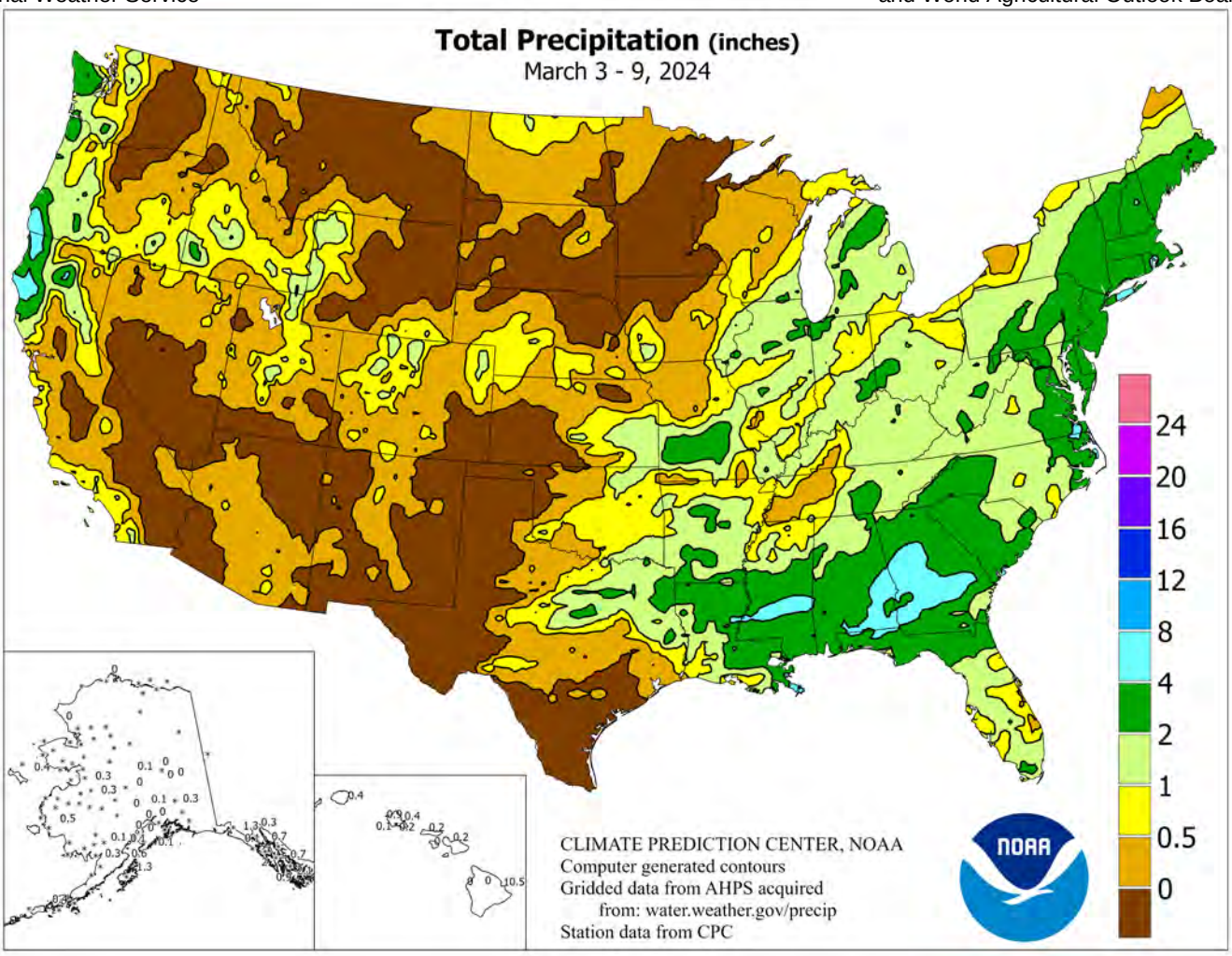
Volume 111, No. 11 *www.usda.gov/oce/weather-drought-monitor* **March 12, 2024**

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 3 – 9, 2024

Highlights provided by USDA/WAOB

Substantial precipitation fell in most areas east of a line from **central Texas to Lake Michigan**, with many **Southern** locations receiving more than 4 inches and experiencing spring fieldwork delays. In the **middle and northern Atlantic States**, 2- to 4-inch totals were common, especially in coastal communities. The precipitation, mostly rain, fell on multiple days, with three to four quick-hitting rounds of stormy weather occurring during the first 10 days of March. In contrast, a drier-than-normal regime dominated the **High Plains** and **upper**

(Continued on page 3)

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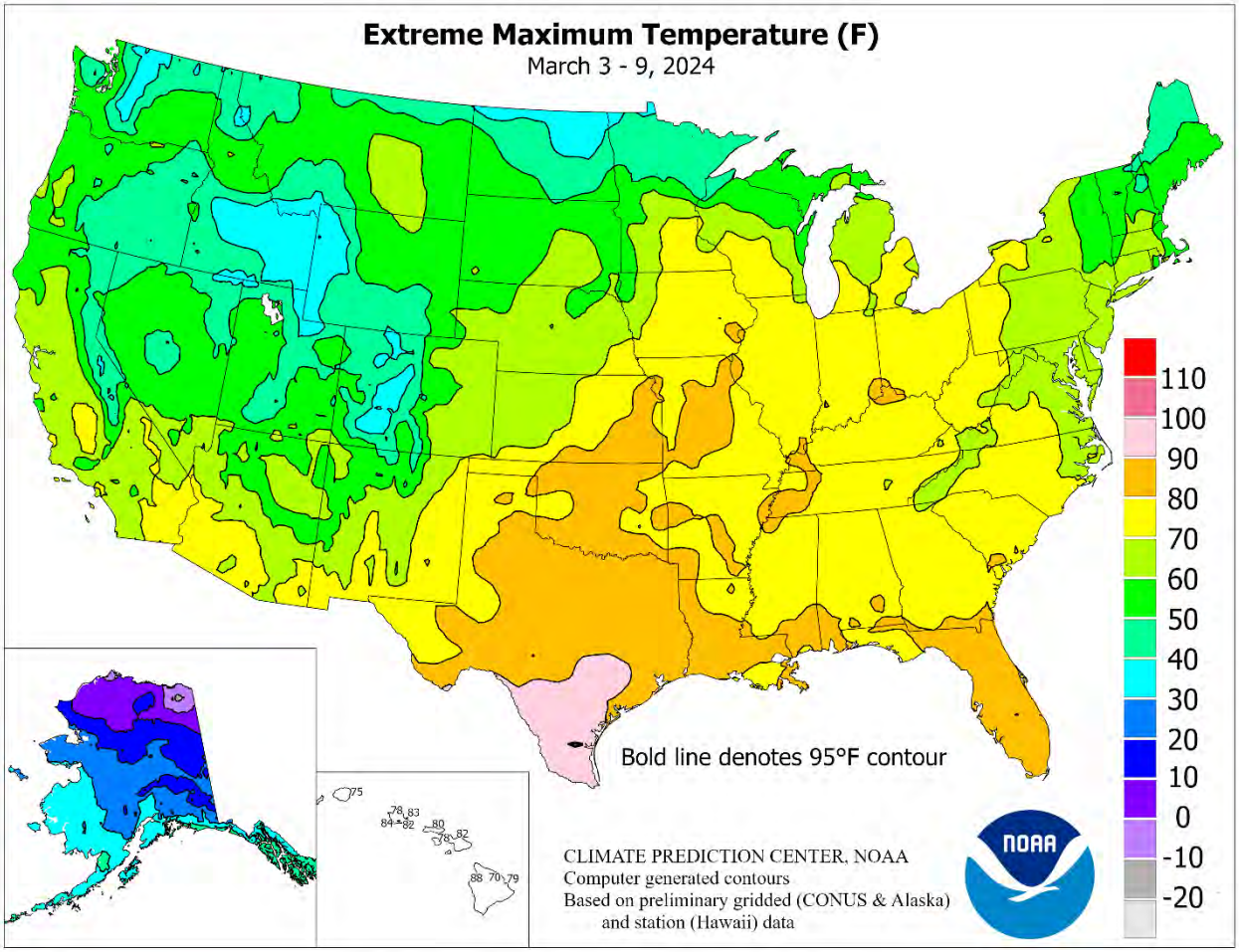
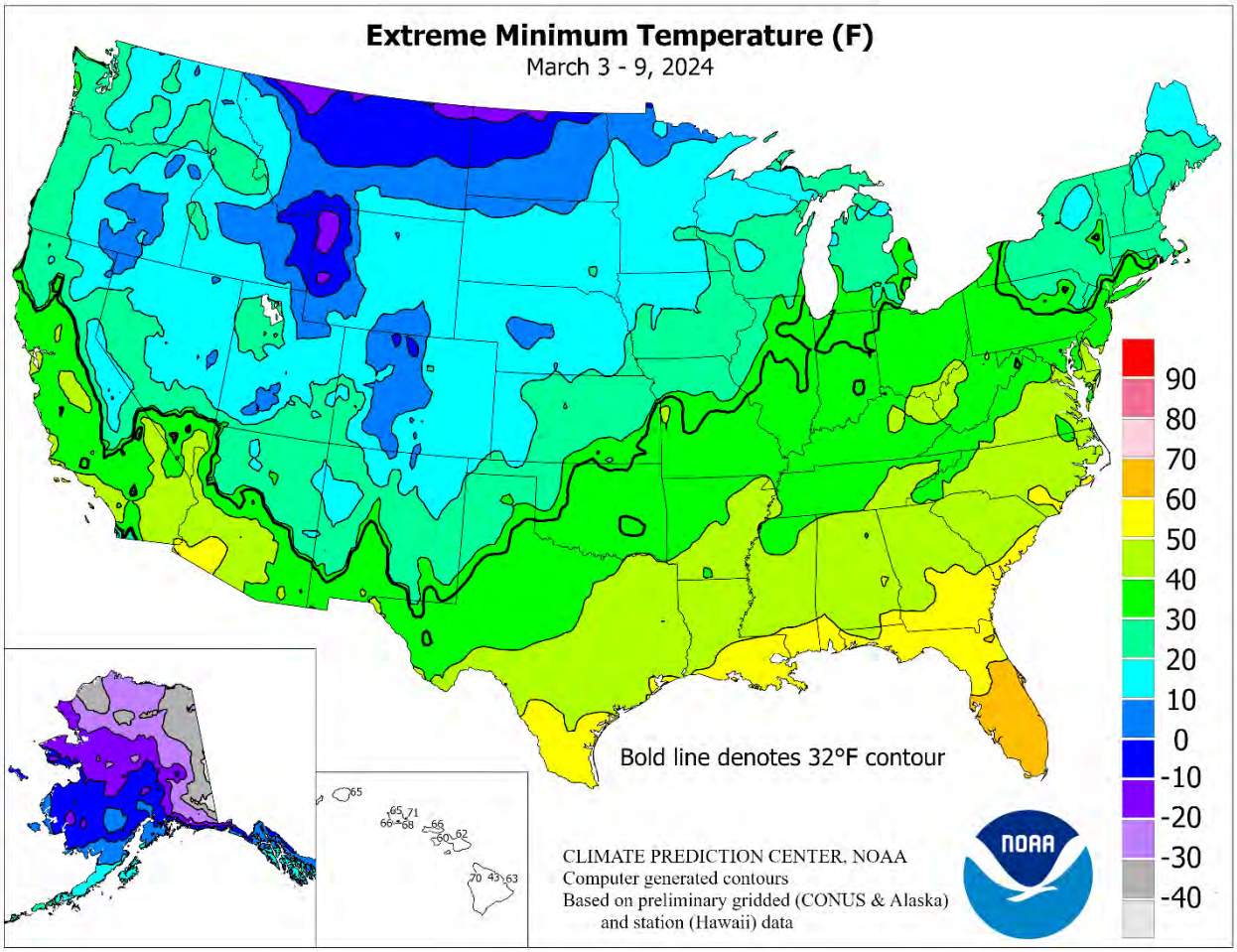
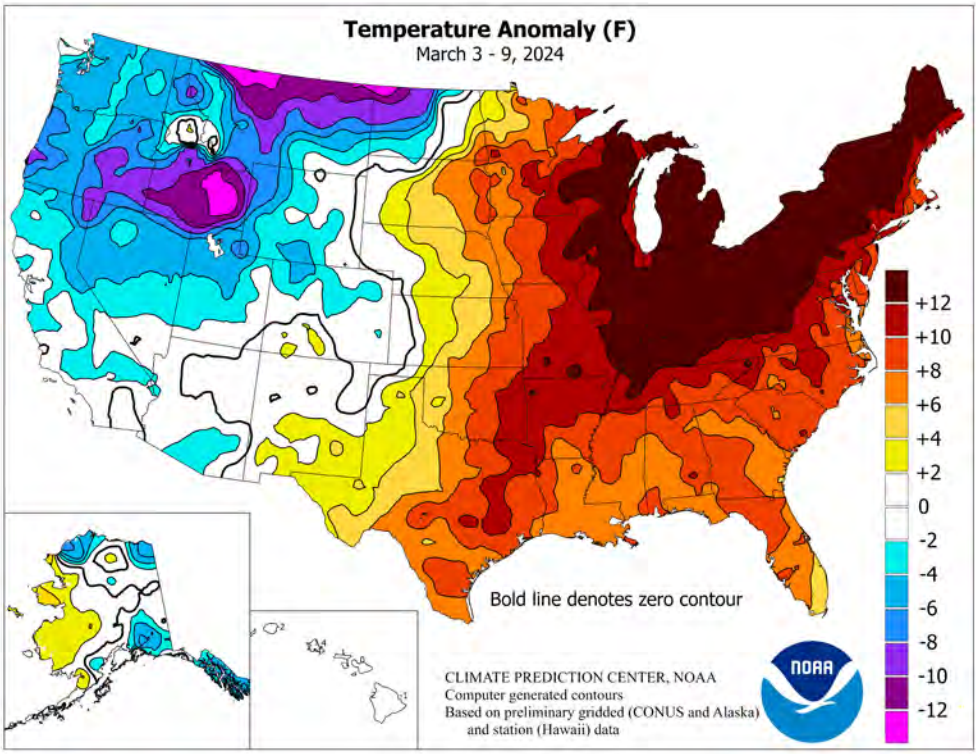

Extreme Maximum Temperature (F)
March 3 - 9, 2024
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
Bold line denotes 95°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS & Alaska)
and station (Hawaii) data
NOAA


Extreme Minimum Temperature (F)
March 3 - 9, 2024
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
Bold line denotes 32°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS & Alaska)
and station (Hawaii) data
NOAA

(Continued from front cover)

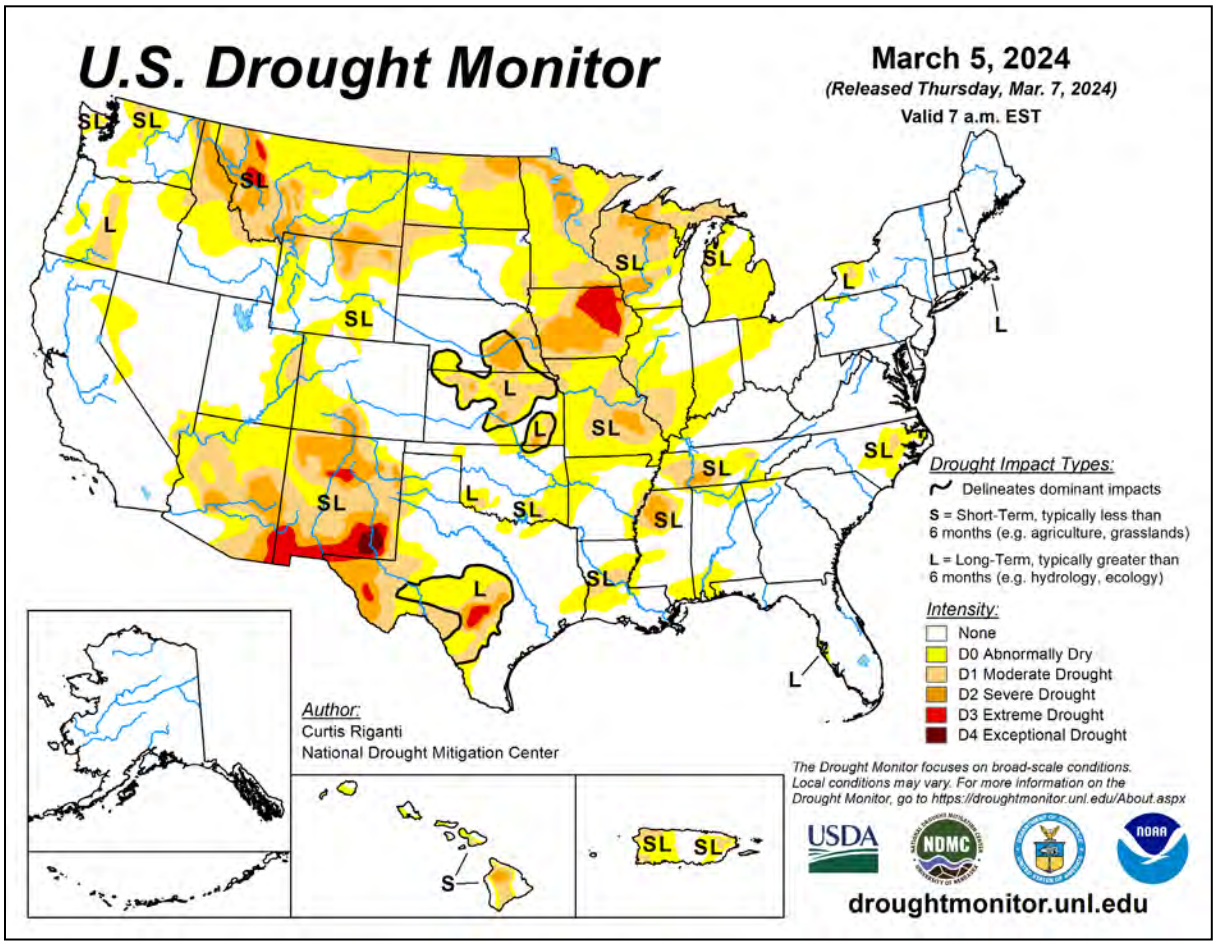
Midwest. In the **Texas Panhandle**, tranquil weather favored wildfire containment and recovery efforts. Farther north, notable exceptions to the dry pattern included some early-week snow across **northern North Dakota** and environs, as well as some heavy snow on March 7-8 across portions of the **central Plains**, mainly in **northeastern Colorado** and **southwestern Nebraska**. Elsewhere, **Western** precipitation was generally light and patchy, although some higher amounts were observed in **northwestern California** and the **Pacific Northwest**, along with scattered locations across the **northern Intermountain West** and neighboring areas. Some precipitation—rain and snow showers—also fell in **southern California**. Colder-than-normal conditions dominated the **northern High Plains** and much of the **western U.S.**, with weekly temperatures averaging at least 10°F below normal in scattered locations from **southern Idaho to northwestern North Dakota**, especially in areas with fresh snow on the ground. In contrast, readings averaged more than 10°F above normal from the **mid-South and Midwest into the Northeast**. In fact, above-normal temperatures prevailed in nearly all locations east of a line from **southeastern New Mexico to eastern North Dakota**.

