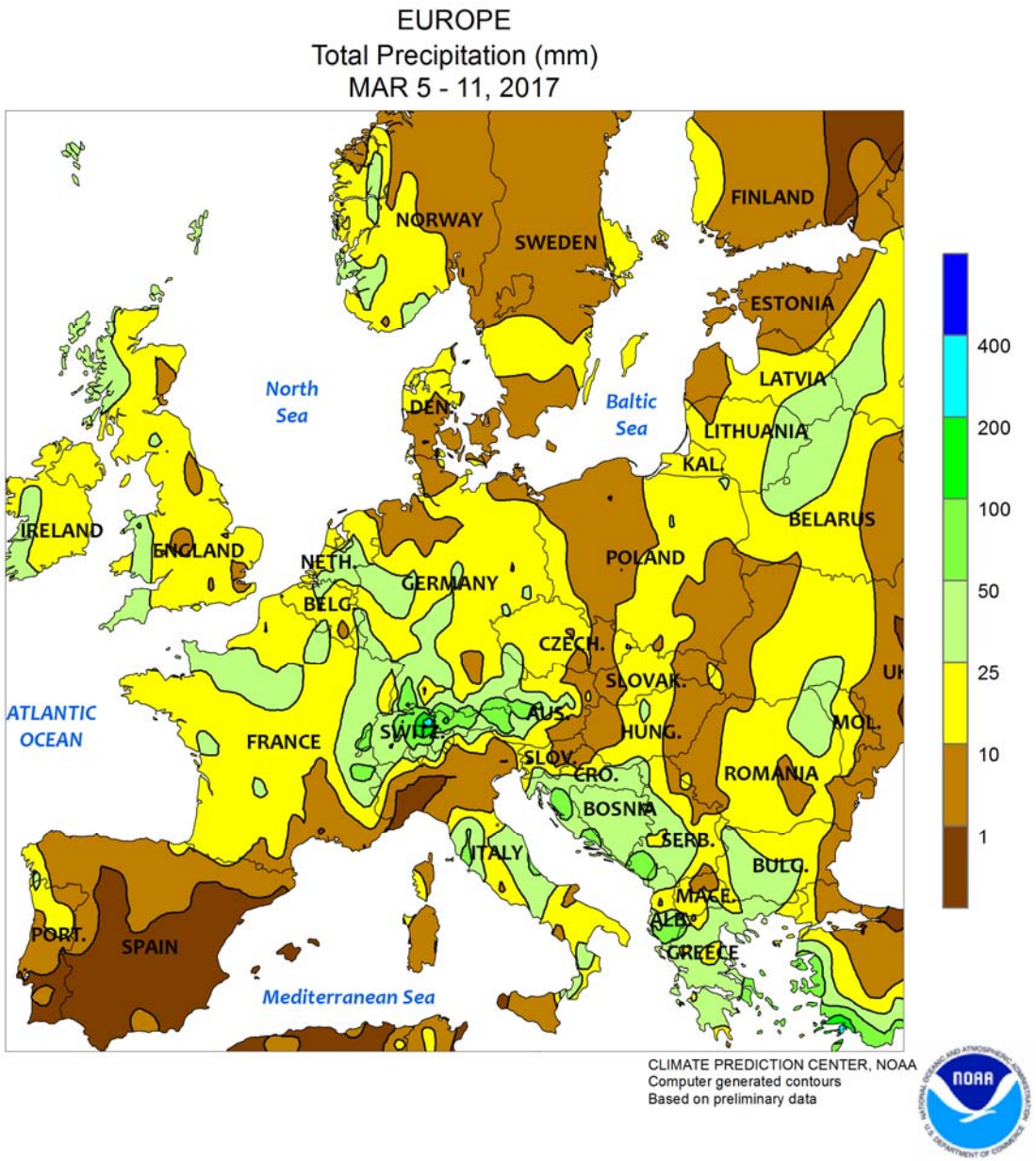
SOUTH AFRICA: Dry, sunny weather favored late developing corn.

ARGENTINA: Locally heavy showers sustained high levels of moisture for immature summer crops.

BRAZIL: Moderate to heavy rain benefited immature summer crops, notably second-crop corn, in major production areas of southern and central Brazil.



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



EUROPE

Mild weather continued, with additional beneficial rain across key winter crop areas of northern and central Europe. Temperatures averaged 1 to 3°C above normal from France and England into Poland, and up to 7°C above normal in the Balkans. The warmth accelerated winter wheat and rapeseed green up and growth, with crops currently developing two to four weeks ahead of average. Moderate to heavy rain (10-50 mm) in France and Germany alleviated lingering dryness concerns and improved soil moisture for vegetative winter wheat, while lighter showers (2-30 mm) were beneficial for greening winter crops in Poland and the Balkans. Likewise, widespread showers (10-35 mm) in the United Kingdom benefited early-developing wheat and rapeseed. Farther south, sunny skies in Spain promoted wheat and barley development. In Italy, dry weather favored seasonal fieldwork in the north, while 25 to 50 mm of rain across southern Italy sustained good moisture reserves for vegetative to reproductive winter grains.

