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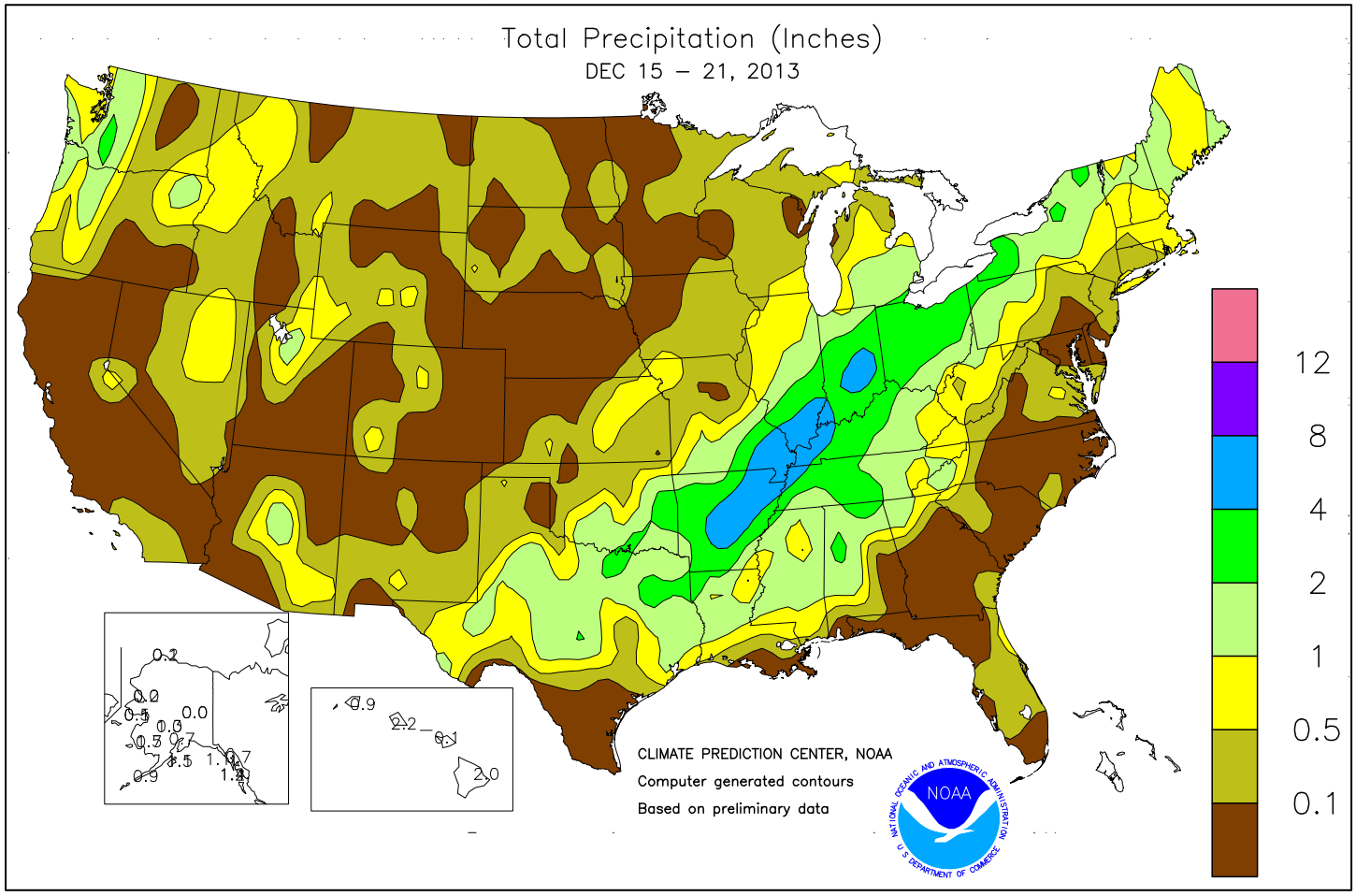
WEEKLY WEATHER AND CROP BULLETIN

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

December 15-21, 2013

Highlights provided by USDA/WAOB

In stark contrast to the first half of December, unusual warmth expanded across the **southern half of the U.S.** Cold conditions lingered, however, across portions of the **nation's northern tier** and the **Intermountain West**. Weekly temperatures ranged from more than 10°F below normal in parts of **northern New England** and the **upper Great Lakes region** to at least 10°F above normal across the **High Plains** and the **Mid-South**. A mid-month period of relatively tranquil weather was replaced by pre-holiday storminess as the week progressed. Precipitation was

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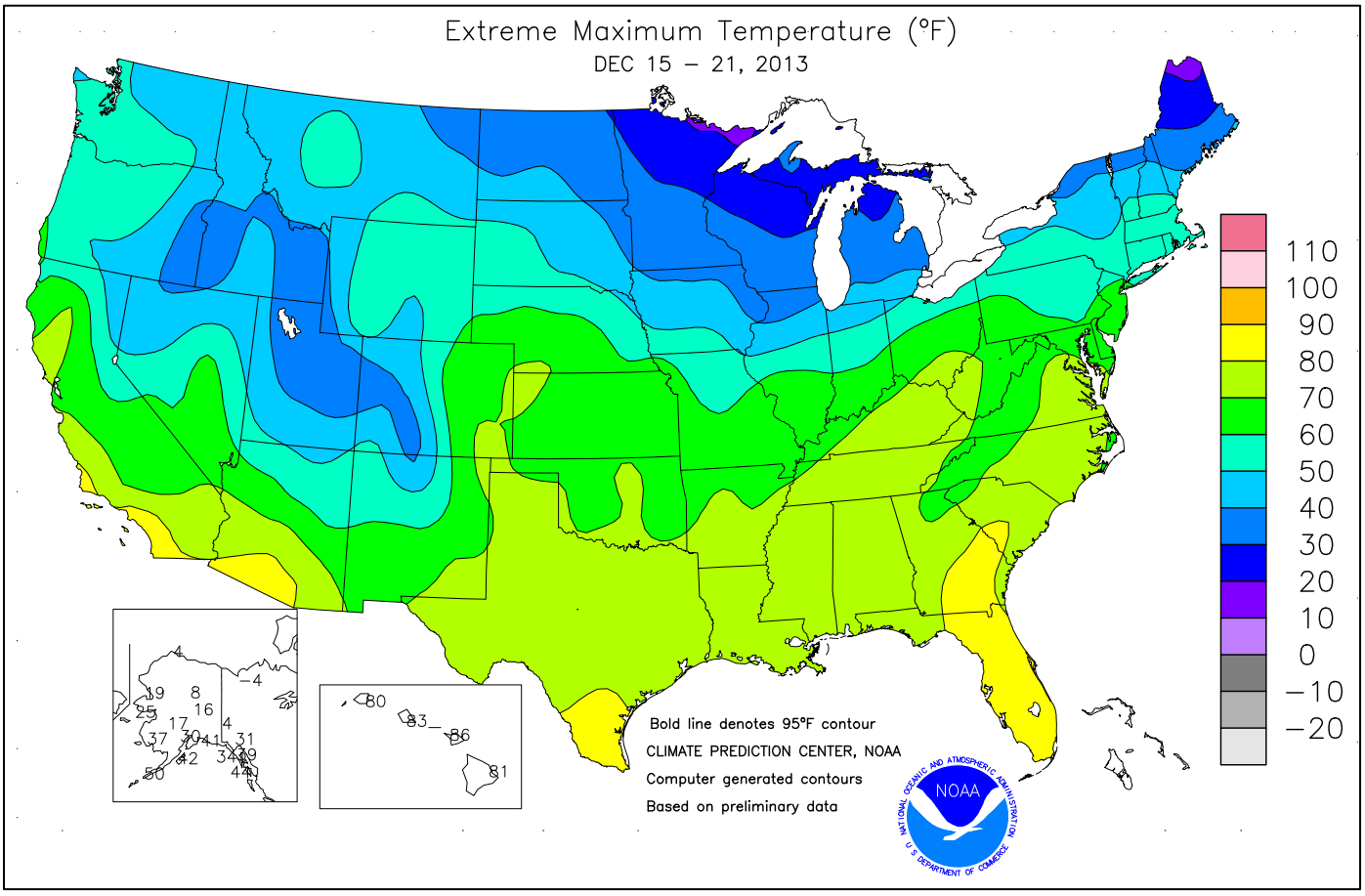
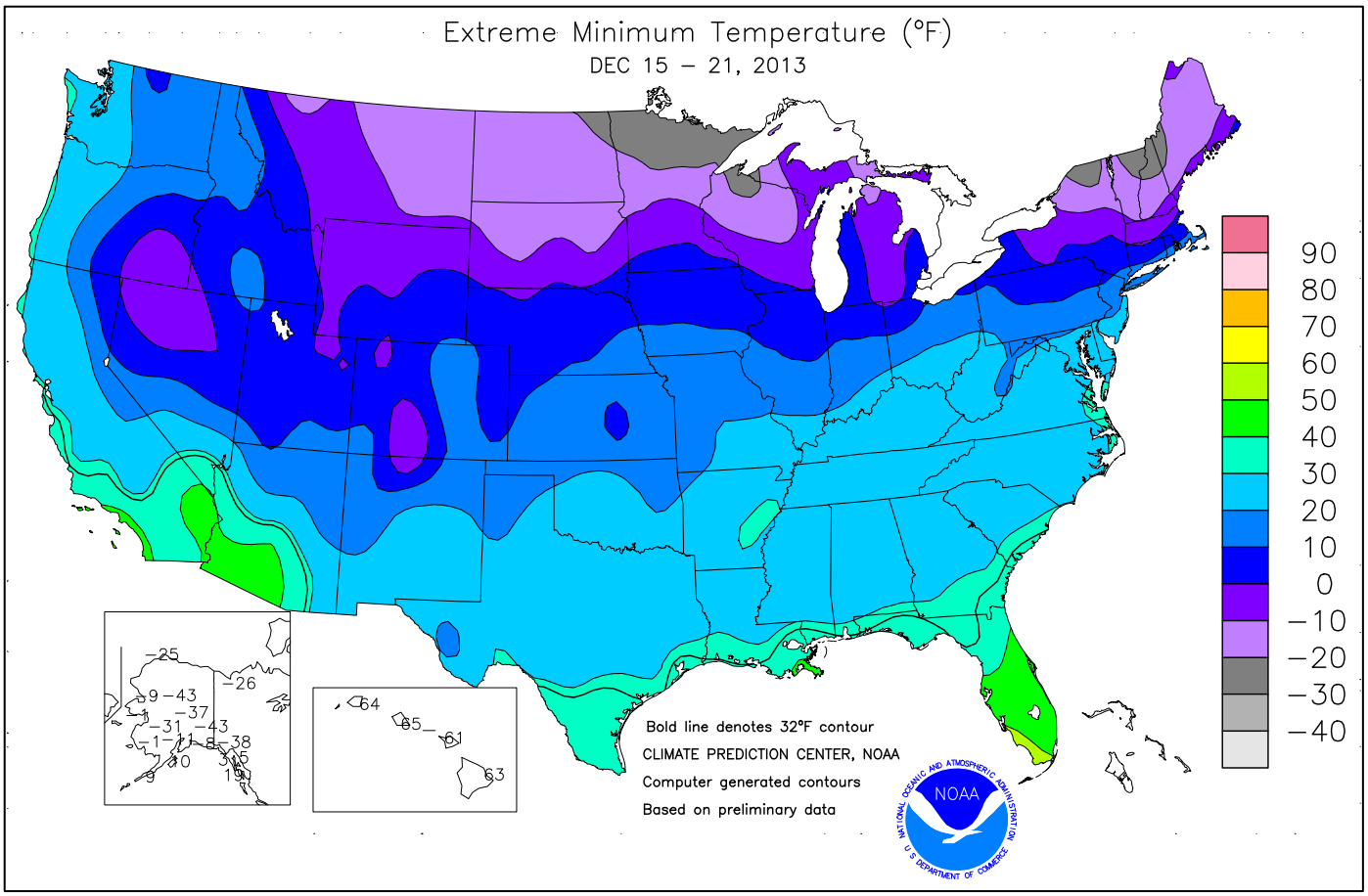
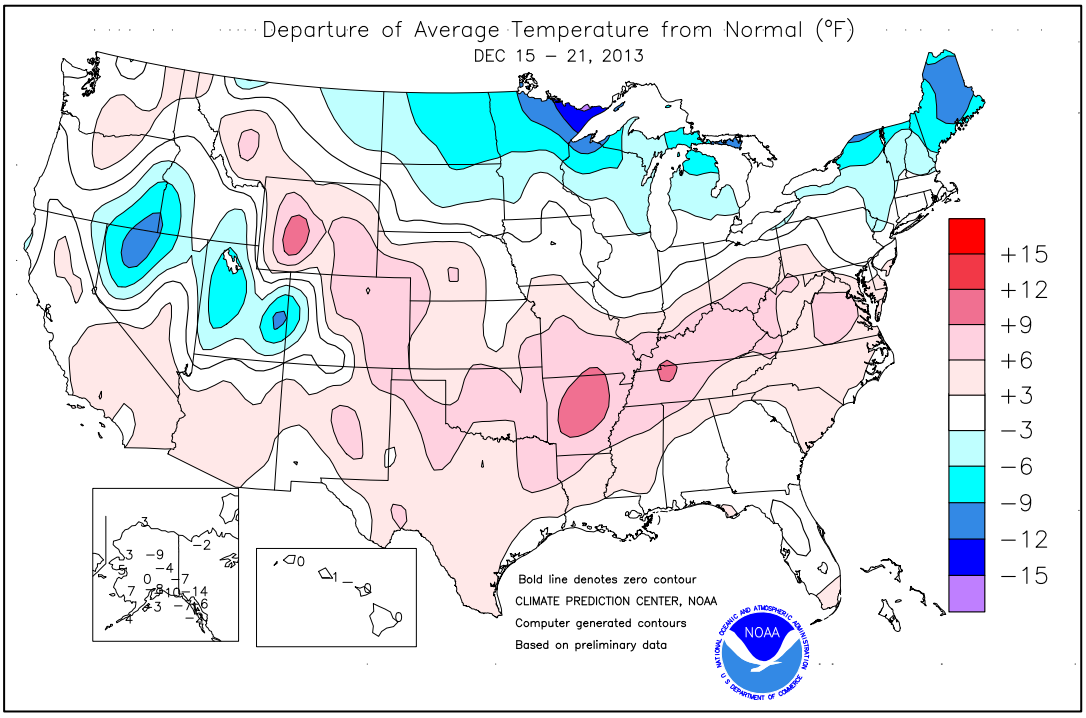
Contents