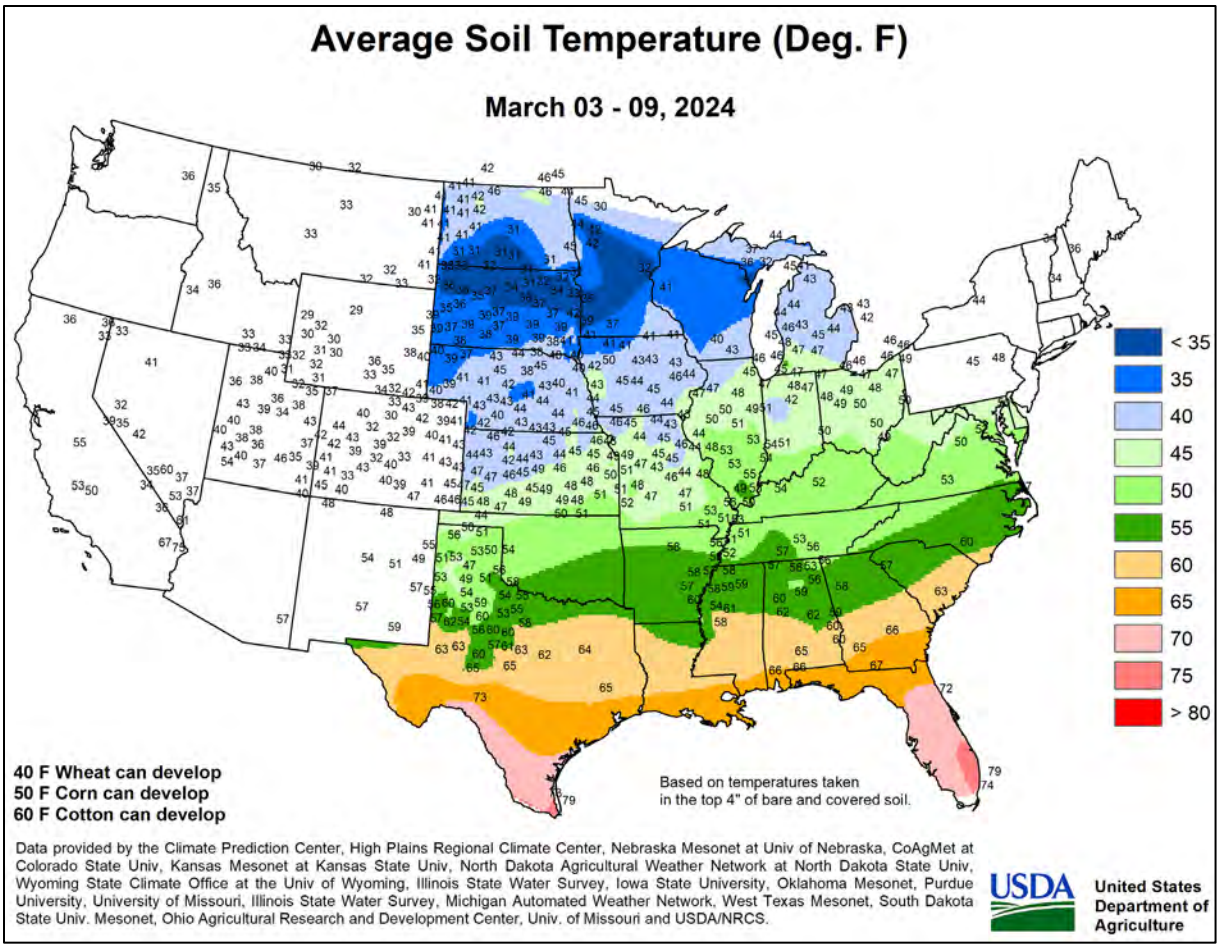


March 3 featured a high of 80°F in **Waterloo, IA**—the earliest 80-degree reading in that location by nearly 2 weeks (previously, 82°F on March 16, 2012, and 81°F on March 16, 2015). Rampant daily-record highs of 80°F or higher were observed on the 3rd in locations such as **Chanute, KS** (84°F); **Columbia, MO** (83°F); **Quincy, IL** (82°F); and **Ottumwa, IA** (80°F). The following day, record-setting high temperatures for March 4 included 85°F in **College Station, TX**, and 84°F in **Greenwood, MS**. **Palacios, TX**, set a monthly record with a high of 89°F on March 5. Elsewhere in **Texas** on the 5th, daily-record highs surged to 94°F in **Corpus Christi**, 91°F in **Brownsville**, and 90°F in **College Station**. Farther north, **Midwestern** and **Northeastern** daily-record highs for March 4 soared to 74°F in **Detroit, MI**, and 72°F in **Buffalo, NY**. **Buffalo** matched that reading on March 5, posting another daily-record high. During the second half of the week, warmth retreated into the **South**, where **Corpus Christi** achieved another daily-record high (92°F) on March 8. Meanwhile, **Northwestern** conditions were cold enough to result in scattered daily-record lows, including two in a row (21 and 22°F, respectively, on March 6-7) in **Olympia, WA**. On March 8, **Stanley, ID**, notched a daily-record low of -20°F. By the 9th, daily-record lows in **Idaho** included 1°F in **Idaho Falls** and 4°F in **Pocatello**. The chilly reading in **Pocatello** came with 5 inches of snow on the ground, following a total of 13.3 inches during the first 6 days of March. In contrast, lingering warmth in **Florida** led to daily-record highs for March 9 in locations such as **Orlando** (90°F) and **Vero Beach** (90°F).

As the week began, heavy showers dotted **southern Florida**, where **West Palm Beach** measured a daily-record sum of 3.32 inches on March 3. The following day, heavy rain in portions of the **Gulf and Atlantic Coast States** led to record-setting totals for March 4 at **Cape Hatteras, NC** (3.75 inches), and **Baton Rouge, LA** (2.59 inches). Elsewhere in **Louisiana**, **New Orleans** noted daily-record totals—1.93 and 1.20 inches, respectively—on March 4 and 8. Meanwhile, rain in the **Great Lakes States** resulted in daily-record amounts of 0.99 inch (on March 5) in **Alpena, MI**, and 0.71 inch (on March 4) in **Green Bay, WI**. Meanwhile, snow lingered through the first half of the week in parts of the **Northwest**. **Boise, ID**, received 7.4 inches of snow during the first 5 days of March, aided by a daily-record sum of 3.8 inches on the 5th. By mid-week, another round of heavy rain swept across the **East**, leading to record-setting totals for March 6 in **Columbia, SC** (2.68 inches), **Naples, FL** (1.12 inches), and **Plattsburgh, NY** (0.91 inch). Soon, the focus for heavy precipitation shifted to the **nation's mid-section**. By March 7, daily-record rainfall amounts topped an inch in **Dallas-Fort Worth, TX** (2.67 inches), and **Vichy-Rolla, MO** (1.27 inches). A small area of heavy precipitation on the **central High Plains** resulted in the snowiest day on record in **North Platte, NE**, where 15.3 inches fell. Previously, **North Platte's** snowiest day was January 18, 2023, with 13.9 inches, while the snowiest March day was March 21, 1894, with 12.6 inches. **North Platte** received an additional 2.1 inches of snow on March 8, for a 2-day total of 17.4 inches. At week's end, yet another round of heavy showers swept through the **southern and eastern U.S.** Record-setting rainfall amounts for March 8 totaled 4.43 inches in **Meridian, MS**, and 1.41 inches in **Tuscaloosa, AL**. On March 9, daily-record totals ranging from 2 to 4 inches were observed in locations such as **downtown Charleston, SC** (3.63 inches), and **Macon, GA** (2.19 inches). On the same date, record-setting totals topped an inch as far north as **Mount Pocono, PA** (1.94 inches), and **Albany, NY** (1.05 inches). Near **Claxton, GA**, the **Canoochee River** crested late March 10 at 3.29 feet above flood stage. That marked the highest river level in that location since February 20, 2021. Similarly, the **Chickasawhay River at Enterprise, MS**, rose 7.57 feet above flood stage on March 10, marking the highest crest there since March 7, 2020.

Variable temperatures in **Alaska** accompanied mostly light precipitation. Some of the coldest conditions, relative to normal, occurred in **southeastern Alaska**, where **Ketchikan** posted a daily-record low of 8°F on March 5. However, a mid- to late-week transition to milder weather in **southeastern Alaska** featured widespread precipitation, with Ketchikan receiving 2.43 inches from March 6-9. Farther south, heavy precipitation developed in windward sections of **Hawaii's Big Island**, where early-week snow dusted the highest peaks. **Hilo** (on the **Big Island**) received at least an inch of rain each day from March 3-7, totaling 9.78 inches. March 1-9 rainfall reached 10.86 inches (282 percent of normal) in **Hilo**, while precipitation at the state's other major airport observation sites ranged from 0.18 inch (24 percent of normal) in **Kahului, Maui**, to 0.48 inch (also 24 percent) in **Lihue, Kauai**.


U.S. Drought Monitor
March 5, 2024
(Released Thursday, Mar. 7, 2024)
Valid 7 a.m. EST
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:
None
D0 Abnormally Dry
D1 Moderate Drought
D2 Severe Drought
D3 Extreme Drought
D4 Exceptional Drought
Author:
Curtis Riganti
National Drought Mitigation Center
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx
droughtmonitor.unl.edu


Average Soil Temperature (Deg. F)
March 03 - 09, 2024
< 35
35
40
45
50
55
60
65
70
75
> 80
40 F Wheat can develop
50 F Corn can develop
60 F Cotton can develop
Based on temperatures taken in the top 4" of bare and covered soil.
Data provided by the Climate Prediction Center, High Plains Regional Climate Center, Nebraska Mesonet at Univ of Nebraska, CoAgMet at Colorado State Univ, Kansas Mesonet at Kansas State Univ, North Dakota Agricultural Weather Network at North Dakota State Univ, Wyoming State Climate Office at the Univ of Wyoming, Illinois State Water Survey, Iowa State University, Oklahoma Mesonet, Purdue University, University of Missouri, Illinois State Water Survey, Michigan Automated Weather Network, West Texas Mesonet, South Dakota State Univ. Mesonet, Ohio Agricultural Research and Development Center, Univ. of Missouri and USDA/NRCS.
USDA
United States Department of Agriculture

National Weather Data for Selected Cities

Weather Data for the Week Ending March 9, 2024

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
AK	ANCHORAGE	29	17	37	3	23	0	0.00	-0.18	0.00	0.00	0	2.08	110	82	52	0	7	0	0
	BARROW	-12	-20	-2	-29	-16	0	0.00	-0.04	0.00	0.00	0	0.00	0	86	66	0	7	0	0
	FAIRBANKS	18	-1	25	-24	8	3	0.02	-0.07	0.02	0.02	18	0.61	47	79	51	0	7	1	0
	JUNEAU	32	20	42	6	26	-5	0.66	-0.23	0.44	0.66	57	12.87	110	81	55	0	6	5	0
	KODIAK	35	27	38	16	31	-1	1.30	0.21	0.77	1.30	91	15.91	97	91	69	0	6	6	1
	NOME	22	9	31	-9	16	7	0.45	0.26	0.19	0.45	181	2.78	125	89	65	0	7	4	0
AL	BIRMINGHAM	72	54	78	46	63	9	1.91	0.56	1.77	2.76	157	13.63	114	92	55	0	0	3	1
	HUNTSVILLE	68	52	75	43	60	9	0.90	-0.33	0.39	1.11	68	11.83	99	99	64	0	0	5	0
	MOBILE	76	59	82	54	67	8	2.66	1.39	1.95	3.70	225	13.44	112	96	63	0	0	4	1
	MONTGOMERY	74	55	78	47	65	8	3.22	1.91	3.17	5.17	305	20.67	181	98	56	0	0	2	1
AR	FORT SMITH	72	51	82	40	61	11	0.79	-0.05	0.37	0.79	74	5.50	81	91	48	0	0	4	0
	LITTLE ROCK	71	55	81	46	63	13	1.12	-0.04	0.55	1.17	78	13.39	146	87	60	0	0	4	1
AZ	FLAGSTAFF	47	26	51	18	37	1	0.04	-0.48	0.03	0.04	6	5.52	110	85	39	0	6	2	0
	PHOENIX	73	53	77	51	64	0	0.23	0.00	0.19	0.23	75	2.27	109	63	25	0	0	2	0
	PRESCOTT	56	35	60	29	45	0	0.13	-0.14	0.12	0.13	38	2.45	85	81	31	0	3	2	0
	TUCSON	69	46	74	43	58	-2	0.55	0.41	0.50	0.55	304	3.65	192	76	29	0	0	2	1
CA	BAKERSFIELD	65	45	73	40	55	-3	0.14	-0.15	0.08	0.26	71	3.93	141	90	43	0	0	3	0
	EUREKA	51	39	54	33	45	-3	1.68	0.33	0.83	2.90	164	19.95	139	96	74	0	0	5	1
	FRESNO	64	45	70	43	55	-2	0.05	-0.40	0.05	0.83	144	6.02	127	88	41	0	0	1	0
	LOS ANGELES	62	49	67	47	56	-3	0.78	0.28	0.66	0.99	150	12.49	189	90	61	0	0	3	1
	REDDING	59	43	69	34	51	-3	1.21	0.05	0.54	1.88	123	14.81	111	86	50	0	0	4	1
	SACRAMENTO	60	44	65	41	52	-3	0.11	-0.59	0.11	0.84	91	9.02	110	91	53	0	0	1	0
	SAN DIEGO	65	54	69	51	59	-1	0.56	0.14	0.35	0.72	130	8.80	182	89	58	0	0	4	0
	SAN FRANCISCO	59	48	64	45	53	-2	0.51	-0.20	0.34	1.78	188	11.01	123	89	63	0	0	3	0
	STOCKTON	64	42	67	38	53	-2	0.27	-0.20	0.15	0.71	115	7.20	122	92	47	0	0	2	0
CO	ALAMOSA	49	21	55	11	35	3	0.41	0.31	0.30	0.41	321	1.11	150	79	25	0	6	2	0
	CO SPRINGS	50	25	60	17	37	-1	0.03	-0.12	0.02	0.03	17	2.03	248	78	30	0	6	2	0
	DENVER INTL	49	22	61	15	35	-3	0.07	-0.08	0.03	0.07	40	1.80	181	82	33	0	7	3	0
	GRAND JUNCTION	52	31	58	25	42	-1	0.46	0.31	0.35	0.46	231	1.13	83	81	40	0	3	2	0
	PUEBLO	54	25	66	16	39	-1	0.04	-0.11	0.02	0.04	19	1.81	221	75	29	0	6	2	0
CT	BRIDGEPORT	53	42	65	39	47	10	4.33	3.39	2.32	5.65	471	13.42	176	93	70	0	0	4	2
	HARTFORD	54	40	67	34	47	12	3.36	2.48	1.46	4.37	389	14.52	190	91	62	0	0	5	2
DC	WASHINGTON	61	47	69	43	54	10	1.55	0.80	0.81	2.31	244	9.47	145	90	61	0	0	4	1
DE	WILMINGTON	58	42	67	39	50	10	2.54	1.65	1.26	3.76	333	11.79	161	96	65	0	0	5	2
FL	DAYTONA BEACH	79	64	87	60	71	8	0.83	0.02	0.64	1.02	100	6.49	105	100	64	0	0	3	1
	JACKSONVILLE	77	59	88	54	68	7	2.56	1.76	1.51	2.88	282	9.26	127	99	60	0	0	4	1
	KEY WEST	82	74	83	70	78	4	0.31	-0.06	0.30	0.31	66	6.37	164	95	77	0	0	2	0
	MIAMI	84	71	86	68	78	5	0.39	-0.12	0.20	0.39	61	4.32	92	93	60	0	0	4	0
	ORLANDO	84	65	90	63	75	9	0.41	-0.22	0.33	0.41	51	4.37	81	98	55	1	0	2	0
	PENSACOLA	73	59	80	55	66	6	3.15	1.91	1.38	3.70	231	11.16	96	95	61	0	0	4	3
	TALLAHASSEE	79	57	83	50	68	9	2.03	0.64	1.19	2.04	115	9.19	86	97	59	0	0	2	2
	TAMPA	82	67	84	65	74	7	0.54	-0.02	0.43	0.54	75	6.82	112	95	63	0	0	2	0
	WEST PALM BEACH	82	69	85	67	75	5	4.36	3.63	3.32	4.36	481	10.05	141	94	67	0	0	3	2
GA	ATHENS	68	51	74	46	60	7	3.16	2.08	1.48	4.69	335	19.85	193	99	63	0	0	4	3
	ATLANTA	67	54	76	49	61	7	5.45	4.31	2.01	6.32	427	15.94	147	96	68	0	0	4	3
	AUGUSTA	72	51	77	46	62	7	1.85	0.87	0.87	2.56	202	8.41	94	99	58	0	0	4	2
	COLUMBUS	72	57	78	50	65	8	4.26	3.06	3.41	6.37	408	18.64	197	98	62	0	0	4	1
	MACON	72	54	77	50	63	7	3.59	2.55	1.92	4.73	352	15.64	156	100	65	0	0	4	2
	SAVANNAH	74	57	80	52	65	7	1.02	0.22	0.63	2.11	204	7.33	101	96	61	0	0	2	1
HI	HILO	76	65	79	63	71	-1	10.49	7.50	3.03	10.74	279	19.61	87	100	67	0	0	7	6
	HONOLULU	80	70	82	68	75	1	0.20	-0.35	0.12	0.20	29	3.09	67	81	50	0	0	4	0
	KAHULUI	80	67	82	62	73	0	0.17	-0.42	0.08	0.17	22	5.08	96	87	55	0	0	3	0
	LIHUE	74	66	75	65	70	-2	0.37	-0.92	0.20	0.41	25	4.89	59	90	68	0	0	5	0
IA	BURLINGTON	57	38	80	29	48	11	1.90	1.39	0.84	1.90	284	3.87	99	93	59	0	1	4	2
	CEDAR RAPIDS	55	34	80	23	45	13	0.24	-0.18	0.13	0.24	44	0.84	30	91	49	0	3	3	0
	DES MOINES	56	33	79	23	45	10	0.23	-0.19	0.15	0.23	42	4.54	150	81	35	0	4	3	0
	DUBUQUE	53	34	76	26	44	13	0.62	0.16	0.54	0.62	104	2.59	73	87	47	0	3	2	1
	SIOUX CITY	55	23	61	13	39	6	0.00	-0.30	0.00	0.00	0	1.63	82	76	26	0	7	0	0
	WATERLOO	55	28	80	22	42	9	0.33	-0.05	0.18	0.33	67	1.85	66	84	40	0	5	3	0
ID	BOISE	40	27	51	23	33	-10	0.72	0.46	0.47	0.91	266	5.24	188	87	54	0	7	4	0
	LEWISTON	49	30	58	26	39	-4	0.02	-0.24	0.02	0.13	40	2.87	113	78	38	0	6	1	0
	POCATELLO	32	14	38	4	23	-13	0.45	0.17	0.20	2.39	665	5.94	240	94	68	0	7	4	0
IL	CHICAGO/O_HARE	54	39	73	33	46	11	1.73	1.19	0.91	1.73	245	5.72	120	90	57	0	0	3	2
	MOLINE	58	37	79	30	47	12	0.95	0.36	0.63	0.95	124	3.97	91	90	54	0	1	4	1
	PEORIA	60	41	77	32	50	13	0.94	0.37	0.50	0.94	126	4.61	94	92	59	0	1	4	1
	ROCKFORD	57	36	75	31	47	14	0.81	0.32	0.45	0.81	128	3.36	85	85	49	0	1	3	0
	SPRINGFIELD	61	42	76	33	51	12	2.04	1.46	1.01	2.05	276	6.69	144	96	67	0	0	3	2
IN	EVANSVILLE	66	48	80	37	57	14	1.15	0.11	0.89	1.19	89	8.03	100	94	60	0	0	4	1
	FORT WAYNE	59	41	72	32	50	15	0.72	0.14	0.65	0.72	96	5.59	102	94	68	0	1	2	1
	INDIANAPOLIS	60	45	77	35	53	14	1.30	0.54	0.86	1.30	135	7.38	111	98	68	0	0	3	1
	SOUTH BEND	59	40	74	32	49	16	1.30	0.73	0.97	1.30	175	6.53	112	92	58	0	1	3	1
KS	CONCORDIA	57	32	72	24	45	5	0.03	-0.23	0.03	0.03	9	2.43	128	73	35	0	5	1	0
	DODGE CITY	57	31	68	22	44	2	0.01	-0.25	0.01	0.01	3	1.59	102	85	41	0	5	1	0
	GOODLAND	49	24	61	19	37	-1	0.26	0.11	0.26	0.26	143	2.09	212	76	37	0	7	1	0
	TOPEKA	63	37	82	28	50	8	0.45	0.00	0.45	0.45	78	3.24	114	85	38	0	2	1	0