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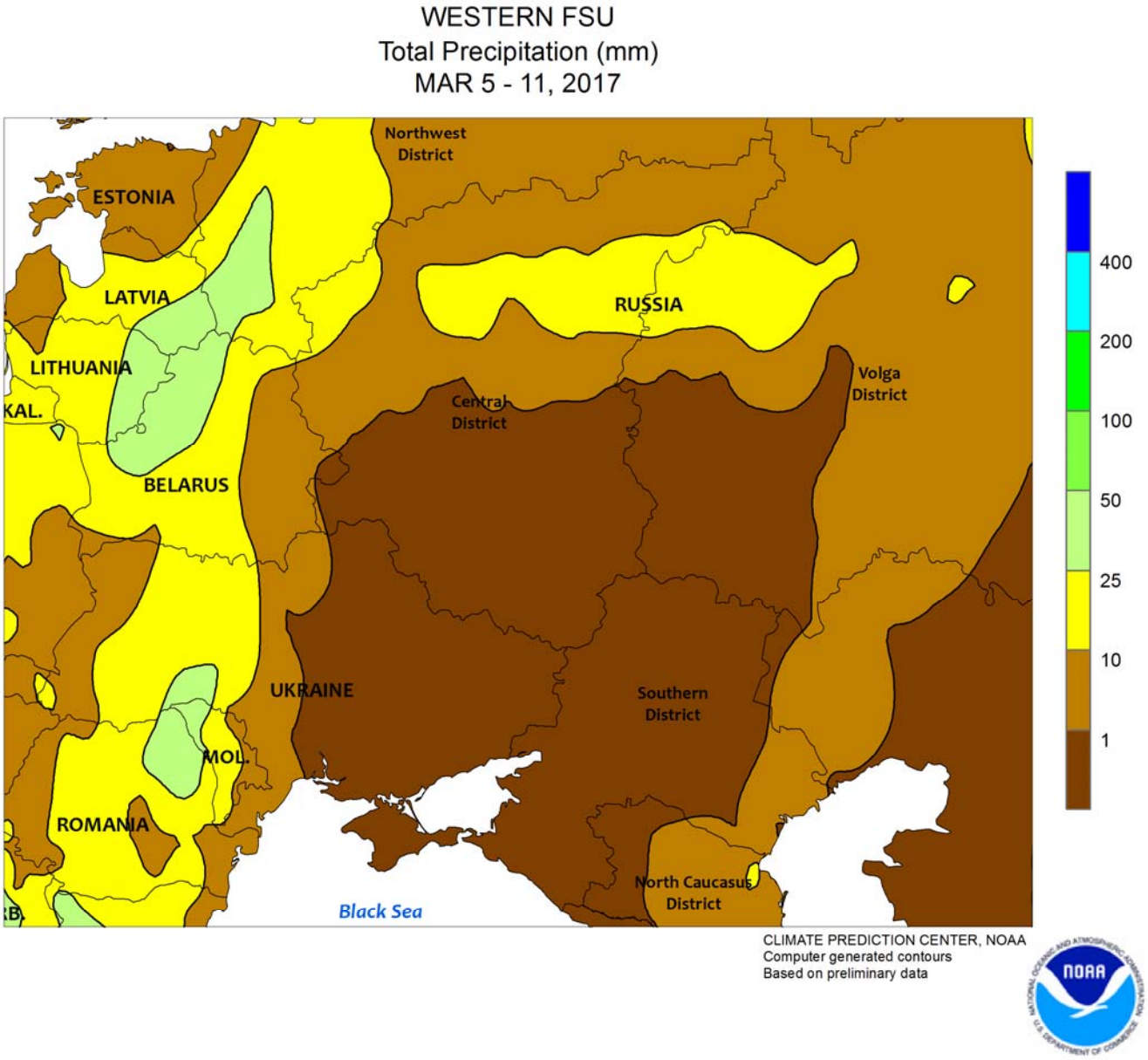

WESTERN FSU

Persistent unseasonable warmth further melted the region's remaining snowpack and accelerated winter wheat green up in southern growing areas. For the second consecutive week, temperatures averaged 6 to 10°C above normal, with daytime highs topping 10°C (locally above 20°C along the Black Sea Coast) in Ukraine and Russia's wheat areas. The warmth accelerated crop development (up to 4 weeks ahead of average) in southern growing areas, while allowing for early spring grain planting due to the rapid snow melt farther north. While moisture supplies are generally favorable for wheat development, drier-than-normal conditions have developed over the past 60 days in central and southern Ukraine and southern-most portions of Russia's Southern District.

