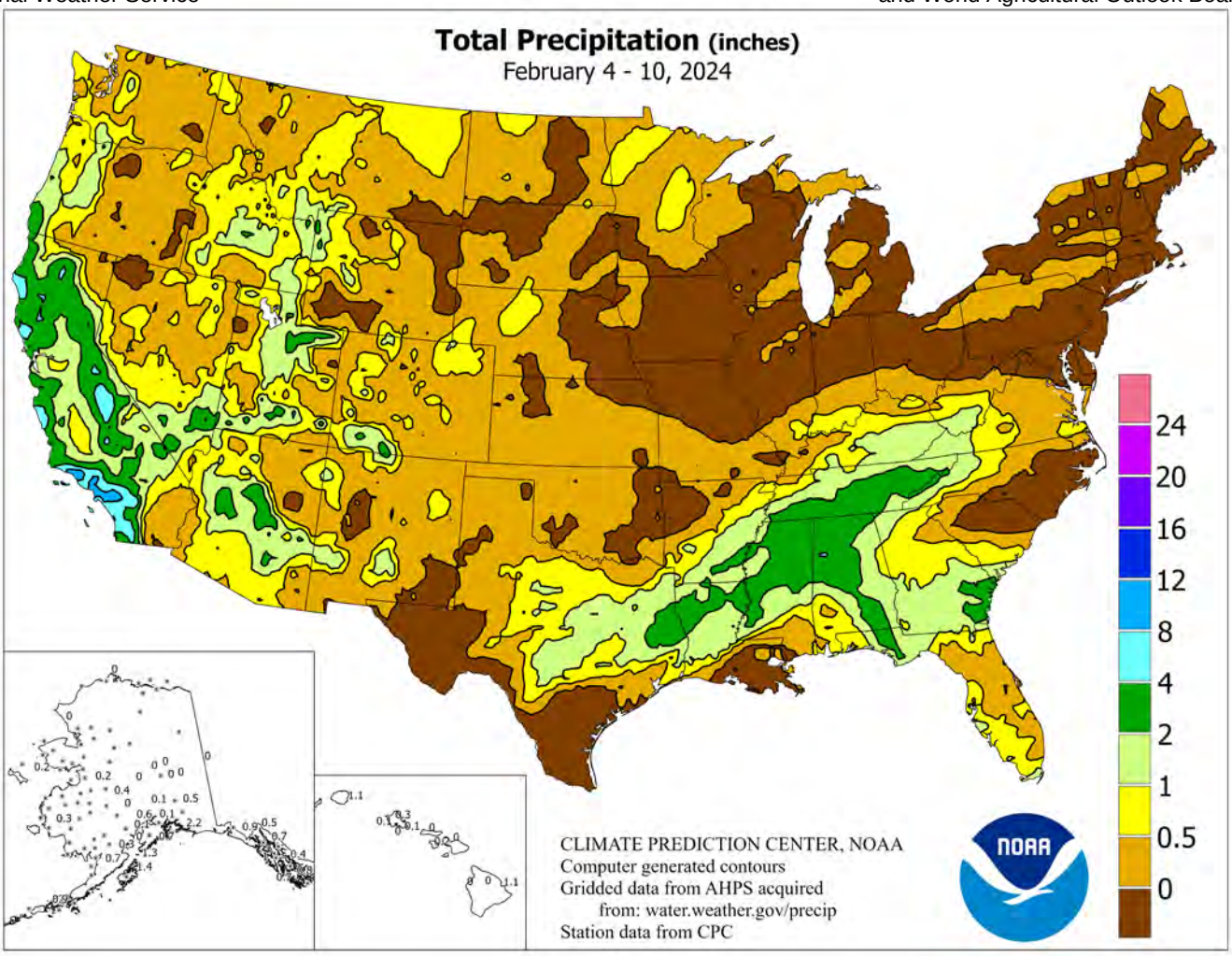
Volume 111, No. 7 www.usda.gov/oce/weather-drought-monitor February 13, 2024

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

February 4 – 10, 2024

Highlights provided by USDA/WAOB

Western storminess carried into early February, with back-to-back systems delivering torrential rain and high-elevation snow from **coastal California into the Southwest**. **Southern California** was particularly hard hit, with 4- to 12-inch rainfall totals causing flash flooding and debris flows. During the stormy spell, the average water equivalency of the **Sierra Nevada** snowpack jumped more than 5 inches, according to the California Department of Water Resources, from roughly 50 to 75 percent of normal. The **Plains** received generally light

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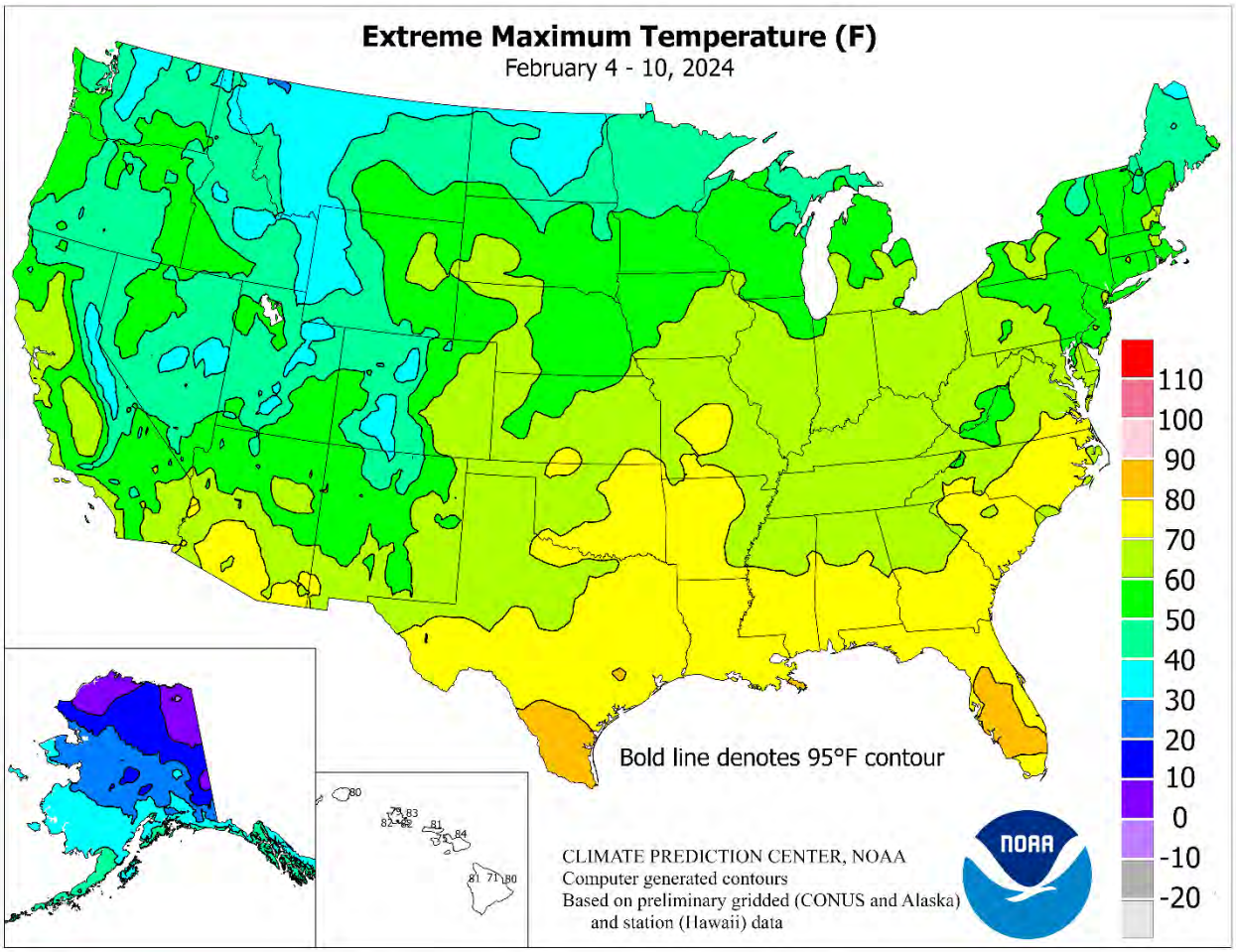
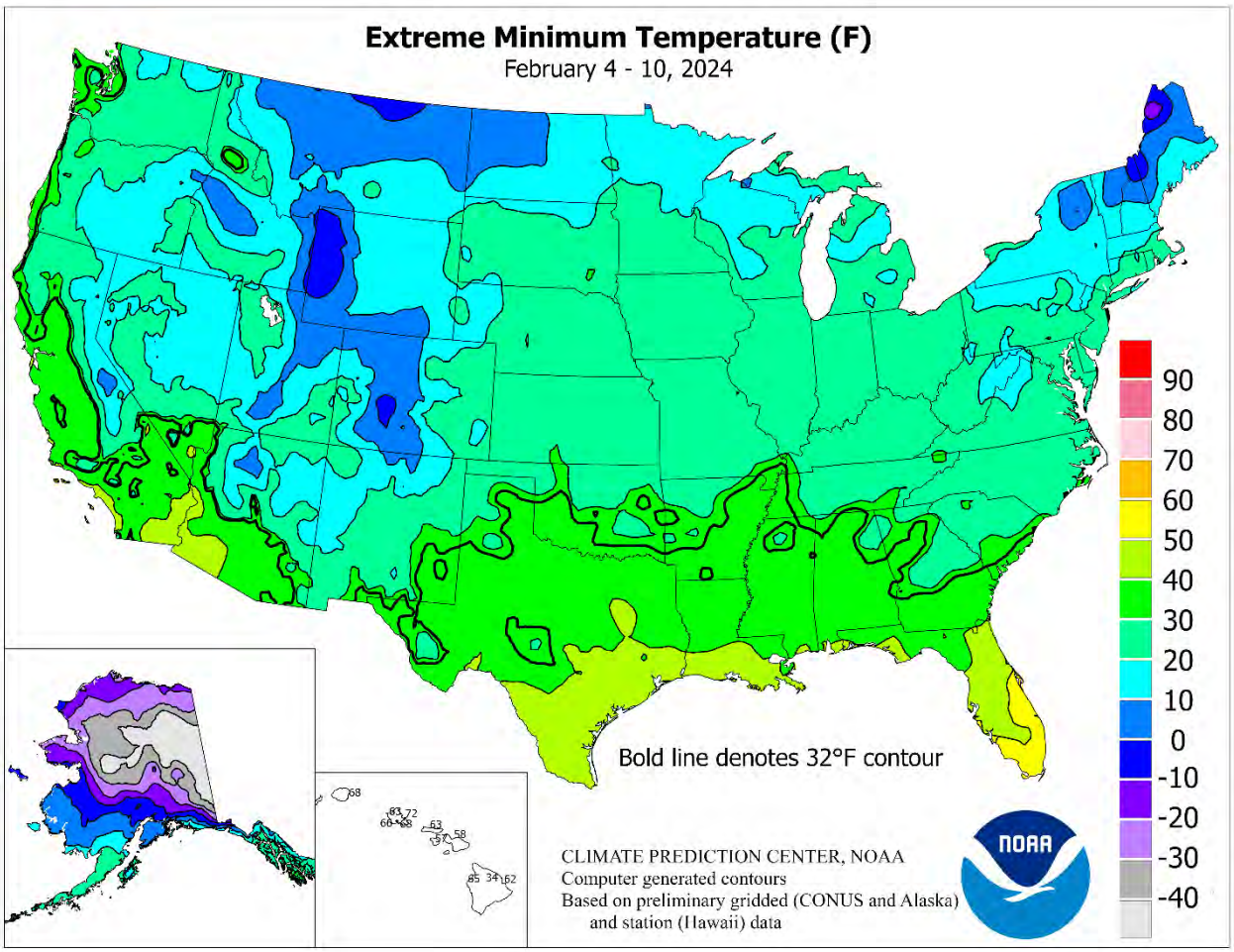
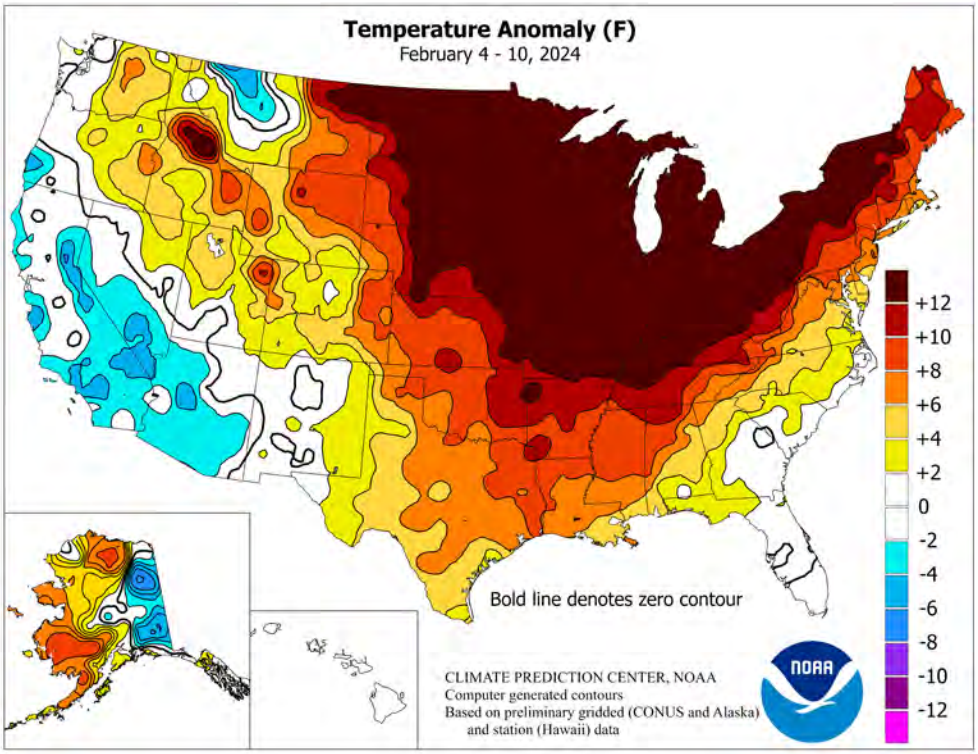

Extreme Maximum Temperature (F)
February 4 - 10, 2024
110
100
90
80
70
60
50
40
30
20
10
0
-10
-20
Bold line denotes 95°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary gridded (CONUS and Alaska)
and station (Hawaii) data
NOAA


Extreme Minimum Temperature (F)
February 4 - 10, 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

(Continued from front cover)

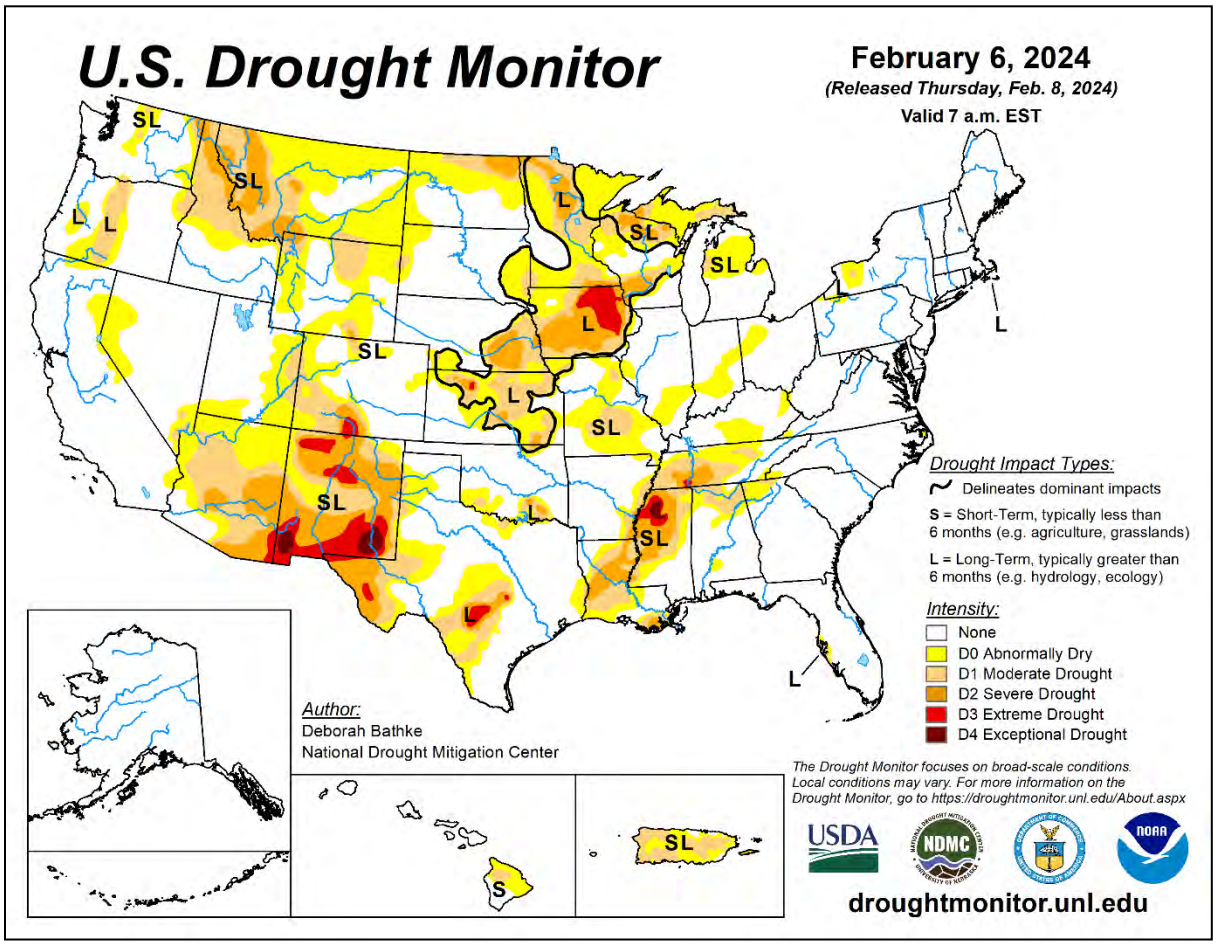
precipitation, although snow accumulated in parts of **Montana** and **North Dakota**. Precipitation mostly bypassed the **Midwest**, allowing off-season farm activities to proceed in areas where muddy conditions were not a limiting factor. However, a small severe-weather outbreak on February 8 produced tornadoes as far north as **southern Wisconsin**—a first for that state during the last month of meteorological winter. Elsewhere, some of the **Western** storminess translated eastward, with rainfall totaling 1 to 3 inches in the **South**, mainly from **eastern Texas to the southern Appalachians**. Another round of heavy rain struck the **South** on February 11, with details to follow next week. Meanwhile, for the second week in a row, significantly above-normal temperatures dominated the **Plains**, **Midwest**, and **Northeast**. Weekly temperatures averaged at least 10 to 20°F above normal throughout the **Plains** and **Midwest**, with warmth extending into the **Northeast**. Readings also broadly averaged at least 10°F above normal into the **mid-South**, including the **Ozark Plateau**. In contrast, relatively cool weather covered the **southern Atlantic region**, as well as **California** and the **Desert Southwest**.