Based on 1991-2020 normals

***** Not Available**

Weather Data for the Week Ending March 9, 2024

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
	WICHITA	60	40	80	32	50	6	0.82	0.35	0.81	0.82	140	3.15	117	88	46	0	1	2	1
KY	LEXINGTON	65	48	77	39	57	14	1.50	0.45	0.64	1.71	126	10.52	123	93	66	0	0	4	2
	LOUISVILLE	66	50	78	40	58	13	1.18	0.11	0.50	1.37	100	9.17	110	89	59	0	0	4	1
	PADUCAH	67	49	80	35	58	12	0.84	-0.26	0.57	1.00	70	10.74	114	93	58	0	0	3	1
LA	BATON ROUGE	78	61	84	56	70	10	4.54	3.46	2.59	5.61	398	15.87	128	90	59	0	0	3	3
	LAKE CHARLES	77	59	83	50	68	7	0.96	0.14	0.92	0.98	91	12.58	121	98	63	0	0	3	1
	NEW ORLEANS	76	61	79	57	69	7	3.77	2.74	1.82	4.89	365	16.27	150	98	70	0	0	3	3
	SHREVEPORT	76	58	82	48	67	11	***	***	***	***	***	***	***	90	49	0	0	***	***
MA	BOSTON	48	38	58	32	43	7	2.09	1.19	0.81	3.38	292	11.44	145	98	79	0	1	5	2
	WORCESTER	49	37	61	32	43	11	2.66	1.73	1.01	4.29	358	13.83	170	93	63	0	1	5	3
MD	BALTIMORE	59	44	68	36	51	10	1.94	1.06	1.08	2.97	263	10.58	146	95	64	0	0	5	1
ME	CARIBOU	42	27	47	19	35	14	0.67	0.02	0.28	0.75	88	3.87	61	94	61	0	5	4	0
	PORTLAND	46	33	55	26	40	9	2.99	2.09	1.29	3.87	333	12.21	146	99	67	0	2	5	2
MI	ALPENA	47	27	64	18	37	12	1.83	1.42	0.98	1.83	351	5.10	130	98	59	0	6	4	2
	GRAND RAPIDS	57	37	70	29	47	15	1.77	1.25	1.12	1.77	261	6.86	127	93	61	0	2	3	2
	HOUGHTON LAKE	45	28	51	23	37	11	0.95	0.68	0.83	0.95	251	2.44	106	96	70	0	4	2	1
	LANSING	57	36	69	29	47	15	1.13	0.67	0.67	1.13	189	5.21	117	92	61	0	2	3	1
	MUSKEGON	57	39	71	31	48	15	2.16	1.64	1.29	2.16	316	5.67	106	85	53	0	1	4	2
	TRAVERSE CITY	52	31	64	22	42	13	1.06	0.73	0.44	1.06	250	2.69	85	90	50	0	3	4	0
MN	DULUTH	40	23	44	17	31	8	0.04	-0.26	0.04	0.04	10	1.09	45	80	42	0	6	1	0
	INT_L FALLS	35	16	41	7	26	7	0.22	0.03	0.21	0.35	145	1.75	100	82	47	0	7	2	0
	MINNEAPOLIS	49	28	74	21	39	10	0.00	-0.30	0.00	0.00	0	0.78	35	65	29	0	6	0	0
	ROCHESTER	51	25	72	19	38	11	0.01	-0.34	0.01	0.01	2	0.81	32	84	38	0	7	1	0
	ST. CLOUD	48	24	70	16	36	12	0.00	-0.28	0.00	0.00	0	1.19	66	75	33	0	7	0	0
MO	COLUMBIA	62	41	83	31	52	10	1.00	0.37	0.91	1.02	128	3.94	76	92	54	0	1	4	1
	KANSAS CITY	61	38	80	28	49	9	0.45	-0.04	0.44	0.45	73	2.65	80	90	45	0	2	2	0
	SAINT LOUIS	65	47	77	38	56	12	0.35	-0.33	0.26	0.39	45	4.75	82	86	55	0	0	2	0
	SPRINGFIELD	65	47	81	35	56	12	1.44	0.68	0.82	1.48	155	4.83	80	95	58	0	0	2	2
MS	JACKSON	73	56	78	46	64	9	5.18	3.89	3.76	5.57	335	19.69	159	97	63	0	0	3	2
	MERIDIAN	72	53	78	46	62	6	5.02	3.61	4.42	6.43	350	17.17	132	99	64	0	0	4	1
	TUPELO	71	51	77	41	61	9	0.40	-0.89	0.27	0.71	42	12.26	102	95	64	0	0	3	0
MT	BILLINGS	43	20	61	11	32	-3	0.01	-0.14	0.01	0.15	77	1.38	103	79	30	0	6	1	0
	BUTTE	32	2	46	-5	17	-11	0.04	-0.08	0.02	0.14	97	1.59	156	82	37	0	7	2	0
	CUT BANK	34	8	60	-5	21	-6	0.00	-0.07	0.00	0.01	14	0.39	73	80	37	0	6	0	0
	GLASGOW	27	3	50	-4	15	-11	0.22	0.12	0.12	0.29	243	1.32	144	82	56	0	7	2	0
	GREAT FALLS	33	8	59	-8	20	-10	0.06	-0.06	0.05	0.32	200	2.41	181	81	46	0	6	2	0
	HAVRE	30	5	54	-5	18	-10	0.10	0.01	0.07	0.14	128	1.97	211	85	53	0	6	2	0
	MISSOULA	44	19	57	15	31	-3	0.00	-0.20	0.00	0.07	28	1.74	81	86	31	0	7	0	0
NC	ASHEVILLE	65	47	70	42	56	10	2.08	1.22	1.05	3.74	338	13.47	152	97	61	0	0	4	2
	CHARLOTTE	67	51	73	45	59	9	1.65	0.70	1.01	2.84	234	11.03	138	94	60	0	0	4	2
	GREENSBORO	65	49	71	45	57	10	1.57	0.74	1.20	2.45	230	11.55	156	96	62	0	0	3	1
	HATTERAS	64	54	67	49	59	7	6.18	5.15	2.56	6.44	486	10.16	94	99	83	0	0	6	3
	RALEIGH	69	52	74	48	60	11	1.04	0.11	0.72	2.02	170	8.11	108	90	60	0	0	3	1
	WILMINGTON	70	53	75	49	62	9	0.57	-0.35	0.33	2.33	195	5.80	67	93	64	0	0	2	0
ND	BISMARCK	33	12	50	8	22	-3	0.09	-0.06	0.08	0.30	152	1.00	81	89	51	0	7	2	0
	DICKINSON	30	6	53	-3	18	-8	0.00	-0.09	0.00	0.08	69	0.13	18	90	58	0	7	0	0
	FARGO	38	19	51	14	29	7	0.06	-0.18	0.05	0.06	20	0.90	51	78	50	0	7	2	0
	GRAND FORKS	31	14	42	9	22	3	0.05	-0.13	0.05	0.12	51	0.63	49	78	57	0	7	1	0
	JAMESTOWN	34	10	45	6	22	0	0.10	-0.02	0.08	0.10	62	0.15	18	81	56	0	7	2	0
NE	GRAND ISLAND	55	26	65	20	40	4	0.16	-0.08	0.16	0.16	53	1.67	99	76	26	0	6	1	0
	LINCOLN	58	25	71	18	41	4	0.00	-0.28	0.00	0.00	0	1.33	66	69	26	0	6	0	0
	NORFOLK	56	25	64	19	40	7	0.00	-0.24	0.00	0.00	0	1.41	80	72	22	0	7	0	0
	NORTH PLATTE	50	21	62	7	36	0	0.70	0.52	0.53	0.70	303	2.15	176	84	32	0	7	2	1
	OMAHA	55	27	70	20	41	5	0.27	-0.04	0.26	0.27	67	1.19	55	79	32	0	5	2	0
	SCOTTSBLUFF	49	26	62	18	38	1	0.21	0.04	0.13	0.21	93	1.99	165	78	30	0	6	4	0
	VALENTINE	50	26	64	17	38	4	0.18	-0.01	0.18	0.18	75	1.61	134	83	28	0	7	1	0
NH	CONCORD	52	33	63	24	42	12	2.33	1.62	1.24	3.15	342	10.23	155	99	61	0	2	5	1
NJ	ATLANTIC_CITY	57	41	69	37	49	9	3.64	2.61	1.60	4.69	356	12.84	159	95	68	0	0	5	3
	NEWARK	56	44	70	38	50	10	2.48	1.56	1.44	3.78	321	10.09	131	91	62	0	0	4	2
NM	ALBUQUERQUE	60	36	69	32	48	1	0.04	-0.06	0.04	0.04	32	0.78	83	61	24	0	1	1	0
NV	ELY	43	18	52	10	30	-5	0.11	-0.09	0.06	0.34	127	2.24	118	87	36	0	7	3	0
	LAS VEGAS	64	48	67	41	56	-2	0.00	-0.13	0.00	0.00	0	1.16	74	50	20	0	0	0	0
	RENO	48	29	56	27	39	-6	0.02	-0.20	0.02	1.24	409	3.64	138	76	37	0	6	1	0
	WINNEMUCCA	46	27	56	18	36	-5	0.28	0.09	0.18	0.35	144	3.77	194	84	37	0	6	3	0
NY	ALBANY	52	37	61	29	45	12	3.37	2.69	1.23	3.82	435	9.28	158	92	61	0	2	4	3
	BINGHAMTON	52	38	63	28	45	16	1.80	1.15	0.87	2.67	319	8.81	147	94	63	0	1	4	2
	BUFFALO	60	40	72	34	50	19	0.38	-0.28	0.18	0.39	45	6.05	89	92	52	0	0	3	0
	ROCHESTER	60	38	74	28	49	17	0.41	-0.16	0.22	0.59	80	4.96	90	89	52	0	2	2	0
	SYRACUSE	57	38	71	29	47	17	1.61	0.96	0.85	1.96	233	7.52	125	88	50	0	2	3	2
OH	AKRON-CANTON	60	42	72	32	51	15	0.61	-0.09	0.34	0.84	93	5.00	78	96	67	0	1	3	0
	CINCINNATI	64	46	89	39	55	15	1.59	0.65	0.82	1.70	143	9.07	116	99	70	0	0	4	1
	CLEVELAND	60	42	75	37	51	16	1.07	0.39	0.44	1.18	135	5.63	87	90	60	0	0	4	0
	COLUMBUS	61	44	75	35	53	15	0.66	-0.11	0.28	0.97	100	6.87	106	92	64	0	0	4	0
	DAYTON	62	45	74	37	53	15	1.86	1.12	0.77	1.89	202	8.87	137	97	70	0	0	4	2
	MANSFIELD	58	40	71	30	49	15	0.86	0.13	0.33	0.93	99	6.31	92	95	68	0	1	4	0

Based on 1991-2020 normals

***** Not Available**

Weather Data for the Week Ending March 9, 2024

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
	TOLEDO	61	39	78	33	50	14	0.90	0.31	0.77	0.90	118	6.08	110	83	51	0	0	4	1
	YOUNGSTOWN	62	41	75	35	51	18	0.76	0.04	0.37	0.90	97	6.41	97	94	63	0	0	3	0
OK	OKLAHOMA CITY	68	44	82	34	56	8	0.68	0.15	0.35	0.68	102	3.69	106	90	43	0	0	2	0
	TULSA	69	47	80	36	58	10	0.71	0.08	0.55	0.71	90	4.71	114	87	47	0	0	3	1
OR	ASTORIA	49	35	57	29	42	-4	1.89	0.05	0.87	2.67	111	25.51	124	93	60	0	2	3	2
	BURNS	37	17	46	9	27	-9	0.51	0.30	0.43	0.66	242	4.94	191	88	56	0	7	3	0
	EUGENE	49	32	62	29	41	-5	0.85	-0.24	0.53	1.56	108	10.84	87	93	60	0	3	3	1
	MEDFORD	50	33	64	28	41	-6	0.73	0.31	0.64	1.64	297	7.81	147	94	56	0	3	4	1
	PENDLETON	50	28	60	26	39	-3	0.04	-0.26	0.02	0.06	14	3.40	108	86	35	0	6	2	0
	PORTLAND	50	36	60	31	43	-4	0.18	-0.75	0.10	0.71	58	14.03	139	85	49	0	3	3	0
	SALEM	48	32	60	26	40	-6	0.43	-0.62	0.21	1.48	108	16.00	131	92	57	0	4	3	0
PA	ALLENTOWN	55	40	66	29	47	10	1.85	1.04	1.42	2.83	274	10.37	143	92	62	0	1	4	1
	ERIE	60	40	76	34	50	17	0.60	-0.09	0.30	0.66	74	5.71	82	91	57	0	0	3	0
	MIDDLETOWN	57	41	68	33	49	10	1.71	0.94	1.24	2.31	234	10.52	157	95	64	0	0	4	1
	PHILADELPHIA	57	43	66	40	50	10	2.47	1.61	1.16	3.49	317	10.83	152	96	64	0	0	4	2
	PITTSBURGH	64	44	75	38	54	18	1.14	0.43	0.64	1.54	169	7.47	113	91	58	0	0	3	1
	WILKES-BARRE	55	41	67	32	48	13	2.50	1.89	1.09	2.96	385	10.04	182	92	60	0	1	4	3
	WILLIAMSPORT	56	40	68	32	48	13	1.65	0.98	1.14	2.49	289	10.61	170	94	59	0	1	4	1
RI	PROVIDENCE	52	37	63	29	44	8	3.13	2.10	1.22	5.04	379	15.16	171	98	70	0	2	5	3
SC	CHARLESTON	76	57	81	53	67	10	3.14	2.38	1.93	6.32	647	11.26	150	94	52	0	0	2	2
	COLUMBIA	72	50	78	44	61	8	3.13	2.26	2.67	5.26	462	10.57	129	100	62	0	0	4	1
	FLORENCE	74	52	78	47	63	9	1.97	1.23	1.52	3.57	372	8.17	114	99	55	0	0	4	1
	GREENVILLE	66	47	74	40	56	6	2.53	1.48	1.30	4.73	352	17.37	183	91	58	0	0	4	2
SD	ABERDEEN	46	18	57	11	32	6	0.00	-0.17	0.00	0.00	0	0.29	20	85	35	0	7	0	0
	HURON	48	20	63	16	34	6	0.02	-0.19	0.02	0.02	7	1.06	65	88	35	0	7	1	0
	RAPID CITY	47	20	57	19	34	2	0.00	-0.16	0.00	0.00	0	0.81	79	83	29	0	7	0	0
	SIOUX FALLS	52	24	60	16	38	8	0.00	-0.27	0.00	0.00	0	1.32	73	73	27	0	7	0	0
TN	BRISTOL	67	45	76	38	56	11	1.76	0.83	1.07	2.11	177	9.44	107	98	55	0	0	3	2
	CHATTANOOGA	67	50	74	44	58	8	1.56	0.32	0.62	1.91	118	11.26	95	94	64	0	0	4	2
	KNOXVILLE	67	48	73	42	58	10	1.50	0.35	0.89	2.03	135	12.51	111	97	61	0	0	4	1
	MEMPHIS	69	53	81	39	61	10	0.95	-0.38	0.75	0.96	56	11.17	105	95	60	0	0	3	1
	NASHVILLE	67	52	78	40	59	11	1.45	0.41	0.52	1.66	122	10.62	106	92	65	0	0	4	1
TX	ABILENE	71	47	83	37	59	4	1.27	0.87	1.26	1.27	248	4.67	158	87	42	0	0	2	1
	AMARILLO	62	34	79	26	48	1	0.00	-0.22	0.00	0.00	0	1.64	106	76	27	0	4	0	0
	AUSTIN	80	59	91	46	69	9	0.20	-0.43	0.20	0.20	24	7.14	132	86	39	1	0	1	0
	BEAUMONT	77	60	85	49	68	7	0.48	-0.29	0.44	0.50	49	13.81	145	97	65	0	0	3	0
	BROWNSVILLE	83	68	91	60	76	6	0.00	-0.30	0.00	0.00	0	3.27	128	97	62	1	0	0	0
	CORPUS CHRISTI	83	65	94	54	74	9	0.00	-0.54	0.00	0.00	0	4.25	123	95	55	2	0	0	0
	DEL RIO	83	58	91	51	71	8	0.00	-0.25	0.00	0.00	0	0.58	36	78	28	2	0	0	0
	EL PASO	70	49	76	41	59	3	0.00	-0.07	0.00	0.00	0	0.72	79	43	15	0	0	0	0
	FORT WORTH	74	55	83	43	64	9	2.75	1.96	2.67	2.75	273	7.62	118	89	52	0	0	3	1
	GALVESTON	73	63	77	55	68	5	0.02	-0.64	0.02	0.02	2	7.63	103	97	79	0	0	1	0
	HOUSTON	80	62	89	48	71	9	0.08	-0.76	0.06	0.08	7	10.73	135	96	55	0	0	2	0
	LUBBOCK	69	39	81	33	54	4	0.00	-0.22	0.00	0.00	0	1.30	81	65	25	0	0	0	0
	MIDLAND	71	45	78	36	58	3	0.00	-0.15	0.00	0.00	0	0.57	40	74	18	0	0	0	0
	SAN ANGELO	77	47	84	34	62	5	0.03	-0.32	0.03	0.03	7	1.19	45	92	31	0	0	1	0
	SAN ANTONIO	80	58	91	46	69	8	0.04	-0.48	0.04	0.04	6	6.24	140	89	44	1	0	1	0
	VICTORIA	80	61	90	48	70	8	0.01	-0.66	0.01	0.01	1	10.41	187	97	55	1	0	1	0
	WACO	77	55	86	43	66	10	0.39	-0.43	0.24	0.39	37	6.08	94	92	47	0	0	2	0
	WICHITA FALLS	72	45	85	37	58	7	0.31	-0.14	0.28	0.31	54	4.61	142	88	44	0	0	2	0
UT	SALT LAKE CITY	45	30	53	25	37	-6	0.20	-0.14	0.11	0.55	126	4.53	140	83	44	0	6	3	0
VA	LYNCHBURG	64	46	73	43	55	12	1.37	0.56	1.15	2.29	219	10.13	134	97	60	0	0	3	1
	NORFOLK	61	48	68	45	55	6	3.24	2.42	1.54	4.72	444	10.77	143	94	72	0	0	3	2
	RICHMOND	64	46	69	40	55	10	2.67	1.78	0.96	4.07	359	12.08	170	91	62	0	0	4	3
	ROANOKE	65	49	74	43	57	12	1.09	0.31	0.50	1.63	163	8.18	114	91	57	0	0	4	0
	WASH/DULLES	61	45	69	38	53	12	1.76	1.01	0.96	2.29	240	9.48	143	90	60	0	0	4	1
VT	BURLINGTON	51	35	60	26	43	14	1.34	0.84	0.83	1.51	238	5.03	109	94	58	0	3	4	1
WA	OLYMPIA	47	30	53	22	38	-5	0.68	-0.67	0.39	1.19	68	15.65	105	96	58	0	4	4	0
	QUILLAYUTE	48	35	52	29	42	-1	2.53	-0.17	1.57	3.43	98	29.47	101	86	63	0	3	5	1
	SEATTLE-TACOMA	46	34	53	29	40	-6	0.35	-0.62	0.22	0.58	46	10.21	93	83	49	0	3	3	0
	SPOKANE	42	25	52	22	33	-4	0.07	-0.35	0.04	0.34	63	4.28	106	86	44	0	7	2	0
	YAKIMA	50	24	53	23	37	-4	0.01	-0.15	0.01	0.06	29	2.39	106	79	32	0	7	1	0
WI	EAU CLAIRE	52	27	70	19	39	13	0.22	-0.13	0.22	0.22	49	0.85	32	75	36	0	5	1	0
	GREEN BAY	49	32	60	26	40	12	0.91	0.51	0.70	0.91	179	2.16	68	87	46	0	4	3	1
	LA CROSSE	52	31	74	24	42	10	0.58	0.20	0.54	0.58	119	1.72	57	79	38	0	4	2	1
	MADISON	53	33	73	28	43	12	1.20	0.76	0.63	1.20	214	3.71	102	87	45	0	5	3	2
	MILWAUKEE	49	36	64	31	42	9	1.93	1.47	0.86	1.93	330	5.79	140	89	56	0	2	4	2
WV	BECKLEY	60	44	72	36	52	13	1.38	0.46	0.68	1.51	128	9.39	124	90	59	0	0	4	2
	CHARLESTON	66	46	78	41	56	14	1.61	0.63	1.19	1.78	141	9.79	121	91	55	0	0	4	1
	ELKINS	64	39	76	34	52	14	1.24	0.33	0.95	1.52	131	8.78	111	100	55	0	0	5	1
	HUNTINGTON	67	47	79	44	57	14	1.89	0.91	0.69	2.07	164	11.32	143	90	53	0	0	4	3
WY	CASPER	42	20	53	16	31	-1	0.00	-0.16	0.00	0.01	5	1.03	79	78	33	0	7	0	0
	CHEYENNE	42	22	53	16	32	-2	0.25	0.06	0.17	0.25	108	1.54	136	83	32	0	7	2	0
	LANDER	40	19	51	12	30	-3	0.06	-0.14	0.02	0.14	55	2.05	137	74	32	0	7	3	0
	SHERIDAN	46	19	62	15	32	0	0.06	-0.11	0.06	0.12	55	1.27	84	79	29	0	7	1	0

Based on 1991-2020 normals ***** Not Available**

February Weather and Crop Summary

Weather

Weather summary provided by USDA/WAOB

Highlights: Like December 2023, February featured record-shattering monthly warmth across much of the central U.S., including portions of the Plains and Midwest. Monthly temperatures averaged at least 10°F above normal from the northern and central Plains into the Great Lakes States. Consistent, early-season warmth extended to other areas, including the Northwest, Northeast, and mid-South. In fact, slightly cooler-than-normal February conditions were generally limited to Florida's peninsula, as well as parts of California and the Desert Southwest. The net result of the lack of wintry weather was to accelerate the spring development of a variety of Southern crops, including winter grains and budding or blooming fruits. During a particularly notable warm spell in late February, winter wheat broke dormancy (or was actively growing) across roughly the southern half of the nation, leaving the crop potentially vulnerable to any sharp spring cold snaps.

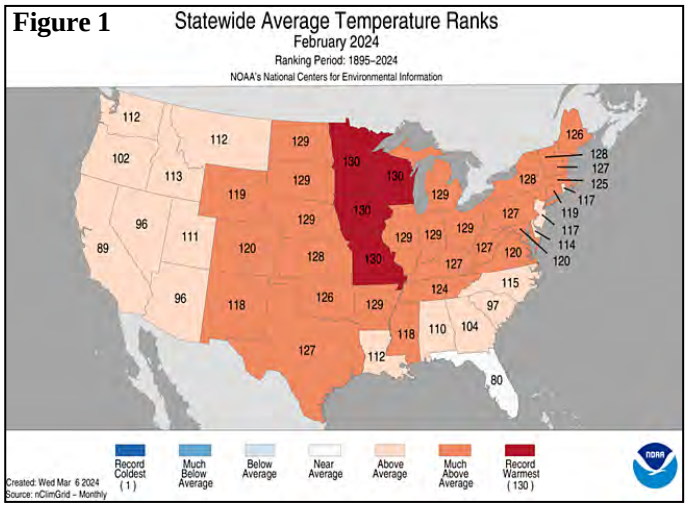
However, through February, wheat continued to overwinter well, with crop conditions mostly steady or improving since autumn 2023. Notably, Kansas reported the most significant improvement in winter wheat rated good to excellent between November 26 and February 25, from 32 to 57 percent. During the same period, Kansas noted a corresponding decrease in wheat rated very poor to poor, from 32 to 13 percent. Other states observing a double-digit increase in winter wheat rated good to excellent between late November and late February included North Carolina (from 71 to 89 percent), Oklahoma (from 53 to 70 percent), Nebraska (from 49 to 60 percent), and Michigan (from 46 to 57 percent). Meanwhile, Montana—which dealt with frigid mid-January weather and occasional lack of an insulating snow cover—experienced the greatest decline in winter wheat rated good to excellent (from 58 to 45 percent) during the 3-month period ending in late February.

