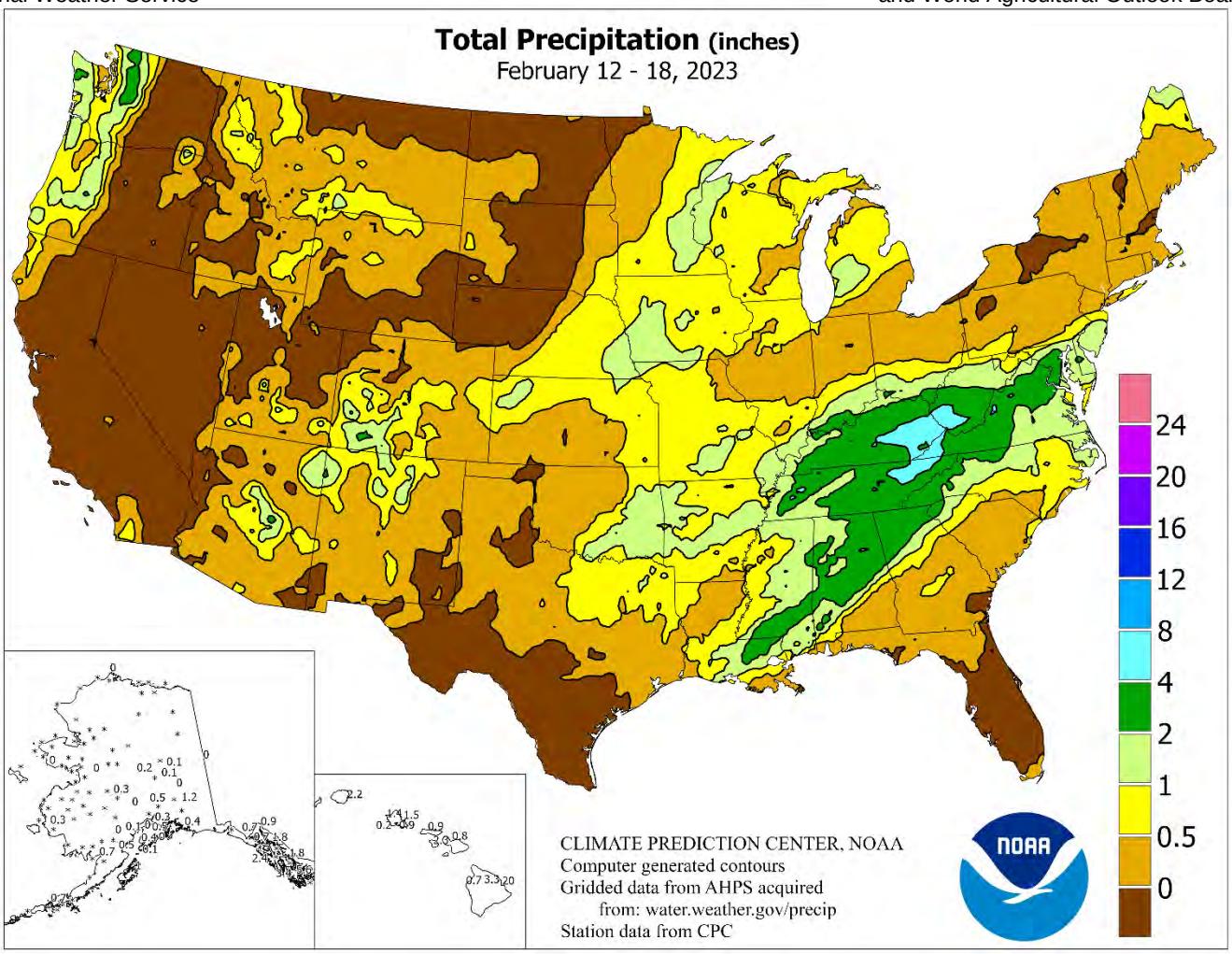
Volume 110, No. 8 www.usda.gov/oce/weather-drought-monitor February 22, 2023

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 12 – 18, 2023

Highlights provided by USDA/WAOB

Like the previous week, active weather maintained unsettled conditions nearly nationwide. Exactly a week after severe thunderstorms affected the **Deep South**, another outbreak struck the **mid-South** and **Southeast**. This time, on February 15-16, at least a dozen tornadoes were spotted across **Arkansas**, **Georgia**, **Mississippi**, and **Tennessee**. Farther north, an impressive snow band stretched from the **central Plains into the upper Midwest**. Snow also blanketed higher elevations of the **Four Corners region** and portions of the **northern**

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Contents

Water Supply Forecast for the Western United States

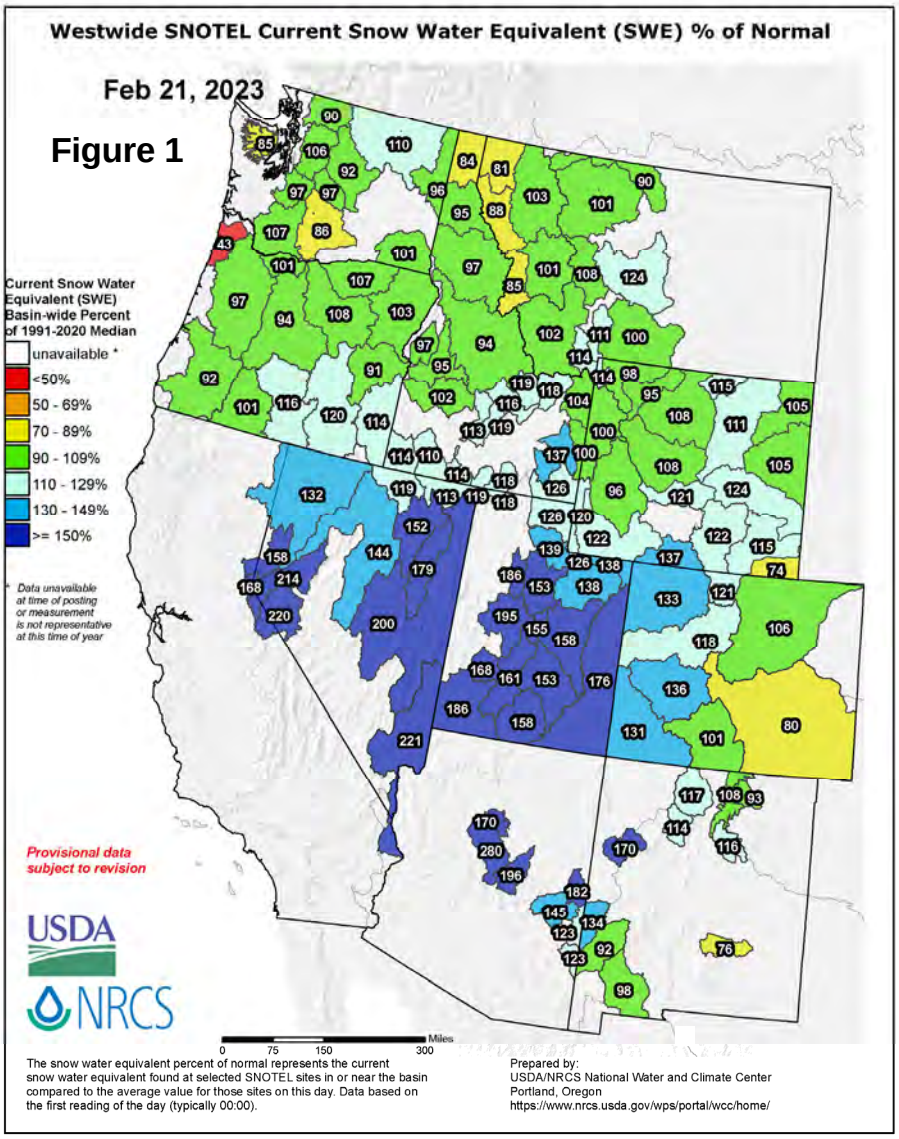
Highlights

California's erratic winter wet season featured a month-long spell of mostly tranquil weather (ending in late February), following a frenetic, 3-week stormy spell from late December to mid-January. According to the California Department of Water Resources, the water equivalency of the Sierra Nevada snowpack stood near 37 inches by February 21, roughly 175 percent of average for the date and nearly 140 percent of the typical full-season accumulation. California's bounty extended inland across the Great Basin to the western slopes of the central Rockies, as well as parts of the Southwest. Most other areas—including the Northwest—have experienced a mixed season: only a few basins have slipped deeper into drought since October 1, 2022, but many face lingering drought concerns such as low reservoir levels, subsoil moisture shortages, and poor rangeland and pasture conditions. With some large reservoirs still reeling from long-term drought, statewide water storage was generally below average as February 2023 began.

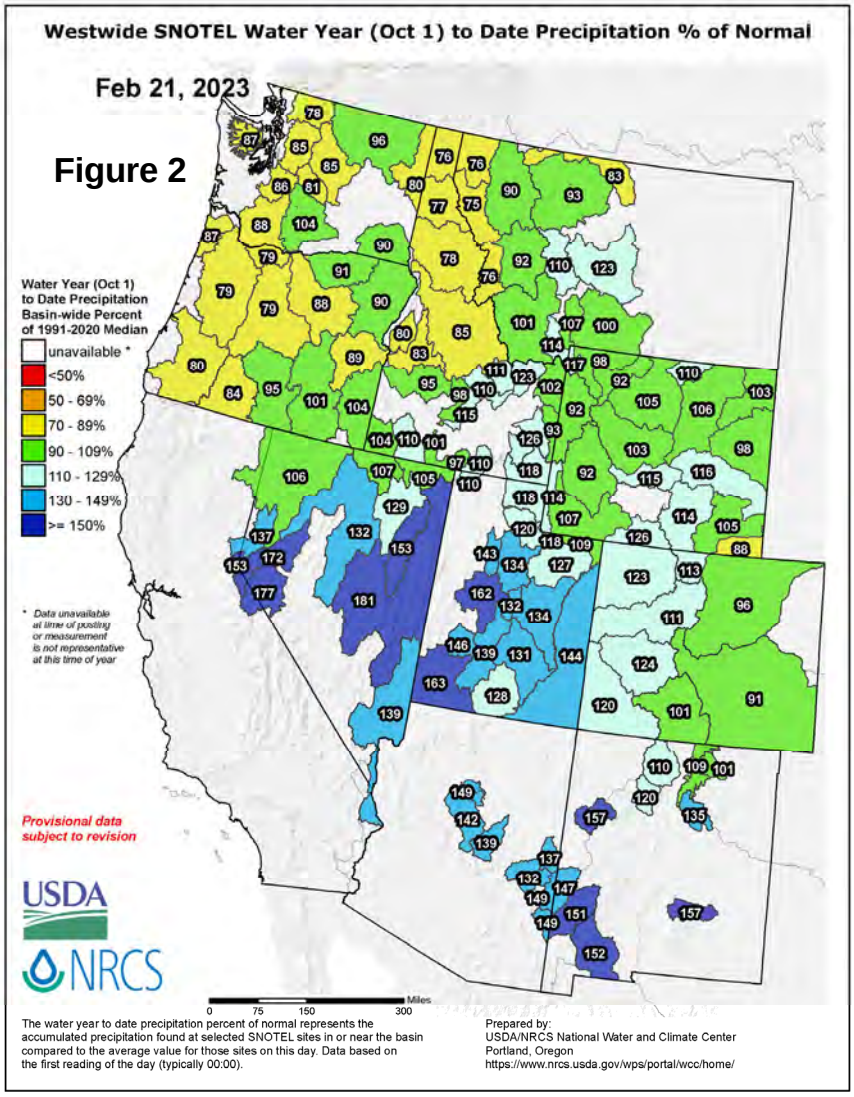
Following as many as 3 consecutive years of Western drought, winter storms have resulted in substantial drought relief, according to the *U.S. Drought Monitor*. In fact, drought coverage in the 11-state Western region decreased from 74 to 59 percent between September 27, 2022, and February 14, 2023. Additionally, Western coverage of extreme to exceptional drought (D3 to D4) during the same period decreased from 19 to 3 percent.

Snowpack and Precipitation

Less stormy weather from late January to mid-February resulted in only small increases in snow-water equivalency, compared to the previous month. By February 21, 2023, near-normal water equivalency was reported throughout the Northwest, with few exceptions (figure 1). A similar situation existed across the eastern slopes of the Rockies, with many basins reporting near-normal snowpack. The zone reporting the most impressive snowpack (water equivalency ranging from 150 to more than 200 percent of normal) stretched from California to Utah, extending southward into northern Arizona and northwestern New Mexico.



Season-to-date precipitation (October 1, 2022 – February 21, 2023) was significantly above normal from California to the western slopes of the central Rockies. In fact, precipitation during that period was more than 150 percent of normal in many basins from the Sierra Nevada to the Wasatch Range (figure 2). Another area, covering higher elevations of Arizona and western New Mexico, has received precipitation totaling approximately 150 percent of normal since the start of the water year on October 1. In contrast, below-normal precipitation has fallen in the Northwest, with several basins—mainly from the northern Pacific Coast to the northern Rockies—reporting season-to-date totals ranging from 70 to 90 percent of normal.

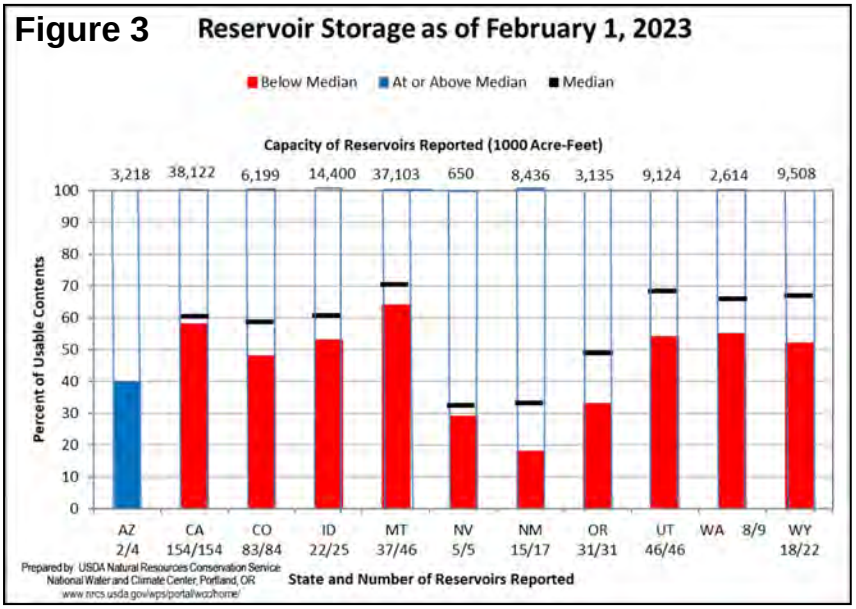


Spring and Summer Streamflow Forecasts

By February 1, 2023, projections for spring and summer streamflow were indicating the likelihood of mostly favorable runoff (locally more than 200 percent of average) from the Sierra Nevada to the Wasatch Range, as well as portions of Arizona and western New Mexico. However, runoff prospects are considerably less favorable—roughly 50 to 90 percent of average—in several areas, including the eastern slopes of the Rockies in southern Colorado and northern New Mexico. Parts of the Northwest, especially in western Oregon, can also expect below-average streamflow.

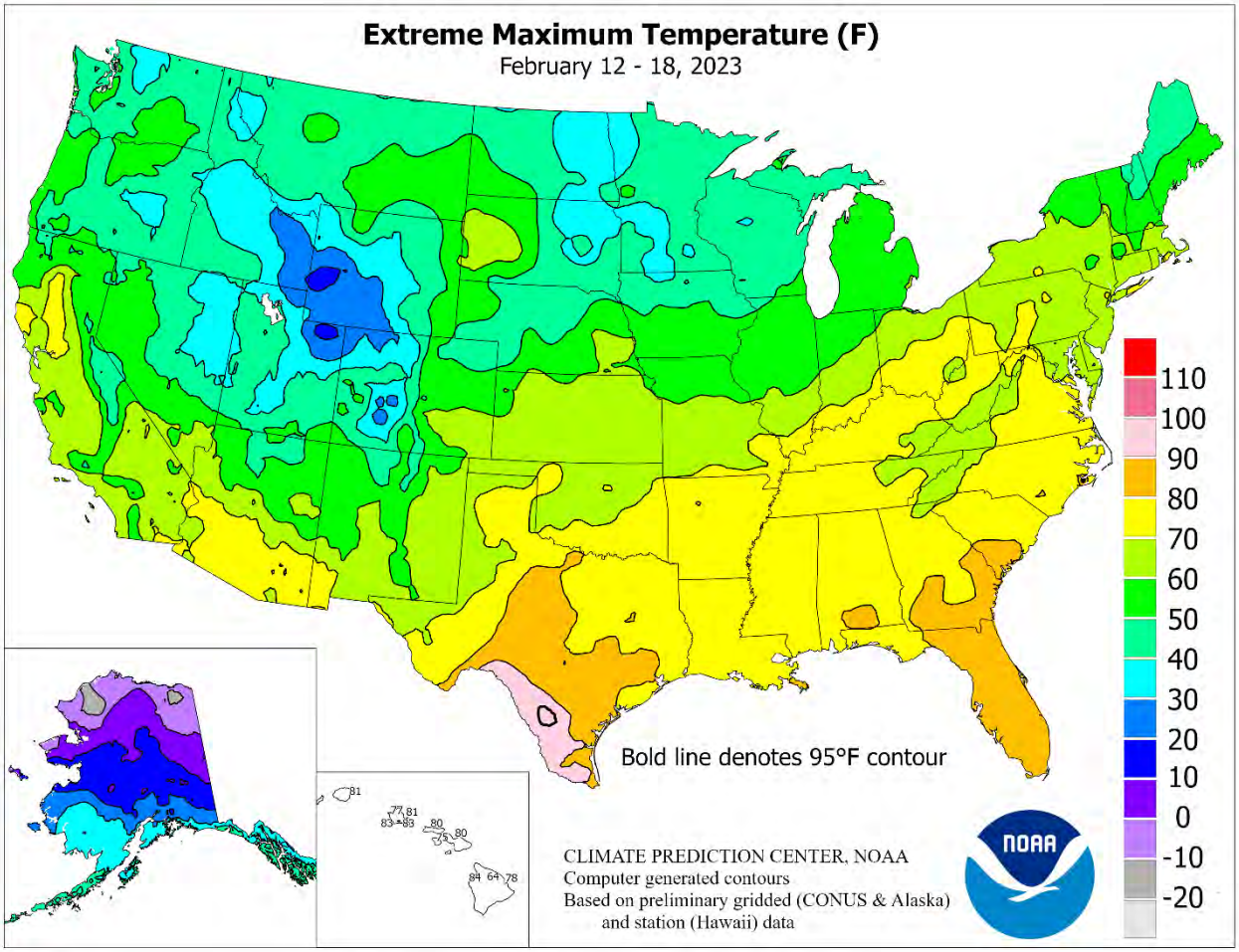
Reservoir Storage

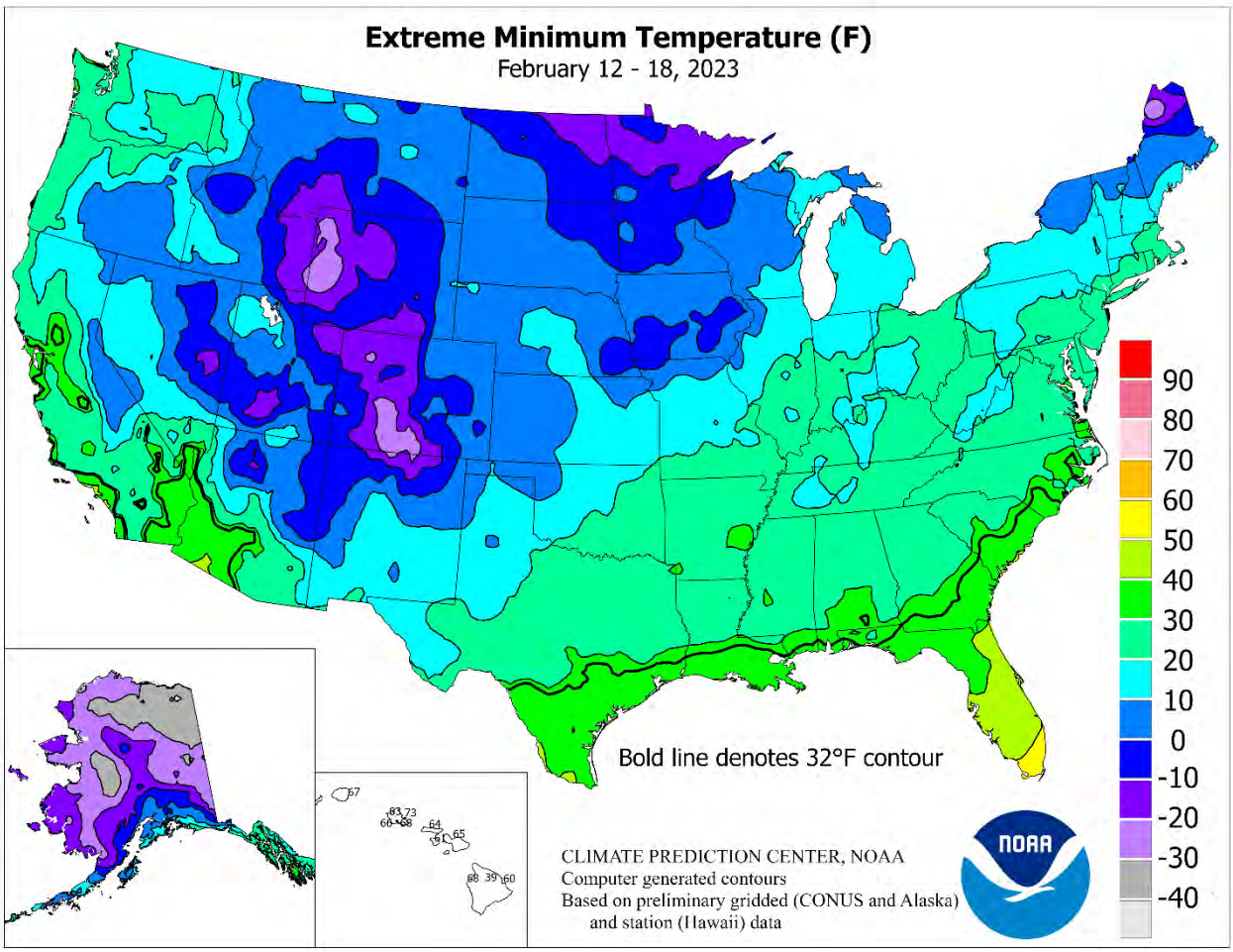
On February 1, 2023, statewide reservoir storage as a percent of average for the date continued to reflect varying degrees of long-term drought, despite recent periods of stormy weather. As February began, California's 154 primary intrastate reservoirs held 22.2 million acre-feet of water, 98 percent of average (figure 3).



