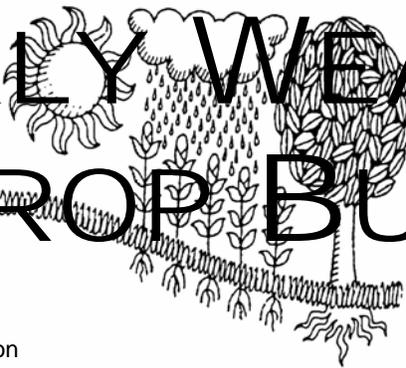
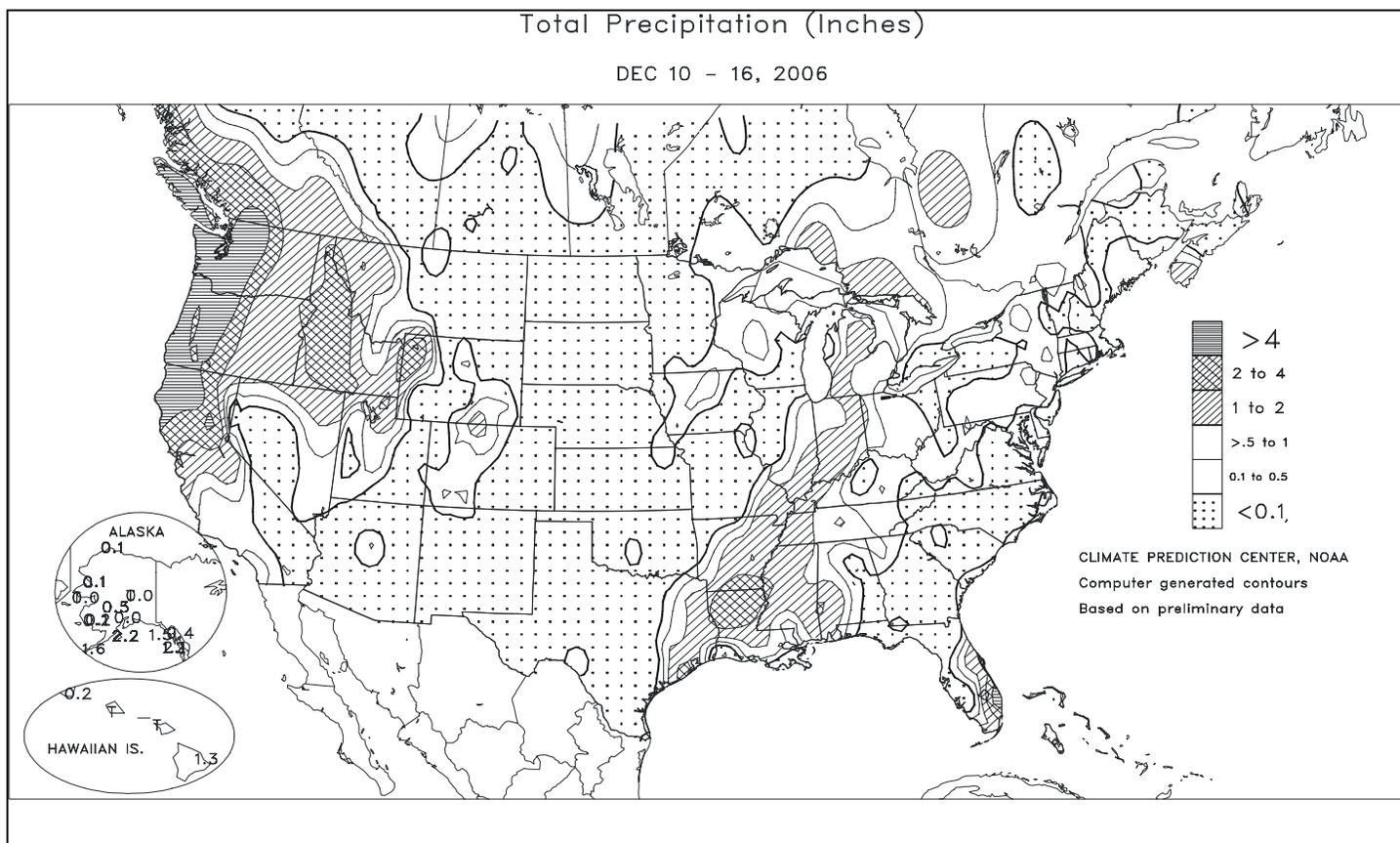


# WEEKLY WEATHER AND CROP BULLETIN



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 10 - 16, 2006

*Highlights provided by USDA/WAOB*

A powerful **Pacific** storm swept across the **Northwest** on December 14-15, causing extensive wind damage and bearing another round of rain and snow. Storm effects spread inland as far east as the **northern Rockies** and southward into **central California**. Soil moisture for **Northwestern** winter grains remained abundant to locally excessive, but unusually dry conditions persisted in **southern California** and the **Southwest**. Meanwhile on the **Plains**, mild, mostly dry

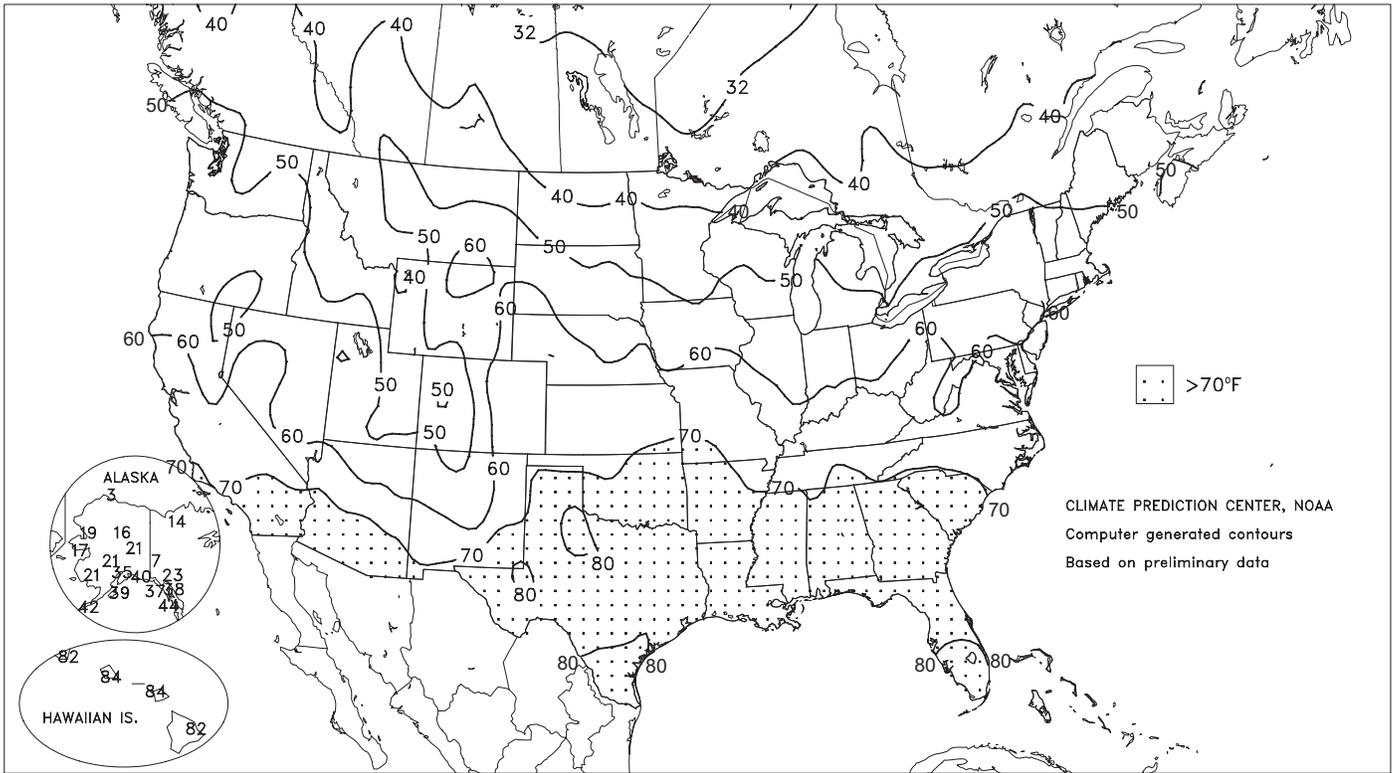
*(Continued on page 3)*

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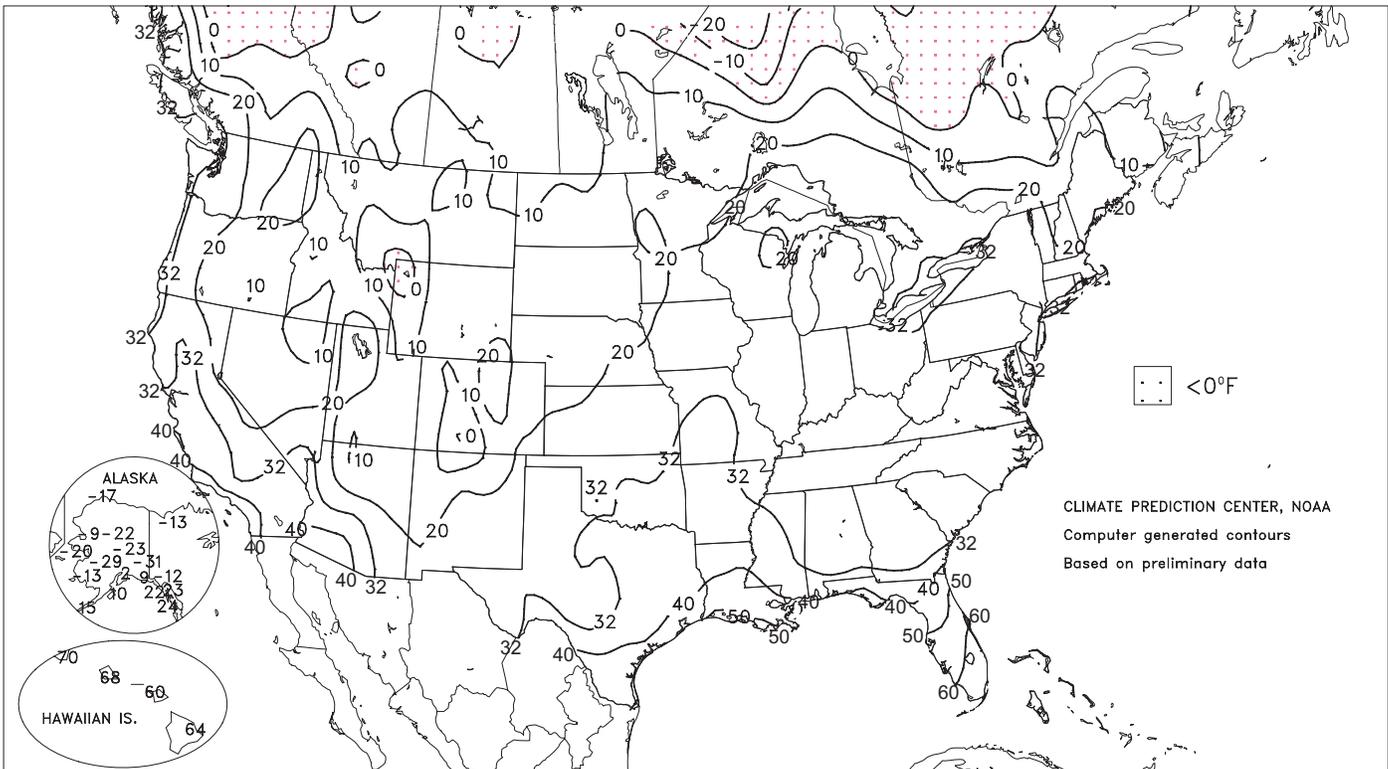
Extreme Maximum Temperature (°F)

DEC 10 - 16, 2006



Extreme Minimum Temperature (°F)

DEC 10 - 16, 2006



(Continued from front cover)

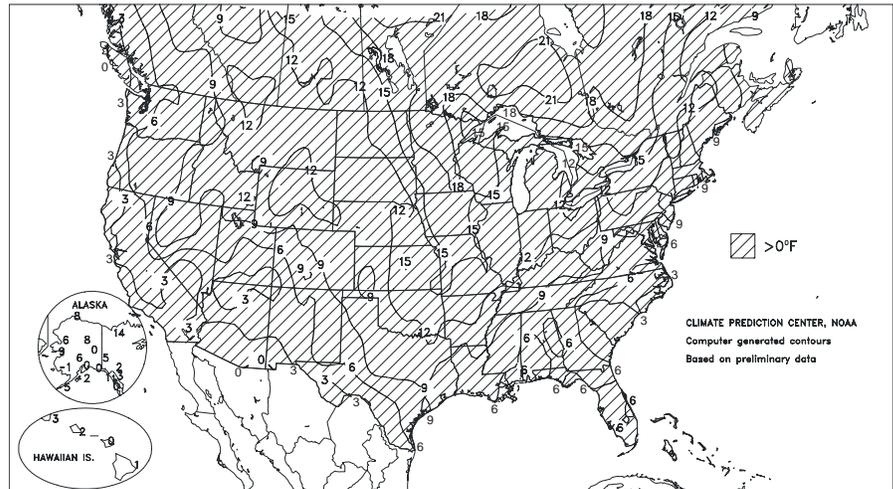
weather maintained the need for rain or snow in key winter wheat areas, especially from **northern and western Oklahoma into western South Dakota**. Elsewhere on the **Plains**, including **Montana** and areas from **northern Texas into southeastern Kansas**, wheat continued to benefit from recent topsoil moisture improvements. Farther east, a band of generally light rain (locally an inch or more) fell during the first half of the week from the **western and central Gulf Coast States into the Great Lakes region**. Although mild weather was generally favorable for **Midwestern** livestock, wet fields and feedlots remained a concern in parts of the **eastern Corn Belt**. Elsewhere, warm, dry weather prevailed in the **southern Atlantic States**, except in **peninsular Florida**. **Southeastern** fieldwork included final winter wheat planting and cotton and soybean harvesting. Meanwhile, **southern Florida's** rain dented long-term precipitation deficits and eased citrus irrigation requirements, but slowed seasonal vegetable harvesting. Abnormally warm weather prevailed nationwide, with temperatures ranging from slightly above normal in the **Southwest** to as much as 20°F above normal in the **upper Midwest**. Although warmth was generally beneficial for overwintering grains, some wheat began to lose cold hardiness due to near-record to record-high temperatures. In **southern Louisiana**, rain and a quick temperature rebound adversely affected any stalks damaged by the freezes of December 5, 8, and 9.

Early in the week, chilly weather lingered in the **Southeast**, where record lows for December 10 were noted in **South Carolina** locations such as **Columbia** (20°F) and **Florence** (22°F). Two days later, however, record warmth overspread the **Central States**, where records for December 12 included 78°F in **Galveston, TX**, and 55°F in **Miles City, MT**. From December 14-16, warmth became more pronounced and reached a national scale, resulting in more than five dozen daily-record highs. On December 14, daily-record highs were established in both **Portland, OR** (60°F), and **Portland, ME** (55°F). Elsewhere, the week ended with consecutive daily-record highs on December 15-16 in locations such as **Ponca City, OK** (70 and 71°F), and **Fayetteville, AR** (71 and 70°F). Other record highs for December 16 included 84°F in **Childress, TX**; 76°F in **Oklahoma City, OK**; 72°F in **Joplin, MO**; and 65°F in **Quincy, IL**.

Stormy weather increased across the **West Coast States** early in the week, when 48-hour (December 8-10) rainfall in **central California** reached 3.71 inches in **Big Sur** and 2.73 inches in **Kentfield**. Additional rain fell in **central California** on December 12, when the **Oakland Airport** (1.90 inches) netted a daily-record total. Despite wetter conditions in **central California**, the water equivalent of the **Sierra Nevada** snow pack stood at just 3 inches (50 percent of normal) on December 15, according to the California Department of Water Resources. Meanwhile, showers spread northeastward from the **Gulf Coast**. In **Michigan**, record rainfall totals for December

Departure of Average Temperature from Normal (°F)

DEC 10 - 16, 2006



12 included 0.94 inch in **Sault Ste. Marie** and 0.69 inch in **Houghton Lake**. Farther west, a tremendous wind storm swept into the **Pacific Northwest** on December 14-15. Winds, ranging in direction from southerly to west-southwesterly, gusted to 69 m.p.h. in **Seattle, WA**, and 67 m.p.h. in **Astoria, OR**. Gusts topped 100 m.p.h. in some **Pacific Northwestern** coastal towns, including **Newport, OR** (106 m.p.h.), and adjacent coastal mountains. Media accounts indicated that more than 1.5 million customers lost electricity at the height of the storm. Farther inland, wind sensors in **Glacier National Park, MT**, recorded gusts to 164 m.p.h. at **Snowslip**, near the southern end of the park, and 133 m.p.h. at **Logan Pass**. Precipitation associated with the storm was not exceptionally heavy, although daily-record totals in **Washington** for December 14 included 8.4 inches of snow at **Winthrop** and 2.17 inches of rain at the National Weather Service office in **Seattle**. Late-week rains also affected parts of **southern Florida**, where December 14 totals reached 8.22 inches in **West Palm Beach** and 1.68 inches in **Orlando**. In contrast, October 15 - December 15 rainfall totaled a trace in **Phoenix, AZ**, tying 1916, 1917, and 1999 for the driest such period on record.

Showers increased toward week's end across **Hawaii's** windward locations due to strengthening trade winds. Gusts to 55 m.p.h. were clocked on December 15 in locations such as **Dillingham Airfield** near **Waialua, Oahu**, and **South Point**, on the **Big Island**. Elsewhere on the **Big Island**, **Glenwood** netted 3.16 inches of rain in a 72-hour period from December 14-17. In contrast, December 1-16 rainfall totaled just a trace (1.43 inches below normal) in **Honolulu, Oahu**. Farther north, mostly dry weather prevailed on the **Alaskan mainland**, accompanied by near- to above-normal temperatures. Cold weather (at least 5°F below normal) was confined to **westernmost Alaska**. Meanwhile, wet weather persisted in parts of **southern Alaska**, where December 1-16 precipitation totals climbed to 7.81 inches (207 percent of normal) in **Kodiak** and 3.70 inches (132 percent) in **Juneau**. Month-to-date snowfall reached 19.5 inches (201 percent of normal) in **Juneau**, while **Annette Island** netted a daily-record snowfall (3.2 inches) on December 15.

