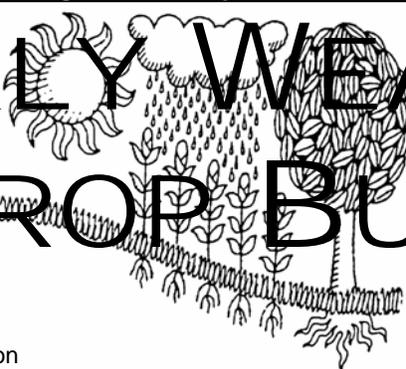


WEEKLY WEATHER AND CROP BULLETIN

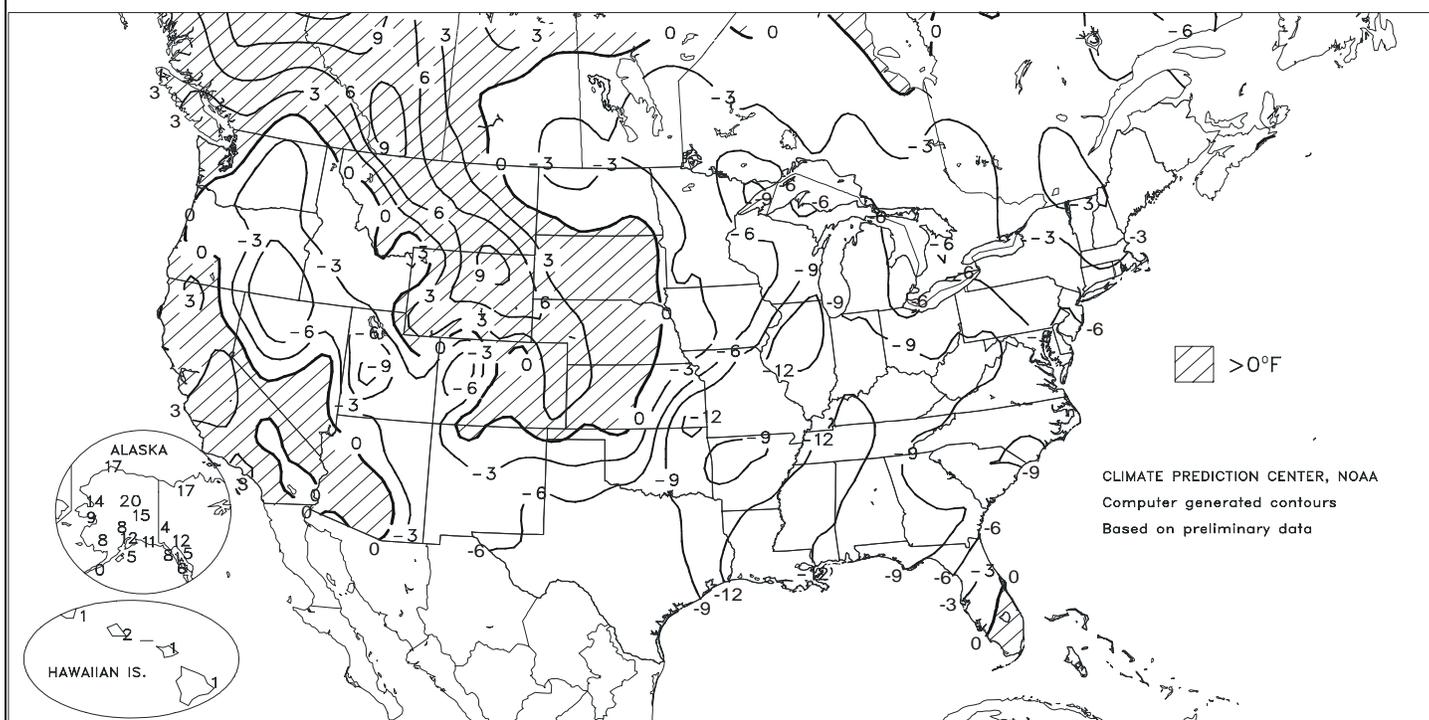


U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Weather Service

U.S. DEPARTMENT OF AGRICULTURE
National Agricultural Statistics Service
and World Agricultural Outlook Board