For More Information

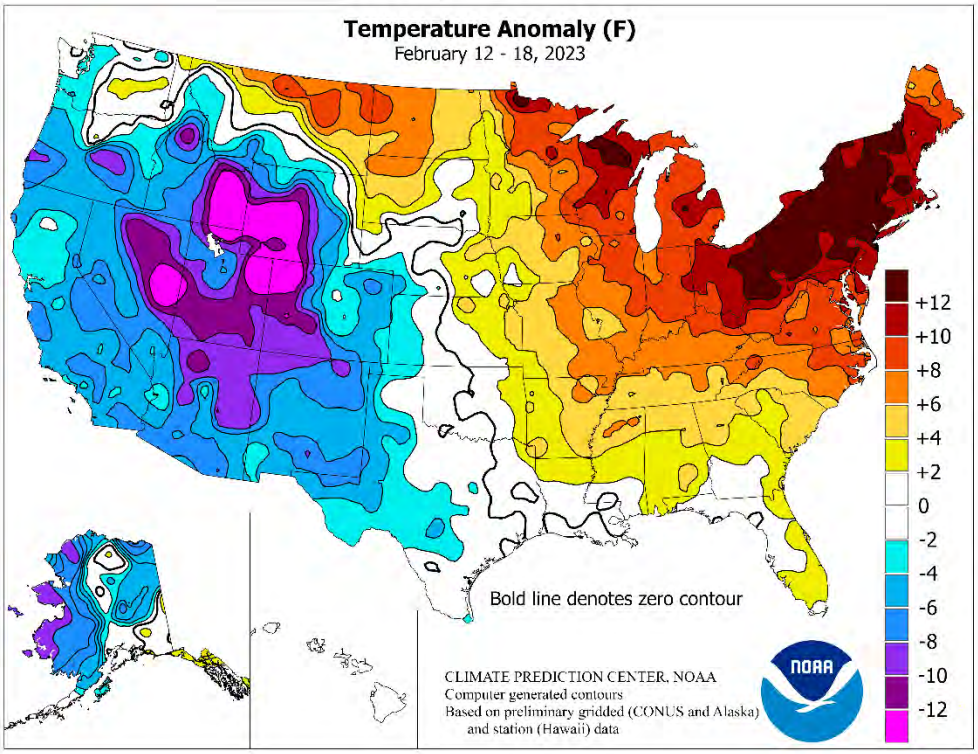
The National Water and Climate Center homepage provides the latest available snowpack and water supply information. Please visit: http://www.wcc.nrcs.usda.gov


Extreme Maximum Temperature (F)
February 12 - 18, 2023
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)
February 12 - 18, 2023
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)

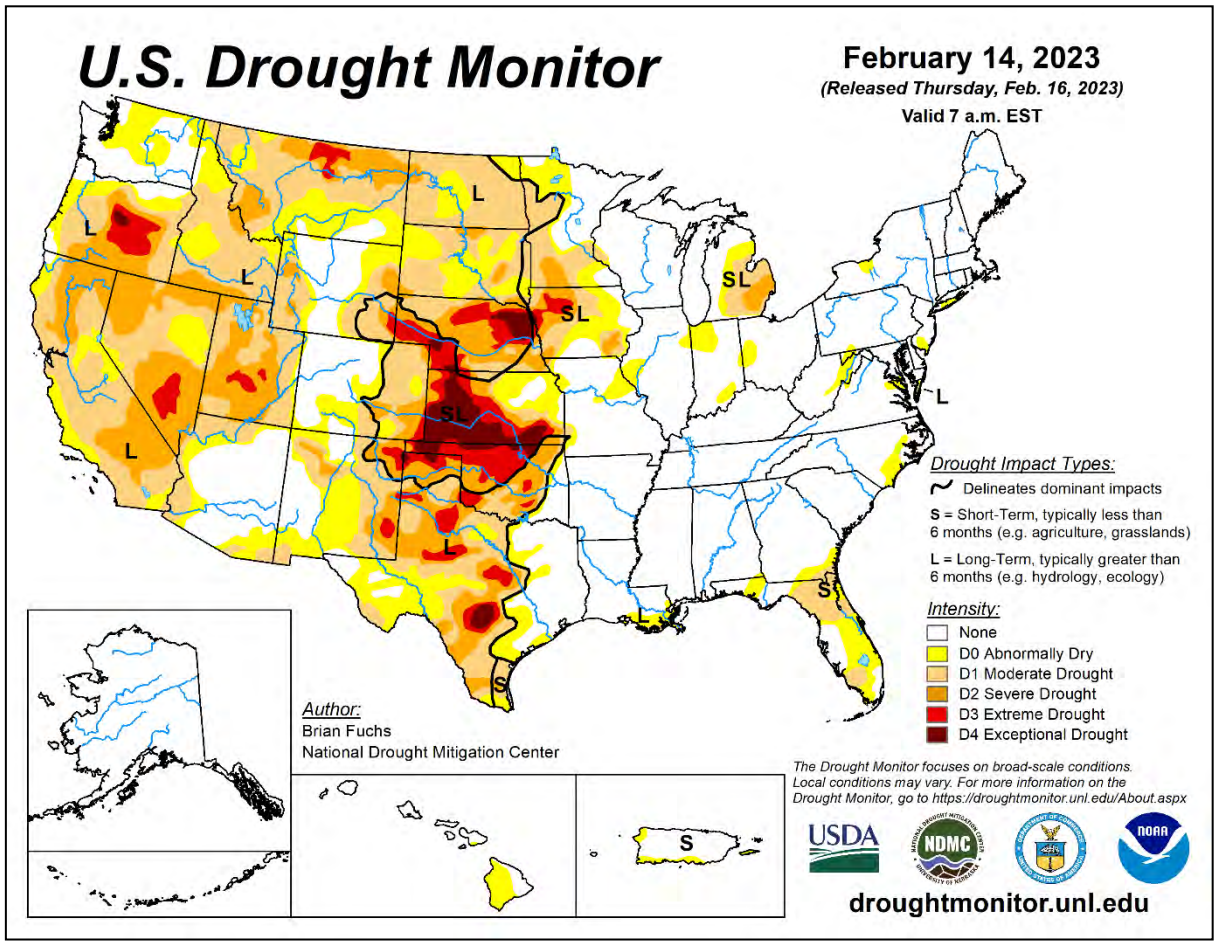
Rockies. Compared to the previous week, heavy rain shifted eastward, with totals of 2 to 4 inches or more observed in the **central and southern Appalachians** and neighboring areas. The rain led to elevated river levels and pockets of flooding. Elsewhere, despite the active storm track, mostly dry weather prevailed in **California**, **southern Texas**, **peninsular Florida**, and the **Great Basin**. Weekly temperatures averaged at least 10 to 15°F below normal in the **Great Basin** and **Intermountain West**. Conversely, readings averaged more than 10°F above normal across parts of the **nation's northern tier**, especially from the **Great Lakes region into the Northeast**. The **lower Rio Grande Valley** experienced an early-season heat wave, with temperatures above 90°F.

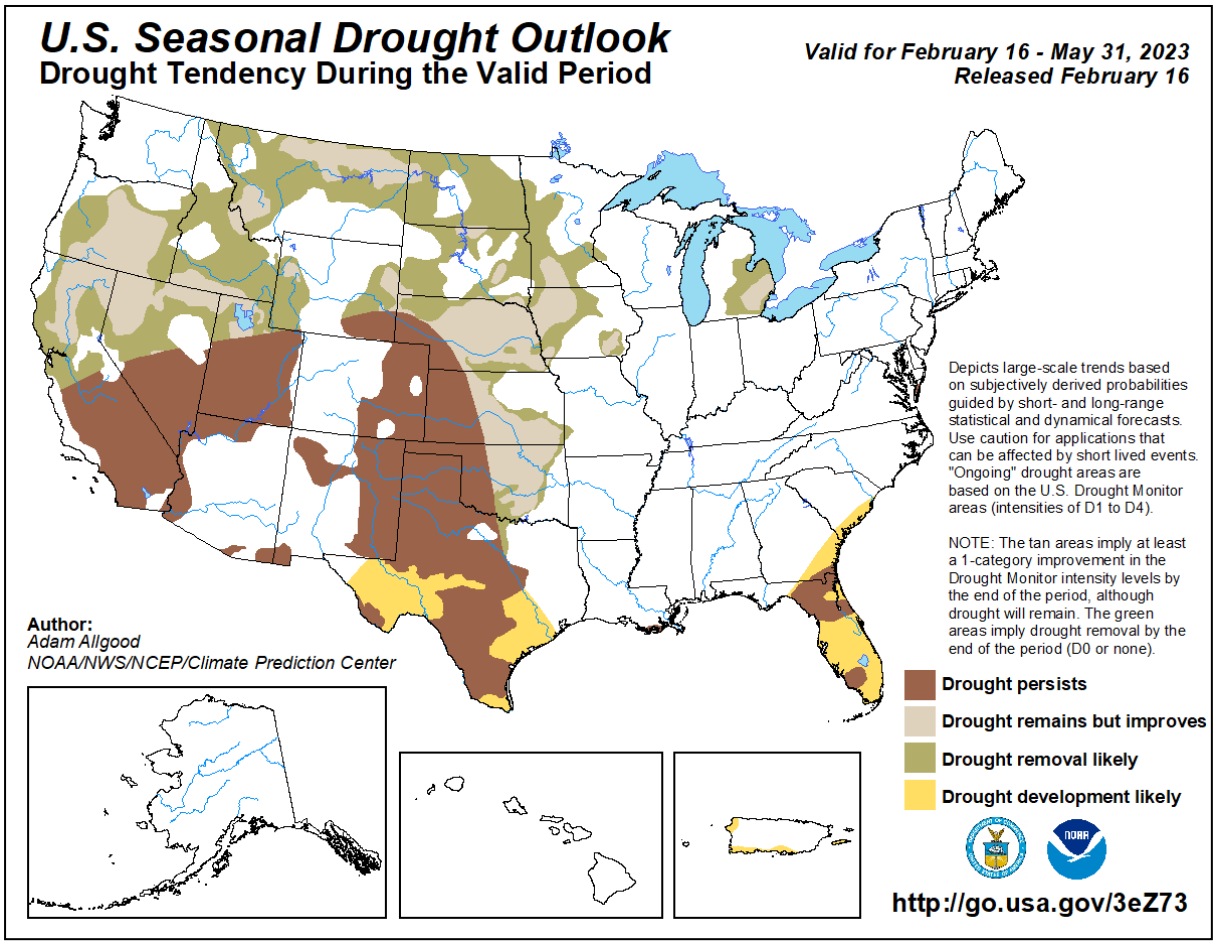


During the first half of week, unusually mild weather covered the **upper Great Lakes region**, where record-setting highs for February 12 rose to 49°F in **Marquette, MI**, and 45°F in **International Falls, MN**. In **Wisconsin**, **Green Bay** collected consecutive daily-record highs (45 and 47°F, respectively) on February 13-14. In **Michigan**, daily-record highs for February climbed to 59°F in **Muskegon** and 58°F in **Lansing**. Midweek warmth expanded into the remainder of the **Midwest**, as well as the **East**; daily-record highs for the 15th surged to 73°F in **Evansville, IN**; **Zanesville, OH**; and **Morgantown, WV**. Concurrently, record-setting heat affected **southern Texas**, where February 15 highs soared to 95°F in **Del Rio** and 94°F in **Laredo**. **Eastern** warmth generally peaked on February 16 with monthly record highs in locations such as **Islip, NY** (71°F), and **Bridgeport, CT** (68°F). In both locations, previous records—68 and 67°F, respectively—had been set on February 23, 2022. **Florida's** warm weather lasted through February 17, when daily-record highs of 88°F occurred in **Melbourne**, **Orlando**, and **Vero Beach**. In contrast, chilly weather engulfed the **West**. In **coastal California**, daily-record lows for February 15 dipped to 28°F in **Eureka** and 30°F in **Oceanside**. Elsewhere in **California**, record-setting lows for the 16th included 10°F in **Bishop**, 18°F in **Lancaster**, and 32°F in **Santa Barbara**. Farther inland, sub-zero, daily-record lows for February 16 fell to -26°F in **Randolph, UT**; -14°F in **Ely, NV**; and -9°F in **Flagstaff, AZ**. **Flagstaff's** chilly weather followed a 10.1-inch snowfall on February 14-15. During a final flurry of **Western** records, minimum temperatures bottomed out at -24°F (on the 17th) in **Alamosa, CO**, and 25°F (on the 18th) in **Paso Robles, CA**.

As the week began, rain soaked the **middle Atlantic States**. Daily-record totals for February 12 topped the 2-inch mark in locations such as **Cape Hatteras, NC** (2.12 inches), and **Blacksburg, VA** (2.06 inches). Soon, a new storm system broadly delivered snow across the **western U.S.**, where daily-record amounts for February 14 included 4.2 inches in **Colorado Springs, CO**, and 3.5 inches in **Billings, MT**. **Colorado Springs** achieved another daily-record total (6.0 inches) on the 15th, boosting its 2-day snowfall to 10.2 inches. Other daily-record snowfall totals for February 15 were 6.0 inches in **Pueblo, CO**, and 4.6 inches in **Clayton, NM**. Meanwhile, non-frozen precipitation fell atypically far to the north on February 14 across the **upper Midwest**, where both **St. Cloud and Minneapolis-St. Paul, MN**, reported daily-record totals of 0.68 inch. By February 16, however, colder air contributed to significant snowfall from the **central Plains into the upper Midwest**; daily-record amounts reached 8.8 inches in **Lincoln, NE**, and 5.6 inches in **Des Moines, IA**. Farther east, heavy showers erupted from the **mid-South to the central and southern Appalachians**. Daily-record rainfall totals exceeded 2 inches on February 16 in **Jackson, KY** (3.11 inches), and **Huntington, WV** (2.62 inches). February 16-17 storm totals rose to 4.11 inches in **Jackson** and 3.31 inches in **Huntington**. Heavy, late-week snow in the **East** was limited to **northern New England**, where **Caribou, ME**, set daily records on the 17th for precipitation (1.09 inches) and snowfall (14.0 inches).

Frigid conditions persisted across **northern and western Alaska**, where weekly temperatures broadly averaged 10 to 20°F below normal. On February 13, **King Salmon** tied a daily record with a low of -22°F—the lowest reading in that location since February 9, 2022. Meanwhile, lingering warmth (and wetness) prevailed in **southern Alaska**. **Anchorage** received 11.4 inches of snow from February 11-13, aided by a daily-record sum of 7.1 inches on the 12th. Through February 18, **Ketchikan's** month-to-date precipitation climbed to 21.66 inches (272 percent of normal), including a daily-record total of 2.75 inches on the 15th. Farther south, an upper-level disturbance (Kona low) delivered torrential rain across the southeastern slopes of **Hawaii's Big Island**, leading to flash flooding. With an 11.13-inch total on the 18th, it was **Hilo's** wettest February day since 1979, when 16.87 inches fell on February 20. It was also **Hilo's** wettest day at any time of year since August 24, 2018, when rainfall totaled 15.00 inches. At week's end, rain spread to other areas, including **Kauai**, where **Lihue** netted a daily-record sum (1.48 inches) on February 18. Month-to-date rainfall at the state's major airport observation sites ranged from 0.88 inch (68 percent of normal) in **Kahului, Maui**, to 27.52 inches (439 percent) in **Hilo**.


U.S. Drought Monitor
February 14, 2023
(Released Thursday, Feb. 16, 2023)
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:
Brian Fuchs
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
USDA
NDMC
NOAA
droughtmonitor.unl.edu


U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period
Valid for February 16 - May 31, 2023
Released February 16
Author:
Adam Allgood
NOAA/NWS/NCEP/Climate Prediction Center
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).
NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).
Drought persists
Drought remains but improves
Drought removal likely
Drought development likely
http://go.usa.gov/3eZ73

National Weather Data for Selected Cities

Weather Data for the Week Ending February 18, 2023

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	25	17	30	10	21	-1	0.55	0.32	0.29	5.76	232	1.86	140	93	76	0	7	4	0
	BARROW	-10	-23	-4	-26	-17	0	0.02	-0.04	0.02	0.81	162	0.19	70	81	71	0	7	1	0
	FAIRBANKS	7	-14	18	-25	-3	-4	0.11	-0.02	0.03	2.15	143	0.99	105	82	67	0	7	6	0
	JUNEAU	36	32	39	29	34	4	1.83	0.77	0.47	13.79	89	10.65	119	97	82	0	6	7	0
	KODIAK	37	20	42	13	28	-4	0.96	-0.63	0.43	16.42	76	10.15	80	90	52	0	6	4	0
	NOME	1	-12	18	-22	-6	-15	0.02	-0.24	0.01	2.87	109	1.24	78	82	66	0	7	2	0
AL	BIRMINGHAM	65	39	75	26	52	3	1.86	0.64	0.85	15.45	119	11.20	138	91	45	0	3	4	1
	HUNTSVILLE	63	38	73	24	50	4	2.69	1.40	1.04	15.67	111	9.57	117	96	48	0	3	5	3
	MOBILE	72	46	78	33	59	4	0.30	-0.81	0.28	11.81	85	7.06	83	89	39	0	0	2	0
	MONTGOMERY	70	43	79	31	57	4	0.35	-0.88	0.35	11.85	93	8.29	108	88	43	0	1	1	0
AR	FORT SMITH	62	35	78	27	49	4	0.80	0.15	0.44	9.39	116	5.47	119	88	34	0	4	2	0
	LITTLE ROCK	64	39	77	27	52	7	0.88	-0.14	0.51	17.33	158	11.17	190	82	37	0	1	2	1
AZ	FLAGSTAFF	34	9	46	-9	22	-11	0.84	0.29	0.82	8.96	170	6.65	198	83	43	0	7	3	1
	PHOENIX	64	45	79	35	54	-5	0.16	-0.06	0.12	3.18	150	1.17	85	55	23	0	0	2	0
	PRESCOTT	46	19	60	10	33	-10	0.38	0.05	0.37	3.99	134	3.09	156	81	38	0	7	2	0
	TUCSON	63	38	78	28	51	-6	0.27	0.06	0.14	3.26	138	2.02	145	69	21	0	1	2	0
CA	BAKERSFIELD	60	36	66	32	48	-6	0.00	-0.30	0.00	3.79	124	2.17	112	71	29	0	1	0	0
	EUREKA	51	34	56	30	42	-6	0.37	-1.05	0.31	14.99	81	5.95	58	91	69	0	3	2	0
	FRESNO	60	37	65	31	48	-4	0.00	-0.49	0.00	9.02	174	4.51	133	85	27	0	1	0	0
	LOS ANGELES	62	47	67	41	55	-3	0.00	-0.80	0.00	9.32	133	6.87	144	71	29	0	0	0	0
	REDDING	62	37	75	28	49	-1	0.00	-1.38	0.00	18.41	115	10.21	106	67	21	0	3	0	0
	SACRAMENTO	61	37	71	32	49	-3	0.00	-0.91	0.00	13.51	144	5.72	96	77	28	0	1	0	0
	SAN DIEGO	62	46	69	40	54	-5	0.50	-0.10	0.34	7.17	143	5.62	168	74	30	0	0	3	0
	SAN FRANCISCO	59	42	63	39	50	-3	0.00	-1.02	0.00	20.14	190	10.55	163	78	42	0	0	0	0
	STOCKTON	62	35	70	30	48	-4	0.00	-0.65	0.00	14.41	214	5.88	136	82	29	0	3	0	0
CO	ALAMOSA	36	-5	53	-24	15	-9	0.17	0.10	0.17	0.63	75	0.61	125	91	38	0	7	1	0
	CO SPRINGS	45	19	59	5	32	-1	0.37	0.30	0.28	1.33	185	0.83	169	64	23	0	7	2	0
	DENVER INTL	41	20	55	4	31	-2	0.22	0.12	0.21	2.61	261	1.45	226	76	41	0	7	2	0
	GRAND JUNCTION	35	15	53	1	25	-10	0.52	0.39	0.33	2.53	165	1.28	136	90	50	0	7	3	0
	PUEBLO	48	13	64	-3	31	-4	0.31	0.24	0.30	0.69	89	0.56	115	81	33	0	7	2	0
CT	BRIDGEPORT	53	33	68	24	43	10	0.34	-0.45	0.31	9.52	105	5.45	107	84	41	0	3	2	0
	HARTFORD	53	28	62	23	41	11	0.22	-0.56	0.19	10.44	112	6.00	115	78	36	0	6	2	0
DC	WASHINGTON	58	38	69	28	48	8	1.68	1.03	0.81	7.11	89	3.35	73	84	41	0	2	5	2
DE	WILMINGTON	55	34	65	22	45	9	1.10	0.41	0.63	8.76	98	3.57	71	80	42	0	3	3	1
FL	DAYTONA BEACH	76	52	87	42	64	3	0.00	-0.58	0.00	3.06	46	1.95	46	93	44	0	0	0	0
	JACKSONVILLE	75	45	86	38	60	2	0.07	-0.66	0.07	3.52	44	3.31	64	95	41	0	0	1	0
	KEY WEST	84	71	90	66	77	5	0.00	-0.38	0.00	4.13	82	0.09	3	93	56	1	0	0	0
	MIAMI	80	67	83	57	73	3	1.27	0.72	0.66	5.35	93	3.63	110	86	54	0	0	2	2
	ORLANDO	78	55	88	47	66	3	0.01	-0.49	0.01	2.47	39	1.54	40	89	40	0	0	1	0
	PENSACOLA	71	48	78	35	60	3	0.06	-1.15	0.06	11.83	87	6.37	79	89	46	0	0	1	0
	TALLAHASSEE	71	40	80	33	56	0	0.18	-0.89	0.14	12.60	112	10.54	151	91	41	0	0	2	0
	TAMPA	76	56	82	49	66	1	0.04	-0.65	0.02	4.37	62	1.98	44	86	47	0	0	2	0
	WEST PALM BEACH	78	64	86	51	71	2	0.13	-0.51	0.12	4.78	54	1.32	25	87	50	0	0	2	0
GA	ATHENS	64	37	73	28	50	3	0.63	-0.49	0.43	16.31	141	11.59	162	91	41	0	3	3	0
	ATLANTA	64	41	74	29	53	4	0.61	-0.54	0.49	12.63	104	9.22	123	85	44	0	2	3	0
	AUGUSTA	68	35	80	27	51	1	0.39	-0.56	0.24	13.12	131	9.38	152	98	38	0	3	2	0
	COLUMBUS	68	39	77	31	53	1	0.26	-0.87	0.17	10.17	86	8.61	122	89	41	0	2	2	0
	MACON	69	38	80	30	54	2	0.17	-0.90	0.10	12.96	111	10.96	156	93	41	0	1	2	0
	SAVANNAH	71	44	83	36	58	4	0.15	-0.54	0.14	8.91	108	7.19	142	91	38	0	0	2	0
HI	HILO	75	64	78	60	70	-2	20.02	17.46	10.17	34.45	131	26.97	190	98	74	0	0	6	5
	HONOLULU	81	71	83	68	76	2	0.89	0.40	0.46	4.75	91	2.52	84	85	58	0	0	5	0
	KAHULUI	78	66	80	65	72	-1	0.79	0.33	0.35	9.47	145	5.67	153	90	62	0	0	6	0
	LIHUE	79	70	81	67	74	2	2.21	1.31	1.38	14.39	150	9.55	193	87	59	0	0	6	2
IA	BURLINGTON	46	26	54	9	36	7	0.16	-0.25	0.11	3.76	87	2.95	121	83	55	0	6	2	0
	CEDAR RAPIDS	41	18	50	-3	30	6	0.13	-0.16	0.08	2.15	66	1.84	112	92	63	0	6	2	0
	DES MOINES	44	22	57	2	33	6	0.57	0.24	0.32	4.29	123	2.37	126	87	49	0	6	2	0
	DUBUQUE	37	19	45	1	28	5	0.32	-0.07	0.17	5.75	141	3.54	156	91	69	0	7	2	0
	SIOUX CITY	39	20	51	10	30	6	0.67	0.46	0.67	3.76	172	2.10	175	89	57	0	6	1	1
	WATERLOO	41	21	51	6	31	7	0.86	0.59	0.81	4.54	144	2.89	170	84	55	0	6	2	1
ID	BOISE	43	24	49	21	34	-4	0.11	-0.13	0.07	2.69	75	0.85	41	75	37	0	7	2	0
	LEWISTON	47	33	50	26	40	1	0.01	-0.24	0.01	1.76	60	0.59	32	74	35	0	3	1	0
	POCATELLO	28	1	34	-8	14	-15	0.28	0.04	0.26	2.98	105	1.39	81	93	59	0	7	2	0
IL	CHICAGO/O_HARE	45	28	55	17	37	8	0.63	0.13	0.36	6.16	117	4.02	127	78	49	0	5	3	0
	MOLINE	47	25	56	11	36	8	0.34	-0.11	0.28	5.51	115	3.84	141	80	51	0	6	2	0
	PEORIA	48	28	55	18	38	8	0.38	-0.12	0.21	5.32	97	2.67	82	87	50	0	5	2	0
	ROCKFORD	42	22	52	12	32	7	0.34	-0.07	0.23	5.67	126	3.13	122	85	54	0	7	3	0
	SPRINGFIELD	49	27	58	20	38	5	0.20	-0.28	0.14	4.46	83	2.38	74	84	52	0	5	2	0
IN	EVANSVILLE	58	32	73	23	45	8	1.69	0.87	1.60	11.52	126	7.98	150	84	43	0	4	2	1
	FORT WAYNE	49	26	59	19	37	9	0.17	-0.35	0.15	6.01	96	3.83	100	84	47	0	6	2	0
	INDIANAPOLIS	53	29	64	20	41	9	0.39	-0.23	0.31	8.22	109	5.63	122	81	42	0	5	2	0
	SOUTH BEND	46	26	55	20	36	9	0.22	-0.37	0.20	6.76	104	3.62	89	81	53	0	6	2	0
KS	CONCORDIA	50	25	62	15	38	5	0.22	-0.01	0.22	2.03	89	1.38	111	76	37	0	6	1	0
	DODGE CITY	49	20	61	9	35	-1	0.08	-0.07	0.04	0.72	37	0.64	65	84	37	0	6	2	0
	GOODLAND	42	19	61	6	31	-1	0.54	0.43	0.35	0.54	50	0.54	89	85	48	0	7	3	0
	TOPEKA	52	26	63	12	39	4	0.49	0.15	0.39	3.57	113	2.61	156	84	41	0	6	3	0