National Weather Data for Selected Cities

Weather Data for the Week Ending December 16, 2006

Data Provided by Climate Prediction Center (301-763-8000, Ext. 7503)

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
	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 DEC01	PCT. NORMAL SINCE DEC01	TOTAL, IN, SINCE JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F			
																90 AND ABOVE	82 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	66	42	71	28	54	8	0.15	-0.79	0.15	0.24	11	53.78	104	87	42	0	1	1	0
AL HUNTSVILLE	64	38	69	25	51	7	0.28	-0.96	0.28	0.29	10	38.96	71	88	61	0	1	1	0
AL MOBILE	69	46	73	30	57	4	0.40	-0.60	0.40	0.40	16	45.80	71	87	68	0	1	1	0
AL MONTGOMERY	69	40	74	26	54	5	0.23	-0.90	0.23	0.33	12	41.66	79	94	49	0	1	1	0
AK ANCHORAGE	24	10	35	2	17	-1	0.00	-0.25	0.00	0.47	87	18.42	118	77	67	0	7	0	0
AK BARROW	2	-6	3	-17	-2	8	0.05	0.05	0.03	0.16	1600	4.10	102	88	77	0	7	2	0
AK FAIRBANKS	1	-12	21	-23	-5	0	0.02	-0.15	0.02	0.12	34	8.19	82	82	78	0	7	1	0
AK JUNEAU	35	29	38	23	32	3	0.45	-0.77	0.16	3.83	140	68.75	124	95	90	0	6	6	0
AK KODIAK	33	25	39	10	29	-2	2.20	0.52	0.94	7.84	211	61.49	86	87	69	0	6	6	2
AK NOME	9	-9	17	-20	0	-9	0.02	-0.20	0.01	0.10	19	17.83	111	81	67	0	7	2	0
AZ FLAGSTAFF	49	21	57	10	35	5	0.08	-0.31	0.08	0.09	10	16.33	74	84	35	0	7	1	0
AZ PHOENIX	70	45	73	41	57	3	0.00	-0.19	0.00	0.00	0	5.11	66	52	34	0	0	0	0
AZ TUCSON	71	39	77	32	55	3	0.00	-0.22	0.00	0.00	0	11.21	97	47	26	0	1	0	0
AZ YUMA	72	47	76	42	60	3	0.00	-0.08	0.00	0.00	0	0.63	23	56	35	0	0	0	0
AR FORT SMITH	69	41	76	32	55	14	0.01	-0.78	0.01	0.01	1	47.66	112	87	42	0	1	1	0
AR LITTLE ROCK	68	43	72	35	56	12	1.46	0.37	1.40	1.46	55	43.65	89	87	42	0	0	2	1
CA BAKERSFIELD	59	46	66	41	53	6	0.50	0.36	0.36	0.55	177	6.11	101	88	74	0	0	2	0
CA FRESNO	57	43	64	39	50	5	0.59	0.33	0.45	0.74	128	13.35	128	92	79	0	0	2	0
CA LOS ANGELES	65	51	73	49	58	0	0.61	0.24	0.49	0.69	87	9.26	76	86	60	0	0	2	0
CA REDDING	53	45	59	37	49	4	3.79	2.82	1.54	5.30	243	35.61	115	82	71	0	0	6	4
CA SACRAMENTO	55	45	62	34	50	4	1.15	0.65	0.72	2.39	210	17.16	103	92	66	0	0	4	1
CA SAN DIEGO	64	53	70	50	59	2	0.44	0.19	0.28	0.58	107	6.02	60	81	62	0	0	2	0
CA SAN FRANCISCO	58	49	61	39	54	4	2.61	2.02	1.17	3.51	264	20.74	112	92	79	0	0	6	3
CA STOCKTON	58	46	66	38	52	7	1.12	0.76	0.51	1.54	181	14.87	116	85	74	0	0	5	2
CO ALAMOSA	45	10	54	3	28	10	0.00	-0.06	0.00	0.03	21	7.84	111	78	45	0	7	0	0
CO CO SPRINGS	53	28	62	21	40	11	0.00	-0.08	0.00	0.07	44	13.26	77	66	22	0	5	0	0
CO DENVER INTL	56	32	67	28	44	15	0.00	-0.06	0.00	0.08	62	7.51	56	59	25	0	5	0	0
CO GRAND JUNCTION	41	26	45	23	34	5	0.20	0.11	0.17	0.20	95	9.70	112	89	74	0	7	2	0
CO PUEBLO	59	26	68	20	42	11	0.00	-0.07	0.00	0.11	69	13.35	110	54	33	0	6	0	0
CT BRIDGEPORT	51	40	54	34	45	9	0.22	-0.52	0.22	0.75	44	56.99	134	74	61	0	0	1	0
CT HARTFORD	52	34	58	30	43	12	0.13	-0.65	0.13	0.52	28	50.50	114	79	61	0	4	1	0
DC WASHINGTON	57	37	63	28	47	7	0.09	-0.57	0.09	0.15	10	46.36	123	90	47	0	1	1	0
DE WILMINGTON	53	35	61	26	44	7	0.14	-0.60	0.14	0.21	12	47.71	116	91	55	0	3	1	0
FL DAYTONA BEACH	75	57	77	45	66	5	0.91	0.33	0.88	0.93	70	29.11	61	91	57	0	0	3	1
FL JACKSONVILLE	73	51	77	41	62	7	0.00	-0.55	0.00	0.01	1	35.20	69	94	58	0	0	0	0
FL KEY WEST	77	70	80	68	73	1	2.12	1.66	1.58	2.28	221	37.11	98	88	73	0	0	3	1
FL MIAMI	79	71	82	68	75	5	1.19	0.70	0.87	1.19	101	62.24	108	80	64	0	0	5	1
FL ORLANDO	76	59	77	49	67	4	1.77	1.27	1.68	1.85	155	34.61	73	87	64	0	0	4	1
FL PENSACOLA	69	50	73	35	59	5	0.49	-0.34	0.49	0.49	25	40.64	65	91	65	0	0	1	0
FL TALLAHASSEE	73	47	77	38	60	6	0.21	-0.64	0.21	0.24	12	41.23	68	90	57	0	0	1	0
FL TAMPA	78	62	80	53	70	7	0.04	-0.48	0.04	0.04	3	53.51	123	88	61	0	0	1	0
FL WEST PALM BEACH	78	69	80	63	73	4	9.85	9.18	8.22	10.27	571	53.37	89	84	68	0	0	3	2
GA ATHENS	66	36	74	30	51	6	0.00	-0.79	0.00	0.11	7	35.34	77	79	48	0	1	0	0
GA ATLANTA	66	42	72	31	54	8	0.01	-0.80	0.01	0.38	20	45.76	95	78	46	0	1	1	0
GA AUGUSTA	68	34	77	19	51	4	0.03	-0.62	0.02	0.13	9	35.67	83	92	44	0	3	2	0
GA COLUMBUS	69	43	73	31	56	7	0.13	-0.83	0.12	0.38	17	36.33	78	89	44	0	1	2	0
GA MACON	69	37	74	22	53	5	0.08	-0.76	0.06	0.39	21	29.03	68	92	43	0	2	2	0
GA SAVANNAH	68	44	71	27	56	4	0.15	-0.42	0.13	0.21	17	31.90	66	93	55	0	1	2	0
HI HILO	80	66	82	64	73	1	1.24	-1.14	0.60	5.70	93	120.24	99	81	74	0	0	5	2
HI HONOLULU	83	71	84	68	77	2	0.01	-0.62	0.01	0.33	24	29.42	175	69	62	0	0	1	0
HI KAHULUI	82	66	84	60	74	0	0.01	-0.64	0.01	3.09	219	17.29	101	79	66	0	0	1	0
HI LIHUE	80	72	82	70	76	3	0.19	-0.86	0.08	0.31	13	66.24	178	77	65	0	0	3	0
ID BOISE	47	33	54	21	40	9	1.25	0.95	0.48	1.29	179	11.72	102	87	73	0	4	6	0
ID LEWISTON	48	36	59	28	42	8	0.61	0.39	0.32	0.62	119	12.17	100	79	62	0	1	5	0
ID POCATELLO	43	28	52	13	36	10	0.41	0.19	0.18	0.43	81	12.10	101	86	66	0	4	5	0
IL CHICAGO/O'HARE	47	34	55	30	40	12	0.16	-0.40	0.10	1.41	104	40.21	114	82	67	0	3	3	0
IL MOLINE	50	34	59	27	42	15	0.08	-0.42	0.04	0.38	32	34.69	94	77	61	0	2	3	0
IL PEORIA	50	34	57	26	42	13	0.05	-0.51	0.03	0.96	69	29.75	85	86	61	0	2	2	0
IL ROCKFORD	45	30	53	28	38	13	0.07	-0.41	0.05	1.03	88	36.36	102	88	67	0	6	2	0
IL SPRINGFIELD	53	36	60	29	44	13	0.29	-0.30	0.17	5.62	399	35.03	102	84	54	0	1	3	0
IN EVANSVILLE	58	38	62	29	48	12	1.88	1.07	1.50	2.10	105	63.71	149	77	56	0	1	3	1
IN FORT WAYNE	52	34	55	27	43	13	1.08	0.44	0.98	1.90	126	39.34	111	82	56	0	3	2	1
IN INDIANAPOLIS	54	37	60	29	46	14	1.00	0.31	0.97	1.52	91	47.32	120	80	50	0	1	3	1
IN SOUTH BEND	50	35	55	29	42	12	0.93	0.22	0.86	1.66	98	43.11	113	80	59	0	3	3	1
IA BURLINGTON	52	35	60	27	44	15	0.02	-0.47	0.01	0.03	3	26.95	73	85	51	0	1	2	0
IA CEDAR RAPIDS	51	30	58	19	40	16	0.00	-0.34	0.00	0.00	0	28.18	86	94	58	0	5	0	0
IA DES MOINES	53	32	60	23	43	17	0.01	-0.29	0.01	0.01	1	30.87	90	80	59	0	3	1	0
IA DUBUQUE	46	30	53	25	38	15	0.19	-0.19	0.18	0.19	20	36.69	105	83	69	0	7	2	0
IA SIOUX CITY	47	23	58	16	35	12	0.08	-0.05	0.08	0.09	26	24.87	97	87	61	0	6	1	0
IA WATERLOO	48	30	54	21	39	16	0.06	-0.18	0.05	0.06	9	31.59	97	87	68	0	5	2	0
KS CONCORDIA	56	32	64	23	44	13	0.00	-0.17	0.00	0.00	0	20.70	74	76	44	0	4	0	0
KS DODGE CITY	59	30	65	27	44	10	0.00	-0.17	0.00	0.01	3	16.96	77	70	32	0	6	0	0
KS GOODLAND	55	24	62	19	40	10	0.00	-0.06	0.00	0.00	0	22.00	113	69	36	0	7	0	0
KS TOPEKA	59	34	65	25	46	14	0.01	-0.31	0.01	0.01	1	31.03	89	82	53	0	3	1	0

Based on 1971-2000 normals

\*\*\* Not Available

Weather Data for the Week Ending December 16, 2006

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
	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 DEC01	PCT. NORMAL SINCE DEC01	TOTAL IN., SINCE JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP	
																90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
KY WICHITA	62	34	67	27	48	14	0.00	-0.30	0.00	0.00	0	27.67	93	80	48	0	3	0	0
JACKSON	61	41	65	33	51	12	0.08	-0.90	0.06	0.30	13	43.90	93	71	31	0	0	2	0
LEXINGTON	59	37	63	29	48	11	0.31	-0.60	0.31	0.80	38	50.54	115	74	49	0	1	1	0
LOUISVILLE	60	39	64	30	50	12	0.31	-0.52	0.31	0.68	35	54.40	127	72	39	0	1	1	0
PADUCAH	61	39	65	30	50	13	1.00	-0.03	0.92	1.08	44	63.73	135	85	51	0	1	2	1
LA BATON ROUGE	72	52	77	45	62	9	0.42	-0.74	0.42	0.42	16	41.89	69	94	53	0	0	1	0
LAKE CHARLES	72	49	78	43	61	8	0.04	-0.93	0.03	0.04	2	51.02	93	99	62	0	0	2	0
NEW ORLEANS	67	53	73	46	60	5	0.17	-0.97	0.16	0.17	6	36.02	58	92	72	0	0	2	0
SHREVEPORT	70	46	77	38	58	9	0.95	-0.07	0.95	0.95	40	37.90	77	86	45	0	0	1	1
ME CARIBOU	37	23	42	11	30	13	0.12	-0.58	0.11	0.87	54	39.40	110	91	71	0	5	2	0
PORTLAND	47	29	55	19	38	9	0.12	-0.82	0.11	0.95	43	58.45	133	93	63	0	4	2	0
MD BALTIMORE	57	33	63	24	45	8	0.13	-0.59	0.13	0.22	13	41.59	103	83	59	0	4	1	0
MA BOSTON	52	38	57	33	45	9	0.11	-0.72	0.10	0.48	25	51.47	126	82	54	0	0	2	0
WORCESTER	48	35	54	31	42	12	0.15	-0.68	0.13	0.89	47	49.74	105	85	55	0	1	2	0
MI ALPENA	44	32	46	26	38	13	0.46	0.07	0.30	0.88	97	30.91	112	94	72	0	3	5	0
GRAND RAPIDS	48	35	53	31	42	14	1.07	0.45	0.97	2.23	144	42.86	119	89	64	0	3	3	1
HOUGHTON LAKE	43	32	46	29	38	13	0.94	0.55	0.67	1.34	147	32.55	118	90	77	0	5	5	1
LANSING	48	35	51	32	42	14	0.57	0.07	0.53	1.59	128	35.48	116	81	66	0	3	5	1
MUSKOGON	48	38	51	34	43	14	0.24	-0.35	0.16	1.31	92	38.20	121	82	69	0	0	3	0
TRAVERSE CITY	47	34	48	26	40	13	0.38	-0.20	0.18	1.10	83	28.32	88	92	67	0	2	5	0
MN DULUTH	36	28	39	18	32	17	0.20	0.01	0.10	0.40	71	23.73	77	91	82	0	6	3	0
INT'L FALLS	31	23	34	11	27	18	0.22	0.08	0.12	0.55	145	17.86	76	95	82	0	7	4	0
MINNEAPOLIS	43	30	50	27	36	16	0.11	-0.09	0.08	0.11	20	25.55	88	84	65	0	7	4	0
ROCHESTER	43	31	48	28	37	19	0.54	0.32	0.40	0.54	92	30.76	99	88	73	0	5	3	0
ST. CLOUD	40	26	47	21	33	18	0.08	-0.06	0.05	0.10	29	22.81	85	94	64	0	7	2	0
MS JACKSON	70	44	74	37	57	9	0.68	-0.51	0.67	0.68	25	46.35	87	93	51	0	0	2	1
MERIDIAN	68	40	73	29	54	5	1.16	-0.01	1.15	1.16	43	44.73	80	98	65	0	1	2	1
TUPELO	65	42	70	26	54	10	0.80	-0.59	0.79	0.80	25	43.39	82	89	63	0	1	2	1
MO COLUMBIA	56	38	68	33	47	14	0.00	-0.57	0.00	0.32	22	29.10	74	81	51	0	0	0	0
KANSAS CITY	57	38	67	30	47	15	0.00	-0.37	0.00	0.00	0	29.11	78	82	53	0	2	0	0
SAINT LOUIS	59	40	65	29	50	15	0.15	-0.50	0.14	0.55	34	28.44	76	75	51	0	1	2	0
SPRINGFIELD	61	40	70	33	50	14	0.00	-0.75	0.00	0.09	5	37.25	85	74	51	0	0	0	0
MT BILLINGS	48	29	53	17	39	12	0.00	-0.13	0.00	0.00	0	12.63	88	64	33	0	5	0	0
BUTTE	38	18	45	-4	28	10	0.12	0.01	0.07	0.12	48	12.29	98	88	47	0	7	3	0
CUT BANK	43	26	50	15	35	13	0.11	0.05	0.06	0.11	85	3.98	32	80	37	0	6	2	0
GLASGOW	38	18	45	12	28	11	0.01	-0.05	0.01	0.03	23	10.36	94	82	70	0	7	1	0
GREAT FALLS	47	28	52	14	37	12	0.12	-0.01	0.12	0.13	46	18.07	125	73	35	0	5	1	0
HAVRE	41	21	48	8	31	11	0.01	-0.10	0.01	0.05	23	8.75	78	80	63	0	7	1	0
MISSOULA	41	25	52	12	33	10	0.34	0.09	0.14	0.39	70	16.35	124	83	68	0	6	4	0
NE GRAND ISLAND	52	26	60	20	39	13	0.01	-0.12	0.01	0.01	3	22.22	87	82	56	0	7	1	0
LINCOLN	53	27	60	21	40	13	0.03	-0.15	0.03	0.03	6	21.66	77	79	56	0	6	1	0
NORFOLK	49	26	58	19	37	13	0.07	-0.06	0.07	0.07	19	24.24	92	79	57	0	6	1	0
NORTH PLATTE	54	18	64	15	36	10	0.00	-0.08	0.00	0.00	0	17.71	91	87	30	0	7	0	0
OMAHA	50	29	59	23	39	13	0.11	-0.09	0.11	0.11	20	26.92	90	82	65	0	5	1	0
SCOTTSBLUFF	54	26	62	21	40	14	0.00	-0.11	0.00	0.00	0	10.59	66	67	35	0	7	0	0
VALENTINE	48	16	55	9	32	8	0.01	-0.05	0.01	0.01	6	13.52	70	82	47	0	7	1	0
NV ELY	44	21	55	12	33	7	0.09	0.01	0.05	0.09	47	8.99	93	86	57	0	7	4	0
LAS VEGAS	58	42	60	39	50	3	0.03	-0.05	0.03	0.03	19	1.62	38	55	39	0	0	1	0
RENO	51	33	61	21	42	8	0.13	-0.06	0.11	0.13	30	6.89	98	70	51	0	3	3	0
WINNEMUCCA	47	30	58	11	39	9	0.18	0.01	0.12	0.24	63	9.04	114	75	55	0	4	5	0
NH CONCORD	48	26	57	18	37	10	0.08	-0.57	0.06	1.11	72	52.82	146	94	59	0	7	2	0
NJ NEWARK	55	41	60	32	48	11	0.17	-0.60	0.17	0.41	23	48.38	109	73	54	0	1	1	0
NM ALBUQUERQUE	51	28	54	24	40	4	0.00	-0.08	0.00	0.00	0	11.56	126	71	35	0	6	0	0
NY ALBANY	48	31	53	24	40	11	0.06	-0.53	0.04	0.51	36	45.09	123	88	63	0	4	2	0
BINGHAMTON	48	36	55	30	42	14	0.22	-0.47	0.15	1.04	63	48.65	131	75	56	0	1	2	0
BUFFALO	51	38	56	34	44	13	0.13	-0.74	0.06	1.56	76	42.81	110	81	58	0	0	3	0
ROCHESTER	53	38	59	34	46	16	0.03	-0.59	0.03	1.32	90	39.36	120	70	52	0	0	1	0
SYRACUSE	51	34	57	28	43	14	0.06	-0.65	0.03	1.51	86	44.95	116	86	54	0	3	2	0
NC ASHEVILLE	61	27	70	20	44	5	0.03	-0.69	0.03	0.22	13	43.87	97	84	34	0	6	1	0
CHARLOTTE	63	32	69	25	48	3	0.00	-0.67	0.00	0.03	2	42.08	101	84	33	0	3	0	0
GREENSBORO	63	34	68	27	49	8	0.02	-0.64	0.02	0.07	5	48.73	117	78	31	0	3	1	0
HATTERAS	61	45	69	31	53	3	0.35	-0.59	0.35	0.83	39	49.32	89	92	55	0	1	1	0
RALEIGH	65	34	67	27	50	7	0.00	-0.63	0.00	0.55	38	51.24	124	85	36	0	3	0	0
WILMINGTON	65	39	69	23	52	3	0.07	-0.73	0.05	0.47	25	60.01	109	93	41	0	3	3	0
ND BISMARCK	38	19	45	14	29	13	0.00	-0.08	0.00	0.07	35	10.34	62	84	67	0	7	0	0
DICKINSON	40	20	49	13	30	11	0.06	0.00	0.06	0.06	35	11.33	70	84	50	0	7	1	0
FARGO	38	25	44	22	32	18	0.05	-0.06	0.03	0.18	72	16.26	78	88	68	0	7	3	0
GRAND FORKS	35	24	41	16	29	17	0.04	-0.07	0.01	0.08	32	14.84	77	92	71	0	7	4	0
JAMESTOWN	37	20	43	10	28	13	0.00	-0.08	0.00	0.00	0	14.44	79	93	67	0	7	0	0
WILLISTON	35	14	42	5	25	11	0.03	-0.08	0.02	0.10	37	11.59	84	83	73	0	7	2	0
OH AKRON-CANTON	53	36	58	28	44	12	0.05	-0.63	0.03	0.97	60	42.21	114	62	39	0	2	2	0
CINCINNATI	57	37	66	31	47	12	0.30	-0.44	0.30	0.64	37	43.67	106	68	44	0	3	1	0
CLEVELAND	53	39	57	32	46	14	0.05	-0.67	0.04	1.47	84	38.60	103	65	42	0	1	2	0
COLUMBUS	55	36	59	29	46	12	0.29	-0.37	0.29	0.87	55	41.35	111	65	39	0	2	1	0
DAYTON	52	36	56	28	44	12	0.46	-0.24	0.45	1.01	62	42.69	112	79	47	0	3	2	0
MANSFIELD	52	36	56	26	44	13	0.12	-0.62	0.12	0.80	44	40.91	98	70	40	0	2	1	0