Departure of Average Temperature from Normal (°F)

DEC 3 - 9, 2006



CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data

HIGHLIGHTS December 3 - 9, 2006

Highlights provided by USDA/WAOB

Most of the U.S. experienced cold, dry weather in the wake of the previous week's major snow and ice accumulations from the **southern Plains to the Great Lakes region**. Weekly temperatures averaged at least 10°F below normal from **eastern Oklahoma to Illinois**, areas hit hardest by the winter storm. Readings also averaged 10 to 15°F below normal in the **central Gulf Coast States**, including **Louisiana's** sugarcane-producing parishes, which were hit by crop-threatening freezes

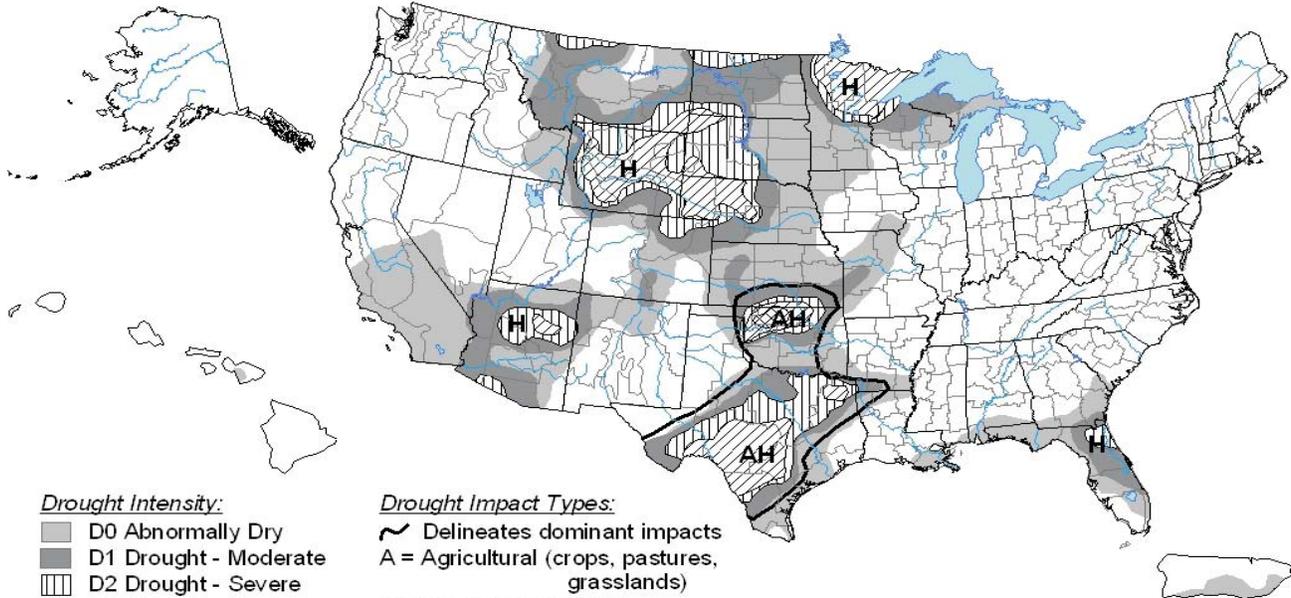
(Continued on page 7)

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U.S. Drought Monitor

December 5, 2006
Valid 7 a.m. EST



Drought Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- ▨ D2 Drought - Severe
- ▨ D3 Drought - Extreme
- ▨ D4 Drought - Exceptional

Drought Impact Types:

- ~ Delineates dominant impacts
- A = Agricultural (crops, pastures, grasslands)
- H = Hydrological (water)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>