Based on 1991-2020 normals

***** Not Available**

Weather Data for the Week Ending February 18, 2023

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	51	25	64	12	38	1	0.31	-0.01	0.31	2.33	82	1.55	97	82	39	0	6	1	0
KY	LEXINGTON	58	33	73	22	46	8	2.56	1.65	2.50	12.19	123	8.81	156	77	38	0	5	2	1
	LOUISVILLE	59	35	75	24	47	8	1.71	0.85	1.69	10.42	109	7.17	132	79	38	0	4	2	1
	PADUCAH	59	34	74	22	47	6	1.15	0.15	1.03	15.07	143	10.62	170	87	38	0	4	2	1
LA	BATON ROUGE	69	45	82	32	57	1	1.25	0.18	1.20	20.87	143	13.62	147	91	48	0	1	3	1
	LAKE CHARLES	66	45	76	33	55	-2	0.35	-0.45	0.30	16.41	130	7.19	89	94	55	0	0	2	0
	NEW ORLEANS	68	50	78	41	59	1	0.34	-0.69	0.20	13.61	107	5.59	71	90	53	0	0	2	0
	SHREVEPORT	67	41	77	28	54	2	0.00	-1.07	0.00	0.00	0	0.00	0	89	41	0	1	0	0
MA	BOSTON	52	33	62	23	42	11	0.08	-0.73	0.07	8.97	92	5.28	98	80	37	0	3	2	0
	WORCESTER	50	31	59	19	40	14	0.13	-0.68	0.11	12.40	126	6.31	113	73	39	0	3	2	0
MD	BALTIMORE	58	36	71	25	47	10	1.76	1.03	0.75	8.19	95	3.41	69	77	38	0	3	3	2
ME	CARIBOU	33	10	47	-7	21	7	0.70	0.11	0.62	10.87	135	6.36	143	83	55	0	7	3	1
	PORTLAND	45	27	57	18	36	10	0.16	-0.74	0.14	12.10	118	8.15	142	88	48	0	6	3	0
MI	ALPENA	39	17	51	4	28	8	0.39	0.02	0.26	4.69	101	3.23	118	95	55	0	7	4	0
	GRAND RAPIDS	43	26	54	19	34	8	0.85	0.32	0.51	5.98	94	4.53	118	85	56	0	6	4	1
	HOUGHTON LAKE	39	19	51	10	29	9	0.49	0.15	0.30	4.11	95	2.80	109	89	57	0	7	4	0
	LANSING	45	26	58	17	36	10	0.33	-0.10	0.25	4.31	86	3.33	107	81	48	0	6	4	0
	MUSKEGON	44	28	59	20	36	8	0.48	-0.06	0.30	5.14	83	3.96	106	82	57	0	6	3	0
	TRAVERSE CITY	42	25	56	18	34	10	0.09	-0.15	0.05	2.57	62	1.92	83	79	51	0	7	2	0
MN	DULUTH	33	13	43	-10	23	8	0.84	0.58	0.67	5.81	193	2.59	169	87	58	0	7	2	1
	INT_L FALLS	34	6	45	-16	20	11	0.36	0.19	0.33	0.93	42	0.64	52	86	54	0	7	2	0
	MINNEAPOLIS	36	19	43	6	28	7	0.81	0.60	0.66	4.90	190	3.13	224	85	54	0	6	2	1
	ROCHESTER	33	18	40	5	26	7	0.75	0.50	0.64	4.57	159	2.96	186	92	69	0	6	2	1
	ST. CLOUD	34	11	41	-7	22	6	0.80	0.61	0.68	4.44	225	2.56	233	92	61	0	7	2	1
MO	COLUMBIA	53	31	62	17	42	6	0.58	0.04	0.51	4.00	72	2.80	82	77	41	0	4	2	1
	KANSAS CITY	49	27	58	11	38	4	0.30	-0.06	0.25	5.22	144	4.04	197	83	49	0	6	2	0
	SAINT LOUIS	54	33	62	22	43	6	0.50	-0.06	0.30	5.39	83	3.43	86	72	39	0	4	2	0
	SPRINGFIELD	55	30	63	20	42	4	0.66	0.04	0.38	7.00	106	4.78	119	85	39	0	4	2	0
MS	JACKSON	66	42	76	30	54	3	0.72	-0.54	0.71	17.50	126	11.88	136	85	46	0	1	2	1
	MERIDIAN	66	40	76	29	53	1	4.64	3.32	3.36	20.05	140	16.04	178	94	47	0	2	5	2
	TUPELO	66	39	76	26	53	5	1.10	-0.25	0.86	15.65	111	8.49	105	83	38	0	3	4	1
MT	BILLINGS	39	18	55	2	29	-1	0.30	0.16	0.26	1.39	95	0.78	87	80	42	0	6	2	0
	BUTTE	31	-3	43	-20	14	-8	0.07	-0.04	0.06	1.04	88	0.55	80	88	42	0	7	2	0
	CUT BANK	40	20	48	8	30	7	0.00	-0.06	0.00	0.04	6	0.04	11	76	32	0	7	0	0
	GLASGOW	37	17	46	2	27	8	0.00	-0.09	0.00	2.34	220	1.46	224	83	58	0	7	0	0
	GREAT FALLS	41	19	53	2	30	4	0.13	-0.02	0.13	2.10	144	1.19	128	76	41	0	7	1	0
	HAVRE	39	23	44	13	31	10	0.00	-0.11	0.00	1.97	181	0.50	73	85	54	0	7	0	0
	MISSOULA	37	16	45	7	27	-2	0.20	-0.02	0.17	2.47	94	1.20	79	94	53	0	7	3	0
NC	ASHEVILLE	59	35	67	26	47	5	1.64	0.76	1.09	11.00	104	7.44	116	86	42	0	3	3	1
	CHARLOTTE	64	37	74	27	51	5	1.38	0.59	1.14	13.11	146	8.57	158	87	38	0	2	2	1
	GREENSBORO	61	37	72	25	49	6	1.91	1.20	1.21	10.51	126	6.76	131	85	41	0	2	2	2
	HATTERAS	63	46	69	30	54	5	0.17	-0.94	0.09	8.74	69	5.46	70	98	64	0	1	2	0
	RALEIGH	66	40	78	29	53	8	1.51	0.83	1.30	8.94	104	5.30	103	84	38	0	1	3	1
	WILMINGTON	69	43	79	33	56	7	1.14	0.26	1.07	7.50	76	5.33	88	93	43	0	0	3	1
ND	BISMARCK	35	12	48	4	24	6	0.03	-0.10	0.03	2.31	166	0.22	27	86	55	0	7	1	0
	DICKINSON	36	15	49	2	25	6	0.00	-0.09	0.00	0.14	23	0.00	0	85	57	0	7	0	0
	FARGO	26	4	36	-9	15	2	0.02	-0.15	0.02	2.22	111	0.26	23	99	73	0	7	1	0
	GRAND FORKS	28	3	37	-15	15	5	0.00	-0.13	0.00	1.46	101	0.15	19	89	69	0	7	0	0
	JAMESTOWN	31	8	40	-6	19	6	0.00	-0.09	0.00	0.56	64	0.13	25	88	65	0	7	0	0
NE	GRAND ISLAND	45	22	59	13	33	4	0.23	0.05	0.15	1.77	92	1.33	123	85	44	0	6	2	0
	LINCOLN	45	15	62	-9	30	0	0.56	0.33	0.31	2.47	99	1.84	140	88	46	0	6	2	0
	NORFOLK	42	21	57	10	31	5	0.44	0.24	0.44	2.57	132	1.89	171	87	48	0	6	1	0
	NORTH PLATTE	41	19	53	12	30	1	0.02	-0.13	0.02	3.22	273	1.89	258	84	52	0	7	1	0
	OMAHA	42	18	61	0	30	1	1.26	1.03	0.97	3.50	138	2.46	187	92	50	0	6	2	1
	SCOTTSBLUFF	44	19	52	9	31	1	0.01	-0.13	0.01	2.13	172	1.48	206	78	34	0	7	1	0
	VALENTINE	37	14	47	5	25	-2	0.00	-0.15	0.00	5.42	493	3.20	477	87	57	0	7	0	0
NH	CONCORD	47	22	55	17	35	10	0.03	-0.66	0.03	9.91	120	5.90	129	91	41	0	7	1	0
NJ	ATLANTIC_CITY	57	37	67	25	47	11	0.82	0.02	0.35	10.11	102	4.60	85	83	39	0	2	3	0
	NEWARK	59	38	70	28	48	13	0.33	-0.41	0.15	9.07	96	4.59	86	66	30	0	2	3	0
NM	ALBUQUERQUE	49	27	61	17	38	-4	0.26	0.15	0.14	1.23	107	0.61	98	78	28	0	6	2	0
NV	ELY	31	-2	38	-12	15	-15	0.12	-0.09	0.08	3.96	204	2.46	194	85	48	0	7	2	0
	LAS VEGAS	58	39	66	33	49	-5	0.00	-0.22	0.00	0.76	50	0.69	65	37	12	0	0	0	0
	RENO	47	24	60	19	35	-5	0.00	-0.27	0.00	7.98	266	2.91	153	66	22	0	7	0	0
NY	ALBANY	52	27	64	19	39	12	0.08	-0.48	0.08	7.29	100	3.52	88	75	39	0	6	1	0
	BINGHAMTON	50	26	61	13	38	14	0.14	-0.47	0.14	7.45	103	3.70	90	79	44	0	5	1	0
	BUFFALO	46	27	61	18	37	10	0.08	-0.52	0.08	14.78	170	5.00	101	88	49	0	5	1	0
	ROCHESTER	49	27	67	17	38	11	0.10	-0.43	0.10	18.84	288	4.57	118	90	45	0	5	1	0
	SYRACUSE	52	27	69	18	40	14	0.05	-0.58	0.04	8.30	112	5.14	125	82	41	0	5	2	0
OH	AKRON-CANTON	55	30	71	21	43	13	0.15	-0.44	0.10	7.05	96	5.18	117	76	39	0	5	2	0
	CINCINNATI	55	32	71	20	44	9	1.87	1.07	1.85	8.66	96	6.02	114	83	44	0	4	2	1
	CLEVELAND	53	29	68	22	41	10	0.08	-0.55	0.07	7.06	94	5.85	129	78	38	0	5	2	0
	COLUMBUS	56	29	72	21	43	10	0.43	-0.16	0.42	6.69	87	4.69	104	85	39	0	5	2	0
	DAYTON	55	29	71	20	42	9	0.49	-0.10	0.49	6.01	79	4.53	100	77	40	0	5	1	0
	MANSFIELD	52	28	67	21	40	11	0.09	-0.54	0.07	6.67	85	5.33	112	84	44	0	5	2	0
	TOLEDO	50	27	62	23	38	9	0.16	-0.43	0.14	4.73	76	3.83	102	85	43	0	6	2	0

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***** Not Available**

Weather Data for the Week Ending February 18, 2023

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
	YOUNGSTOWN	56	27	69	20	41	12	0.05	-0.57	0.05	6.62	85	5.05	110	81	39	0	5	1	0
OK	OKLAHOMA CITY	56	30	67	20	43	1	0.35	0.00	0.33	4.04	101	2.02	92	83	32	0	4	2	0
	TULSA	57	33	67	21	45	2	0.82	0.42	0.59	6.76	134	4.22	162	85	34	0	5	2	1
OR	ASTORIA	48	33	50	26	41	-3	0.67	-1.06	0.34	20.46	78	8.91	58	95	62	0	3	5	0
	BURNS	35	8	38	2	22	-9	0.02	-0.21	0.01	3.80	109	1.42	72	83	50	0	7	2	0
	EUGENE	49	28	55	24	39	-4	0.36	-0.83	0.28	8.45	52	3.44	38	96	59	0	6	2	0
	MEDFORD	50	27	56	23	38	-6	0.06	-0.43	0.03	5.08	67	1.08	27	90	43	0	7	2	0
	PENDLETON	50	30	57	24	40	2	0.03	-0.27	0.03	2.44	64	0.97	42	74	34	0	5	1	0
	PORTLAND	49	34	52	28	42	-3	0.14	-0.77	0.10	12.39	93	4.04	54	91	57	0	3	2	0
	SALEM	48	32	56	25	40	-4	0.26	-0.87	0.19	9.92	61	4.32	47	94	58	0	3	2	0
PA	ALLENTOWN	55	30	66	22	42	10	0.21	-0.47	0.12	8.57	96	4.23	83	83	34	0	3	2	0
	ERIE	54	28	68	21	41	12	0.06	-0.55	0.06	7.68	84	6.63	133	85	43	0	6	1	0
	MIDDLETOWN	55	33	69	24	44	11	0.32	-0.31	0.18	7.22	89	2.87	61	77	38	0	3	2	0
	PHILADELPHIA	57	38	68	29	47	12	0.89	0.22	0.61	9.06	102	4.25	87	74	36	0	1	3	1
	PITTSBURGH	56	30	71	21	43	12	0.18	-0.47	0.16	5.43	73	3.78	82	75	34	0	5	2	0
	WILKES-BARRE	54	30	67	20	42	12	0.25	-0.26	0.23	6.62	99	2.98	76	75	37	0	5	2	0
	WILLIAMSPORT	54	29	72	21	42	12	0.00	-0.56	0.00	8.44	110	3.35	76	78	35	0	5	0	0
RI	PROVIDENCE	54	29	71	22	41	9	0.24	-0.61	0.23	12.93	120	6.94	114	87	40	0	5	2	0
SC	CHARLESTON	71	45	81	38	58	5	0.35	-0.41	0.20	8.91	102	7.24	135	91	42	0	0	2	0
	COLUMBIA	67	39	77	32	53	4	0.70	-0.17	0.66	11.85	127	8.86	157	95	41	0	1	2	1
	FLORENCE	67	40	80	32	54	4	0.51	-0.26	0.46	10.17	120	7.46	149	94	41	0	1	2	0
	GREENVILLE	62	36	72	25	49	3	1.12	0.13	0.60	14.90	134	10.46	160	86	34	0	2	3	2
SD	ABERDEEN	30	4	38	-6	17	0	0.02	-0.13	0.01	1.80	116	0.35	38	95	73	0	7	2	0
	HURON	33	12	42	3	23	3	0.00	-0.19	0.00	2.12	125	0.38	37	90	67	0	7	0	0
	RAPID CITY	46	14	65	5	30	5	0.00	-0.12	0.00	1.42	150	0.73	124	80	25	0	7	0	0
	SIOUX FALLS	36	12	44	2	24	2	0.60	0.39	0.60	4.74	246	3.13	285	86	60	0	7	1	1
TN	BRISTOL	60	36	72	24	48	8	3.00	2.02	1.54	11.80	119	7.94	130	92	46	0	4	4	2
	CHATTANOOGA	63	38	74	29	51	5	2.08	0.82	1.26	14.61	109	8.55	104	90	44	0	4	4	2
	KNOXVILLE	61	37	73	26	49	6	2.12	0.89	1.06	14.28	111	8.80	113	91	51	0	5	4	2
	MEMPHIS	62	39	73	29	50	4	1.52	0.38	0.98	16.94	136	11.03	159	82	45	0	3	3	1
	NASHVILLE	63	36	74	22	49	6	1.79	0.65	1.76	10.38	92	5.98	87	80	39	0	3	3	1
TX	ABILENE	63	35	84	22	49	-1	0.38	0.06	0.38	2.18	69	1.72	90	70	22	0	3	1	0
	AMARILLO	56	23	73	12	39	-2	0.23	0.11	0.20	0.65	37	0.50	47	76	26	0	6	3	0
	AUSTIN	69	40	81	31	54	-2	0.09	-0.37	0.08	4.87	74	2.98	78	87	31	0	2	2	0
	BEAUMONT	69	46	79	33	57	0	0.06	-0.68	0.06	11.94	96	6.31	85	93	51	0	0	1	0
	BROWNSVILLE	74	51	84	38	63	-4	0.00	-0.26	0.00	0.80	26	0.54	30	91	44	0	0	0	0
	CORPUS CHRISTI	75	50	89	34	62	0	0.00	-0.31	0.00	1.20	29	0.89	40	88	40	0	0	0	0
	DEL RIO	71	43	95	32	57	-1	0.00	-0.15	0.00	0.19	11	0.19	19	52	16	1	1	0	0
	EL PASO	59	34	71	20	47	-5	0.04	-0.07	0.02	0.54	40	0.21	31	58	17	0	1	2	0
	FORT WORTH	62	38	77	30	50	0	0.43	-0.28	0.43	6.71	95	4.34	103	78	31	0	2	1	0
	GALVESTON	65	51	74	42	58	-1	0.10	-0.37	0.09	6.93	69	3.76	65	90	57	0	0	2	0
	HOUSTON	68	45	80	33	56	-1	0.07	-0.67	0.04	11.74	121	7.90	140	92	43	0	0	2	0
	LUBBOCK	58	26	69	12	42	-3	0.07	-0.09	0.04	1.13	61	0.71	66	74	22	0	5	2	0
	MIDLAND	59	32	74	17	46	-5	0.00	-0.15	0.00	0.42	25	0.34	32	60	19	0	3	0	0
	SAN ANGELO	64	34	84	23	49	-3	0.24	-0.07	0.24	2.36	92	1.34	81	74	21	0	3	1	0
	SAN ANTONIO	68	38	81	33	53	-3	0.00	-0.44	0.00	2.34	46	1.87	60	79	30	0	0	0	0
	VICTORIA	71	46	84	35	58	0	0.02	-0.44	0.01	8.69	139	7.26	186	96	45	0	0	2	0
	WACO	65	32	78	22	49	-3	0.21	-0.46	0.14	5.02	71	4.46	106	92	37	0	3	2	0
	WICHITA FALLS	61	32	81	23	46	0	0.30	-0.06	0.30	4.79	132	2.76	135	82	27	0	4	1	0
UT	SALT LAKE CITY	39	22	45	18	31	-6	0.03	-0.29	0.03	5.14	141	2.85	127	81	42	0	7	1	0
VA	LYNCHBURG	61	35	74	24	48	10	2.26	1.54	1.70	11.16	126	5.58	105	86	38	0	4	3	2
	NORFOLK	62	41	76	33	52	7	1.86	1.14	1.07	8.05	94	5.20	98	91	46	0	0	3	2
	RICHMOND	62	38	77	27	50	9	1.28	0.65	1.01	8.94	106	4.44	91	81	38	0	2	3	1
	ROANOKE	62	38	77	26	50	10	2.37	1.63	1.82	9.11	112	5.17	103	74	36	0	2	4	1
	WASH/DULLES	57	36	70	26	46	10	1.96	1.31	0.97	8.28	104	3.37	73	83	42	0	3	4	1
VT	BURLINGTON	46	25	57	13	35	12	0.10	-0.33	0.10	6.57	114	3.99	124	82	47	0	6	1	0
WA	OLYMPIA	47	32	51	23	39	-1	0.41	-0.80	0.23	13.78	72	6.16	55	98	59	0	4	4	0
	QUILLAYUTE	46	34	48	27	40	-2	1.02	-1.30	0.45	28.25	78	13.64	61	96	64	0	2	5	0
	SEATTLE-TACOMA	46	34	50	28	40	-4	0.59	-0.30	0.36	12.03	85	4.53	54	90	60	0	3	3	0
	SPOKANE	42	28	46	24	35	3	0.00	-0.35	0.00	5.21	99	1.67	57	87	49	0	6	0	0
	YAKIMA	50	26	54	18	38	1	0.00	-0.21	0.00	3.33	105	1.19	68	81	37	0	6	0	0
WI	EAU CLAIRE	35	17	41	3	26	8	0.60	0.33	0.47	3.09	101	2.07	123	88	56	0	7	2	0
	GREEN BAY	39	22	48	4	31	10	0.26	-0.03	0.17	3.28	84	1.60	75	84	56	0	7	3	0
	LA CROSSE	42	23	47	10	32	9	0.37	0.08	0.36	4.50	130	2.48	125	84	51	0	6	2	0
	MADISON	40	22	48	12	31	8	0.24	-0.14	0.15	5.01	124	2.68	112	80	55	0	7	2	0
	MILWAUKEE	45	26	58	16	36	9	0.41	-0.01	0.37	5.69	121	3.43	121	72	47	0	6	2	0
WV	BECKLEY	53	32	66	19	43	8	3.49	2.71	1.87	8.86	105	6.09	119	88	47	0	4	4	3
	CHARLESTON	59	33	74	23	46	8	3.17	2.33	2.28	8.18	92	7.00	131	88	38	0	5	3	2
	ELKINS	57	26	72	19	41	8	1.34	0.53	0.89	7.59	84	4.45	82	87	38	0	5	2	1
	HUNTINGTON	60	36	73	24	48	10	3.37	2.52	2.80	8.51	97	6.87	132	77	35	0	4	4	1
WY	CASPER	28	11	39	-7	19	-7	0.10	-0.04	0.09	2.91	201	2.16	260	71	49	0	7	2	0
	CHEYENNE	39	17	55	6	28	-1	0.07	-0.06	0.07	1.41	122	1.36	203	66	29	0	7	1	0
	LANDER	20	-2	30	-10	9	-16	0.29	0.11	0.23	4.17	265	2.85	300	86	57	0	7	2	0
	SHERIDAN	37	8	45	-2	22	-3	0.41	0.26	0.41	2.54	161	1.52	146	74	42	0	7	1	0

Based on 1991-2020 normals

***** Not Available**

International Weather and Crop Summary

February 12-18, 2023

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

HIGHLIGHTS

EUROPE: Dry but warmer conditions prevailed over much of the continent, though rain and snow lingered in far northern and northeastern growing areas.

MIDDLE EAST: Cold but dry weather in Turkey and Syria contrasted with rain and snow in Iran.

NORTHWESTERN AFRICA: Dry but warmer conditions accelerated crop development and heightened drought concerns for winter wheat and barley.