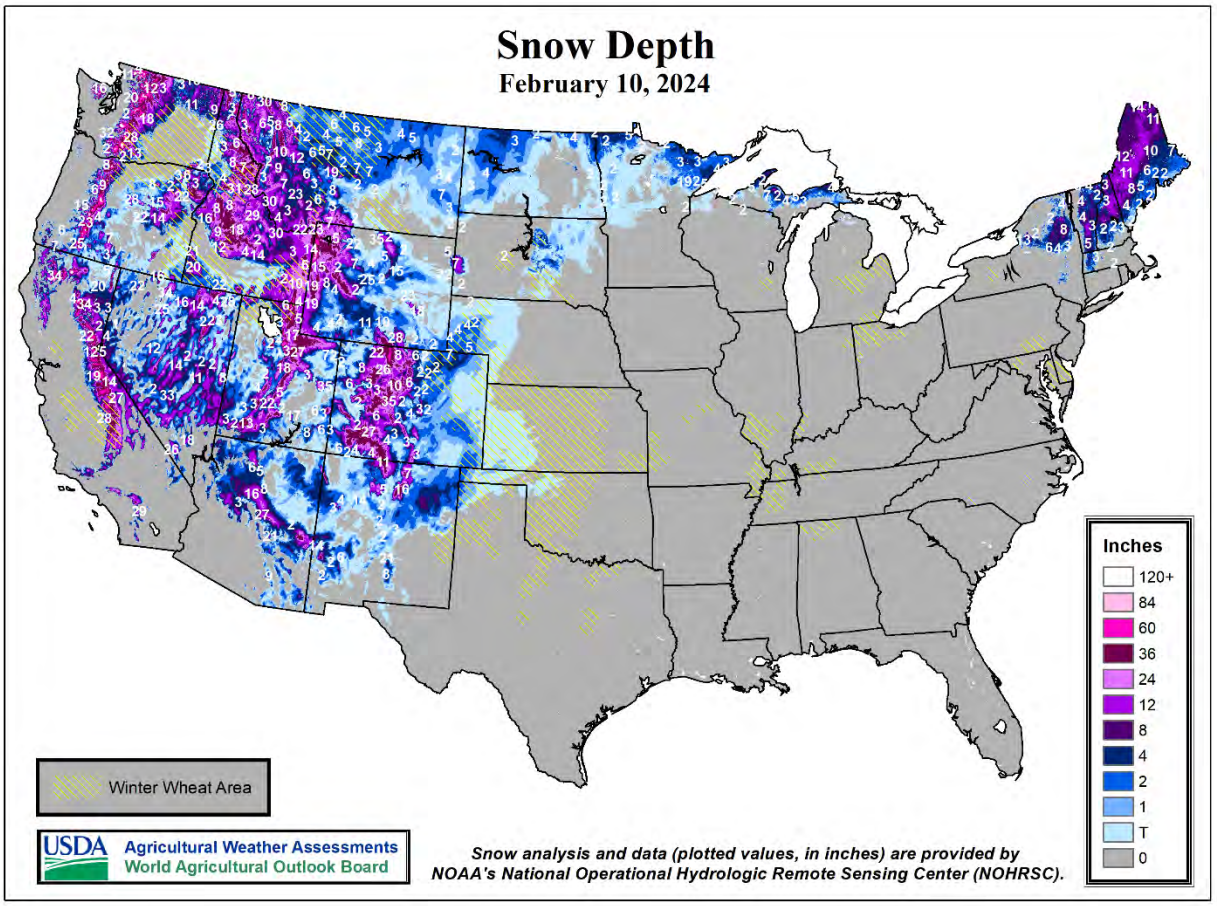


The remarkably mild weather across the **nation's mid-section** included the overnight hours. For example, the temperature in **Huron, SD**, remained at or above the freezing mark (32°F) each day from February 3-8. **Huron's** current February record for the greatest number of minima of 32°F or greater is 8 days, set in 1984 and 1998. 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**. The week ended on February 9-10 with consecutive daily-record highs in locations such as **Burlington, VT** (53 and 56°F), and **Rochester, NY** (62 and 58°F). Farther south, **Eastern** daily-record highs for February 10 were also established in **Raleigh-Durham, NC** (76°F), and **Martinsburg, WV** (66°F).

February 4 was historically wet in **southern California**, where downtown **Los Angeles** (4.10 inches) experienced 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). Additionally, February 4 wind gusts ranged from 60 to 80 mph 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. 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 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**. Back 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. By mid-week, snow returned across **Montana**, where **Havre** received an additional 2.5 inches of snow from February 7-9. However, rare February rain fell through February 8 in the **upper Great Lakes region**, where **International Falls** netted a daily-record sum (0.39 inch; all rain) on that date. On the evening of the 8th, two tornadoes were confirmed in **southern Wisconsin**, a February first for that state. The stronger of the 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. As the week ended, heavy rain returned across the **South**, while a band of snow emerged from the **southern Rockies** onto the **southern High Plains**. Highlights from February 11, to be detailed next week, included 4.28 inches of rain in **Columbus, GA**, and 5.6 inches of snow in **Amarillo, TX**.

Mainland Alaska's severe cold wave greatly eased, with temperatures rebounding to near- or above-normal levels as the week progressed. 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. Some snow was observed during the transition to milder weather, with **Anchorage** receiving 6.2 inches on February 3-4. Season-to-date snowfall in **Anchorage**, which had topped 100 inches on the earliest date on record (January 29), reached 111.5 inches (206 percent of normal) by February 10. However, when the temperature in **Anchorage** surged to 41°F on February 11, it marked the first 40-degree reading in that location since November 30, 2023. Meanwhile in **southeastern Alaska**, **Yakutat** began and ended the week with precipitation topping an inch—1.51 and 1.84 inches, respectively—on February 4-5 and 9-10. Farther south, **Hawaii** experienced relatively tranquil weather during the first 10 days of February, with rainfall at the state's major airport observation sites ranging from 0.04 inch (6 percent of normal) in **Honolulu, Oahu**, to 1.50 inches (45 percent) in **Hilo**, on the **Big Island**. Trade winds tended to settle as the week progressed, although **Kahului, Maui**, had clocked an easterly gust to 53 mph on February 5.


U.S. Drought Monitor
February 6, 2024
(Released Thursday, Feb. 8, 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:
Deborah Bathke
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


Snow Depth
February 10, 2024
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 February 10, 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 DEC 1	PCT. NORMAL SINCE DEC 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	26	16	41	0	21	1	0.31	0.09	0.28	3.37	151	1.56	145	89	71	0	7	2	0
	BARROW	1	-9	7	-20	-4	0	0.00	-0.05	0.00	0.00	0	0.00	0	84	73	0	7	0	0
	FAIRBANKS	6	-17	19	-43	-6	-3	0.00	-0.12	0.00	1.42	105	0.48	61	86	68	0	7	0	0
	JUNEAU	35	25	40	17	30	0	0.74	-0.43	0.48	21.20	148	10.74	139	94	82	0	5	4	0
	KODIAK	39	28	41	22	34	1	1.44	-0.26	0.59	12.88	65	6.81	63	96	70	0	5	6	1
	NOME	25	12	31	-9	19	10	0.17	-0.06	0.09	2.19	94	1.76	138	86	67	0	7	2	0
AL	BIRMINGHAM	64	46	69	34	55	8	1.43	0.28	1.43	12.10	104	7.40	110	81	42	0	0	1	1
	HUNTSVILLE	64	44	67	33	54	9	1.50	0.30	0.90	13.20	105	8.25	123	88	47	0	0	4	2
	MOBILE	69	49	76	41	59	6	0.67	-0.38	0.54	14.97	118	8.92	124	94	53	0	0	3	1
	MONTGOMERY	65	43	75	34	54	3	2.15	1.03	2.06	12.70	112	11.13	177	91	49	0	0	3	1
AR	FORT SMITH	66	43	75	33	55	12	0.23	-0.43	0.23	6.00	82	4.06	105	89	42	0	0	1	0
	LITTLE ROCK	65	47	73	35	56	13	1.79	0.94	0.88	13.22	135	11.80	251	83	53	0	0	3	2
AZ	FLAGSTAFF	37	21	46	8	29	-3	2.90	2.42	1.11	5.94	128	5.40	197	92	58	0	7	3	3
	PHOENIX	64	47	75	40	56	-3	0.73	0.54	0.22	2.78	149	2.04	180	78	38	0	0	4	0
	PRESCOTT	45	26	59	15	36	-6	1.36	1.07	0.67	2.89	111	2.28	142	91	53	0	6	3	1
	TUCSON	62	43	75	38	53	-3	0.54	0.33	0.24	4.03	191	2.81	246	84	39	0	0	3	0
CA	BAKERSFIELD	58	46	67	39	52	-1	0.80	0.51	0.35	3.74	138	3.10	195	91	53	0	0	4	0
	EUREKA	52	40	54	33	46	-2	2.03	0.66	1.02	19.28	115	13.05	151	96	70	0	0	4	2
	FRESNO	56	44	64	36	50	-1	1.50	1.03	0.75	4.86	105	4.19	148	91	58	0	0	4	2
	LOS ANGELES	58	49	63	46	53	-4	5.56	4.84	2.67	13.44	220	9.88	256	91	64	0	0	5	3
	REDDING	57	41	66	31	49	0	2.31	0.93	1.75	16.79	117	9.37	116	85	50	0	1	4	2
	SACRAMENTO	56	43	62	35	49	-1	1.58	0.73	0.89	10.39	124	5.69	116	94	61	0	0	3	2
	SAN DIEGO	61	51	64	47	56	-3	2.73	2.24	1.11	8.09	186	7.25	271	91	60	0	0	5	2
	SAN FRANCISCO	58	46	62	41	52	-1	1.79	0.81	1.38	11.19	118	7.37	139	89	58	0	0	3	1
	STOCKTON	58	44	61	37	51	0	1.24	0.61	0.51	8.15	136	5.51	154	94	61	0	0	3	1
CO	ALAMOSA	39	14	44	6	26	5	0.25	0.19	0.11	1.04	137	0.65	157	91	45	0	7	4	0
	CO SPRINGS	48	27	65	23	38	5	0.37	0.30	0.28	2.21	350	1.63	404	83	41	0	6	3	0
	DENVER INTL	46	24	56	20	35	4	0.27	0.17	0.19	1.42	161	1.29	246	86	49	0	7	3	0
	GRAND JUNCTION	50	32	60	25	41	8	0.20	0.08	0.15	1.21	87	0.67	84	80	38	0	4	2	0
	PUEBLO	51	28	60	22	40	6	0.33	0.26	0.30	2.99	433	1.69	423	84	41	0	6	2	0
CT	BRIDGEPORT	48	29	56	27	38	7	0.01	-0.69	0.01	14.19	173	5.98	142	82	45	0	6	1	0
	HARTFORD	49	26	62	23	37	10	0.01	-0.72	0.01	15.74	187	8.33	192	81	37	0	7	1	0
DC	WASHINGTON	55	36	64	31	46	7	0.00	-0.64	0.00	12.08	167	5.83	154	78	37	0	3	0	0
DE	WILMINGTON	51	30	56	24	40	6	0.00	-0.69	0.00	14.28	176	6.30	148	83	42	0	5	0	0
FL	DAYTONA BEACH	69	51	77	48	60	0	0.05	-0.54	0.05	7.59	128	2.93	82	97	57	0	0	1	0
	JACKSONVILLE	67	44	79	39	56	-1	0.52	-0.16	0.52	10.94	155	4.49	105	90	53	0	0	1	1
	KEY WEST	74	64	76	60	69	-3	1.77	1.35	1.05	9.49	207	3.60	148	91	64	0	0	4	2
	MIAMI	75	62	78	56	68	-2	0.88	0.30	0.73	5.59	109	1.77	66	83	54	0	0	3	1
	ORLANDO	74	52	81	49	63	0	0.02	-0.50	0.02	5.24	91	1.58	48	94	50	0	0	1	0
	PENSACOLA	66	50	72	42	58	2	0.74	-0.41	0.41	11.56	95	6.83	102	91	58	0	0	3	0
	TALLAHASSEE	70	42	76	33	56	2	1.18	0.26	1.18	17.12	171	6.50	113	95	47	0	0	1	1
	TAMPA	72	53	78	48	63	-1	0.73	0.02	0.47	8.15	130	3.71	101	89	49	0	0	2	0
	WEST PALM BEACH	74	59	79	54	67	-1	0.16	-0.54	0.14	6.67	83	2.81	62	91	57	0	0	2	0
GA	ATHENS	58	37	66	30	48	1	0.46	-0.58	0.26	14.83	144	10.65	181	84	41	0	2	3	0
	ATLANTA	60	43	66	37	51	5	0.46	-0.63	0.33	10.38	96	6.74	109	79	43	0	0	3	0
	AUGUSTA	60	33	72	21	47	-3	0.91	0.05	0.69	7.59	84	3.30	65	96	42	0	3	2	1
	COLUMBUS	63	43	71	35	53	2	0.97	-0.07	0.89	6.98	73	5.11	107	90	48	0	0	3	1
	MACON	61	37	69	27	49	-1	0.70	-0.33	0.70	8.07	77	6.17	106	97	49	0	3	1	1
	SAVANNAH	64	43	75	34	53	1	1.57	0.91	1.54	9.01	120	4.43	104	88	44	0	0	2	1
HI	HILO	78	64	80	62	71	0	1.09	-1.30	0.29	12.42	53	4.70	41	97	59	0	0	7	0
	HONOLULU	80	69	82	68	74	1	0.05	-0.38	0.02	3.52	76	2.63	107	78	49	0	0	3	0
	KAHULUI	82	62	84	58	72	-1	0.00	-0.52	0.00	5.57	93	4.58	144	87	48	0	0	0	0
	LIHUE	79	70	80	68	74	2	1.10	0.30	0.97	7.96	93	3.75	95	80	61	0	0	4	1
IA	BURLINGTON	54	31	68	25	42	16	0.00	-0.37	0.00	3.96	103	1.92	97	90	46	0	4	0	0
	CEDAR RAPIDS	51	28	66	24	40	18	0.00	-0.25	0.00	1.43	49	0.50	38	92	47	0	6	0	0
	DES MOINES	54	31	63	24	42	18	0.00	-0.30	0.00	5.41	175	3.89	259	83	42	0	5	0	0
	DUBUQUE	47	28	60	24	38	17	0.03	-0.33	0.03	3.54	97	1.59	87	91	58	0	6	1	0
	SIOUX CITY	46	30	57	26	38	16	0.18	-0.02	0.16	3.04	156	1.47	153	92	69	0	5	2	0
	WATERLOO	52	30	64	23	41	20	0.00	-0.26	0.00	2.18	75	1.41	97	81	45	0	5	0	0
ID	BOISE	47	32	58	24	39	4	0.38	0.12	0.18	4.90	147	3.64	204	89	49	0	4	5	0
	LEWISTON	48	38	54	30	43	5	0.19	-0.08	0.07	3.16	119	2.00	132	85	58	0	1	6	0
	POCATELLO	40	31	47	24	36	8	0.79	0.56	0.57	3.38	132	2.36	165	92	60	0	5	4	1
IL	CHICAGO/O_HARE	49	32	59	28	40	14	0.02	-0.41	0.02	6.33	135	3.38	130	88	55	0	5	1	0
	MOLINE	53	30	67	22	41	16	0.00	-0.39	0.00	5.39	127	2.77	126	89	45	0	5	0	0
	PEORIA	53	32	65	26	43	15	0.06	-0.38	0.06	6.00	122	3.16	118	90	49	0	5	1	0
	ROCKFORD	47	28	59	22	38	15	0.00	-0.36	0.00	5.36	133	2.26	107	89	60	0	6	0	0
	SPRINGFIELD	54	33	66	24	44	14	0.00	-0.43	0.00	7.12	154	4.14	166	93	52	0	5	0	0
IN	EVANSVILLE	60	37	67	28	48	13	0.66	-0.07	0.66	8.57	105	6.62	151	83	46	0	2	1	1
	FORT WAYNE	50	31	64	24	41	14	0.00	-0.46	0.00	5.58	98	3.91	121	87	56	0	5	0	0
	INDIANAPOLIS	55	34	66	27	45	14	0.10	-0.44	0.10	5.71	83	4.56	117	89	44	0	4	1	0
	SOUTH BEND	51	29	61	21	40	15	0.01	-0.52	0.01	7.21	124	4.49	132	89	51	0	5	1	0
KS	CONCORDIA	50	34	59	27	42	12	0.10	-0.11	0.10	3.81	188	2.35	240	87	62	0	4	1	0
	DODGE CITY	53	35	62	26	44	9	0.65	0.50	0.57	3.87	218	1.52	186	93	58	0	2	3	1
	GOODLAND	50	30	63	21	40	9	0.54	0.43	0.54	2.69	284	1.73	363	94	55	0	4	1	1
	TOPEKA	56	34	66	27	45	13	0.35	0.06	0.35	5.56	200	2.75	212	89	47	0	3	1	0