Extreme Maximum Temperature (°F)
DEC 15 – 21, 2013
110
100
90
80
70
60
50
40
30
20
10
0
−10
−20
Bold line denotes 95°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data
NOAA


Extreme Minimum Temperature (°F)
DEC 15 – 21, 2013
90
80
70
60
50
40
30
20
10
0
−10
−20
−30
−40
Bold line denotes 32°F contour
CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data
NOAA



(Continued from front cover) heaviest from the **southern Plains to the lower Great Lakes region**, with totals in excess of 4 inches causing some flooding in parts of the **Mid-South** and **lower Ohio Valley**. Snow, sleet, and freezing rain along the northwestern periphery of the precipitation shield caused travel and electrical disruptions, especially from the **southern Plains into the Midwest**. However, the **southern Plains'** precipitation also provided much-needed moisture for drought-stressed winter wheat. Farther north, snow provided most of the **northern Plains'** wheat with insulation from the latest round of sub-zero temperatures. Elsewhere, generally light precipitation fell across the **West**, although sub-normal cold-season precipitation has become a concern in areas—including **California** and the **Great Basin**—entering a potential third year of drought.

Early in the week, record-setting warmth covered parts of **California**. **Los Angeles (LAX Airport), CA**, opened the week with consecutive daily-record highs (80 and 85°F, respectively) on December 15-16. Elsewhere in **California** on the 16th, record-breaking highs surged to 88°F in **Elsinore**, 83°F in **Santa Maria**, and 78°F in **Redding**. **California's** warmth persisted through December 17, when daily-record highs climbed to 88°F in **Burbank** and 87°F in **Riverside**. Also on the 17th, daily-record highs in **Arizona** rose to 83°F in **Tucson** and 82°F in **Phoenix**. By mid-week, record-setting warmth reached the **High Plains** in advance of a strong cold front. Daily-record highs for December 18 included 69°F in **Oklahoma City, OK**, and **Imperial, NE**. **Grand Island, NE**, experienced its warmest day (67°F on December 18) during the second half of December since December 29, 1999, when the high reached 68°F. A day later, record-setting highs in **Texas** for December 19 surged to 75°F in **Childress** and 72°F in **Amarillo**. Toward week's end, warm weather replaced previously cold conditions across the **Midwest**, **South**, and **East**. On December 20, **St. Louis, MO**, logged a daily-record high of 71°F. By December 21, readings of 81°F in **Montgomery, AL**; 80°F in **Greenwood, MS**; 76°F in **Memphis, TN**; 75°F in **Charleston, WV**; 74°F in **Bowling Green, KY**; and 72°F in **Washington, DC**, were among dozens of daily-record highs. However, cold air was more stubborn across the **nation's northern tier**, where readings had plunged to daily-record levels in locations such as **International Falls, MN** (-32°F on December 15), and **Massena, NY** (-25°F on December 17).

During the **Northern** cold snap, snow squalls affected areas downwind of the **Great Lakes**. For example, 16.0 inches of snow blanketed **Gaylord, MI**, on December 15—the snowiest day in that location during the last 15 years. Heavy snow also lingered early in the week, due to a coastal storm, across **northern New England**. **Portland, ME**, received a daily-record snowfall of 10.6 inches on December 15. Two days later, another disturbance crossing the **Northeast** produced additional snow. Record-setting totals for December 17 reached 6.4 inches in **Boston, MA**, and 3.6 inches in **Bridgeport, CT**. By mid-week, however, the focus for significant precipitation shifted to the **West**. On December 18, **Havre, MT**, received a daily-record snowfall of 5.0 inches. A day later, record-setting snowfall totals for December 19 reached 7.1 inches in **Casper, WY**; 6.9 inches in **Salt Lake City, UT**; 5.5 inches in **Rapid City, SD**; and 5.2 inches in **Ely, NV**. At week's end, precipitation spread eastward. **Midland, TX**, measured a daily-record precipitation total of 1.05 inches on December 20. Elsewhere in **Texas**, **Dalhart** measured a daily-record snowfall of 6.0 inches on December 21. Farther east, impressive rainfall totals for December 21 included 5.26 inches in **Paducah, KY**, and 4.12 inches in **Cape Girardeau, MO**. Both of those amounts represented the stations' highest single-day December totals on record (previously, 4.65 inches in **Paducah** on December 3, 1982, and 3.92 inches in **Cape Girardeau** on December 24, 1982). Selected daily-record totals for December 21 included 4.94 inches in **Pine Bluff, AR**; 4.42 inches in **Evansville, IN**; and 2.46 inches in **Dayton, OH**.

Mild weather in **western Alaska** contrasted with cold conditions across the eastern part of the state. On December 20, **Cold Bay** posted a daily-record high of 46°F. That marked the ninth daily-record high so far this month in **Cold Bay**. Meanwhile, temperatures dipped below -40°F across portions of **eastern interior Alaska**. Snow blanketed parts of **southern and western Alaska**, with weekly totals reaching 13.3 inches in **Juneau** and 9.1 inches in **Anchorage**. **Yakutat** netted a daily-record snowfall of 13.3 inches on December 19. Farther south, locally heavy rain fell early in the week on **Oahu**, where **Honolulu** netted a daily-record rainfall (2.06 inches) for December 15. Later, more widespread showers dotted **Hawaii**, especially during the mid- to late-week period. On the **Big Island**, all of **Hilo's** 1.96-inch weekly rainfall occurred from December 18-21.

National Weather Data for Selected Cities

Weather Data for the Week Ending December 21, 2013

Data Provided by Climate Prediction Center

STATES AND STATIONS		TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
																	TEMP. °F		PRECIP	
		AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE 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
AL	BIRMINGHAM	61	38	74	26	49	4	0.05	-0.89	0.05	4.51	153	65.32	124	89	44	0	4	1	0
	HUNTSVILLE	60	38	75	26	49	6	0.23	-1.00	0.23	4.52	119	56.24	101	84	60	0	5	1	0
	MOBILE	66	41	76	30	54	2	0.01	-0.96	0.01	1.15	36	63.04	97	91	67	0	3	1	0
	MONTGOMERY	66	36	81	27	51	2	0.02	-1.07	0.02	2.04	58	49.29	92	87	43	0	4	1	0
AK	ANCHORAGE	15	3	30	-11	9	-9	0.66	0.42	0.41	1.28	183	25.68	163	85	80	0	7	5	0
	BARROW	-1	-16	4	-25	-8	3	0.15	0.15	0.07	1.18	9999	8.74	217	83	73	0	7	4	0
	FAIRBANKS	0	-20	16	-37	-10	-4	0.00	-0.17	0.00	0.00	0	9.86	98	74	71	0	7	0	0
	JUNEAU	29	18	39	5	23	-6	0.68	-0.55	0.39	4.27	119	72.24	128	91	83	0	7	4	0
	KODIAK	33	21	42	10	27	-4	1.50	-0.21	0.80	1.95	40	62.93	87	81	71	0	4	4	1
	NOME	20	7	25	-1	14	6	0.54	0.32	0.26	1.99	288	22.30	137	85	74	0	7	5	0
AZ	FLAGSTAFF	45	21	52	16	33	3	0.70	0.31	0.40	1.35	114	24.80	111	82	40	0	7	2	0
	PHOENIX	70	48	82	45	59	5	0.39	0.20	0.23	0.39	71	8.42	106	62	37	0	0	2	0
	PRESCOTT	56	29	65	23	42	5	0.18	-0.10	0.11	0.31	37	13.36	71	76	30	0	5	2	0
	TUCSON	70	43	83	37	57	5	0.41	0.18	0.41	0.84	140	8.54	73	56	33	0	0	1	0
AR	FORT SMITH	62	33	69	24	47	6	2.16	1.43	1.58	4.11	159	47.05	109	89	53	0	4	2	2
	LITTLE ROCK	65	41	72	31	53	10	4.72	3.68	3.17	6.93	200	52.76	106	87	48	0	2	2	2
CA	BAKERSFIELD	60	39	69	33	50	3	0.00	-0.15	0.00	0.10	23	3.43	56	73	58	0	0	0	0
	FRESNO	61	39	66	33	50	5	0.00	-0.28	0.00	0.15	19	3.01	28	75	59	0	0	0	0
	LOS ANGELES	71	52	85	45	62	5	0.04	-0.34	0.04	0.30	29	3.65	29	64	44	0	0	1	0
	REDDING	65	32	78	26	49	4	0.00	-1.00	0.00	0.38	13	12.80	40	79	56	0	5	0	0
	SACRAMENTO	62	35	64	29	48	3	0.00	-0.51	0.00	0.43	28	5.80	34	90	33	0	2	0	0
	SAN DIEGO	69	52	82	47	61	4	0.34	0.08	0.34	0.46	64	5.57	55	65	47	0	0	1	0
	SAN FRANCISCO	60	44	65	40	52	3	0.00	-0.61	0.00	0.36	20	3.39	18	74	61	0	0	0	0
	STOCKTON	61	34	65	28	47	2	0.00	-0.37	0.00	0.35	31	4.63	35	92	75	0	4	0	0
CO	ALAMOSA	32	-5	41	-7	14	-3	0.01	-0.05	0.01	0.04	21	10.06	141	83	69	0	7	1	0
	CO SPRINGS	52	25	65	18	39	10	0.00	-0.08	0.00	0.07	33	19.23	112	66	26	0	5	0	0
	DENVER INTL	51	23	68	12	37	8	0.00	-0.06	0.00	0.14	78	17.49	130	65	35	0	5	0	0
	GRAND JUNCTION	29	8	32	2	18	-10	0.03	-0.07	0.03	0.96	331	12.41	142	93	83	0	7	1	0
	PUEBLO	56	22	68	16	39	9	0.00	-0.08	0.00	0.02	9	9.67	79	63	40	0	7	0	0
CT	BRIDGEPORT	39	26	54	17	33	-2	0.90	0.15	0.59	2.40	106	34.71	81	84	63	0	6	4	1
	HARTFORD	37	18	53	-2	28	-3	0.64	-0.13	0.35	2.01	84	49.80	111	79	60	0	6	2	0
DC	WASHINGTON	52	37	72	30	45	6	0.02	-0.64	0.02	3.15	158	41.88	109	76	45	0	2	1	0
DE	WILMINGTON	46	28	68	22	37	1	0.06	-0.68	0.06	3.22	142	46.35	111	84	46	0	6	1	0
FL	DAYTONA BEACH	72	48	83	42	60	-1	0.80	0.22	0.80	0.97	55	47.33	98	94	52	0	0	1	1
	JACKSONVILLE	70	40	83	33	55	0	0.13	-0.43	0.13	0.68	41	45.03	88	98	49	0	0	1	0
	KEY WEST	78	71	81	68	74	2	0.07	-0.40	0.07	0.94	69	46.54	122	86	73	0	0	1	0
	MIAMI	80	67	86	60	74	4	0.00	-0.48	0.00	0.46	30	66.20	114	85	58	0	0	0	0
	ORLANDO	76	51	87	45	64	1	0.20	-0.30	0.20	0.21	13	42.65	90	90	51	0	0	1	0
	PENSACOLA	67	45	75	33	56	2	0.03	-0.80	0.03	1.33	52	72.16	115	86	58	0	0	1	0
	TALLAHASSEE	69	38	76	30	53	0	0.00	-0.87	0.00	2.40	94	64.28	104	83	47	0	2	0	0
	TAMPA	76	54	84	45	65	2	0.25	-0.27	0.25	0.25	16	51.91	118	87	46	0	0	1	0
	WEST PALM BEACH	79	64	84	56	72	4	0.01	-0.61	0.01	4.13	176	64.76	107	85	57	0	0	1	0
GA	ATHENS	60	34	72	28	47	3	0.03	-0.77	0.02	2.54	106	54.80	118	80	45	0	3	2	0
	ATLANTA	60	37	71	29	48	3	0.00	-0.80	0.00	3.00	118	61.21	125	79	50	0	2	0	0
	AUGUSTA	66	31	83	24	48	1	0.07	-0.61	0.07	3.11	168	51.71	119	94	41	0	4	1	0
	COLUMBUS	64	36	74	30	50	1	0.03	-0.93	0.02	2.38	81	56.15	119	91	40	0	3	2	0
	MACON	65	32	77	26	49	1	0.05	-0.80	0.05	2.50	100	66.39	152	95	39	0	5	1	0
	SAVANNAH	69	40	81	32	55	4	0.04	-0.57	0.04	1.26	77	52.95	109	87	46	0	1	1	0
HI	HILO	81	64	81	63	72	0	1.96	-0.26	1.51	3.40	43	85.20	69	91	77	0	0	3	1
	HONOLULU	81	66	83	65	74	-1	2.17	1.52	2.06	3.64	199	16.18	94	85	74	0	0	3	1
	KAHULUI	84	63	86	61	73	0	0.08	-0.59	0.08	0.08	4	13.66	78	87	77	0	0	1	0
	LIHUE	79	67	80	64	73	0	0.93	-0.13	0.92	5.13	162	36.00	95	88	82	0	0	2	1
ID	BOISE	30	19	34	11	24	-6	0.24	-0.05	0.18	0.63	68	9.54	81	91	81	0	7	2	0
	LEWISTON	41	28	53	22	34	0	0.30	0.08	0.18	0.66	96	9.42	76	82	68	0	6	3	0
	POCATELLO	30	12	37	1	21	-4	0.08	-0.14	0.08	0.41	59	6.15	50	88	79	0	7	1	0
IL	CHICAGO/O'HARE	32	21	39	7	26	-1	0.66	0.12	0.32	1.30	74	41.44	116	82	68	0	5	5	0
	MOLINE	31	17	39	8	24	-2	0.28	-0.20	0.10	2.42	155	40.44	108	87	72	0	7	5	0
	PEORIA	34	21	45	12	28	0	0.55	0.02	0.27	1.29	72	43.36	122	90	73	0	7	5	0
	ROCKFORD	29	16	35	6	23	-1	0.31	-0.14	0.15	0.83	55	39.71	110	89	72	0	7	5	0
	SPRINGFIELD	38	22	62	6	30	0	0.68	0.11	0.64	1.45	79	38.20	110	92	72	0	6	3	1
IN	EVANSVILLE	50	35	64	23	42	7	4.50	3.72	4.42	9.19	352	55.45	128	82	68	0	3	2	1
	FORT WAYNE	37	21	55	7	29	0	1.97	1.35	1.57	2.70	138	42.04	118	90	76	0	5	4	1
	INDIANAPOLIS	40	27	59	15	33	2	3.50	2.84	2.54	4.43	203	45.93	115	92	74	0	4	3	2
	SOUTH BEND	33	21	43	6	27	-2	1.06	0.37	0.57	1.84	84	39.99	103	87	77	0	4	6	1
IA	BURLINGTON	34	21	46	12	27	-1	0.07	-0.39	0.05	0.11	7	32.49	87	93	70	0	6	2	0
	CEDAR RAPIDS	29	16	41	6	23	0	0.08	-0.23	0.03	0.24	22	37.36	113	91	70	0	7	4	0
	DES MOINES	35	19	51	12	27	2	0.09	-0.19	0.09	0.30	31	31.46	92	82	63	0	7	1	0
	DUBUQUE	26	14	35	3	20	-2	0.13	-0.23	0.04	0.47	38	37.29	106	93	76	0	7	5	0
	SIOUX CITY	32	13	50	6	22	0	0.00	-0.12	0.00	0.16	36	26.71	104	85	68	0	7	0	0
	WATERLOO	29	13	42	6	21	0	0.06	-0.17	0.05	0.39	46	40.35	123	91	73	0	7	2	0
KS	CONCORDIA	46	22	63	12	34	4	0.31	0.14	0.31	0.50	85	27.15	96	81	55	0	6	1	0
	DODGE CITY	50	24	66	16	37	4	0.43	0.26	0.43	0.48	96	20.72	94	64	33	0	6	1	0
	GOODLAND	52	20	73	9	36	6	0.00	-0.06	0.00	0.02	9	16.71	85	62	42	0	7	0	0
	TOPEKA	51	23	68	16	37	6	0.39	0.09	0.38	0.49	47	33.94	96	82	58	0	6	2	0