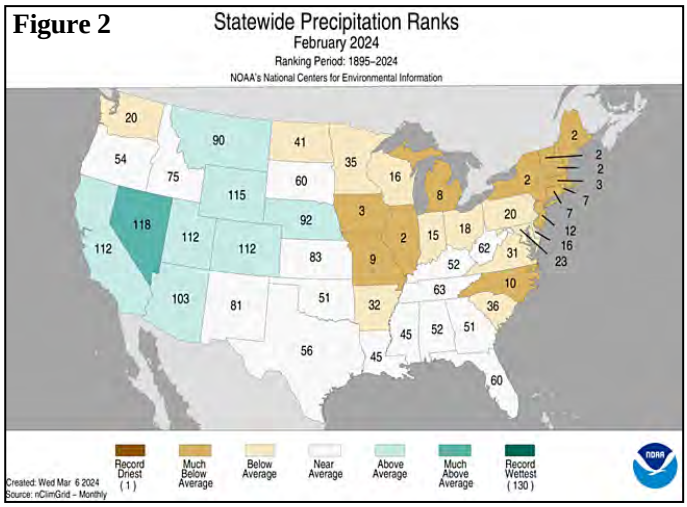
"Snow drought" affected parts of the upper Midwest, leading to concerns regarding lack of soil moisture recharge and potential spring and summer water shortages for rain-fed summer crops. Despite the concerns related to lack of snow, national drought coverage dipped to 19.46 percent by February 13, according to the *U.S. Drought Monitor*, down from more than 40 percent as recently as October 2023 and the lowest since May 30, 2023. In much of the West, however, stormy weather in January and February helped to boost high-elevation snowpack, following a slow start to the winter wet season. According to the California Department of Water Resources, the average water equivalency of the Sierra Nevada snowpack rose nearly 10 inches during the month to top 18 inches, approximately 80 percent of normal for the end of February. Farther north, however, significantly below-average snowpack was observed at the end of February in much of Montana and Washington, as well as northern sections of Idaho and Wyoming.

Late in the month, record-setting warmth, accompanied by low humidity levels and high winds, contributed to devastating wildfires across Texas' northern panhandle and environs. Many of the fires, which started on February 26 or 27, were ignited in the Canadian River drainage basin. Soon, the Smokehouse Creek Fire—east and northeast of Lake Meredith—became the largest wildfire in modern Texas history, scorching more than 1.05 million acres when including some acreage in western Oklahoma. During the late-month warm spell, dozens of all-time February and winter record-high temperatures were established across the Plains and Midwest. On February 27, for the first time ever in a winter month, St. Louis, MO (86°F), topped the 85-degree mark and Quincy, IL (80°F), achieved an 80-degree reading. On the same date in Michigan, readings of 70°F or above were observed for the first time ever on a December-February day in Saginaw (74°F), Grand Rapids (73°F), Traverse City (73°F), and Alpena (70°F).

Historical Perspective: According to preliminary data provided by the National Centers for Environmental Information, the contiguous U.S. experienced its third-warmest February during the 1895-2024 period of record. The national average temperature of 41.05°F was 7.23°F above the 1901-2000 mean, with only February 1954 (41.41°F) and 2017 (41.18°F) coming in with higher values. Meanwhile, monthly precipitation averaged just 1.86 inches across the Lower 48 States, representing the 40th-driest February in the last 130 years. That value was more than one-quarter inch below the 20th century mean of 2.13 inches.

All states ranked within the warmest one-half of the February historical distribution. Florida, with its 51st-warmest February, was nation's the "coolest" state. Top-ten rankings for February warmth were rampant from Texas to the Dakotas eastward, with only Alabama, Louisiana, Mississippi, and ten Atlantic Coast States failing to make the list. Furthermore, it was the warmest February on record in Iowa, Minnesota, Missouri, and Wisconsin (figure 1). Meanwhile, state precipitation rankings ranged from the second-driest February in Illinois, Maine, New Hampshire, New York, and Vermont to the 13th-wettest February in Nevada (figure 2). In addition to the five states listed above, top-ten rankings for February dryness were noted in Connecticut, Iowa, Massachusetts, Michigan, Missouri, North Carolina, and Rhode Island.





Summary: A pair of Pacific storm systems arriving along the West Coast in late January and early February delivered heavy rain, mountain snow, and high winds. On the first day of February, storminess shifted into southern California, where daily-record-rainfall amounts reached 2.93 inches in Santa Barbara and 2.45 inches in Long Beach. With the initial Western system, wind gusts in California for the 1st included 59 mph in Needles, 53 mph in Bishop, and 47 mph in Marysville. Three days later, on the 4th, Bishop registered a gust to 50 mph, while Marysville clocked 68 mph. Gusts ranged from 60 to 80 mph on February 4 in California locations such as San Francisco International Airport (77 mph); Oroville (70 mph), Sacramento International Airport (65 mph); Merced (64 mph); and Santa Maria (60 mph), downing trees and contributing to hundreds of thousands of customers losing electricity. As the first storm system moved farther inland on February 2, Salt Lake City, UT (1.08 inches, all rain), noted its wettest February day since 1998, when 1.23 inches fell on the 24th. With 0.72 inch (5.5 inches of snow) on the 3rd, Denver, CO, experienced a tie for its third-wettest February day, behind 1.01 inches on February 19, 1953, and 0.88 inch on February 22, 1909. Similarly, Pueblo, CO (1.06 inches on the 3rd, with snowfall totaling just 0.6 inch), noted its wettest-ever February day, topping 0.90 inch on February 10, 1897.

Rain from the second system pushed two-storm totals in southern California to 4 to 12 inches in many locations, causing flash flooding and debris flows. February 4 was historically wet, with downtown Los Angeles (4.10 inches) experiencing its third-wettest February day and tenth-wettest calendar day in more than 146 years. Wetter February days in downtown Los Angeles were February 24, 1913, with 4.80 inches, and February 18, 1914, with 4.26 inches. During the first 7 days of February, rainfall topped the 10-inch mark in southern California locations such as downtown Los Angeles (10.57 inches) and Long Beach (10.05 inches). In southern California, February 4 peak gusts at coastal and higher-elevation sites reached 78 mph at Camp Nine, elevation 4,000 feet, and 74 mph at Point Conception Light, west of Santa Barbara. Farther inland, daily-record snowfall totals for February 4 included 8.5 inches in Reno, NV, and 5.8 inches in Havre, MT. Precipitation was slow to depart California, where daily-record totals for February 5 topped the 2-inch mark in locations such as downtown Los Angeles (2.93 inches), Oceanside Harbor (2.88 inches), Long Beach (2.57 inches), Riverside (2.39 inches), and Mount Shasta City (2.08 inches). Meanwhile, thunderstorms associated with a different storm system traversing the Deep South spawned several tornadoes in northern Florida and southern Georgia. Daily-record rainfall totals for the 4th included 2.08 inches in Apalachicola, FL, and 2.07 inches in Montgomery, AL. Later in the Southwest, impressive snow fell at higher elevations. Flagstaff, AZ, measured more than 10 inches each day from February 6-8, totaling 36.1 inches. In Utah, Alta, reported 70.1 inches of snow during the first 10 days of February. Soon, snow returned across Montana, where Havre received an additional 2.5 inches of snow from February 7-9. However, rare February rain fell through the 8th in the upper Great Lakes region, where International Falls netted a daily-record sum (0.39 inch; all rain) on that date. Elsewhere on the 8th, a severe-weather outbreak produced tornadoes as far north as southern Wisconsin—a first for that state during the last month of meteorological winter. The stronger of Wisconsin's two tornadoes, an EF-2, cut a 24.53-mile path across Rock, Dane, and Jefferson Counties, starting at 5:41 pm CST and lasting 36 minutes.

With cold, stormy weather focused across the West in early February, much of the central and eastern U.S. experienced mild conditions. For example, February 1 featured Midwestern daily-record highs in Joplin, MO (72°F); Lincoln, NE (65°F); and Burlington, IA (60°F). Joplin was even warmer, reaching 74°F, on February 2. The mild weather across the nation's mid-section included the overnight hours. For example, the temperature in Huron, SD,

remained at or above the freezing mark (32°F) each day from February 3-8. With additional mild nights on February 25 and 26, Huron tied its February record—8 days in 1984 and 1998—for the greatest number of minima of 32°F or greater. On February 4, Midwestern daily-record highs reached 54°F in Wausau, WI; 52°F in Muskegon, MI; and 52°F in Rockford, IL. By the 6th, Minneapolis-St. Paul, MN, reported 57°F, the highest February temperature in that location since 2017. February 8 featured even higher temperatures than those observed earlier in Muskegon (63°F) and Rockford (59°F). Elsewhere in the Midwest on the 8th, stunningly warm daily-record highs included 70°F in Vichy-Rolla, MO; 69°F in Quincy, IL; and 67°F in Ottumwa, IA. By February 9, warmth lingered in the Great Lakes States and spread into the Northeast. February 9-10 featured consecutive daily-record highs in locations such as Burlington, VT (53 and 56°F), and Rochester, NY (62 and 58°F). Farther south, daily-record highs for February 10 were established in Raleigh-Durham, NC (76°F), and Martinsburg, WV (66°F).

By mid-February, a "flatter," west-to-east weather pattern led to fast-moving disturbances producing several stripes of snow across the Plains and Midwest. Interestingly, snow mostly bypassed the upper Midwest, leaving that area in an ongoing "snow drought." Through the end of February, season-to-date snowfall totaled less than a foot in locations such as Fargo, ND (11.2 inches, or 29 percent of normal), and Sisseton, SD (4.2 inches, or 17 percent). Farther south, mid-month precipitation from the southern Plains into the Southeast and mid-Atlantic resulted in additional relief in areas still experiencing drought. In Georgia, February 11-12 totals included 7.03 inches in Columbus and 5.01 inches in Macon. In Columbus, where rainfall on the 11th reached 4.28 inches, it was the wettest February day since February 10, 1981, when 5.54 inches fell. Elsewhere in the Southeast, daily-record totals ranged from 1 to 3 inches in locations such as Montgomery, AL (2.94 inches on February 11); Jackson, MS (2.84 inches on February 11); and Greenville-Spartanburg, SC (1.88 inches on February 12). Meanwhile, wet snow blanketed parts of western Texas, where February 11 totals reached daily-record levels in Amarillo (5.6 inches) and Lubbock (3.6 inches). Two days later, snow overspread the mid-Atlantic and southern New England, where Providence, RI, netted a daily-record total of 6.2 inches on February 13. Elsewhere on the 13th, Northeastern snowfall totals that were not daily records included 9.1 inches in Allentown, PA; 7.6 inches in Bridgeport, CT; 4.9 inches in Newark, NJ; and 4.6 inches in Worcester, MA. In New York's Central Park, where 3.2 inches fell, a record-setting streak without a 2-inch snowfall ended at 744 days (January 30, 2022 – February 12, 2024). Meanwhile, a separate area of snow affected parts of the Midwest, where daily-record totals for February 14 reached 7.7 inches in Huron, SD, and 6.9 inches in Minneapolis-St. Paul (MSP), MN. (The mid-month snow in MSP nearly doubled the season-to-date total through February to 14.3 inches, which was still just 36 percent of normal.) By February 15, snow affected various parts of the nation's northern tier, resulting in daily-record amounts in Helena, MT (6.5 inches), and Grand Rapids, MI (5.5 inches). In Wisconsin, daily-record precipitation amounts for the 15th topped one-half inch in Milwaukee (0.55 inch) and Madison (0.54 inch), although snowfall totaled just 1.6 inches in both locations. Daily snowfall records for February 16 included 5.3 inches in Springfield, IL, and 3.8 inches in Cheyenne, WY. Soon, rain developed in parts of Florida, with heavy showers lasting into the 18th. Daily-record rainfall totals for February 18 topped 2 inches in Florida locations such as West Palm Beach (2.74 inches), Fort Lauderdale (2.23 inches), Key West (2.23 inches), and Naples (2.18 inches).

Even with cooler weather arriving around the middle of the month, U.S. temperatures remained mostly at near- or above-normal levels. The coolest mid-month day in Fargo, ND, was February 16—exactly 2°F above normal—with a high temperature of 22°F and a low of 9°F. In fact, Fargo went more than a month, from January 21 to February 26, without experiencing a below-normal daily average temperature. Farther west, some sub-zero temperatures affected northern sections of the Rockies and High Plains. On February 16, low temperatures in western Nebraska dipped to -11°F in Alliance and -9°F in Chadron. Lake Yellowstone, WY, noted a low of -26°F on February 17. Within days, however, significant warmth—peaking on February 20-21—returned across the Plains and Midwest. On the 20th, highs topped the 70-degree mark as far north as Nebraska, where daily records included 72°F in Imperial and 71°F in Lincoln. Warm weather extended into the western Corn Belt, including Iowa, resulting in daily-record highs for February 20 in Sioux City (67°F) and Des Moines (64°F). Meanwhile in the Southwest, Douglas, AZ, posted a daily-record high (79°F on the 20th). By February 21, daily-record highs soared to 85°F in Texas locations such as Borger and Lubbock. Elsewhere, record-setting highs for the 21st surged to 83°F in Oklahoma City, OK; 74°F in St. Joseph, MO; and 60°F in Bismarck, ND. As warmth shifted eastward on February 22, daily-record highs in Arkansas rose to 84°F in Texarkana and 77°F in Little Rock. On the 23rd, lingering warmth across the Deep South led to a daily-record high (81°F) in Gulfport, MS. By February 24, another wave of warmth overspreading the north-central U.S. boosted daily-record highs to 61°F in Mobridge, SD, and 54°F in Fargo, ND.

During the second half of the month, heavy rain briefly returned across southern California. Santa Barbara, CA, measured 3.86 inches from February 18-21, aided by a daily-record sum of 2.22 inches on the 18th. February rainfall in

downtown Los Angeles reached 12.66 inches (348 percent of normal), approaching the normal annual rainfall of 14.25 inches. Downtown Los Angeles also secured its fourth-wettest February and seventh-wettest month on record. Similarly, February rainfall in Long Beach, CA, totaled 11.95 inches (396 percent of normal), marking the second-wettest February and third-wettest month in that location. Late-month Western precipitation extended to other areas, with daily-record totals being observed on February 19 in Bishop, CA (0.93 inch), and Klamath Falls, OR (0.77 inch). In Utah, 24-hour snowfall totals on February 20-21 included 8.0 inches in Randolph and 3.1 inches in Logan. Monthly snowfall in Alta, UT, totaled 128.8, well above the February normal value of 81.2 inches. By February 22, rain briefly overspread the Ohio Valley and central Appalachians; in West Virginia, daily-record totals on that date included 1.01 inches in Clarksburg and 0.93 inch in Morgantown. Late in the month, stormy weather overspread the Northwest. On February 26, Bozeman (Montana State University) received daily-record totals—0.32 and 6.4 inches, respectively—for precipitation and snow. Elsewhere on the 26th, Pocatello, ID, netted a daily-record precipitation total of 0.27 inch. (Much heavier precipitation arrived in Pocatello from March 1-3, totaling 2.18 inches, including 11.6 inches of snow.) By February 28, when a cold front swept across the Midwest, Houghton Lake, MI, reported a daily-record sum of 0.93 inch, as rain changed to snow and accumulated 0.3 inch. In advance of that front, an early-season severe weather outbreak struck on February 27-28, primarily from the eastern Corn Belt to the central and southern Appalachians. On the first day of the outbreak, tornadoes were spotted as far north as northern Illinois and southern Michigan. Meanwhile, a separate area of storminess led to daily-record precipitation totals for February 28 in Arizona locations such as Safford (0.64 inch) and Nogales (0.33 inch). On Leap Day, February 29, heavy precipitation associated with a sprawling Pacific storm system moved into the Northwest, resulting in daily-record totals topping an inch in Oregon locations such as Roseburg (1.71 inches), North Bend (1.67 inches), Salem (1.36 inches), Eugene (1.15 inches), and Portland (1.10 inches).

Late in the month, winds began to ramp up across the central and western U.S. Across the southern High Plains, the high winds—combined with record-setting warmth, low humidity levels, and dormant, freeze-dried grasses—led to destructive wildfires across the northern panhandle of Texas and environs. Those fires scorched well over a million acres, leveling more than one hundred homes; destroying farm infrastructure, including fencing; killing or injuring thousands of head of cattle; and resulting in two human fatalities. On February 27, as fires raged across the Texas Panhandle and western Oklahoma, gusts included 68 mph in Dalhart, TX, and Guymon, OK, as well as 67 mph in Clayton, NM; 65 mph in Borger, TX; and 62 mph in Amarillo and Lubbock, TX. The Smokehouse Creek Fire, ignited on February 26 just north of Stinnett, TX, soon torched nearly 1.06 million acres of vegetation, mostly in Hutchinson, Roberts, and Hemphill Counties in Texas, as well as neighboring areas in Ellis and Roger Mills Counties in Oklahoma. Previously, the largest wildfire in modern Texas history was the East Amarillo Complex, which burned 907,245 acres in mid-March 2006. Besides the Smokehouse Creek Fire, other large wildfires starting on February 26 in the Texas Panhandle included the 144,000-acre Windy Deuce Fire, which started in Moore County, north of Amarillo, and the 35,000-acre Grape Vine Creek Fire, which burned in Gray County. A few days after the fires began, favorably cooler, calmer weather briefly overspread the southern Plains. By February 29, light precipitation in Texas included 1.0 inch of snow in Amarillo.

Before the end of meteorological winter, temperatures surged to 90°F or higher—mainly on February 26—from the lower Rio Grande Valley into southern Oklahoma. With a high of 94°F on the 26th, Abilene, TX, tied a monthly record originally set on February 25, 1904. Elsewhere in Texas, Dallas-Ft. Worth (94°F on the 26th) experienced its third-hottest February day, behind 96°F on February 25, 1904, and 95°F on February 21, 1996. At the height of the warm spell, on February 26-27, temperatures rose to 80°F or higher as far north as southeastern Nebraska and southwestern Iowa. On February 26-27, several Midwestern locations, including La Crosse, WI (67 and 69°F); Dubuque, IA (72°F both days); Rockford, IL (73 and 78°F); Lincoln, IL (76 and 78°F); Moline, IL (76 and 79°F); and Peoria, IL (77 and 78°F), set or tied monthly records on consecutive days. On February 27, monthly and winter (December-February) records were established in dozens of locations, including Moline, IL (79°F); Burlington, IA (77°F); and Milwaukee, WI (74°F). Kenosha, WI, hit 77°F on the 27th, breaking a state record for February and winter (previously, 72°F in Fort Atkinson on February 23, 2017). In Michigan on the 27th, highs of 73°F in Traverse City and 70°F in Alpena marked the earliest 70-degree warmth on record; previous standards had been set on March 7, 2000. Elsewhere on the 27th, St. Joseph, MO, reported an early-afternoon high of 78°F, with the temperature falling to 20°F by midnight. St. Joseph's 58-degree daily temperature drop set a station record for any time of year. By early March, however, warmth quickly returned across the nation's mid-section. From March 1-3, for example, a trio of daily-record highs occurred in locations such as Minneapolis-St. Paul, MN (59, 63, and 74°F), and Eau Claire, WI (57, 59, and 70°F).

Consistent, late-winter warmth, interrupted only by brief cool spells, led to the warmest February on record in countless communities across the Plains, Midwest, and mid-South. In

some cases, records had survived more than a century. In Illinois, for example, Chicago's monthly average temperature of 39.5°F (10.7°F above normal) eclipsed the February 1882 standard of 39.0°F. In Rochester, MN, the monthly average temperature of 32.6°F (13.9°F above normal) edged the February 1931 mark of 32.0°F. February average temperature records from 1954 were shattered in several locations, including Waterloo, IA (36.6°F, or 12.7°F above normal). In North Dakota, February average temperature records from 1998 were broken in locations such as Fargo (30.9°F, or 17.5°F above normal) and Grand Forks (26.3°F, or 15.7°F above normal). Finally, February records from 2017 were shattered in many places, including Paducah, KY (48.8°F, or 8.7°F above normal); West Plains, MO (48.2°F, or 9.3°F above normal); Des Moines, IA (40.0°F, or 13.1°F above normal); South Bend, IN (38.0°F, or 10.9°F above normal); Rockford, IL (37.4°F, or 11.8°F above normal); Muskegon, MI (36.8°F, or 9.1°F above normal); and Milwaukee, WI (36.7°F, or 9.6°F above normal).

Mild weather dominated Alaska in February, following a frigid start to the month. There were also a few cold days at month's end. Still, February temperatures averaged more than 4°F above normal in several locations, including King Salmon (6.2°F above normal); Kotzebue (4.2°F above normal); and Nome (4.1°F above normal). As the month began, however, Bettles dipped to -53 or -54°F each day from January 31 – February 3. Meanwhile, Anchorage logged consecutive daily-record lows (-18 and -16°F, respectively) on January 31 and February 1. However, mainland Alaska's cold wave soon ended, with temperatures rebounding to above-normal levels. In McGrath, for example, the temperature rose from -48 to 30°F in a week, from February 3 to 10. During the same 7-day period, Bettles noted a similar climb, from -54 to 21°F. Significant precipitation accompanied the sudden transition to mild weather. Anchorage received 6.2 inches of snow on February 3-4. By the morning of the 5th, the depth of 38 inches in Anchorage was the greatest in that location since March 17, 2002, when snow on the ground stood at 39 inches. Season-to-date snowfall in Anchorage, which had topped 100 inches on the earliest date on record (January 29), reached 119.1 inches (190 percent of normal) by the end of February. Southeastern Alaska also received heavy precipitation early in the month, as Juneau's 14.0 inches of snow during the first 3 days of February followed a record-high January sum of 76.8 inches (313 percent of normal). The remainder of the month was much more tranquil in Juneau, with only 4.2 inches of snow falling from February 4-29. As spring-like weather intensified across Alaska, the temperature in Anchorage surged to 41°F on February 10. That marked the first 40-degree reading in Anchorage since November 30, 2023. On February 13, Fairbanks posted a daily record-tying high of 41°F. By February 20, both Anchorage and Fairbanks tallied daily-record highs of 45°F. For Fairbanks, that represented the highest reading since October 16, 2023. Still, wintry weather lurked, with Anchorage measuring 7.6 inches of snow from February 22-24. Anchorage also endured a high-wind event, with a peak gust to 69 mph occurring early on February 22. A day earlier, on the 21st, wind gusts had included 76 mph in Cold Bay and 47 mph in Nome. For the month, precipitation totaled at least twice normal in several Alaskan locations, including Bethel (2.86 inches, or 325 percent of normal); King Salmon (2.60 inches, or 286 percent); and McGrath (1.76 inches, or 202 percent).