Weather Data for the Week Ending December 16, 2006

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS			
	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 DEC01	PCT. NORMAL SINCE DEC01	TOTAL IN. SINCE JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP. °F		PRECIP	
																90 AND ABOVE	32 AND BELOW	01 INCH OR MORE	50 INCH OR MORE
OK TOLEDO	52	37	55	30	45	15	0.50	-0.11	0.49	1.53	106	41.85	131	76	53	0	2	2	0
OK YOUNGSTOWN	53	37	59	32	45	14	0.06	-0.62	0.06	0.94	57	46.35	126	62	42	0	2	1	0
OK OKLAHOMA CITY	68	39	76	33	53	13	0.00	-0.41	0.00	0.00	0	25.82	74	81	34	0	0	0	0
OR TULSA	67	43	74	36	55	15	0.00	-0.56	0.00	0.01	1	33.97	82	72	44	0	0	0	0
OR ASTORIA	51	42	56	34	47	4	3.26	0.89	1.15	4.59	82	74.68	120	90	78	0	0	6	3
OR BURNS	42	25	50	10	33	8	0.67	0.39	0.30	0.72	114	11.79	119	90	73	0	5	6	0
OR EUGENE	51	40	58	26	45	5	3.25	1.36	0.97	3.35	74	44.95	95	93	83	0	2	6	3
OR MEDFORD	52	39	63	27	46	8	2.03	1.37	1.23	2.04	130	19.10	112	94	63	0	2	6	1
OR PENDLETON	51	34	61	25	43	9	0.75	0.43	0.49	0.81	105	13.02	108	82	65	0	3	6	0
OR PORTLAND	53	40	60	30	46	6	2.49	1.19	0.90	2.68	87	39.88	116	88	75	0	1	6	3
OR SALEM	51	40	58	27	46	6	3.73	2.25	1.50	3.99	114	46.05	124	91	76	0	1	6	3
PA ALLENTOWN	54	33	60	25	44	11	0.32	-0.42	0.25	0.68	39	47.73	110	77	54	0	3	4	0
PA ERIE	53	37	59	31	45	12	0.07	-0.80	0.06	1.59	77	42.24	103	69	50	0	1	2	0
PA MIDDLETOWN	56	31	59	23	43	9	0.17	-0.57	0.16	0.19	11	43.99	113	91	45	0	4	2	0
PA PHILADELPHIA	53	38	60	31	45	7	0.19	-0.53	0.19	0.39	23	46.45	115	86	65	0	1	1	0
PA PITTSBURGH	55	36	62	30	46	13	0.15	-0.49	0.11	0.45	29	33.36	91	65	35	0	3	2	0
PA WILKES-BARRE	51	36	57	29	44	12	0.20	-0.37	0.20	0.54	39	44.84	123	78	51	0	2	1	0
PA WILLIAMSPORT	54	31	59	24	43	11	0.22	-0.44	0.22	0.95	58	46.36	115	82	56	0	4	1	0
RI PROVIDENCE	53	36	58	31	45	11	0.07	-0.84	0.07	0.70	33	52.60	118	74	51	0	2	1	0
SC BEAUFORT	68	44	71	26	56	5	0.06	-0.58	0.05	0.23	16	34.83	72	98	54	0	1	2	0
SC CHARLESTON	70	44	73	27	57	6	0.03	-0.65	0.03	0.21	14	47.19	95	95	48	0	1	1	0
SC COLUMBIA	66	34	73	20	50	3	0.00	-0.70	0.00	0.25	16	40.40	87	91	40	0	3	0	0
SC GREENVILLE	65	36	71	26	51	7	0.00	-0.83	0.00	0.03	2	37.56	78	70	33	0	1	0	0
SD ABERDEEN	42	17	51	9	29	12	0.00	-0.06	0.00	0.01	8	15.14	76	91	70	0	7	0	0
SD HURON	42	18	54	12	30	10	0.02	-0.04	0.02	0.02	12	16.34	79	90	54	0	7	1	0
SD RAPID CITY	50	21	62	17	35	10	0.00	-0.08	0.00	0.01	7	11.78	72	74	35	0	7	0	0
SD SIOUX FALLS	44	20	52	14	32	13	0.03	-0.07	0.02	0.05	18	24.86	102	87	62	0	7	2	0
TN BRISTOL	60	26	65	17	43	5	0.06	-0.69	0.04	0.18	10	38.66	97	92	35	0	7	2	0
TN CHATTANOOGA	65	34	73	23	50	7	0.32	-0.73	0.32	0.42	17	43.67	84	88	51	0	2	1	0
TN KNOXVILLE	61	33	65	21	47	6	0.14	-0.85	0.13	0.28	12	45.99	100	89	40	0	4	2	0
TN MEMPHIS	66	45	69	32	55	11	1.61	0.28	1.50	1.61	50	37.71	72	88	48	0	1	3	1
TN NASHVILLE	65	39	71	27	52	11	0.80	-0.23	0.80	1.04	43	43.35	94	76	38	0	1	1	1
TX ABILENE	72	43	78	38	57	11	0.02	-0.26	0.01	0.02	3	19.68	85	61	39	0	0	2	0
TX AMARILLO	65	31	75	26	48	11	0.00	-0.11	0.00	0.00	0	19.40	100	62	18	0	6	0	0
TX AUSTIN	73	43	80	29	58	6	0.02	-0.53	0.02	0.02	2	30.41	94	84	55	0	1	1	0
TX BEAUMONT	73	49	79	41	61	7	0.02	-1.12	0.02	0.02	1	59.02	103	98	54	0	0	1	0
TX BROWNSVILLE	77	57	83	49	67	6	0.09	-0.15	0.07	1.14	197	20.80	77	99	84	0	0	2	0
TX CORPUS CHRISTI	76	54	82	43	65	7	0.00	-0.39	0.00	0.61	72	32.44	103	95	72	0	0	0	0
TX DEL RIO	68	41	75	34	54	2	0.00	-0.17	0.00	0.08	21	9.34	52	95	69	0	0	0	0
TX EL PASO	63	34	71	28	48	3	0.00	-0.17	0.00	0.00	0	17.46	193	55	21	0	4	0	0
TX FORT WORTH	70	47	77	37	58	11	0.01	-0.57	0.01	0.01	1	26.43	79	86	38	0	0	1	0
TX GALVESTON	71	56	78	49	64	6	0.03	-0.73	0.01	0.03	2	45.70	109	97	65	0	0	3	0
TX HOUSTON	74	52	81	40	63	9	0.51	-0.30	0.36	0.51	27	56.30	122	90	64	0	0	2	0
TX LUBBOCK	66	31	77	27	49	9	0.00	-0.14	0.00	0.00	0	14.05	77	67	31	0	3	0	0
TX MIDLAND	69	34	77	24	51	6	0.00	-0.14	0.00	0.02	6	14.48	100	59	26	0	2	0	0
TX SAN ANGELO	72	40	79	28	56	9	0.01	-0.21	0.01	0.01	2	16.90	83	77	37	0	1	1	0
TX SAN ANTONIO	71	49	78	39	60	7	0.11	-0.33	0.09	0.13	13	19.03	60	90	50	0	0	2	0
TX VICTORIA	77	52	82	38	64	9	0.06	-0.49	0.06	0.12	10	37.49	96	93	62	0	0	1	0
TX WACO	72	44	79	30	58	9	0.04	-0.59	0.04	0.05	3	21.10	66	89	57	0	1	1	0
TX WICHITA FALLS	***	***	***	***	***	***	***	***	***	***	***	20.01	72	***	***	***	***	***	***
UT SALT LAKE CITY	47	32	59	26	40	10	0.59	0.34	0.26	0.59	100	15.78	99	93	50	0	4	6	0
VT BURLINGTON	45	34	52	24	40	14	0.20	-0.28	0.12	2.13	178	45.28	129	84	63	0	3	4	0
VA LYNCHBURG	60	31	64	24	46	7	0.09	-0.60	0.09	0.12	7	42.76	103	79	36	0	4	1	0
VA NORFOLK	62	38	66	25	50	5	0.00	-0.63	0.00	0.42	30	47.52	108	87	46	0	2	0	0
VA RICHMOND	63	36	67	27	49	8	0.00	-0.66	0.00	0.26	17	50.99	121	78	43	0	3	0	0
VA ROANOKE	62	36	64	28	49	10	0.06	-0.56	0.06	0.10	7	35.57	87	63	36	0	2	1	0
WA WASH/DULLES	59	32	63	21	46	9	0.14	-0.54	0.14	0.16	10	44.40	110	86	50	0	4	1	0
WA OLYMPIA	49	38	55	27	44	6	4.32	2.53	1.63	4.57	108	55.20	117	92	82	0	1	6	3
WA QUILLAYUTE	48	37	51	32	43	2	5.03	1.73	2.04	6.09	79	91.05	96	95	85	0	2	7	3
WA SEATTLE-TACOMA	49	40	54	32	44	3	3.25	1.97	1.55	3.45	113	44.58	129	86	74	0	1	6	2
WA SPOKANE	41	30	48	22	36	9	1.34	0.83	0.52	1.46	121	20.20	129	90	74	0	6	6	1
WA YAKIMA	44	28	52	19	36	7	1.64	1.34	0.97	1.69	245	8.69	115	89	74	0	5	5	1
WV BECKLEY	54	35	58	28	45	9	0.09	-0.60	0.09	0.25	16	44.34	111	65	40	0	3	1	0
WV CHARLESTON	61	32	66	22	46	8	0.03	-0.71	0.03	0.11	6	41.54	98	81	29	0	4	1	0
WV ELKINS	56	23	61	14	39	6	0.17	-0.59	0.13	0.37	21	38.15	86	93	27	0	7	2	0
WV HUNTINGTON	61	35	67	27	48	10	0.09	-0.65	0.07	0.69	40	48.12	118	77	33	0	4	2	0
WI EAU CLAIRE	43	27	49	21	35	16	0.65	0.43	0.58	0.65	114	27.16	86	91	65	0	6	3	1
WI GREEN BAY	44	31	49	22	37	15	0.16	-0.15	0.06	0.22	28	28.02	98	89	71	0	4	3	0
WI LA CROSSE	46	31	53	28	38	15	0.66	0.39	0.63	0.66	93	28.61	90	87	60	0	5	3	1
WI MADISON	44	29	52	24	37	13	0.06	-0.32	0.06	0.23	24	35.61	110	85	71	0	5	1	0
WI MILWAUKEE	46	34	52	28	40	13	0.01	-0.30	0.01	0.35	28	35.38	105	79	66	0	1	1	0
WY CASPER	47	29	55	19	38	14	0.04	-0.09	0.02	0.04	13	10.29	81	63	43	0	5	2	0
WY CHEYENNE	49	32	61	24	40	13	0.00	-0.08	0.00	0.00	0	10.59	70	50	37	0	4	0	0
WY LANDER	48	24	56	17	36	14	0.00	-0.13	0.00	0.00	0	7.09	54	62	29	0	7	0	0
WY SHERIDAN	51	21	63	11	36	13	0.02	-0.12	0.02	0.03	10	9.32	65	73	43	0	7	1	0

Based on 1971-2000 normals

\*\*\* Not Available

# National Agricultural Summary

December 11 - 17, 2006

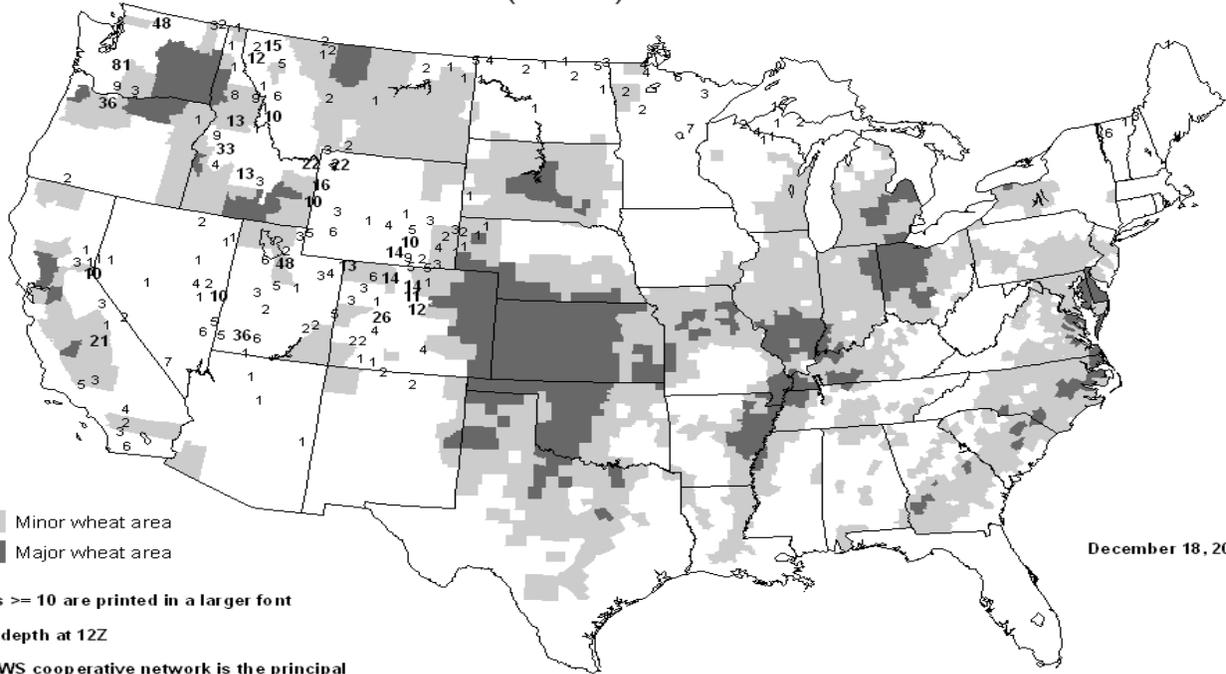
Weekly National Agricultural Summary provided by USDA/NASS

## HIGHLIGHTS

Heavy precipitation fell in the Pacific Northwest, with moderate precipitation in adjacent areas of the Rocky Mountains. Mostly dry conditions prevailed in the Southwest, Great Plains, western Corn Belt, and Atlantic Coast States. Temperatures were above normal nationwide, averaging over 12 degrees F above normal throughout the Corn Belt. Adequate snow cover existed in the Pacific Northwest and northern and central Rockies; however, no significant snow depth was reported in the northern Great Plains, leaving winter wheat exposed to potential cold outbreaks.

In California, rains encouraged emergence in small grain fields but periodically interrupted harvest of citrus crops. Arizona's small grain planting was underway, while the cotton harvest was 94 percent complete and a variety of vegetable and citrus crops was harvested. Rainfall in parts of Florida slowed fieldwork; however, the citrus harvest was active, as was harvesting of several vegetable crops, including snap beans, sweet corn, and cucumbers.