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

Weather Data for the Week Ending February 10, 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 DEC 1	PCT. NORMAL SINCE DEC 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	54	35	67	27	45	9	0.21	-0.06	0.19	4.93	201	2.32	189	89	56	0	3	3	0
KY	LEXINGTON	60	38	65	28	49	13	0.37	-0.47	0.35	7.84	90	5.85	127	81	42	0	2	2	0
	LOUISVILLE	61	39	66	31	50	12	0.48	-0.27	0.48	8.46	98	6.67	149	76	39	0	2	1	0
	PADUCAH	62	41	67	29	52	14	0.05	-0.83	0.05	11.20	119	9.31	182	81	44	0	2	1	0
LA	BATON ROUGE	74	53	82	41	64	9	0.00	-1.14	0.00	15.36	115	8.87	110	85	43	0	0	0	0
	LAKE CHARLES	71	53	76	41	62	7	0.24	-0.61	0.18	13.80	118	11.43	160	96	52	0	0	3	0
	NEW ORLEANS	71	53	78	45	62	6	0.04	-0.98	0.03	19.18	167	9.81	148	93	54	0	0	2	0
	SHREVEPORT	69	51	77	39	60	10	***	***	***	***	***	***	***	89	51	0	0	***	***
MA	BOSTON	44	29	60	24	37	6	0.04	-0.70	0.04	13.24	151	7.53	168	82	48	0	6	1	0
	WORCESTER	44	27	57	19	35	10	0.05	-0.72	0.05	15.65	175	8.25	178	78	42	0	6	1	0
MD	BALTIMORE	55	30	65	24	42	7	0.00	-0.69	0.00	12.91	165	5.92	145	81	35	0	5	0	0
ME	CARIBOU	33	12	38	6	23	11	0.10	-0.47	0.10	5.80	78	2.47	65	88	61	0	7	1	0
	PORTLAND	41	23	54	18	32	8	0.00	-0.83	0.00	14.39	156	7.83	167	86	51	0	7	0	0
MI	ALPENA	45	28	52	19	37	17	0.00	-0.35	0.00	3.79	90	2.17	93	96	56	0	6	0	0
	GRAND RAPIDS	48	28	59	23	38	13	0.04	-0.46	0.04	18.38	322	16.60	514	91	54	0	5	1	0
	HOUGHTON LAKE	44	24	50	16	34	16	0.00	-0.23	0.00	0.32	16	0.18	16	96	51	0	4	0	0
	LANSING	48	29	60	20	39	15	0.11	-0.27	0.07	5.45	121	3.30	127	85	52	0	5	2	0
	MUSKEGON	49	30	63	24	39	13	0.00	-0.50	0.00	4.59	83	2.95	94	85	49	0	5	0	0
	TRAVERSE CITY	45	32	61	26	38	16	0.02	-0.22	0.01	2.00	52	0.74	36	89	63	0	5	2	0
MN	DULUTH	41	25	50	16	33	21	0.28	0.07	0.27	4.10	151	1.02	81	88	61	0	5	2	0
	INT_L FALLS	36	24	41	12	30	23	0.58	0.42	0.39	2.38	118	1.19	116	93	76	0	6	4	0
	MINNEAPOLIS	47	29	57	24	38	20	0.22	0.03	0.22	2.64	113	0.36	31	81	52	0	5	1	0
	ROCHESTER	46	29	55	25	37	21	0.10	-0.13	0.10	1.75	67	0.62	47	91	60	0	5	1	0
	ST. CLOUD	43	26	51	20	35	21	0.74	0.58	0.74	4.30	244	0.94	107	88	65	0	5	1	1
MO	COLUMBIA	59	37	71	30	48	14	0.00	-0.48	0.00	5.45	111	2.72	97	74	36	0	3	0	0
	KANSAS CITY	57	34	65	26	45	14	0.00	-0.33	0.00	5.07	159	2.06	127	84	41	0	3	0	0
	SAINT LOUIS	60	39	69	29	50	15	0.00	-0.52	0.00	6.12	105	3.96	119	76	39	0	1	0	0
	SPRINGFIELD	60	37	70	25	49	12	0.34	-0.19	0.34	4.11	69	2.99	91	82	42	0	2	1	0
MS	JACKSON	69	47	75	34	58	8	1.45	0.17	0.78	14.54	117	11.27	155	91	50	0	0	3	2
	MERIDIAN	68	45	77	32	57	6	0.75	-0.57	0.70	11.41	89	8.70	116	93	50	0	1	2	1
	TUPELO	64	45	67	34	54	9	3.02	1.80	1.78	12.70	101	10.24	156	86	55	0	0	2	2
MT	BILLINGS	42	29	56	23	35	7	0.15	0.02	0.09	0.92	70	0.57	78	90	57	0	4	3	0
	BUTTE	32	16	39	11	24	3	0.45	0.35	0.27	1.50	143	1.18	209	95	69	0	7	6	0
	CUT BANK	25	9	30	-5	17	-6	0.02	-0.03	0.02	0.31	51	0.30	98	95	80	0	7	1	0
	GLASGOW	33	25	41	8	29	12	0.60	0.52	0.30	1.10	112	1.02	185	91	79	0	6	4	0
	GREAT FALLS	31	14	40	3	23	-3	0.97	0.83	0.51	1.68	131	1.60	211	98	77	0	7	4	1
	HAVRE	31	15	37	2	23	3	0.84	0.74	0.53	1.98	204	1.78	313	97	84	0	7	6	1
	MISSOULA	38	26	42	20	32	5	0.23	0.02	0.17	1.81	77	1.33	104	98	69	0	7	4	0
NC	ASHEVILLE	60	32	72	26	46	5	0.01	-0.85	0.01	14.84	155	8.52	158	87	33	0	5	1	0
	CHARLOTTE	59	37	70	29	48	4	0.02	-0.69	0.02	13.55	167	7.28	161	78	35	0	3	1	0
	GREENSBORO	57	34	69	27	45	4	0.16	-0.50	0.10	14.61	194	7.56	174	83	37	0	5	2	0
	HATTERAS	52	43	57	38	47	-1	0.00	-1.10	0.00	9.36	83	2.28	35	87	66	0	0	0	0
	RALEIGH	60	35	76	28	47	4	0.06	-0.60	0.06	11.07	142	4.28	97	81	34	0	3	1	0
	WILMINGTON	61	37	74	30	49	1	0.00	-0.87	0.00	9.74	111	1.62	32	84	38	0	2	0	0
ND	BISMARCK	35	27	41	14	31	16	0.07	-0.03	0.04	0.83	67	0.40	63	97	82	0	6	3	0
	DICKINSON	33	25	49	12	29	11	0.00	-0.06	0.00	0.16	31	0.01	3	98	78	0	6	0	0
	FARGO	40	29	50	19	35	24	0.50	0.36	0.44	3.26	181	0.64	70	88	72	0	5	2	0
	GRAND FORKS	36	27	42	18	31	23	0.10	0.00	0.10	1.30	100	0.37	59	90	76	0	6	1	0
	JAMESTOWN	35	27	39	13	31	19	0.01	-0.06	0.01	0.59	78	0.01	2	93	81	0	7	1	0
NE	GRAND ISLAND	48	31	55	25	39	12	0.30	0.11	0.30	2.73	159	1.49	171	89	61	0	6	1	0
	LINCOLN	50	30	57	23	40	13	0.01	-0.21	0.01	2.80	125	1.31	125	84	54	0	6	1	0
	NORFOLK	45	33	55	29	39	15	0.01	-0.17	0.01	2.86	166	1.33	152	86	64	0	5	1	0
	NORTH PLATTE	49	31	62	20	40	13	0.17	0.05	0.16	1.26	124	0.88	155	95	61	0	4	2	0
	OMAHA	49	31	56	24	40	14	0.02	-0.19	0.01	2.50	110	0.84	80	87	54	0	5	2	0
	SCOTTSBLUFF	49	25	60	21	37	8	0.57	0.45	0.53	1.39	128	1.28	226	95	46	0	7	3	1
	VALENTINE	48	29	62	21	38	13	0.46	0.33	0.16	1.66	179	1.08	218	97	59	0	5	4	0
NH	CONCORD	44	18	60	12	31	8	0.01	-0.65	0.01	13.46	180	6.58	175	92	46	0	7	1	0
NJ	ATLANTIC_CITY	50	28	61	22	39	5	0.00	-0.76	0.00	13.15	147	6.57	146	95	44	0	5	0	0
	NEWARK	52	33	60	27	42	9	0.00	-0.70	0.00	12.43	145	4.94	111	72	38	0	5	0	0
NM	ALBUQUERQUE	50	31	56	24	40	0	0.40	0.31	0.33	1.74	169	0.74	149	75	30	0	4	2	0
NV	ELY	35	21	39	12	28	-1	0.35	0.15	0.10	1.54	90	1.50	146	91	62	0	7	6	0
	LAS VEGAS	50	42	53	38	46	-6	0.69	0.52	0.37	1.08	86	1.02	127	87	53	0	0	5	0
	RENO	43	28	46	23	36	-3	0.78	0.54	0.65	2.34	86	1.96	123	86	44	0	6	3	1
	WINNEMUCCA	41	28	53	21	35	-1	0.45	0.28	0.28	3.19	142	2.92	239	89	51	0	5	4	0
NY	ALBANY	47	26	60	20	37	12	0.00	-0.52	0.00	10.65	161	5.01	149	82	38	0	5	0	0
	BINGHAMTON	46	27	56	20	37	14	0.25	-0.30	0.25	10.66	164	4.75	139	79	45	0	5	1	0
	BUFFALO	47	30	59	22	39	14	0.06	-0.55	0.06	8.68	108	4.90	116	89	53	0	4	1	0
	ROCHESTER	48	28	62	20	38	12	0.00	-0.50	0.00	***	***	***	***	83	50	0	5	0	0
	SYRACUSE	50	28	63	19	39	15	0.03	-0.54	0.03	9.38	140	4.28	126	75	39	0	5	1	0
OH	AKRON-CANTON	53	29	61	21	41	12	0.01	-0.56	0.01	5.71	86	3.17	84	87	42	0	4	1	0
	CINCINNATI	56	35	62	24	46	13	0.35	-0.38	0.35	8.53	105	6.65	153	87	44	0	4	1	0
	CLEVELAND	51	33	64	24	42	13	0.00	-0.57	0.00	6.89	101	3.59	94	82	47	0	4	0	0
	COLUMBUS	57	32	64	24	44	14	0.02	-0.55	0.02	8.01	115	4.78	125	85	40	0	4	1	0
	DAYTON	56	34	65	26	45	14	0.10	-0.44	0.10	7.33	106	5.42	140	89	45	0	4	1	0
	MANSFIELD	53	32	62	23	42	15	0.04	-0.54	0.04	6.25	88	3.86	95	87	44	0	4	1	0

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

Weather Data for the Week Ending February 10, 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 DEC 1	PCT. NORMAL SINCE DEC 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	53	32	64	24	42	14	0.00	-0.50	0.00	6.32	114	4.61	150	85	47	0	4	0	0
	YOUNGSTOWN	53	28	64	21	41	13	0.24	-0.33	0.22	6.86	97	4.22	109	84	43	0	5	3	0
OK	OKLAHOMA CITY	60	40	69	32	50	9	0.12	-0.22	0.12	3.83	107	2.10	117	88	44	0	1	1	0
	TULSA	62	42	72	30	52	12	0.29	-0.08	0.29	5.59	122	3.79	177	81	40	0	1	1	0
OR	ASTORIA	50	38	54	32	44	0	0.39	-1.51	0.11	27.64	115	15.14	113	98	66	0	1	5	0
	BURNS	42	25	48	19	34	5	0.25	0.00	0.24	4.97	155	3.35	198	88	48	0	7	2	0
	EUGENE	51	39	56	31	45	2	0.64	-0.51	0.49	11.33	76	5.12	66	94	70	0	1	6	0
	MEDFORD	50	38	56	31	44	1	0.21	-0.28	0.14	7.02	100	4.82	140	88	57	0	1	3	0
	PENDLETON	49	34	55	29	42	5	0.04	-0.26	0.04	4.06	117	2.60	133	92	52	0	1	1	0
	PORTLAND	52	40	57	31	46	2	0.62	-0.33	0.27	18.33	150	9.74	152	92	57	0	1	5	0
	SALEM	51	38	54	31	45	1	0.52	-0.66	0.35	17.86	121	10.33	133	95	63	0	1	3	0
PA	ALLENTOWN	50	25	57	19	38	7	0.00	-0.67	0.00	13.83	170	5.36	125	82	38	0	6	0	0
	ERIE	49	29	63	20	39	11	0.09	-0.51	0.06	7.08	83	3.87	90	86	51	0	4	2	0
	MIDDLETOWN	51	28	58	24	39	8	0.00	-0.63	0.00	11.09	150	5.93	150	86	43	0	5	0	0
	PHILADELPHIA	51	33	57	27	42	7	0.00	-0.67	0.00	13.74	170	5.97	145	79	41	0	5	0	0
	PITTSBURGH	56	32	63	22	44	14	0.01	-0.61	0.01	7.03	104	4.53	117	79	34	0	5	1	0
	WILKES-BARRE	50	28	58	22	39	11	0.05	-0.43	0.05	11.11	182	5.34	161	80	40	0	5	1	0
	WILLIAMSPORT	51	28	58	21	39	11	0.08	-0.47	0.08	11.23	159	6.09	162	87	41	0	5	1	0
RI	PROVIDENCE	46	26	57	23	36	6	0.01	-0.77	0.01	14.57	149	7.78	152	87	46	0	7	1	0
SC	CHARLESTON	64	41	76	33	53	1	0.98	0.22	0.91	9.55	122	2.69	60	86	40	0	0	2	1
	COLUMBIA	61	37	71	27	49	1	0.12	-0.67	0.12	7.35	88	2.78	60	87	41	0	3	1	0
	FLORENCE	62	37	74	27	49	1	0.00	-0.73	0.00	5.99	78	2.74	66	83	38	0	3	0	0
	GREENVILLE	60	36	72	27	48	4	0.12	-0.78	0.12	14.96	149	10.09	186	74	32	0	3	1	0
SD	ABERDEEN	39	31	52	20	35	20	0.04	-0.10	0.04	1.99	145	0.17	22	93	80	0	3	1	0
	HURON	44	32	54	25	38	20	0.04	-0.13	0.04	1.76	118	0.53	65	95	75	0	4	1	0
	RAPID CITY	44	27	63	22	36	11	0.08	-0.02	0.08	0.78	97	0.48	107	93	60	0	6	1	0
	SIOUX FALLS	46	34	55	28	40	20	0.03	-0.15	0.03	2.94	174	1.14	132	83	66	0	3	1	0
TN	BRISTOL	59	31	64	23	46	7	1.23	0.30	0.74	7.94	91	4.34	87	88	39	0	5	2	1
	CHATTANOOGA	62	40	68	32	51	7	0.35	-0.85	0.33	12.85	107	6.71	99	82	36	0	2	2	0
	KNOXVILLE	60	37	66	30	49	8	1.72	0.57	1.21	13.71	120	7.74	121	85	37	0	3	2	2
	MEMPHIS	62	45	66	36	53	9	3.10	2.06	1.62	12.30	110	9.73	173	89	58	0	0	3	2
	NASHVILLE	63	43	69	30	53	12	1.25	0.17	0.76	9.17	92	6.42	115	75	39	0	1	2	1
TX	ABILENE	65	46	70	38	55	7	0.02	-0.28	0.02	3.92	141	2.52	166	88	39	0	0	1	0
	AMARILLO	55	34	63	28	44	4	0.13	-0.01	0.09	2.92	180	1.19	131	88	43	0	2	3	0
	AUSTIN	70	53	76	44	62	7	0.64	0.19	0.64	9.03	150	6.94	211	82	48	0	0	1	1
	BEAUMONT	73	54	80	44	64	7	0.11	-0.72	0.10	17.10	148	13.09	200	96	52	0	0	2	0
	BROWNSVILLE	81	58	85	47	69	4	0.06	-0.24	0.04	1.71	63	1.61	106	94	45	0	0	2	0
	CORPUS CHRISTI	75	55	81	44	65	4	0.12	-0.18	0.12	4.46	118	3.95	217	97	56	0	0	1	0
	DEL RIO	74	52	78	41	63	7	0.22	0.07	0.22	1.19	77	0.58	70	73	31	0	0	1	0
	EL PASO	60	41	66	34	51	1	0.05	-0.06	0.04	0.57	48	0.38	68	62	25	0	0	2	0
	FORT WORTH	66	48	73	40	57	8	0.44	-0.17	0.41	7.75	124	4.22	125	85	44	0	0	2	0
	GALVESTON	69	57	73	50	63	5	0.03	-0.57	0.03	10.10	107	7.16	138	95	66	0	0	1	0
	HOUSTON	73	55	79	43	64	8	0.11	-0.60	0.10	13.12	148	10.58	221	89	50	0	0	2	0
	LUBBOCK	60	39	65	34	49	6	0.05	-0.11	0.04	1.41	86	0.83	94	79	39	0	0	2	0
	MIDLAND	63	41	66	34	52	3	0.03	-0.12	0.03	0.80	54	0.24	27	82	30	0	0	1	0
	SAN ANGELO	67	43	73	32	55	5	0.01	-0.26	0.01	2.78	126	0.65	50	86	34	0	1	1	0
	SAN ANTONIO	71	51	75	41	61	6	0.01	-0.43	0.01	7.26	158	6.17	239	86	52	0	0	1	0
	VICTORIA	73	53	79	42	63	6	0.00	-0.47	0.00	10.66	187	9.98	297	94	54	0	0	0	0
	WACO	67	45	74	33	56	6	0.55	-0.06	0.55	8.37	132	5.26	153	92	53	0	0	1	1
	WICHITA FALLS	63	44	70	37	53	9	0.01	-0.31	0.01	4.58	143	3.20	195	84	43	0	0	1	0
UT	SALT LAKE CITY	45	33	54	26	39	5	1.29	0.98	0.80	4.00	122	3.03	162	91	52	0	3	4	1
VA	LYNCHBURG	56	29	62	21	43	6	0.24	-0.48	0.24	10.36	129	5.32	118	84	37	0	5	1	0
	NORFOLK	53	36	75	29	44	1	0.07	-0.66	0.07	9.62	124	3.22	72	91	55	0	4	1	0
	RICHMOND	56	33	64	26	44	5	0.20	-0.43	0.20	13.88	181	5.06	122	82	36	0	5	1	0
	ROANOKE	58	33	62	25	46	6	0.14	-0.57	0.14	8.81	121	4.65	111	77	36	0	5	1	0
	WASH/DULLES	56	31	66	23	44	9	0.00	-0.64	0.00	11.63	162	5.95	154	78	34	0	5	0	0
VT	BURLINGTON	42	26	56	16	34	13	0.02	-0.39	0.02	8.52	163	2.86	105	80	45	0	5	1	0
WA	OLYMPIA	49	34	52	29	41	1	0.22	-1.15	0.13	19.09	108	8.73	89	98	67	0	3	2	0
	QUILLAYUTE	52	37	54	30	44	2	0.15	-2.44	0.07	33.11	99	18.37	94	86	60	0	1	3	0
	SEATTLE-TACOMA	47	39	50	36	43	-1	0.36	-0.67	0.24	14.79	114	6.50	89	90	65	0	0	3	0
	SPOKANE	41	32	46	26	37	5	0.26	-0.10	0.13	5.74	119	2.44	98	95	75	0	2	4	0
	YAKIMA	49	32	52	25	40	5	0.18	-0.02	0.18	3.43	117	2.01	134	86	50	0	4	1	0
WI	EAU CLAIRE	49	27	59	20	38	22	0.14	-0.11	0.13	1.70	62	0.28	20	83	48	0	5	2	0
	GREEN BAY	42	30	53	26	36	17	0.03	-0.25	0.03	2.23	63	0.93	51	87	69	0	5	1	0
	LA CROSSE	49	30	59	21	40	19	0.02	-0.26	0.02	1.87	59	0.92	56	81	47	0	5	1	0
	MADISON	42	27	55	20	35	14	0.07	-0.28	0.07	3.57	99	1.95	99	91	63	0	6	1	0
	MILWAUKEE	45	33	59	28	39	14	0.04	-0.35	0.04	5.34	126	3.13	133	85	63	0	4	1	0
WV	BECKLEY	56	34	63	25	45	11	0.71	-0.03	0.70	7.66	102	4.92	117	73	33	0	4	2	1
	CHARLESTON	60	35	65	25	47	11	0.19	-0.58	0.19	6.19	77	4.14	94	85	31	0	5	1	0
	ELKINS	56	27	67	18	42	10	0.10	-0.66	0.09	6.24	77	3.57	80	94	41	0	5	2	0
	HUNTINGTON	61	38	66	26	49	13	0.16	-0.62	0.16	6.80	87	5.12	121	80	33	0	3	1	0
WY	CASPER	44	24	60	17	34	9	0.13	0.00	0.08	0.75	58	0.68	101	88	42	0	6	3	0
	CHEYENNE	42	20	50	15	31	2	0.08	-0.04	0.08	1.17	115	1.05	200	83	45	0	7	1	0
	LANDER	36	19	41	13	28	5	0.34	0.17	0.27	2.38	173	1.67	224	88	56	0	7	2	0
	SHERIDAN	45	24	57	17	34	10	0.05	-0.12	0.04	0.55	39	0.45	52	88	56	0	7	2	0

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

January Weather and Crop Summary

Weather

Weather summary provided by USDA/WAOB

Highlights: Following the nation's warmest December on record, January began with a continuation of mild weather. However, for approximately 10 days, peaking around mid-January, frigid, windy, and occasionally snowy weather caused widespread travel disruptions and significantly increased livestock stress, just as lambing and calving were getting underway. Some of the greatest impacts stretched from the central Plains into the Midwest, where back-to-back winter storms resulted in blizzard conditions. Ironically, the snow was highly beneficial for winter wheat, especially in drought-affected areas of the central Plains. Between November 26 and January 28, winter wheat in Kansas rated in good to excellent condition surged from 32 to 54 percent, while wheat rated very poor to poor had a corresponding drop from 32 to 15 percent. During the same 2-month period, similar jumps in good-to-excellent ratings were noted in Nebraska (from 49 to 69 percent) and Oklahoma (from 53 to 63 percent), due to snow, improved soil moisture, or a combination of both.

In fact, there were marked improvements in topsoil moisture during January across the Plains, South, and lower Midwest. Between December 31, 2023, and late January, states reporting 20- to 50-point decreases in topsoil moisture rated very short to short included Louisiana (from 64 to 15 percent), Mississippi (from 52 to 8 percent), Tennessee (from 44 to 2 percent), Indiana (from 40 to 8 percent), Kansas (from 47 to 20 percent), Nebraska (from 52 to 26 percent), Illinois (from 28 to 4 percent), and Colorado (from 45 to 23 percent). Despite lingering, long-term drought in parts of the South and Midwest, surplus topsoil moisture developed in some areas, due to rain and melting snow. By late January, topsoil moisture was rated one-third to two-thirds surplus in a few states, including Ohio (62 percent), Tennessee (60 percent), North Carolina (43 percent), Illinois (39 percent), Louisiana (39 percent), and Mississippi (34 percent).

Despite wetter conditions in many areas, some drought concerns persisted. According to the *U.S. Drought Monitor*, drought covered 23.52 percent of the Lower 48 States on January 30, down from 32.98 percent just 4 weeks earlier. The most substantial improvement occurred from the central and southern Plains into the East, with January precipitation also reducing drought coverage and intensity in parts of the Southwest and Pacific Northwest. Conversely, worsening drought was noted during January across northern sections of the Rockies and High Plains. Among states reporting winter statistics, New Mexico led in late January with topsoil moisture rated 80 percent very short to short, followed by Montana at 68 percent. Drought-affected rangeland and pastures, some of which may not recover until warmer weather arrives in the spring, were still rated more than one-half very poor to poor near the end of January in New Mexico (64 percent), Texas (58 percent), and Montana (54 percent).

There was some January improvement in the Western snowpack situation, although there were still large gaps in adequate coverage. Notably, the average water equivalency of the Sierra Nevada snowpack increased about 6 inches during January, according to the California Department of Water Resources. However, that left the Sierra Nevada with an average water equivalency of just 8.5 inches by month's end, approximately one-half of the end-of-January average. Another notable area with sub-par snowpack at the end of January stretched from the northern Cascades to the northern Rockies.

The mid-month Arctic blast produced sub-zero temperatures as far south as Texas' northern panhandle and the Tennessee Valley and resulted in readings below -30°F on the northern High Plains. The greatest concern for winter wheat health was focused across Montana, where only a patchy or shallow snow cover existed when the coldest air arrived on January 13-14. Farther south, freezes struck Deep South Texas on January 16-17, with some potential impacts on citrus and other temperature-sensitive crops. Southern Louisiana experienced hard freezes (28°F or below) from January 15-17, although impacts were limited by the fact that the sugarcane harvest was complete. Meanwhile, Florida's key winter agricultural areas escaped the cold wave. On the strength of the mid-January cold snap, monthly temperatures averaged at least 2 to 6°F below normal across the nation's mid-section, including much the Plains, mid-South, and western and central Gulf Coast States, as well as the northern tier of the western U.S. In contrast, readings averaged 2 to 6°F above normal from the Great Lakes region into the Northeast.