Based on 1971-2000 normals

***** Not Available**

Weather Data for the Week Ending December 21, 2013

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 JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	WICHITA	54	25	67	18	39	6	0.56	0.27	0.56	0.56	60	40.75	136	80	54	0	6	1	1
KY	JACKSON	53	36	73	26	45	7	0.19	-0.77	0.12	4.83	160	54.46	113	78	48	0	4	3	0
	LEXINGTON	51	36	72	24	44	8	1.54	0.63	1.41	4.48	164	58.43	131	81	59	0	4	3	1
	LOUISVILLE	53	38	70	25	46	9	2.63	1.82	2.60	4.75	185	52.92	122	79	56	0	4	2	1
	PADUCAH	53	37	67	22	45	8	5.45	4.47	5.26	7.94	247	60.13	125	86	59	0	3	2	1
LA	BATON ROUGE	69	42	80	30	56	4	0.09	-1.07	0.09	3.16	91	68.30	111	92	47	0	2	1	0
	LAKE CHARLES	67	43	75	31	55	2	0.62	-0.36	0.62	2.02	67	57.42	103	96	56	0	1	1	1
	NEW ORLEANS	67	48	79	35	58	3	0.03	-1.07	0.01	0.73	21	63.89	102	89	64	0	0	3	0
	SHREVEPORT	70	41	81	28	56	8	2.79	1.78	2.79	5.01	162	53.49	107	91	52	0	3	1	1
ME	CARIBOU	14	0	18	-16	7	-9	1.45	0.74	0.81	2.04	97	50.34	138	85	71	0	7	6	1
	PORTLAND	30	14	45	-6	22	-6	1.57	0.63	0.90	2.78	96	42.19	95	86	63	0	6	4	2
MD	BALTIMORE	50	34	71	22	42	6	0.01	-0.73	0.01	3.08	141	40.74	100	76	49	0	5	1	0
MA	BOSTON	40	24	54	9	32	-3	1.12	0.29	0.59	2.57	102	38.31	93	81	54	0	6	2	2
	WORCESTER	33	18	53	5	26	-3	1.01	0.18	0.56	2.57	102	43.85	92	89	59	0	6	3	1
MI	ALPENA	24	13	30	-5	18	-6	0.60	0.21	0.33	1.66	138	31.14	112	89	76	0	7	6	0
	GRAND RAPIDS	30	22	39	3	26	-2	0.64	0.05	0.26	1.84	92	44.63	123	86	73	0	7	6	0
	HOUGHTON LAKE	24	12	29	-8	18	-6	0.36	-0.01	0.14	1.50	126	30.00	108	89	77	0	7	7	0
	LANSING	29	19	39	-1	24	-3	1.00	0.53	0.57	1.49	93	41.06	133	90	77	0	7	6	1
	MUSKEGON	32	22	39	9	27	-2	0.34	-0.23	0.12	1.17	63	42.23	132	84	70	0	7	7	0
	TRAVERSE CITY	26	18	32	9	22	-4	0.27	-0.31	0.16	0.67	39	42.14	129	88	70	0	7	5	0
MN	DULUTH	17	-4	32	-17	6	-8	0.29	0.12	0.10	2.59	360	30.18	98	78	65	0	7	6	0
	INT'L FALLS	11	-14	19	-32	-2	-10	0.19	0.06	0.10	1.24	248	31.64	133	82	64	0	7	5	0
	MINNEAPOLIS	24	9	37	-1	17	-2	0.15	-0.04	0.10	1.16	166	32.47	112	82	68	0	7	3	0
	ROCHESTER	23	10	36	-1	17	0	0.14	-0.06	0.11	0.75	97	41.41	133	82	71	0	7	3	0
	ST. CLOUD	19	1	32	-7	10	-4	0.35	0.21	0.17	1.42	302	28.48	106	88	66	0	7	3	0
MS	JACKSON	66	37	79	26	52	5	1.44	0.26	1.44	3.47	97	63.34	117	91	51	0	4	1	1
	MERIDIAN	64	38	79	25	51	2	0.25	-0.91	0.25	4.95	139	64.88	114	93	63	0	5	1	0
	TUPELO	61	38	78	25	50	7	1.58	0.20	1.34	5.60	135	52.47	97	88	62	0	3	3	1
MO	COLUMBIA	46	26	58	13	36	4	0.61	0.07	0.54	1.68	89	41.49	105	88	68	0	6	2	1
	KANSAS CITY	48	24	62	16	36	5	0.40	0.05	0.39	0.72	60	34.37	92	88	58	0	6	2	0
	SAINT LOUIS	48	29	71	22	38	4	0.68	0.07	0.65	1.61	76	42.31	111	80	65	0	4	2	1
	SPRINGFIELD	52	30	62	17	41	5	1.09	0.40	1.01	2.57	103	51.85	117	84	71	0	5	2	1
MT	BILLINGS	40	18	50	-2	29	3	0.14	0.00	0.13	1.55	408	16.26	112	81	51	0	6	2	0
	BUTTE	39	11	53	-10	25	8	0.07	-0.04	0.05	0.20	61	11.29	90	85	44	0	7	2	0
	CUT BANK	36	13	53	-11	24	3	0.01	-0.05	0.01	0.03	18	13.08	106	81	47	0	6	1	0
	GLASGOW	22	1	40	-14	11	-5	0.30	0.23	0.15	0.64	337	15.65	142	88	77	0	7	4	0
	GREAT FALLS	40	16	56	-4	28	4	0.08	-0.06	0.06	0.88	238	11.71	80	81	43	0	6	2	0
	HAVRE	29	7	48	-15	18	-1	0.42	0.31	0.27	0.97	334	18.84	168	79	68	0	6	3	0
	MISSOULA	37	21	47	13	29	6	0.24	-0.01	0.21	0.76	104	9.10	68	85	72	0	7	3	0
NE	GRAND ISLAND	44	19	67	9	32	7	0.00	-0.12	0.00	0.10	20	26.91	105	78	50	0	7	0	0
	LINCOLN	38	16	57	11	27	1	0.01	-0.16	0.01	0.21	34	26.67	95	85	60	0	7	1	0
	NORFOLK	36	15	56	8	26	2	0.00	-0.12	0.00	0.18	37	24.96	94	81	65	0	7	0	0
	NORTH PLATTE	46	15	68	4	30	4	0.00	-0.08	0.00	0.06	23	21.67	111	83	41	0	7	0	0
	OMAHA	35	18	49	13	27	2	0.00	-0.18	0.00	0.14	20	28.92	96	82	61	0	7	0	0
	SCOTTSBLUFF	47	22	62	10	35	9	0.00	-0.11	0.00	0.55	149	13.72	85	73	50	0	6	0	0
	VALENTINE	37	16	53	1	26	3	0.00	-0.06	0.00	0.69	314	23.60	122	83	65	0	7	0	0
NV	ELY	42	13	54	-1	27	1	0.49	0.40	0.48	0.81	312	8.36	86	84	68	0	7	2	0
	LAS VEGAS	62	43	66	38	52	5	0.00	-0.08	0.00	0.05	24	2.96	69	49	33	0	0	0	0
	RENO	42	19	50	13	31	-2	0.02	-0.17	0.02	0.41	71	4.01	56	88	77	0	7	1	0
	WINNEMUCCA	31	5	43	-11	18	-11	0.06	-0.11	0.06	0.61	122	5.72	71	93	73	0	7	1	0
NH	CONCORD	32	12	49	-13	22	-4	0.94	0.31	0.59	1.76	87	39.17	107	93	60	0	6	4	1
NJ	NEWARK	42	28	64	21	35	-1	0.43	-0.33	0.25	2.74	114	41.06	91	80	62	0	5	2	0
NM	ALBUQUERQUE	52	28	58	22	40	4	0.14	0.05	0.14	0.40	154	9.32	101	73	33	0	7	1	0
NY	ALBANY	32	16	48	-5	24	-4	1.07	0.49	0.60	2.24	121	42.69	115	84	61	0	6	4	1
	BINGHAMTON	34	22	54	6	28	1	0.85	0.18	0.50	1.96	91	41.47	110	88	70	0	5	5	1
	BUFFALO	34	20	52	5	27	-3	2.33	1.49	1.30	3.25	122	44.34	113	92	70	0	6	4	2
	ROCHESTER	36	19	54	-4	27	-2	1.49	0.89	0.79	2.57	135	36.34	110	84	69	0	6	4	1
	SYRACUSE	35	17	56	-3	26	-2	1.19	0.52	0.65	2.04	89	39.56	101	88	70	0	5	6	1
NC	ASHEVILLE	57	31	65	23	44	5	0.67	-0.05	0.67	3.65	162	71.23	155	81	46	0	5	1	1
	CHARLOTTE	61	34	73	25	47	3	0.01	-0.67	0.01	1.94	96	44.43	105	84	40	0	5	1	0
	GREENSBORO	59	34	71	28	46	5	0.00	-0.66	0.00	2.31	116	47.55	113	79	39	0	4	0	0
	HATTERAS	62	41	70	29	52	2	0.21	-0.76	0.21	2.45	87	51.88	93	93	58	0	2	1	0
	RALEIGH	60	35	74	28	48	5	0.03	-0.62	0.03	1.71	89	46.49	111	79	46	0	4	1	0
	WILMINGTON	66	38	78	30	52	3	0.06	-0.75	0.05	1.21	49	50.90	91	87	42	0	2	2	0
ND	BISMARCK	20	-1	44	-20	10	-5	0.35	0.27	0.25	0.92	354	26.41	159	82	74	0	7	3	0
	DICKINSON	24	3	39	-15	14	-4	0.08	0.02	0.06	0.26	124	21.24	131	87	68	0	7	3	0
	FARGO	16	-4	32	-13	6	-6	0.23	0.12	0.10	0.95	288	31.83	152	79	69	0	7	4	0
	GRAND FORKS	11	-8	32	-19	1	-10	0.15	0.04	0.10	0.66	194	19.49	101	85	68	0	7	3	0
	JAMESTOWN	16	-4	34	-14	6	-8	0.02	-0.06	0.01	0.20	80	16.09	88	89	72	0	7	2	0
	WILLISTON	20	3	35	-13	11	-2	0.20	0.09	0.12	0.79	226	21.00	151	80	71	0	7	2	0
OH	AKRON-CANTON	40	26	64	11	33	2	1.48	0.82	1.10	2.44	117	40.98	109	84	69	0	5	5	1
	CINCINNATI	47	36	68	24	41	7	2.09	1.37	2.03	4.17	186	48.74	117	83	71	0	4	3	1
	CLEVELAND	42	25	59	10	34	3	2.56	1.87	2.24	3.40	150	41.13	109	81	61	0	5	4	1
	COLUMBUS	44	33	69	21	39	6	1.98	1.34	1.86	3.69	177	40.94	109	76	64	0	5	4	1
	DAYTON	42	30	65	17	36	5	2.78	2.10	2.63	4.14	193	36.08	93	89	69	0	4	3	1
	MANSFIELD	40	26	62	13	33	3	2.40	1.68	2.19	3.11	133	42.00	99	93	66	0	5	4	1