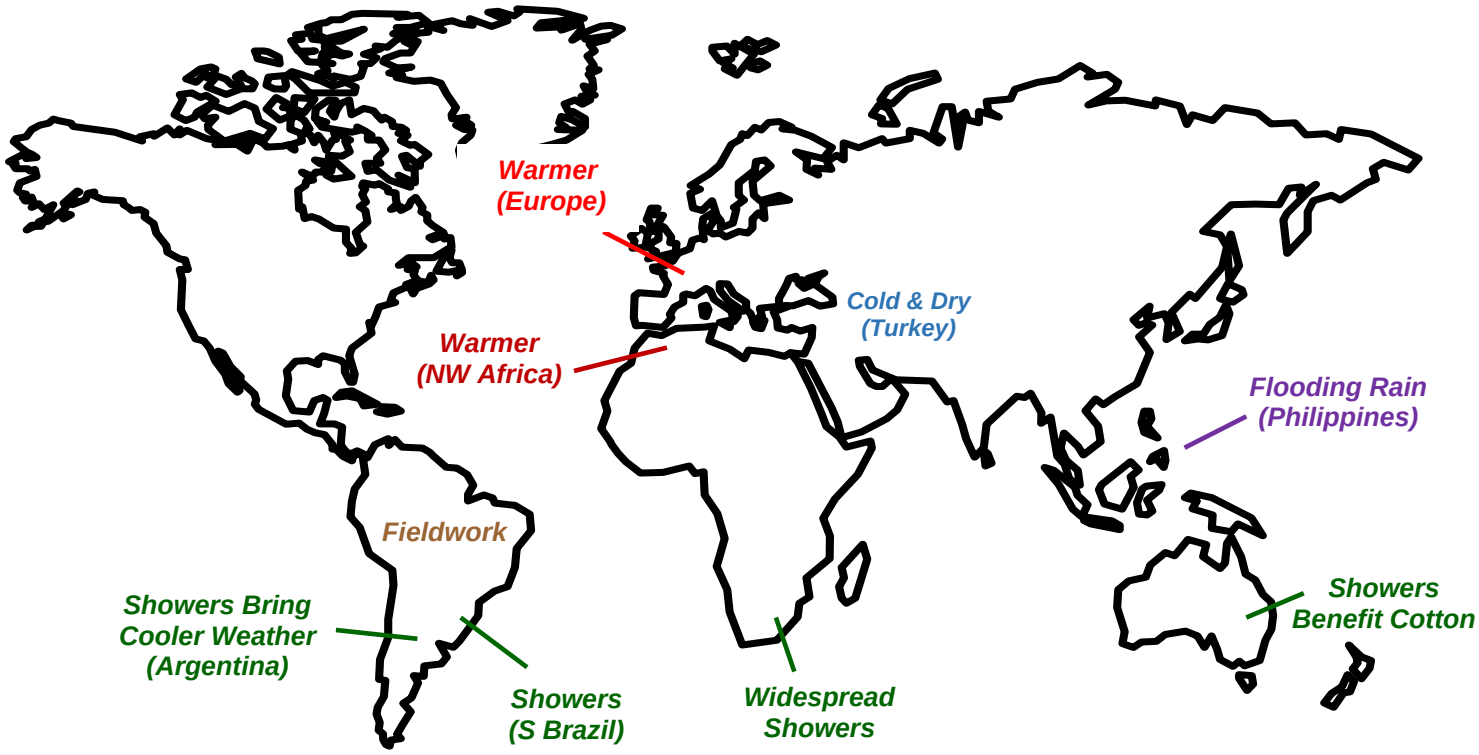
SOUTHEAST ASIA: Downpours in portions of the Philippines caused flooding.

AUSTRALIA: Showers benefited cotton and other immature summer crops, while early sorghum harvesting progressed.

SOUTH AFRICA: Rain benefited corn and other summer crops advancing through reproduction.

ARGENTINA: Showers brought cooler weather to the region.

BRAZIL: Rain brought some drought relief to immature corn and soybeans in the south.



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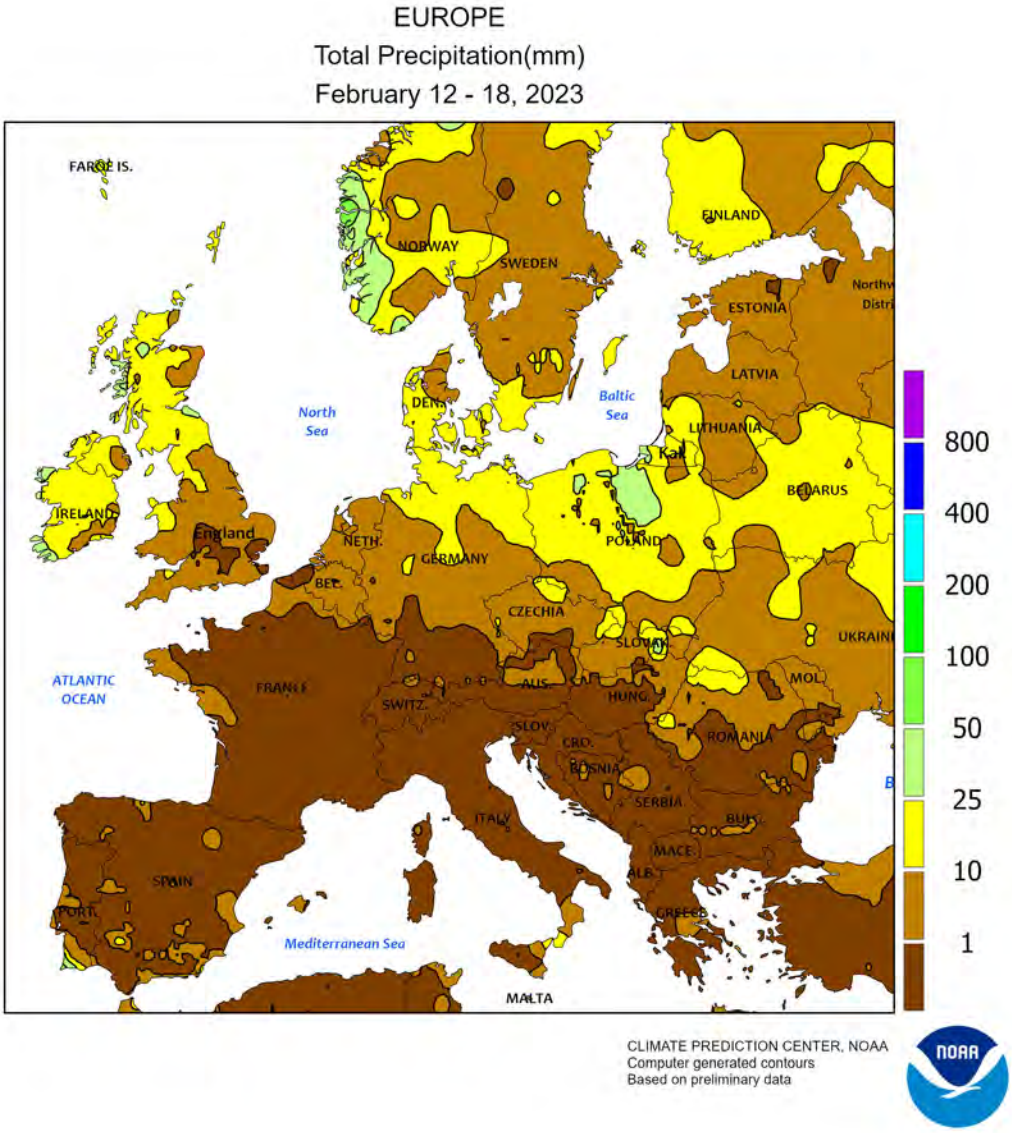

EUROPE

Mostly dry but warmer weather prevailed across much of the continent, though rain and snow fell in northern and northeastern Europe. Little to no precipitation (5 mm or less) was reported from southeastern England southward to the Mediterranean Coast, favoring seasonal fieldwork but renewing drought concerns in Portugal, Spain, and northwestern Italy. Reservoirs in these latter regions have recovered from long-term drought, although many remained well below the long-term average. Conversely, light to moderate rain and snow (5-25 mm liquid equivalent) were reported across northern and northeastern portions of Europe, boosting moisture reserves for dormant winter grains and oilseeds. Temperatures averaged 2 to 5°C above normal nearly everywhere save for Greece, where colder-than-normal conditions (up to 3°C below normal) were observed. Overall, wheat, barley, and rapeseed were overwintering favorably and approaching spring in good to excellent condition, though long-term drought and increasing short-term dryness (30-day precipitation less than 25 percent of normal) remained a concern from Spain into northwestern Italy.

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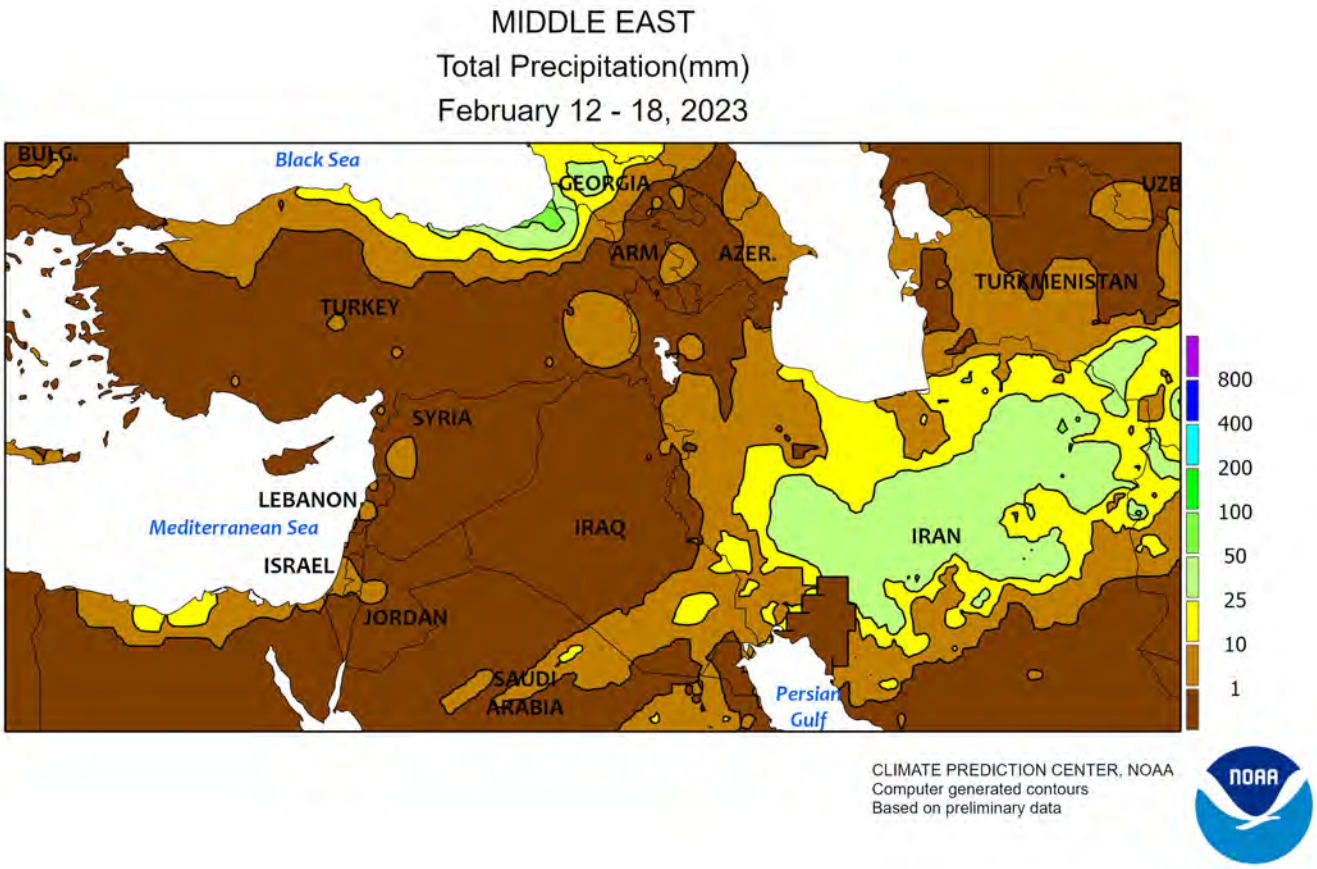

MIDDLE EAST

Unseasonably cold but drier weather in the west contrasted with rain and snow in Iran. Sunny skies in Turkey and Syria favored earthquake recovery efforts, which had previously been hampered by rain and snow. However, the recent spell of much-colder-than-normal weather continued; during the past week, temperatures averaged 4 to 11°C below normal from central Turkey and the eastern Mediterranean Coast into Iraq and northern Iran. Nighttime lows again dropped below -8°C on the snow-covered Anatolian Plateau, while hard freezes (-6 to -2°C) persisted in southeastern Turkey and northern Syria, the epicenter of the February 6 earthquake. While the recent stretch of cold weather has been untimely for earthquake recovery efforts, agricultural impacts have been minor. However, short- and long-term drought remained a concern for Turkish winter grains as the calendar turns to spring and crops in climatology colder locales begin to break dormancy. Conversely, rain and snow were reported from southern Iraq (3-30 mm) into southwestern Iran (10-200 mm) and Khorasan (5-35 mm) in northeastern Iran.

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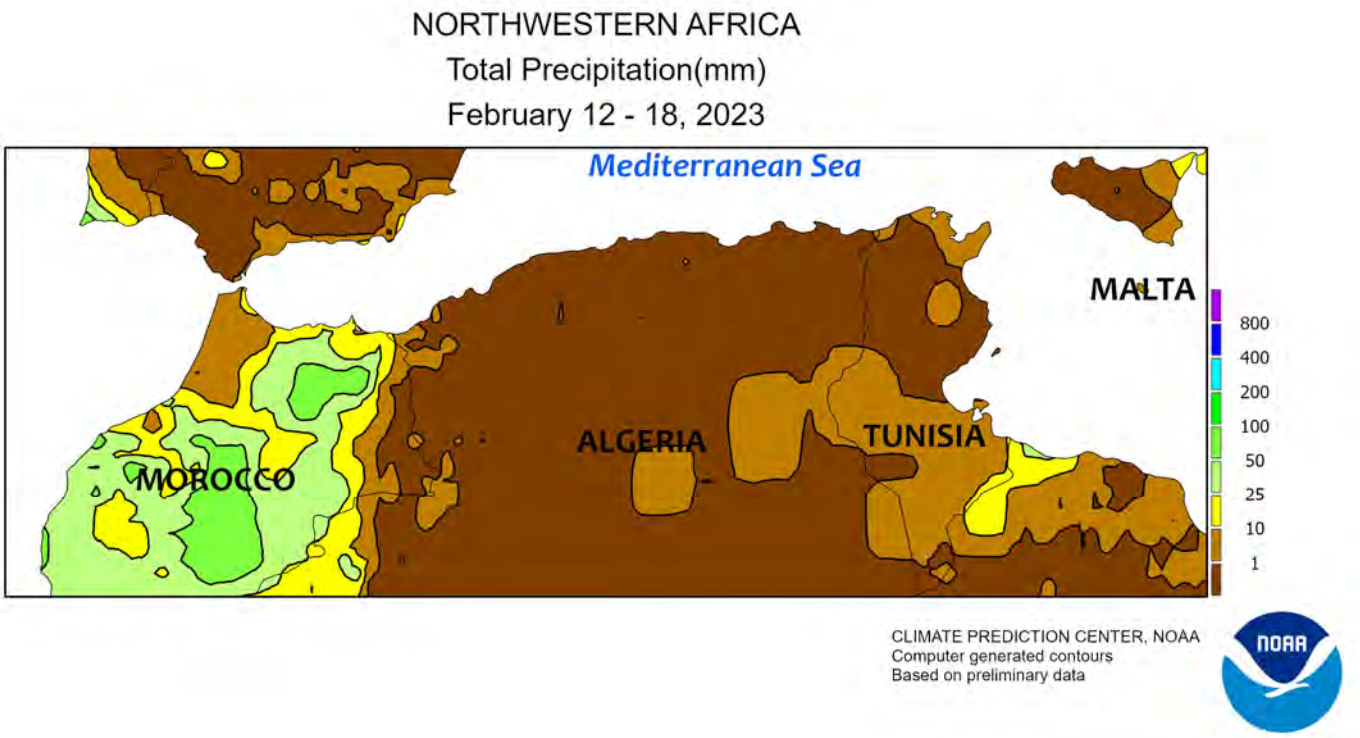

NORTHWESTERN AFRICA

Warm weather in the west renewed a rapid pace of winter grain development, though sunny skies over most of the region heightened dryness concerns. Temperatures averaged 2 to 5°C above normal from central Morocco into western Algeria, accelerating winter grains toward or into reproduction one to three weeks ahead of the long-term average and highlighting the need for moisture soon to stave off potential yield losses. However, sorely needed showers in southwestern Morocco (20-40 mm) improved soil moisture in this lesser winter crop area. While the current satellite-derived Vegetation Health Index (VHI) is much better than last year's severe drought, the VHI remained below average over much of Morocco as well as western Algeria. Farther east, near-normal temperatures accompanied the dry weather, with persistent drought across inland locales (Algeria's Hautes Plateau and Tunisia's Steppe Region) giving way to more favorable moisture conditions near the Mediterranean Coast courtesy of January rain.

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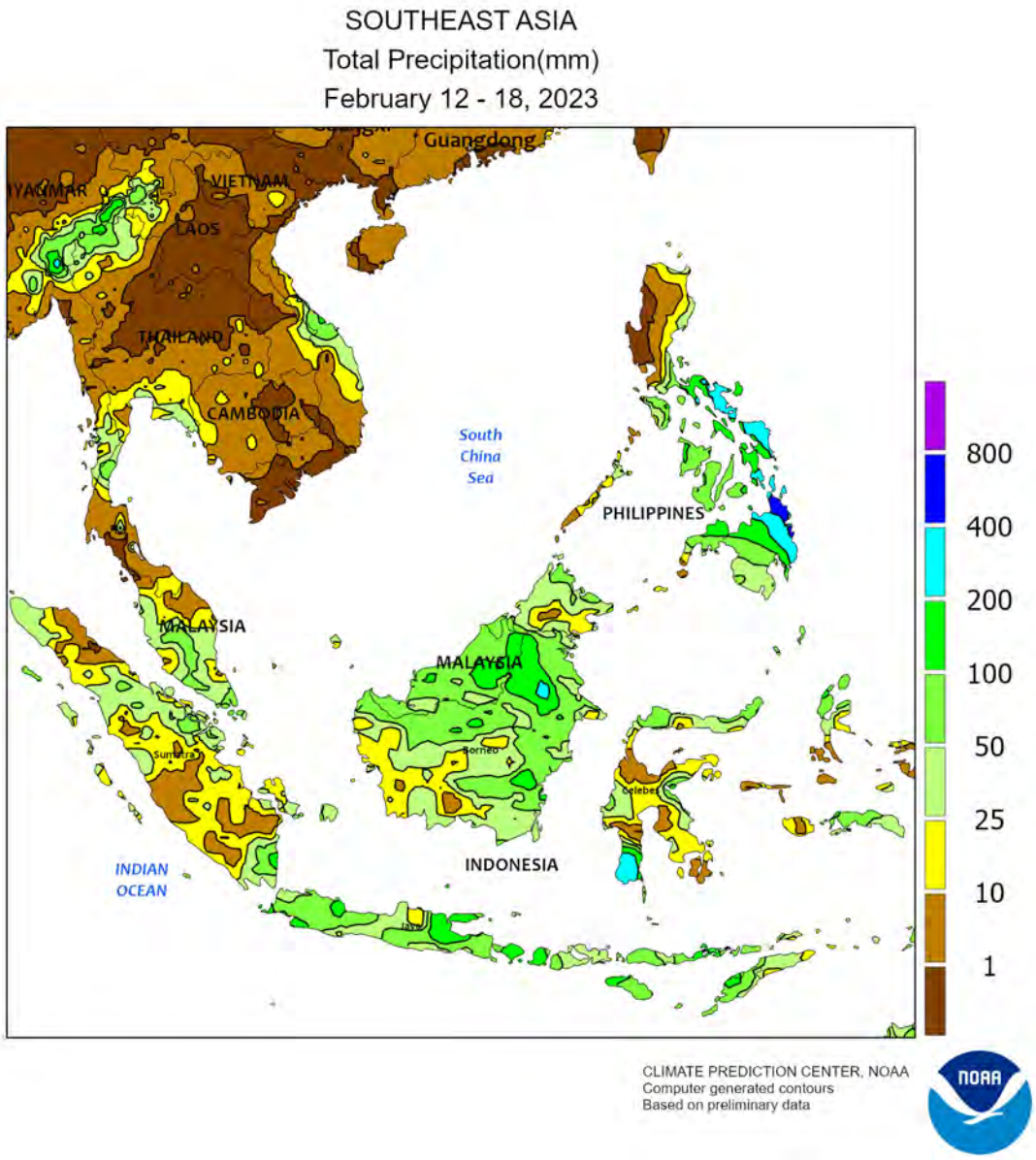

SOUTHEAST ASIA

Downpours continued in eastern and southern sections of the region, causing localized flooding in some areas. In the Philippines, heavy showers (over 150 mm) shifted farther to the south, producing flooding in minor crop areas of the Eastern Visayas and Mindanao. High rainfall totals (up to 150 mm) stretched into eastern portions of Malaysia and Indonesia south into Java (Indonesia), slowing oil palm harvesting but keeping immature rice well watered. Elsewhere, seasonal heat (over 35°C) began to build in Thailand and the immediate vicinity, as second-crop rice begins to ripen.

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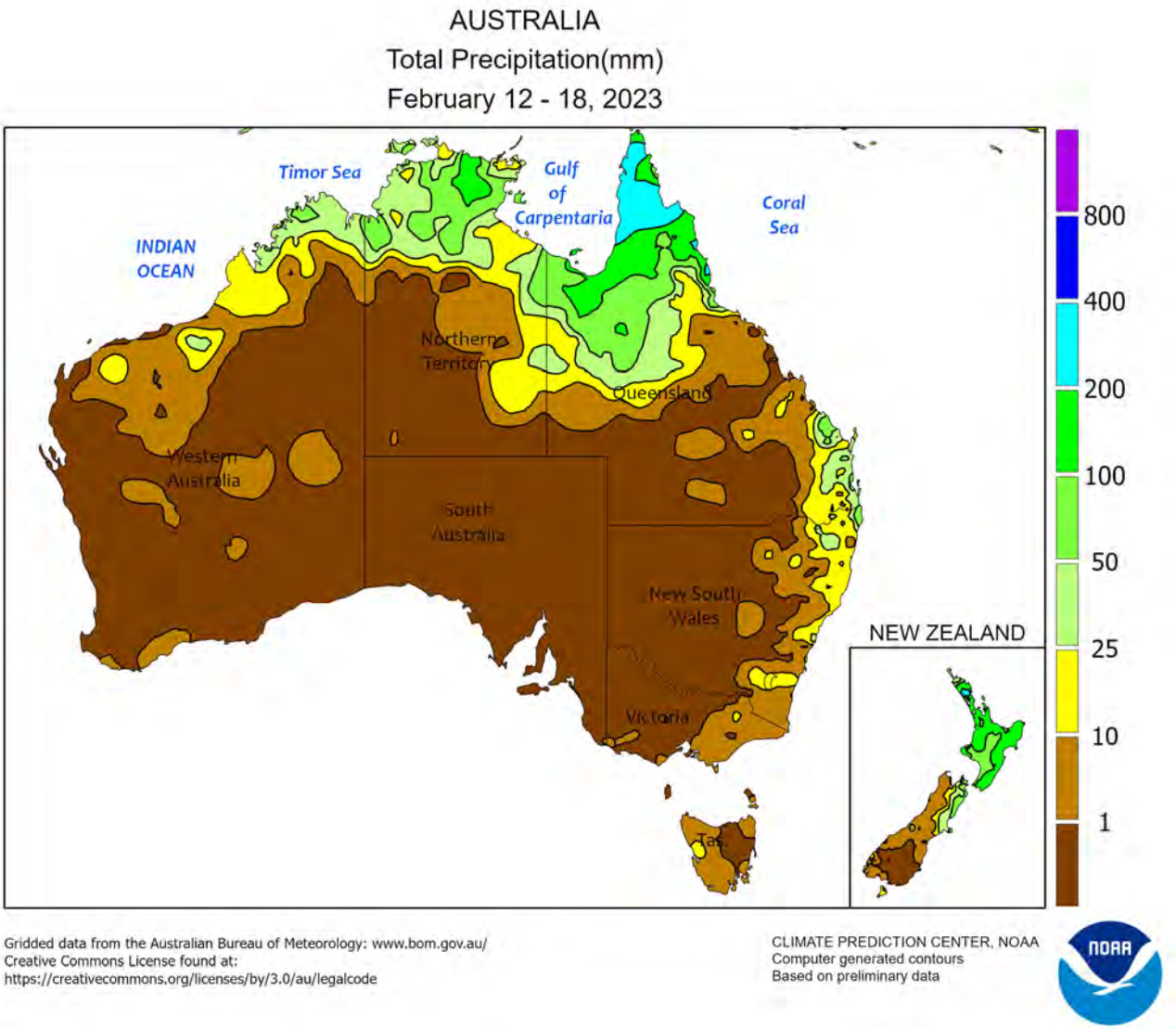

AUSTRALIA

In eastern Australia, hot, mostly dry weather covered interior portions of southern Queensland and New South Wales. The heat and dryness favored early sorghum harvesting, which is reportedly gaining momentum, but increased the irrigation demands of immature summer crops. Closer to the coast, widespread showers (5-25 mm, locally more) benefited cotton and other immature summer crops, helping to maintain good to excellent crop prospects. Temperatures were generally seasonable, with maximum temperatures mostly in the middle to upper 30s degrees C.