Historical Perspective: According to preliminary data provided by the National Centers for Environmental Information, the contiguous U.S. experienced its 48th warmest January during the 1895-2024 period of record, with an average temperature of 31.75°F (1.63°F above the 1901-2000 mean), despite a mid-month cold blast. In fact, only once so far in the 21st century—in 2011—was the January average temperature below the 20th century mean. Meanwhile, monthly precipitation averaged 3.18 inches (138 percent of normal) across the Lower 48 States, marking the tenth-wettest January during the 130-year period of record. It was also the second-wettest January of the 21st century, behind only 3.24 inches in 2017.

State temperature rankings ranged from the 24th-coolest January in Arkansas and Oklahoma to the tenth-warmest January in Wisconsin (figure 1). Just outside the top-ten list for January warmth, ranking eleventh or twelfth, were Maine, Minnesota, New Hampshire, and Vermont. Meanwhile, state precipitation rankings ranged from the tenth-driest January in North Dakota to top-ten wetness in Arkansas, Louisiana, Texas, as well as the ten Atlantic Coast States from Virginia to New Hampshire (figure 2). It was the third-wettest January in Connecticut and Massachusetts.

Figure 1

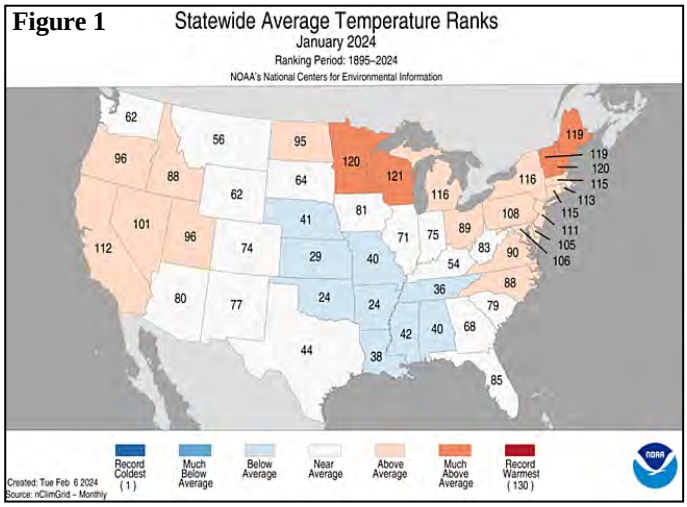
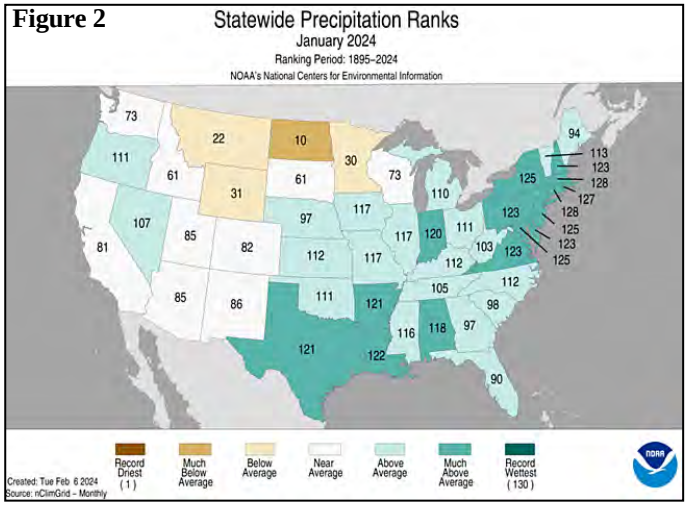


Figure 2



Summary: The New Year began on a remarkably quiet note, a tranquil period in advance of a barrage of storms, with mild weather and negligible precipitation. By January 3, however, Winnemucca, NV, reported daily-record precipitation and snowfall totals—0.56 and 4.9 inches, respectively. In Alta, UT, snow began to fall on January 4, with 28.5 inches reported in a 5-day period ending the 8th. (Alta would go on to receive a monthly sum of 120.2 inches of snow, 161 percent of normal, greatly aided a 70.0-inch total during the 6-day period ending January 15.) Farther south, January 4 snowfall in New Mexico totaled 2.5 inches in Clayton and 2.2 inches in Albuquerque. Eventually, rain and snow arrived on the central and southern Plains. In Kansas, daily-record precipitation totals for January 5 included 0.59 inch in Medicine Lodge and 0.45 inch in Wichita. On the same date, Kansas snowfall amounts reached 3.3 inches in Wichita, 3.1 inches in Dodge City, and 2.5 inches in Goodland. Meanwhile, heavy showers in coastal Texas led to daily-record totals for the 5th in Palacios (1.56 inches) and Houston (1.44 inches). By January 6, when precipitation swept into the East, daily-record amounts in Florida topped the 2-inch mark in St. Petersburg (2.71 inches) and Apalachicola (2.42 inches). Most (2.04 inches) of St. Petersburg's rain fell in an hour, from 9 to 10 am EST. Farther north, daily-record totals for January 6 included 0.97 inch at Virginia's Dulles Airport and 0.89 inch in Bluefield, WV. In Pennsylvania, January 6 featured snowfall totaling 5.3 inches in Allentown and 3.3 inches in Harrisburg. For Harrisburg, it was the first accumulating snow since January 25, 2023, ending a record-setting, 345-day streak without a measurable amount. In New England, January 6-7 snowfall topped a foot in several locations, including Worcester, MA (15.5 inches), and Portland, ME (12.8 inches).

As the middle of the month approached, two significant winter storms—only 3 to 4 days apart—followed a similar path across the country, starting in the Northwest and curving toward the Southwest, before tracking northeastward from the central or southern Plains. On January 8, high winds were observed in the Southwest, with gusts in New Mexico clocked to 67 mph in Raton and 64 mph in Clayton. Farther north, daily snowfall records for the 8th topped the 10-inch mark in Sioux Falls, SD, and Norfolk, NE, with both locations receiving 10.5 inches. Daily records for the 8th in Kansas reached 8.1 inches in Dodge City and 6.9 inches in Goodland. In Iowa, record-setting snowfall totals for January 9 included 11.5 inches in Waterloo and 8.3 inches in Des Moines. In fact, Des Moines received measurable snow each day from January 7 -13, totaling 23.0 inches, marking its snowiest calendar week since December 28, 1941 – January 3, 1942, when 24.7 inches fell. Meanwhile, the first tornado-related deaths of the year were noted on January 9, with one fatality apiece in Houston County, AL, and Catawba County, NC. Additionally, dozens of daily precipitation records were established on the 9th across the South, East, and lower Midwest, with amounts ranging from 1 to 4 inches or more. Rainfall records for the 9th topped the 3-inch mark in Athens, GA (4.56 inches); Greenville-Spartanburg, SC (4.38 inches); Asheville, NC (3.98 inches); Mount Pocono, PA (3.19 inches); and Hattiesburg, MS (3.17 inches). In Indianapolis, IN, a barometric pressure record for January was set on the 9th, with a minimum reading of 981.0 millibars, or 28.97 inches (previously, 984.4 millibars on January 26, 1978). With southeasterly winds battering the Atlantic Coast on the night of January 9-10, storm-surge flooding was impressive in several areas. On the Maryland side of the Chesapeake Bay, a top-three flood was observed in Cambridge (stage of 5.25 feet) and along the Severn River at Annapolis (5.10 feet). Those levels were 0.93 and 2.06 feet, respectively, below the high-water marks established during Hurricane Isabel on September 19, 2003. In northern New England, storm-surge flooding occurred on January 10 and 13, with Portland, ME, recording a record-high surge (14.57 feet) on the latter date and a top-four value (13.84 feet) on the 10th. The second storm delivered additional snow, starting in the Northwest, with Boise, ID, measuring 5.2 inches on January 10. By the 12th, Midwestern daily-record snowfall totals included 11.8 inches in Green Bay, WI, and 10.0 inches in Waterloo, IA. Midwestern blizzard conditions were common, as wind gusts frequently topped 40 mph. Green Bay's snow on the 12th was accompanied by a gust to 54 mph.

While mild weather covered much of the country in early 2024, temperatures rarely strayed into record-setting territory. A few days into the new year, cooler air—drawn southward by the first in a series of winter storms—began to overspread the West. By January 6, Ramona, CA, posted a daily-record low of 26°F. Farther east, however, a brief surge of spring-like heat into

southern Texas on January 8 led to a daily-record high of 91°F in McAllen. Later, warmth raced into the Atlantic Coast States in advance of a cold front. By January 10, daily-record highs included 59°F in Harrisburg, PA, and 52°F in Portland, ME. Two days later, lingering warmth in southern Florida led to daily-record highs of 87°F in Miami and West Palm Beach. Meanwhile, the early stages of a cold outbreak appeared in the West. In California, Campo collected consecutive daily-record lows (19 and 17°F, respectively) on January 8-9. Frigid air soon made a much stronger push across the western and central U.S. For example, Glasgow, MT, experienced its latest-ever first sub-zero reading of the winter on January 8, breaking a record set on January 2, 1998. Subsequently, Glasgow plunged to -35°F on January 13, a record low for the date, and -37°F on January 14. Elsewhere in Montana, January 13 featured daily-record lows of -48°F in Dunkirk; -45°F in Bozeman; -45°F in Butte; -43°F in Lewistown; -42°F in Havre; and -41°F in Cut Bank. Great Falls, MT, reported a January 13 minimum temperature of -37°F with an official snow depth of just 1 inch, leading to concerns for winter wheat exposure. On that date, the coldest air in 27 years settled across Sheridan, WY (-31°F), and Billings, MT (-26°F); on January 12, 1997, respective lows had plummeted to -35 and -30°F. Maximum temperatures did not appreciably recover on January 13, peaking at sub-zero levels as far south as Goodland, KS (-2°F), and Grand Island, NE (-1°F).

By January 13, a new Pacific storm system punched inland across the West. In northern California, record-setting rainfall amounts for January 13 reached 2.81 inches in Crescent City and 2.45 inches in Eureka. Farther east, Boise, ID (6.8 inches on the 13th), noted its second daily-record snowfall in 4 days. Soon, snow accumulated from the mid-South into the mid-Atlantic. January 14-16 event-total snowfall reached 9.0 inches in Jackson, KY, and 8.2 inches in Knoxville, TN. Southern snowfall totals for January 14-15 included 3.4 inches in Memphis, TN, and 3.0 inches in Little Rock, AR. On February 15, record-setting snowfall totals in West Virginia reached 4.7 inches in Beckley and 3.1 inches in Huntington. Elsewhere on the 15th, daily-record amounts totaled 6.4 inches in Jackson, KY; 6.3 inches in Nashville, TN; and 4.1 inches in Baltimore, MD. That marked the first 6-inch daily snowfall in Nashville since January 6, 2022, when an identical amount fell. Incredibly, through the end of January, season-to-date snowfall was higher in Nashville (7.6 inches) than several Northern locations, including Minneapolis-St. Paul (7.3 inches). For Baltimore, a record-setting, 716-day streak without seeing an inch of snow—lasting from January 29, 2022 – January 14, 2024)—ended. Similar streaks (no calendar days with snowfall of an inch or more) ended on the 15th in Philadelphia, PA, with 1.5 inches, and on the 16th at New York's Central Park, with 1.3 inches. Philadelphia's streak lasted 715 days, starting January 30, 2022, while New York's streak endured 701 days, starting February 14, 2022. Previous records had been 672 days in Baltimore (last day was December 25, 2012); 661 days in Philadelphia (last day was December 15, 1973); and 383 days in New York (last day was March 21, 1998). Farther south, Fort Myers, FL, netted a daily-record rainfall (3.09 inches on January 15). Meanwhile, squalls persisted downwind of the Great Lakes, where Buffalo, NY, noted measurable snow each day from January 14-20, totaling 35.4 inches. Precipitation also continued to push inland across the West, where Alta, UT, received 112.2 inches of snow during the first 20 days of January, more than twice the normal amount. Western daily-record snowfall totals for January 17 included 5.8 inches in Havre, MT, and 5.1 inches in Spokane, WA. Havre had just 3 inches of snow on the ground when the temperature fell to -44°F on January 14, but saw its depth increase to 9 inches by the 18th. Late in the week, snow returned across the central Appalachians and mid-Atlantic, leading to daily-record amounts on the 19th of 8.2 inches in Elkins, WV, and 4.9 inches at Virginia's Dulles Airport. A daily-record sum had also occurred at Dulles Airport just 4 days earlier, with 4.1 inches on January 15.

Frigid weather gripped much of the country for about 10 days, starting in mid-January. In Montana, daily-record lows plunged below -40°F on January 14 in Montana locations such as Havre and Dunkirk—both -44°F. An observation site near Saco, MT, reported -51°F on the 14th, setting an all-time station record (previously, -50°F on January 25, 1969). Farther south, Kansas City, MO, reported January 14 maximum and minimum temperatures of -3 and -12°F, respectively, marking the coldest day in that location—based on average temperature—since December 22, 1989. Kansas City plunged to -16°F the next day, January 15. Elsewhere on the 15th, a trace of snow fell as far south as Laredo and Victoria, TX. By January 16, daily-record lows in Texas included 0°F in Amarillo, 5°F in Lubbock, 26°F in Harlingen, and 28°F in McAllen. Sub-zero, daily-record for the 16th included -10°F in Fayetteville, AR; -7°F in Joplin, MO; -6°F in Jackson, TN; and -2°F in Tulsa, OK. Jackson, TN, was even colder on January 17, dipping to -10°F. In Louisiana, consecutive daily-record lows were established on January 16-17 in locations such as Alexandria (16 and 12°F) and Lake Charles (19°F both days). In contrast, lingering warmth in southern Florida resulted in daily-record highs of 85°F on January 16 in Fort Lauderdale and West Palm Beach. Later, a new surge of cold air led to a handful of daily-record lows, including -20°F (on January 20) in Sioux City, IA.

Within days, the active storm track contributed to a rapid warming trend, along with widespread precipitation, although an increasing percentage of that precipitation fell in the form of rain. After snow blanketed a winter peak of nearly 59 percent of the U.S. on January 17, coverage dropped to barely one-fifth (21 percent) of the Lower 48 States just 2 weeks later. In the latest iteration precipitation arriving in the West and quickly spreading eastward, record-setting rainfall totals for January 21 in Arizona included 0.81 inch in Tucson and 0.48 inch in Nogales. The following day, heavy rain erupted in the western Gulf Coast region, where daily-record amounts in Texas for the 22nd reached 3.54 inches in Austin, 3.43 inches in Victoria, and 2.41 inches in San Antonio. The next day, record-setting rainfall totals for January 23 reached 4.08 inches in Longview, TX, and 2.84 inches in Texarkana, AR. Meanwhile, a closely trailing system caused flash flooding in parts of southern California. With a 2.73-inch total on January 22, San Diego, CA, endured its fourth-wettest day on record, behind 3.34 inches on December 2, 1854; 3.23 inches on April 5, 1926; and 2.95 inches on October 4, 1925. Previously, San Diego's wettest January day had been January 31, 1979, when 2.57 inches fell. Elsewhere in California, daily-record totals for the 22nd included 3.22 inches in Campo, 2.98 inches in El Cajon, and 2.57 inches in Alpine. In Arizona, daily-record amounts for January 23 totaled 0.66 inch in Winslow and 0.41 inch in Phoenix. San Antonio netted another daily-record sum (1.60 inches) on the 24th, boosting the January 21-24 total to 5.56 inches. Elsewhere on January 24, daily-record totals topped the 3-inch mark in Jackson, MS (4.04 inches); Tuscaloosa, AL (3.48 inches); and Meridian, MS (3.15 inches). Jackson measured 7.13 inches from January 23-27. On the 28th, the Trinity River at Liberty, TX, crested 3.88 feet above flood stage but 2.82 feet below the September 2017 high-water mark. Farther north, rain and melting snow pushed the Kankakee River near Wilmington,

IL, 7.22 feet above flood stage on January 26—based on preliminary data—and just 0.16 foot below the modern record set on January 30, 1968. In New York, daily-record precipitation totals topped an inch on January 26 in Rochester (1.16 inches) and Syracuse (1.08 inches). On January 27, Eastern daily-record totals reached 1.81 inches in Greensboro, NC, and 1.28 inches in Danville, VA. Lingering Northeastern showers on the 28th led to daily-record totals topping an inch in Martinsburg, WV (1.34 inches), and Williamsport, PA (1.16 inches). Most of Williamsport's precipitation fell as rain, with snowfall on that date totaling just 0.3 inch. Elsewhere in the Northeast, January 28-29 snowfall included 5.0 inches in both Binghamton, NY, and Worcester, MA. As the month ended, renewed Western storminess led to daily-record amounts for January 31 in northern California communities such as Mount Shasta City (2.53 inches) and Eureka (2.17 inches). On the first day of February, heavy precipitation shifted into southern California and pushed farther inland.

With the warming trend, temperatures in some Montana locations rose more than 100°F in 15 days. For example, the temperature in Lewistown, MT, rebounded from -43°F on January 13 to reach 58°F by January 28. Similarly, the temperature in Cut Bank, MT, jumped 103°F (from -41 to 62°F) between January 13 and 29. Elsewhere in Montana, temperatures also skyrocketed more than 100°F in Great Falls (from -37 to 64°F, between January 13 and 30) and Havre (from -44 to 60°F, between January 14 and 30). Olympia, WA, which had posted consecutive daily record-tying lows (15 and 16°F, respectively) on January 15-16, notched a daily-record high of 56°F on January 23. A string of daily-record highs in Olympia—61, 63, and 59°F—began on January 27. Late in the month, warmth exploded across the southern and eastern U.S., with Tallahassee, FL, collecting a daily record-tying high of 80°F on January 24. In many areas of Florida, warmth peaked on January 27 with daily-record highs of 86°F in Punta Gorda; 85°F in Lakeland; and 84°F in Jacksonville. However, the overall most impressive day of Eastern warmth occurred on January 26, with monthly records attained in locations such as Wilmington, NC (83°F; previously, 82°F on January 31, 1975), and Washington, DC (80°F; previously, 79°F on January 26, 1950). Unusual warmth also continued in the West, where daily-record highs for January 27 rose to 80°F in Ontario, CA, and 63°F in Eugene, OR. The following day, the 28th, Eugene tied a monthly record—most recent achieved on January 27, 1931—with a high of 69°F. Elsewhere in Oregon, Klamath Falls (67°F on January 29) and Medford (73°F on January 30) also established monthly record highs. Reno, NV, collected consecutive daily-record highs (69 and 68°F, respectively) on January 28-29, followed by 8.5 inches of snow on February 4. In Livingston, MT, five consecutive daily-record highs occurred from January 28 – February 1, with highs of 58, 60, 63, 62, and 63°F. By the last day of January, temperatures topped the 60-degree mark as far north as Jamestown, ND, where a daily-record high of 62°F was observed. International Falls, MN, attained 53°F on the 31st, topping the 50-degree mark in January for the first time on record (previously, 49°F on January 20, 1921).