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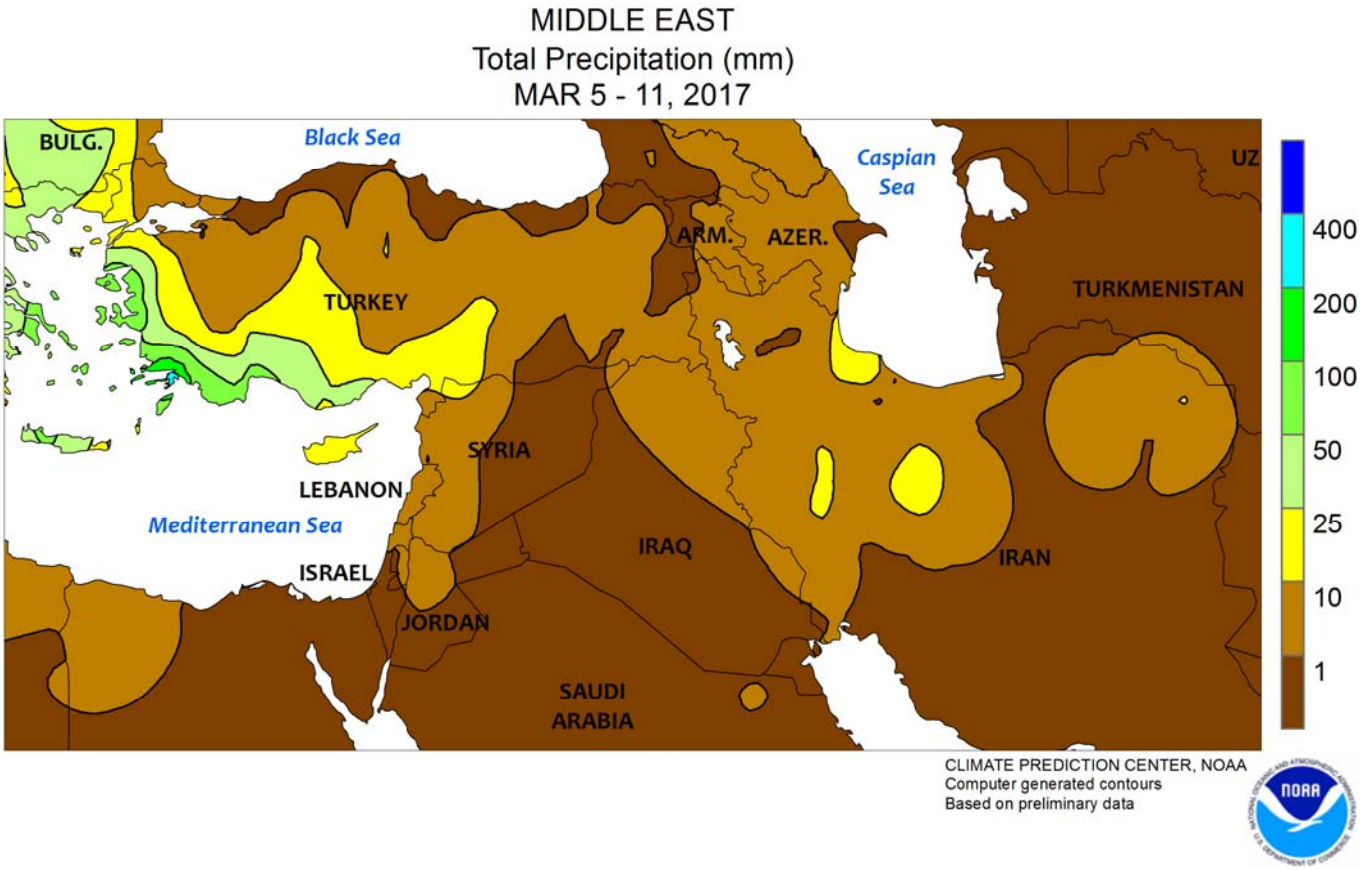

MIDDLE EAST

Warm, showery weather promoted winter grain green up in Turkey, while wheat and barley broke dormancy in Iran. Temperatures averaged up to 7°C above normal in Turkey, with daytime highs in the upper teens and lower 20s (degrees C) accelerating winter grain development. Light to moderate showers (2-20 mm) improved soil moisture on Turkey's Anatolian Plateau following a drier-than-normal winter, though more rain will be needed over the upcoming weeks to maintain current crop yield potential. Farther south, sunny skies promoted the development of vegetative to heading winter wheat and barley from the eastern Mediterranean Coast into central and northern Iraq. In Iran, weekly average temperatures up to 3°C above normal eased winter crops out of dormancy.

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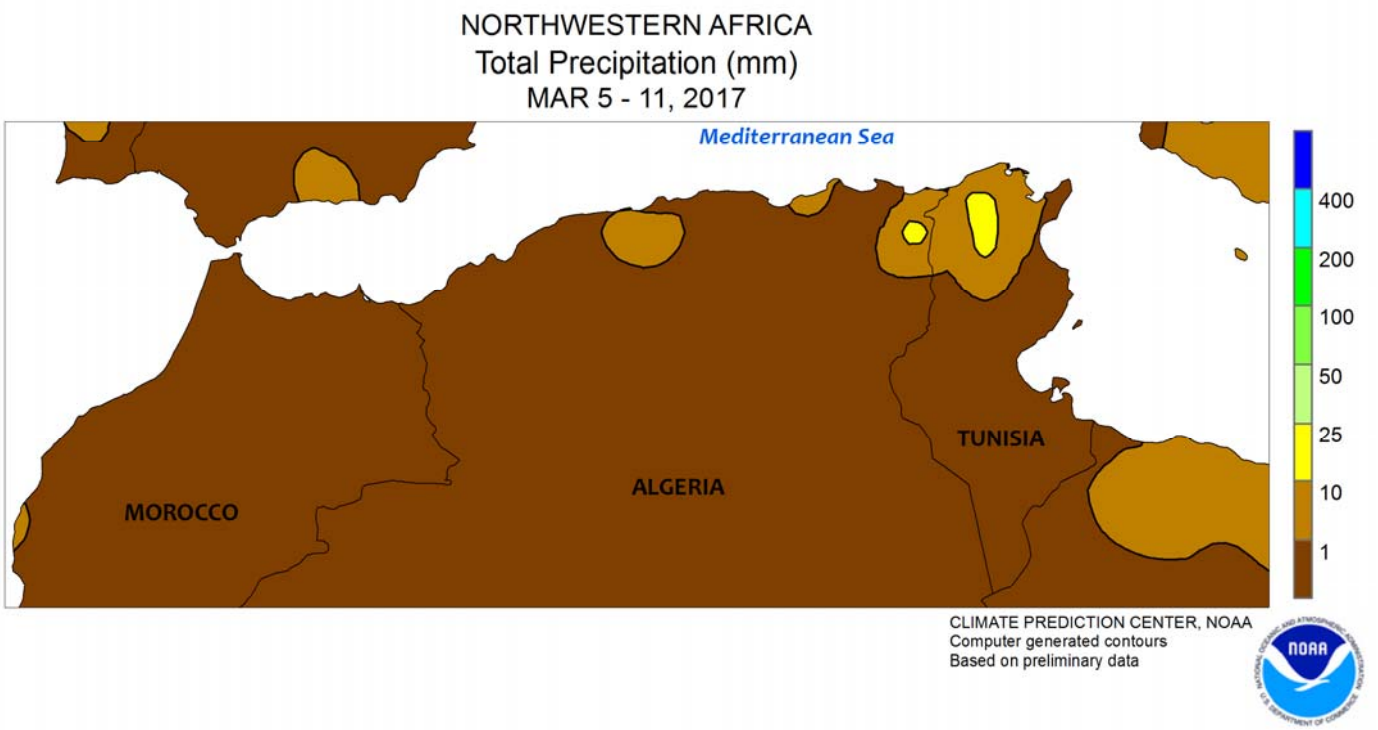