**United States Snow Depth**  
(Inches)



December 18, 2006

Minor wheat area  
Major wheat area

Values  $\geq 10$  are printed in a larger font

Snow depth at 12Z

The NWS cooperative network is the principal source of the snow depth reports

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY

# International Weather and Crop Summary

December 10 - 16, 2006

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

## HIGHLIGHTS

**FSU-WESTERN:** Unseasonably mild weather continued to keep most winter grain areas snow free, leaving crops exposed to potential extreme cold.

**EUROPE:** Unseasonably warm weather continued to limit crop cold hardiness, while dry conditions increased moisture deficits in southeastern Europe.

**EASTERN ASIA:** Seasonably dry, cold weather prevailed as most winter wheat was dormant, while winter rapeseed continued to be vegetative.

**SOUTHEAST ASIA:** Typhoon Utor crossed the Philippines, causing some flooding to crop areas in the north.

**MIDDLE EAST:** Persistent dryness across much of the region reduced topsoil moisture for developing winter grains and left most of the region devoid of snow cover.

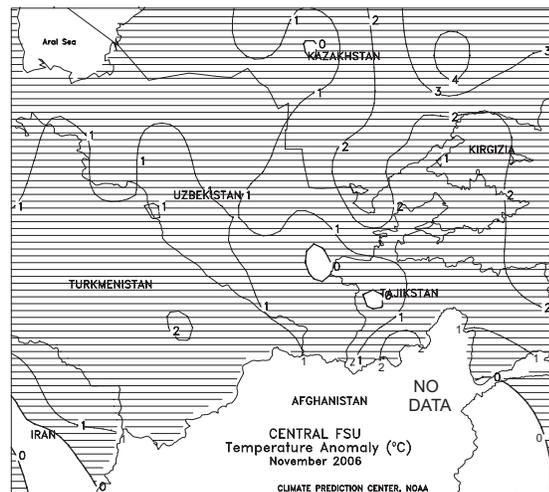
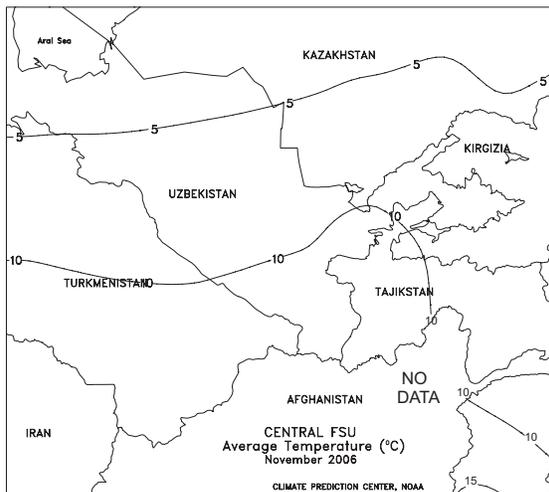
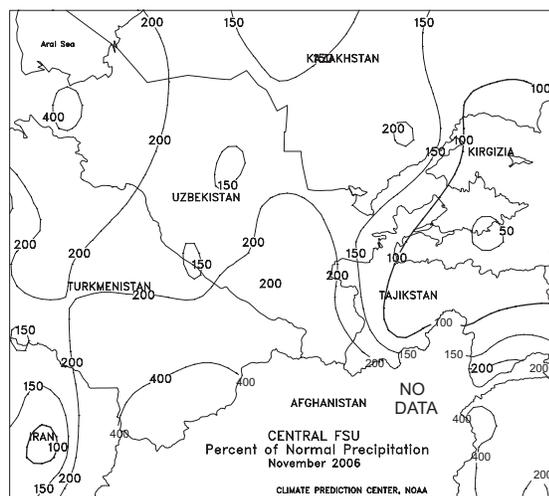
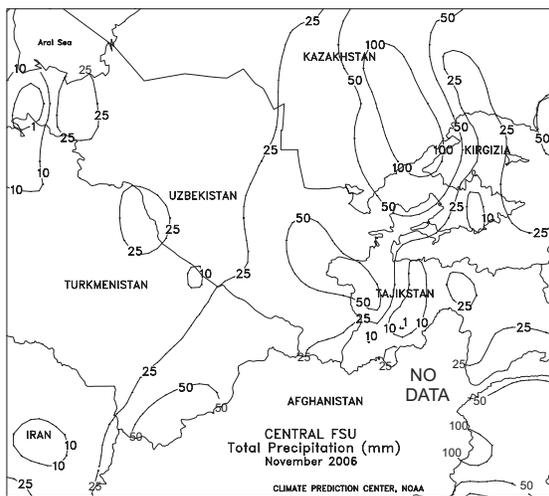
**SOUTH AFRICA:** Showers benefited parts of the eastern corn belt but unseasonable warmth and dryness persisted in other major corn areas.

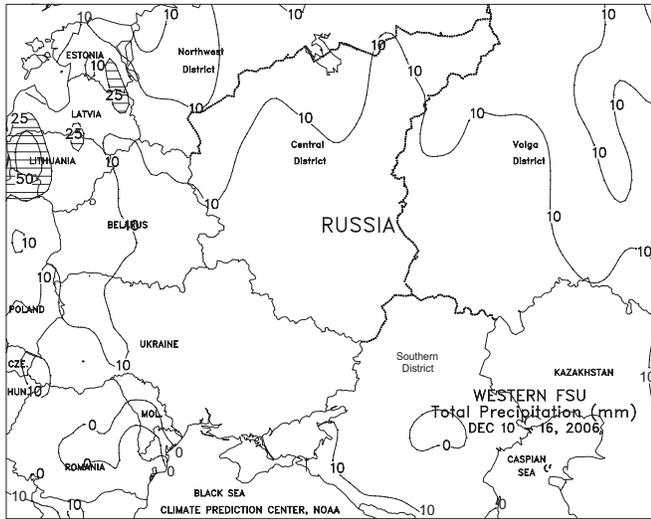
**NORTHWEST AFRICA:** Favorable showers continued for a second consecutive week, improving moisture supplies for winter grain planting.

**AUSTRALIA:** Rain fell primarily east of major cotton and sorghum areas, providing little relief for dryland and irrigated summer crops.

**BRAZIL:** Showers overspread key soybean areas of central Brazil but pockets of dryness continue in the south.

**ARGENTINA:** Moisture levels remained adequate to abundant for emerging summer crops.

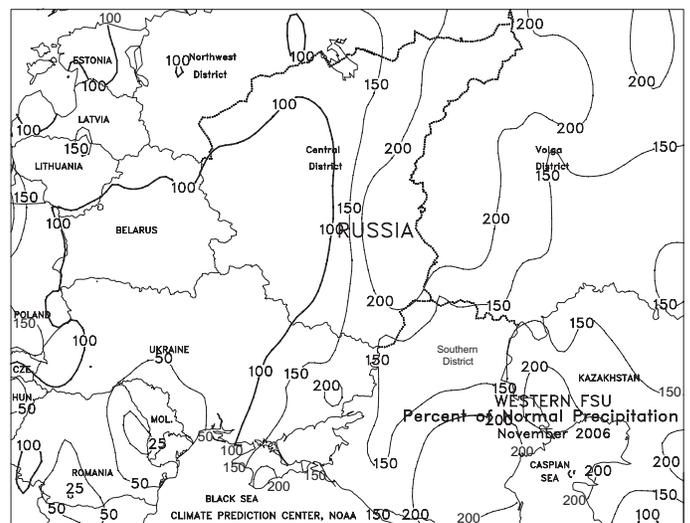
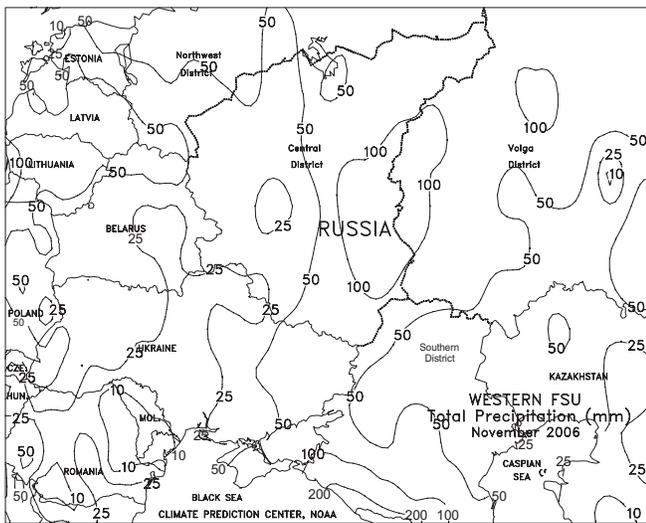


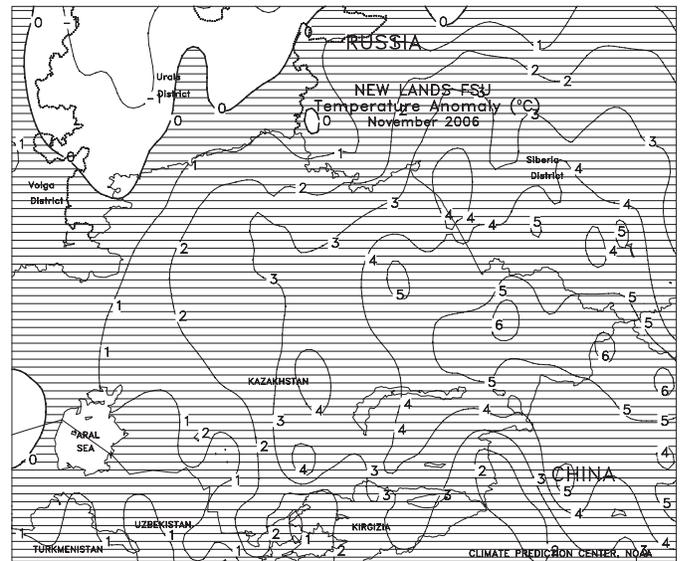
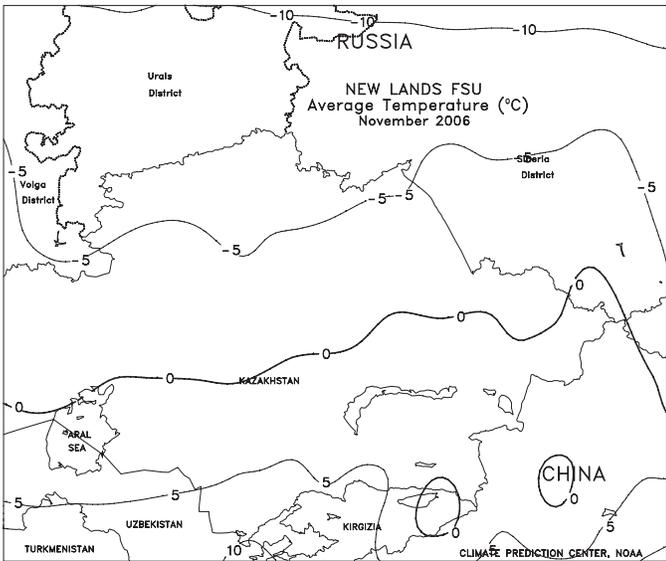
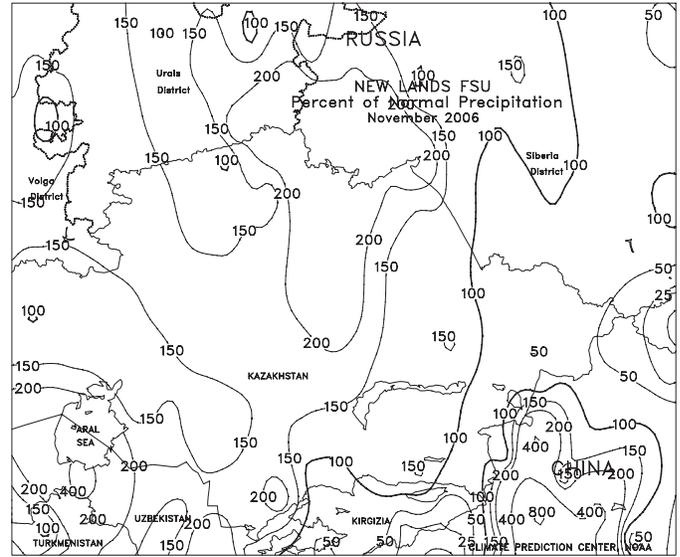
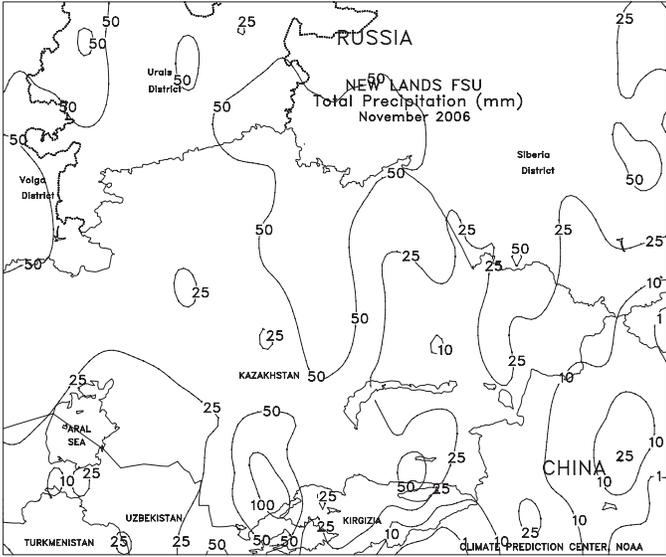


**FSU-WESTERN**

Unseasonably mild weather continued to prevail throughout the region, keeping most winter grain areas snow free. Weekly temperatures averaged 2 to 7 degrees C above normal in Ukraine and the Southern District in Russia and 7 to 11 degrees C above normal in northern Russia (Central and Volga Districts) and Belarus. Weekly average temperatures remained low enough to keep winter grains dormant in most areas. However, the lack of snow cover left crops exposed to potential extreme cold. Most locations recorded temperatures that rose above freezing, with the warmest weather (extreme maximum temperatures ranging from 6-12 degrees C) observed in Ukraine and the Southern District in Russia. Elsewhere in Russia, extreme maximum temperatures ranged from 2 to 9 degrees C. Light, scattered precipitation (mostly less than 10 mm) was observed throughout the region, falling mostly as rain.

In November, above-normal precipitation boosted soil moisture for winter grains in Russia and eastern Ukraine but slowed late-season summer crop harvesting. Unseasonably mild weather favored later-than-usual winter grain development in southernmost areas. By month's end, winter grains in most of Russia and Ukraine entered dormancy in better condition than last year's drought-stressed crop.





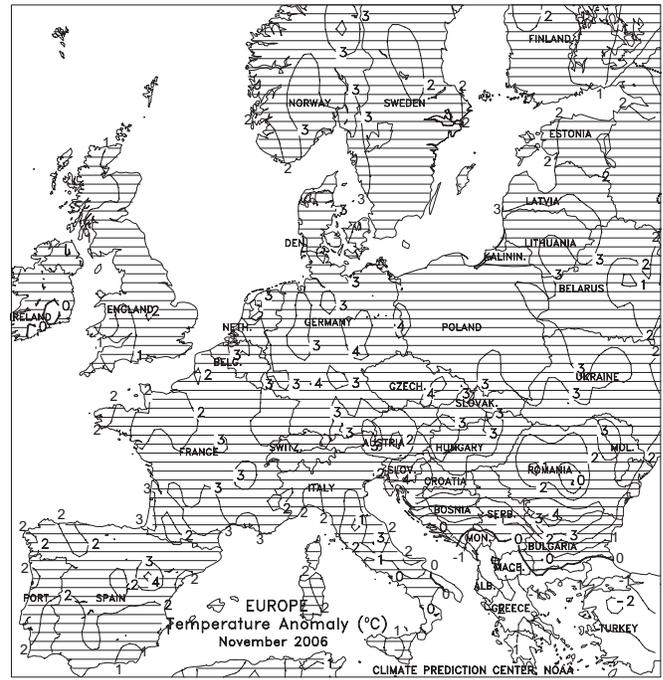
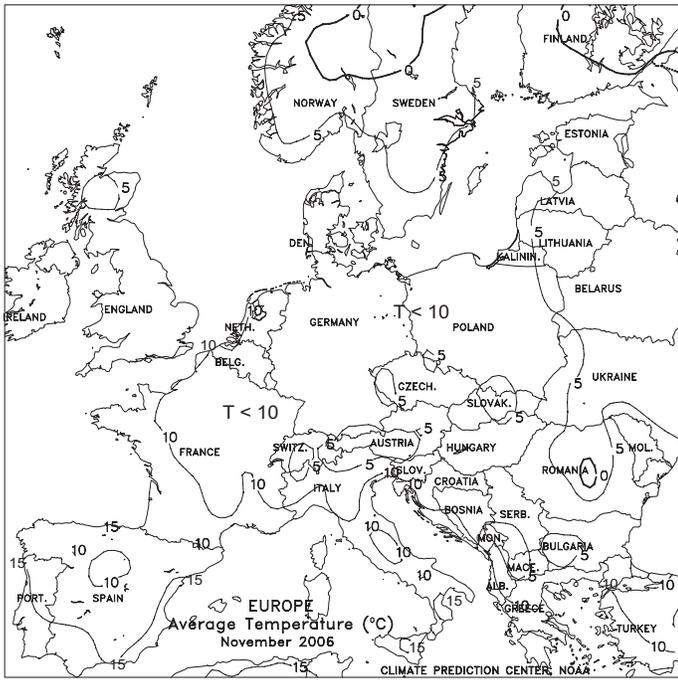


**EUROPE**

Unseasonably warm weather prevailed across much of the region, although colder conditions arrived by week's end. A large area of high pressure across central Europe maintained temperatures up to 6 degrees C above normal from England eastward into Poland and the Baltics, limiting winter grain cold hardiness and preventing crops from entering dormancy. In addition, winter grain areas remain devoid of snow cover, leaving crops exposed to potential outbreaks of bitter cold. However, a series of weak cold fronts generated light to moderate showers (1055 mm) across northern growing areas, providing additional topsoil moisture for developing winter grains. By week's end, colder air filtering into northern Europe signaled an end to the record warmth, as a significant weather pattern change began to take place. Farther west, mostly dry weather on the Iberian Peninsula brought an end to a month-long wet trend, favoring late corn and sugar beet harvesting. As of December 11, total reservoir capacity in Spain reached 57.0 percent, well ahead of last year (45.5 percent) and eclipsing the 10-year average of 56.1 percent. In contrast, unseasonably dry weather prevailed across southeastern Europe and the Balkans. Dry conditions are most pronounced in Hungary, where total precipitation since September 1 was less than 50 percent of normal. Precipitation will be needed during the upcoming weeks to ensure sufficient moisture for crop establishment.