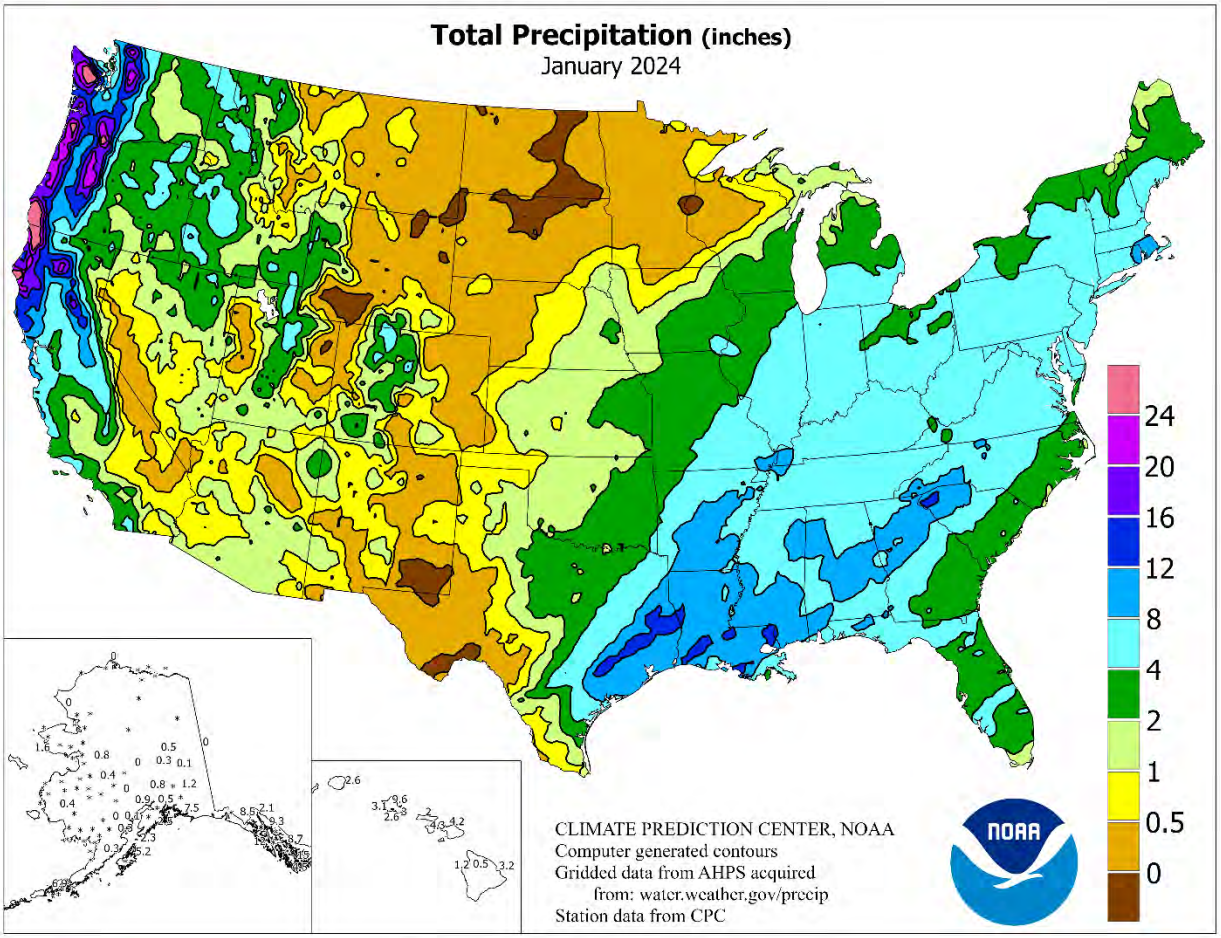
Phenomenal snow blitzed parts of southeastern Alaska, setting a January record in Juneau with 76.8 inches (313 percent of normal). Juneau's previous snowiest January occurred in 2009, when 75.2 inches fell. In fact, the only snowier month in Juneau's history was February 1965, with 86.3 inches. The bulk of Juneau's snow fell in two 4-day periods—from January 12-15 and 21-24—with 29.3 and 35.3 inches, respectively. The stormy regime was also apparent by winds in the Aleutians, which were clocked to 88 mph in Cold Bay on January 12 and topped 60 mph on at least 9 other days. As the month progressed, frigid weather replaced previously mild conditions, starting near the Canadian border and progressing to other areas during the second half of January. Fairbanks reported lows of -40°F or below on 6 of the last 10 days of the month. This marked the greatest number of -40°F readings during a single month in Fairbanks since December 2012, when there were 10 such days. Monthly temperatures averaged at least 5°F below normal at several interior locations, including Bettles, where the temperature plummeted to -57°F on January 27 and 28. On January 28 and 31, McGrath dipped to -50°F or below for the first time since January 10, 2020. Even Anchorage reported sub-zero minimum temperatures each day from January 22-28, the longest such streak in that location since November 16-22, 2021. Anchorage also received 17.2 inches of snow from January 28-30, helping to boost the monthly total to 25.5 inches (206 percent of normal). Despite the late-month cold blast, significantly above-average January temperatures covered parts of northern Alaska, including Utqiagvik (7.7°F above normal).

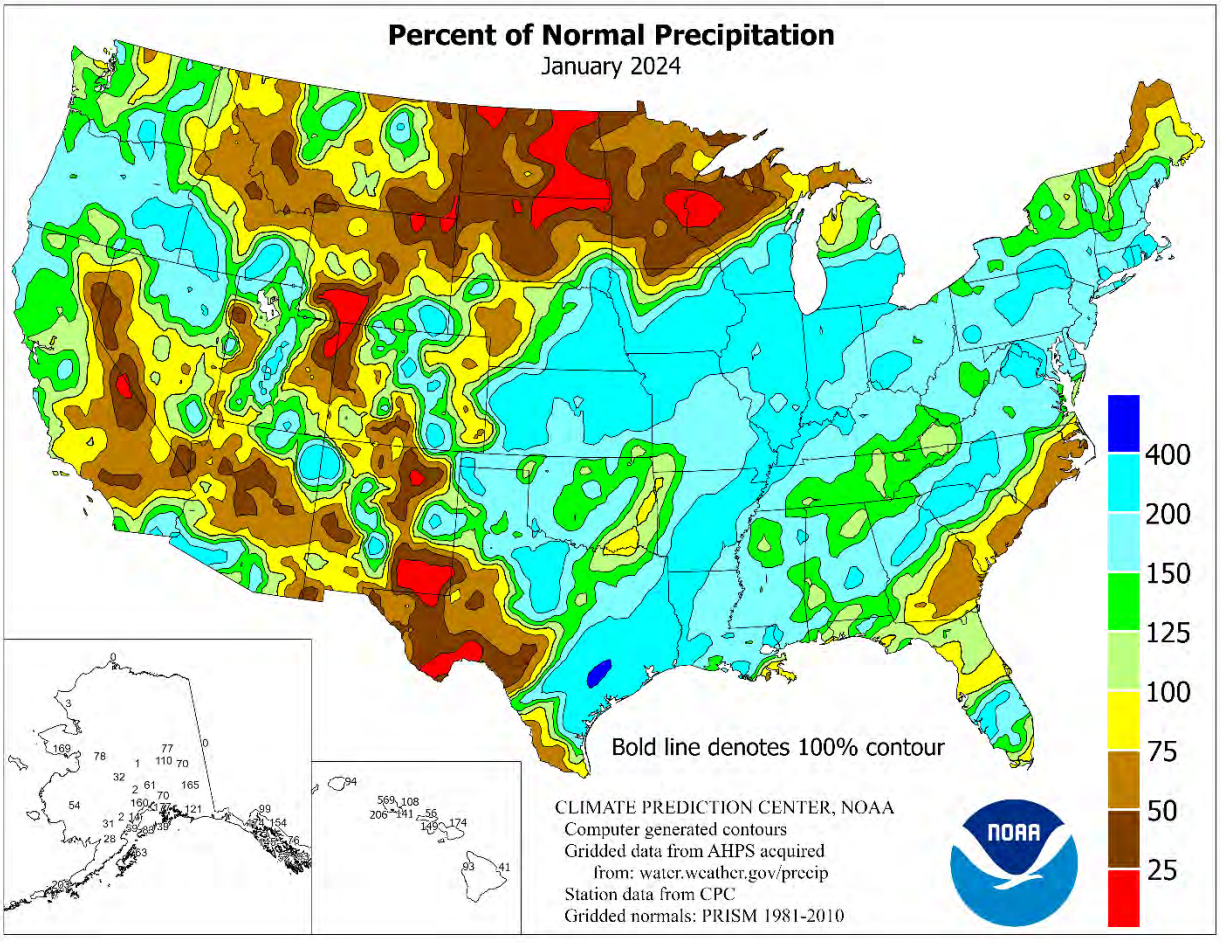
Periods of heavy precipitation associated with cold fronts further chipped away at Hawaiian drought, although most of the significant rain bypassed the Big Island. There were also some warm spells, with Lihue, Kauai, posting daily record-tying highs of 83°F on January 17, 25, and 27. Additionally, Kahului, Maui, tallied a trio of daily-record highs (86, 86, and 87°F) from January 4-6. There was also a mid-January cool spell, during which Lihue (56°F on the 14th) reported its lowest reading since an identical temperature occurred on February 6, 2021. Prior to the cool weather, daily rainfall topped the 2-inch mark in Honolulu, Oahu (2.38 inches on January 8), and Kahului, Maui (2.08 inches on January 9). Kahului's heavy rain was accompanied by a southerly wind gust to 53 mph. More heavy rain fell in Kahului on January 16, when 1.88 inches fell. At the state's major airport observation sites, January rainfall ranged from 2.60 inches (94 percent of normal) in Lihue to 5.07 inches (210 percent) in Kahului. On the Big Island, where some drought remained, Hilo's monthly rainfall totaled just 3.21 inches (41 percent of normal). According to the *U.S. Drought Monitor*, Hawaiian drought coverage dipped to 9 percent by January 30, down from 22 percent at the beginning of the month.

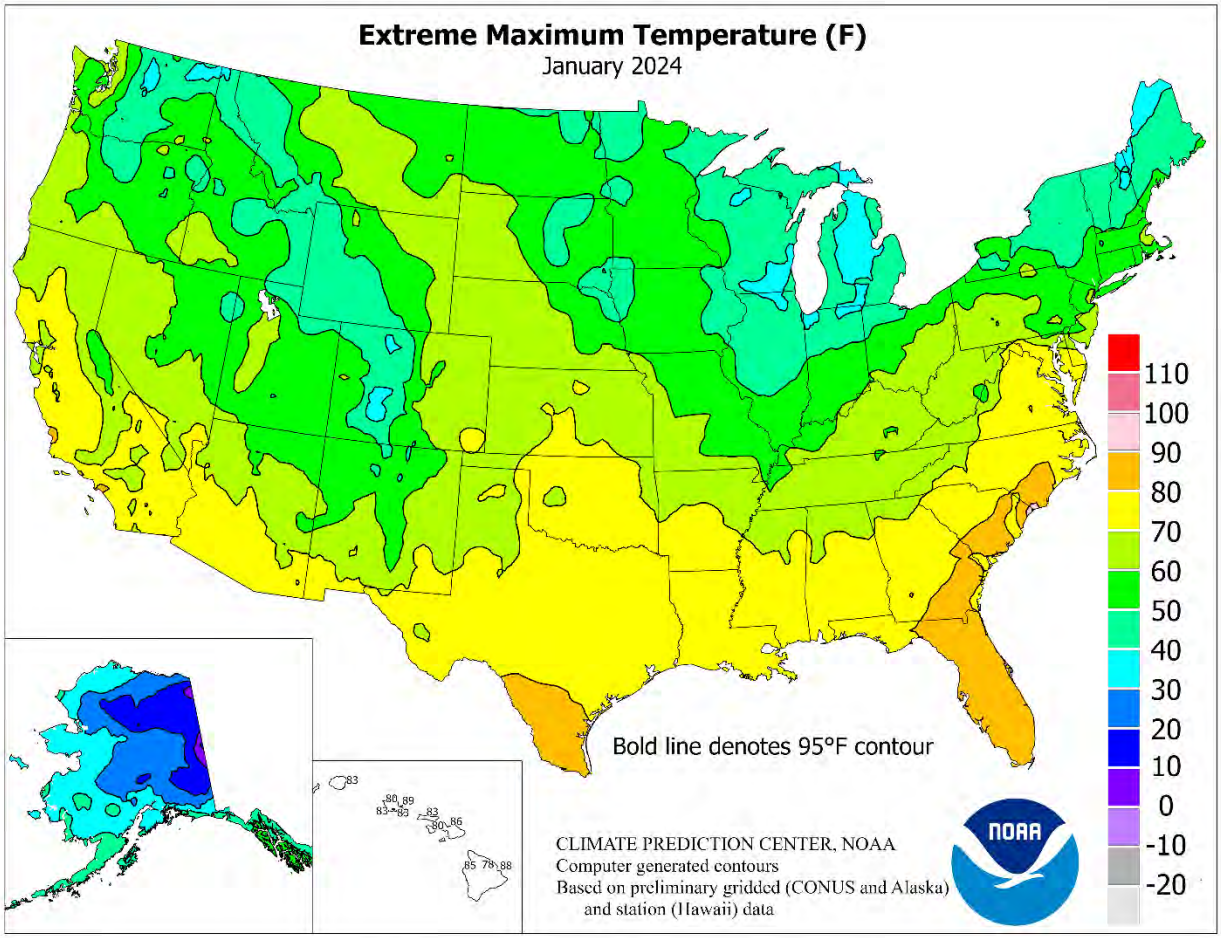
Fieldwork

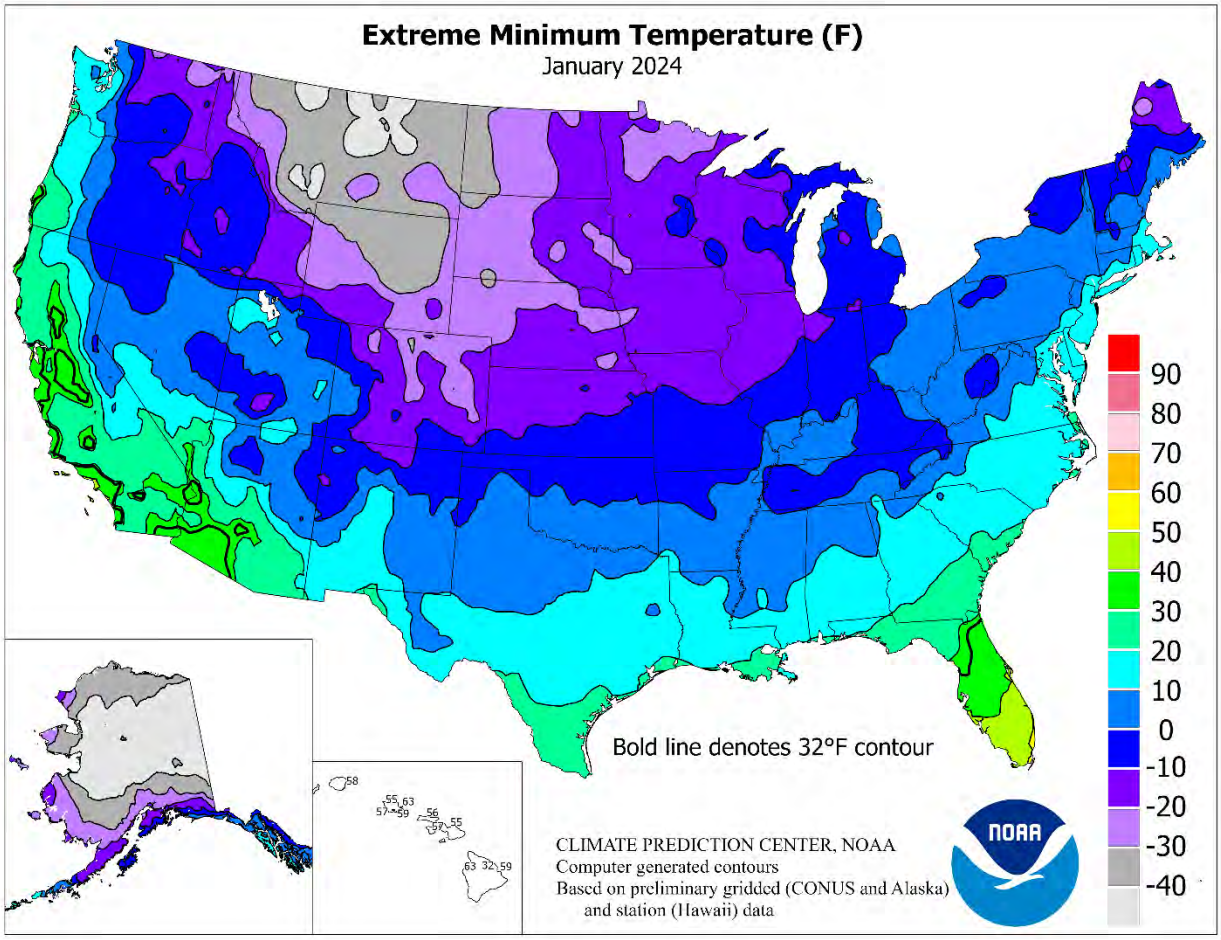
Fieldwork summary provided by USDA/NASS

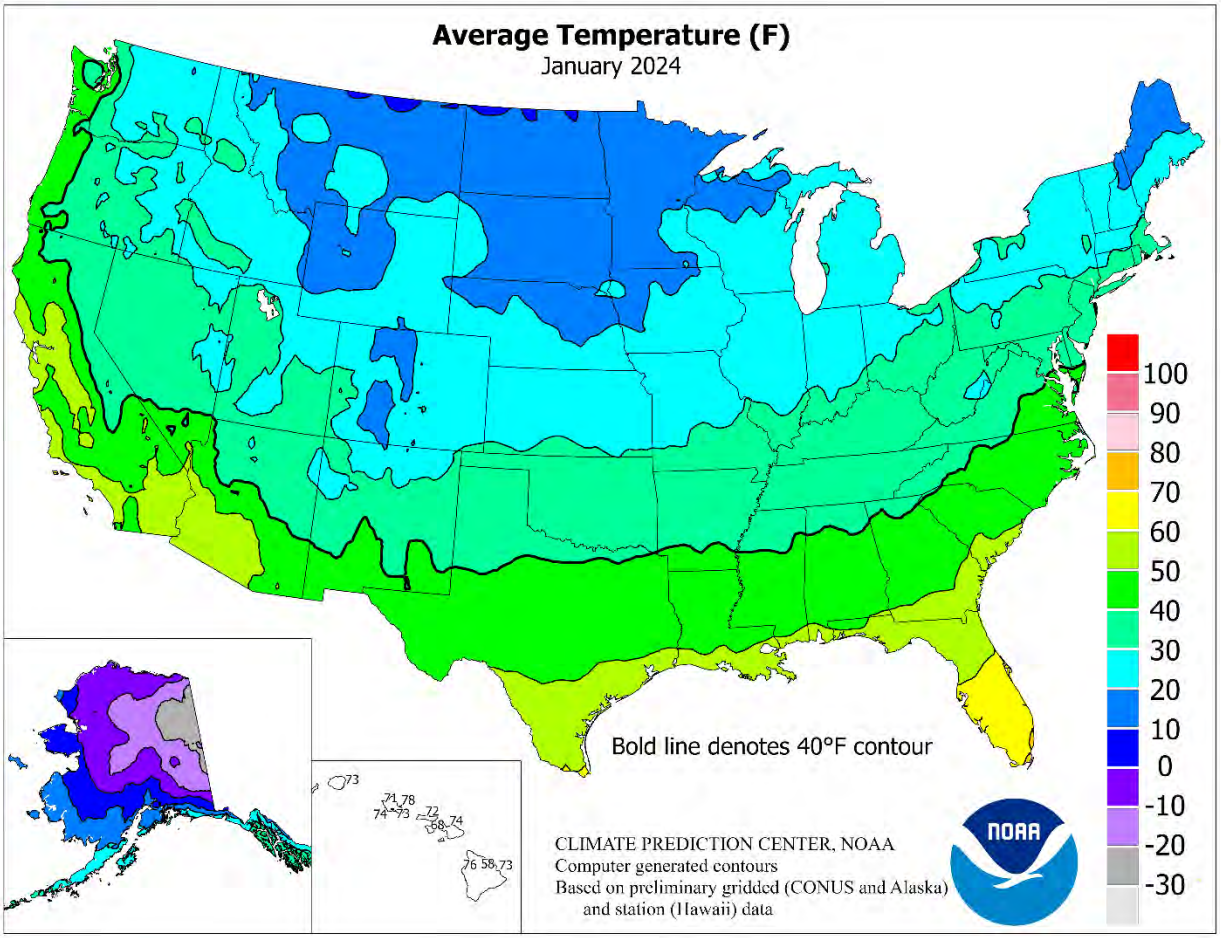
January was warmer than normal for most of the southern Atlantic Coast, mid-Atlantic, upper Midwest, and Northeast, as well as large parts of the West. Some locations in Minnesota, Wisconsin, Utah, and Vermont recorded temperatures 8°F or more above normal. In contrast, most of the Great Plains and Mississippi Valley, as well as large sections of the Pacific Northwest, northern Rockies, and Southwest, recorded below-normal temperatures. Parts of Kansas, Montana, Nebraska, and Wyoming recorded January temperatures 8°F or more below normal. Meanwhile, much of the nation recorded above-average January precipitation. Portions of the mid-Atlantic, Midwest, Northeast, central and southern Plains, South, and West recorded at least twice the normal amount of precipitation. Parts of the Pacific Northwest and South received at least 12 inches of January precipitation. In contrast, much of the upper Midwest and northern Plains, as well as parts of the Rockies and Southwest, were drier than normal.