NORTHWESTERN AFRICA

Sunny skies and above-normal temperatures maintained overall favorable winter grain prospects across the region. Temperatures averaged up to 5°C above normal, facilitating faster-than-normal crop development; winter wheat was now approaching or entering the heading stage in Morocco. While subsoil moisture remained in good supply, the advanced crop development heightened the need for soil moisture over the upcoming weeks as wheat and barley progress through the moisture- and temperature-sensitive reproductive and filling stages of development. Furthermore, topsoil moisture has become limited in Algeria due to a much-drier-than-normal February, though excessive rain during January left subsoils with abundant moisture reserves.

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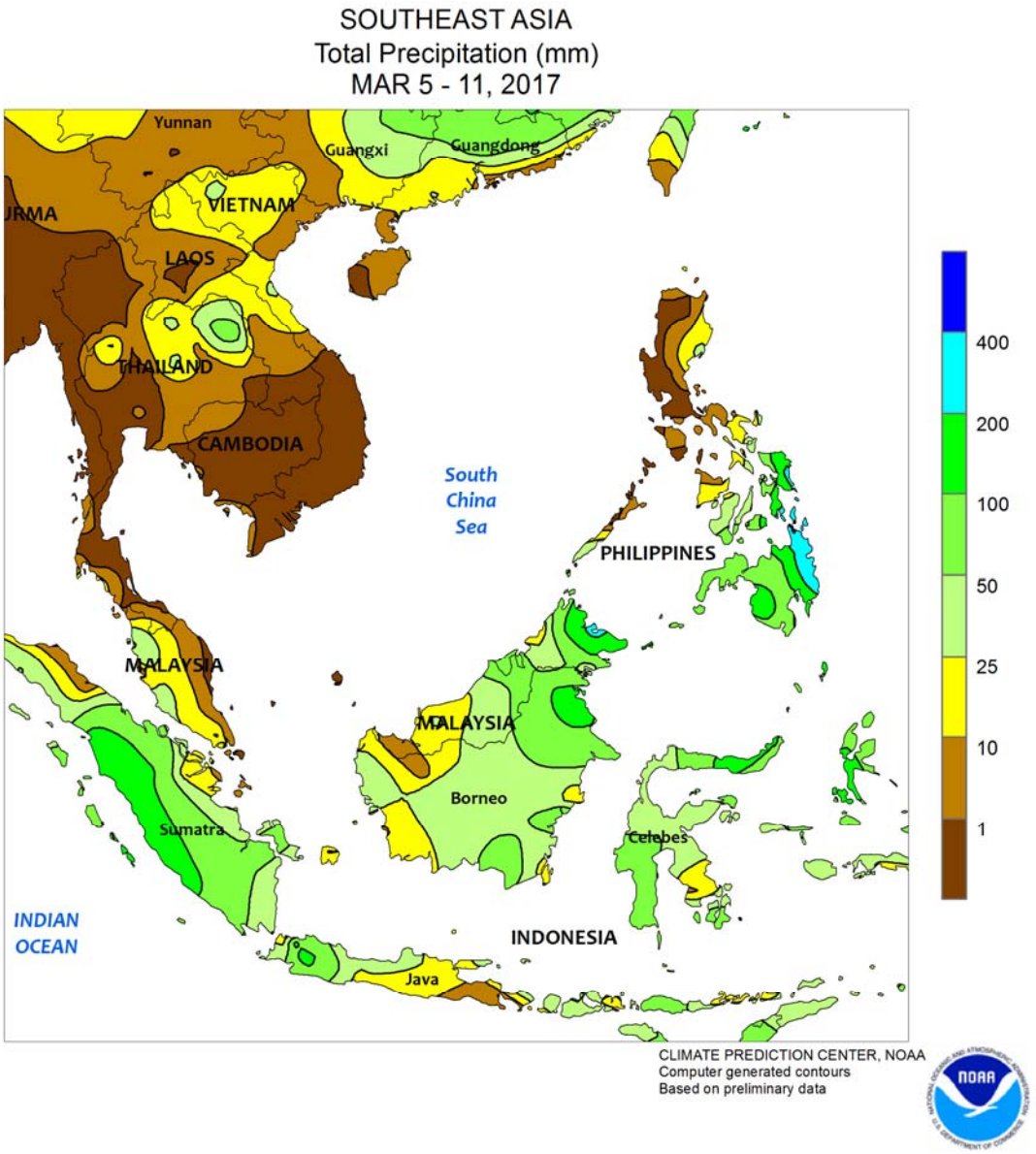

SOUTHEAST ASIA

Northern sections of the region were relatively rain free as seasonal heat began to build across Thailand and surrounding environs. The hot, dry weather promoted winter rice drydown but increased irrigation requirements for spring-sown rice. In the Philippines, northern regions received less than 25 mm, while torrential rainfall (over 300 mm) in eastern Mindanao caused localized flooding outside of major crop areas. Winter rice and corn was maturing throughout the country, with sowing of spring crops underway. Meanwhile to the south, showers (25-100 mm or more) kept oil palm well watered in Indonesia and Malaysia, and despite pockets of dry weather on the Malaysian peninsula, soil moisture remained favorable. Pockets of dry weather also existed in eastern portions of Java (Indonesia), aiding winter rice ripening and harvesting, with showers (25-50 mm) elsewhere maintaining favorable moisture conditions for immature winter rice and newly sown spring varieties.