Near- to above-normal precipitation during November maintained favorable soil moisture for winter grain and oilseed establishment across much of the region. However, below-normal rainfall in southern and southeastern Europe reduced topsoil moisture and irrigation reserves for winter grain establishment. Despite an early-month freeze, unseasonably warm weather (2-5 degrees C above normal) reduced winter grain cold hardiness and prevented crops from entering dormancy.

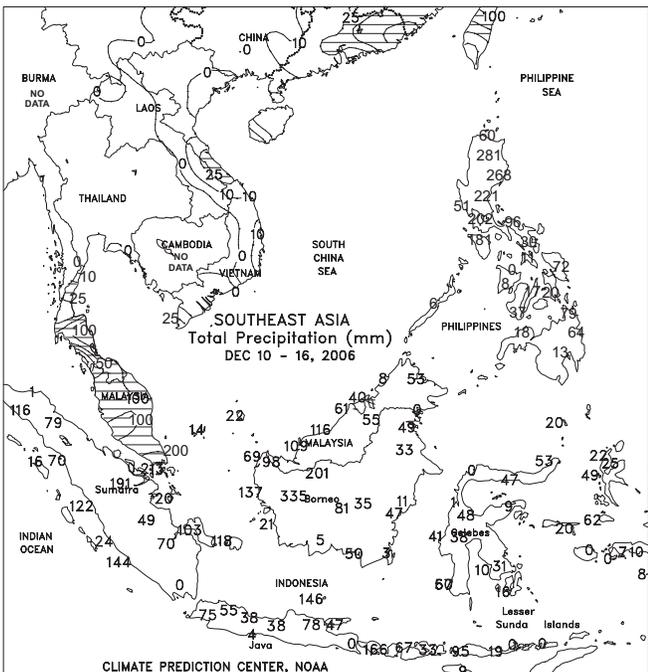
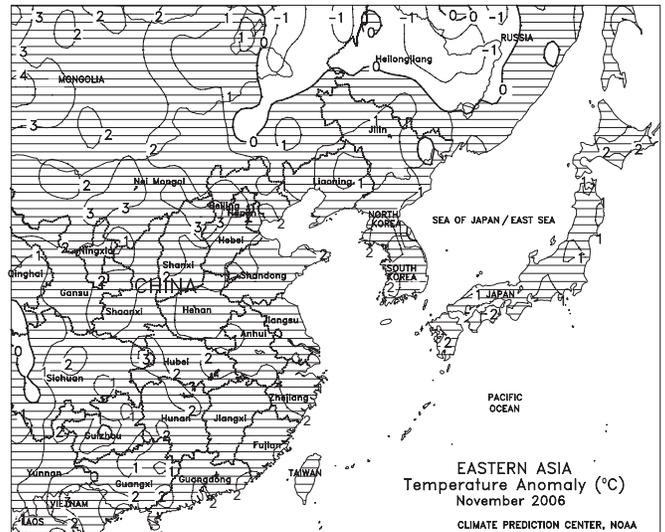
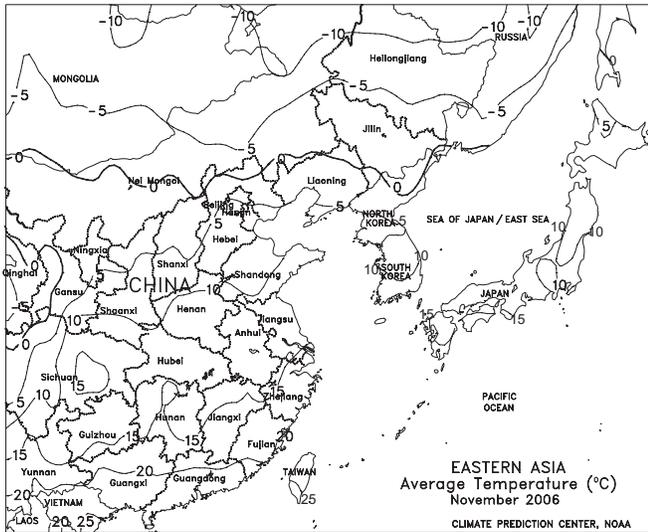
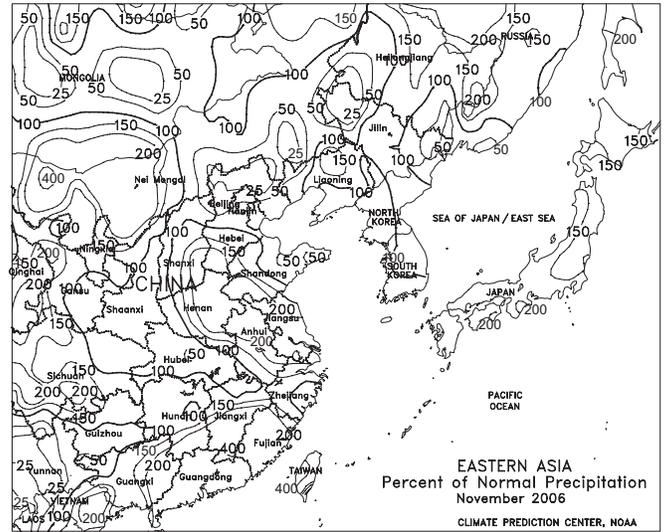
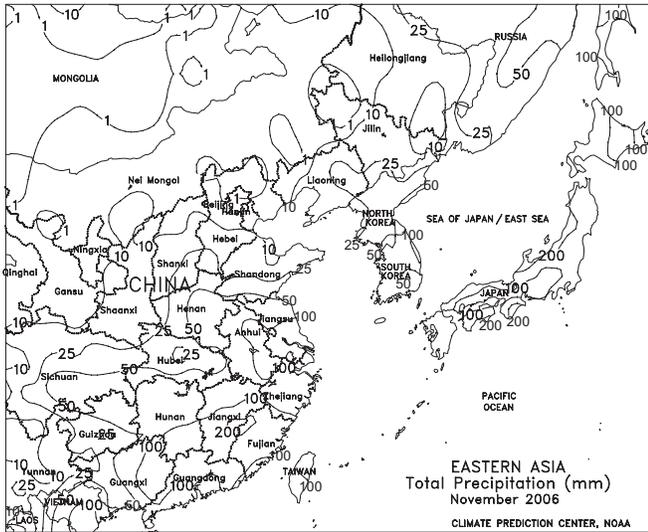




**EASTERN ASIA**

Seasonably dry, cold weather prevailed throughout winter growing areas in China. Rainfall (25-100 mm) was confined to the southeastern provinces. Nearly all winter wheat on the North China Plain was dormant. However, wheat in parts of Henan, Anhui, and Jiangsu were likely still vegetative as average temperatures continued to be above 5 degrees C. Winter rapeseed in the Yangtze Valley was also likely still vegetative. The freezing line dipped south of the Yangtze River and was about seven to ten days behind average for the date of the first freeze in this area. Most irrigated crops are well established and prepared for overwintering.

In November, early-month dryness gave way to seasonably light showers by month's end throughout the North China Plain. The showers eased short-term dryness and provided moisture for pre-dormant winter wheat establishment. Heavier showers in the eastern Yangtze Valley provided beneficial supplemental moisture for irrigated winter rapeseed. In the western Yangtze Valley, rainfall was near to below normal but irrigation supplies were adequate. Above-normal temperatures kept winter crops vegetative for most of the month. However, by month's end seasonably cool weather began easing winter wheat in northern growing areas into dormancy.



**SOUTHEAST ASIA**

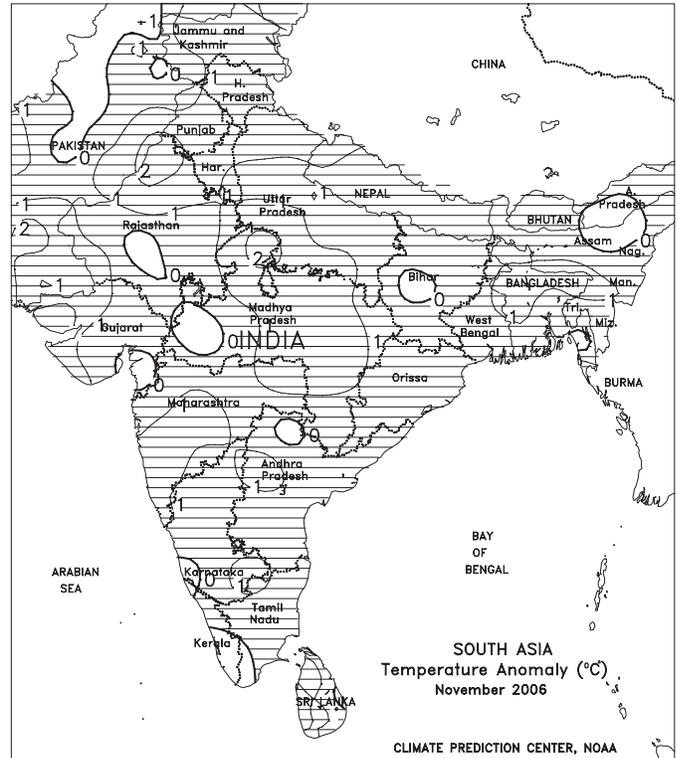
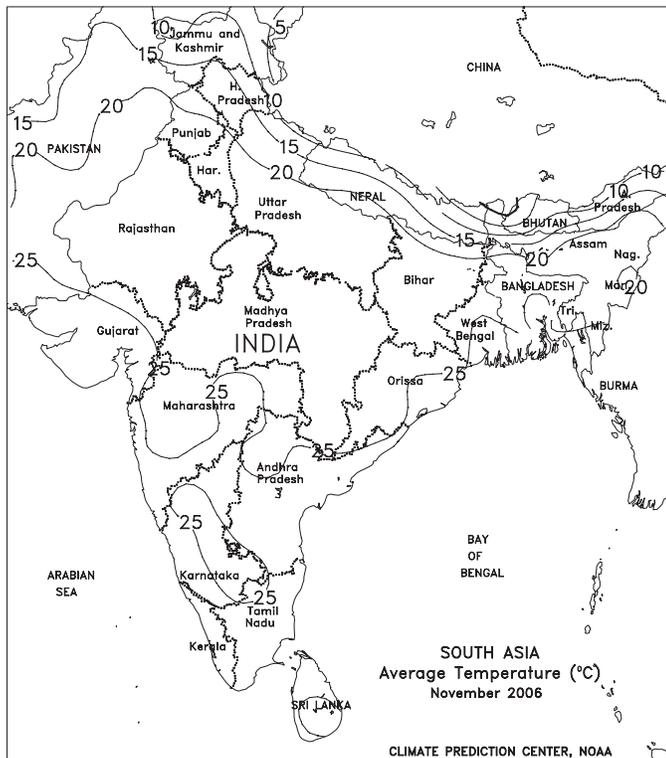
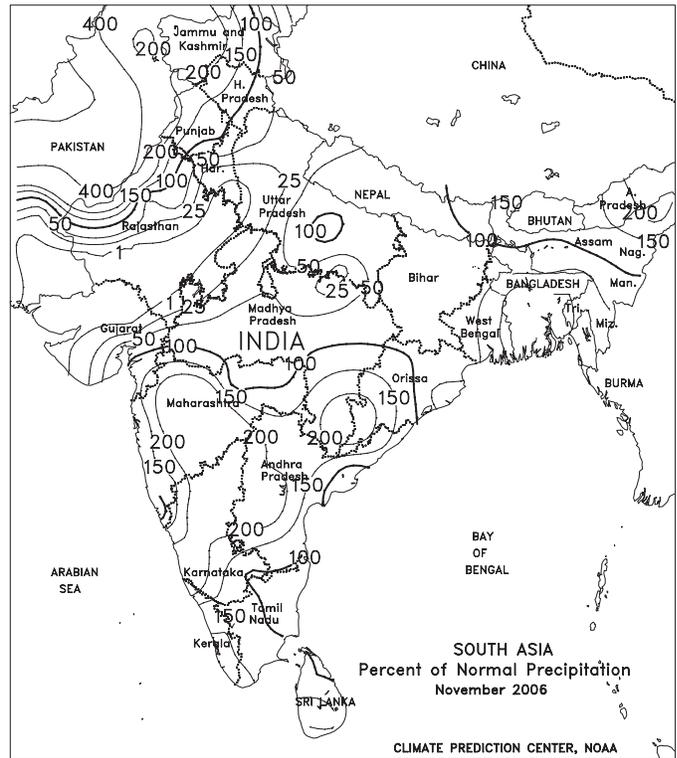
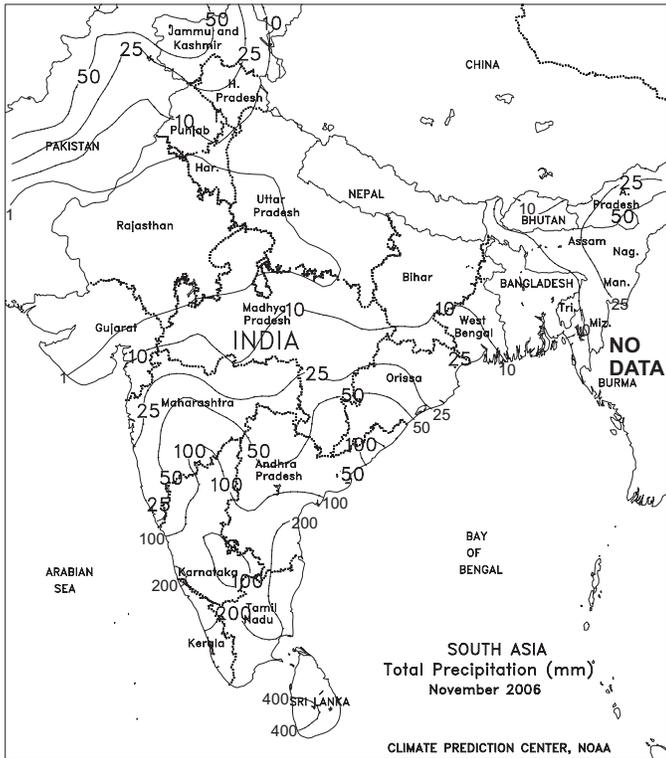
Typhoon Utor continued to cross the central Philippines early in the week, briefly intensifying to a category 3 (96-113 knots) typhoon before moving into the South China Sea. Rainfall was heaviest to the north of the storm where 100 to 400 mm likely caused flooding and some damage to rice and corn in eastern Luzon. Typhoon Utor was the fourth typhoon to strike the Philippines in eight weeks. Typically, November and December are active months for tropical cyclones in the Philippines. In Vietnam, mostly dry weather favored coffee harvesting, while heavy showers (50-200 mm) in peninsular Thailand benefited second-season rice. In Malaysia, heavy showers (50-100 mm) boosted moisture supplies for oil palm. Monsoon showers (25-200 mm) prevailed throughout Indonesia, increasing moisture supplies for oil palm in Sumatra and rice in Java.

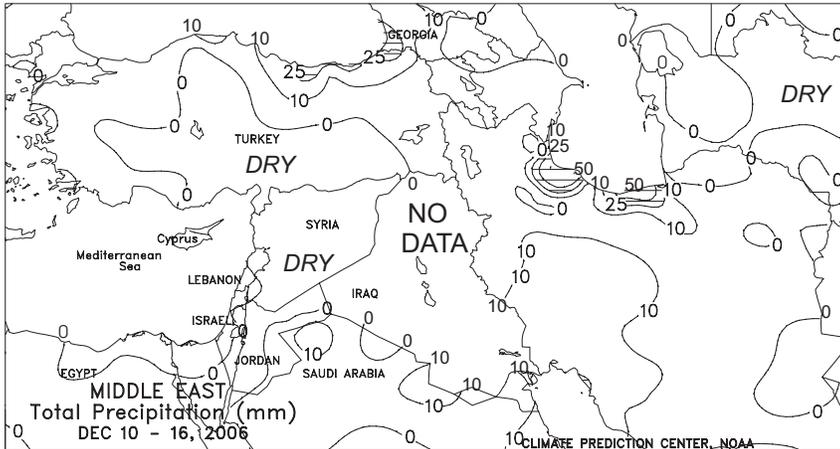
In early November, monsoon showers were delayed in southern parts of Indonesia. Below-normal rainfall was observed in oil palm areas of southern Sumatra and rice areas of Java. By month's end, increasing showers allowed rice planting to begin in Java and boosted moisture supplies for oil palm in southern Sumatra. A series of strong typhoons crossed the northern Philippines, causing flooding but generally missing major agricultural areas. Coffee harvesting progressed in Vietnam, briefly delayed by heavy rainfall.



**SOUTH ASIA**

In November, heavy rain in southern India raised quality concerns for unharvested summer crops and caused fieldwork delays. Mostly dry weather in central and northern India promoted rapid winter wheat planting and summer crop harvesting. However, heavy rain and snow in northern Pakistan boosted irrigation reserves and topsoil moisture for winter grain planting and establishment.