Based on 1971-2000 normals

***** Not Available**

Weather Data for the Week Ending December 21, 2013

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 JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
	TOLEDO	36	21	55	-1	29	0	2.10	1.51	1.57	2.73	144	36.48	112	87	80	0	5	4	1
	YOUNGSTOWN	40	25	62	10	33	3	1.38	0.73	1.06	2.50	117	38.10	102	78	67	0	5	6	1
OK	OKLAHOMA CITY	61	34	69	26	47	8	1.03	0.62	0.60	1.26	102	52.78	150	78	41	0	5	2	1
	TULSA	59	32	68	20	45	6	1.20	0.68	0.87	1.78	97	33.08	79	79	56	0	5	2	1
OR	ASTORIA	47	36	50	26	42	-1	1.35	-0.96	0.83	4.03	55	58.24	91	94	90	0	2	4	1
	BURNS	37	8	44	-3	23	-2	0.04	-0.24	0.04	0.21	25	6.90	68	91	73	0	7	1	0
	EUGENE	45	35	55	28	40	1	0.12	-1.72	0.07	1.48	25	21.20	44	96	92	0	2	3	0
	MEDFORD	38	28	48	25	33	-5	0.01	-0.63	0.01	0.35	17	8.98	51	94	78	0	7	1	0
	PENDLETON	47	29	58	22	38	4	0.24	-0.07	0.24	0.69	69	9.15	75	86	64	0	5	1	0
	PORTLAND	44	35	53	28	40	0	0.18	-1.09	0.07	1.37	34	26.47	75	97	92	0	3	4	0
	SALEM	45	36	55	28	40	0	0.22	-1.22	0.09	1.22	27	23.55	62	98	92	0	2	3	0
PA	ALLENTOWN	38	18	50	9	28	-4	0.22	-0.51	0.14	2.32	101	44.24	100	79	61	0	6	2	0
	ERIE	38	26	57	10	32	0	3.01	2.17	1.80	5.03	188	53.51	128	80	70	0	5	6	2
	MIDDLETOWN	40	24	54	17	32	-1	0.08	-0.63	0.08	2.32	100	41.21	104	87	51	0	6	1	0
	PHILADELPHIA	46	30	67	24	38	1	0.05	-0.67	0.05	3.48	159	54.15	132	72	51	0	5	1	0
	PITTSBURGH	43	29	63	18	36	4	0.60	-0.02	0.51	2.12	107	35.50	96	81	57	0	5	4	1
	WILKES-BARRE	37	20	57	9	29	-2	0.20	-0.35	0.11	2.04	112	26.27	71	85	59	0	6	4	0
	WILLIAMSPORT	34	18	46	6	26	-5	0.38	-0.25	0.28	2.40	113	31.44	77	87	67	0	6	3	0
RI	PROVIDENCE	40	23	59	9	32	-1	0.84	-0.07	0.75	2.88	103	43.52	96	83	62	0	6	2	1
SC	BEAUFORT	67	40	78	32	54	3	0.07	-0.60	0.07	1.25	67	46.96	97	91	45	0	1	1	0
	CHARLESTON	68	41	80	32	55	5	0.01	-0.69	0.01	1.39	70	57.35	114	87	42	0	1	1	0
	COLUMBIA	65	34	81	28	50	3	0.04	-0.69	0.04	3.14	155	52.73	112	86	41	0	4	1	0
	GREENVILLE	59	34	66	27	47	4	0.05	-0.79	0.05	2.97	119	65.85	135	83	43	0	4	1	0
SD	ABERDEEN	21	0	42	-16	11	-5	0.10	0.03	0.07	0.52	289	21.51	107	84	77	0	7	2	0
	HURON	28	5	51	-16	16	-3	0.17	0.11	0.14	0.65	295	24.80	120	81	62	0	7	4	0
	RAPID CITY	37	13	60	-8	25	0	0.30	0.22	0.30	0.47	235	21.60	131	85	60	0	7	1	0
	SIOUX FALLS	26	8	41	1	17	-1	0.01	-0.08	0.01	0.82	222	25.48	104	85	74	0	7	1	0
TN	BRISTOL	55	29	74	21	42	5	0.05	-0.69	0.03	3.18	138	54.51	135	83	41	0	6	2	0
	CHATTANOOGA	59	35	71	27	47	5	0.36	-0.67	0.36	4.71	144	65.47	124	83	51	0	4	1	0
	KNOXVILLE	56	32	75	26	44	3	0.01	-0.98	0.01	4.66	155	65.77	141	81	48	0	5	1	0
	MEMPHIS	61	41	76	31	51	8	2.10	0.82	1.44	4.75	114	59.36	112	86	56	0	3	2	2
	NASHVILLE	58	37	75	23	48	8	1.05	0.05	0.98	6.71	211	53.60	115	79	45	0	3	2	1
TX	ABILENE	66	38	71	29	52	7	0.91	0.62	0.66	1.12	142	23.19	100	75	56	0	3	2	1
	AMARILLO	59	28	72	18	43	6	0.30	0.17	0.30	0.32	103	15.21	78	66	29	0	6	1	0
	AUSTIN	71	38	77	25	55	3	0.59	0.04	0.59	0.86	53	37.04	113	81	57	0	4	1	1
	BEAUMONT	69	45	76	31	57	3	0.70	-0.45	0.70	1.29	38	56.11	97	97	55	0	1	1	1
	BROWNSVILLE	77	53	85	37	65	4	0.01	-0.21	0.01	0.12	16	25.61	94	91	55	0	0	1	0
	CORPUS CHRISTI	74	49	81	34	62	4	0.01	-0.38	0.01	0.03	3	23.18	73	88	54	0	0	1	0
	DEL RIO	70	42	73	29	56	4	0.17	0.00	0.14	0.18	36	15.17	84	83	53	0	2	2	0
	EL PASO	61	33	70	25	47	2	0.03	-0.14	0.02	0.26	54	9.51	104	65	26	0	4	2	0
	FORT WORTH	66	36	72	26	51	4	1.50	0.91	1.48	2.77	166	29.40	87	85	50	0	2	2	1
	GALVESTON	65	49	72	39	57	-1	0.50	-0.24	0.43	0.66	28	39.25	92	98	72	0	0	4	0
	HOUSTON	70	43	77	30	56	3	1.51	0.71	1.48	1.65	66	38.83	83	95	60	0	2	2	1
	LUBBOCK	62	28	75	21	45	6	0.51	0.37	0.48	0.60	146	12.61	68	82	36	0	6	2	0
	MIDLAND	64	35	75	27	50	5	1.13	0.99	1.04	1.44	360	8.50	58	81	56	0	4	2	1
	SAN ANGELO	68	35	73	24	51	5	0.51	0.29	0.34	1.15	189	19.80	96	86	48	0	4	2	0
	SAN ANTONIO	72	45	77	32	59	7	0.23	-0.21	0.23	0.29	22	31.74	98	85	37	0	2	1	0
	VICTORIA	73	45	78	31	59	4	0.16	-0.39	0.16	0.27	16	25.37	65	92	56	0	2	1	0
	WACO	67	34	75	24	51	3	1.00	0.37	1.00	1.34	71	37.88	117	90	59	0	4	1	1
	WICHITA FALLS	62	33	72	26	48	5	0.90	0.51	0.73	1.30	117	21.34	76	84	59	0	6	2	1
UT	SALT LAKE CITY	31	17	35	9	24	-6	1.00	0.75	0.90	1.60	205	11.57	72	83	71	0	7	4	1
VT	BURLINGTON	26	10	38	-11	18	-7	0.79	0.33	0.41	1.53	97	43.97	124	87	69	0	7	4	0
VA	LYNCHBURG	55	32	66	26	44	6	0.09	-0.61	0.09	3.26	154	43.14	102	80	47	0	5	1	0
	NORFOLK	60	38	73	29	49	5	0.02	-0.63	0.02	2.85	152	43.74	98	84	46	0	2	1	0
	RICHMOND	58	35	72	29	46	6	0.46	-0.21	0.46	3.49	177	51.10	120	83	50	0	4	1	0
	ROANOKE	56	35	70	29	46	7	0.05	-0.56	0.05	2.26	117	50.98	123	65	45	0	3	1	0
	WASH/DULLES	51	33	70	23	42	6	0.02	-0.65	0.02	3.00	145	42.77	105	74	51	0	5	1	0
WA	OLYMPIA	45	34	51	22	40	2	0.35	-1.39	0.18	1.78	32	41.21	85	97	94	0	2	4	0
	QUILLAYUTE	48	36	52	30	42	2	1.62	-1.62	0.95	3.96	39	86.44	89	90	85	0	3	4	1
	SEATTLE-TACOMA	47	39	53	32	43	3	0.50	-0.74	0.20	1.12	28	32.02	90	85	80	0	1	5	0
	SPOKANE	36	24	44	19	30	3	0.30	-0.19	0.30	0.54	34	11.22	70	90	71	0	7	1	0
	YAKIMA	44	20	53	15	32	3	0.00	-0.30	0.00	0.32	36	5.49	71	86	75	0	7	0	0
WV	BECKLEY	48	32	67	21	40	5	0.25	-0.42	0.20	3.68	180	40.16	99	66	55	0	5	3	0
	CHARLESTON	52	34	75	25	43	6	0.20	-0.52	0.06	4.24	182	45.22	105	86	53	0	5	5	0
	ELKINS	48	28	74	18	38	5	0.47	-0.28	0.30	4.56	194	44.29	98	88	52	0	6	6	0
	HUNTINGTON	52	37	75	28	44	7	0.25	-0.49	0.21	4.03	177	43.38	105	77	50	0	4	4	0
WI	EAU CLAIRE	21	5	31	-12	13	-4	0.11	-0.09	0.06	0.69	92	35.06	110	89	63	0	7	3	0
	GREEN BAY	24	8	32	-13	16	-5	0.29	0.00	0.15	1.26	121	34.52	120	87	70	0	7	3	0
	LA CROSSE	26	11	39	-1	19	-3	0.16	-0.08	0.08	0.90	98	35.26	110	86	62	0	7	3	0
	MADISON	27	13	35	-4	20	-3	0.30	-0.05	0.21	0.84	68	44.60	137	84	71	0	7	4	0
	MILWAUKEE	30	16	35	0	23	-3	0.21	-0.27	0.07	0.89	56	39.12	114	83	71	0	7	4	0
WY	CASPER	40	21	51	2	30	6	0.51	0.39	0.50	0.90	231	14.84	116	66	48	0	6	2	1
	CHEYENNE	46	25	60	9	35	8	0.01	-0.07	0.01	0.21	70	18.01	118	57	41	0	5	1	0
	LANDER	40	16	52	0	28	7	0.18	0.07	0.18	0.42	102	15.27	116	77	41	0	7	1	0
	SHERIDAN	41	14	57	-6	27	5	0.03	-0.11	0.02	0.70	171	17.59	122	77	56	0	7	2	0