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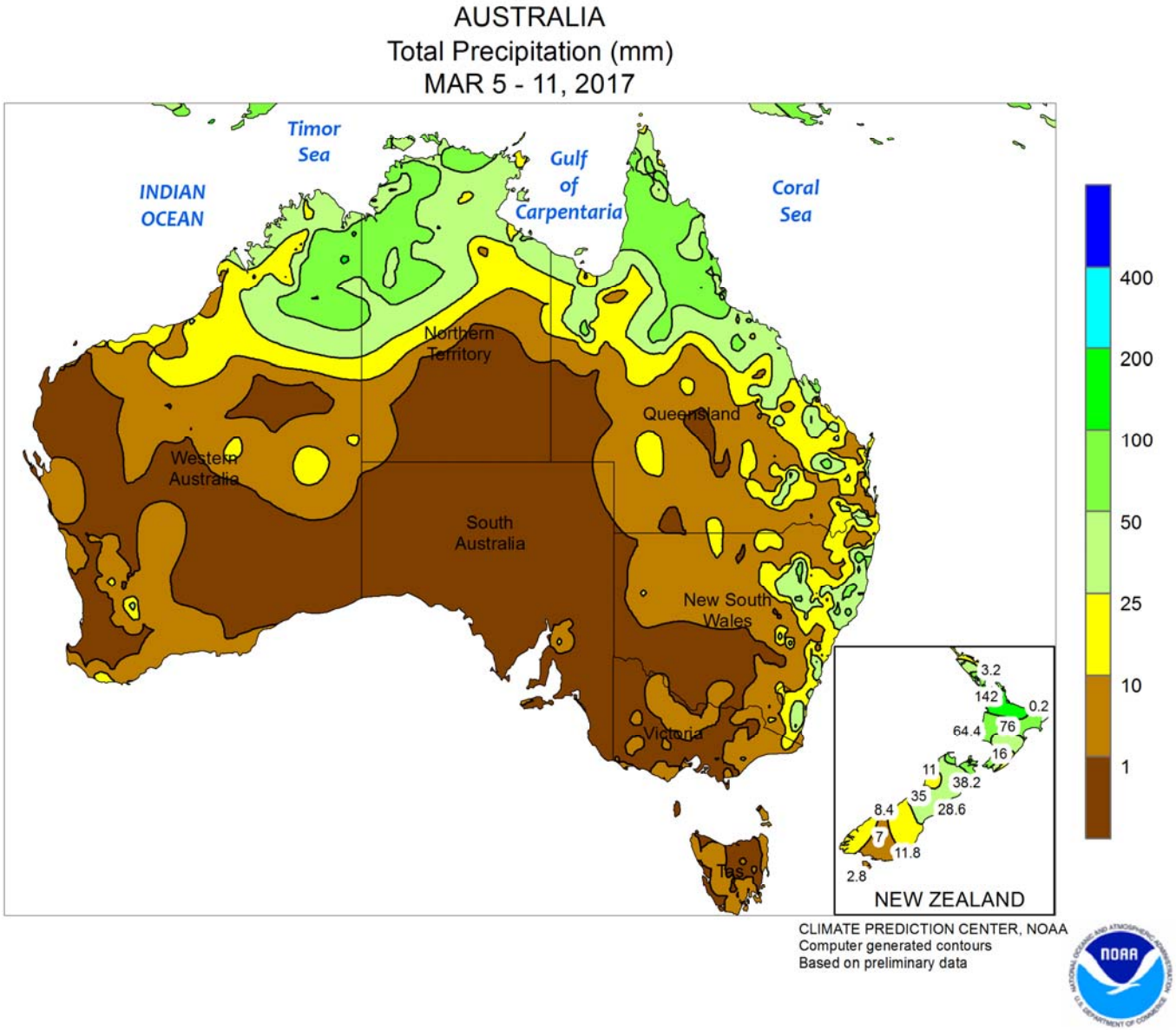

AUSTRALIA

In the wake of last week's widespread showers, a combination of sunny skies and adequate topsoil moisture benefited immature cotton and sorghum, too, helping to maintain current yield prospects. For the third consecutive week, temperatures were generally seasonable, promoting development of summer crops that were sown during the latter half of the planting window. Daily maximum temperatures were mostly in the lower to middle 30s degrees C.