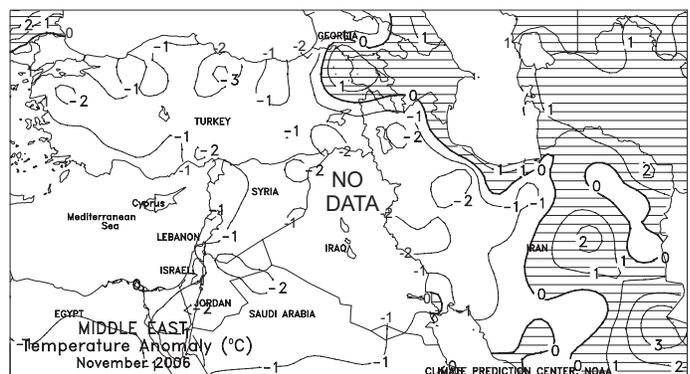
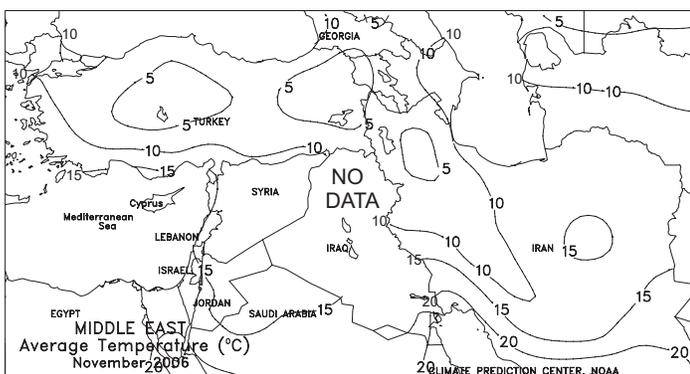
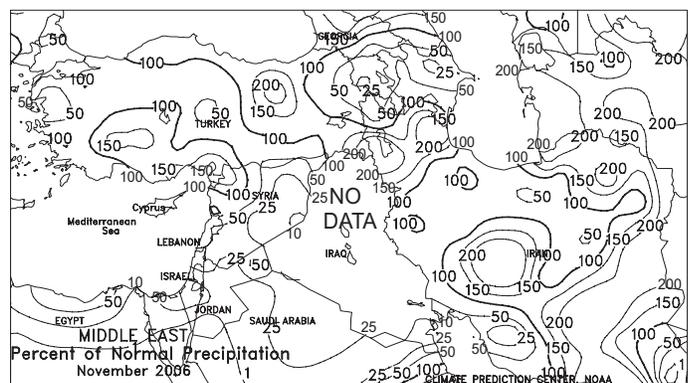
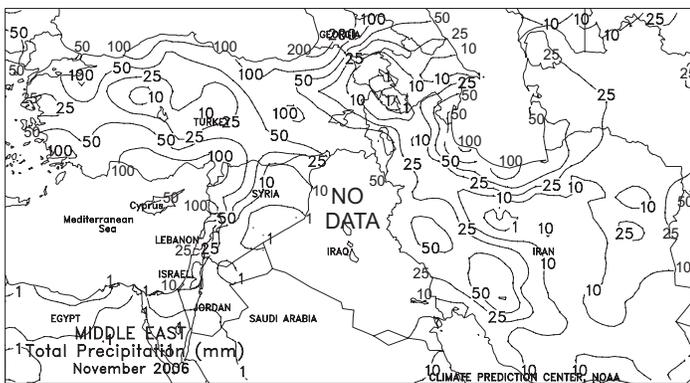


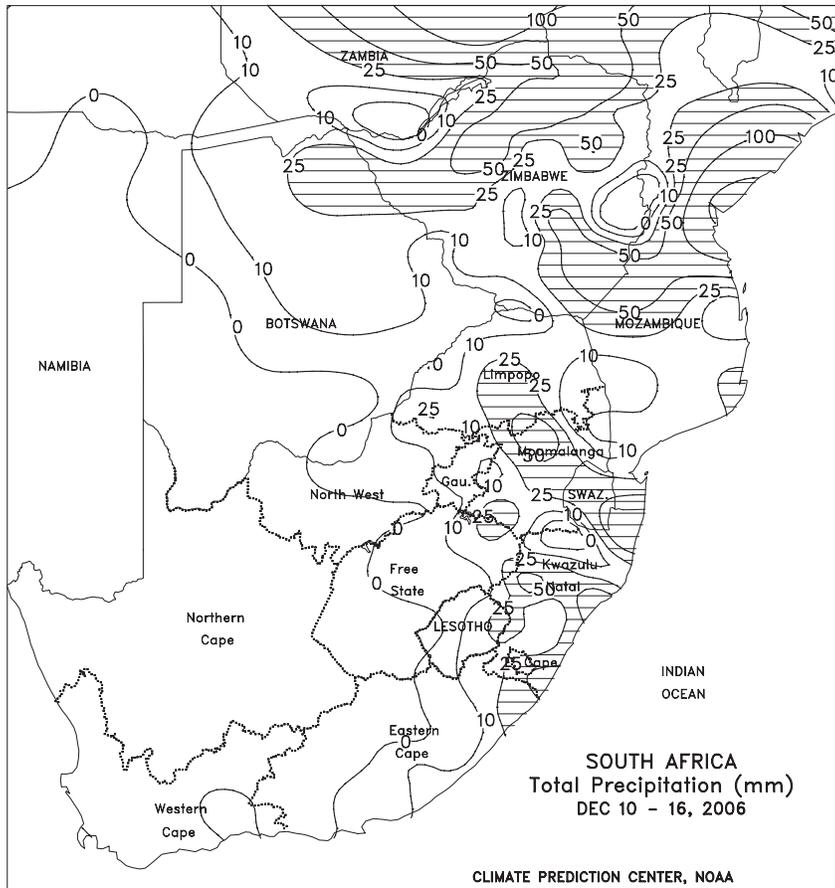


MIDDLE EAST

Dry weather prevailed across much of the region, although rain and snow continued across southernmost growing areas. In Turkey and Syria, this marked the fifth straight week of dry weather, which further reduced topsoil moisture for semi-dormant winter grains. Across northwestern Iran, dry, cold weather (temperatures up to 5 degrees C below normal) eased winter grains further into dormancy but reduced moisture reserves for overwintering crops. Across most of the Middle East, the recent dryness has left winter grain areas lacking a protective snow pack, exposing crops to potential outbreaks of bitter cold. However, light to moderate rain and snow (10-20 mm liquid equivalent) across southwestern Iran boosted moisture reserves for dormant winter wheat and barley and provided a patchy protective snow cover against extreme cold.

In the wake of October's excessive wetness, near- to below-normal November precipitation across much of the region favored winter grain development. However, above-normal rainfall in southern Turkey maintained abundant moisture for recently planted winter grains and caused additional fieldwork delays. In northwestern Iran, colder-than-normal conditions by month's end ushered winter grains into dormancy, while winter grains in Turkey are semi-dormant due to somewhat milder conditions. As of early December, much of the region was devoid of snow cover, exposing crops to potential outbreaks of bitter cold.

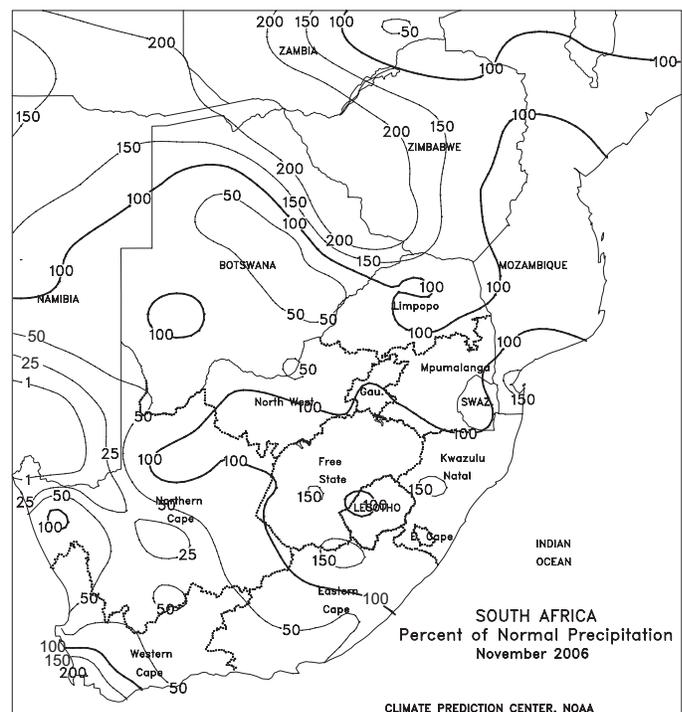
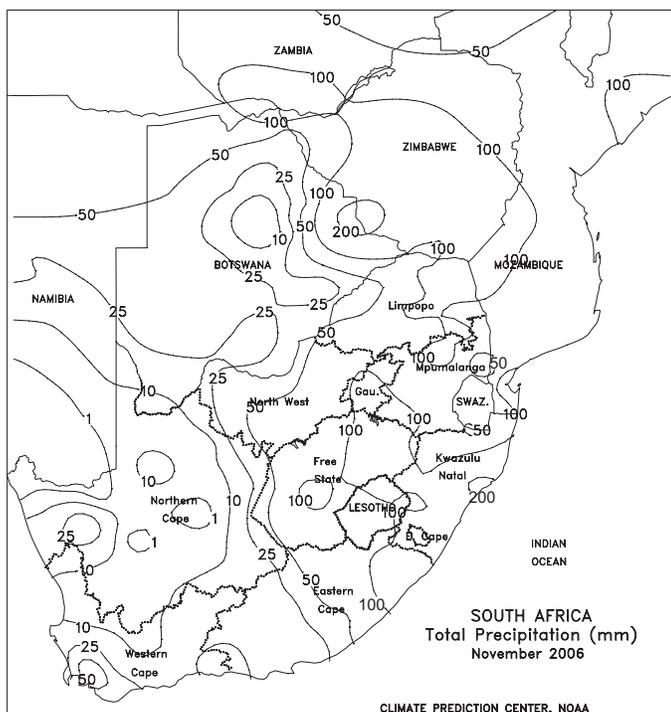


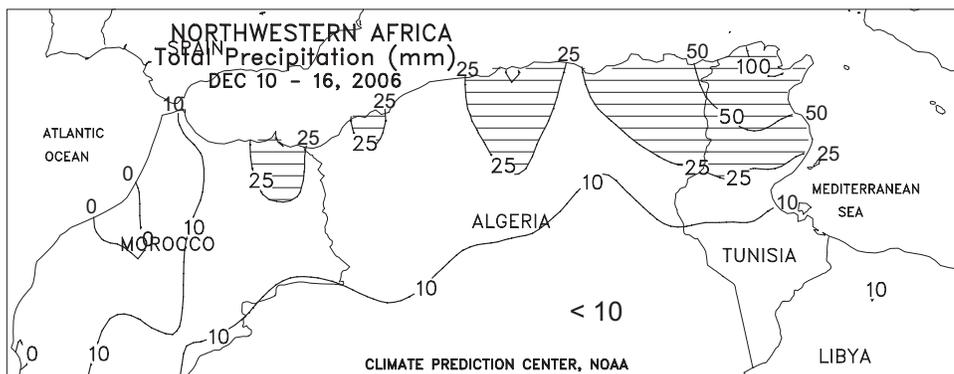
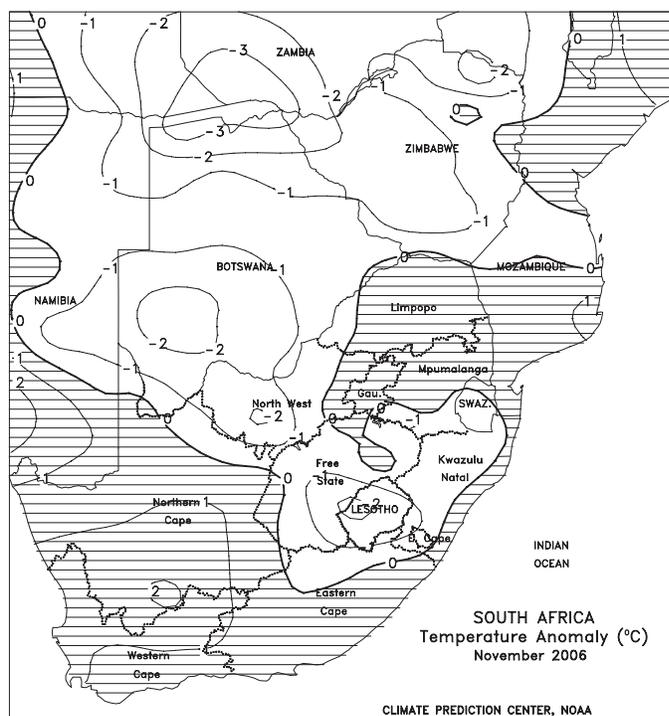
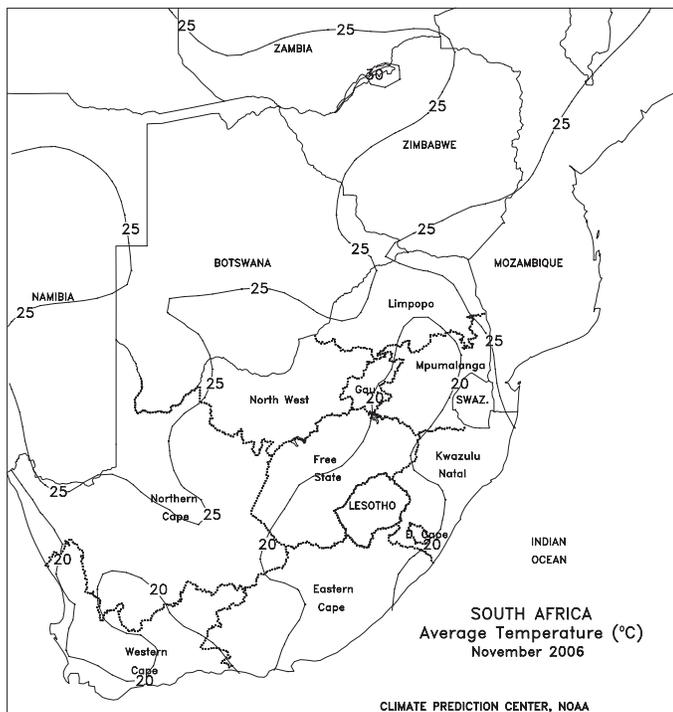


**SOUTH AFRICA**

Scattered showers (10-25 mm or more) brought some relief from dryness to vegetative summer crops in the eastern corn belt (Mpumalanga, Gauteng, and easternmost Free State). Temperatures averaged near normal in these areas, but highs briefly reached the lower 30s degrees C. Farther west, unseasonable warmth and dryness (temperatures in the middle 30s degrees C and scant rainfall) dominated key commercial white corn areas of North West and Free State, where moisture remained limited for summer crop germination. Warm, mostly dry weather also dominated predominantly irrigated agricultural land in Western and Northern Cape Provinces but scattered showers (10-25 mm, locally exceeding 50 mm) maintained mostly favorable crop prospects in Kwazulu-Natal and nearby locations of Eastern Cape.

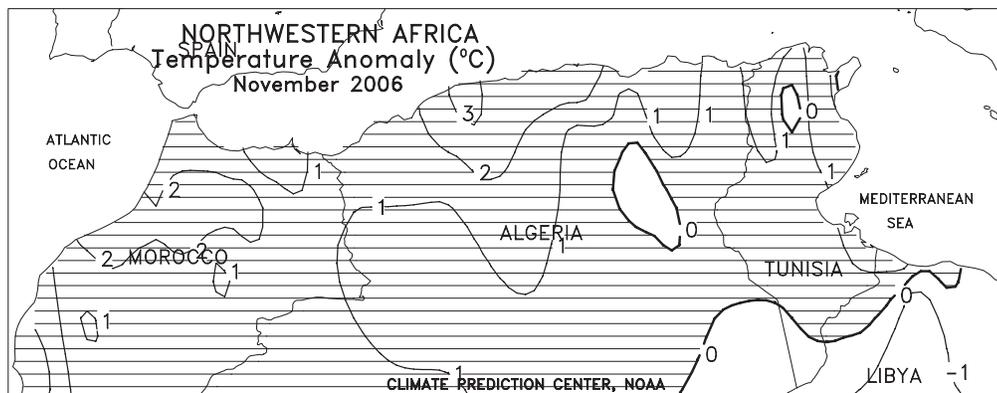
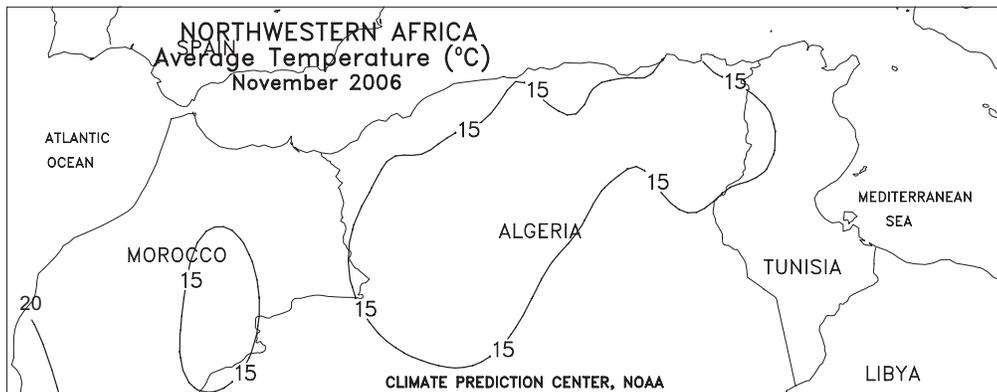
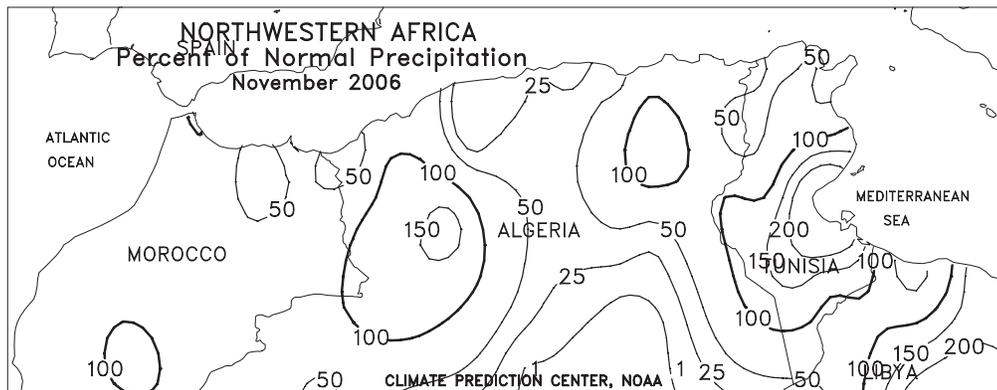
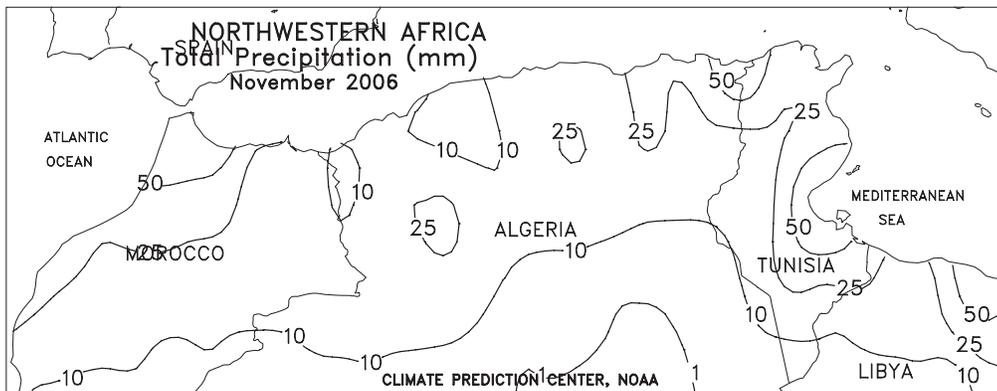
During November, conditions were generally favorable for emerging summer crops in the eastern Corn Belt. However, a drying trend that developed late in the month lowered soil moisture reserves for establishment. Rain was infrequent in the western corn belt, reducing the potential for early summer crop planting.