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

National Agricultural Summary

December 16 – 22, 2013

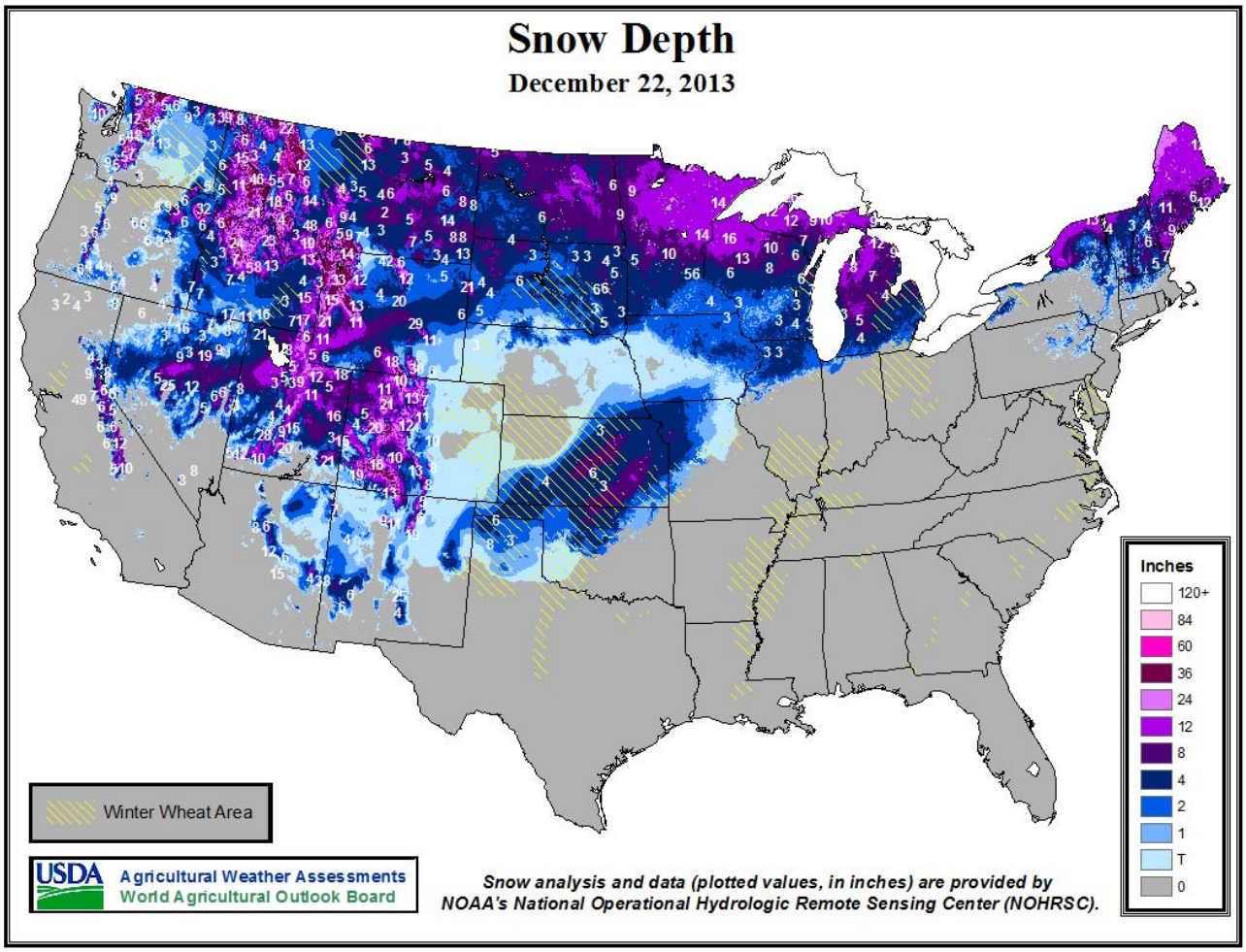
Weekly National Agricultural Summary provided by USDA/NASS

Most of the United States recorded above-average temperatures for the week. Areas in northern New England, Michigan, Wisconsin, Minnesota, the Dakotas, and parts of the western United States recorded below-average temperatures. Dry conditions were the trend across the country, with only a small area along the Mississippi River in Missouri and Arkansas recording over 3 inches of precipitation for the week.

In California, temperatures trended higher in the last week after a cold start to the month. Winter wheat conditions declined due to a lack of precipitation and recent winds in the North Central Valley. Growers in the Imperial Valley were irrigating before the irrigation district shut off water for annual canal maintenance. Over three-quarters of the wheat crop was emerged by week's end. Every cotton field was plowed as the compliance date for Cotton Plow Down Regulations had passed. Alfalfa production was complete. Pruning continued in vineyards and stone fruit orchards. Grape vines continued to lose leaves and go dormant. Disking, shredding brush and trellis work was also ongoing. Citrus harvest was slowed due to the freezing temperatures. Growers used wind machines and overnight irrigation to prevent and limit freeze damage. Navel oranges and mandarins sustained some freeze damage. Harvested almond, walnut, and pistachio orchards were pruned, irrigated, and fertilized. Cold weather benefitted the nut trees by helping them go dormant. Tree removals were ongoing and land was prepared for tree planting.

In Arizona, cotton harvest was 91 percent complete, 2 percentage points ahead of last year, and slightly ahead of the five-year average. Arizona's alfalfa condition was rated mostly in fair to excellent condition, depending on location. Harvesting occurred on over three-quarters of the alfalfa acreage across the State. The State shipped many different types of vegetables. Despite recent scattered storms, range and pasture conditions continued to decline. Range and Pastures were rated in very poor to good condition, depending on location.

Most of Florida reported no rain with temperatures in the 80s °F. Farmers in the northern part of the State were finishing up the harvest of cotton and soybeans due to drier weather. Planting of oats, wheat, rye, and winter grazing was still on going. Sugarcane harvesting was proceeding as scheduled. Cabbage planting continued and the ground was ready for potato planting. Citrus growers and caretakers continued to irrigate due to dry conditions. Field workers were reporting small sizes on all varieties. Grove activity included harvesting, resetting of new trees, pushing of dead groves and replanting new citrus, mowing, fertilizing, and psyllid control. The cattle condition across the State was primarily good. The majority of the pasture condition ranged from poor to good in the State. Cattlemen were feeding hay and supplements across the State to their cattle. Drought was the main contributing factor for the decline in pasture condition in the central and south part of the State, while cold weather in the northern part of the State contributed to pasture decline.



International Weather and Crop Summary

December 15-21, 2013

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

HIGHLIGHTS

EUROPE: Generally mild weather prevailed across the region, with showers in the west contrasting with dry conditions in central and eastern Europe.

WESTERN FSU: Dry weather with near- to above-normal temperatures maintained favorable conditions for dormant winter wheat.

MIDDLE EAST: Cold albeit dry weather prevailed across the region, further ushering winter grains into dormancy.

NORTHWEST AFRICA: Showers in western crop districts eased concerns over short-term dryness.

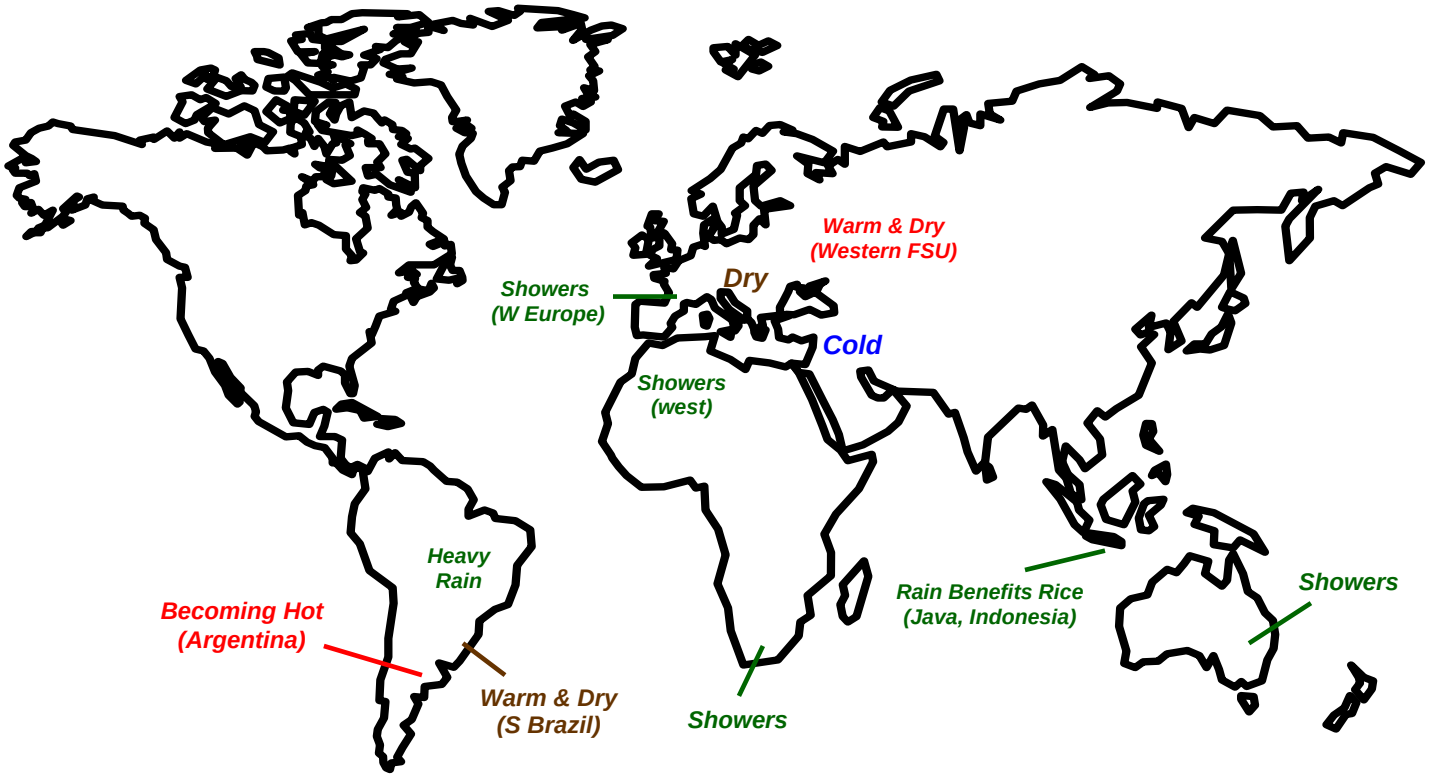
SOUTHEAST ASIA: Widespread showers favored main-season rice in Java, Indonesia.

AUSTRALIA: Scattered showers maintained local moisture supplies for vegetative cotton and sorghum.

SOUTH AFRICA: Mild, showery weather benefited vegetative corn in eastern production areas.

ARGENTINA: Unseasonable warmth was untimely for early-planted corn, in or approaching reproduction.

BRAZIL: Warm, dry weather dominated southern soybean and corn areas, but beneficial rain continued throughout major production areas of central Brazil.



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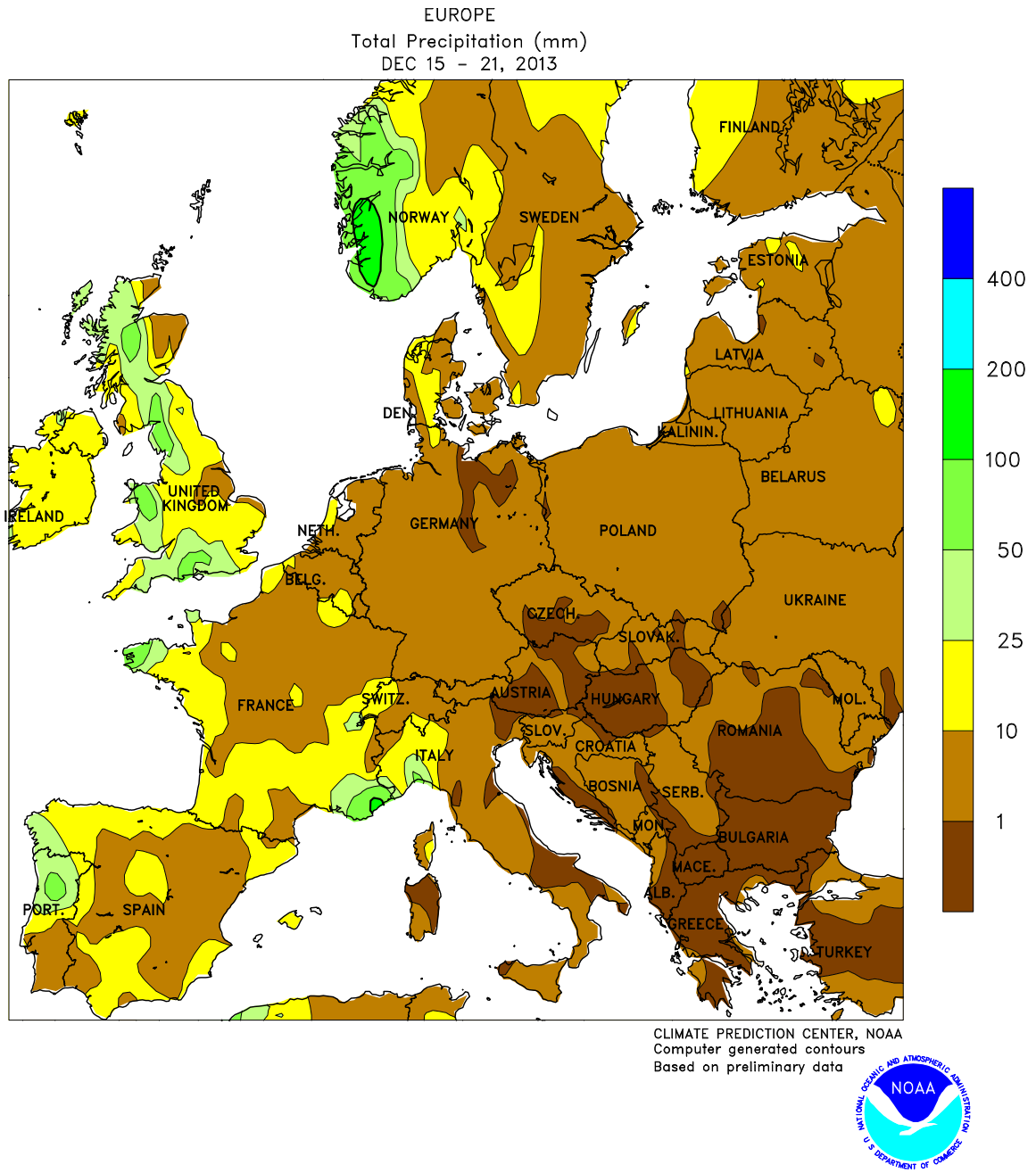

EUROPE

Mild weather prevailed across much of the continent, with western showers contrasting with mostly dry conditions in central and eastern crop areas. A slow-moving cold front generated much-needed rain (2-35 mm, locally more) on the Iberian Peninsula, ending a month-long dry spell and providing soil moisture for winter wheat and barley establishment. Rain was also reported across the United Kingdom, France, and the Low Countries, maintaining favorable soil moisture reserves for dormant winter crops. Dry weather prevailed across the eastern half of Europe, promoting late harvesting of corn, sugarbeets, and cotton (Greece). Temperatures averaged up to 4°C above normal over much of the region, with cooler-than-normal conditions (1-3°C below normal) confined to the Balkans. At week's end, there was little — if any — snow cover over major winter crop areas, leaving wheat and rapeseed exposed to potential incursions of bitter cold.