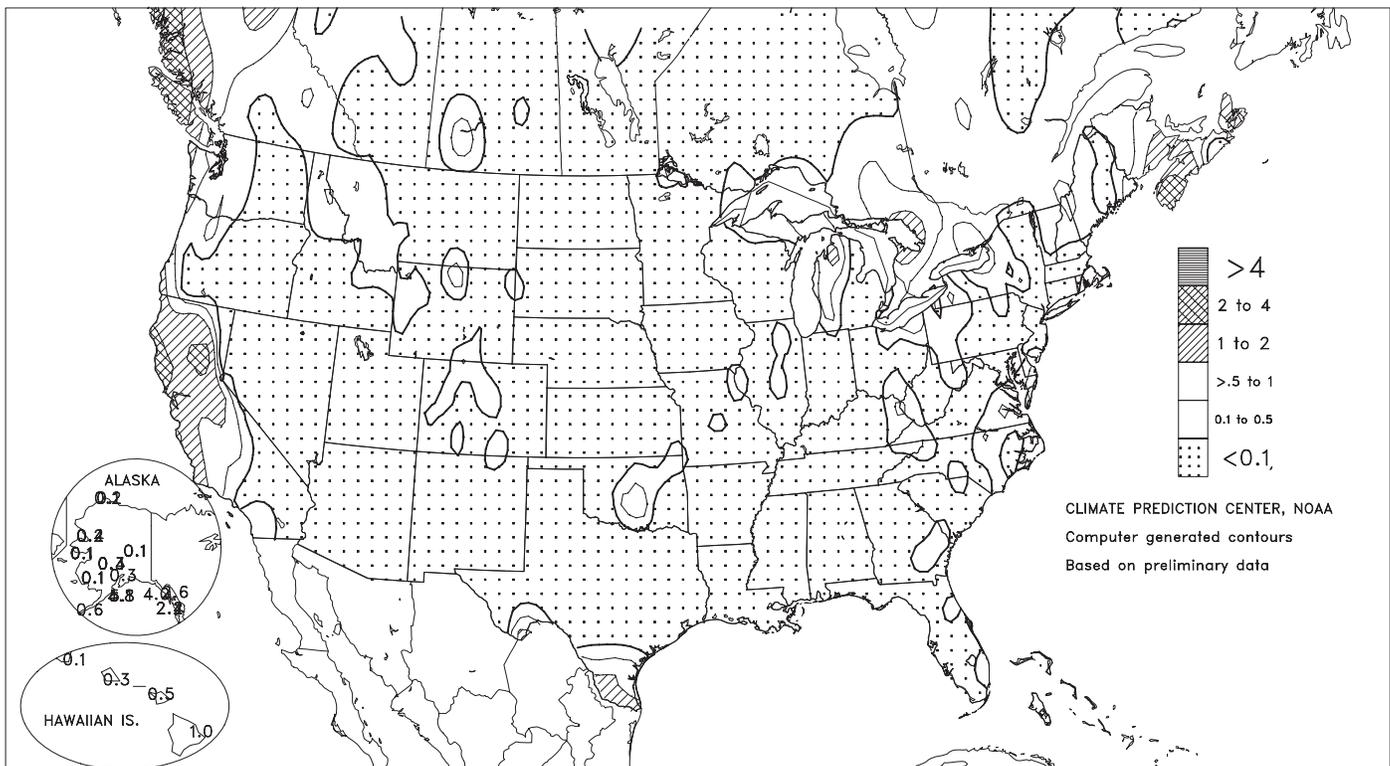


Released Thursday, December 7, 2006

Author: Thomas Heddinghaus, CPC/NOAA

Total Precipitation (Inches)

DEC 3 - 9, 2006



CLIMATE PREDICTION CENTER, NOAA
Computer generated contours
Based on preliminary data