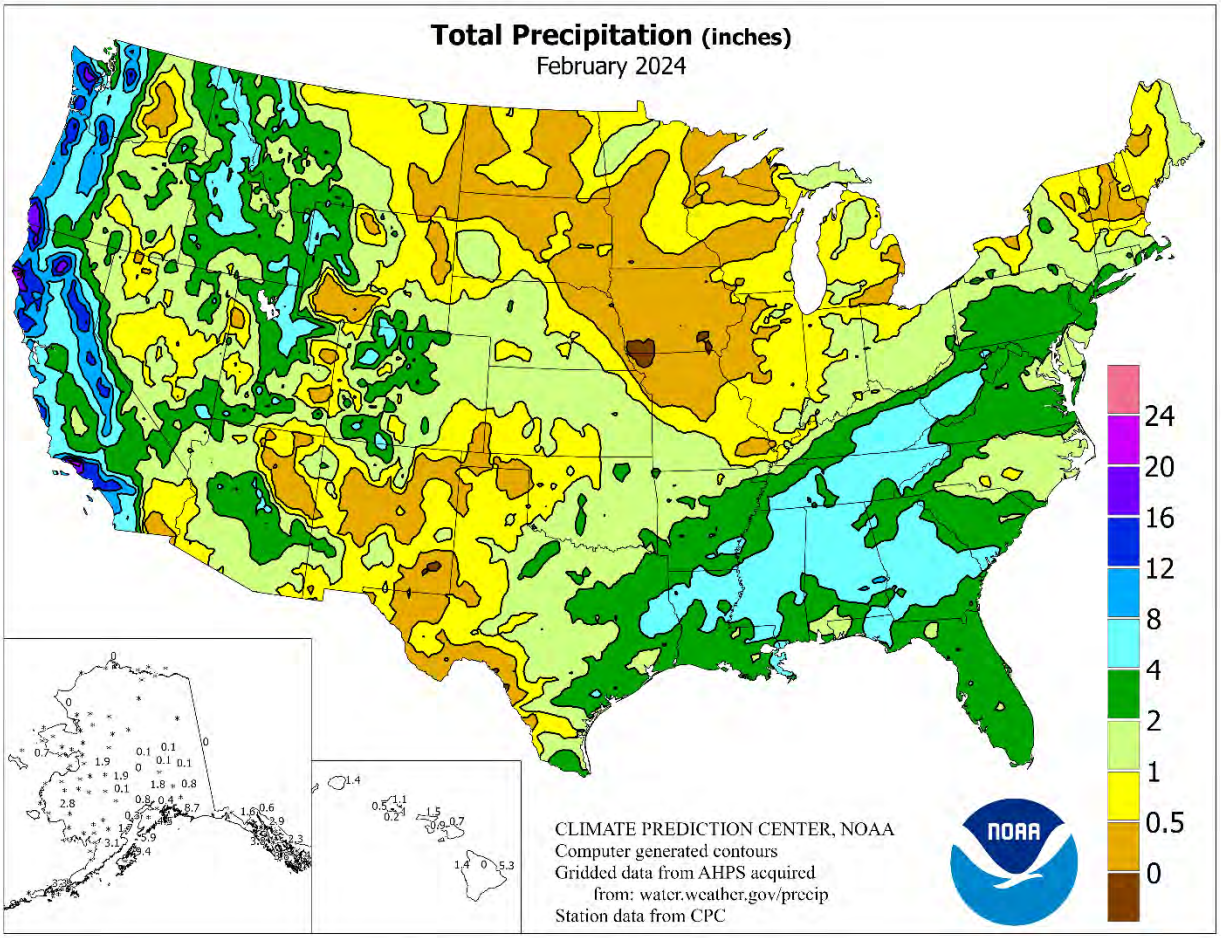
Much of Hawaii experienced a February drying trend, with *U.S. Drought Monitor*-based coverage of abnormal dryness (D0) and moderate drought (D1) increasing from 41.19 to 76.49 percent during the 4-week period ending February 27. Still, several cold fronts traversed the state, contributing to occasionally windy weather. On February 2, in the wake of a cold front, northerly wind gusts were clocked to 44 mph in Honolulu, Oahu, and 38 mph in Hilo, on the Big Island. A few days later, on February 5, as trade winds resumed, Kahului, Maui, reported an easterly gust to 53 mph. Following a mid-month cold front's passage, Honolulu measured a north-northwesterly gust to 38 mph on February 15. At the state's major airport observation sites, February rainfall ranged from 0.30 inch (15 percent of normal) in Kahului to 5.77 inches (56 percent) in Hilo. Lihue, Kauai, which ended the month with rainfall totaling 0.92 inch (25 percent of normal), was on the verge of completing its driest February since 2000, when only 0.33 inch fell. However, Lihue received rainfall totaling 0.54 inch on February 29.

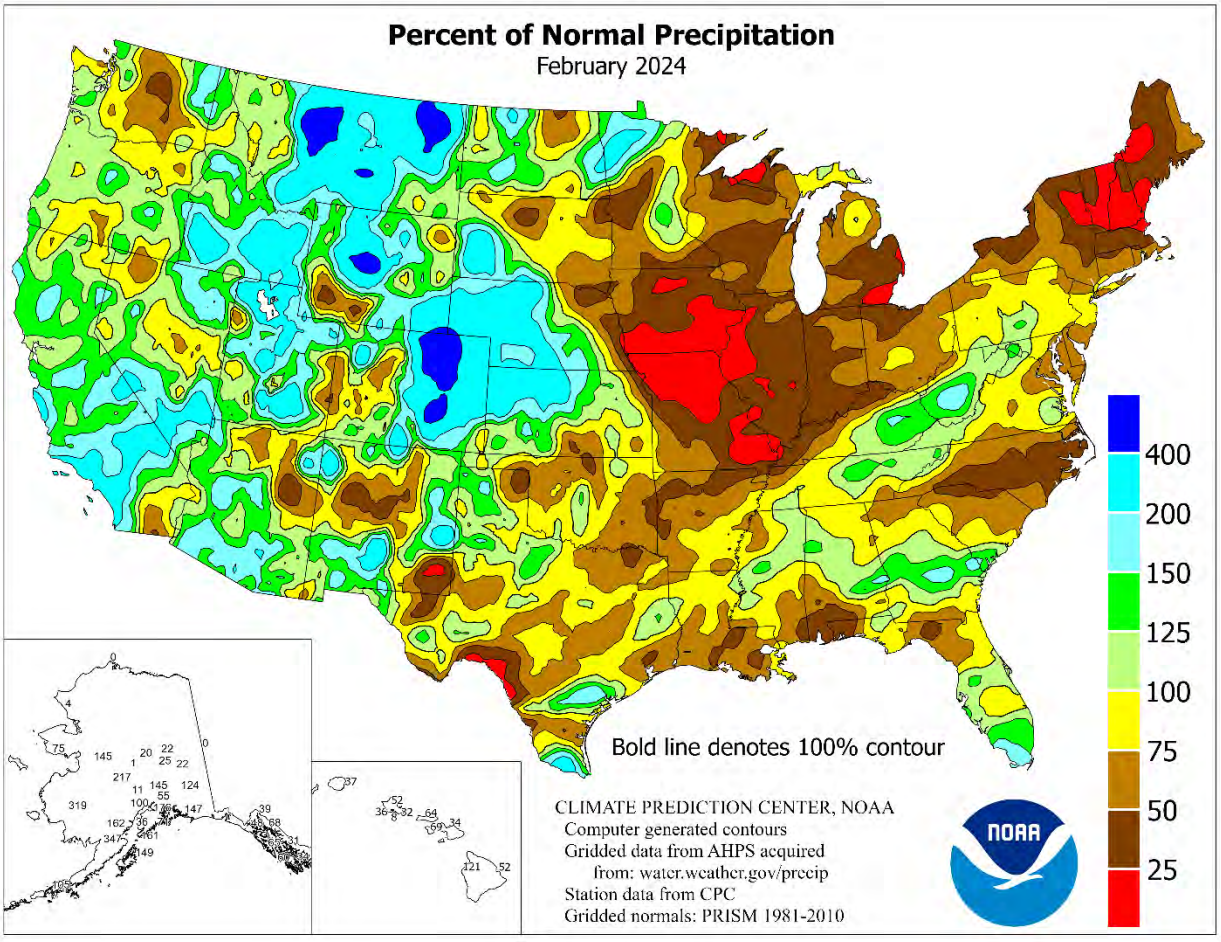
Fieldwork

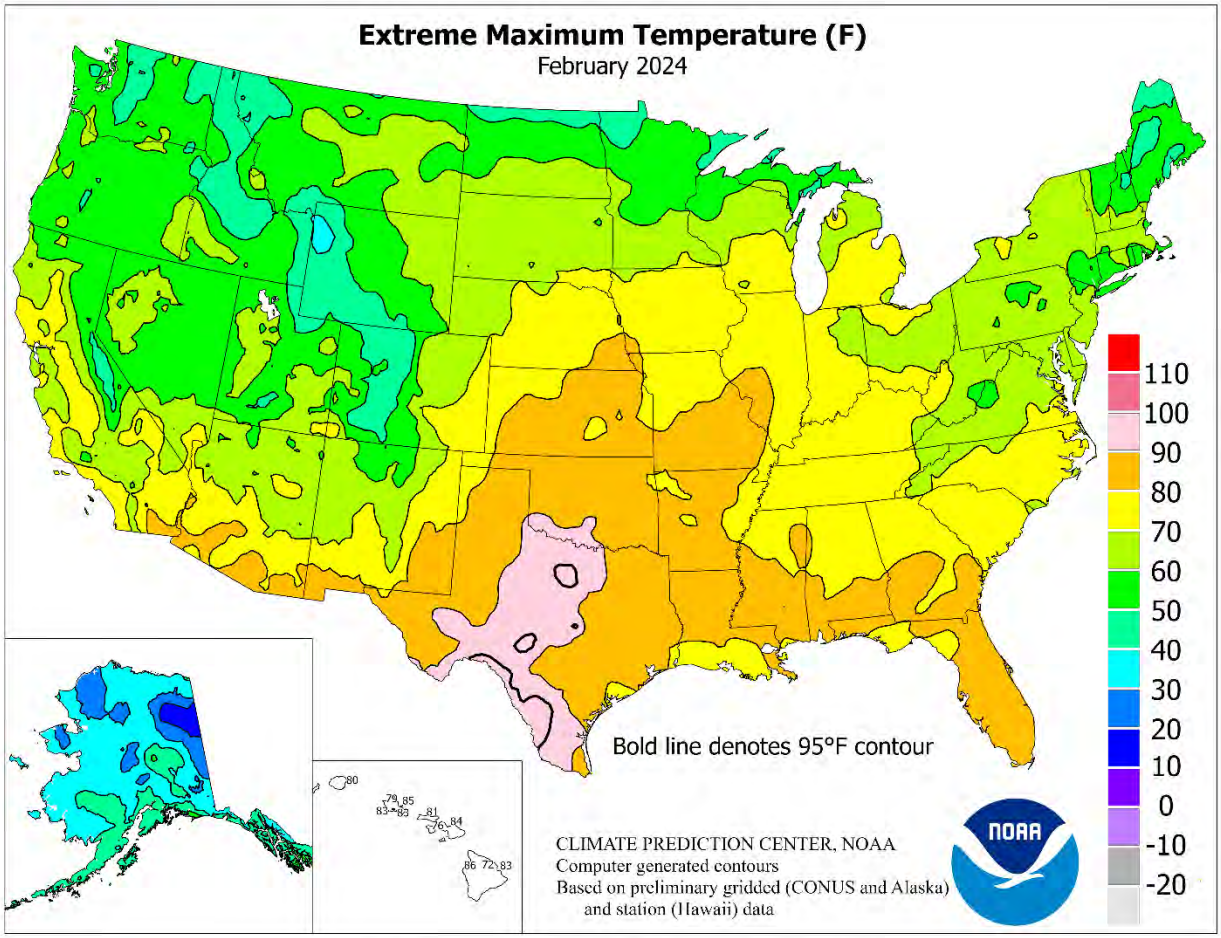
Fieldwork summary provided by USDA/NASS

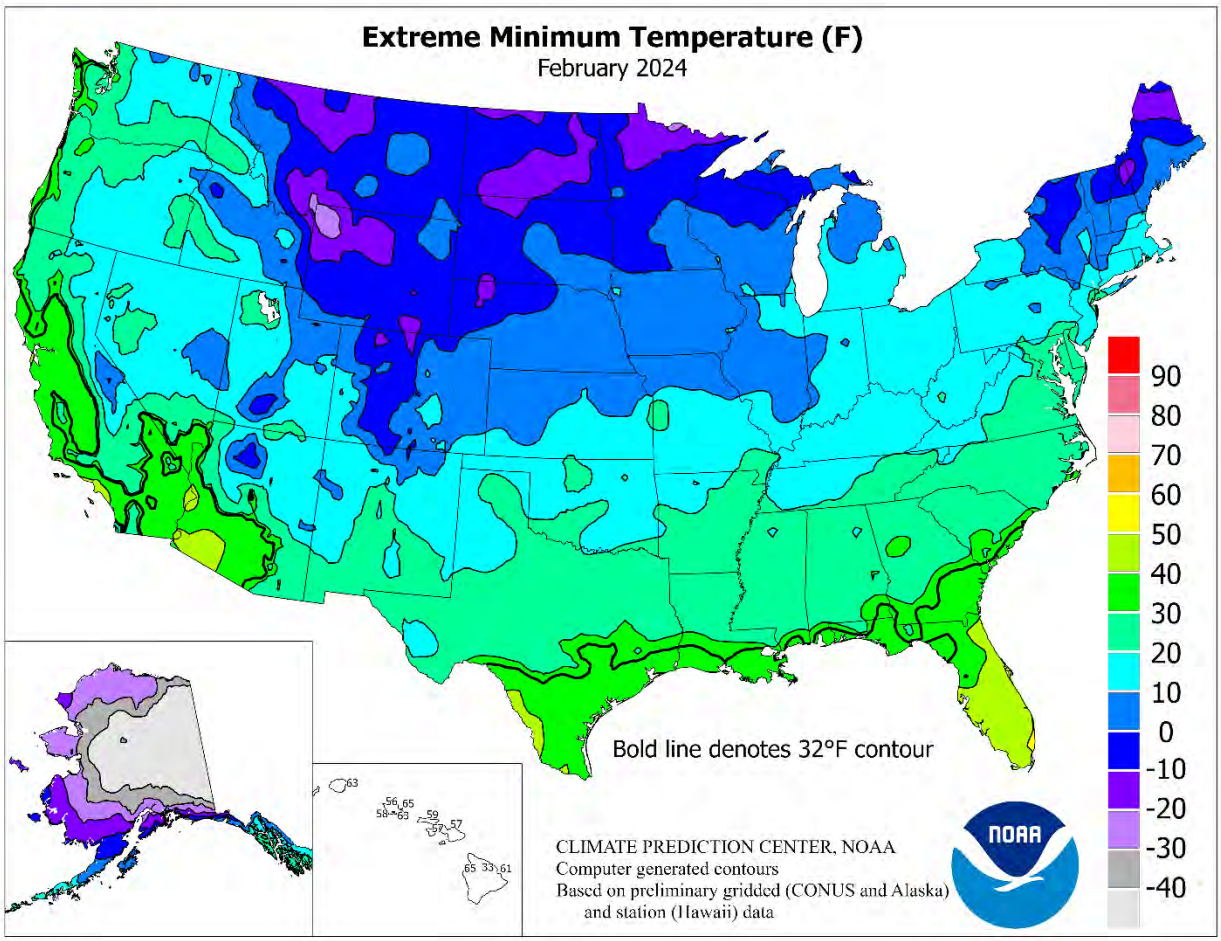
February was warmer than normal for most of the nation. Large parts of the upper Midwest and northern Plains recorded monthly temperatures averaging 12°F or more above normal. In contrast, most of Florida's peninsula, as well as parts of California and the Southwest, were moderately cooler than normal for the month.

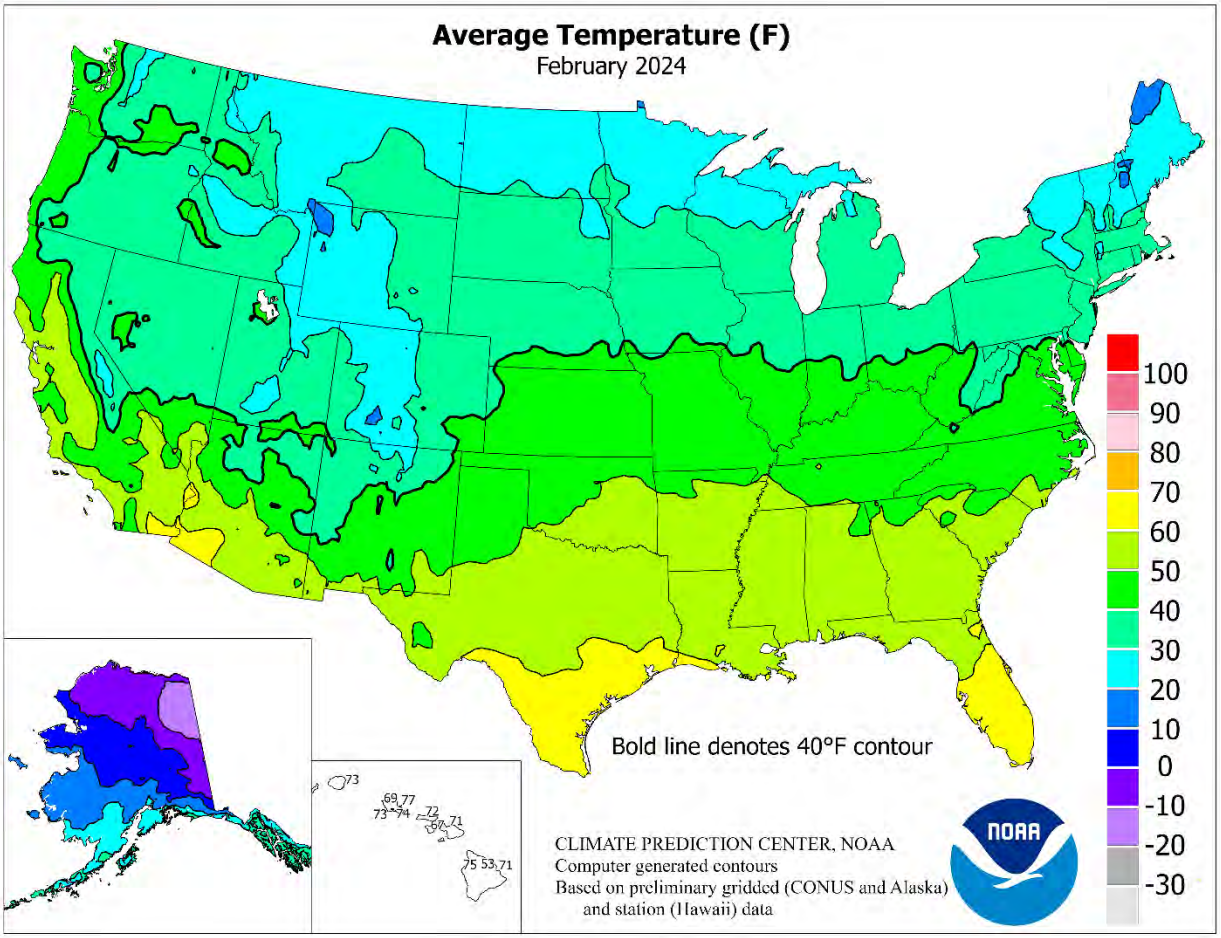
Much of the western half of the nation recorded above-average amounts of precipitation for February. Parts of the central Plains, Rockies, and Southwest, as well as some locations in the Pacific Northwest, recorded at least twice the normal amount of February precipitation. A few places in northwestern California measured at least 18 inches of precipitation for the month. In contrast, the eastern half of the nation—excluding parts of the Appalachians and the South—was drier than normal.