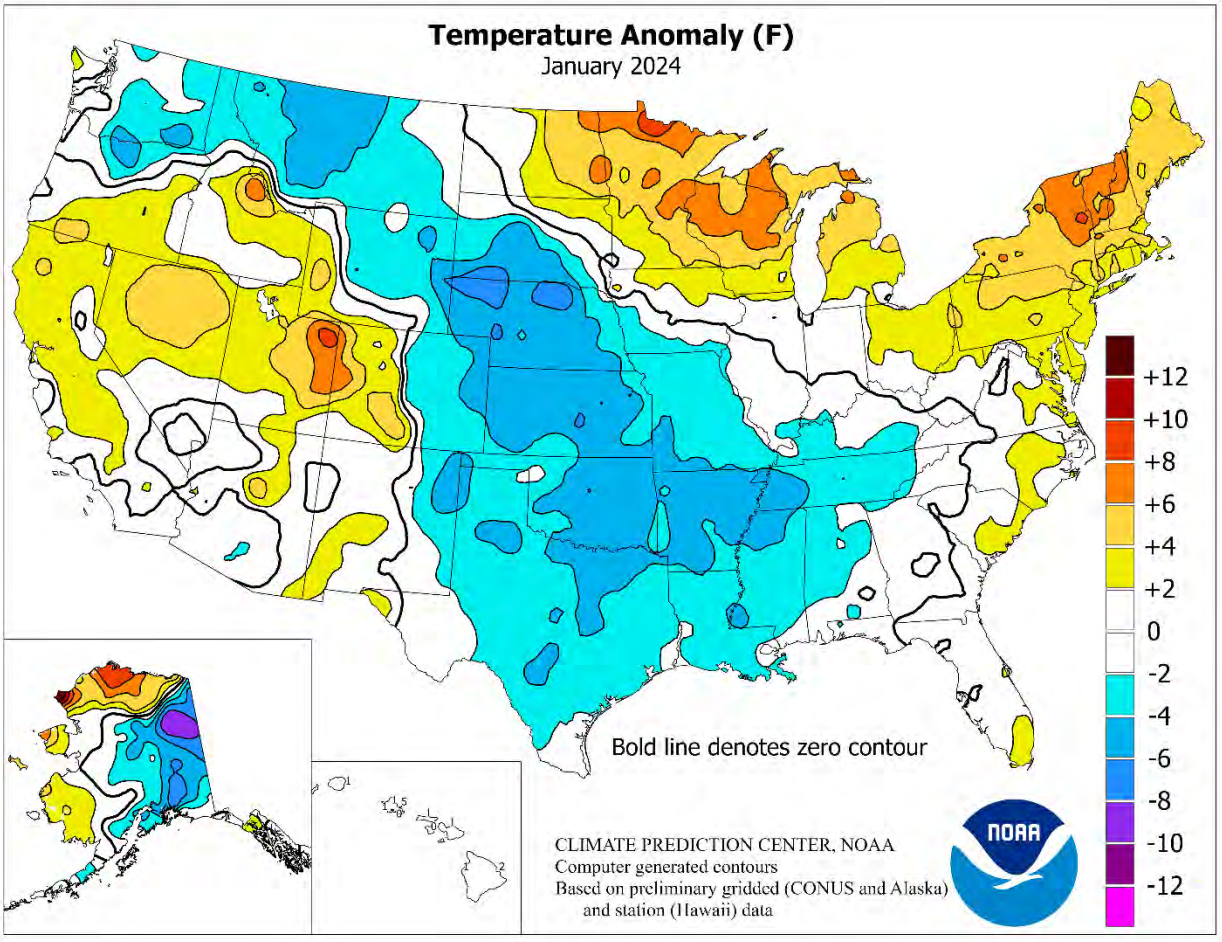

Total Precipitation (inches)
January 2024
24
20
16
12
8
4
2
1
0.5
0
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Gridded data from AHPS acquired
from: water.weather.gov/precip
Station data from CPC
NOAA


Percent of Normal Precipitation
January 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)
January 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)
January 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)
January 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)
January 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

January 2024

Data Provided by Climate Prediction Center

STATES AND STATIONS	TEMP, ˚F		PRECIP.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AK ANCHORAGE	14	-3	1.21	0.46
BARROW	-1	0	0.00	-0.15
FAIRBANKS	-12	-4	0.47	-0.14
JUNEAU	28	0	9.26	3.24
KODIAK	30	-1	5.23	-3.11
NOME	9	3	1.59	0.65
AL BIRMINGHAM	43	-2	5.97	0.94
HUNTSVILLE	39	-4	6.75	1.76
MOBILE	51	0	7.74	2.08
MONTGOMERY	46	-2	8.98	4.34
AR FORT SMITH	37	-4	3.31	0.40
LITTLE ROCK	39	-2	9.14	5.63
AZ FLAGSTAFF	31	0	1.47	-0.58
PHOENIX	56	-1	0.74	-0.13
PRESCOTT	39	-1	0.53	-0.68
TUCSON	53	-1	1.72	0.88
CA BAKERSFIELD	51	2	1.48	0.30
EUREKA	51	3	9.90	3.23
FRESNO	52	4	1.87	-0.30
LOS ANGELES	57	-1	1.79	-1.07
REDDING	50	3	6.20	0.16
SACRAMENTO	51	3	3.36	-0.30
SAN DIEGO	56	-2	3.63	1.65
SAN FRANCISCO	54	3	4.75	0.85
STOCKTON	52	4	3.68	1.00
CO ALAMOSA	22	5	0.26	-0.06
CO SPRINGS	30	-2	0.63	0.33
DENVER INTL	28	-3	0.26	-0.12
GRAND JUNCTION	35	7	0.24	-0.38
PUEBLO	29	-3	0.31	0.02
CT BRIDGEPORT	34	3	5.93	2.75
HARTFORD	31	4	8.31	5.03
DC WASHINGTON	40	2	5.82	2.96
DE WILMINGTON	35	1	6.22	3.00
FL DAYTONA BEACH	60	1	2.88	0.15
JACKSONVILLE	54	0	3.97	0.69
KEY WEST	71	1	1.83	0.00
MIAMI	71	2	0.89	-0.94
ORLANDO	62	1	1.56	-0.92
PENSACOLA	51	-2	6.09	1.06
TALLAHASSEE	53	1	5.31	0.90
TAMPA	62	-1	2.98	0.34
WEST PALM BEACH	68	2	2.65	-0.82
GA ATHENS	43	-2	10.19	5.82
ATLANTA	44	-1	6.29	1.70
AUGUSTA	46	-2	2.39	-1.45
COLUMBUS	43	-5	4.14	0.87
MACON	46	-1	5.46	1.15
SAVANNAH	52	1	2.86	-0.43
HI HILO	73	2	3.19	-4.68
HONOLULU	73	0	2.59	0.75
KAHULUI	74	1	4.21	1.79
LIHUE	73	1	2.61	-0.17
IA BURLINGTON	23	-1	1.92	0.47
CEDAR RAPIDS	21	1	0.50	-0.45
DES MOINES	22	0	3.89	2.81
DUBUQUE	21	2	1.56	0.25
SIOUX CITY	18	-2	1.29	0.60
WATERLOO	22	2	1.41	0.32
ID BOISE	33	1	2.20	0.79
LEWISTON	33	-3	1.67	0.55
POCATELLO	28	2	1.33	0.22
IL CHICAGO/O_HARE	26	1	3.35	1.37
MOLINE	24	1	2.77	1.11
PEORIA	26	0	3.10	1.04
ROCKFORD	23	2	2.26	0.66
SPRINGFIELD	26	-2	4.14	2.26
IN EVANSVILLE	32	-1	5.96	2.61
FORT WAYNE	27	2	3.91	1.37
INDIANAPOLIS	29	0	4.46	1.34
SOUTH BEND	27	2	4.48	1.82
KS CONCORDIA	25	-4	1.32	0.65
DODGE CITY	29	-4	0.69	0.09
GOODLAND	25	-5	0.45	0.13
TOPEKA	27	-4	1.94	1.06
WICHITA	29	-4	1.74	0.88
KY LEXINGTON	34	0	5.48	2.06
LOUISVILLE	34	-1	6.19	2.79
PADUCAH	34	-2	9.26	5.41
LA BATON ROUGE	51	-1	7.86	1.50
LAKE CHARLES	51	-3	9.15	3.26
NEW ORLEANS	53	-2	8.28	3.10
SHREVEPORT	46	-2	***	***
MA BOSTON	33	3	7.41	4.02
WORCESTER	29	5	8.19	4.67
MD BALTIMORE	37	3	5.90	2.82
ME CARIBOU	16	5	1.85	-1.11
PORTLAND	27	3	7.83	4.33
MI ALPENA	25	5	2.17	0.35
GRAND RAPIDS	27	2	16.56	14.04
HOUGHTON LAKE	32	13	0.16	-0.54
LANSING	26	2	3.16	1.10
MUSKEGON	31	4	2.95	0.53
TRAVERSE CITY	29	5	0.71	-0.96
MN DULUTH	17	6	0.72	-0.22
INT_L FALLS	14	9	0.61	-0.19
MINNEAPOLIS	22	6	0.14	-0.74
ROCHESTER	19	5	0.52	-0.46
ST. CLOUD	19	8	0.21	-0.46
MO COLUMBIA	27	-4	2.72	0.60
KANSAS CITY	25	-4	2.06	0.90
SAINT LOUIS	32	0	3.96	1.37
SPRINGFIELD	30	-4	2.39	-0.15
MS JACKSON	44	-3	9.21	3.79
MERIDIAN	44	-3	7.92	2.31
TUPELO	40	-4	7.18	2.35
MT BILLINGS	24	-3	0.38	-0.17
BUTTE	18	-2	0.16	-0.26
CUT BANK	17	-4	0.03	-0.19
GLASGOW	13	-2	0.42	-0.02
GREAT FALLS	22	-4	0.26	-0.29
HAVRE	12	-6	0.93	0.50
MISSOULA	22	-3	0.62	-0.34
NC ASHEVILLE	37	-1	8.50	4.37
CHARLOTTE	43	1	7.26	3.77
GREENSBORO	40	0	7.40	4.01
HATTERAS	48	0	2.28	-2.63
RALEIGH	45	3	4.22	0.79
WILMINGTON	48	2	1.62	-2.19
ND BISMARCK	15	3	0.33	-0.15
DICKINSON	16	0	0.01	-0.23
FARGO	17	8	0.14	-0.57
GRAND FORKS	14	8	0.27	-0.22
JAMESTOWN	15	5	0.00	-0.31
NE GRAND ISLAND	21	-5	0.67	0.07
LINCOLN	21	-4	0.87	0.14
NORFOLK	19	-3	1.20	0.59
NORTH PLATTE	24	-2	0.28	-0.11
OMAHA	21	-4	0.81	0.07
SCOTTSBLUFF	23	-5	0.36	-0.03
VALENTINE	19	-5	0.47	0.15
NH CONCORD	27	5	6.57	3.76
NJ ATLANTIC_CITY	36	2	6.44	3.06
NEWARK	37	4	4.76	1.33
NM ALBUQUERQUE	38	1	0.33	-0.04
NV ELY	29	2	1.09	0.34
LAS VEGAS	50	0	0.26	-0.30
RENO	40	3	1.10	-0.15
WINNEMUCCA	36	4	2.18	1.21
NY ALBANY	30	6	5.00	2.39
BINGHAMTON	28	5	4.50	1.88
BUFFALO	29	4	4.81	1.46
ROCHESTER	30	4	22.22	19.67
SYRACUSE	29	5	4.19	1.60
OH AKRON-CANTON	29	1	3.15	0.22
CINCINNATI	31	0	6.30	3.00
CLEVELAND	31	2	3.58	0.59
COLUMBUS	32	2	4.76	1.76
DAYTON	31	1	5.32	2.24
MANSFIELD	29	2	3.82	0.60
TOLEDO	29	1	4.61	2.24
YOUNGSTOWN	31	4	3.95	0.92
OK OKLAHOMA CITY	34	-5	1.78	0.47
TULSA	33	-5	2.87	1.24
OR ASTORIA	45	1	14.68	4.09
BURNS	30	4	2.83	1.50
EUGENE	44	2	4.46	-1.59
MEDFORD	46	5	4.61	1.89
PENDLETON	31	-4	2.41	0.89
PORTLAND	40	-2	9.12	4.09
SALEM	42	0	9.76	3.69
PA ALLENTOWN	32	2	5.25	1.95
ERIE	31	2	3.78	0.38
MIDDLETOWN	35	4	5.83	2.81
PHILADELPHIA	36	3	5.87	2.74
PITTSBURGH	33	4	4.52	1.55
WILKES-BARRE	32	4	5.28	2.68
WILLIAMSPORT	32	4	6.01	3.05
RI PROVIDENCE	32	2	7.76	3.81
SC CHARLESTON	52	2	1.71	-1.66
COLUMBIA	46	0	2.66	-0.83
FLORENCE	48	1	2.74	-0.33
GREENVILLE	41	-1	9.97	5.85
SD ABERDEEN	15	2	0.13	-0.43
HURON	16	0	0.49	-0.09
RAPID CITY	23	-2	0.05	-0.26
SIOUX FALLS	18	0	1.11	0.50
TN BRISTOL	35	-1	3.11	-0.54
CHATTANOOGA	39	-3	6.36	1.34
KNOXVILLE	36	-3	6.02	1.26
MEMPHIS	38	-4	6.54	2.40
NASHVILLE	36	-3	5.17	1.15
TX ABILENE	43	-3	2.26	1.17
AMARILLO	34	-4	1.00	0.30
AUSTIN	48	-5	5.95	3.31
BEAUMONT	51	-2	11.04	5.71
BROWNSVILLE	62	-1	1.55	0.47
CORPUS CHRISTI	56	-2	3.32	1.93
DEL RIO	51	-2	0.18	-0.43
EL PASO	49	2	0.25	-0.14
FORT WORTH	43	-3	2.96	0.43
GALVESTON	54	-2	4.76	0.46
HOUSTON	51	-3	8.74	4.98
LUBBOCK	38	-3	0.78	0.13
MIDLAND	42	-4	0.20	-0.45
SAN ANGELO	44	-4	0.52	-0.40
SAN ANTONIO	49	-3	5.33	3.37
VICTORIA	52	-2	7.56	4.88
WACO	43	-4	4.28	1.69
WICHITA FALLS	39	-4	2.72	1.52
UT SALT LAKE CITY	35	3	0.65	-0.78
VA LYNCHBURG	37	2	5.08	1.63
NORFOLK	45	3	3.15	-0.26
RICHMOND	41	3	4.87	1.64
ROANOKE	39	1	4.51	1.34
WASH/DULLES	37	3	5.95	3.01
VT BURLINGTON	27	6	2.83	0.70
WA OLYMPIA	41	2	8.50	0.71
QUILLAYUTE	45	3	16.93	1.33
SEATTLE-TACOMA	42	-1	6.06	0.28
SPOKANE	28	-2	2.00	0.03
YAKIMA	29	-3	1.83	0.64
WI EAU CLAIRE	22	7	0.14	-0.89
GREEN BAY	24	6	0.89	-0.50
LA CROSSE	24	5	0.90	-0.35
MADISON	23	3	1.88	0.41
MILWAUKEE	28	4	3.09	1.30
WV BECKLEY	32	0	4.20	1.07
CHARLESTON	35	0	3.95	0.67
ELKINS	32	1	3.47	0.11
HUNTINGTON	35	0	4.96	1.85
WY CASPER	22	-3	0.35	-0.14
CHEYENNE	26	-4	0.41	0.06
LANDER	17	-4	0.46	-0.05
SHERIDAN	23	-1	0.28	-0.33

Based on 1991-2020 normals

***** Not Available**

February 8 ENSO Diagnostic Discussion

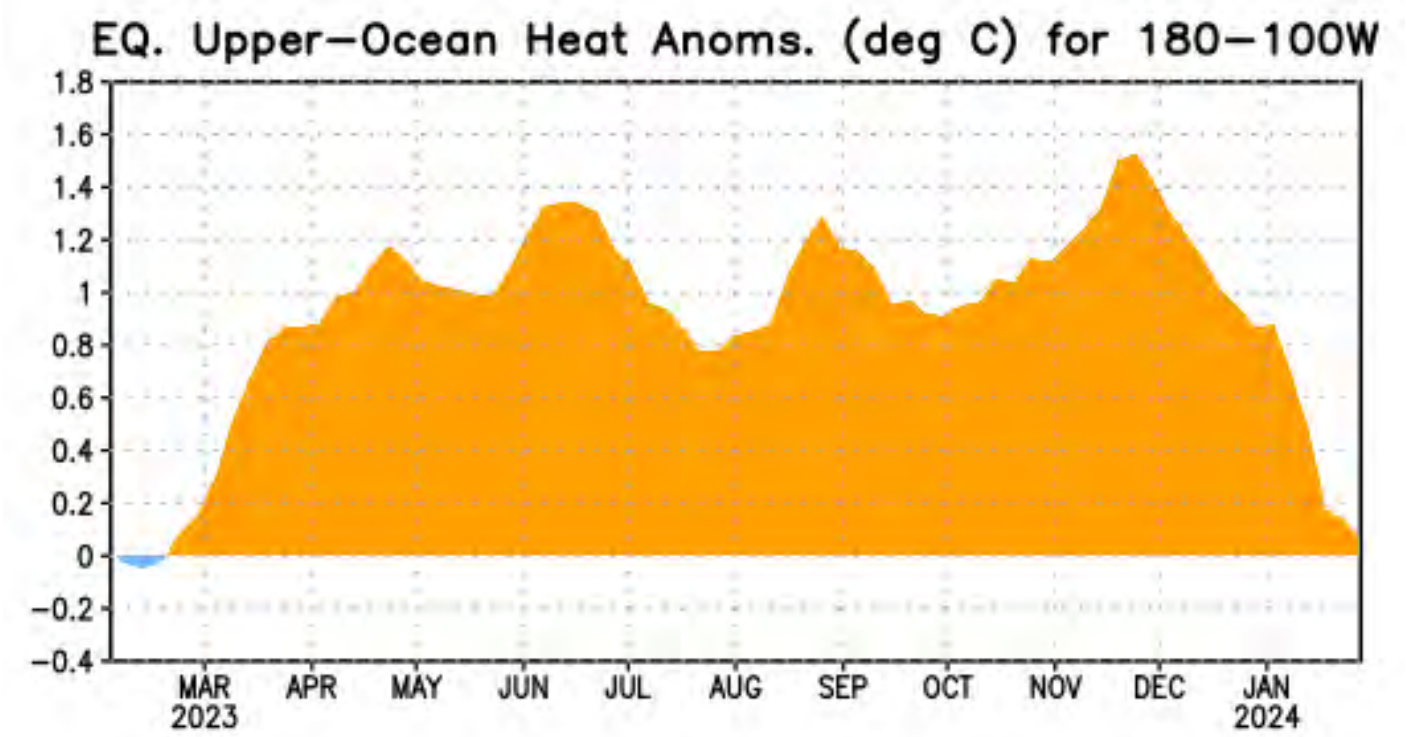


Figure 1: Area-averaged upper-ocean heat content anomaly (°C) in the equatorial Pacific (5°N-5°S, 180º-100ºW). The heat content anomaly is computed as the departure from the 1991-2020 base period pentad means.

ENSO Alert System Status: El Niño Advisory / La Niña Watch

Synopsis: A transition from El Niño to ENSO-neutral is likely by April-June 2024 (79% chance), with increasing odds of La Niña developing in June-August 2024 (55% chance).