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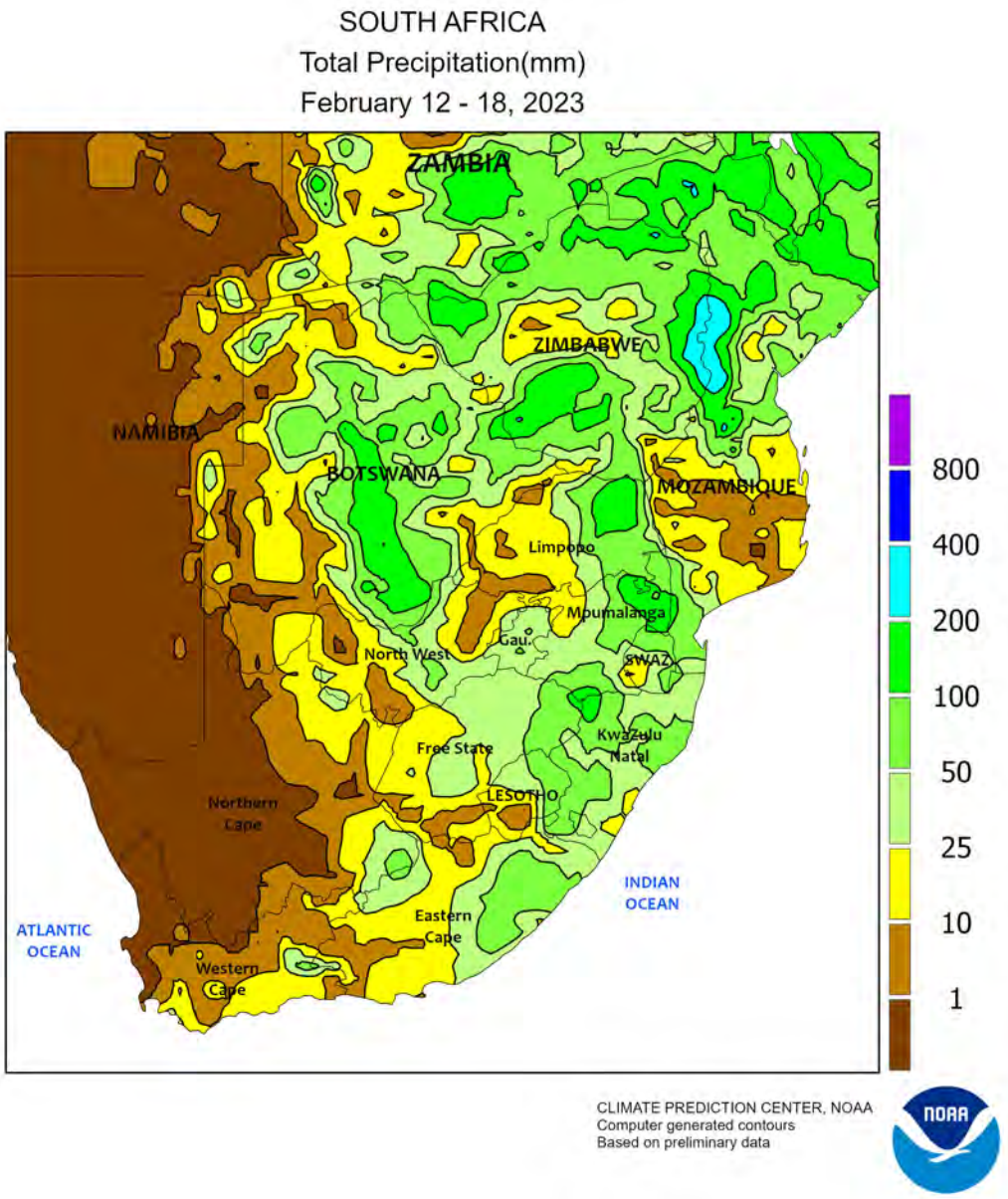

SOUTH AFRICA

Frequent, locally heavy showers maintained overall favorable conditions for corn and other summer crops advancing through reproduction. Rainfall totaled 25 to 100 mm – locally higher – throughout much of the eastern half of the country, including most of the corn belt (North West and Free State eastward) and sugarcane areas in KwaZulu-Natal and eastern Mpumalanga. Seasonable warmth prevailed in the aforementioned region, with highest daytime temperatures reaching the upper 20s and lower 30s (degrees C) in most locations. Farther west, warm, sunny weather maintained favorable conditions for irrigated tree and vine crops in Western Cape as showers (greater than 10 mm) were mostly confined to the southern coast.

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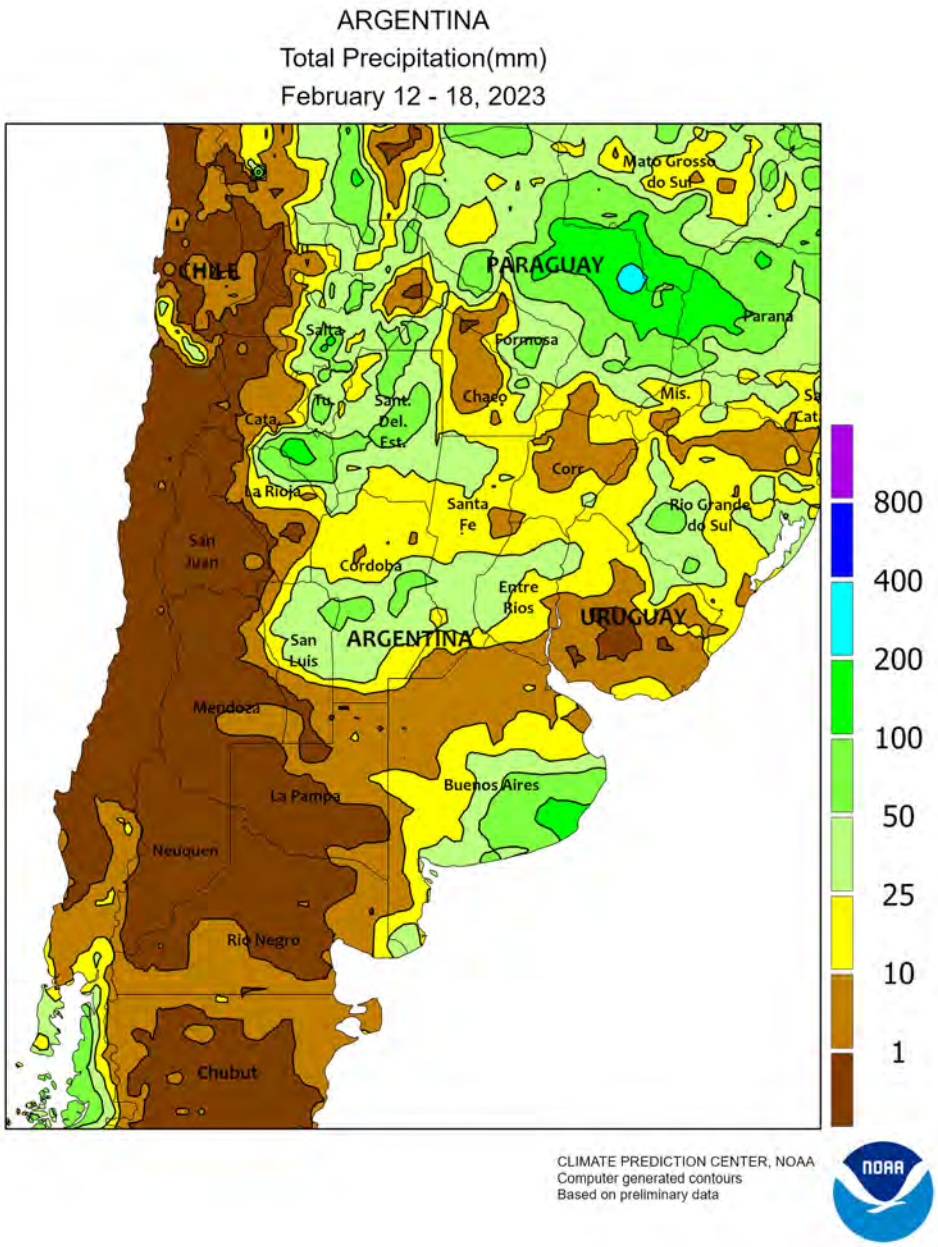

ARGENTINA

A cold front ushered showers and cooler weather into the region, bringing some relief from heat and dryness to immature summer crops. Following a hot start to the week (daytime highs reaching the lower 40s degrees C as far south as Buenos Aires), showers and gradually milder conditions overspread the region. However, rainfall was highly variable, with pockets of dryness (rainfall totaling below 10 mm) lingering in parts of central Argentina and the northeast. By week's end, daytime highs failed to reach 20°C on several days in southern farming areas (notably Buenos Aires and La Pampa), while nighttime lows dropped below 10°C as far north as Chaco. Temperatures briefly dropped into the low single digits in traditionally cooler locations of Buenos Aires, but no freeze was recorded. According to the government of Argentina, sunflowers were 24 percent harvested as of February 16, on par with last year's pace (23 percent); planting of summer grains, oilseeds, and cotton were reportedly nearing completion (95 percent or higher).

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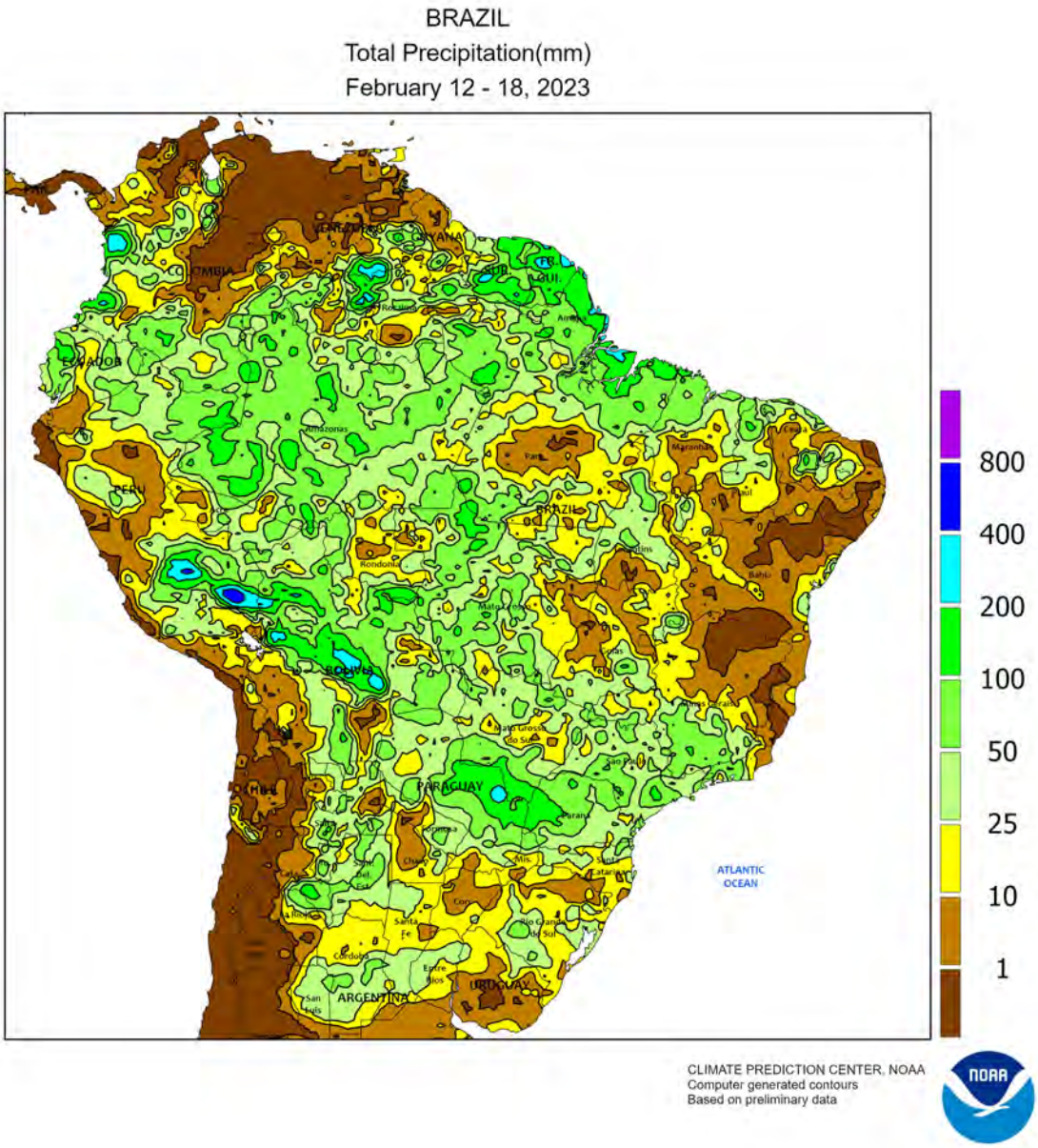

BRAZIL

Beneficial showers developed over previously dry sections of southern Brazil, increasing moisture for immature corn and soybeans and helping to lower temperatures to less stressful levels. Rainfall totaling 10 to 50 mm extended from Rio Grande do Sul northward into southern Paraná, with higher amounts (25-100 mm, locally higher) recorded from Paraguay and Mato Grosso eastward. Prior to the onset of the rainfall, stressful heat (daytime highs in the middle and upper 30s degrees C) lingered for several days in western and southern farming areas in Rio Grande do Sul. According to the government of Rio Grande do Sul, soybeans were reproductive to filling as of February 16, underscoring the value of the mild, showery conditions; corn was more advanced, however, with 46 percent already harvested. In Paraná, soybeans and first-crop corn were both 7 percent harvested as of February 13, while second-crop corn was 12 percent planted. Farther north, seasonal showers (25-50 mm, locally approaching 100 mm) maintained favorable levels of moisture for second-crop corn and cotton in western and southern Mato Grosso and locally in the northwestern interior. Elsewhere, however, drier, occasionally hot weather (daytime highs reaching the upper 30s) prevailed, aiding seasonal fieldwork but reducing moisture for germination of newly-sown crops. According to the government of Mato Grosso, soybeans were 60 percent harvested as of February 10, slightly ahead of the 5-year average (58 percent); corn was 50 percent planted versus 63 percent on average, while cotton was 96 percent planted (98 percent on average).

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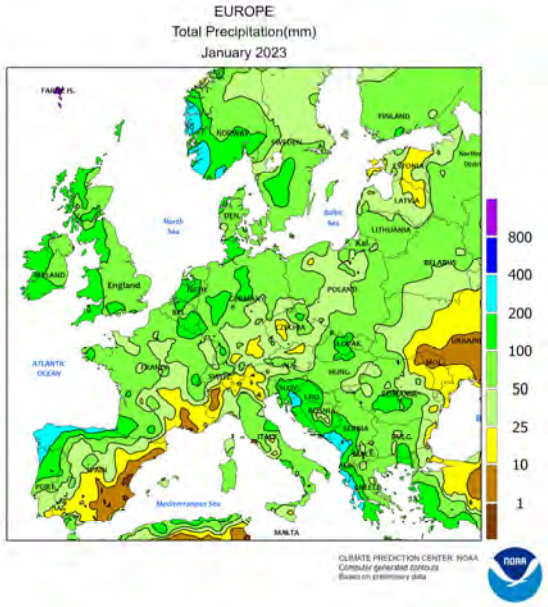
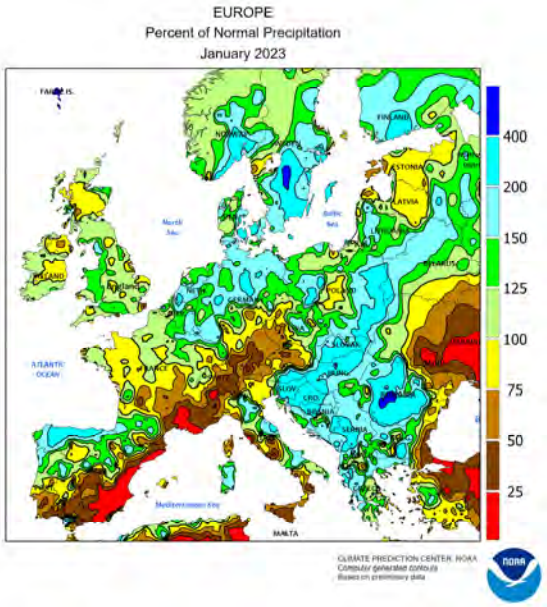
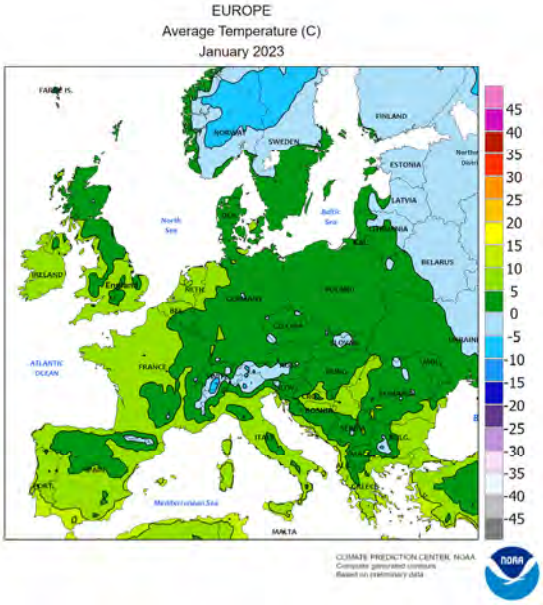
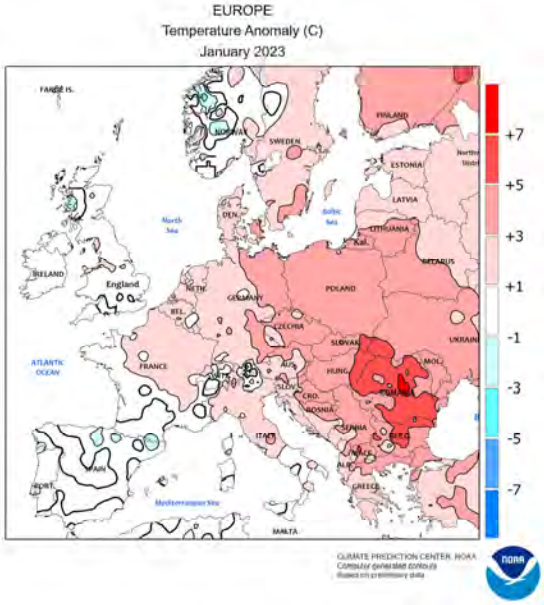
January International Temperature and Precipitation Maps









EUROPE

During January, near-record warmth accompanied widespread rain. Across the whole of Europe, temperatures averaged 2.3°C above normal for the month, representing the second warmest January on record dating back to 1948; only January 2007 was warmer at +2.8°C. The anomalies were most pronounced from Poland into the Balkans (5-7°C above normal), though abnormal warmth also encompassed Germany (2-4°C above normal) and northern France (1-2°C above normal). The exception was the Iberian Peninsula, where temperatures for the month averaged near normal. Pockets of very heavy rain caused flooding in northern portions of Portugal and Spain (150-250 mm) as well as from western Greece (125-200 mm) northward into the western Balkans (150-350 mm). Elsewhere, near- to above-normal precipitation across central, northern, and eastern Europe maintained favorable moisture reserves for dormant winter crops. In contrast, unfavorable dryness returned from southern Spain into northwestern Italy, renewing concerns over long-term drought after December's beneficial, much-needed rain.

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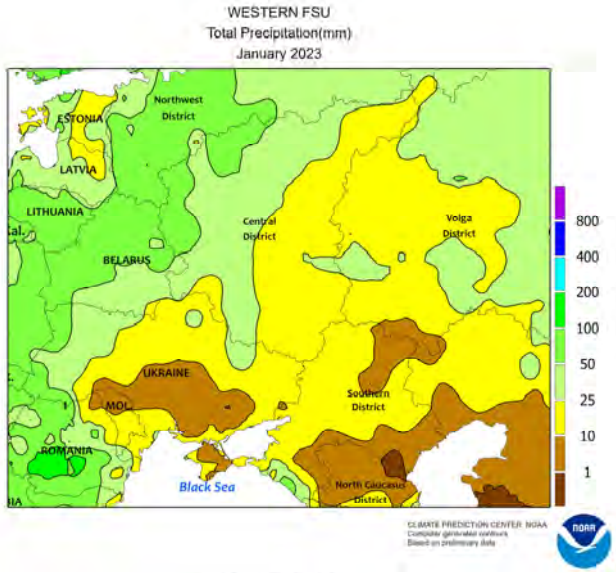

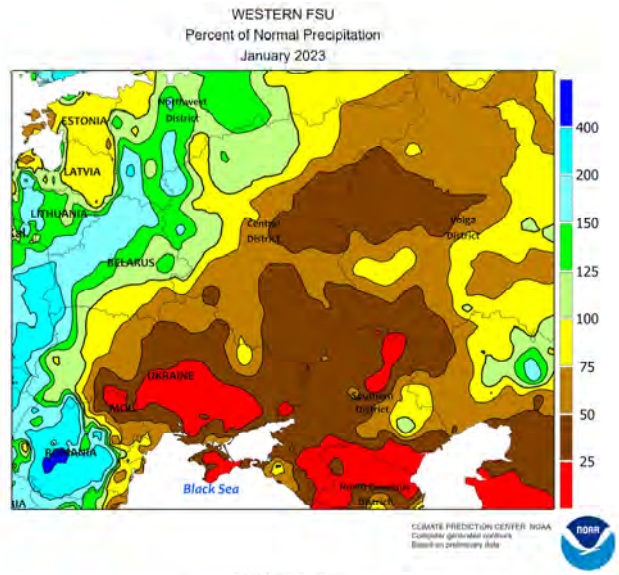

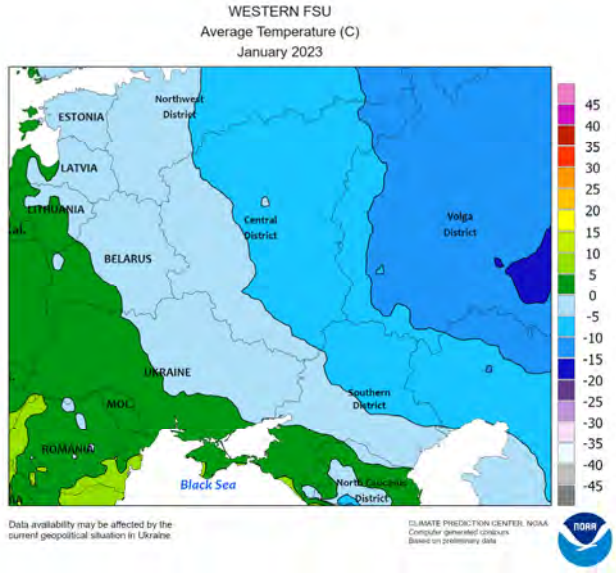

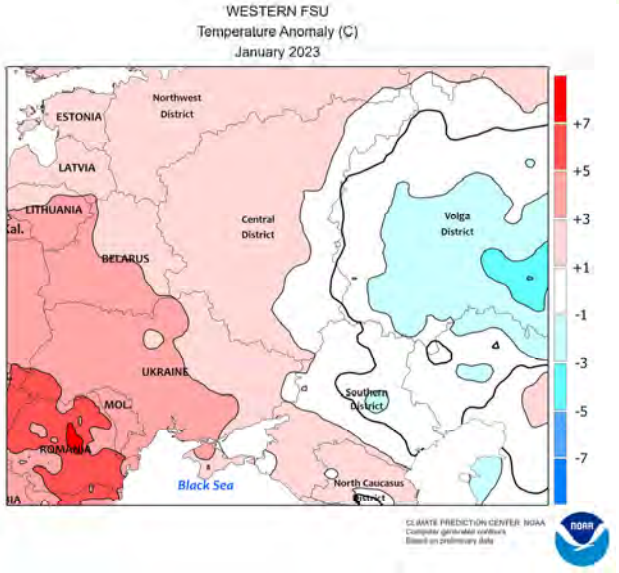

WESTERN FSU

Warm and dry weather continued over western and southern crop areas during January, while cold, snowy conditions settled over northern and eastern portions of the region. Warmth was most pronounced (3-5°C above normal) across Moldova as well as western portions of Ukraine and Belarus, while lesser anomalies (1-3°C above normal) were noted in eastern Ukraine and much of western and southern Russia. Most of these same locales were dry, though a swath of locally heavy rain and snow (100-200 percent of normal) boosted moisture reserves in northern Belarus. Farther east over central Russia, colder air (up to 4°C below normal) was accompanied by widespread snow, with most of the region's croplands away from the Black Sea Coast encased in a moderate to deep snowpack (10-50 cm, locally more in the far north) by early February. Agricultural activity is minimal across the region during the winter months, though this year's summer crop harvest was severely delayed in Ukraine and Russia; some corn and sunflowers will likely be left in the fields until spring, if harvested at all.