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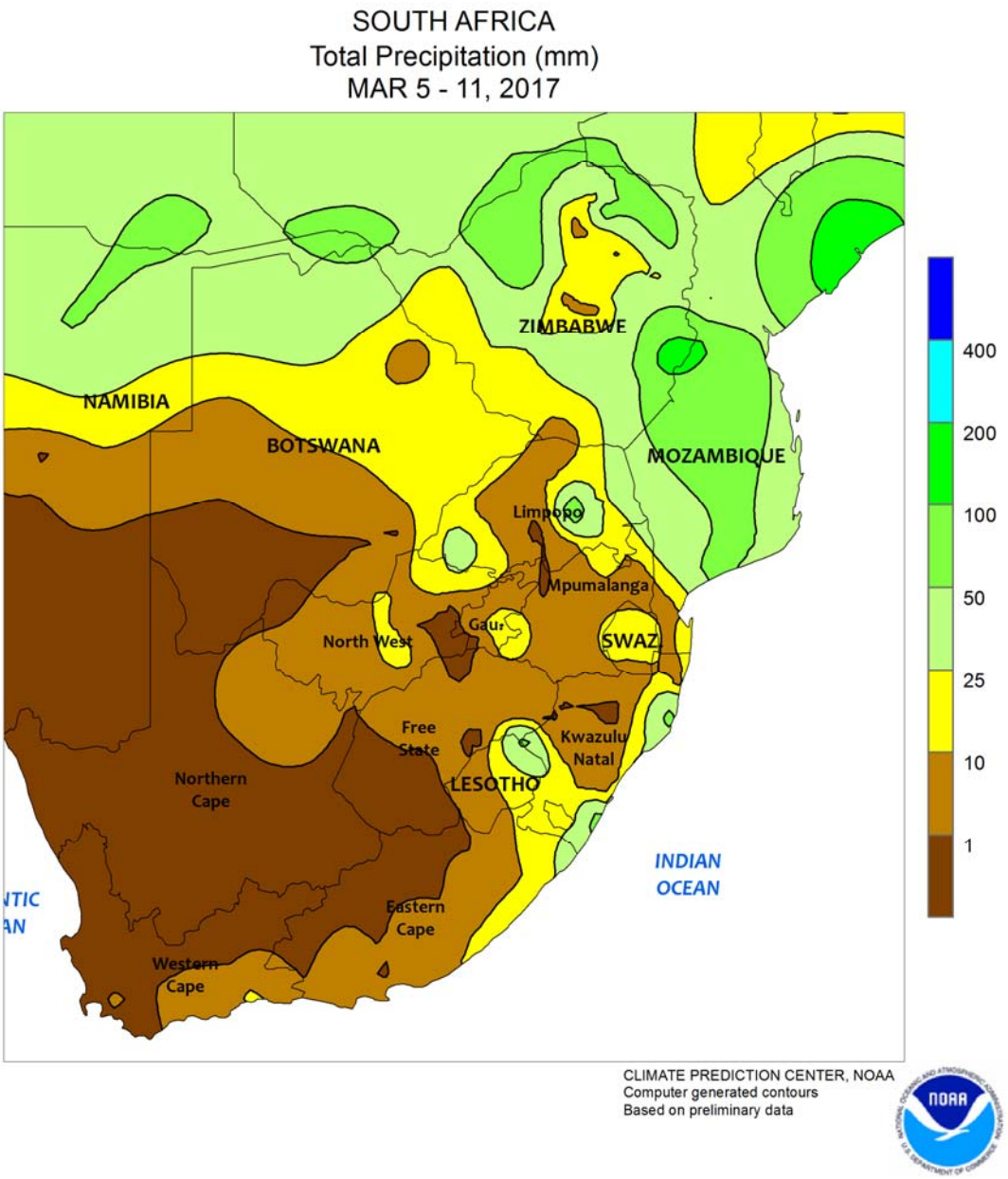

SOUTH AFRICA

Mostly dry weather spurred late-season growth of summer crops in key commercial farming areas. In the corn belt (North West and Free State to Mpumalanga), the sunny weather favored late developing summer crops that have enjoyed adequate to abundant levels of moisture for virtually the entire growing season. The drier weather was accompanied by near-normal temperatures, with daytime highs mostly ranging in the middle and upper 20s (degrees C), with slightly higher readings (highs reaching the lower 30s) in traditionally warmer locations. In southern KwaZulu-Natal, showers (10-25 mm or more, locally exceeding 50 mm) gave a late-season boost in moisture to rain-fed sugarcane, though the lateness of the rainfall likely will not significantly improve local production. Elsewhere, dry, seasonably warm weather dominated the Cape Provinces, fostering late-season growth of irrigated summer row crops, including corn and cotton in the Orange River Valley, and favoring harvesting of tree and vine crops in Western Cape.

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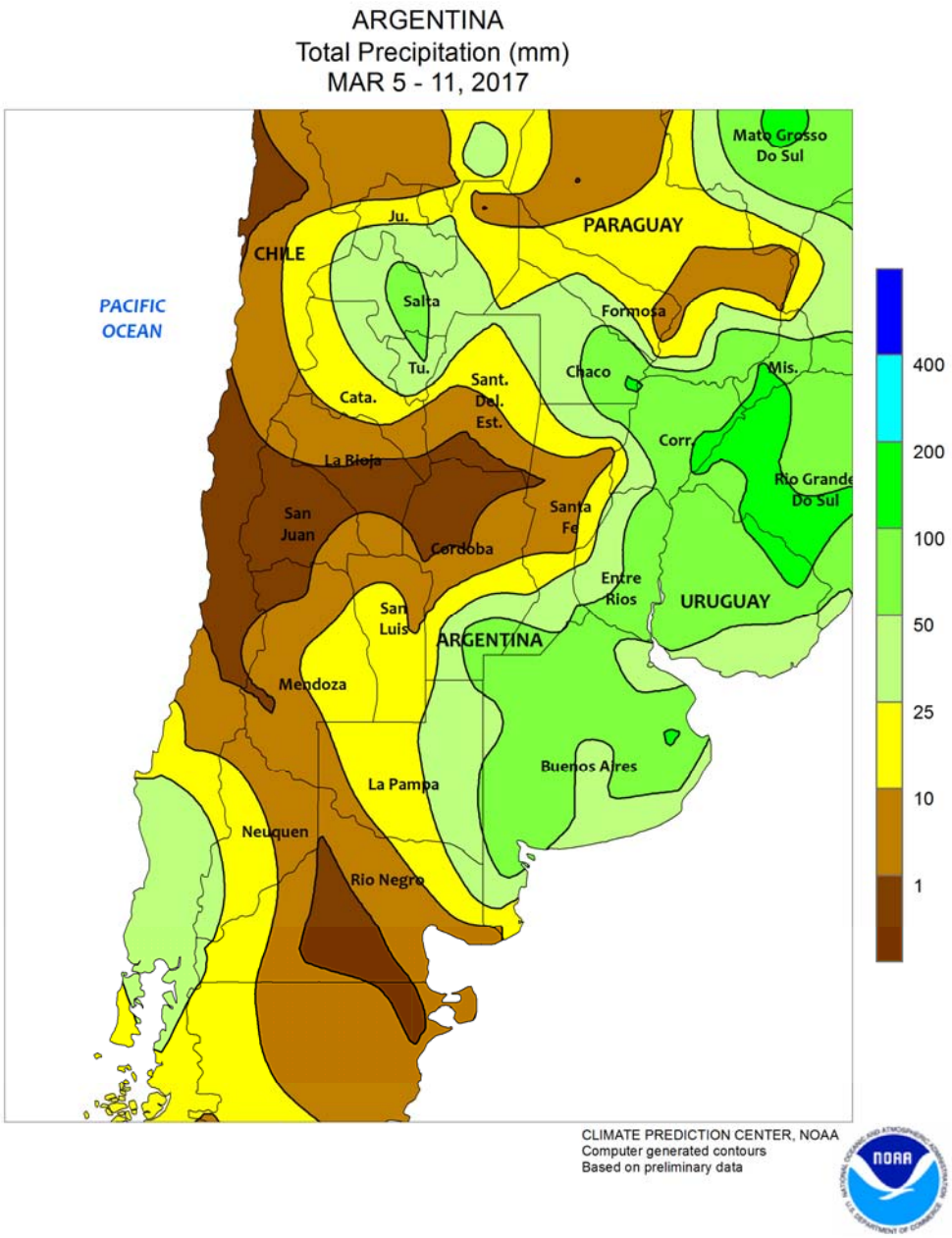