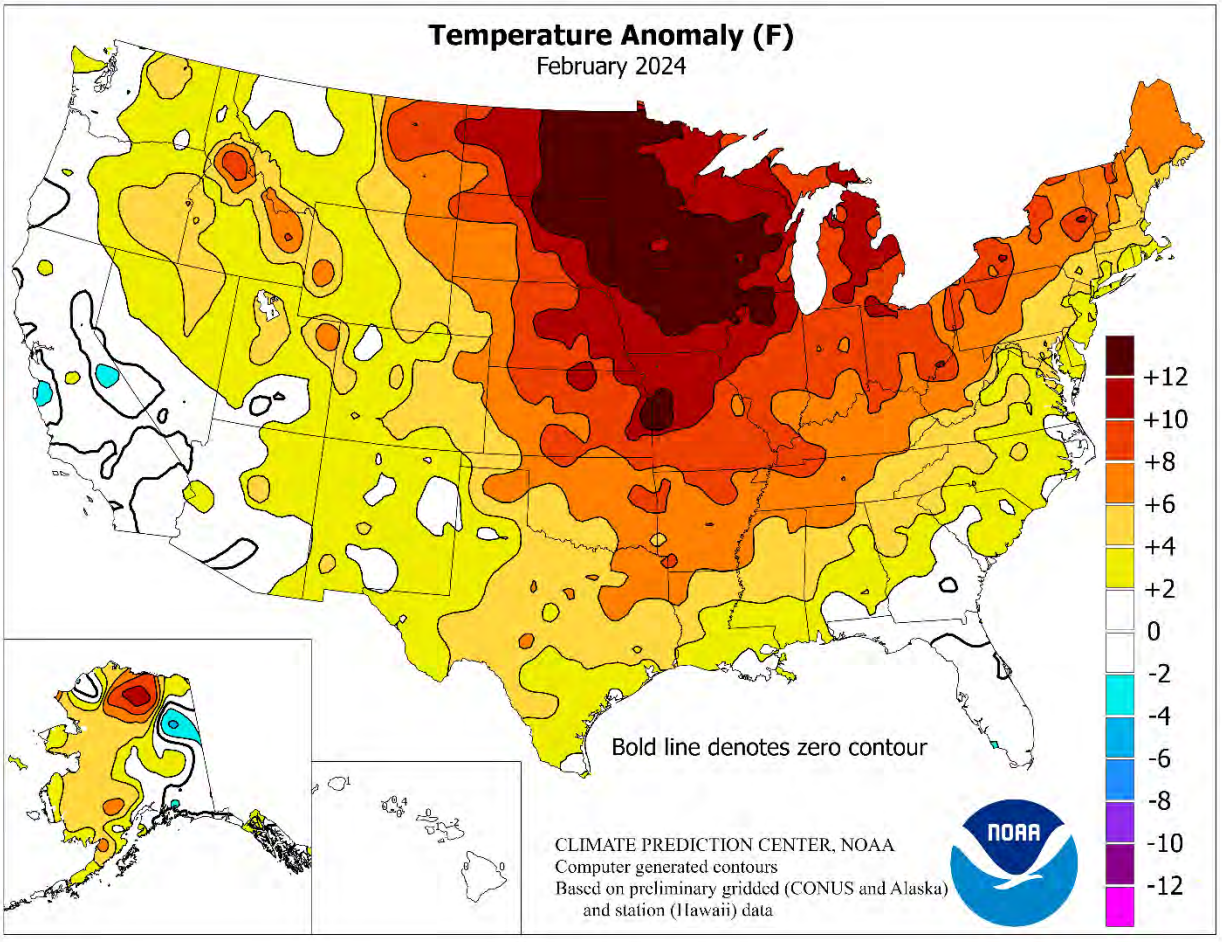

Total Precipitation (inches)
February 2024
24
20
16
12
8
4
2
1
0.5
0
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Gridded data from AHPS acquired
from: water.weather.gov/precip
Station data from CPC
NOAA


Percent of Normal Precipitation
February 2024
400
200
150
125
100
75
50
25
Bold line denotes 100% contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Gridded data from AHPS acquired
from: water.weather.gov/precip
Station data from CPC
Gridded normals: PRISM 1981-2010
NOAA


Extreme Maximum Temperature (F)
February 2024
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
Bold line denotes 95°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA


Extreme Minimum Temperature (F)
February 2024
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
-40
Bold line denotes 32°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA


Average Temperature (F)
February 2024
100
90
80
70
60
50
40
30
20
10
0
-10
-20
-30
Bold line denotes 40°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA


Temperature Anomaly (F)
February 2024
+12
+10
+8
+6
+4
+2
0
-2
-4
-6
-8
-10
-12
Bold line denotes zero contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA

National Weather Data for Selected Cities

February 2024

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
AK ANCHORAGE	22	1	0.87	-0.02	WICHITA	45	8	0.59	-0.66	TOLEDO	38	8	0.57	-1.80
BARROW	-7	0	0.00	-0.22	KY LEXINGTON	45	8	3.33	-0.45	YOUNGSTOWN	37	7	1.56	-1.06
FAIRBANKS	1	0	0.11	-0.42	LOUISVILLE	47	7	1.61	-1.94	OK OKLAHOMA CITY	49	7	1.22	-0.26
JUNEAU	30	0	2.94	-1.50	PADUCAH	49	9	0.49	-3.61	TULSA	51	8	1.13	-0.56
KODIAK	32	0	9.38	2.88	LA BATON ROUGE	61	5	2.39	-2.19	OR ASTORIA	46	1	8.16	0.72
NOME	13	4	0.74	-0.28	LAKE CHARLES	60	3	2.45	-0.92	BURNS	36	5	1.45	0.48
AL BIRMINGHAM	53	4	4.89	-0.25	NEW ORLEANS	61	3	3.11	-1.17	EUGENE	46	3	4.82	-0.02
HUNTSVILLE	51	4	3.97	-1.33	SHREVEPORT	59	7	***	***	MEDFORD	46	2	1.56	-0.46
MOBILE	58	3	1.99	-2.66	MA BOSTON	35	3	0.65	-2.69	PENDLETON	42	4	0.93	-0.30
MONTGOMERY	54	1	6.51	1.44	WORCESTER	32	5	1.36	-2.04	PORTLAND	46	2	4.19	0.38
AR FORT SMITH	53	8	1.40	-1.40	MD BALTIMORE	41	4	1.71	-1.30	SALEM	45	1	4.75	0.06
LITTLE ROCK	55	10	3.07	-1.06	ME CARIBOU	21	6	1.27	-1.24	PA ALLENTOWN	35	2	2.30	-0.58
AZ FLAGSTAFF	33	0	4.00	1.75	PORTLAND	30	4	0.51	-3.16	ERIE	36	7	1.27	-1.36
PHOENIX	61	1	1.30	0.40	MI ALPENA	31	10	1.11	-0.48	MIDDLETOWN	38	5	2.37	-0.32
PRESCOTT	42	0	1.78	0.46	GRAND RAPIDS	35	8	0.67	-1.54	PHILADELPHIA	40	4	1.47	-1.39
TUCSON	57	1	1.38	0.51	HOUGHTON LAKE	31	10	1.33	0.12	PITTSBURGH	39	8	1.42	-1.30
CA BAKERSFIELD	55	1	2.19	0.96	LANSING	35	9	0.92	-0.86	WILKES-BARRE	35	5	1.81	-0.35
EUREKA	49	0	7.15	1.30	MUSKEGON	37	9	0.56	-1.64	WILLIAMSPORT	37	6	2.11	-0.30
FRESNO	54	2	3.32	1.32	TRAVERSE CITY	34	10	0.92	-0.15	RI PROVIDENCE	34	2	2.36	-1.22
LOS ANGELES	56	-2	9.70	6.62	MN DULUTH	27	12	0.32	-0.73	SC CHARLESTON	55	2	3.23	0.08
REDDING	52	1	6.73	1.07	INT_L FALLS	22	12	0.79	0.07	COLUMBIA	51	2	2.65	-0.87
SACRAMENTO	52	1	4.82	1.21	MINNEAPOLIS	33	13	0.64	-0.27	FLORENCE	51	1	1.85	-1.26
SAN DIEGO	58	-1	4.45	2.17	ROCHESTER	33	14	0.28	-0.79	GREENVILLE	49	3	2.67	-1.31
SAN FRANCISCO	54	0	4.48	0.39	ST. CLOUD	30	14	0.98	0.19	SD ABERDEEN	32	14	0.16	-0.48
STOCKTON	53	1	2.81	0.24	MO COLUMBIA	45	9	0.20	-2.01	HURON	32	12	0.55	-0.23
CO ALAMOSA	29	5	0.44	0.15	KANSAS CITY	44	10	0.15	-1.39	RAPID CITY	34	8	0.76	0.24
CO SPRINGS	39	5	1.37	1.04	SAINT LOUIS	47	10	0.40	-1.92	SIOUX FALLS	36	13	0.21	-0.65
DENVER INTL	38	5	1.46	1.04	SPRINGFIELD	47	8	0.96	-1.54	TN BRISTOL	44	4	4.22	0.27
GRAND JUNCTION	41	6	0.43	-0.11	MS JACKSON	56	5	4.91	-0.38	CHATTANOOGA	50	5	2.99	-2.22
PUEBLO	40	5	1.47	1.13	MERIDIAN	55	3	2.81	-2.73	KNOXVILLE	48	5	4.46	-0.53
CT BRIDGEPORT	36	3	1.85	-1.40	TUPELO	53	5	4.37	-1.12	MEMPHIS	52	6	3.68	-1.06
HARTFORD	34	5	1.85	-1.40	MT BILLINGS	34	5	0.85	0.26	NASHVILLE	50	7	3.79	-0.85
DC WASHINGTON	44	4	1.33	-1.38	BUTTE	25	3	1.29	0.84	TX ABILENE	56	6	1.14	-0.20
DE WILMINGTON	39	3	1.80	-1.14	CUT BANK	24	1	0.35	0.12	AMARILLO	46	4	0.64	0.09
FL DAYTONA BEACH	61	-1	2.60	0.17	GLASGOW	29	10	0.61	0.25	AUSTIN	61	4	0.99	-0.98
JACKSONVILLE	57	0	2.42	-0.55	GREAT FALLS	29	2	1.82	1.21	BEAUMONT	61	3	2.28	-0.92
KEY WEST	70	-2	4.23	2.64	HAVRE	25	3	0.90	0.50	BROWNSVILLE	68	2	1.72	0.65
MIAMI	69	-2	3.03	0.81	MISSOULA	33	3	1.04	0.13	CORPUS CHRISTI	65	3	0.93	-0.43
ORLANDO	63	0	2.40	0.28	NC ASHEVILLE	46	4	1.22	-2.35	DEL RIO	64	6	0.40	-0.26
PENSACOLA	58	1	1.37	-3.57	CHARLOTTE	50	4	0.93	-2.32	EL PASO	54	2	0.47	0.05
TALLAHASSEE	56	1	1.83	-2.63	GREENSBORO	46	3	1.70	-1.21	FORT WORTH	57	7	1.91	-0.96
TAMPA	63	-2	3.30	0.60	HATTERAS	48	-1	1.44	-3.04	GALVESTON	62	2	2.85	0.63
WEST PALM BEACH	67	-1	3.04	0.31	RALEIGH	49	4	1.87	-1.02	HOUSTON	62	4	1.91	-1.18
GA ATHENS	50	2	4.98	0.46	WILMINGTON	51	2	1.85	-1.75	LUBBOCK	50	4	0.52	-0.15
ATLANTA	53	4	3.33	-1.39	ND BISMARCK	29	11	0.37	-0.17	MIDLAND	53	3	0.37	-0.23
AUGUSTA	50	-1	3.46	-0.35	DICKINSON	28	8	0.04	-0.30	SAN ANGELO	56	5	0.64	-0.61
COLUMBUS	54	2	8.12	3.50	FARGO	31	17	0.70	-0.02	SAN ANTONIO	60	4	0.86	-0.95
MACON	52	1	5.44	1.13	GRAND FORKS	26	16	0.24	-0.30	VICTORIA	62	3	2.84	0.80
SAVANNAH	55	1	2.37	-0.54	JAMESTOWN	28	14	0.06	-0.33	WACO	57	5	1.41	-1.39
HI HILO	71	0	5.68	-4.96	NE GRAND ISLAND	40	10	0.83	0.06	WICHITA FALLS	53	6	1.57	0.11
HONOLULU	74	0	0.30	-1.72	LINCOLN	40	11	0.45	-0.47	UT SALT LAKE CITY	41	4	3.33	1.98
KAHULUI	71	-2	0.70	-1.37	NORFOLK	38	12	0.21	-0.62	VA LYNCHBURG	43	4	2.76	-0.25
LIHUE	73	1	1.87	-1.91	NORTH PLATTE	38	8	1.17	0.57	NORFOLK	46	1	2.90	-0.11
IA BURLINGTON	40	11	0.04	-1.73	OMAHA	39	10	0.11	-0.89	RICHMOND	45	4	3.15	0.43
CEDAR RAPIDS	37	13	0.10	-1.17	SCOTTSBLUFF	36	5	1.41	0.83	ROANOKE	46	5	2.03	-0.96
DES MOINES	40	13	0.42	-0.97	VALENTINE	35	7	0.96	0.32	WASH/DULLES	42	5	1.24	-1.46
DUBUQUE	36	13	0.41	-1.23	NH CONCORD	30	5	0.51	-2.35	VT BURLINGTON	29	6	0.69	-1.15
SIOUX CITY	37	12	0.33	-0.56	NJ ATLANTIC_CITY	38	2	1.70	-1.65	WA OLYMPIA	43	2	5.96	0.69
WATERLOO	37	12	0.11	-1.09	NEWARK	39	4	1.55	-1.55	QUILLAYUTE	46	4	9.11	-0.96
ID BOISE	42	4	2.13	1.10	NM ALBUQUERQUE	44	2	0.41	-0.03	SEATTLE-TACOMA	44	0	3.58	-0.31
LEWISTON	42	3	1.06	-0.01	NV ELY	32	2	0.80	-0.07	SPOKANE	36	3	1.94	0.44
POCATELLO	34	5	2.22	1.22	LAS VEGAS	53	-1	0.90	0.07	YAKIMA	40	3	0.50	-0.34
IL CHICAGO/O_HARE	39	10	0.63	-1.42	RENO	41	1	1.30	0.23	WI EAU CLAIRE	32	13	0.49	-0.65
MOLINE	39	11	0.25	-1.67	WINNEMUCCA	39	2	1.24	0.51	GREEN BAY	33	12	0.36	-0.90
PEORIA	40	10	0.56	-1.51	NY ALBANY	34	7	0.46	-1.91	LA CROSSE	35	12	0.24	-1.00
ROCKFORD	37	11	0.29	-1.41	BINGHAMTON	32	7	1.65	-0.86	MADISON	33	10	0.63	-0.95
SPRINGFIELD	41	8	0.51	-1.50	BUFFALO	35	8	0.85	-1.74	MILWAUKEE	37	9	0.77	-0.98
IN EVANSVILLE	45	8	0.89	-2.47	ROCHESTER	34	7	0.56	-1.65	WV BECKLEY	41	6	3.67	0.43
FORT WAYNE	37	8	0.96	-1.19	SYRACUSE	34	8	1.37	-1.19	CHARLESTON	44	5	4.06	0.57
INDIANAPOLIS	41	8	1.61	-0.92	OH AKRON-CANTON	36	6	1.01	-1.54	ELKINS	39	5	3.79	0.41
SOUTH BEND	38	10	0.76	-1.64	CINCINNATI	42	7	1.07	-2.23	HUNTINGTON	45	7	4.29	0.78
KS CONCORDIA	44	11	1.07	0.18	CLEVELAND	38	6	0.86	-1.73	WY CASPER	32	5	0.66	0.07
DODGE CITY	44	8	0.89	0.25	COLUMBUS	40	8	1.14	-1.37	CHEYENNE	34	4	0.88	0.33
GOODLAND	40	7	1.38	0.89	DAYTON	41	8	1.66	-0.80	LANDER	28	3	1.45	0.72
TOPEKA	45	10	0.85	-0.52	MANSFIELD	36	7	1.56	-1.07	SHERIDAN	33	6	0.87	0.19

Based on 1991-2020 normals

***** Not Available**

International Weather and Crop Summary

March 3-9, 2024

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

HIGHLIGHTS

EUROPE: Unseasonable warmth lingered over central and eastern Europe, while favorably drier weather in the northwest contrasted with widespread moderate to heavy rain across the Mediterranean Basin.

WESTERN FSU: Unseasonable warmth continued to promote very early winter crop development over the western half of the region.

MIDDLE EAST: Widespread rain in Turkey boosted moisture supplies for vegetative winter grains.

NORTHWESTERN AFRICA: Much-needed rain in Morocco and western Algeria eased drought but was largely too late for reproductive to filling winter grains.

EAST ASIA: More seasonable temperatures in eastern China allowed wheat and rapeseed to develop, while also spurring early-crop rice sowing in the southeast.

SOUTHEAST ASIA: Heavy showers in Indonesia and most of Malaysia contrasted with continued unseasonable dryness in the Philippines.

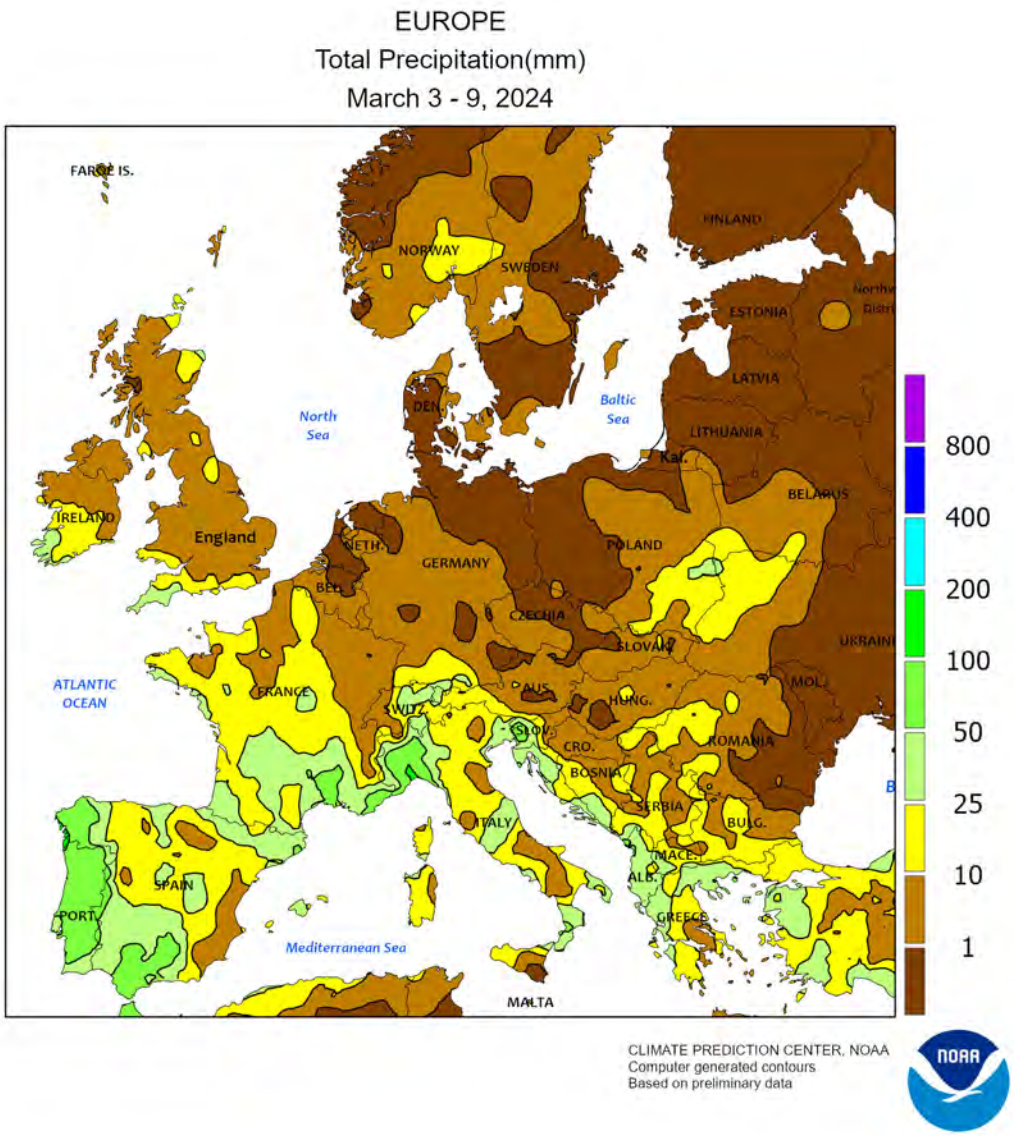
AUSTRALIA: In the northeast, scattered showers maintained local moisture supplies for immature summer crops but had minimal impact on early harvesting.

SOUTH AFRICA: Unseasonable warmth and dryness further reduced moisture for rain-fed summer crops in eastern commercial farming areas.

ARGENTINA: Locally heavy rain benefited summer crops in nearly all major production areas.

BRAZIL: Warm showery weather benefited immature summer crops, though pockets of dryness lingered.

For additional information contact: mark.brusberg@usda.gov



EUROPE

Warm weather lingered over much of central, eastern, and northern Europe, while favorably drier conditions in northwestern croplands contrasted with widespread moderate to heavy rain across the Mediterranean Basin. Temperatures during the monitoring period averaged 2 to 6°C above normal from Germany eastward into Poland and the Balkans as well as northward into Scandinavia. The anomalies were not as pronounced as previous weeks, but winter crops continued to develop two to four weeks ahead of average (locally more). The Balkans' winter wheat and rapeseed were progressing through the tiller and rosette stages of development, respectively, as of the second week of March; consequently, many southern winter crops were rapidly approaching freeze-sensitive stages of development. Moisture supplies remained overall favorable across northeastern Europe, while increasingly dry conditions have developed over the Danube River Valley. Since January 1, precipitation has tallied 52 percent of normal on southern Romania's Wallachian Plain and less than 25 percent of normal across the Danube River Delta. However, light to moderate showers (2-15 mm) moistened soils in western Romania and environs at week's end, with showers beginning to overspread the driest portions of southeastern Europe as of March 10. Farther west, rain was moderate to heavy (10-100 mm, locally more) across the Mediterranean Basin, hampering citrus harvesting and causing localized flooding but boosting moisture reserves for vegetative winter grains. Somewhat drier weather (2-15 mm) settled over northern France and southeastern England, though saturated soils continued to hamper fieldwork. Sunny skies favored a resumption of fieldwork in Germany, which has also been beset by periods of heavy to excessive rainfall since mid-October. Temperatures over western Europe averaged near normal, although winter grains and oilseeds continued to develop two to three weeks ahead of average courtesy of a record-warm February.