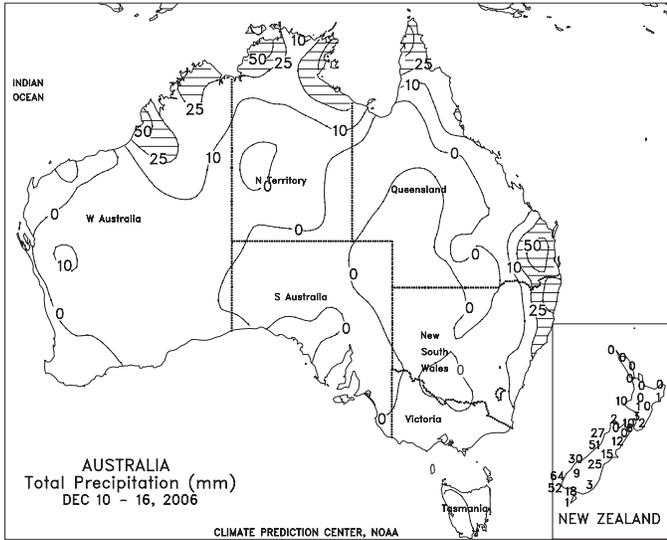




**NORTHWESTERN AFRICA**  
Favorable showers continued for a second consecutive week, although long-term moisture deficits linger across much of the region. A slow-moving storm system generated a band of light to moderate rain (10-50 mm) across most major winter grain areas, providing much-needed topsoil moisture for crop planting and establishment. However, showers bypassed western Morocco, while locally heavy rain (greater than 100 mm) fell in northern portions of Tunisia. Despite the rain, long-term precipitation deficits persist across the entire region, with the dryness most pronounced in central and western Algeria.

In November, below-normal rainfall reduced topsoil moisture for winter grain planting. In particular, acute early-season dryness in Algeria likely delayed the sowing of wheat and barley, with most of the country reporting less than 50 percent of normal rainfall. Light showers elsewhere encouraged fieldwork, although more rain is needed to ensure proper crop germination and establishment.

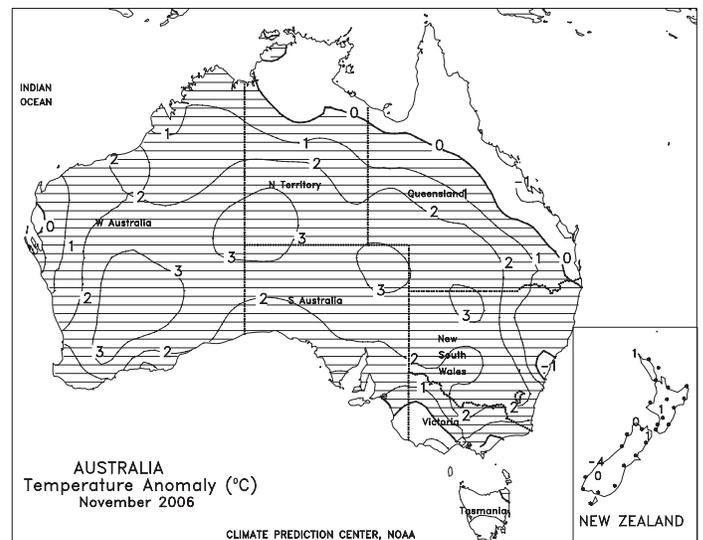
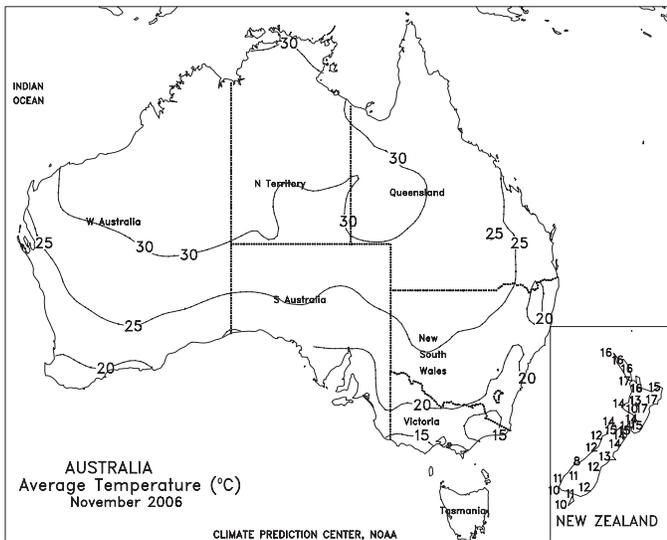
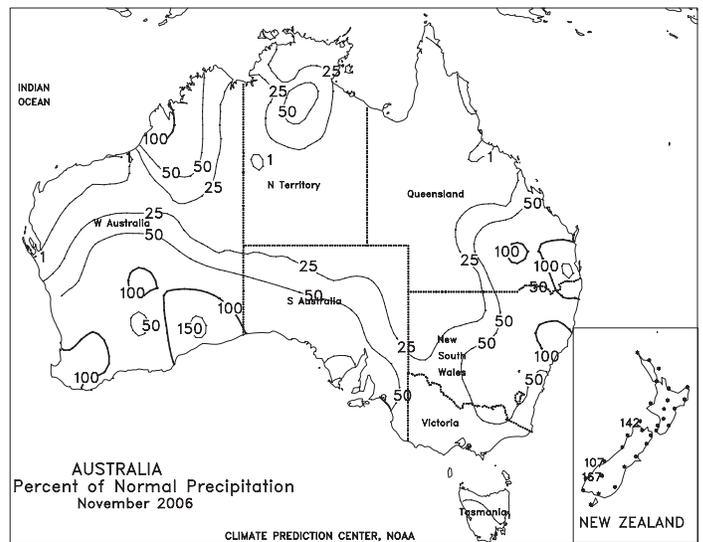
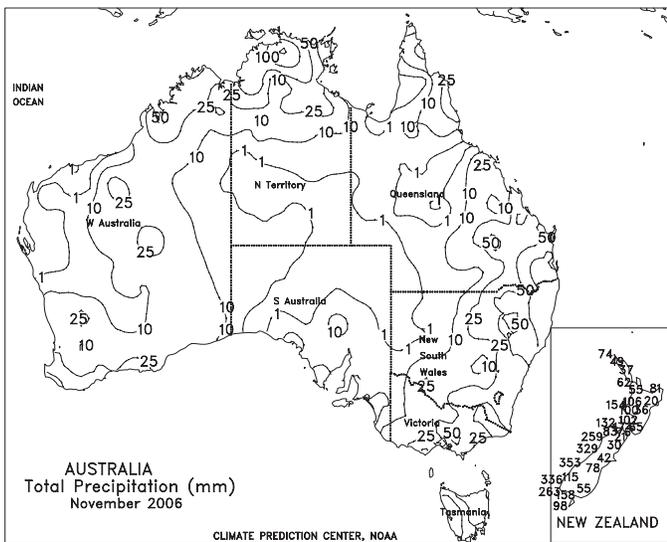




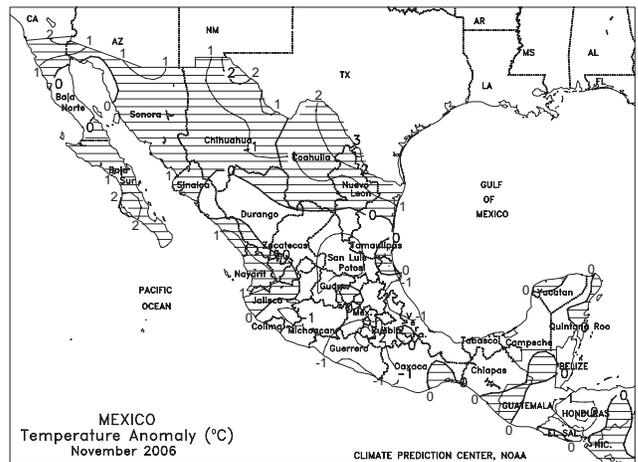
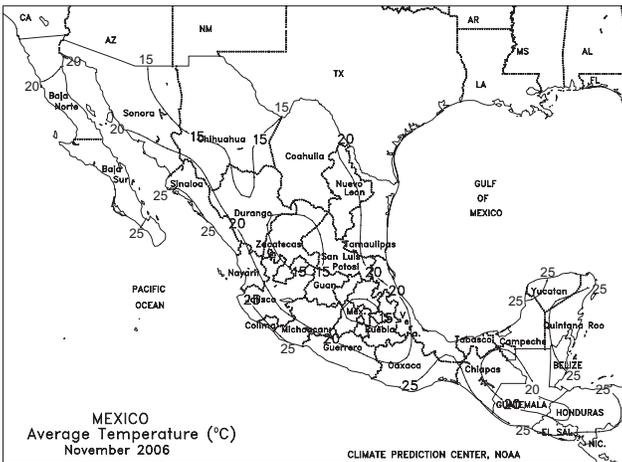
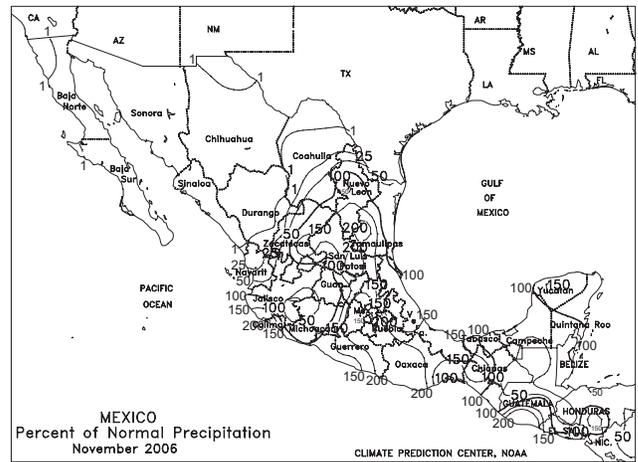
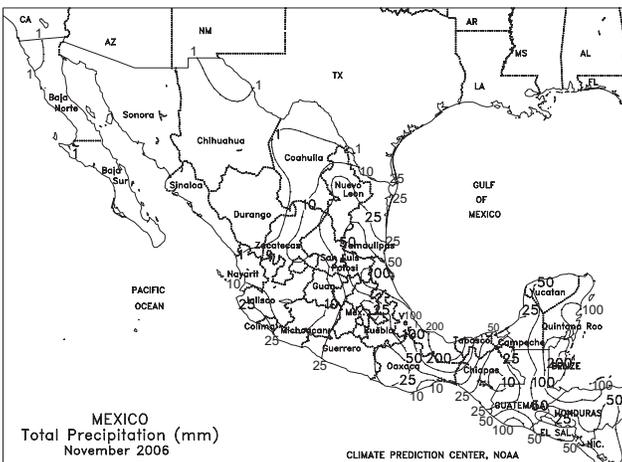
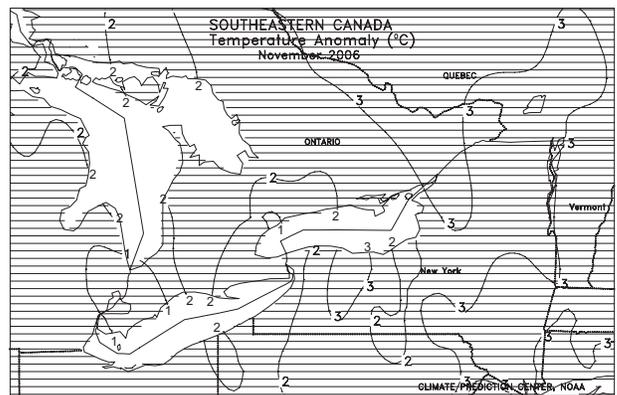
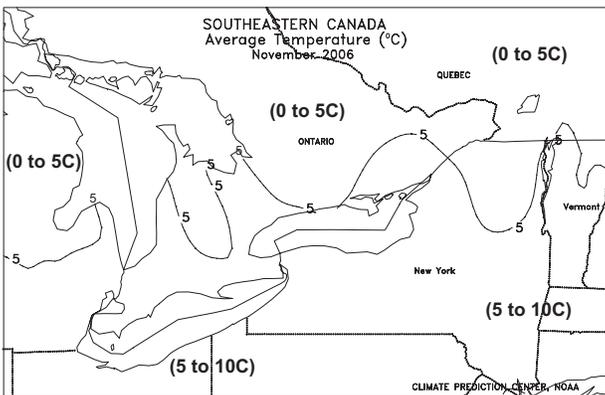
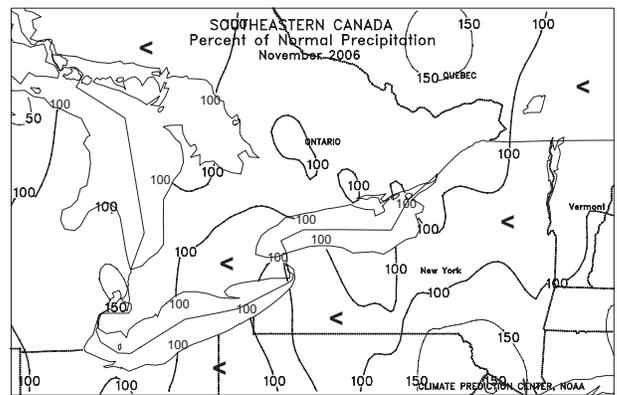
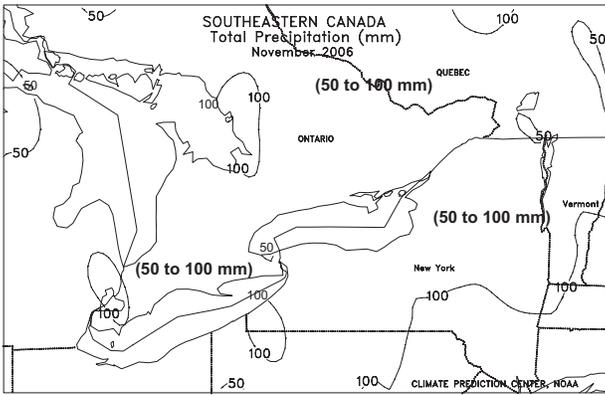
**AUSTRALIA**

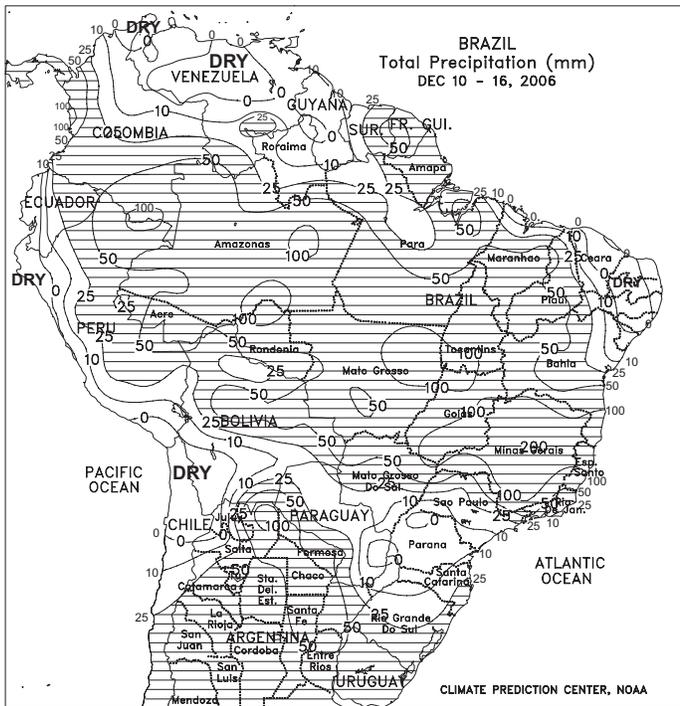
Soaking rain (10-60 mm or more) fell across parts of southern Queensland and northern New South Wales, however, the rain was primarily east of the major cotton and sorghum areas. As a result, moisture supplies remained limited for summer crops, hampering development of dryland and irrigated crops. Temperatures in eastern Australia averaged about 1 to 2 degrees C above normal, with maximum temperatures generally in the middle to upper 30s degrees C. Elsewhere in Australia, mostly dry weather stretched across major winter grain areas in Western Australia, South Australia, Victoria, and southern New South Wales. The relatively dry weather favored winter wheat and barley harvesting, which is rapidly approaching completion across the winter grain belt.

In November, hot, mostly dry weather persisted in eastern Australia. The heat and dryness exacerbated long-term drought, further reducing soil moisture and irrigation supplies needed for summer crop planting and early development. Similarly, hot, mostly dry weather prevailed across drought-plagued southeastern and western Australia, promoting rapid winter wheat and barley harvesting.