ARGENTINA

Locally heavy showers maintained adequate to abundant levels of moisture for immature summer grains, oilseeds, and cotton. Unseasonably heavy rain (greater than 50 mm) was again concentrated over Buenos Aires, this week reaching westward into La Pampa and northeastward into Entre Rios. Lighter rain (10 mm or greater) fell in southern sections of Cordoba and Santa Fe, with little to no rain falling in central sections of those states. Weekly temperatures averaged near to below normal throughout the aforementioned areas; daytime highs often reached the upper 20s and lower 30s (degrees C) but nighttime lows fell below 10°C in large areas of La Pampa and Buenos Aires on several days. Farther north, warmer-than-normal weather accompanied widespread, scattered showers (rainfall totaling 10-50 mm in most locations), maintaining mostly favorable conditions for later-planted corn, soybeans, and cotton. Daytime highs reached the upper 30s in northernmost parts of the country, including major cotton areas of Santiago del Estero, northern Santa Fe, Chaco, and Formosa, spurring late-season summer crop growth. According to the government of Argentina, sunflowers were 39 percent harvested as of March 9, compared with 50 percent last year.

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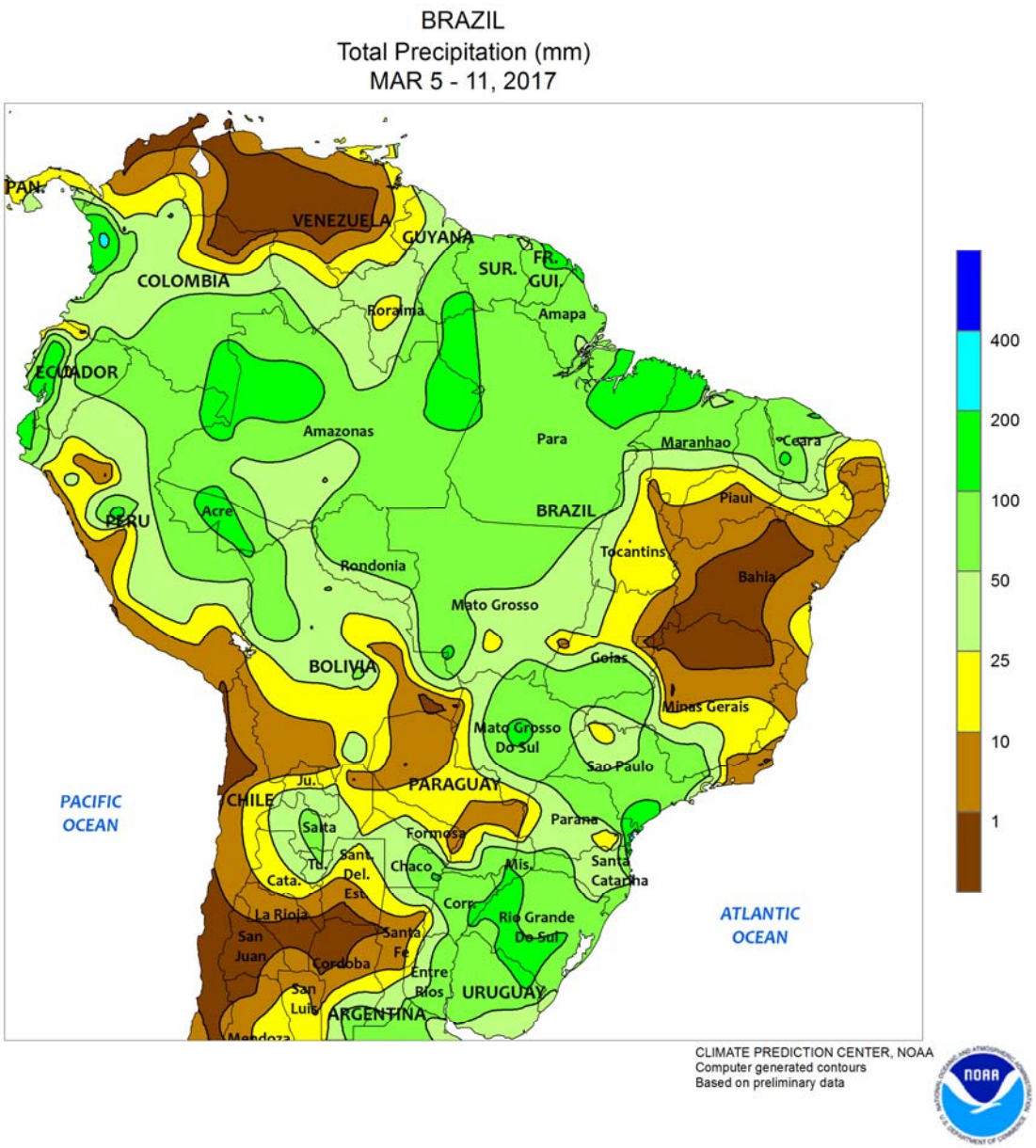