The WWCB focuses entirely on weather and resultant crop conditions; conflict and unrest are beyond the scope of this publication.

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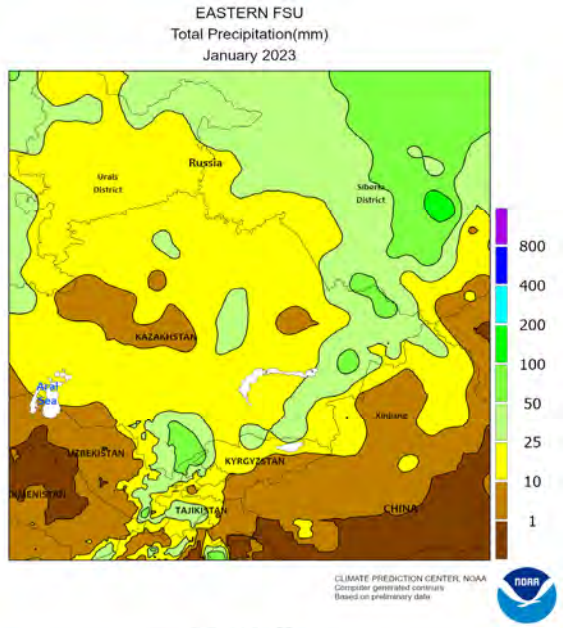

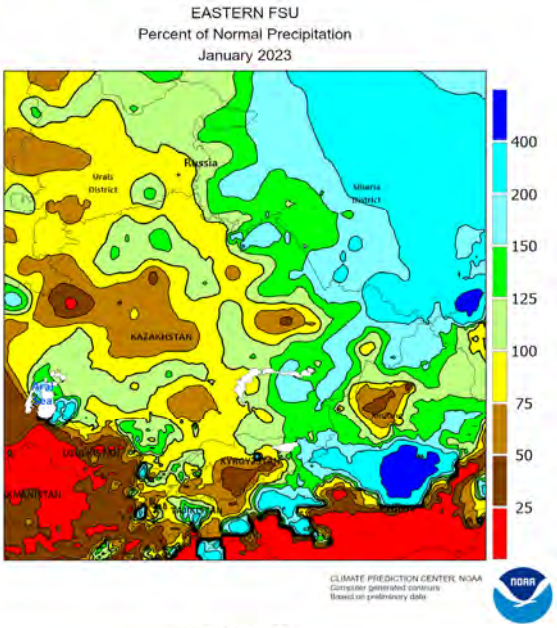

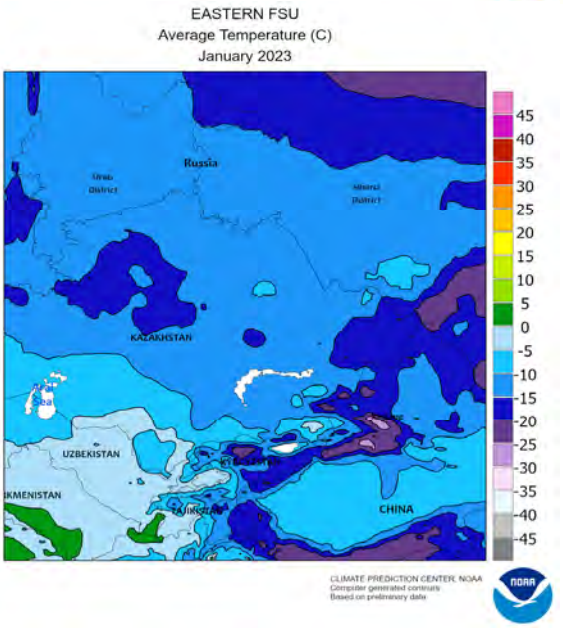

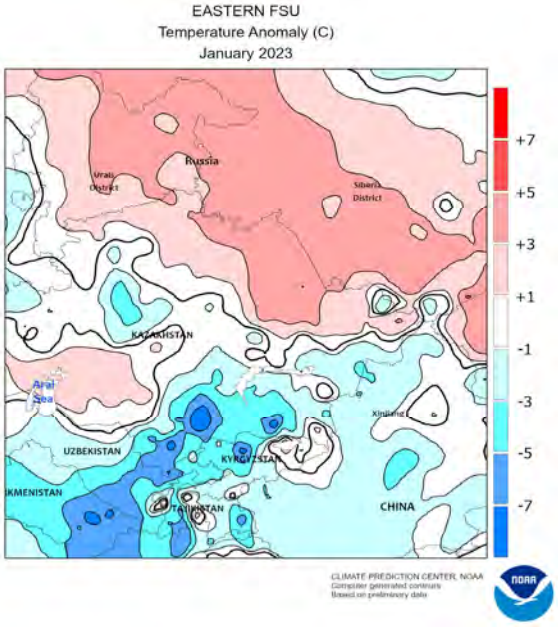

EASTERN FSU

Seasonally cold, snowy weather in the north juxtaposed with a very cold January in the south. Despite temperatures averaging 2 to 5°C above normal across northern Kazakhstan and central Russia, cold conditions (-40 to -30°C) persisted with the region encased in a deep snowpack. Winter weather has no bearing on spring grain prospects. Across Uzbekistan, Turkmenistan, Tajikistan, and Kyrgyzstan, very cold temperatures (up to 10°C below normal) were reported, with dry conditions (less than 50 percent of normal) in the west contrasting with highly variable precipitation in the east. However, prospects for the 2022-23 Water Year remained favorable; as of February 19, season-to-date (since September 1) precipitation in the catchment basins of the Amu (south) and Syr (north) Darya Rivers — primary sources of summer crop irrigation — stood at 220 and 140 percent of normal, respectively. Historically, the Amu Darya's very wet start (250 mm, 135 mm surplus) remained the wettest of the past 30 years despite a dry January, while the Syr Darya's 240 mm was enough to rank as the 3rd wettest start to the water year of the past 30 years. In fact, the Amu Darya has already reached the total water year normal of 250 mm with three months remaining in the climatological wet season.

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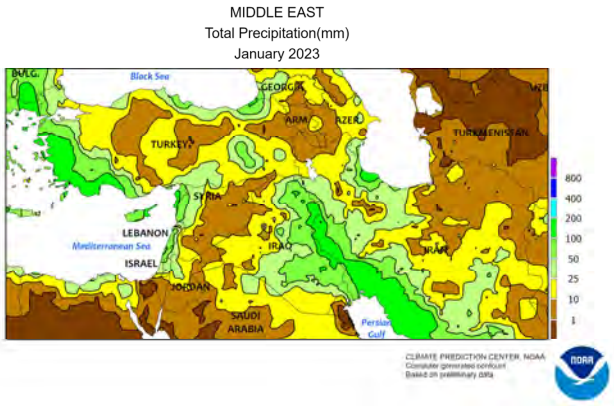

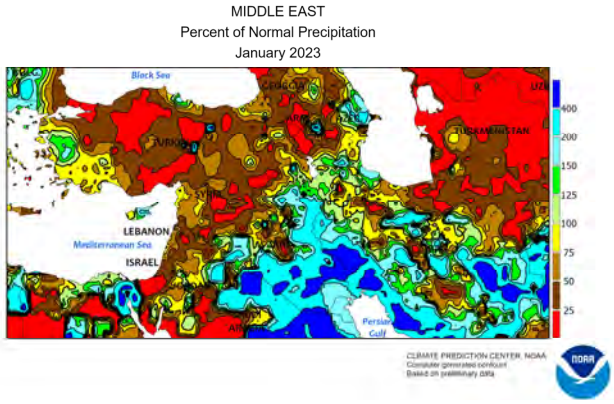

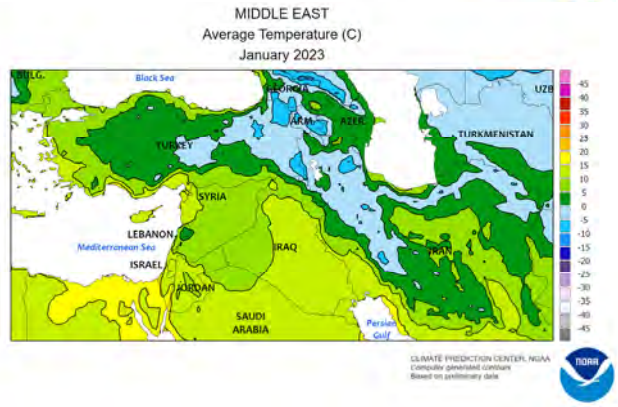

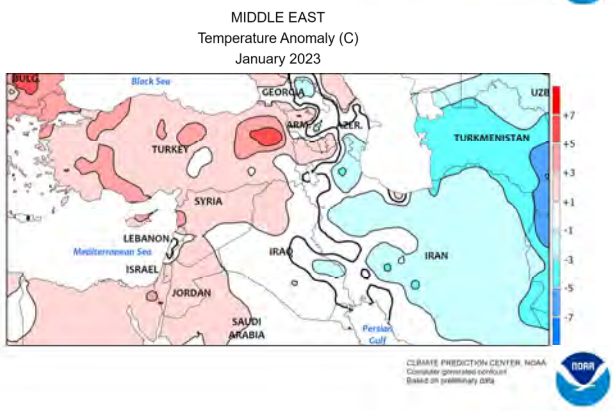

MIDDLE EAST

Precipitation across the region was highly variable during January, with above-normal temperatures in the west contrasting with cold conditions in Iran. Much of Turkey and the eastern Mediterranean Region slipped further into drought, with most of these locales reporting less than 50 percent-of-normal precipitation (locally less than 25 percent) for the month. However, moderate to heavy rain in western Turkey (100-150 mm) eased drought locally, though northwestern winter wheat areas generally missed out. Similar dryness also afflicted northeastern Iran, reducing moisture reserves for dormant winter barley. Conversely, highly unusual, locally heavy rain and mountain snow (50-250 mm liquid equivalent) fell from southern and central Saudi Arabia into southern Iraq and southwestern Iran, boosting moisture supplies for vegetative winter grains; in the typically arid far south, the January precipitation was more than 500 percent of normal. Temperatures for the month averaged 2 to 4°C above normal in Turkey and along the eastern Mediterranean Coast, but up to 4°C below normal in northern and eastern Iran.

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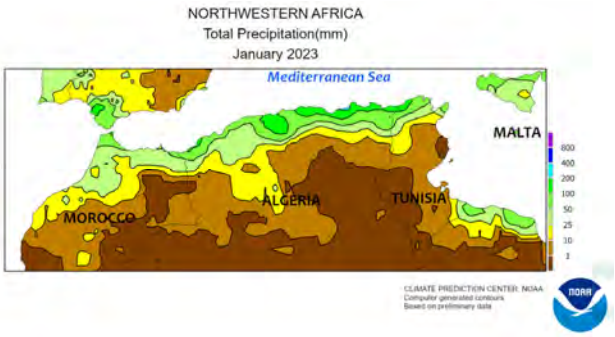
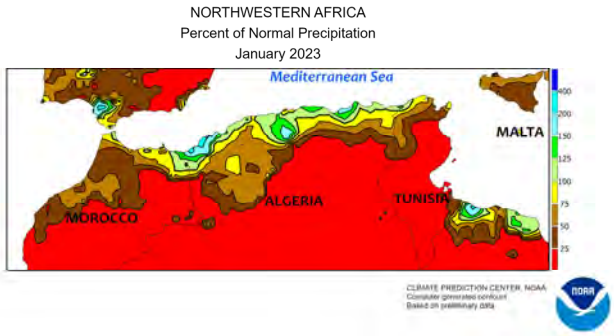
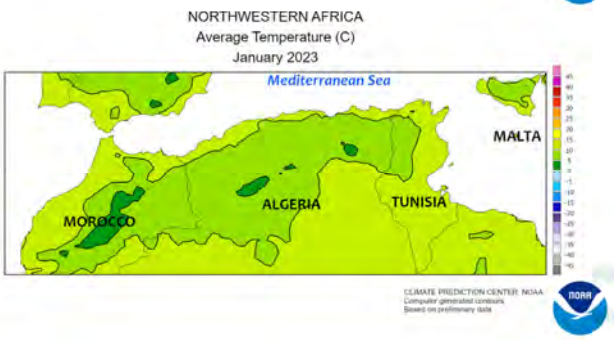
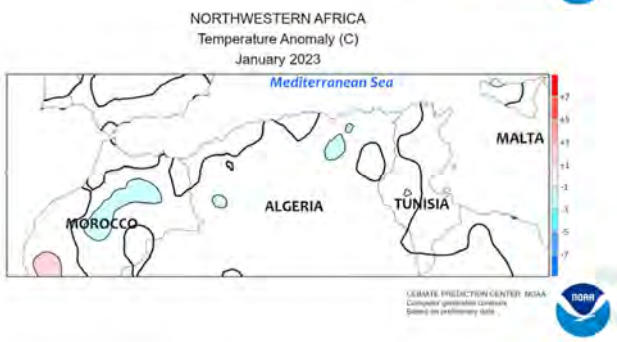


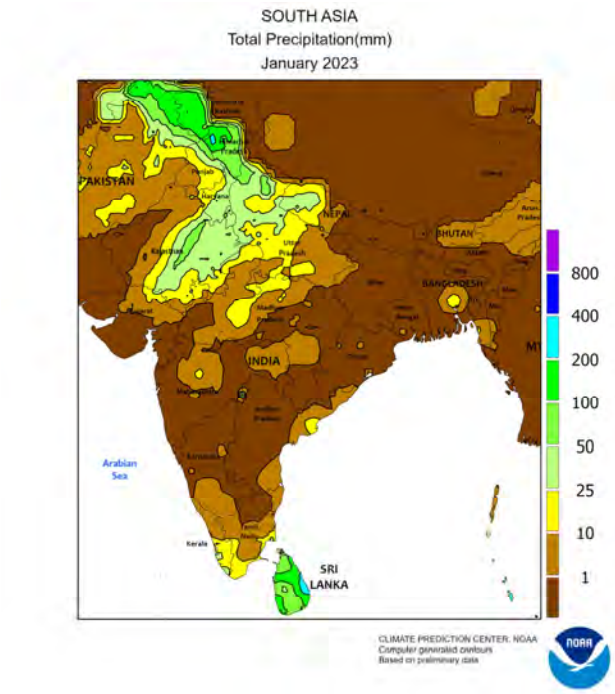


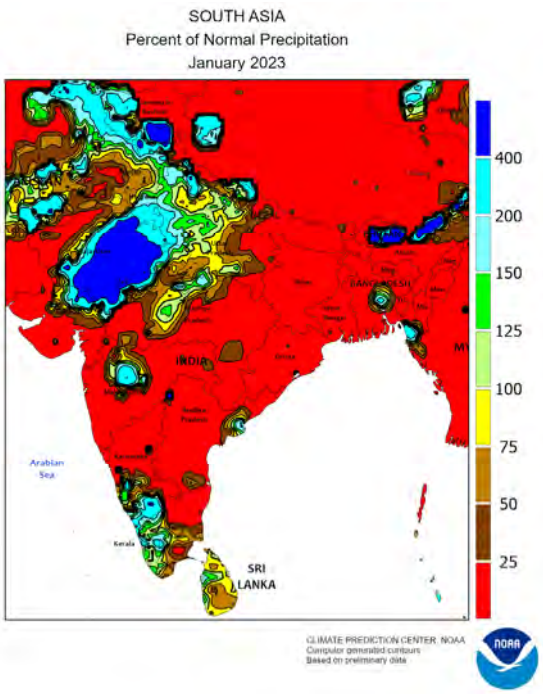


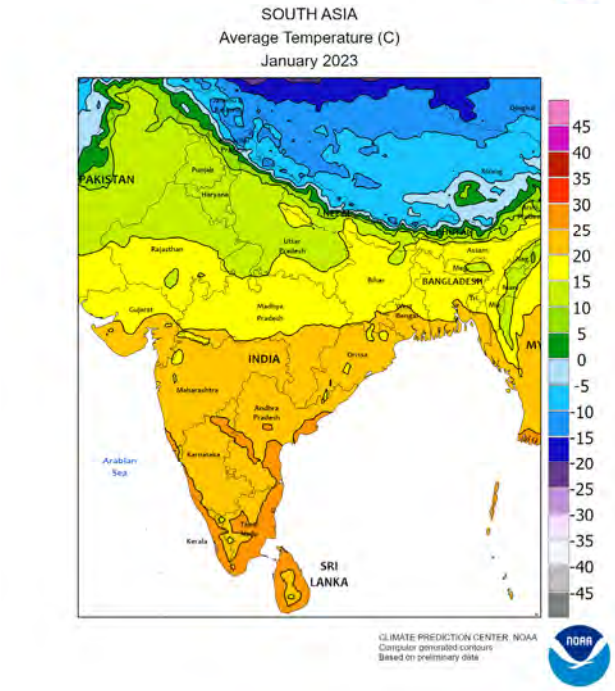


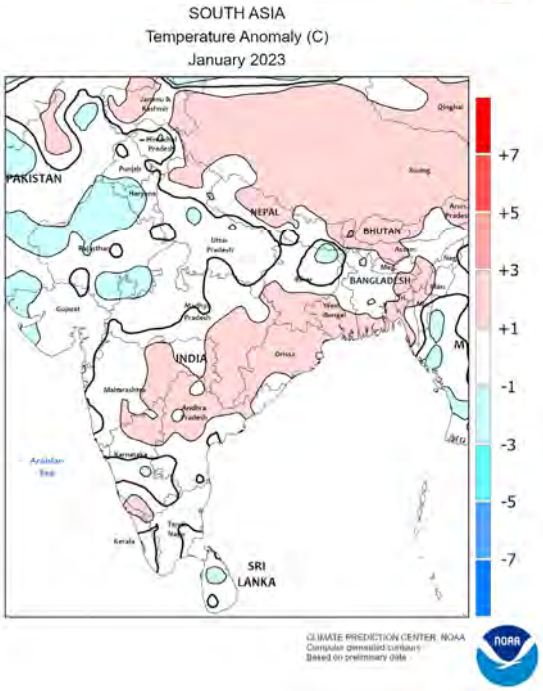
NORTHWESTERN AFRICA

During January, much-needed rain along the immediate Mediterranean Coast contrasted with intensifying drought in the east and farther inland. In Morocco, December's sorely needed rain was followed by a return to dryness, especially in the west (less than 50 percent of normal) and southwest (less than 25 percent). However, rain developed in northeastern Morocco, though this is a relatively small winter grain area with respect to the country's total wheat and barley production. From western Algeria into Tunisia, welcome showers near the Mediterranean Coast (25-50 mm in the west, 50-200 mm in the east) eased drought and improved prospects for vegetative wheat and barley. Favorable rains near the coast quickly gave way to dry conditions farther south, with many inland crop areas reporting no rain whatsoever during January. Cooler weather overspread the region as the month progressed, with a late-month cold snap (-7 to -2°C) slowing or halting winter grain development and affording crops more time to benefit from any potential late-arriving rain.





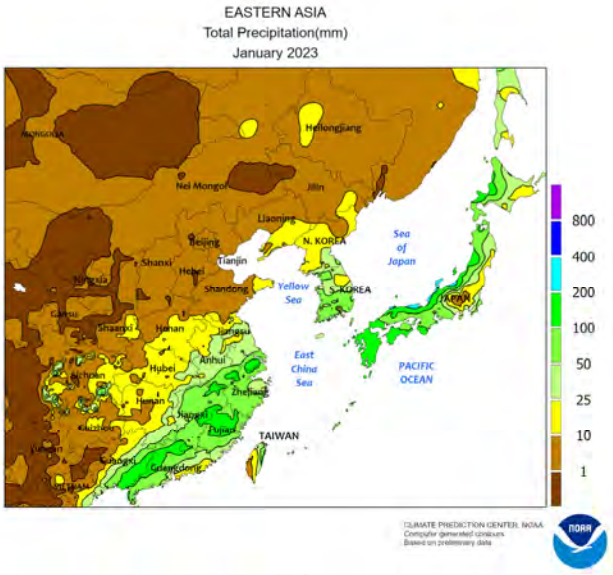


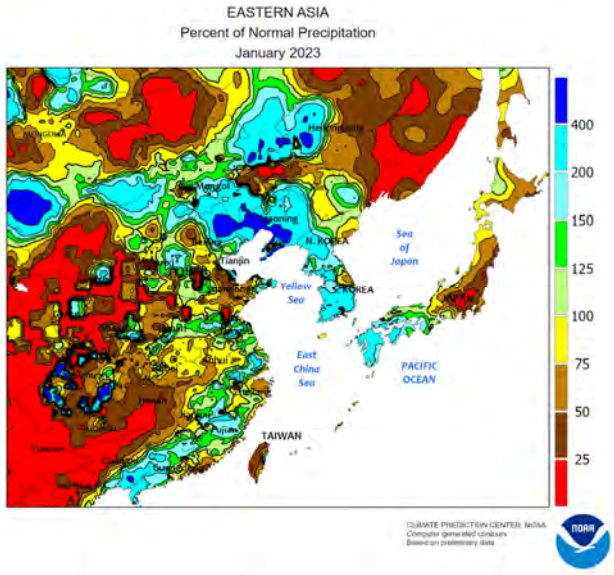


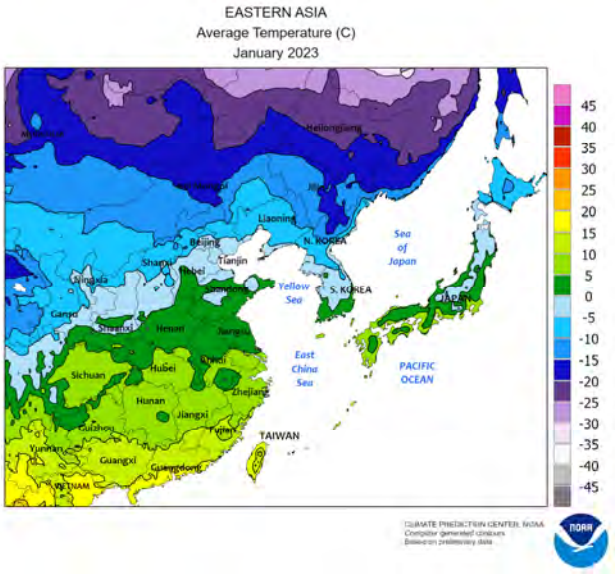
SOUTH ASIA

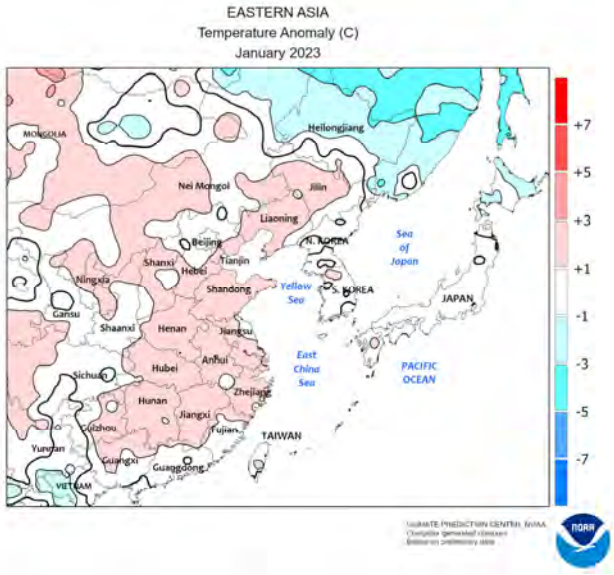
Periodic showers (occasionally heavy at times) prevailed across northern India into Pakistan during January, providing good supplemental moisture to irrigated wheat and rapeseed (most in the reproductive stages of development). Rainfall totals were between 25 and 75 mm in most crop areas and well above normal (over 400 percent of normal) in some traditionally drier locales. In addition, seasonable daytime temperatures (lower 20s degrees C) supported crop development during the month, although a localized freeze in northern India around mid-month raised concerns about potential damage. Otherwise, seasonably dry weather occurred throughout the remainder of India and Bangladesh, with heavy showers (50-150 mm) in typically wetter Sri Lanka (maha rice was mid-season).