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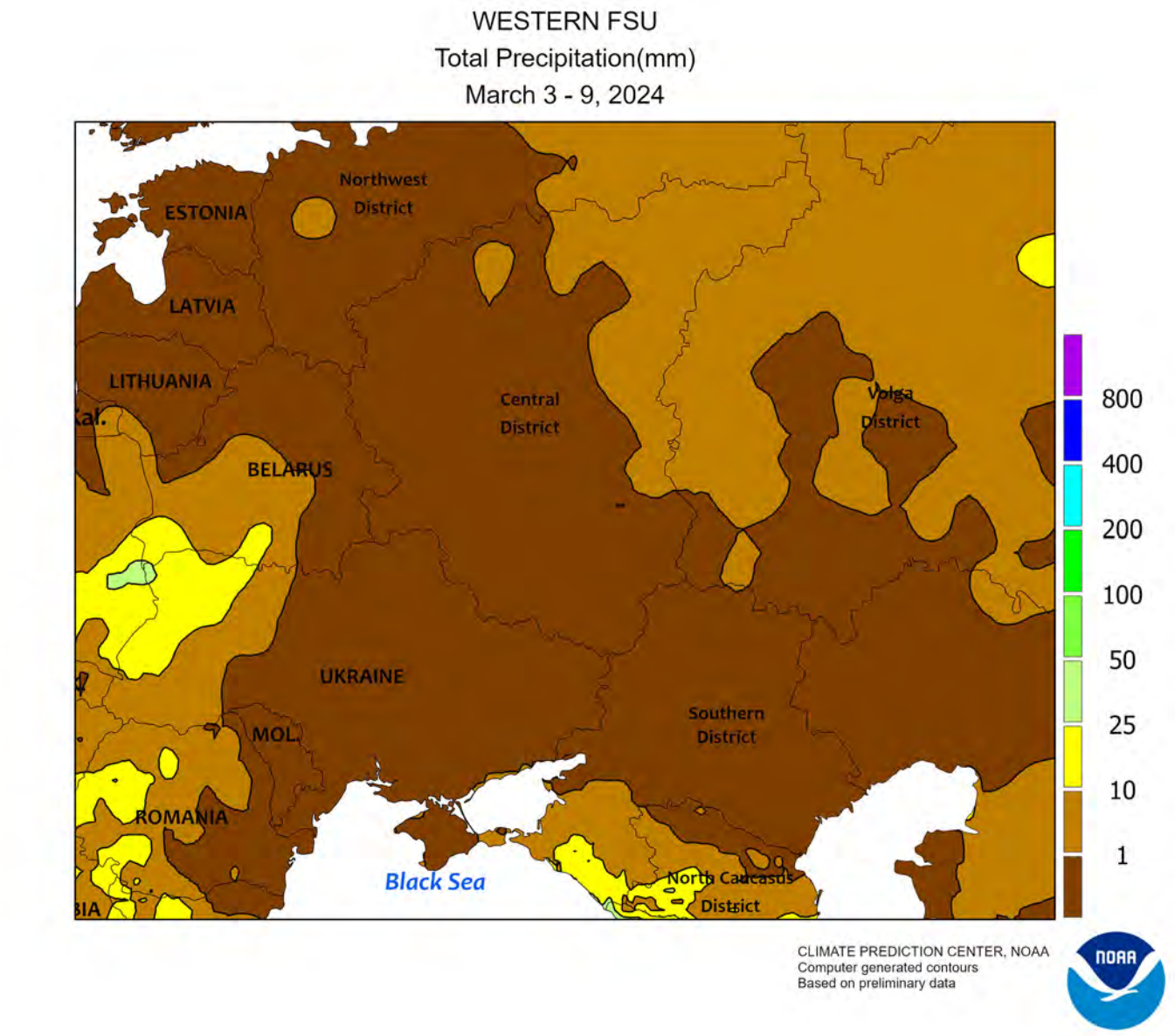

WESTERN FSU

Continued sunny and anomalously warm weather in the west and south contrasted with cold conditions farther east. The record-setting February warmth spilled into early March, with temperatures averaging 2 to 5°C above normal in Moldova, Ukraine, Belarus, and southwestern Russia. As a result, winter crop green up (north) and vegetative development (south) continued at a faster-than-normal pace. Conversely, temperatures up to 5°C below normal over west-central Russia coincided with a lingering deep snowpack. Precipitation during the period was limited to western-most portions of the region (2-22 mm), with primary winter crop areas adjacent to the Black Sea remaining dry. Soil moisture was overall favorable for spring growth, though acute short-term dryness (30-day rainfall less than 25 percent of normal) has developed across southern portions of Moldova, Ukraine, and Russia's Southern District.

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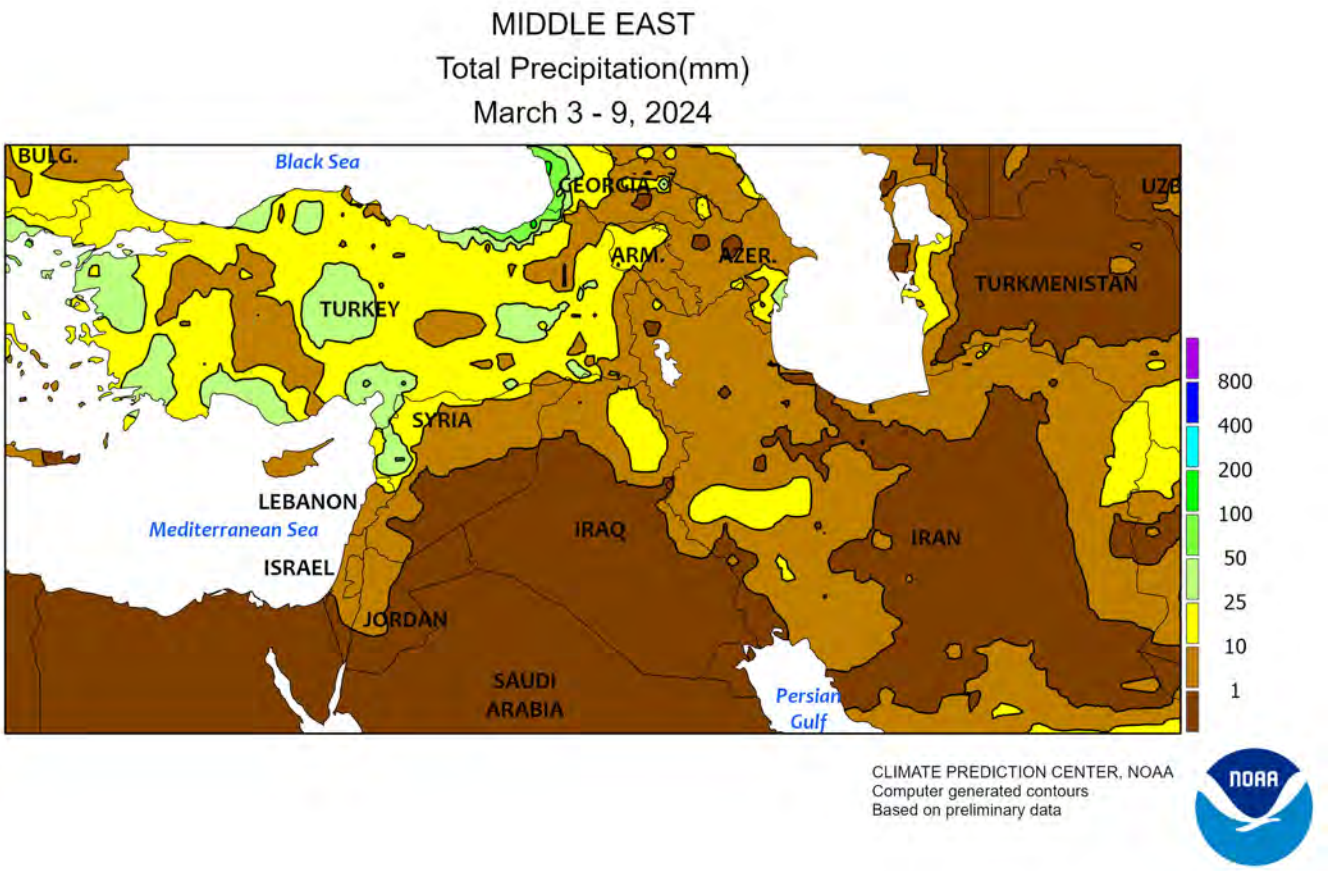

MIDDLE EAST

Widespread soaking rain in Turkey transitioned to lighter rain and snow showers in Iran. A slow-moving Mediterranean storm system produced 10 to 60 mm of rainfall across most of Turkey, boosting moisture supplies for vegetative winter grains. Lighter albeit still widespread rain and mountain snow showers (2-15 mm liquid equivalent, locally more) lingered across northern Iraq as well as the western and eastern thirds of Iran. Winter grain prospects across Iraq and Iran remained favorable as crops progressed through the vegetative (north) to reproductive (south) stages of development. Favorably drier weather settled over the southeastern Mediterranean Coast, promoting fieldwork and winter grain development. Anomalous warmth was not as pronounced in Turkey (1-3°C above normal) as previous weeks, while the recent cold snap in eastern Iran abated somewhat (1-3°C below normal). However, winter grains continued to develop well ahead of normal and in mostly good to excellent condition.

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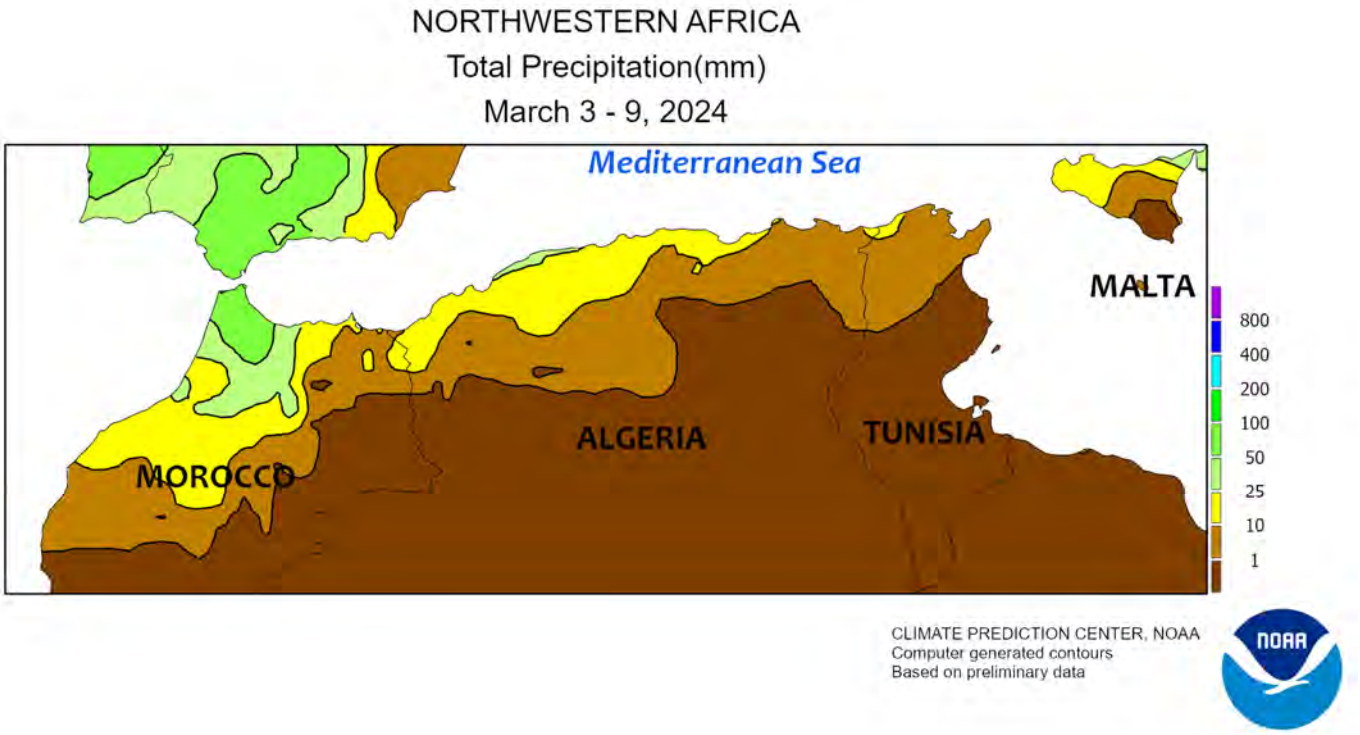

NORTHWESTERN AFRICA

Widespread showers eased drought in the west and maintained good to excellent prospects for winter grains in the east. In Morocco, rainfall during the week totaled less than 5 mm in the southwest, 2 to 22 mm over primary croplands in west-central portions of the country, and 10 to 110 mm in locales adjacent to the Strait of Gibraltar. The moisture helped to stabilize crop conditions in central growing areas and boost yields in the north, though overall prospects for reproductive to filling winter wheat and barley remained poor to very poor due to this season's severe drought. Likewise, light to moderate showers (5-25 mm) in western Algeria provided much-needed drought relief for reproductive winter grains. Farther east, light to moderate showers (2-25 mm) maintained favorable yield projections for winter grains; crops have been buoyed by timely rain since the middle of February after a very dry start to the 2023-24 growing campaign. Winter wheat was mostly heading to flowering over the eastern half of the region but still vegetative on the higher terrain of the Hautes Plateau of eastern Algeria. Winter barley was flowering to filling, but likewise still vegetative on the Hautes Plateau.

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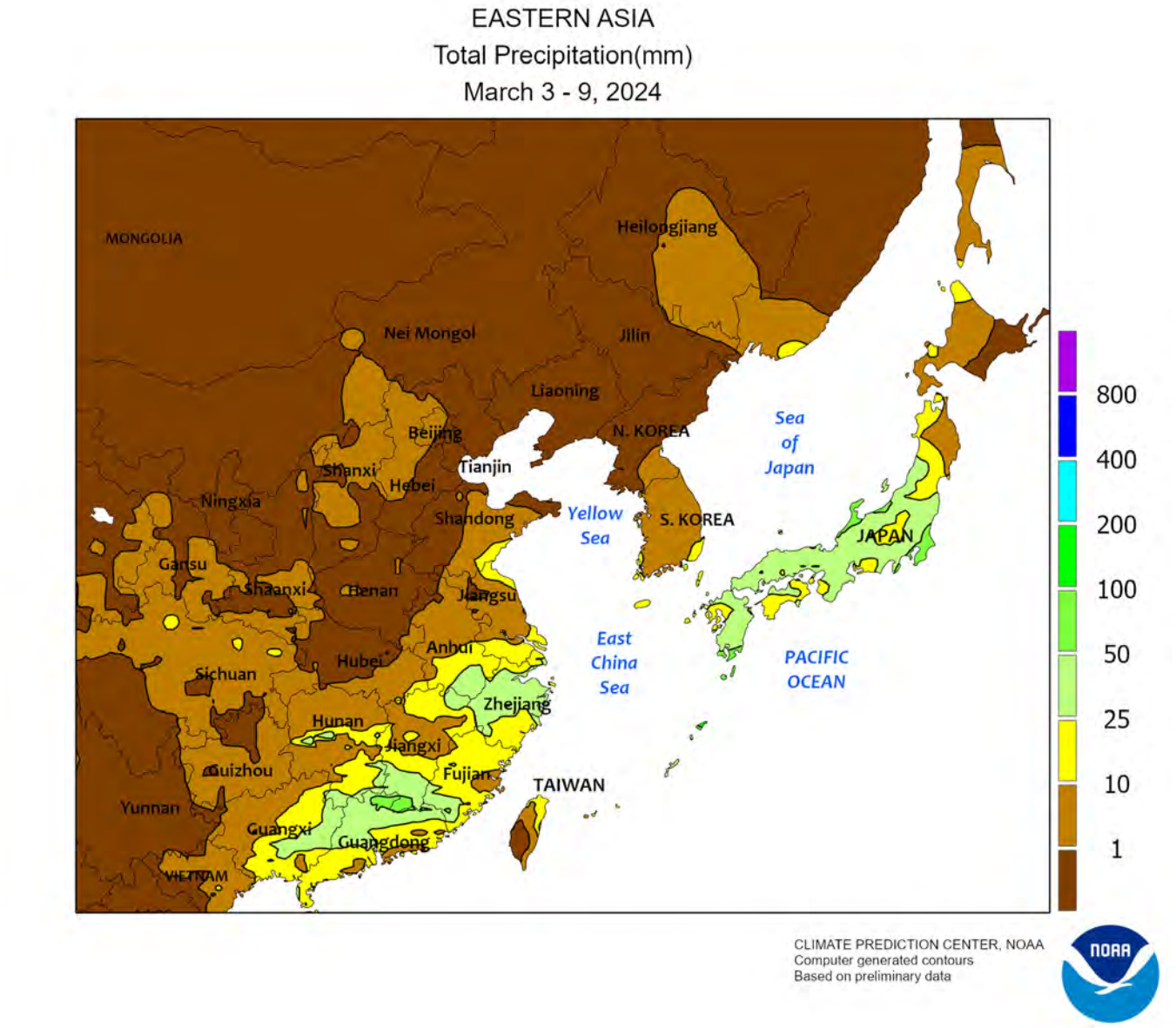

EASTERN ASIA

Temperatures further moderated across eastern China following a two-week spell of well-below-average temperatures. With the onset of warmer weather, wheat green up on the North China Plain continued as did vegetative development of rapeseed in the Yangtze Valley. Additionally, weekly average temperatures above 10°C in the far south and southeast encouraged early-crop rice sowing. Meanwhile, precipitation was light in most eastern cropping areas (less than 10 mm) but heavier (approaching 50 mm locally) in the southeast.

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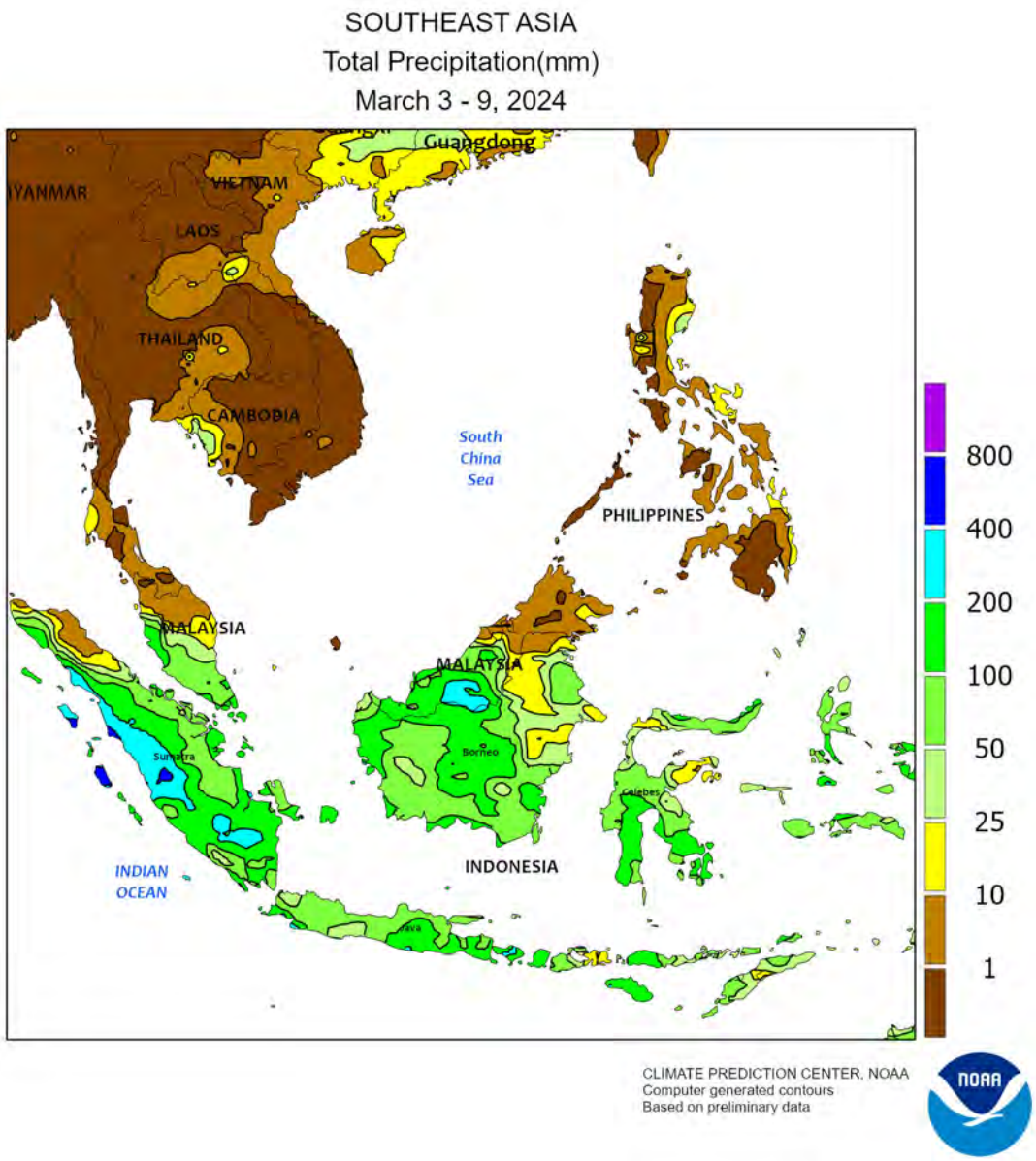

SOUTHEAST ASIA

Heavy showers (25-100 mm, locally topping 200 mm) across Indonesia and most of Malaysia further boosted moisture supplies for rice and oil palm. The rainfall also ensured adequate irrigation for the next cropping season of rice in Indonesia. Despite the extent of the rainfall, eastern sections of Malaysia (Sabah) recorded less than 10 mm as did most of the Philippines. The continual lack of consistent rain in these areas has reduced oil palm prospects in eastern Malaysia and rice and corn prospects in the Philippines. Elsewhere, temperatures touched 40°C throughout most of Thailand extending into surrounding locales. The heat is unusual this early in the season and more typical of late April. In fact, the early heat has March shaping up to be the hottest on record.