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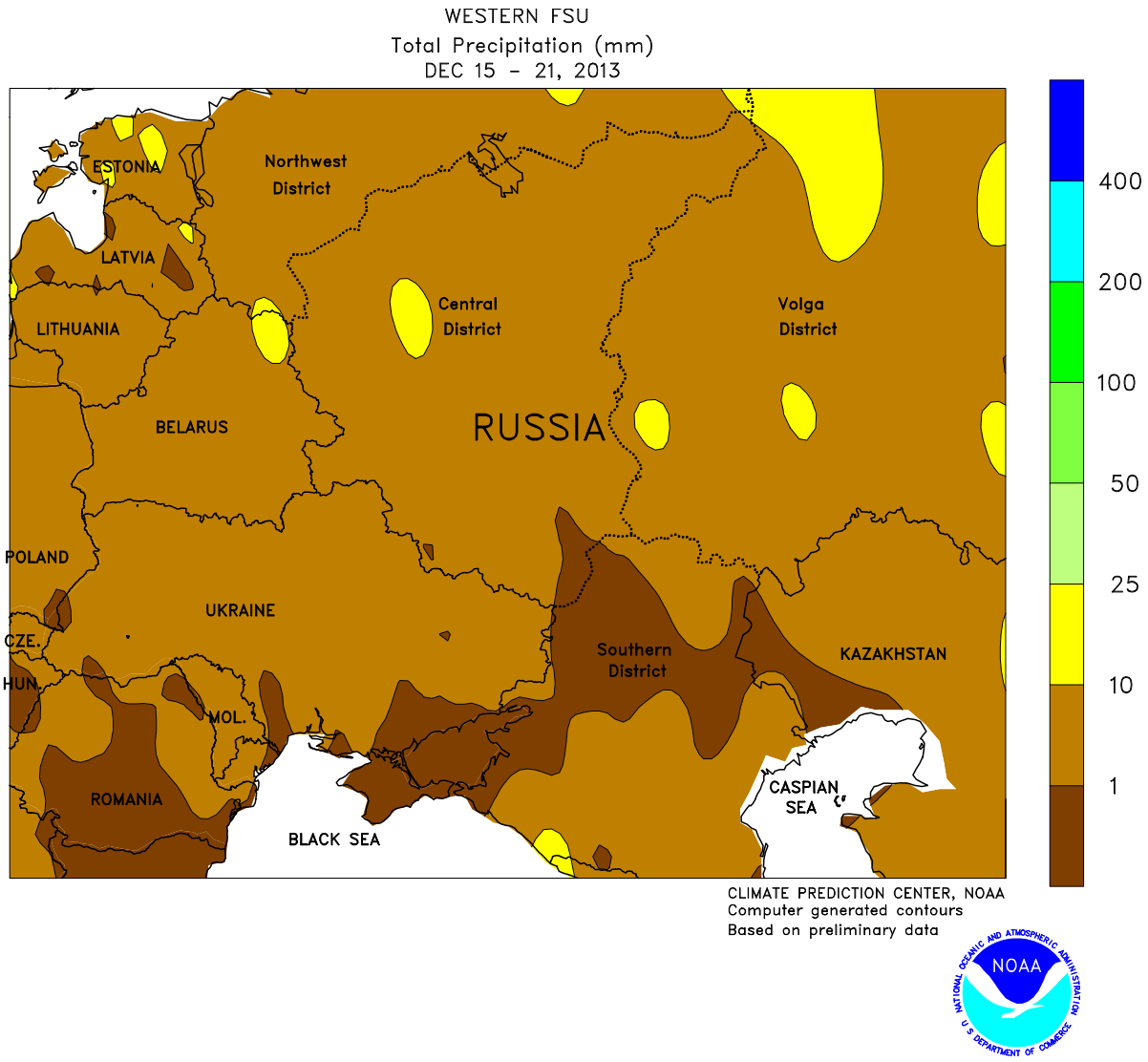

WESTERN FSU

Dry, mostly mild weather maintained favorable overwintering conditions for wheat. Temperatures averaged 1 to 4°C above normal in western and northern crop areas, minimizing the risk of winterkill. Colder-than-normal conditions (up to 5°C below normal) lingered in Russia's Southern District, although 2 to 15 cm of snow cover protected dormant winter wheat from temperatures as low as -19°C. There was little — if any — precipitation reported during the past week in the region's primary winter wheat areas.

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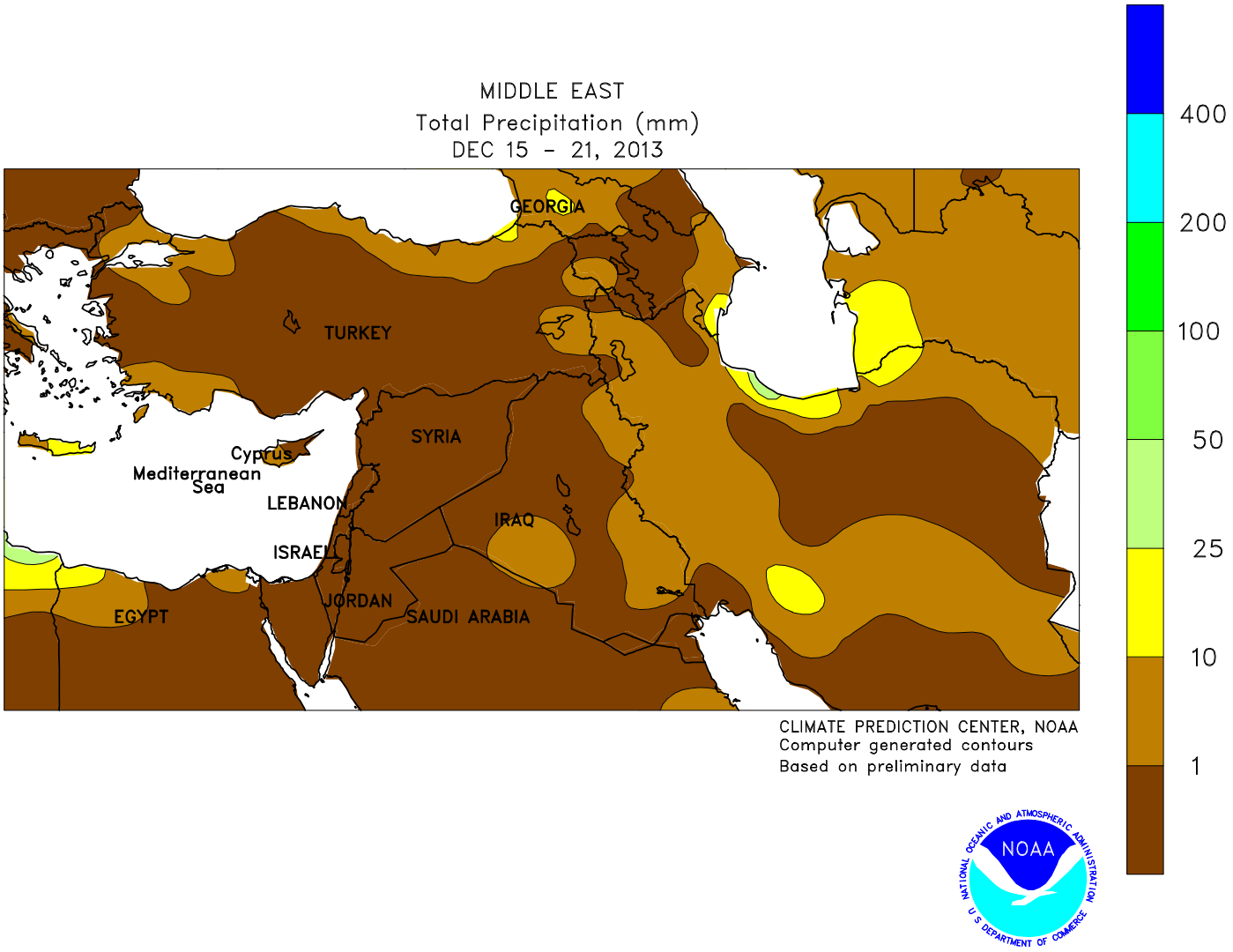

MIDDLE EAST

Cold albeit dry weather continued over the region, further ushering winter grains into dormancy. After last week's snow and abrupt cold, temperatures continued to average locally more than 10°C below normal. The second consecutive week of colder-than-normal weather ushered winter grains into dormancy in central and northern Iran while keeping dormant winter grains insulated by a moderate to deep snowpack (2-50 cm) in central and eastern Turkey and northwestern Iran. Hard freezes (-5 to -2°C) were noted as far south as Jordan and northern Saudi Arabia, likely causing some damage to tender vegetation.

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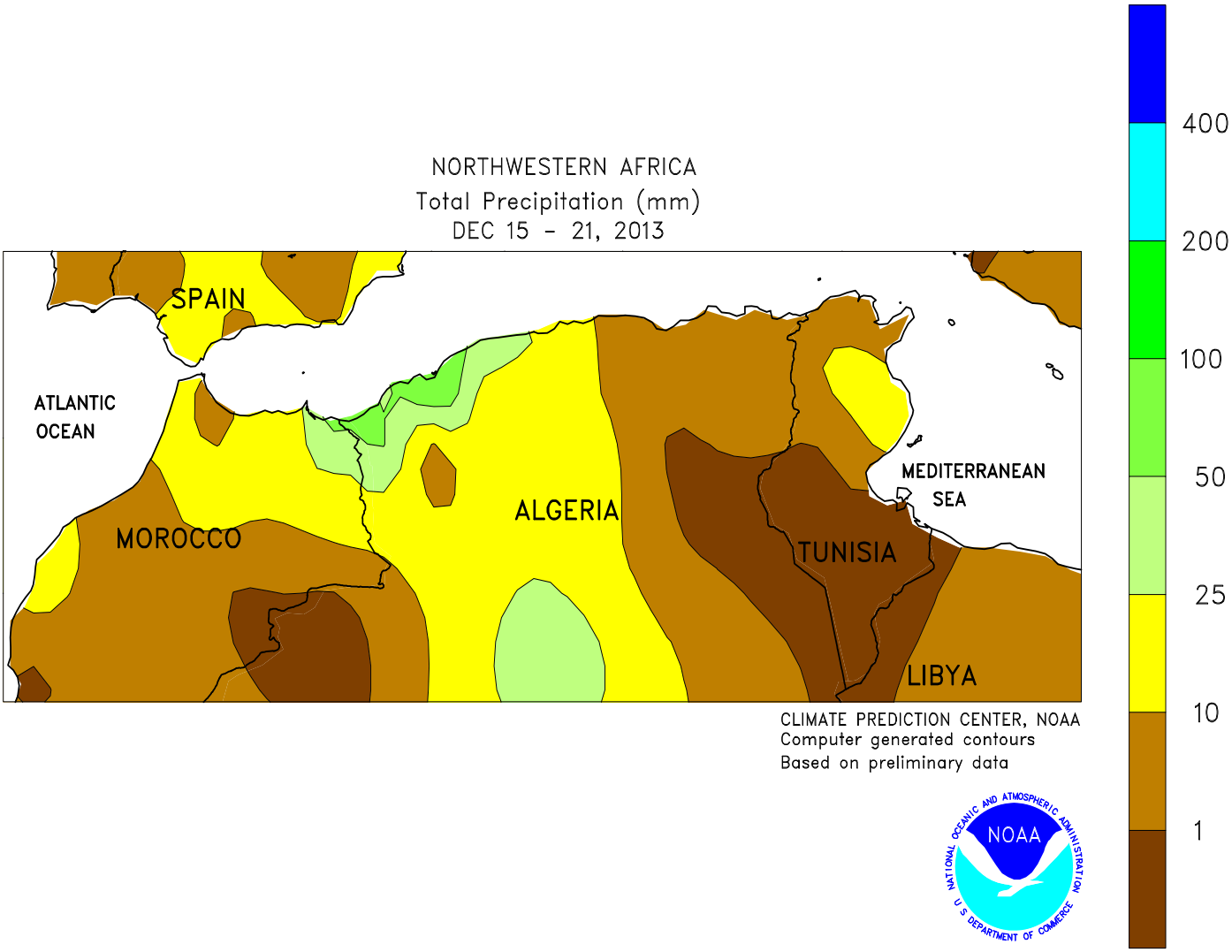

NORTHWESTERN AFRICA

Western showers contrasted with sunny skies in the east. Much-needed rain (3-16 mm) returned to Morocco, easing concerns over developing short-term dryness and improving soil moisture for winter grain planting and establishment. Heavier showers (25-100 mm) fell from northeastern Morocco into western Algeria, boosting soil moisture reserves for winter wheat. Generally dry weather (3 mm or less) prevailed in northeastern Algeria and northern Tunisia, favoring fieldwork and crop development.