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



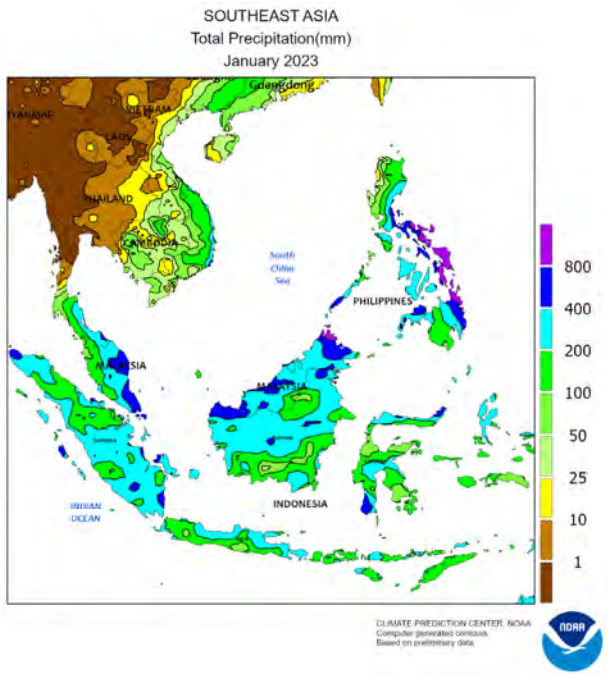


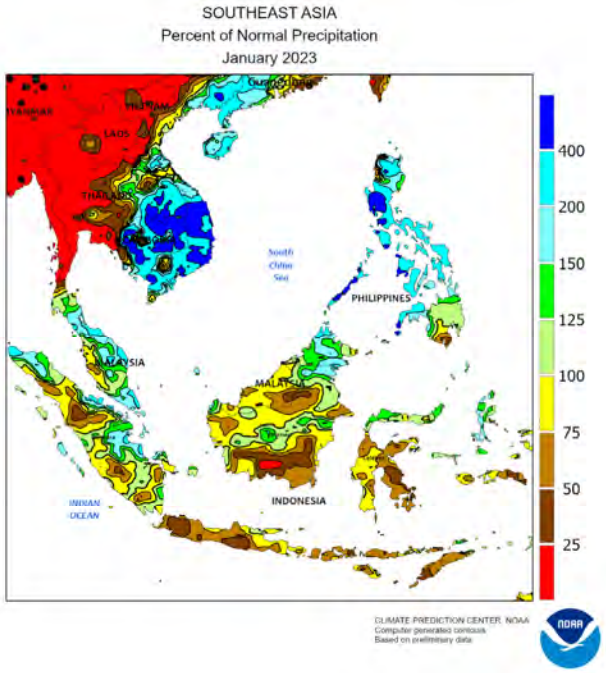


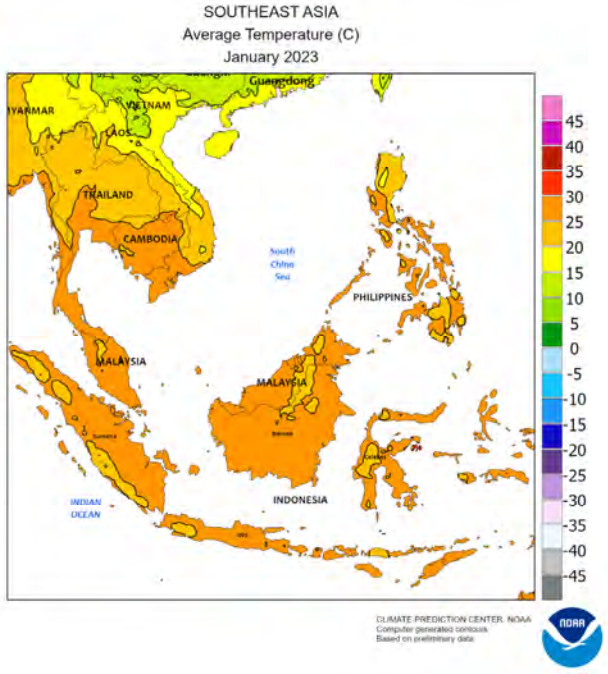


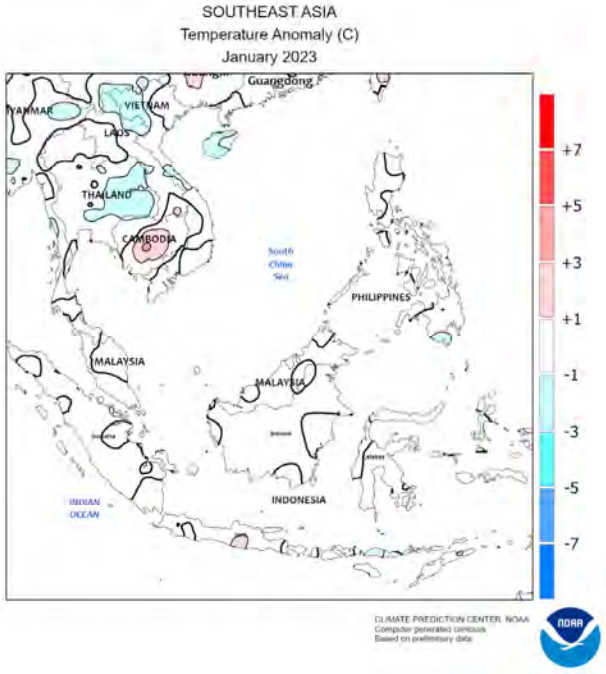
EASTERN ASIA

Most winter crops areas in eastern and southern China experienced below-average rainfall during January, with pockets of seasonable showers on the North China Plain (10-25 mm) and portions of the southeast (25-100 mm). However, moisture requirements for dormant wheat and semi-dormant rapeseed remained low. Meanwhile, despite a brief incursion of bitter cold toward the end of the month (minimum temperatures below -10°C in wheat areas), temperatures averaged 1 to 3°C above normal.









SOUTHEAST ASIA

Strong tropical winds from the east brought abundant moisture to windward locales during January. Nearly all of the Philippines recorded above-average rainfall (up to 400 percent of normal in traditionally drier locations), with eastern-most areas totaling over 600 mm. Though flooding was reported in minor growing areas, most rice and corn benefited from the abundant moisture. Similarly, wetter-than-normal weather prevailed in central Vietnam spreading west into northeastern Thailand, boosting moisture reserves for rice and other dry-season crops. Meanwhile to the south, above-average rainfall was generally limited to Malaysia, benefiting oil palm, as large pockets of drier-than-normal weather occurred in Indonesia. Even with the dryness, seasonal moisture conditions (since November 1) remained favorable for rice in southern Indonesia (Java), mostly progressing through reproduction.

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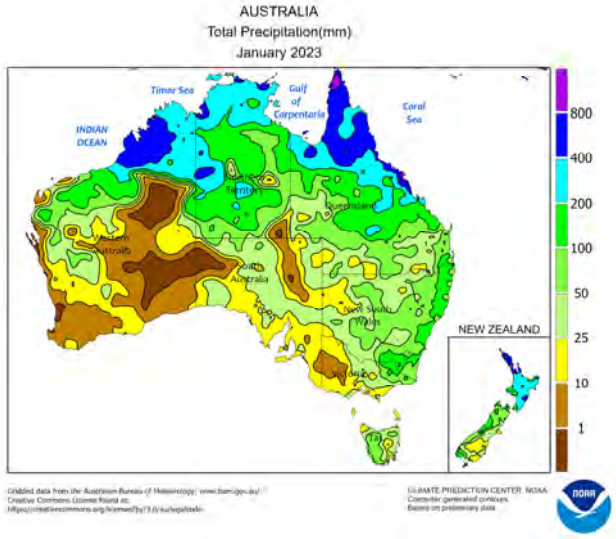
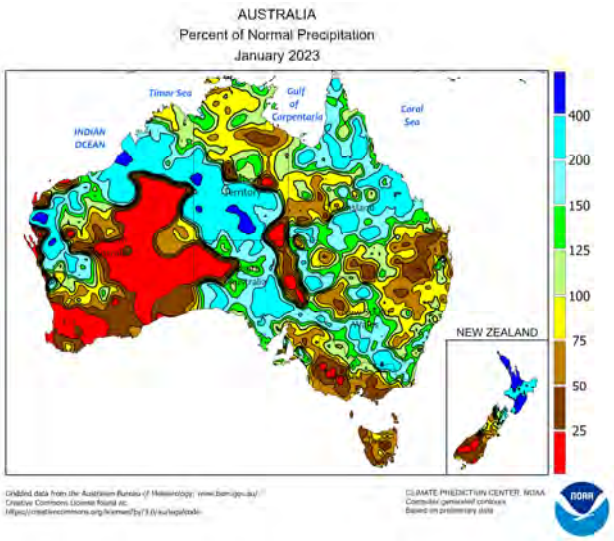
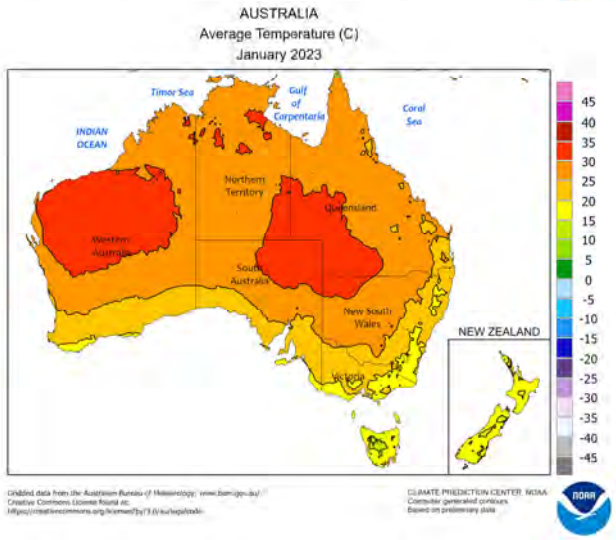
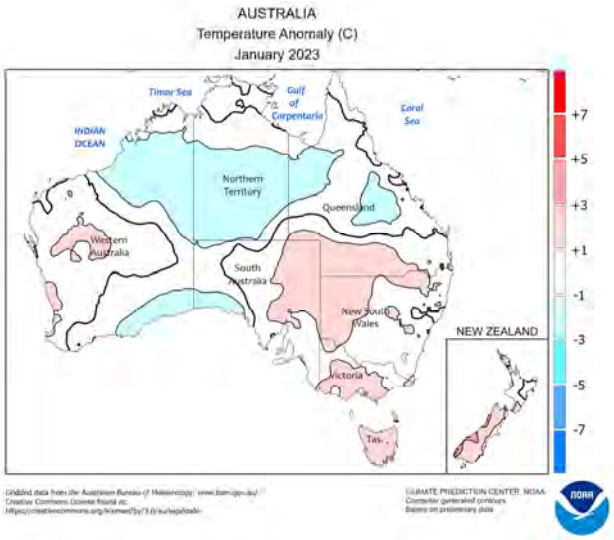


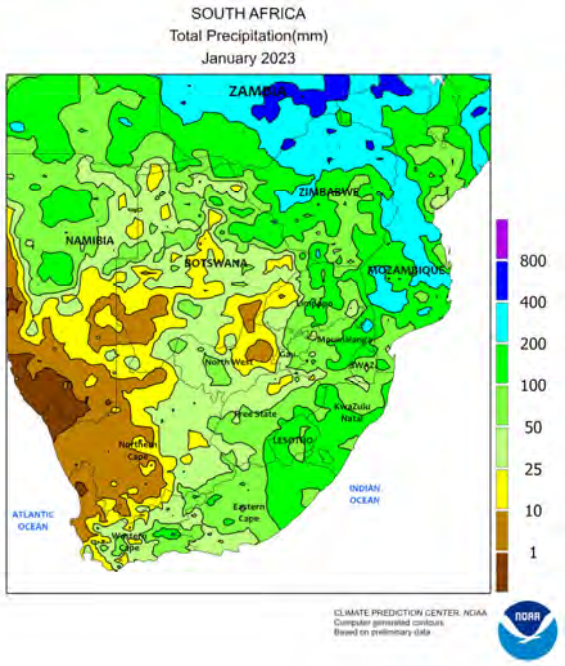


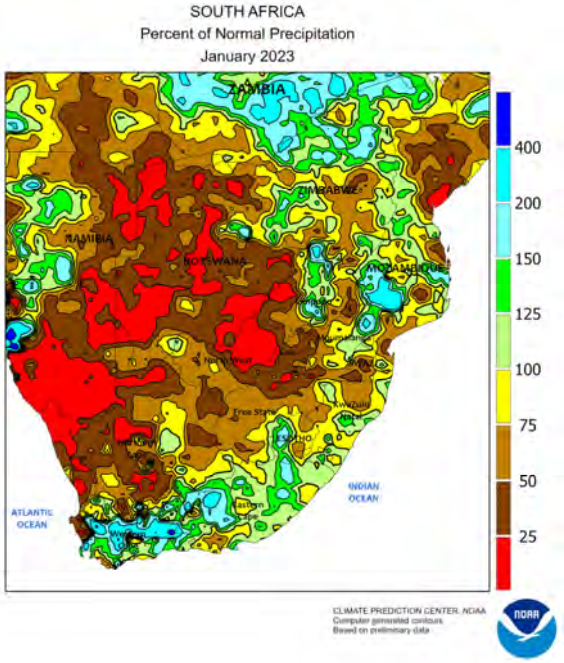


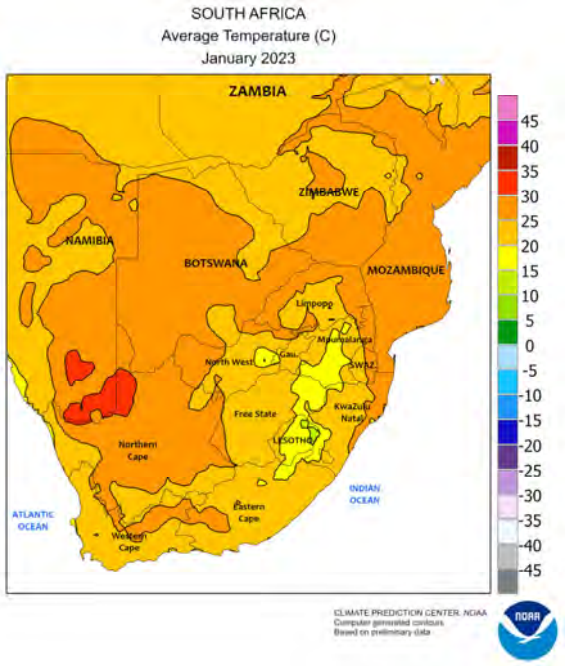


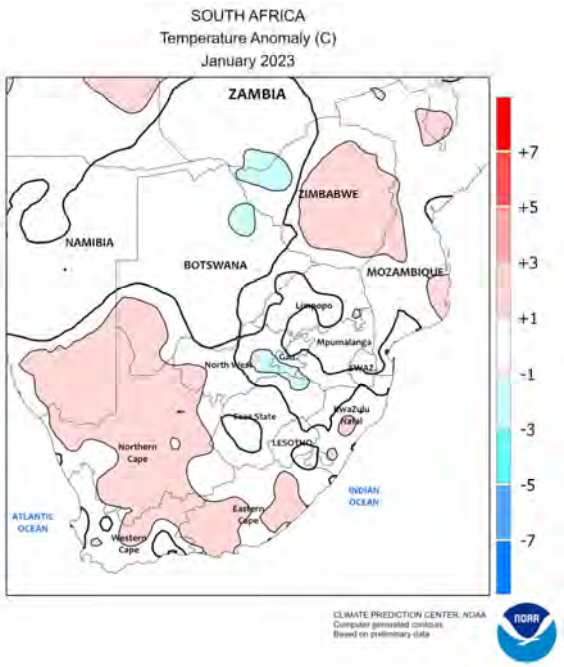
AUSTRALIA

For the second consecutive month, drier-than-normal weather covered major summer crop producing areas in eastern Australia. Despite the relative dryness, moisture supplies remained adequate to abundant for cotton, sorghum, and other summer crops because of very wet weather in the preceding months. Consequently, crop prospects remained good to excellent, with frequent sunshine promoting dryland crop growth and nearly full reservoirs ensuring plenty of water was available for irrigated crops. Temperatures averaged near to somewhat above normal (about 1°C above normal) during January, spurring summer crop development, but stressful heat was generally absent throughout the month.









SOUTH AFRICA

A January drying trend temporarily reduced moisture for vegetative corn in key commercial production areas. Much of the corn belt (North West and Free State eastward) recorded near complete dryness for an extended period until the return of seasonal rainfall at the end of the month. Despite the dryness, monthly average temperatures were generally within 1°C of normal, with highest daytime temperatures ranging from the lower to upper 30s (degrees C) toward the end of the dry spell. Early-planted corn in eastern sections of the corn belt were likely advancing through reproduction during the latter half of January, while western crops were in vegetative stages, making the return to normal weather particularly timely. Similar conditions prevailed farther south, including rain-fed sugarcane areas in southern KwaZulu-Natal. Meanwhile, warm, generally sunny conditions favored growth of irrigated tree and vine crops in Western Cape.

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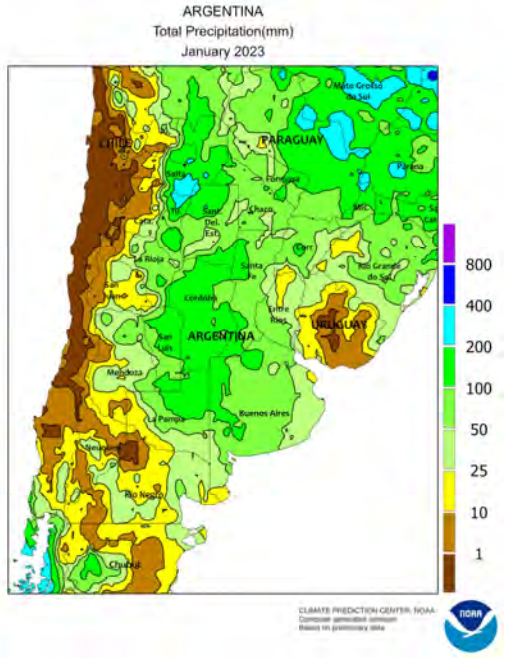
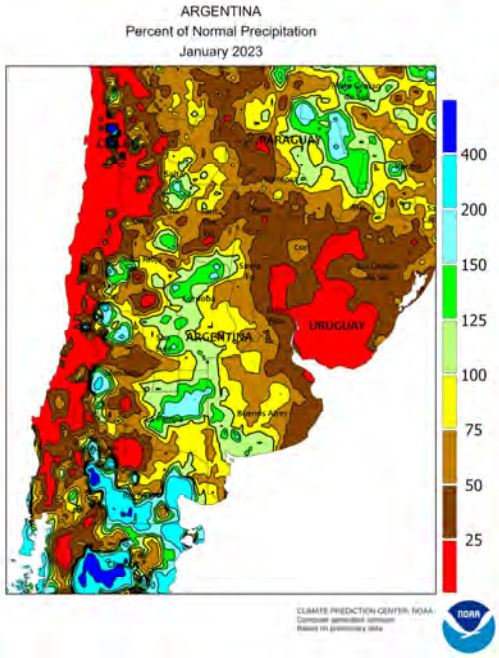
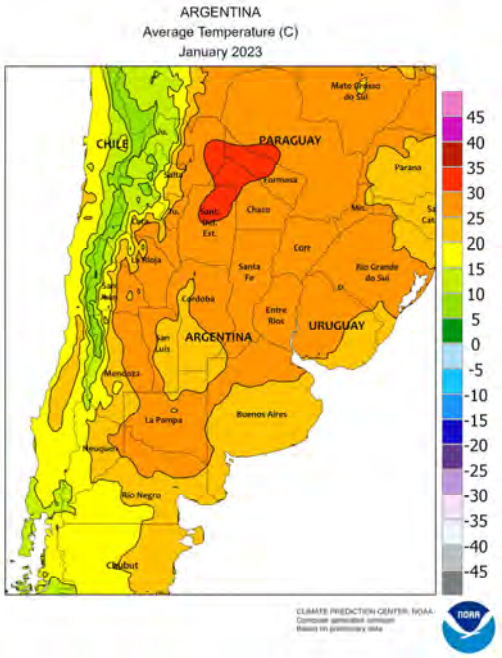
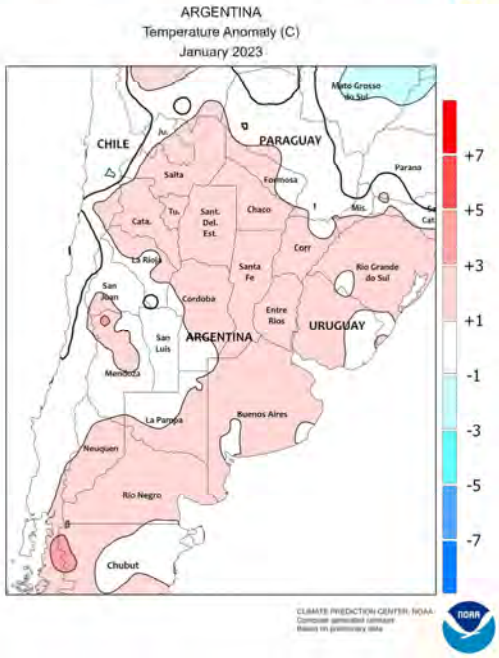