During January 2024, above-average sea surface temperatures (SST) continued across most of the equatorial Pacific Ocean. SST anomalies weakened slightly in the eastern and east-central Pacific, as indicated by the weekly Niño index values. However, changes were more pronounced below the surface of the equatorial Pacific Ocean, with area-averaged subsurface temperature anomalies returning to near zero (Fig. 1). Although above-average temperatures persisted in the upper 100 meters of the equatorial Pacific, below-average temperatures were widespread at greater depths. Atmospheric anomalies across the tropical Pacific also weakened during January. Low-level winds were near average over the equatorial Pacific, while upper-level wind anomalies were easterly over the east-central Pacific. Convection remained slightly enhanced near the Date Line and was close to average around Indonesia. Collectively, the coupled ocean-atmosphere system reflected a weakening El Niño.

The most recent IRI plume indicates a transition to ENSO-neutral during spring 2024, with La Niña potentially developing during summer 2024. Even though forecasts made through the spring season tend to be less reliable, there is a historical tendency for La Niña to follow strong El Niño events. The forecast team is in agreement with the latest model guidance, with some uncertainty around the timing of transitions to ENSO-neutral and, following that, La Niña. Even as the current El Niño weakens, impacts on the United States could persist through April 2024 (see CPC seasonal outlooks for probabilities of temperature and precipitation). In summary, a transition from El Niño to ENSO-neutral is likely by April-June 2024 (79% chance), with increasing odds of La Niña developing in June-August 2024 (55% chance).

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 website (El Niño/La Niña Current Conditions and Expert Discussions). Additional perspectives and analyses are also available in an ENSO blog. A probabilistic strength forecast is available here. The next ENSO Diagnostics Discussion is scheduled for **14 March 2024**. 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

February 4-10, 2024

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

HIGHLIGHTS

EUROPE: Unseasonable warmth persisted, with rain over western and central Europe juxtaposed with sunny skies in southeastern portions of the continent.

MIDDLE EAST: Warm weather returned, with lighter showers replacing the recent locally heavy rain in central portions of the region.

NORTHWESTERN AFRICA: Despite sorely-needed rain in Morocco, drought remained a primary concern in the west and intensified in the east.

SOUTHEAST ASIA: Rain continued to benefit rice and oil palm in southern portions of the region, while heat and dryness were recorded farther north.

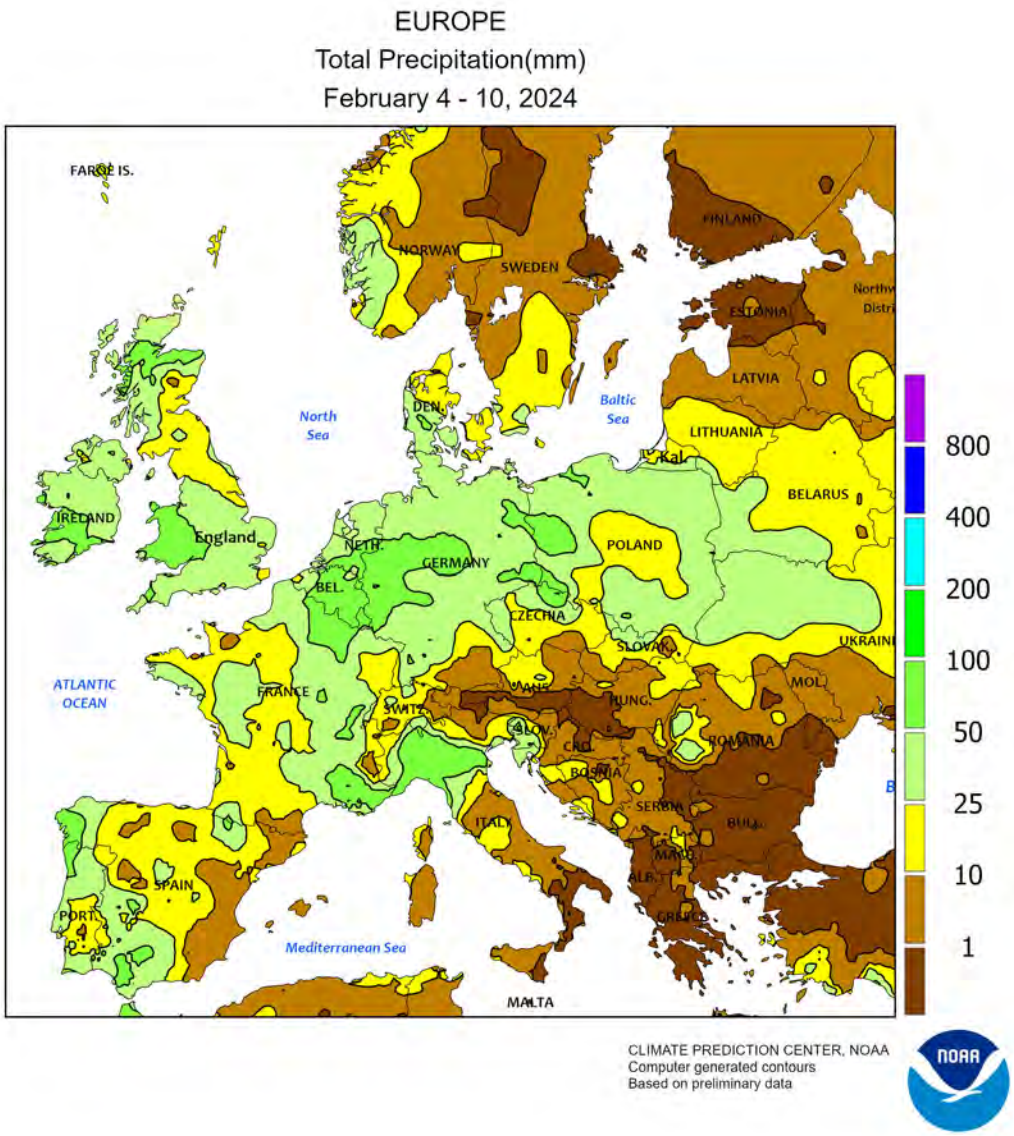
AUSTRALIA: Showers continued in the east, benefiting cotton, sorghum, and other summer crops.

SOUTH AFRICA: Warm, showery weather prevailed, although additional moisture was needed for immature crops in western sections of the corn belt.

ARGENTINA: Locally heavy showers brought welcome relief from heat and dryness.

BRAZIL: Beneficial rain continued in northern corn and cotton areas, as unseasonable warmth and dryness prevailed in the south.

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



EUROPE

Unseasonably warm weather prevailed over most of the continent, with additional showers in western, central, and northern Europe giving way to dry conditions in southeastern growing areas. Abnormal warmth (3-8°C above normal) prevailed nearly everywhere, with even greater temperature anomalies (9-11°C above normal) noted in southeastern Europe. Daytime highs reached into the lower 20s (degrees C) across Greece and the southern Balkans, more on par with highs typically observed in late April. The unusual warmth hastened winter grains and oilseeds out of dormancy more than one month ahead of normal in southeastern Europe and encouraged additional winter crop green up and vegetive growth over northwestern and southwestern Europe, respectively. While the very early green up of the continent's winter wheat, barley, and rapeseed does not pose a threat to yield potential per se', crops have lost cold hardiness and are therefore more vulnerable to any potential late-season extreme cold. In fact, sharply colder weather (4-9°C below normal) returned to central and northern portions of Norway, Sweden, and Finland. Widespread moderate to heavy showers (10-100 mm, locally more) sustained adequate to abundant soil moisture for spring growth from Spain, France, and England eastward into Poland. Conversely, mostly sunny skies over southeastern Europe favored seasonal fieldwork.

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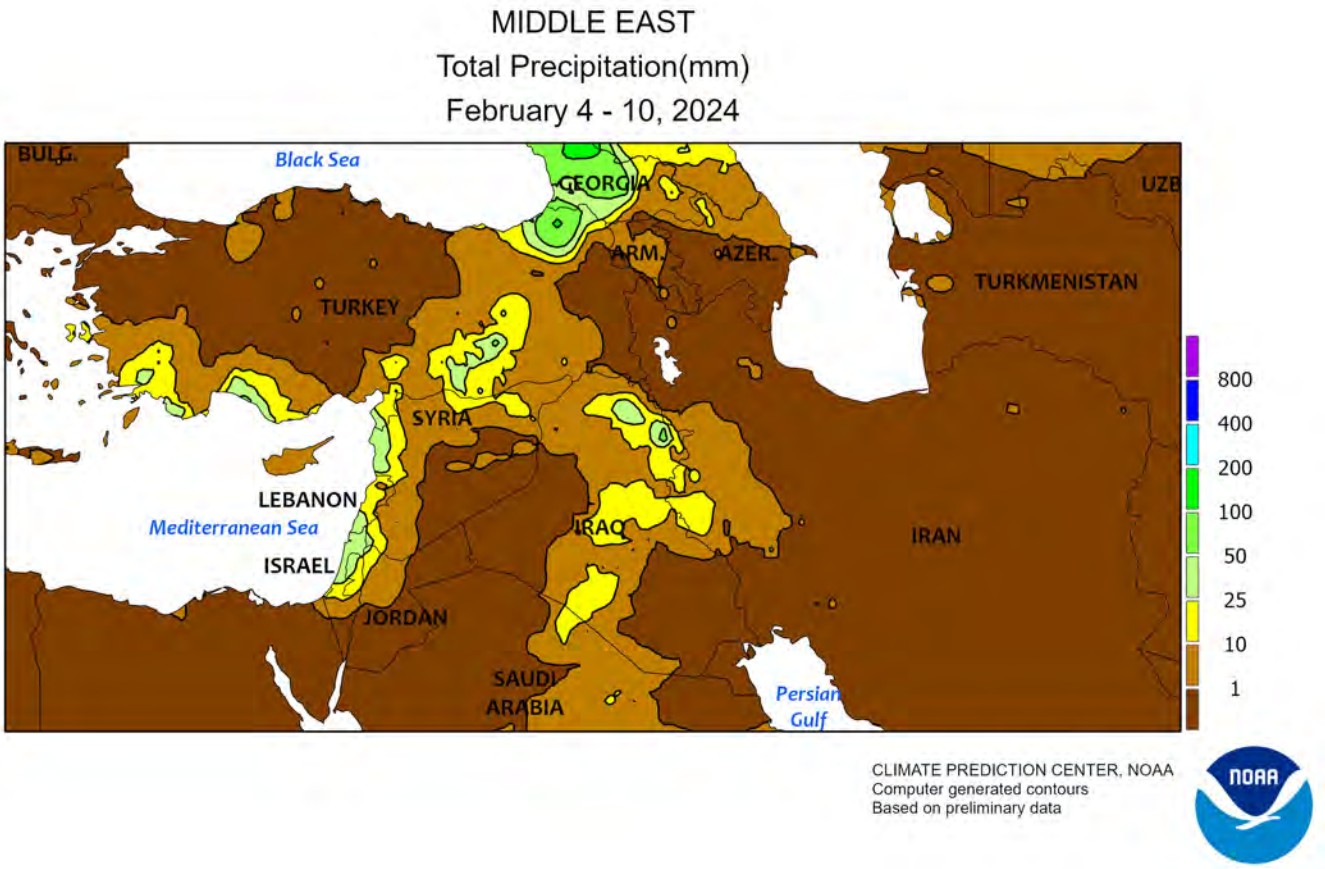

MIDDLE EAST

Warm weather returned, accompanied by lingering light to moderate showers in central portions of the region. After the recent cold spell, temperatures averaged 3 to 9°C above normal in the north and 1 to 3°C above normal from the Mediterranean Coast into central Iran. Consequently, winter grains lost cold hardiness in central Turkey and northern Iran and added vegetative growth in central and southern portions of the region. After last week's heavy rain, lighter showers (2-25 mm) kept soils moist from the eastern Mediterranean Coast into Iraq and west-central Iran but allowed lowland flooding to recede in Israel and immediate environs. Dry weather prevailed over central and northwestern Turkey's winter wheat and barley areas, though soil moisture remained favorable for dormant to greening crops. Dry weather also prevailed over much of Iran, renewing dryness concerns in southern and eastern portions of the country.

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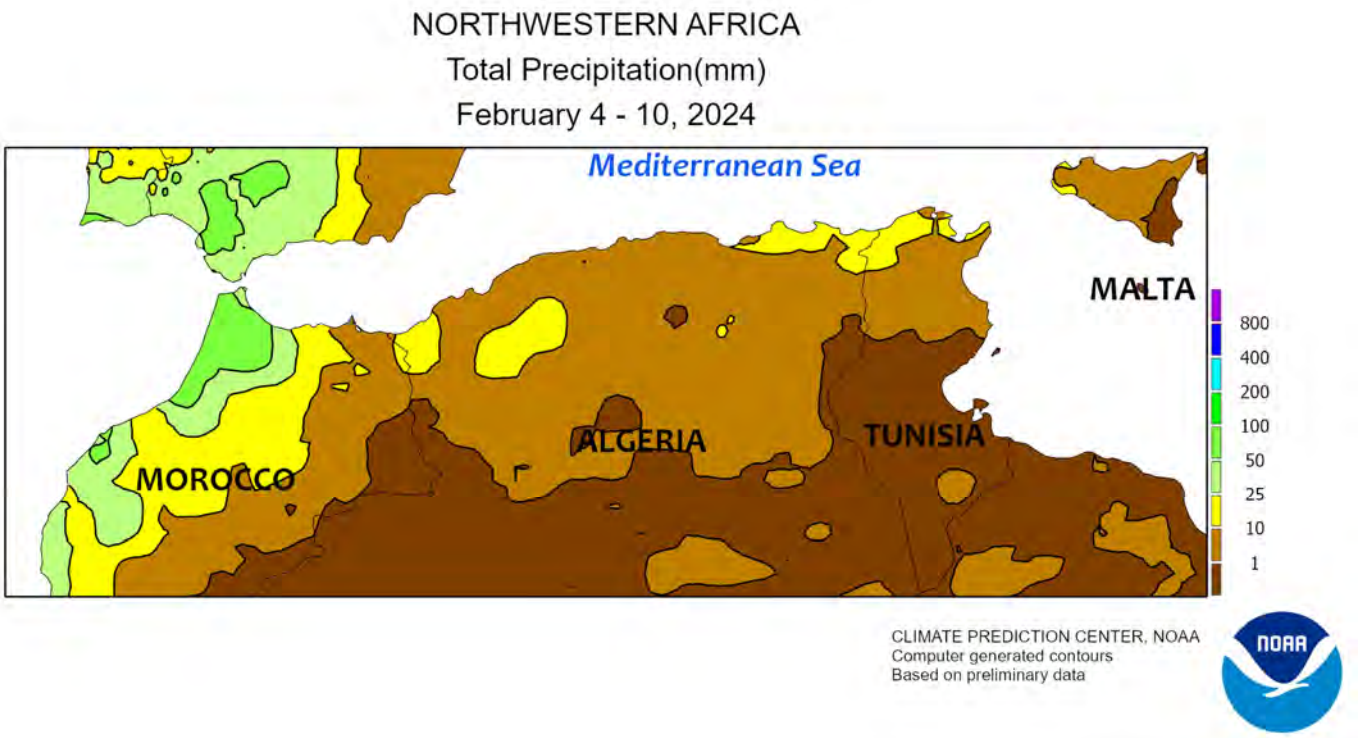

NORTHWESTERN AFRICA

The first significant rain in months arrived in Morocco, while mostly light showers in Algeria and Tunisia did little to ease short-term dryness and drought. Moderate to heavy showers and thunderstorms (15-115 mm) swept across Morocco, providing a temporary reprieve from extreme drought but arriving too late to offer much benefit for heading winter wheat and flowering to filling barley. This was the first significant rain in Morocco since the middle of October, which has been besieged by severe drought during four of the past five winter grain growing campaigns. In fact, sunny and warmer-than-normal weather followed the quick-hitting rain, rapidly renewing evapotranspiration rates and soil moisture losses. Elsewhere, lighter showers (2-20 mm) moistened soils locally, though the rain was largely offset by abnormal warmth (4-5°C above normal) on top of recent acute dryness. Winter grains were mostly still vegetative in Algeria (further along in the west) but approaching or progressing through reproduction in Tunisia.

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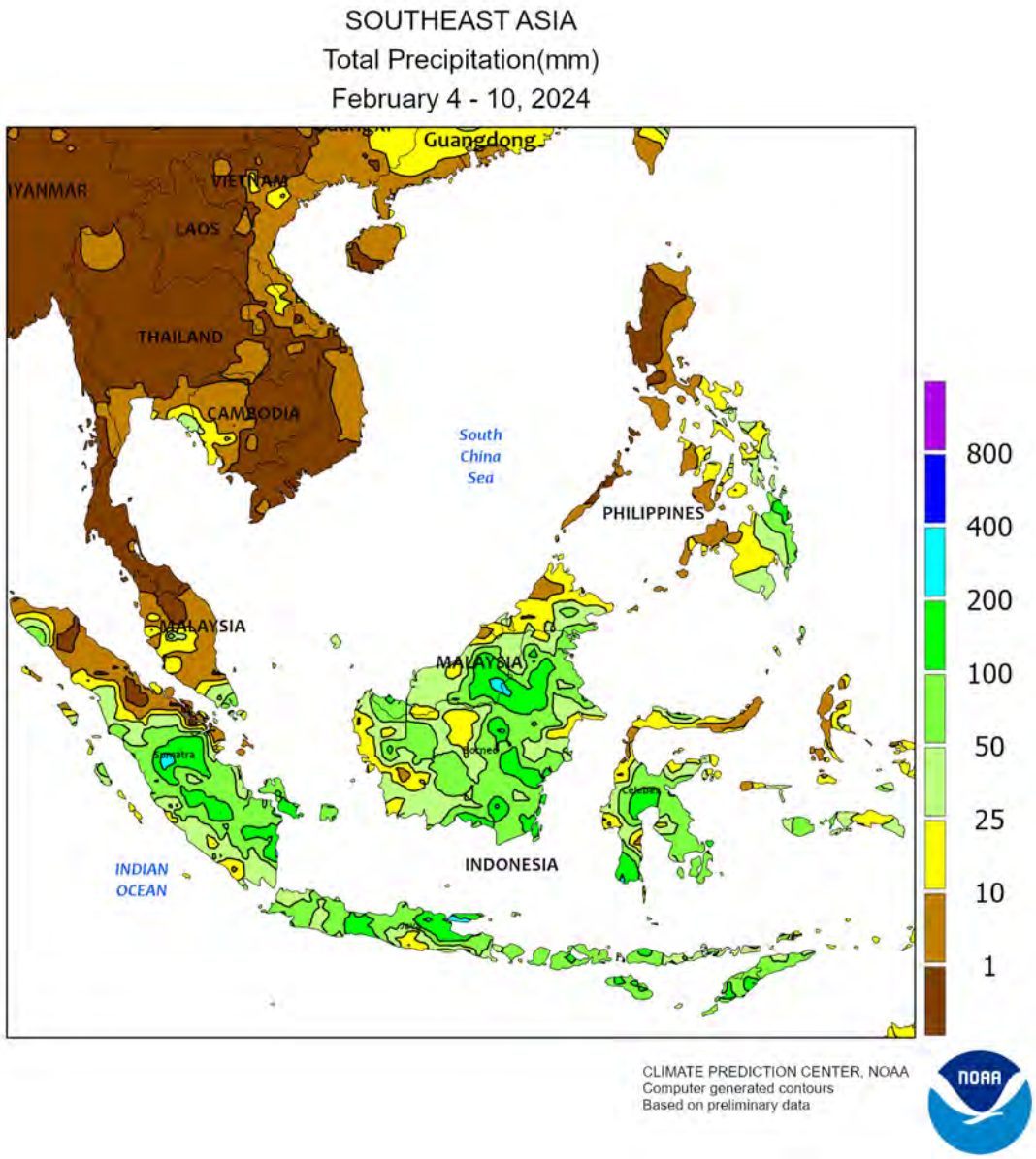

SOUTHEAST ASIA

Widespread showers (over 200 mm locally) across southern portions of the region continued to benefit rice and oil palm. In particular, rainfall since January 1 in southern Indonesia (Java) has trended near normal after being well below average during the first half of the season. The improvement in rain not only benefited the main-season rice crop but has bolstered irrigation supplies for subsequent cropping cycles. The recent precipitation also favored oil palm, although parts of northwestern Indonesia (northern Sumatra) and neighboring sections of Malaysia were drier than normal. Meanwhile, lighter showers (generally less than 25 mm) prevailed in all but the northern Philippines where little if any rain was recorded; northern dryness has limited moisture for rice and corn and reduced yield potential. Elsewhere, unseasonable heat was reported in Thailand and some of the surrounding areas, as temperatures approached 40°C, highs more typical of late March.