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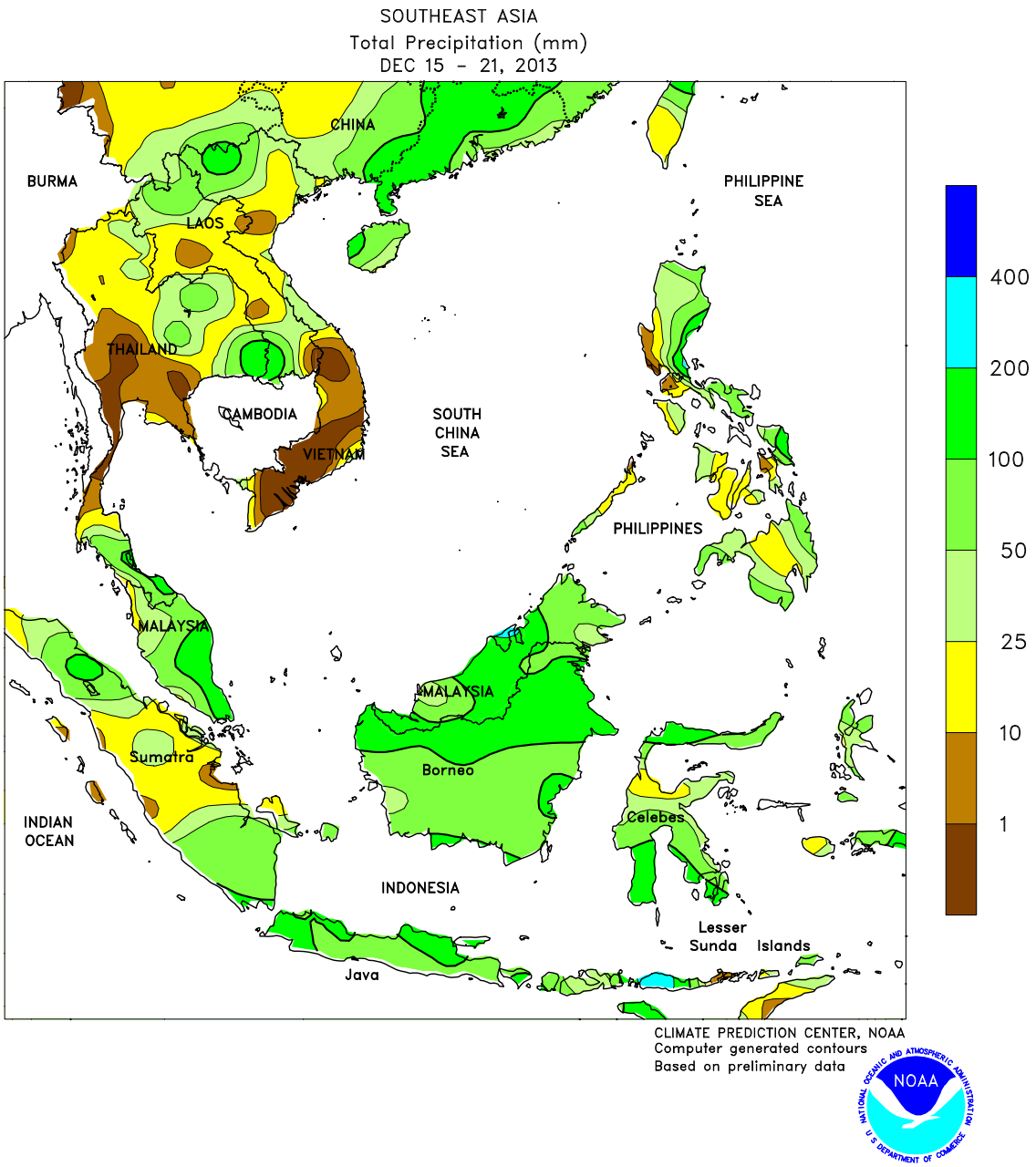

SOUTHEAST ASIA

Heavy monsoon showers continued across Java, Indonesia. Rainfall totals between 100 and 170 mm boosted moisture supplies for rice in portions of eastern and western Java, while 50 to 100 mm of rain maintained ample soil moisture for rice in central Java. Elsewhere in Indonesia, consistent showers (50-100 mm) benefited oil palm, although upwards of 200 mm of rain in Malaysia slowed oil palm harvesting. In the Philippines, an unusually strong winter monsoon brought additional heavy rain (100-200 mm) to coastal areas in the east, although rainfall in the major rice and corn areas was generally lighter (25-50 mm). Meanwhile, unseasonable showers (25-100 mm, locally more) in Thailand provided an unexpected boost to reservoir levels for second-season rice.

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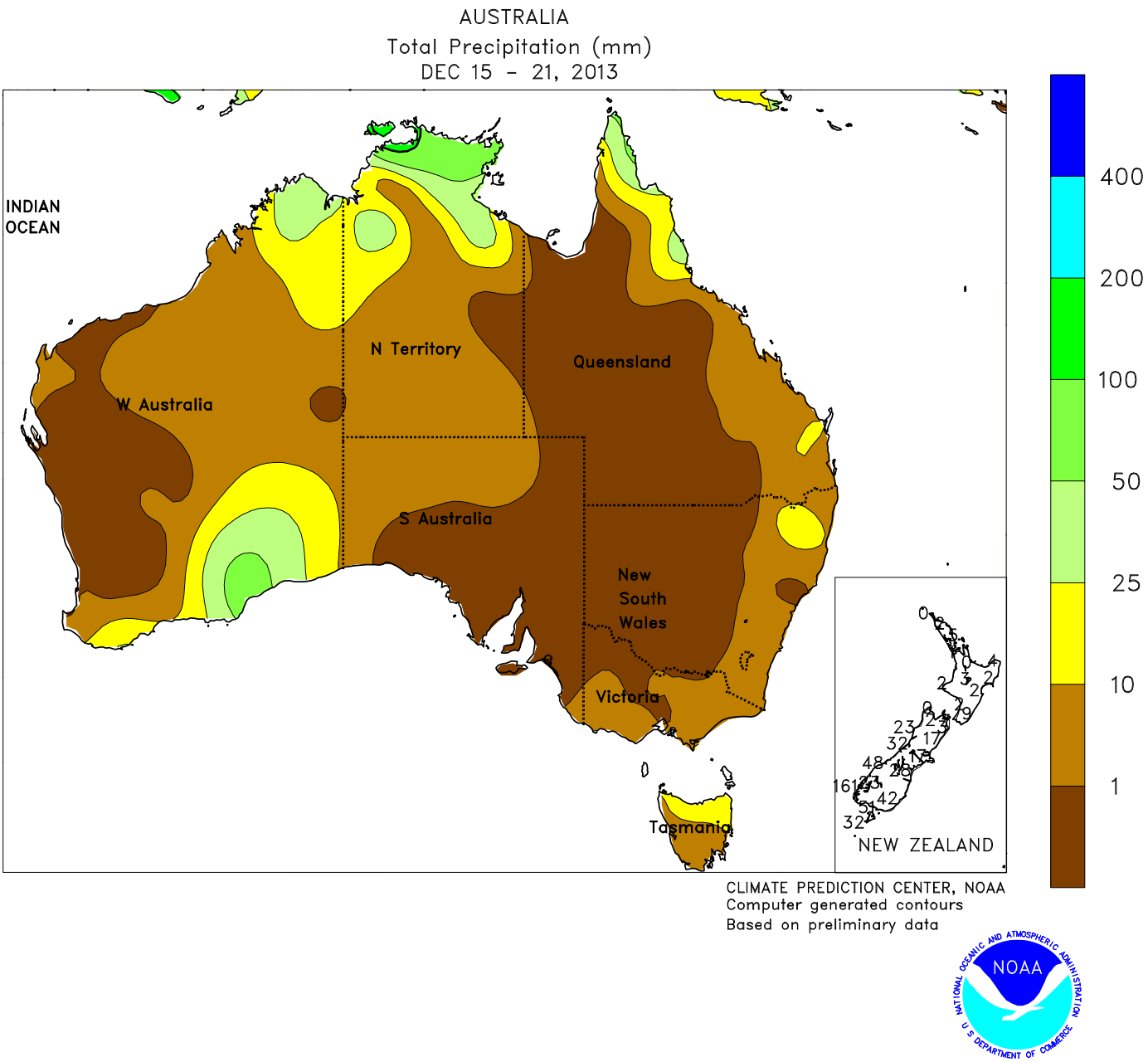

AUSTRALIA

In Queensland and New South Wales, scattered showers (3-10 mm, locally more than 25 mm) maintained local moisture supplies for vegetative cotton and sorghum. Water supplies remained adequate to abundant for irrigated crops throughout this region. However, more rain is needed in northern New South Wales, where pockets of below-normal rainfall since the beginning of the growing season have likely slowed dryland crop development in some areas. Temperatures in major summer crop areas were generally seasonable. Elsewhere, hot, mostly dry weather in western and southeastern Australia favored winter grain and oilseed harvesting, which is reportedly approaching completion in most areas.

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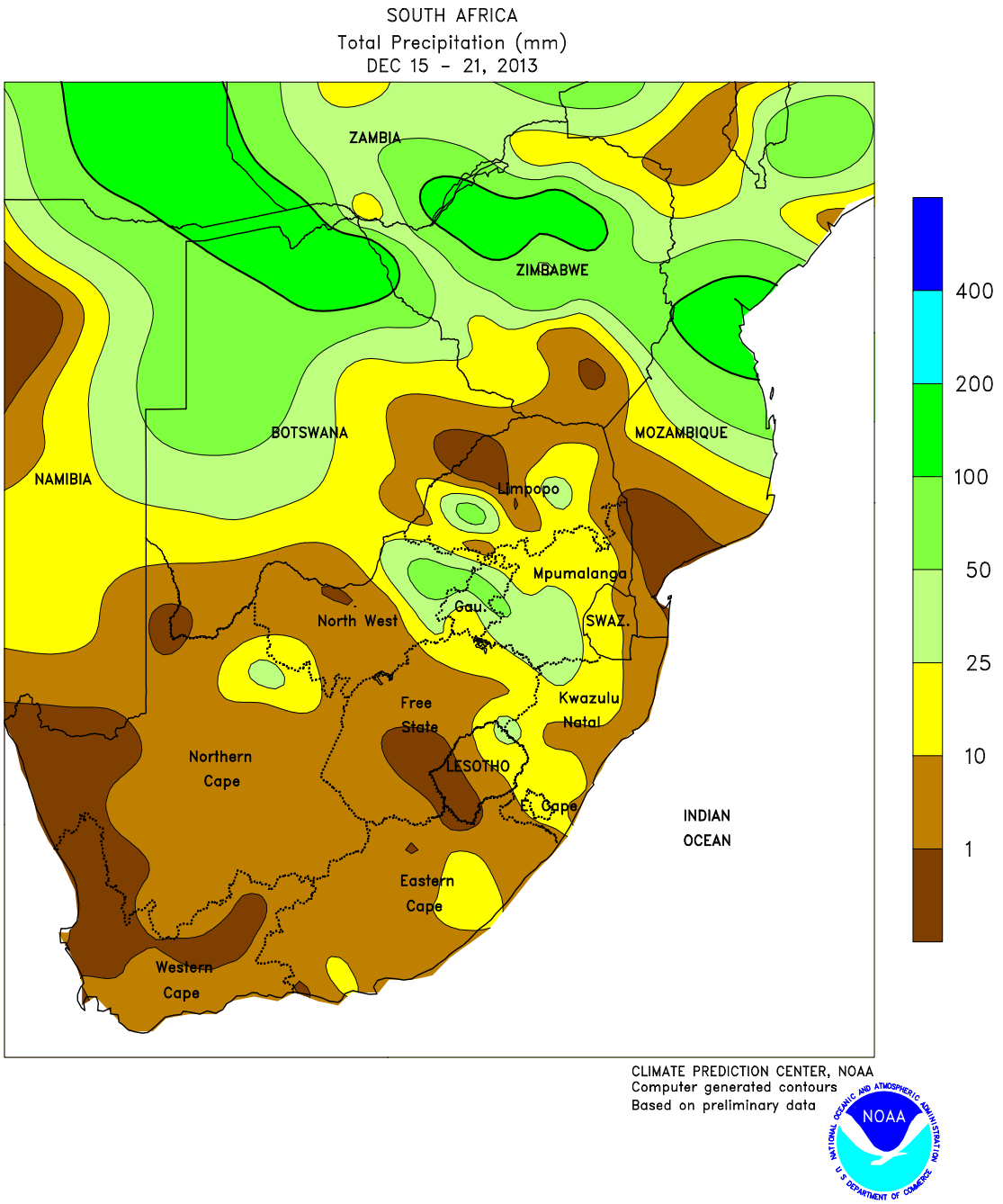

SOUTH AFRICA

Showers tapered off across the region, but conditions remained mostly favorable for corn and other rain-fed summer crops. Rainfall totaled more than 25 mm from eastern sections of North West to southern Mpumalanga, with local amounts in excess of 50 mm. Drier conditions prevailed in Free State and in the commercial white corn areas of central North West, spurring planting following last week's locally heavy rain. Temperatures averaged near to slightly above normal across the corn belt, with daytime highs generally ranging from the lower and middle 20s (degrees C) in the east (Mpumalanga) to the lower 30s in the north and west. However, most locations recorded several days of somewhat higher readings, when daytime highs reached the middle 30s in the north and west. Elsewhere, rainfall also declined significantly in KwaZulu-Natal and the Cape Provinces, as most locations recorded less than 10 mm. Weekly average temperatures were near to slightly below normal in Eastern Cape and KwaZulu-Natal, where daytime highs ranging from the upper 20s to lower 30s spurred development of sugarcane and other crops. Meanwhile, somewhat warmer conditions (highs reaching the upper 30s) prevailed in some interior farming areas of Northern and Western Cape Provinces, fostering rapid development of irrigated summer row crops, fruits, and vegetables.