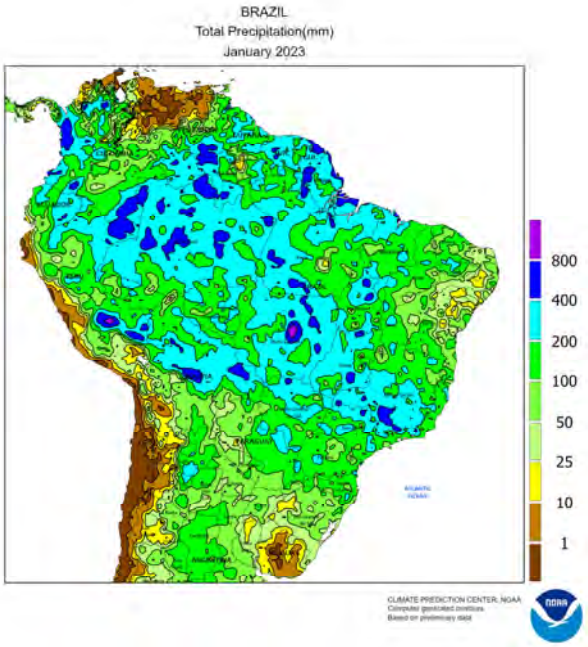


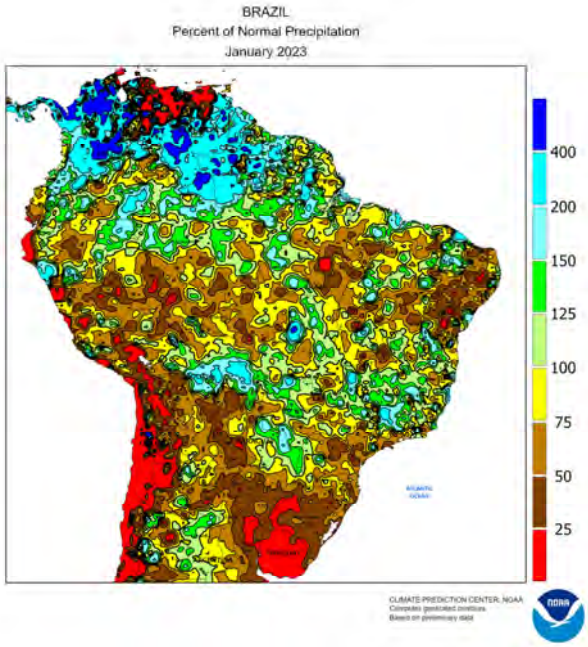


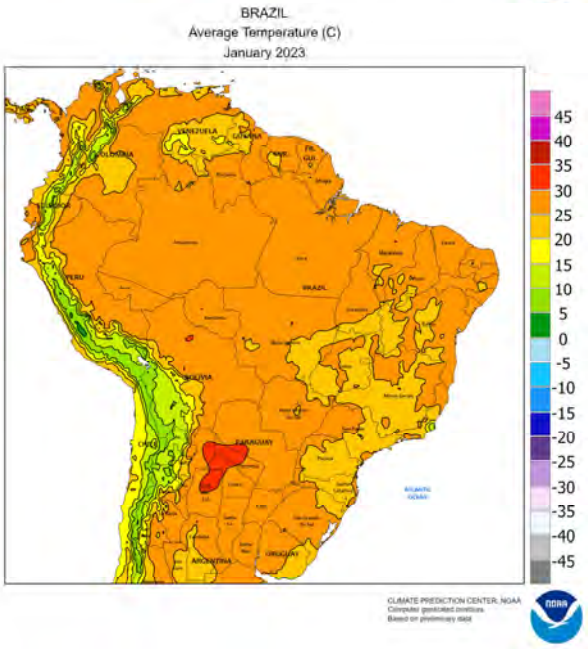


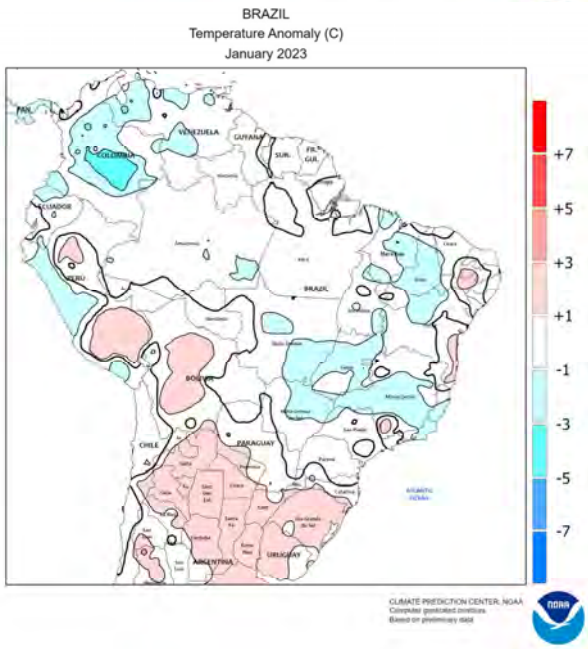
ARGENTINA

Unseasonable heat and dryness persisted throughout high-yielding farming areas of central Argentina until mid-January, when timely showers provided much-needed relief from drought. The rainfall arrived too late to reverse damage already incurred on earlier-planted summer grains and oilseeds, but the moisture was highly beneficial for emerging to vegetative crops that had experienced drought-related planting delays. The rainfall also temporarily lowered temperatures to more seasonable levels, although daytime highs continued to reach the middle and upper 30s (degrees C) between the rain events. Similar improvement was observed in Argentina's northwestern farming areas (Salta and environs), but dryness lingered throughout January in the northeastern cotton belt, including eastern Chaco and neighboring locations in Santa Fe, Formosa, and Corrientes.





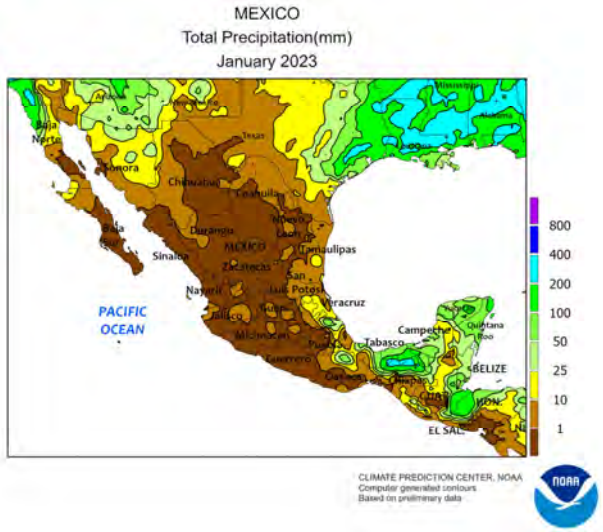


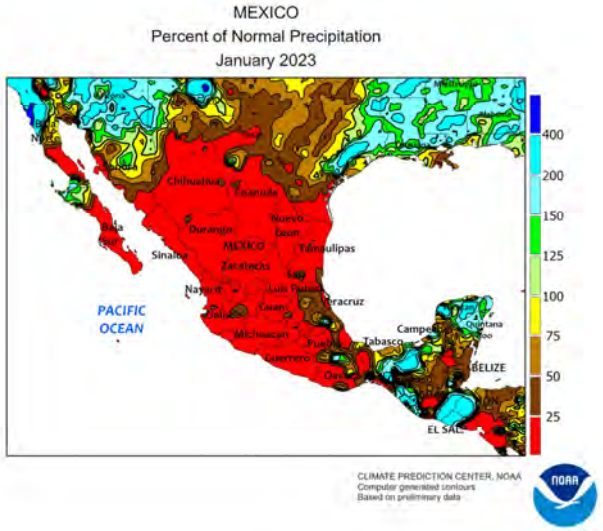


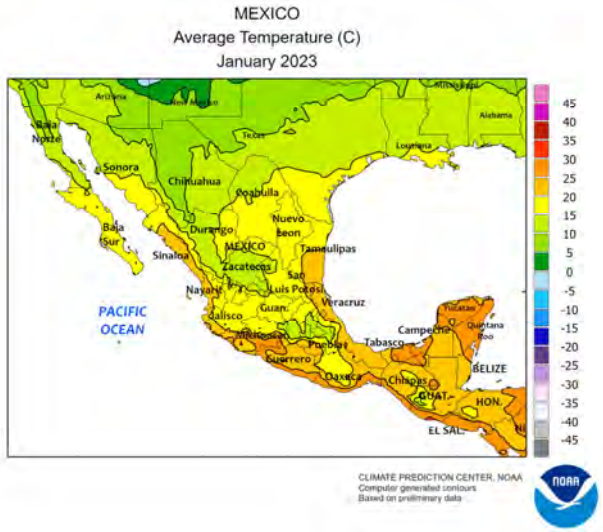
BRAZIL

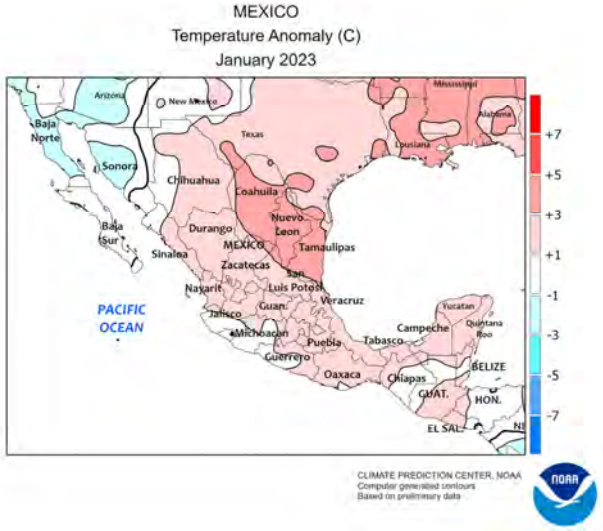
In January, near- to above-normal rainfall in central and portions of southeastern Brazil contrasted with periodic dryness in parts of the south. Frequent, occasionally heavy showers from Mato Grosso eastward – reaching as far south as São Paulo and coffee regions of southern Minas Gerais – maintained favorable levels of moisture for soybeans and other regionally important crops such as sugarcane. Summer warmth accompanied the rainfall, but highest daytime temperatures were mostly confined to the lower and middle 30s (degrees C), including in traditionally warmer locations in the northeastern interior (Tocantins and environs). Farther south, conditions were overall favorable for soybeans and first-crop corn in Paraná, but periods of dryness occurred in Rio Grande do Sul at different times during the month, with stressful heat (daytime highs reaching the upper 30s) in western farming areas.

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









MEXICO

Seasonal dryness dominated much of the country in January, with occasional frost aiding drydown of unharvested summer crops. Much of the country recorded little to no rainfall, with an exception being climatologically wetter locations along the Gulf Coast. Showers developed briefly over the northwest, although most winter wheat and corn areas remained dry. Monthly average temperatures ranged from as much as 4°C above normal in the northeast (Coahuila to Tamaulipas) to 2°C below normal in Sonora and Baja Norte. Despite the general pattern of warmth, temperatures dropped below freezing as far south as the southern Plateau (in and around Puebla), and lows dropped below -10°C in northern growing areas of Sonora and Chihuahua. However, no freezes were reported in Sinaloa. According to the government of Mexico, national reservoir levels were at 62 percent of capacity as of January 31; in the northwest, the level of capacity ranged from 54 percent (Sinaloa) to 82 percent (Chihuahua).

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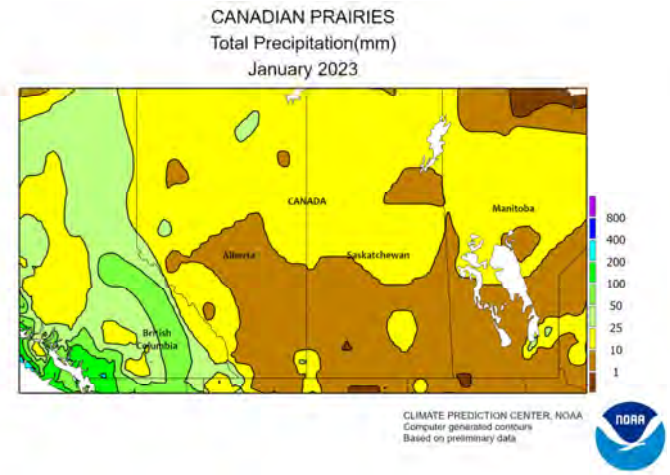

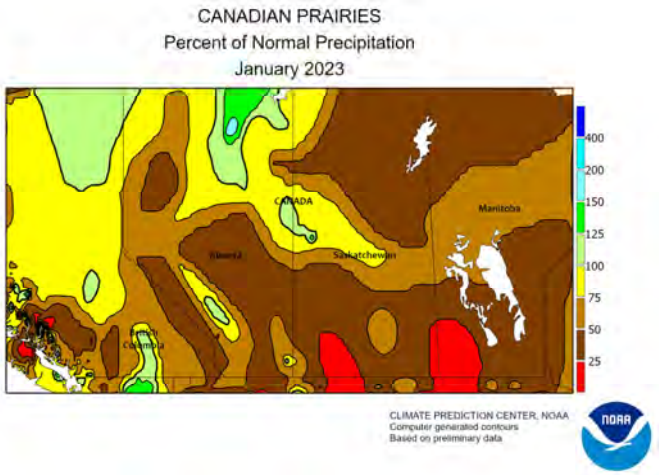

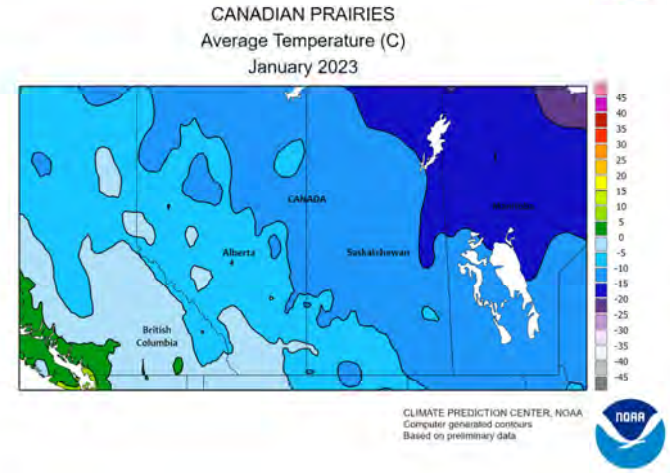

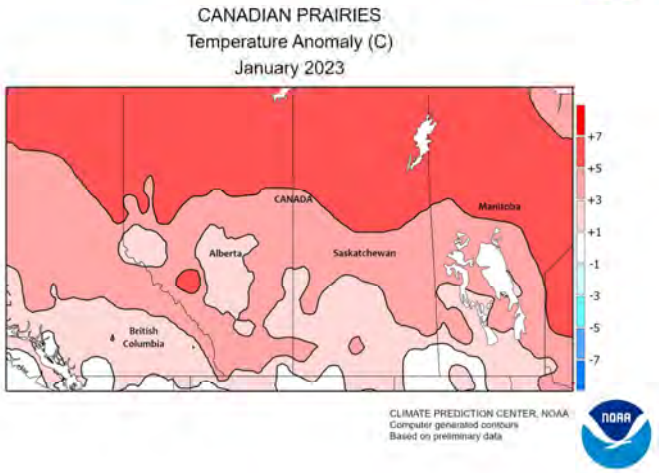

CANADIAN PRAIRIES

Near- to above-normal temperature prevailed for much of January, until the arrival of colder conditions at month's end. Monthly temperatures averaged 2 to 4°C above normal across the region, with many agricultural districts in Alberta recording daytime highs nearing 10°C. Farther east, a late-month outbreak of arctic air dropped temperatures below -30°C in Manitoba and Saskatchewan's northeastern farming areas, although a moderate to deep snowpack (10 to 30 cm or more) protected any overwintering crops. In contrast, snow cover remained patchy and light for nearly the entire month in portions of southern Alberta and southwestern Saskatchewan, due to unseasonable January dryness (precipitation totaling less than 10 mm water equivalent) that affected all Prairie agricultural areas. According to the Canadian Drought Monitor, much of Alberta and Saskatchewan was experiencing Moderate to Extreme Drought (D1 to D3) as of January 31, requiring a timely start to spring rainfall for uniform emergence of spring grains and oilseeds.

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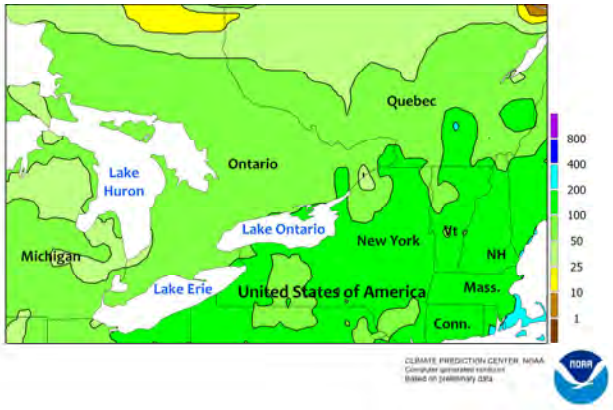
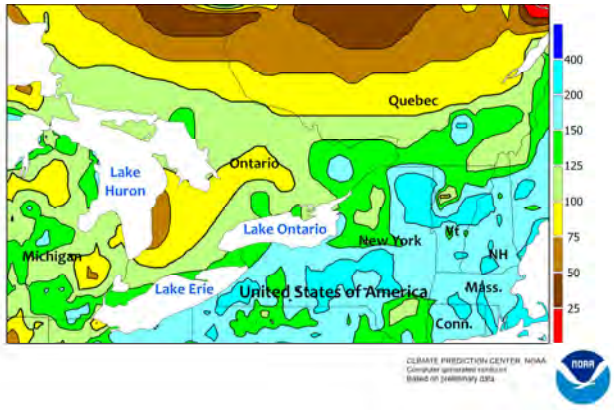
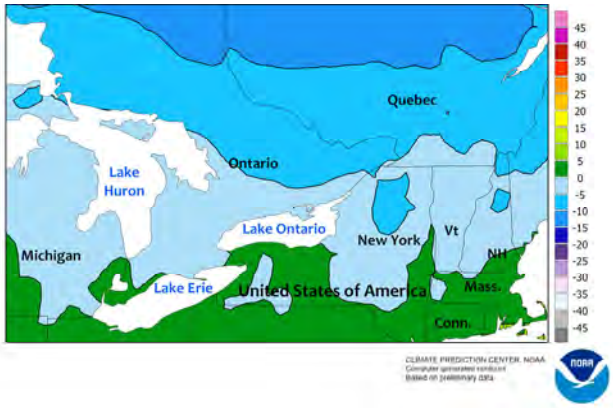
SOUTHEASTERN CANADA
Total Precipitation(mm)
January 2023



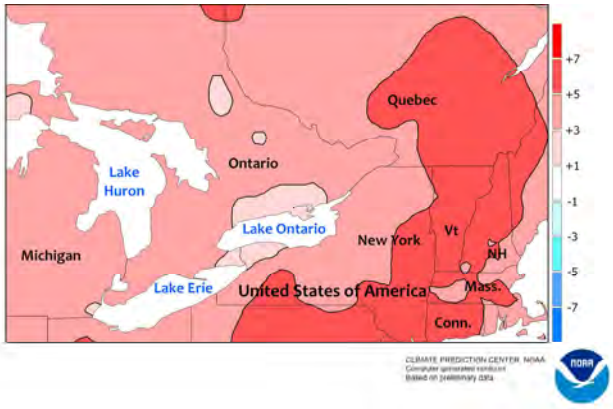
SOUTHEASTERN CANADA
Percent of Normal Precipitation
January 2023



SOUTHEASTERN CANADA
Average Temperature (C)
January 2023



SOUTHEASTERN CANADA
Temperature Anomaly (C)
January 2023

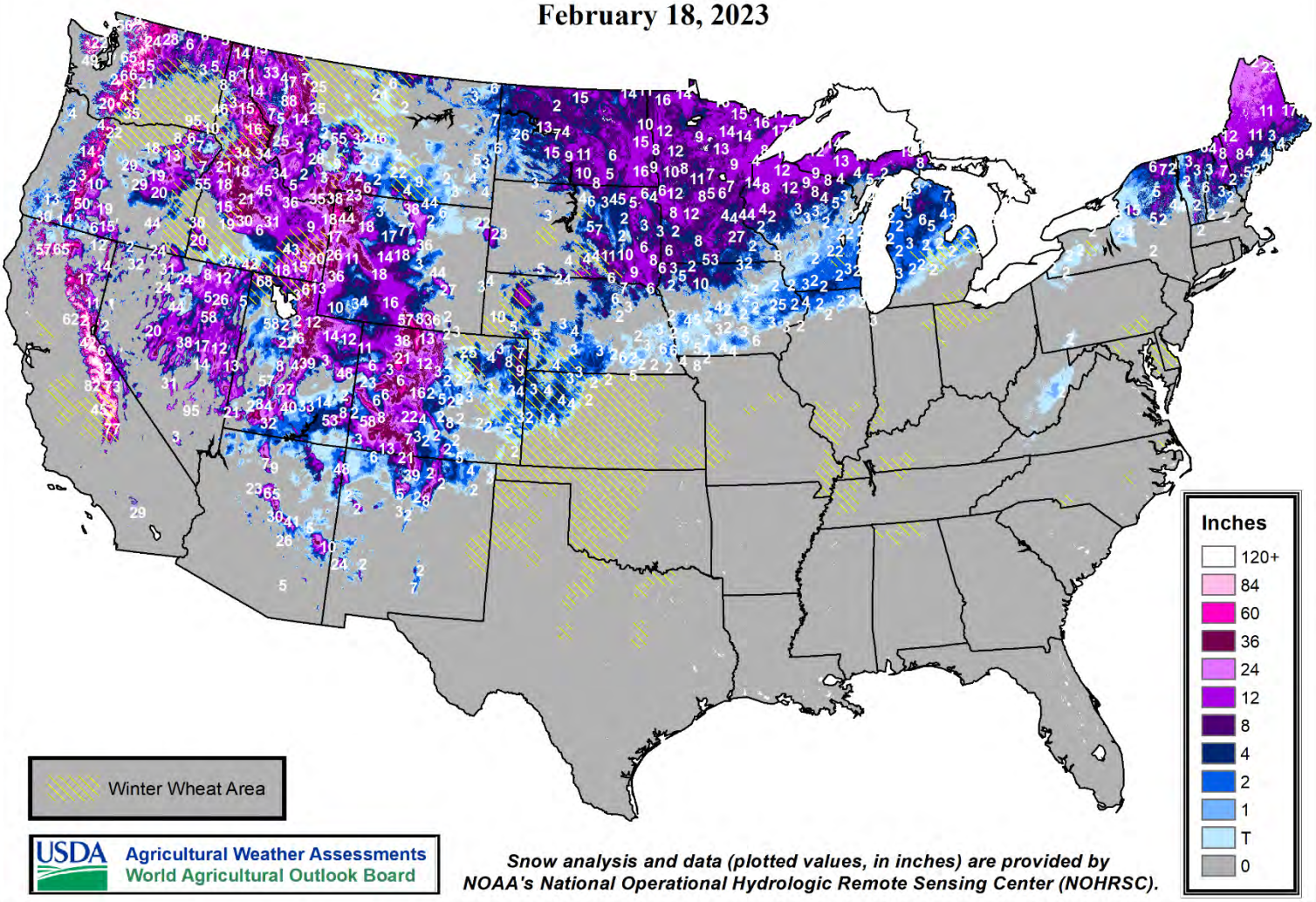


SOUTHEASTERN CANADA

Above-normal temperatures favored overwintering wheat and pastures throughout January. Monthly temperatures averaged 4 to 5°C above normal throughout the region; in Ontario's southwestern farming areas, a mid-month outbreak of colder weather (lows dropping to -20°C locally) was preceded by snow, which provided some protection to dormant vegetation. Lower temperatures (lowest nighttime temperatures approaching -30°C) were recorded elsewhere in Ontario and in Quebec, where a protective layer of snow existed the entire month. January precipitation ranged from 50 to 100 mm (liquid equivalent) regionwide, reflecting near- to above-normal monthly totals. According to the Canadian Drought Monitor, much of the region between Toronto and Windsor was experiencing Moderate to Extreme Drought (D1 to D3) as of January 31.

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

Snow Depth
February 18, 2023



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

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