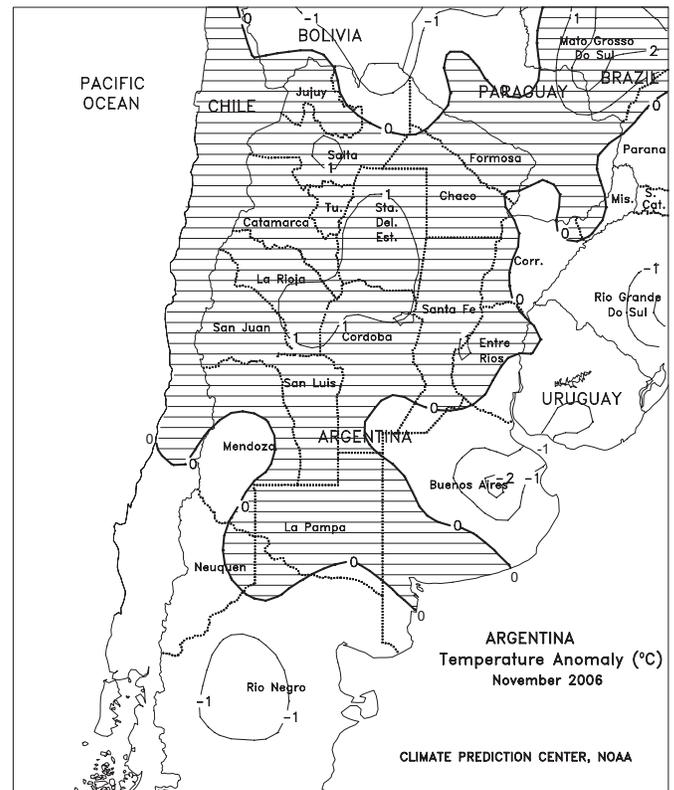
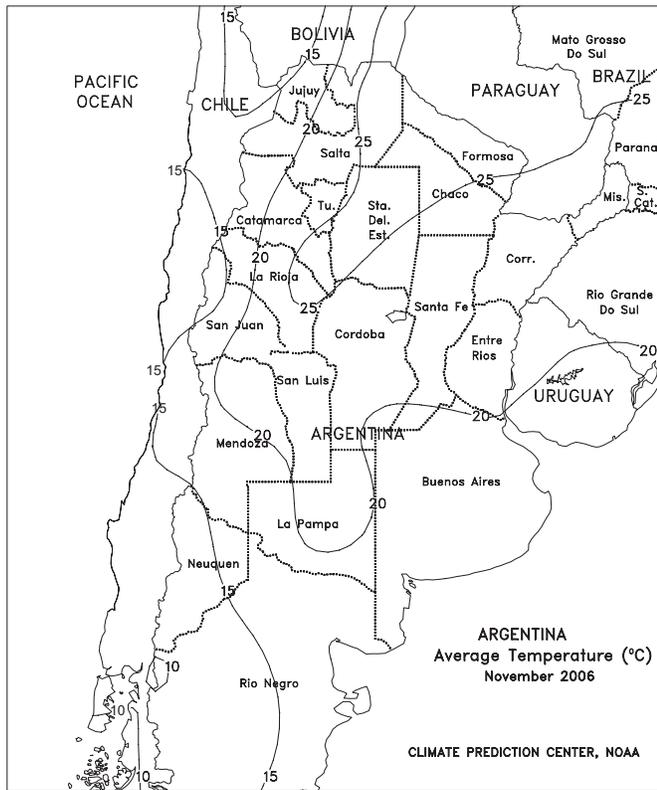
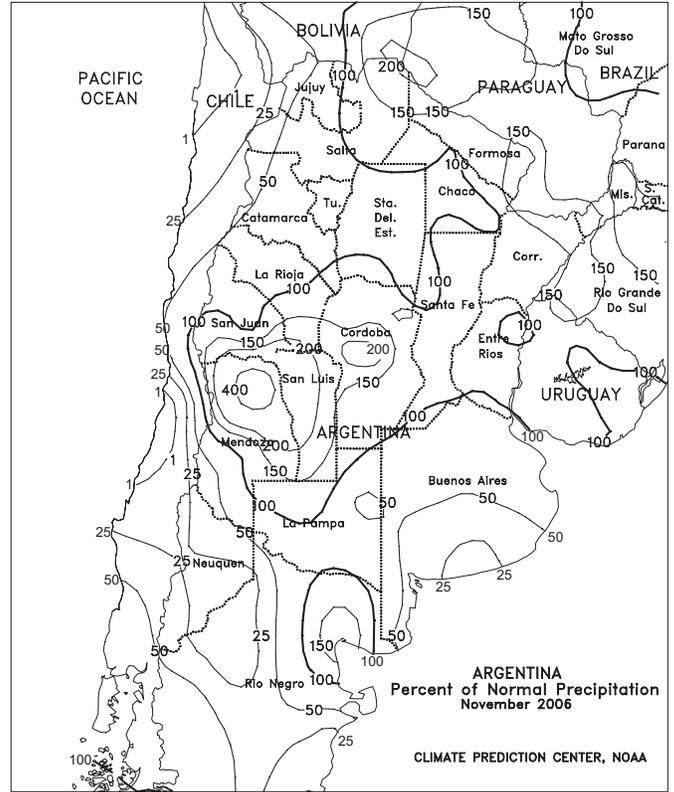
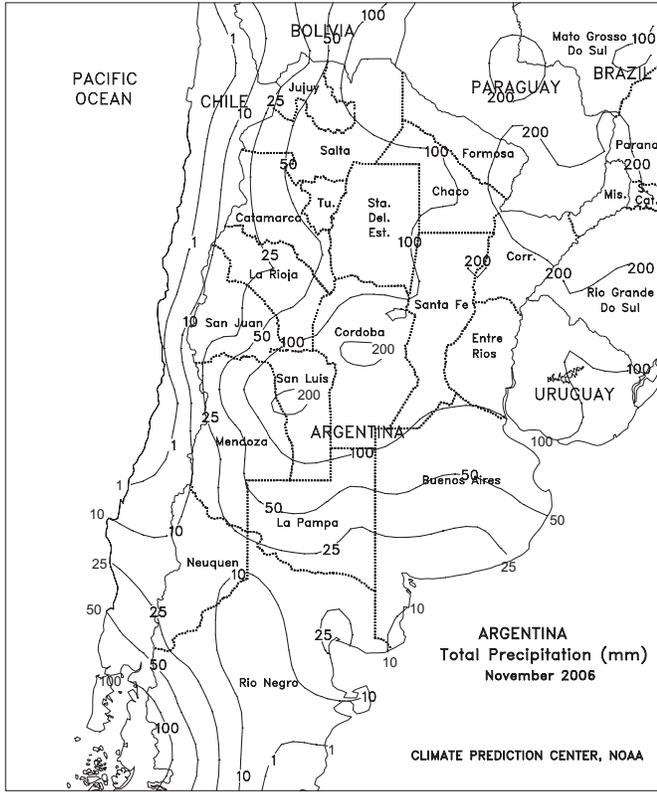
**BRAZIL**

Moderate to heavy showers (25-50 mm, locally exceeding 100 mm) maintained generally favorable moisture levels for soybeans and other summer crops throughout much of central Brazil. Beneficial rainfall also returned to soybean areas of the northeastern interior (notably western Bahia and Tocantins) after several weeks of drier-than-normal conditions. However, unseasonable warmth and dryness (temperatures averaging 2-3 degrees C above normal, with only isolated showers exceeding 25 mm) dominated much of southern Brazil, reducing topsoil moisture levels for germination and establishment of soybeans and other summer crops. It was the third week of sparse rainfall in Rio Grande do Sul, traditionally Brazil's third largest producer of soybeans, after a generally favorable start to the growing season. Temperatures in the middle and upper 30s degrees C exacerbated the affects of the dryness on vegetative summer crops. Crops in southern Brazil typically enter reproduction in January and February, and consistent rainfall will be needed during that period to ensure current yield expectations; this is especially true in southern growing areas that have experienced drought-related crop losses during the past 3 seasons.

In November, rainfall averaged near to above normal in most major agricultural areas. In the center-west region and northeastern interior, the early start of the rainy season favored a more rapid pace of soybean planting than last year. Rainfall was abundant in Rio Grande do Sul throughout the month, but dry pockets eventually developed in an area centered over northern Parana and western Sao Paulo, raising concern for emerging soybeans. In contrast, unseasonably heavy showers were reportedly excessive for flowering coffee in Minas Gerais and plantation areas near the eastern coast, although the moisture increased long-term moisture reserves.

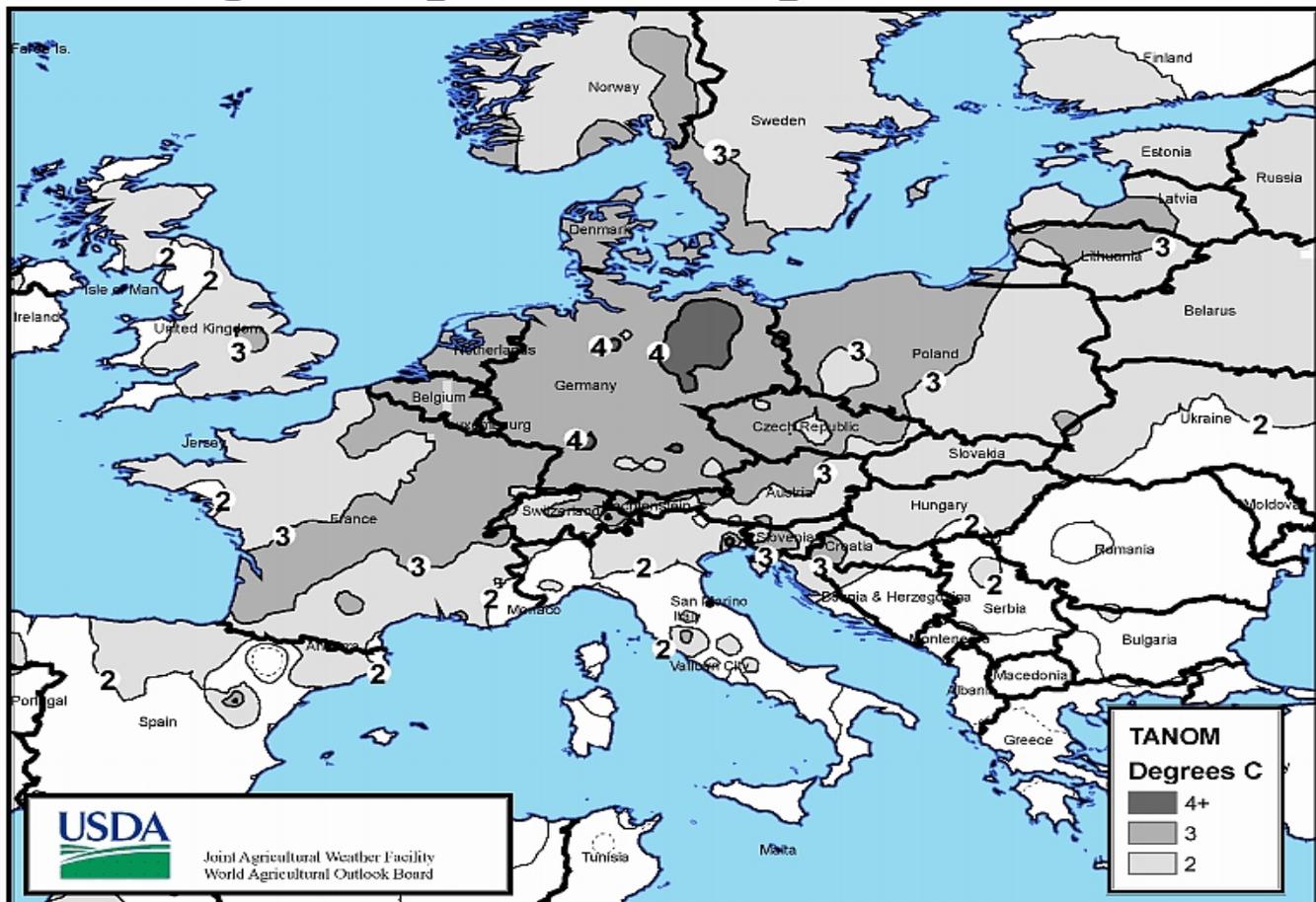






## Record Warmth Observed in Europe

### Average Temperature Departure, Fall 2006



**Figure 1. Average temperature anomaly (degrees C) observed across Europe from September 1 through November 30, 2006.**

*Weather summary provided by USDA/WAOB*

Unseasonably warm weather overspread most of Europe during the Autumn, 2006, eclipsing temperature records dating back hundreds of years. A large area of high pressure developed across central and southeastern Europe, maintaining warm, southerly winds throughout region for much of the fall. While the weather regime was not all that unusual, the persistent nature of the stronger-than-normal high pressure system was noteworthy.

The 2006 meteorological autumn (September, October, and November) will go down as the warmest on record in the United Kingdom, Belgium, the Netherlands,

Germany, Denmark, and Switzerland. In the United Kingdom, the Met Office confirmed that this was the warmest fall in the past 347 years across central portions of the UK; temperature data in central England date back to 1659, and are the longest instrumental temperature records in the world. In Germany, the average seasonal temperature of 12.0 degrees C was 3.2 degrees C above normal, establishing a new benchmark in a record book dating back to 1901. Much of northeastern Germany observed temperatures 4 to 5 degrees C above normal (Figure 1), with daytime highs still surpassing 20 degrees C at the end of November. In France, the autumn was the warmest since 1950, with temperatures locally more than 5 degrees C above normal.

The impressive seasonal averages were rivaled only by the daily distribution of the warm weather. Since September 1, daytime temperatures averaged below-normal on a mere 18 of 107 days in southeastern England, with only a brief spell of cold weather in early November (Figure 2). Even more impressive is the data from northeastern Germany, seen in Figure 3, which shows an incredible 100 out of 107 days with above-normal temperatures (September 1 through December 17). These time series plots are representative of most of the continent, with near-normal temperatures confined to portions of Greece, Albania, and southern Italy.

The abnormally warm conditions began to shift eastward with the onset of the climatological winter. In northeastern Poland, early-December daytime high temperatures approached 15 degrees C (December 6 and 8), well above the long-term average of 3 degrees C. Southeastern Poland was even warmer, with daily maximum temperatures surpassing 15 degrees C on December 6, 8, and 9. In Hungary, temperatures eclipsed the 15 degree C mark on 4 consecutive days (December 6-9), more than 10 degrees C above the long-term average. During the same time period, temperatures in eastern Croatia exceeded 20 degrees C, 15 degrees C above the normal daytime high. More recently, temperatures in northern Bulgaria peaked near 18 degrees C on December 16, on par with highs more typically observed in mid October. In Lithuania, where the normal early-December daytime high is around freezing, temperatures have consistently approached 10 degrees C after an early-November cold snap.

Agricultural impacts to date have been relatively minor. The most significant result of the unseasonably warm weather has been the lack of snow cover, both in northeastern winter grain area as well as the mountains of central and southern Europe. The meager mountain snowpack has reduced irrigation reserves in northern Italy, Hungary, and the Balkans; in particular, winter grains in Italy's Po Valley, which are roughly 75 percent irrigated, rely on spring runoff from melting snow. Across Poland and the Baltics, which typically have established a shallow snow cover by early December, the barren ground has left crops exposed to potential outbreaks of bitter cold. The warm weather has also kept winter crops from cold hardening or going dormant across most growing areas. Additionally, citrus trees across southern Europe have reportedly begun blooming, leaving them vulnerable to potential frost or hard freezes.

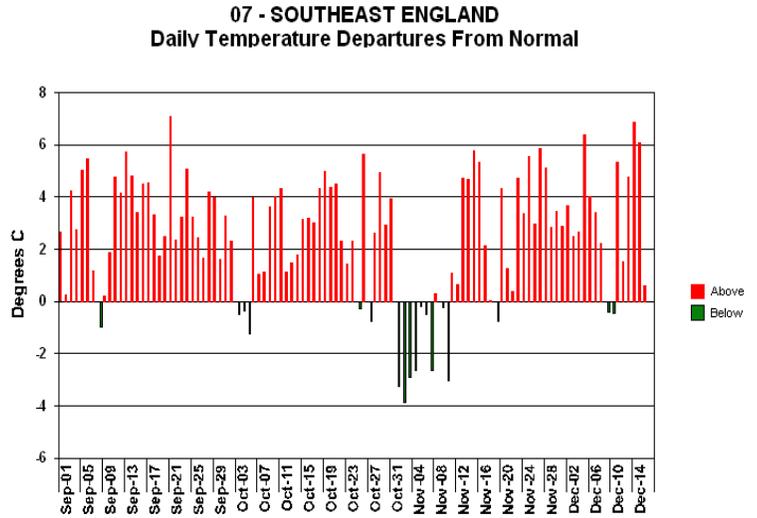


Figure 2. Daily average temperature departure, September 1 through December 17, 2006, for southeastern England.

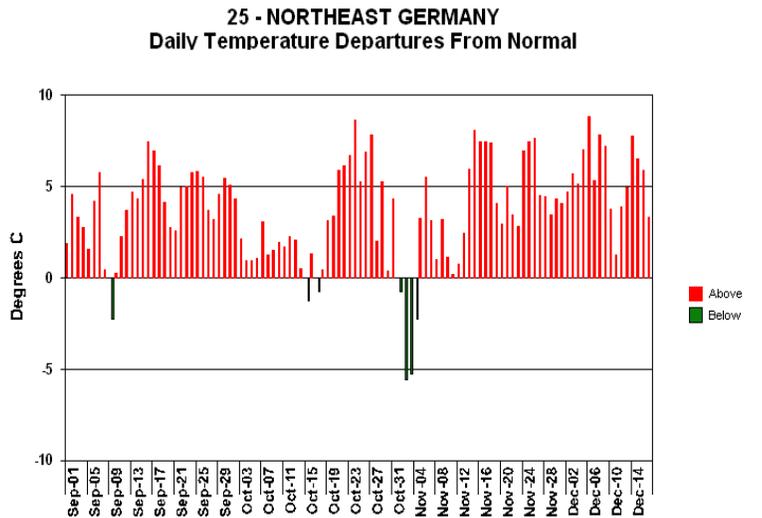


Figure 3. Same as Figure 2, but for northeastern Germany.

While record-breaking warmth has been the primary consequence of the stagnant high pressure system, precipitation patterns have been affected as well. Widespread heavy rain has persisted across western Europe, alleviating chronic dryness in portions of the Iberian Peninsula and providing a much-needed boost to depleted reservoirs. In contrast, much of eastern Europe was exceptionally dry, reducing groundwater supplies and increasing irrigation demands. Autumn precipitation deficits were greatest (less than 50 percent of normal) in Hungary, northern Italy, and the Balkans, although increasing storminess over the past week has provided some short-term relief.

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