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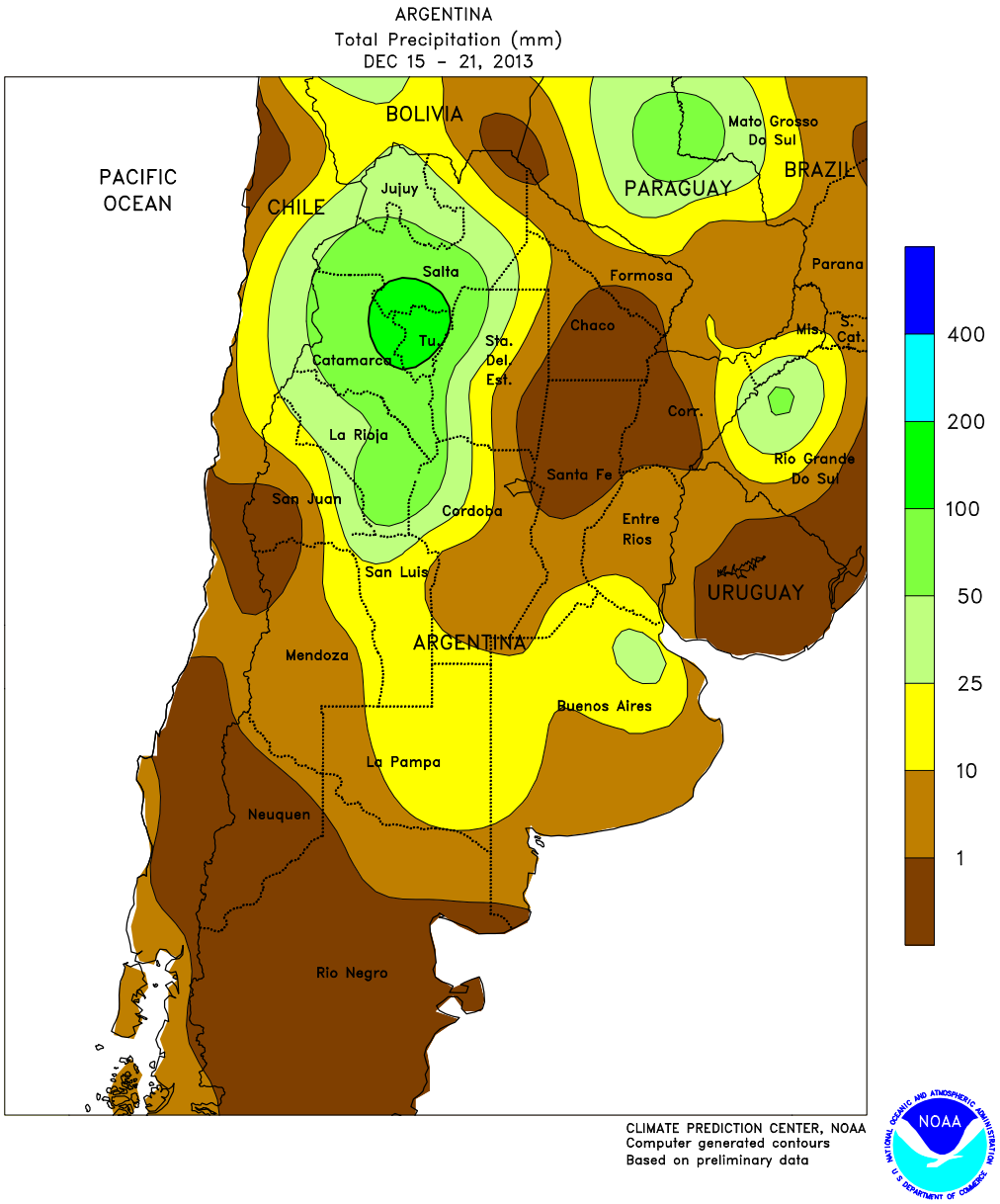

ARGENTINA

Unseasonable warmth intensified across the region, raising crop moisture requirements and exposing early-planted corn to possibly stressful conditions. Weekly average temperatures were 4 to 8°C above normal in the production areas of central Argentina (La Pampa, Buenos Aires, and southern sections of Cordoba, Santa Fe, and Entre Rios). Most locations recorded daytime highs in the middle and upper 30s (degrees C), with some spots in the southwest (La Pampa, western Buenos Aires, and southern Cordoba) reaching 40°C. Drier conditions accompanied the heat, with rainfall totaling below 25 mm in most areas. While favoring drydown and harvesting of winter grains, conditions were overall unfavorable for summer grains and oilseeds, particularly early-planted corn advancing through reproduction. Farther north, heavy rain (25-100 mm) continued in in outlying farming areas from Jujuy southward through La Rioja, including western sections of northern Cordoba and Santiago del Estero. However, drier weather prevailed farther east, promoting the final stages of summer grain, oilseed, and cotton planting. Weekly average temperatures were 2 to 4°C above normal, with daytime highs reaching the middle and upper 30s (degrees C) each day. According to Argentina's Ministry of Agriculture, as of December 19, corn was 70 percent planted (versus 73 percent last year) and soybeans were 77 percent planted (75 percent last year). In addition, winter wheat was 66 percent harvested, 6 points ahead of last year.

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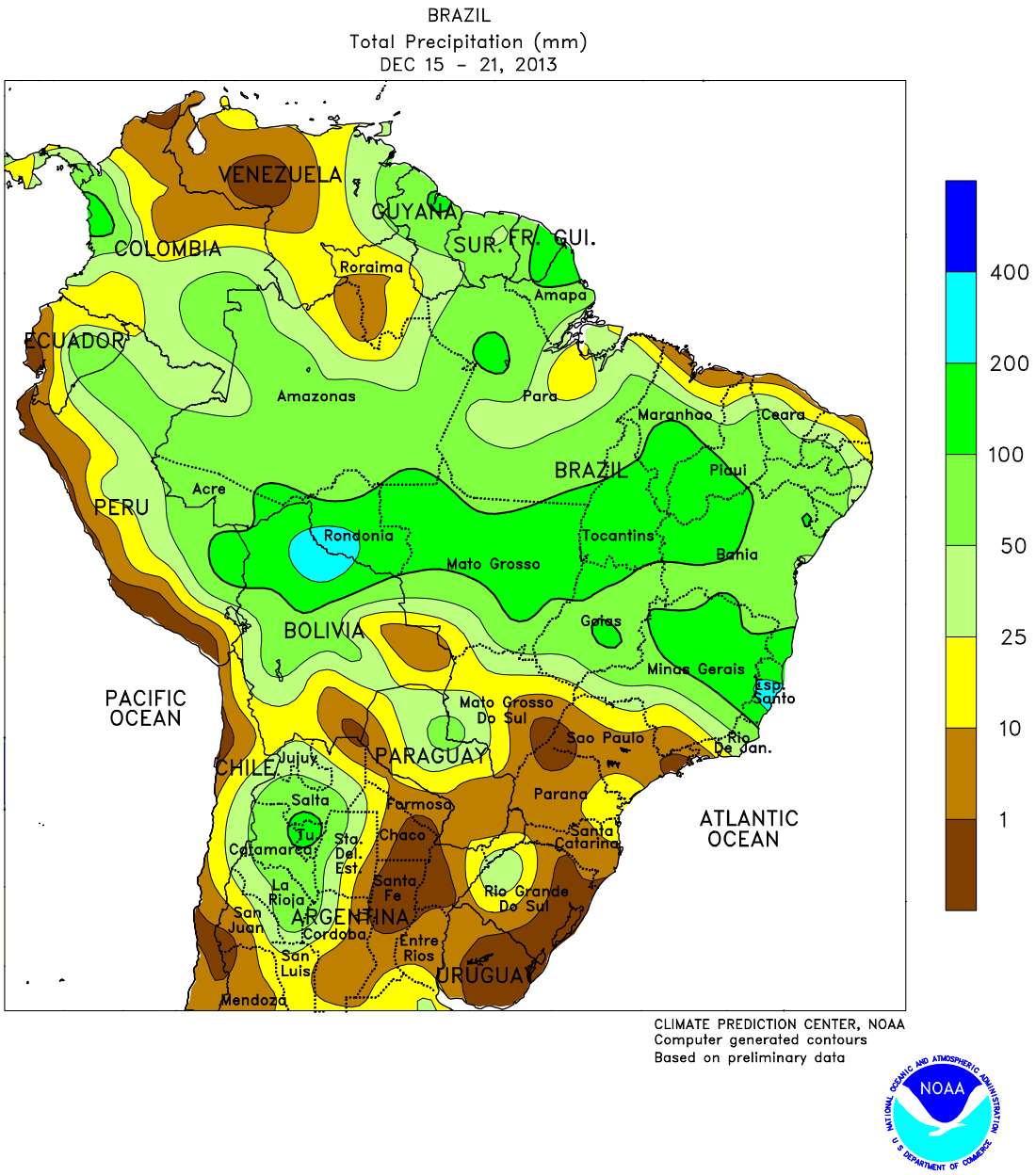

BRAZIL

Warmer, drier conditions prevailed in the south, as seasonal showers intensified in central and northeastern Brazil. Following several weeks of scattered, overall favorable rainfall, drier weather developed from Mato Grosso do Sul and Sao Paulo southward through Rio Grande do Sul, with most locations recording less than 10 mm. Weekly temperatures averaging 1 to 3°C above normal (daytime highs mostly in the lower 30s degrees C) accompanied the dryness, increasing moisture demands of vegetative to reproductive main-season corn and soybeans. Although crops should still be in generally good condition, a return to a more seasonable pattern of rainfall is needed to ensure normal development of all summer crops — including sugarcane in the main production areas in and around Sao Paulo. In contrast, above-normal rainfall (50 to well over 100 mm) soaked soybeans, cotton, and other main-season crops in the key production areas of central and northeastern Brazil. In fact, the unseasonable moisture reached the northeastern coast at week's end, where rainfall totaling in excess of 50 mm at some locations gave an unexpected boost in irrigation reserves for the production of sugarcane, cocoa, and other crops. Weekly temperatures averaged near to slightly below normal in major production areas of the Center-West and northeastern interior regions (notably from Mato Grosso to western Bahia), with daytime highs ranging from the upper 20s to lower 30s (degrees C), several degrees below those recorded over the past few weeks.

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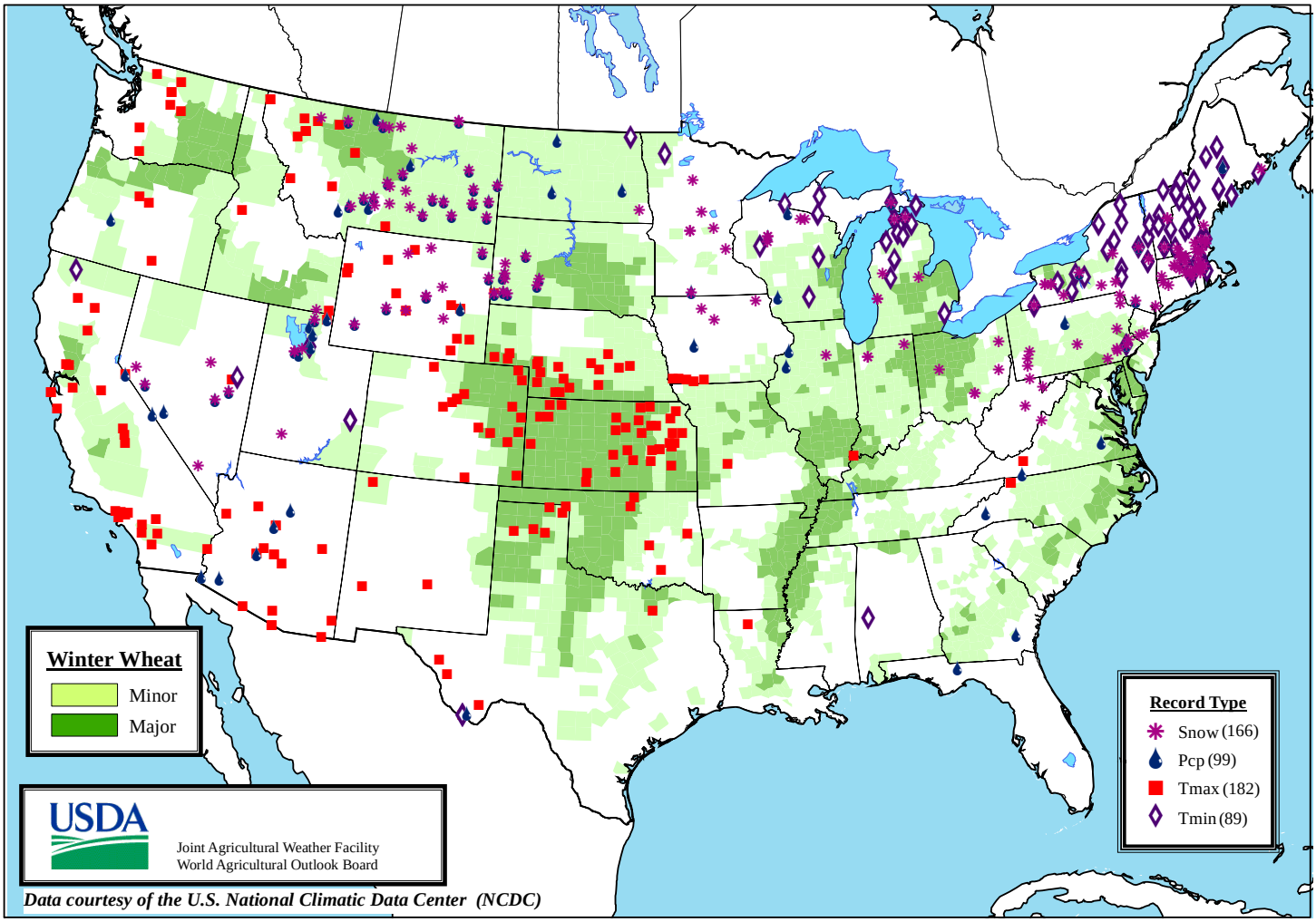
Daily Weather Records (ASOS & COOP)

December 15-21, 2013



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