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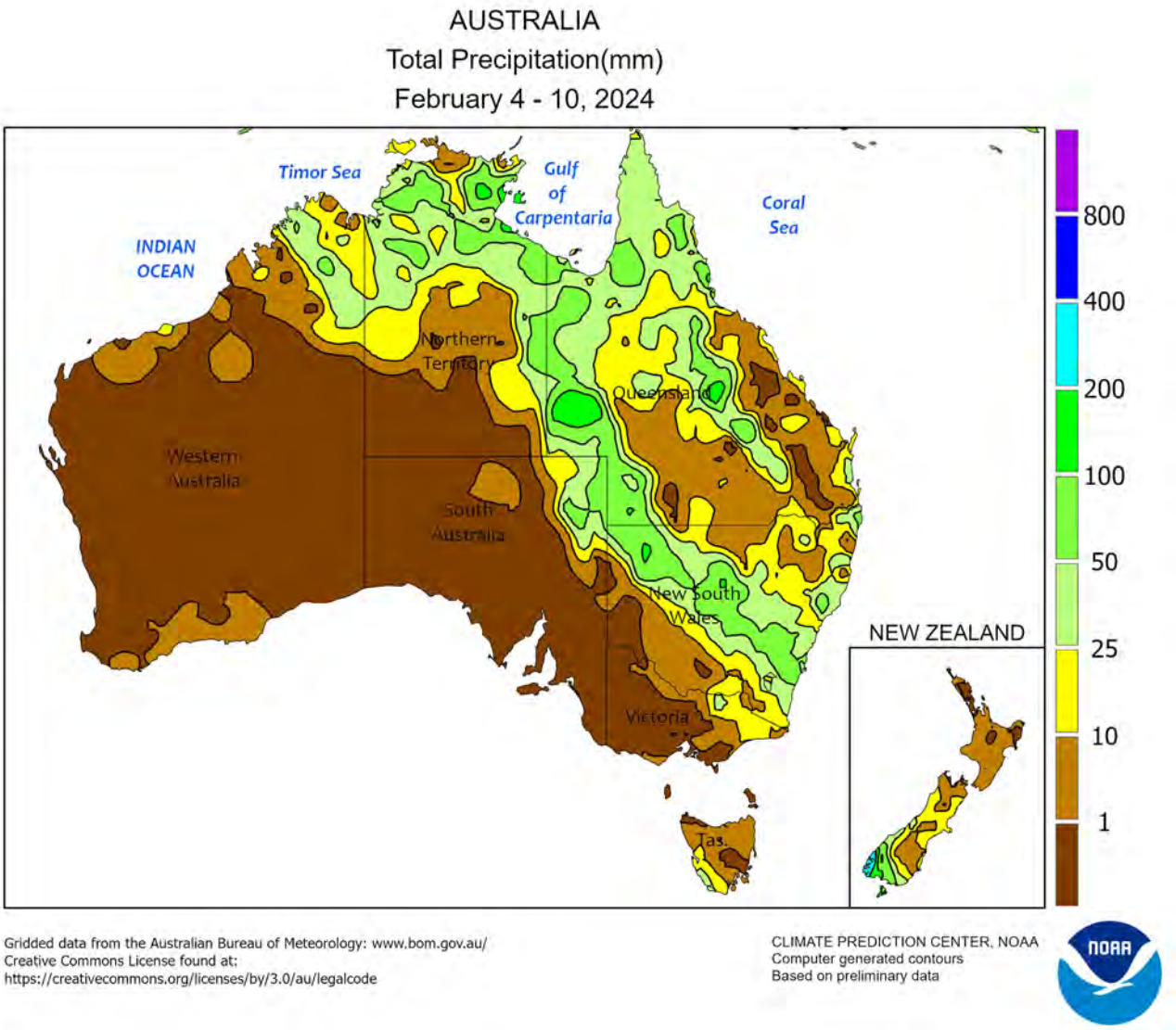

AUSTRALIA

In southern Queensland and northern New South Wales, scattered showers (5-25 mm) sustained average to above-average soil moisture for cotton and sorghum, aiding crop development. Temperatures averaged 1 to 2°C above normal in this area, with maximum temperatures ranging from the lower 30s (degrees C) in the east to the upper 30s in the west. Farther south, a band of heavier rain (10-50 mm or more) overspread central and southern New South Wales, reducing the water requirements of summer crops, which are primarily irrigated in this region. Temperatures averaged 1 to 2°C below normal with maximum temperatures mostly in the upper 30s.

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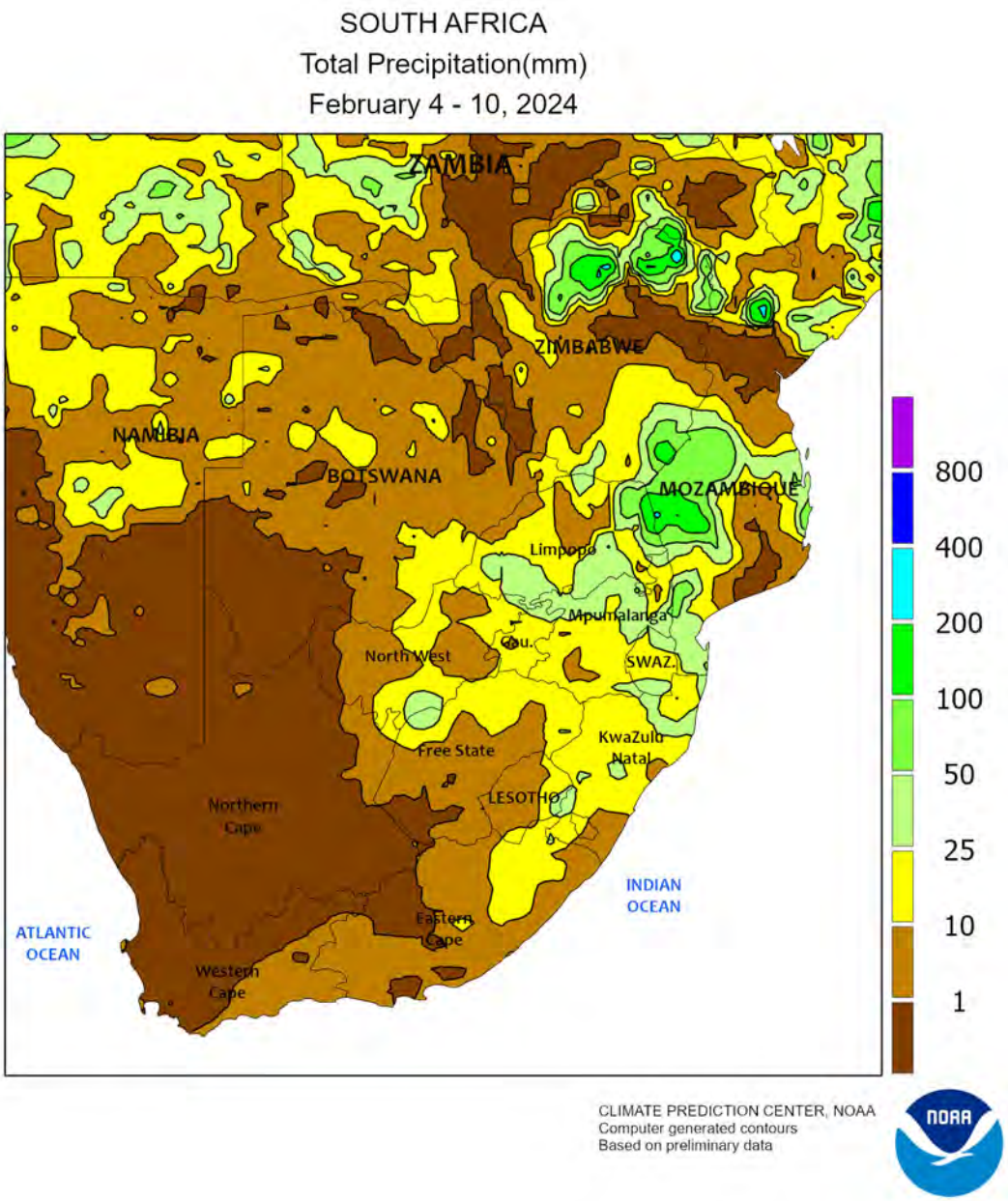
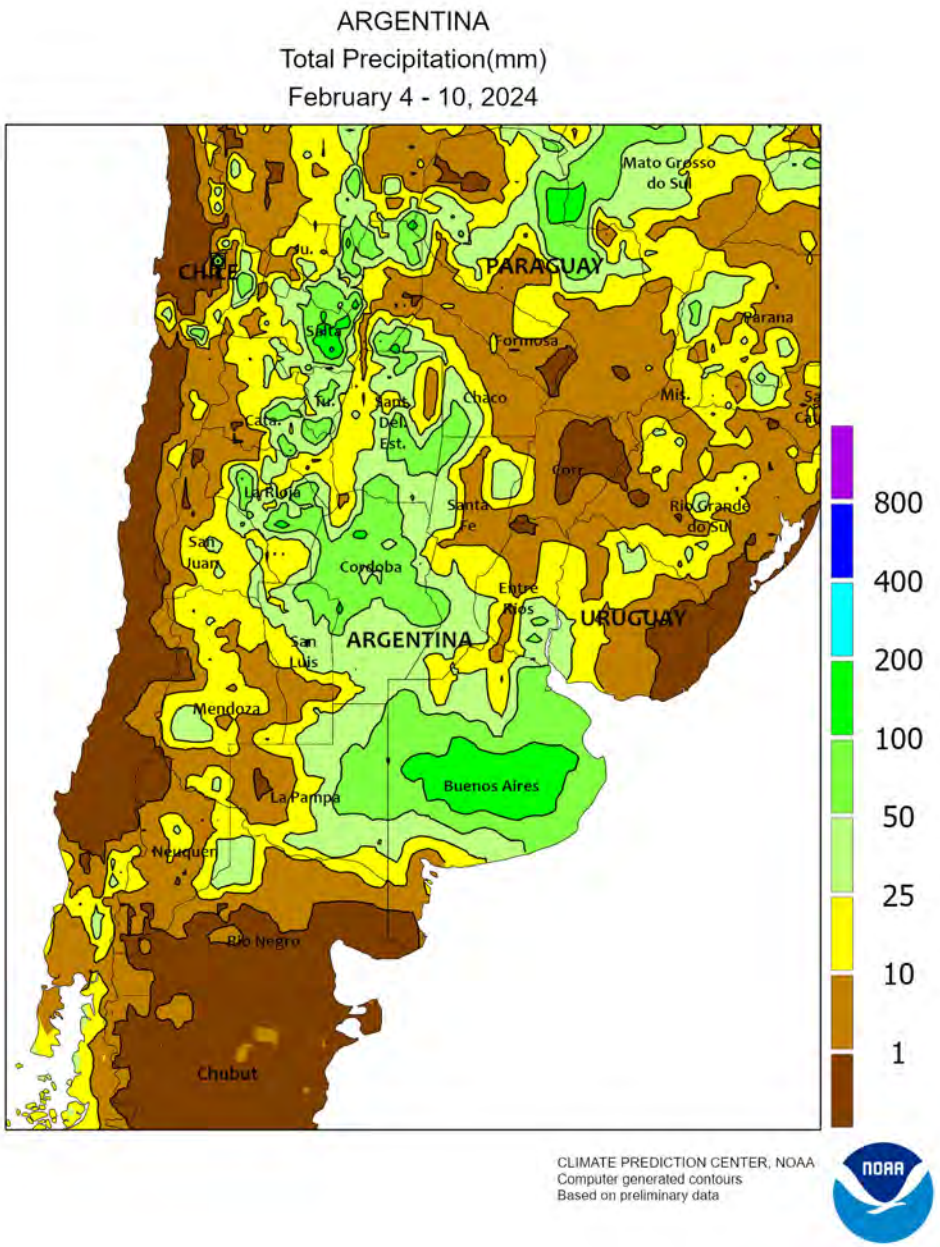


SOUTH AFRICA

Warm, showery weather prevailed across the corn belt, although moisture was becoming limited in western production areas for crops in or nearing reproduction. Rainfall totaled 5 to 25 mm – locally more – from North West eastward to Mpumalanga and KwaZulu-Natal, with the highest amounts concentrated over eastern farming areas. Weekly temperatures averaged 1 to 2°C above normal throughout the east, including rain-fed sugarcane areas in KwaZulu-Natal, with highest daytime temperatures reaching the middle and upper 30s (degrees C) in the traditionally warmer, outlying farming areas. Rain will be needed soon in western sections of the corn belt (notably North West and western locations in Free State) as later-planted crops advance through reproduction. Elsewhere, warm, sunny weather fostered rapid development of irrigated crops in the Cape Provinces, including corn and cotton in Northern Cape and tree and vine crops in Western Cape.

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



ARGENTINA

Widespread, locally heavy showers brought much-needed relief from stressful heat and dryness to nearly all farming areas. Rainfall totaling 25 to 50 mm covered a large area stretching from La Pampa and Buenos Aires northward into Santiago del Estero, with pockets of dryness (below 25 mm) recorded farther north. The highest amounts (greater than 100 mm) were concentrated over southeastern Buenos Airies, providing timely moisture for germination and establishment of second-crop soybeans. Weekly average temperatures ranged from 1 to 2°C above normal in southern farming areas (including much of La Pampa and Buenos Aires) and 4 to 6°C above normal elsewhere, with maximum daytime temperatures reaching the upper 30s and lower 40s (degrees C) nearly regionwide before the onset of the rainfall. According to the government of Argentina, sunflowers were 17 percent harvested (21 percent last year) as of February 8, with fieldwork concentrated over earlier-maturing northern production areas.

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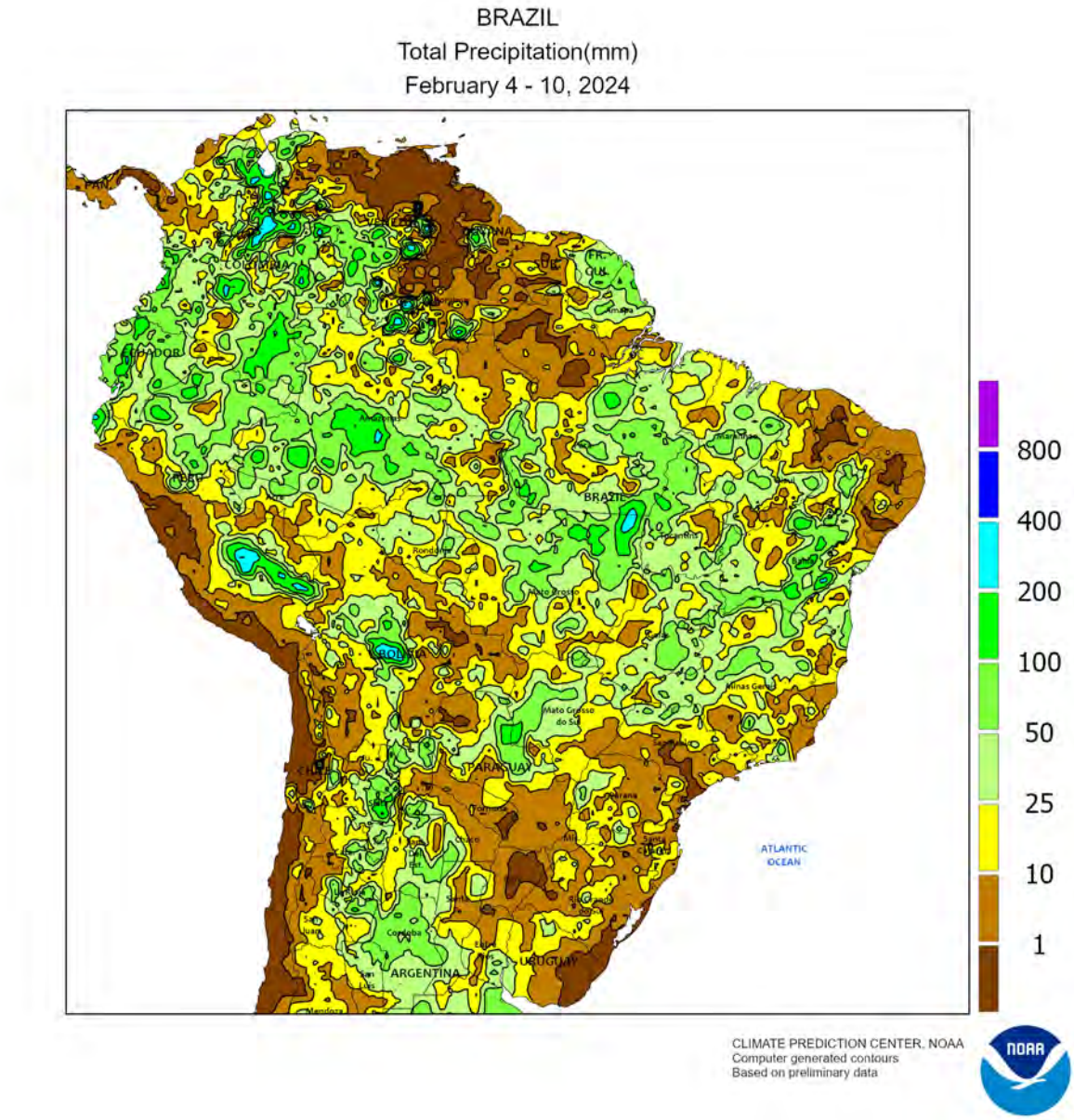

BRAZIL

Moderate to heavy showers further improved prospects for second-season corn and cotton throughout much of central and northeastern Brazil. While highly variable, most locations from northern Mato Grosso eastward recorded rainfall totaling between 25 and 100 mm, including a large area stretching from Minas Gerais to Maranhão. Weekly temperatures in these areas averaged from near normal to as much as 2°C above normal, with highest daytime temperatures reaching the lower and middle 30s (degrees C). According to the government of Mato Grosso, soybeans were 52 percent harvested as of February 9, compared with 44 percent last year; corn and cotton planting were 42 and 99 percent completed, respectively, ahead of last year's pace for both crops. In contrast to the wetter northern conditions, unseasonable warmth and dryness prevailed farther south, with rainfall totaling below 25 mm at most locations from southern Mato Grosso southward through Rio Grande do Sul. Unseasonably hot weather accompanied the dryness, with weekly temperatures averaging 2 to 5°C above normal and daytime highs reaching the middle 30s. Moisture has become limited for immature summer crops, and a return to a more normal pattern of rainfall and temperatures is needed to sustain current yield prospects of immature corn and soybeans in key southern production areas. According to government reports, Paraná's first-crop corn and soybeans were 36 and 25 percent harvested, respectively, as of February 5; second-crop corn was 32 percent planted and no crops had reached reproduction. In Rio Grande do Sul, corn planting was nearly completed as of February 8, with about 60 percent either mature or harvested; meanwhile, two-thirds of soybeans had reached flowering.

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U.S. Crop Production Highlights

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

The **U.S all orange** forecast for the 2023-2024 season is 2.76 million tons (figure 1), down 1 percent from the previous forecast but up 11 percent from the 2022-2023 final utilization.

The Florida all orange forecast, at 19.8 million boxes (891,000 tons), is down 3 percent 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), down 9 percent 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.

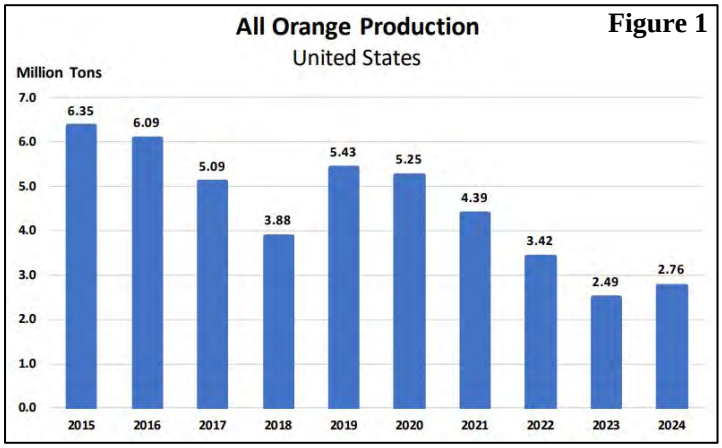

Figure 1

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