BRAZIL

Locally heavy showers maintained favorable conditions for immature summer crops in the main production areas of southern and central Brazil. Rainfall (25-50 mm or more) intensified and expanded in coverage from Mato Grosso do Sul and Sao Paulo southward through Rio Grande do Sul, boosting moisture for corn, sugarcane, and — in southernmost farming areas — late-planted soybeans. According to the government of Parana, soybeans and first-crop corn were 56 and 40 percent harvested, respectively, as of March 6, with the majority of the remaining crops in or nearing maturation. However, second-crop corn was 79 percent planted and benefited from the abundant moisture. Similar amounts of rainfall reached northward into southwestern Minas Gerais, benefiting coffee. Farther north, moderate to heavy rain (10-50 mm, locally higher) continued in the Center-West Region (notably Mato Grosso and Goias), maintaining favorable levels of moisture for second-crop corn and cotton. As of March 10, Mato Grosso's soybeans were reportedly 88 percent harvested, nearly 12 points ahead of last year; corn planting was virtually complete at nearly 99 percent. Meanwhile, drier conditions prevailed in the northeastern interior (western Bahia, Tocantins, and southern farming areas of Piaui and Maranhao), with much of that region recording rainfall totaling below 10 mm. Above-normal temperatures (averaging 3-4°C above normal, with daytime highs reaching the middle and upper 30s degrees C) combined with the dryness to hasten maturation of late-planted soybeans and cotton.

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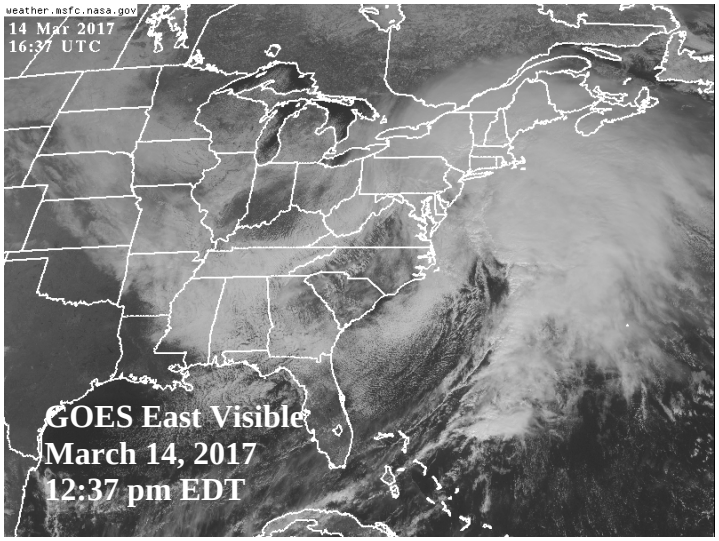
U.S. Crop Production Highlights

The following information was released by USDA's Agricultural Statistics Board on March 9, 2017. Forecasts refer to March 1.

The U.S. **all orange** forecast for the 2016-2017 season is 5.16 million tons, down 3 percent from last month and down 13 percent from the 2015-2016 final utilization. The Florida all orange forecast, at 67.0 million boxes (3.02 million tons), is down 4 percent from last month and down 18 percent from last season. Early, midseason, and Navel varieties in Florida are forecast at 33.0 million boxes (1.49 million tons), down 6 percent from last month and down 9 percent from last season. The Florida Valencia orange forecast, at 34.0 million boxes (1.53 million tons), is down 3 percent from last month and down 25 percent from last season's final utilization.

The California Valencia orange forecast is 7.80 million boxes (312,000 tons), down 13 percent from previous forecast and down 10 percent from the previous season. This results in a California all orange forecast of 51.8 million boxes (2.07 million tons), down 2 percent from the previous forecast and down 4 percent from last season's final utilization. Objective survey measurements taken during January and February indicated that fruit set per tree was lower than the previous year and the lowest since 2009, but that the measured average fruit size was slightly above the previous year. The forecast for Texas is carried forward from the previous estimate.



A mostly benign winter in the mid-Atlantic region was followed by a mid-March nor'easter that resulted in more snow than some locations had received during the entire season to date. In Maryland, for example, Baltimore's season-to-date snowfall of 0.7 inch—which would have tied a 1949-50 record for the least snowfall in a season—was bettered by a 1.9-inch total on March 13-14. Much higher snowfall totals were reported farther north and farther inland, where accumulations were not contaminated as much by sleet, freezing rain, and rain.

More details on this late-season storm, which also battered the Northeast and produced a stripe of snow across the northern Plains and Midwest, will appear next week. In addition, the next *Weekly Weather and Crop Bulletin* will provide details on mid-March Southeastern freezes.

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