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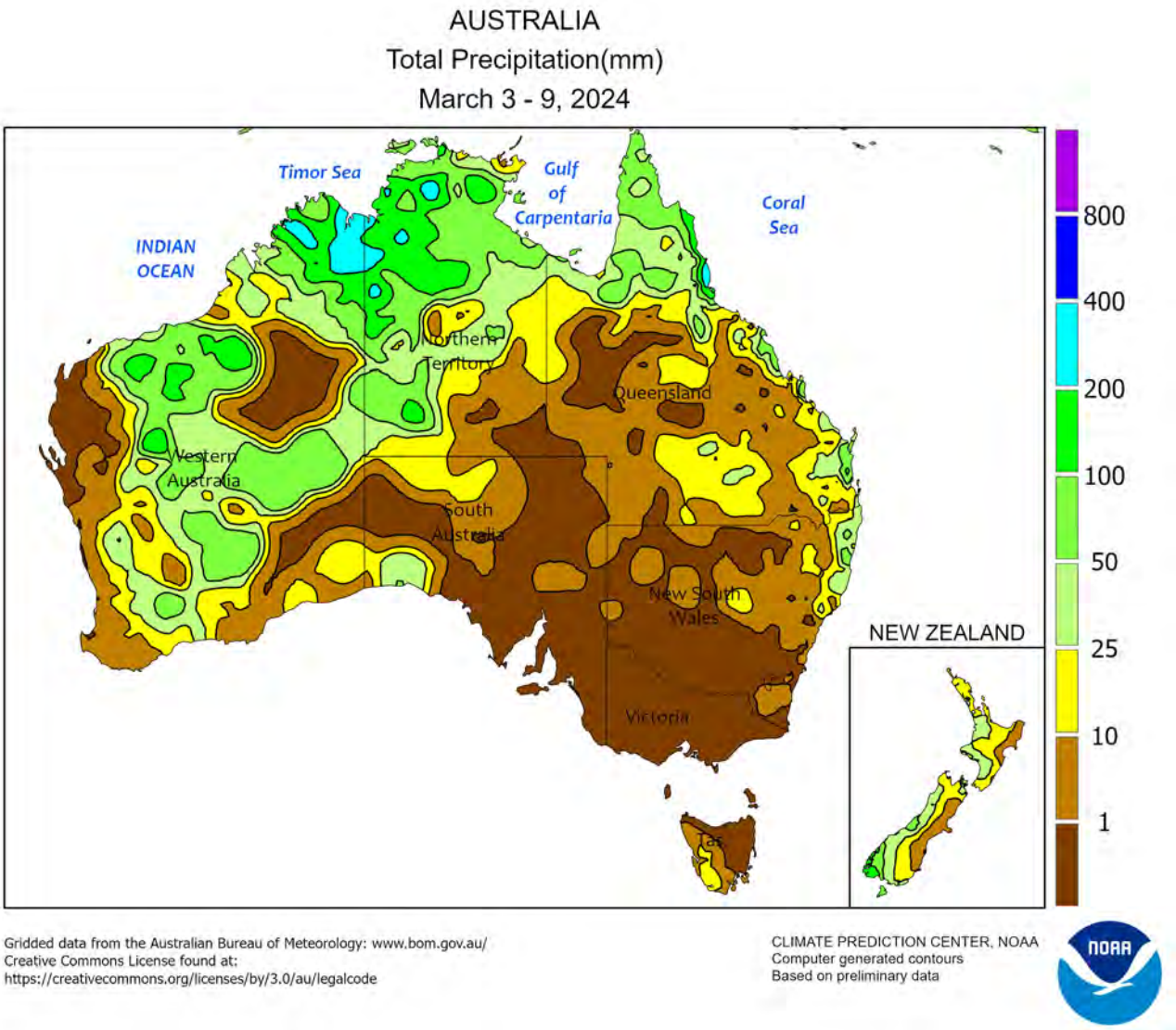
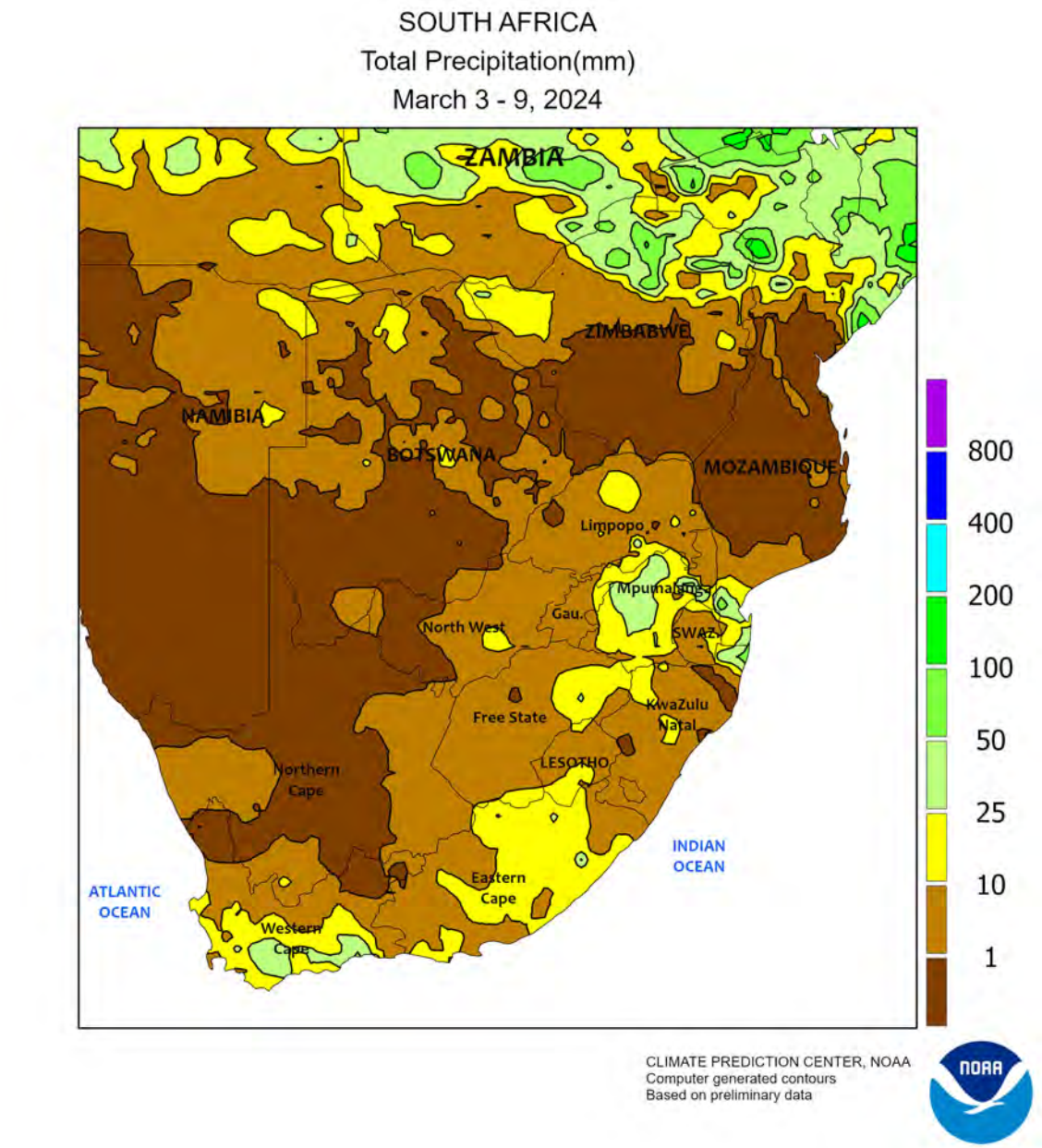


AUSTRALIA

In southern Queensland and northern New South Wales, scattered showers (5-25 mm) maintained local moisture supplies for immature cotton and sorghum, while areas of drier weather increased irrigation requirements for later maturing crops. The rain had minimal impact on fieldwork, including summer crop harvesting, which is reportedly gaining momentum throughout the region. Elsewhere in the wheat belt, hot, dry weather in the southeast significantly increased evaporative losses. Cooler, wetter weather would be welcome to help condition the soil in advance of winter crop planting, which typically ramps up in April and May each year. Somewhat better weather prevailed in the Western Australia wheat belt, where passing showers (5-15 mm) and seasonable temperatures were observed. Temperatures averaged within 1°C of normal in the west and northeast but 2 to 4°C above normal in the south. Maximum temperatures climbed into the upper 30s and lower 40s (degrees C) in South Australia, western Victoria, and portions of southern New South Wales.

For additional information contact: mark.brusberg@usda.gov



SOUTH AFRICA

Unseasonable warmth and dryness prevailed throughout much of the east, lowering crop prospects in areas experiencing intensifying drought. Weekly average temperatures ranged from 2 to 5°C above normal from Limpopo southward, with highest daytime temperatures reaching 40°C or higher in traditionally warmer growing areas, including sugarcane areas of KwaZulu-Natal and eastern Mpumalanga. Temperatures were somewhat less stressful in the corn belt (North West and Free State eastward) and in KwaZulu-Natal's rain-fed southern sugarcane areas, reaching the middle and upper 30s (degrees C). Rainfall was scattered and generally light, with the highest amounts (10-35 mm) concentrated over eastern Free State and Mpumalanga; near complete dryness persisted in western sections of the corn belt (North West and Free State), where flash drought during reproduction reduced crop prospects following a good start to the season. Meanwhile, warm, sunny weather fostered rapid development of irrigated crops in the Cape Provinces, including tree and vine crops, as well as corn and cotton in the Orange River Valley.

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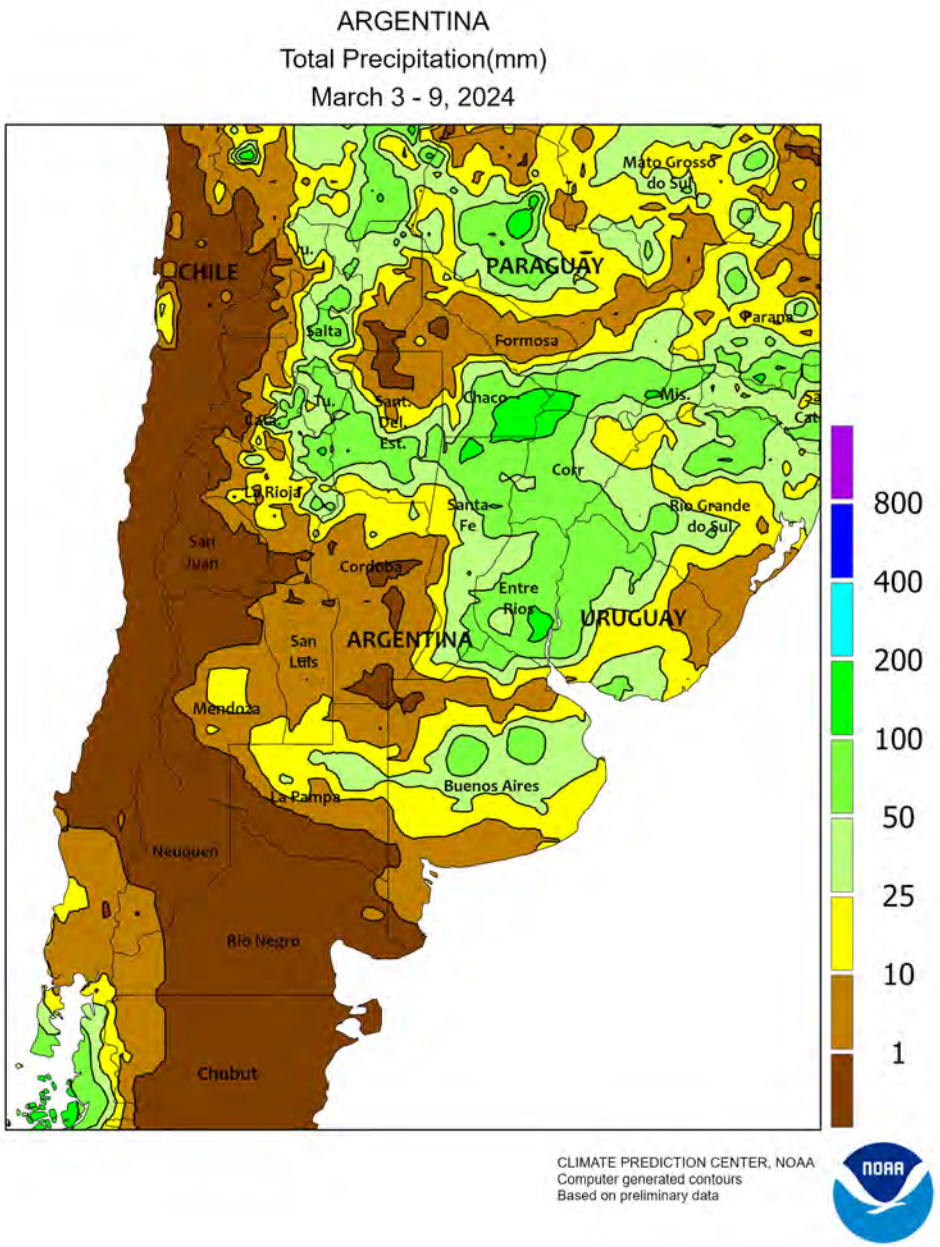

ARGENTINA

Locally heavy showers continued across the region, maintaining adequate to abundant levels of moisture for late summer crop development. Rainfall totaled 25 to 100 mm across much of the north and northeast – reaching southward into southern sections of Santa Fe and Entre Rios – and in central farming areas of La Pampa and Buenos Aires; the moisture was timely in the latter region, following last week's dryness. In contrast, dry weather prevailed in Córdoba, one of the wetter locations in central Argentina last week. Warm weather accompanied the rainy pattern, averaging 1 to 3°C above normal in most agricultural delegations. Highest daytime temperatures ranged from the lower 30s (degrees C) in the higher-yielding southern farming areas (La Pampa, Buenos Aires, and all but northern-most locations in Córdoba, Santa Fe, and Entre Rios) to the lower 40s in the far north (Santiago del Estero to Paraguay). According to the government of Argentina, sunflowers were 28 percent harvested (27 percent last year) as of March 7; fieldwork was nearing completion over earlier-maturing northern production areas, and was 8 and 30 percent completed, respectively, in Buenos Aires and La Pampa.

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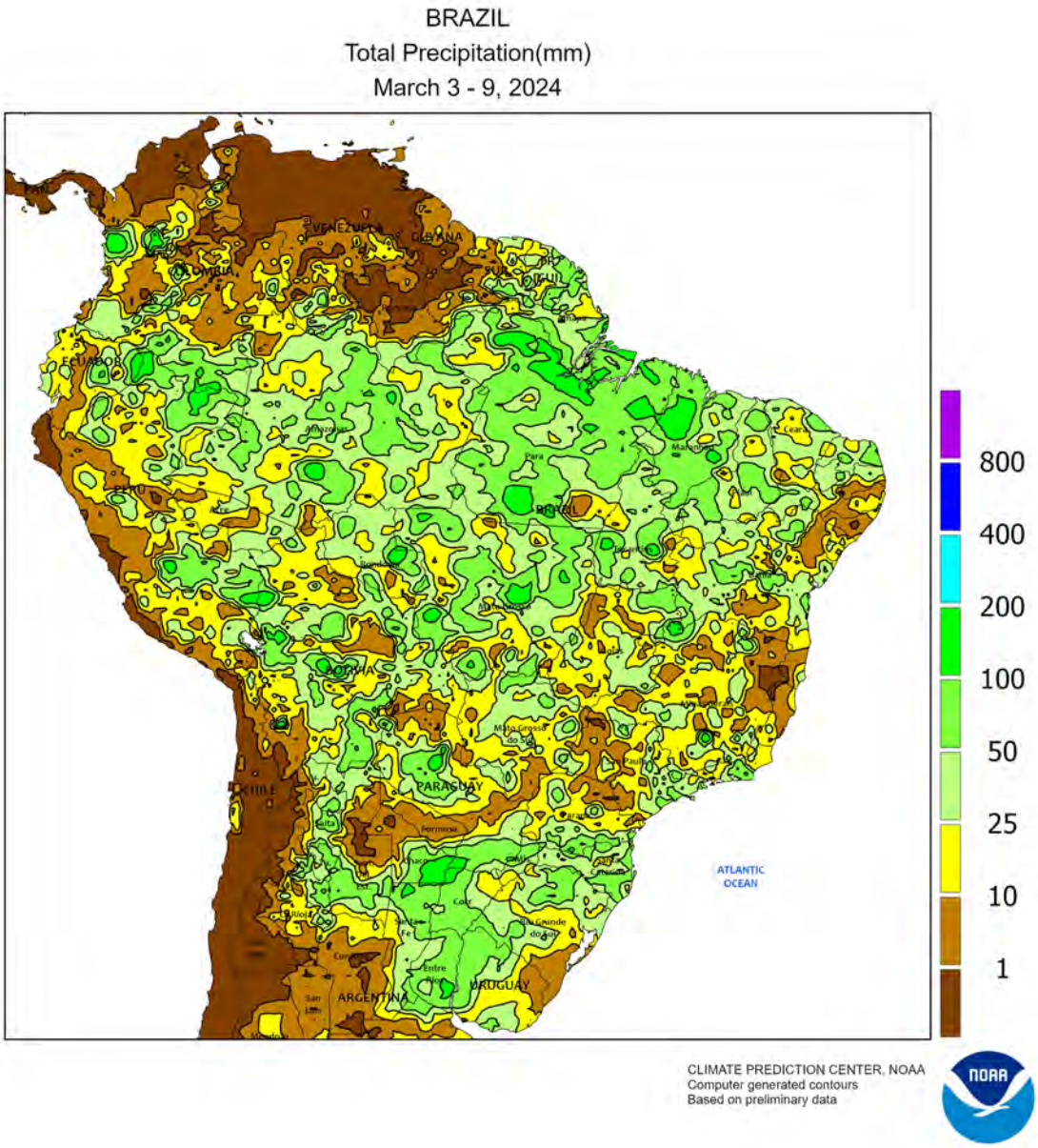

BRAZIL

Widespread showers benefited immature summer crops throughout most of Brazil, although pockets of dryness lingered in a few key production areas. Rainfall returned to most central locations impacted by last week's heat wave, but amounts were highly variable (5-50 mm); pockets of near complete dryness lingered over São Paulo, where daytime highs reached the middle and upper 30s (degrees C). Farther north, showers intensified over Mato Grosso, northern Mato Grosso do Sul, and from Minas Gerais northward through Maranhão. Temperatures averaged 1 to 2°C above normal in the aforementioned regions regardless of the amounts of rain, topping 35°C in Tocantins and in southern sections of Mato Grosso. According to the government of Mato Grosso, soybeans were 90 percent harvested as of March 8, lagging last year's pace by 5 points; corn planting was 98 percent completed, compared with 96 percent last year. Meanwhile, light to moderate rain (10-50 mm), accompanied by summer warmth (highs reaching 35°C in the warmest spots), fostered rapid growth of immature corn and soybeans from Paraná southward through Rio Grande do Sul. According to government reports, first-crop corn and soybeans in Paraná were 73 and 64 percent harvested, respectively, as of March 4; second-crop corn was 82 percent planted. In Rio Grande do Sul, corn was 70 percent harvested as of March 7; meanwhile, over 95 percent of soybeans had flowered, with 8 percent reaching maturity.

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U.S. Crop Production Highlights

The following information was released by USDA's Agricultural Statistics Board on March 8, 2024. Forecasts refer to March 1.

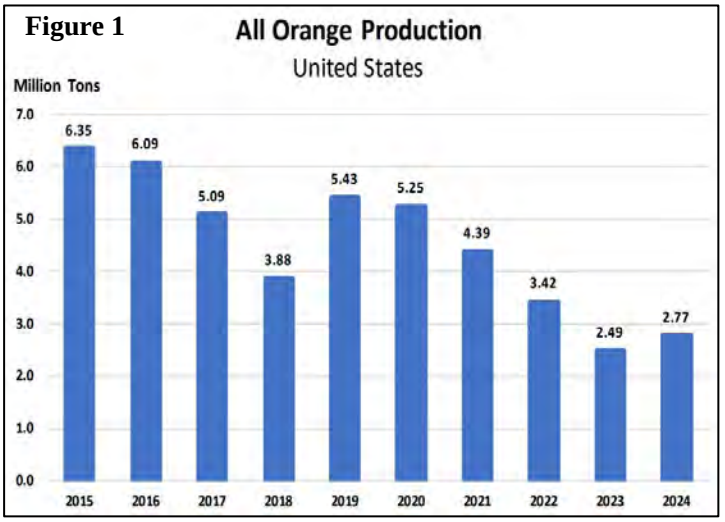
The **U.S all orange** forecast for the 2023-2024 season is 2.77 million tons (figure 1), up less than 1 percent from the previous forecast and up 11 percent from the 2022-2023 final utilization.

The Florida all orange forecast, at 19.8 million boxes (891,000 tons), is unchanged from the previous forecast but up 25 percent from last season's final utilization. In Florida, early, midseason, and Navel varieties are forecast at 6.80 million boxes (306,000 tons), unchanged from the previous forecast but up 11 percent from last season's final utilization. The Florida Valencia orange forecast, at 13.0 million boxes (585,000 tons), is unchanged from the previous forecast but up 35 percent from last season's final utilization.

The California Valencia orange forecast is 8.00 million boxes (320,000 tons), up 3 percent from previous forecast and up 19 percent from the previous season. This results in a California all orange forecast of 46.0 million boxes (1.84 million tons), up less than 1 percent from the previous forecast and up 6 percent from last season's final utilization.

The forecast for Texas is carried forward from the previous forecast.

Figure 1



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