National Weather Data for Selected Cities

Weather Data for the Week Ending December 9, 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	32 AND BELOW	.01 INCH OF MORE	.50 INCH OF MORE
AL BIRMINGHAM	52	25	61	17	39	-9	0.00	-0.99	0.00	0.09	7	53.63	106	71	24	0	5	0	0
HUNTSVILLE	46	21	53	14	34	-11	0.00	-1.28	0.00	0.01	1	38.68	72	78	47	0	7	0	0
MOBILE	56	29	66	24	42	-12	0.00	-1.11	0.00	0.00	0	45.40	72	58	29	0	6	0	0
MONTGOMERY	56	25	66	18	41	-10	0.00	-1.19	0.00	0.10	6	41.43	81	75	24	0	7	0	0
AK ANCHORAGE	37	24	45	12	31	13	0.32	0.09	0.32	0.47	162	18.42	120	81	67	0	7	1	0
BARROW	15	2	28	-8	9	18	0.07	0.07	0.06	0.11	1100	4.05	100	92	76	0	7	2	0
FAIRBANKS	22	0	34	-17	11	15	0.06	-0.08	0.06	0.10	56	8.17	84	87	80	0	7	1	0
JUNEAU	39	31	44	29	35	5	2.57	1.38	0.94	3.38	222	68.30	125	98	90	0	6	7	2
KODIAK	40	32	42	30	36	5	5.12	3.52	1.86	5.64	276	59.29	85	93	85	0	3	7	3
NOME	27	13	31	0	20	9	0.08	-0.16	0.07	0.08	26	17.81	112	78	64	0	7	2	0
AZ FLAGSTAFF	47	14	55	4	30	-2	0.00	-0.39	0.00	0.01	2	16.25	75	67	21	0	7	0	0
PHOENIX	73	47	79	40	60	4	0.00	-0.18	0.00	0.00	0	5.11	67	32	17	0	0	0	0
TUCSON	71	43	76	33	57	4	0.00	-0.19	0.00	0.00	0	11.21	99	37	21	0	0	0	0
YUMA	72	47	78	43	60	1	0.00	-0.06	0.00	0.00	0	0.63	24	22	16	0	0	0	0
AR FORT SMITH	51	24	63	15	37	-6	0.00	-0.92	0.00	0.00	0	47.65	114	72	25	0	6	0	0
LITTLE ROCK	48	23	60	14	35	-10	0.00	-1.21	0.00	0.00	0	42.19	88	71	25	0	7	0	0
CA BAKERSFIELD	69	38	81	34	54	6	0.05	-0.09	0.05	0.05	28	5.61	95	46	32	0	0	1	0
FRESNO	69	37	77	32	53	7	0.15	-0.10	0.15	0.15	47	12.76	125	75	46	0	2	1	0
LOS ANGELES	73	49	79	43	61	3	0.08	-0.25	0.08	0.08	19	8.65	73	57	28	0	0	1	0
REDDING	64	33	71	29	49	3	1.51	0.57	0.99	1.51	126	31.82	106	77	61	0	5	2	2
SACRAMENTO	63	35	66	31	49	2	1.24	0.74	1.16	1.24	194	16.01	99	94	40	0	4	2	1
SAN DIEGO	69	46	74	43	58	0	0.00	-0.22	0.00	0.00	0	5.44	56	55	32	0	0	0	0
SAN FRANCISCO	62	43	66	40	53	3	0.90	0.32	0.66	0.90	122	18.13	101	81	58	0	0	2	1
STOCKTON	66	35	69	30	50	3	0.42	0.04	0.37	0.42	86	13.75	110	84	63	0	5	2	0
CO ALAMOSA	41	-1	47	-14	20	0	0.00	-0.06	0.00	0.03	33	7.84	112	82	52	0	7	0	0
CO SPRINGS	47	19	61	-2	33	3	0.00	-0.06	0.00	0.07	100	13.26	78	76	31	0	7	0	0
DENVER INTL	48	22	61	-1	35	4	0.00	-0.06	0.00	0.08	114	7.51	56	70	34	0	6	0	0
GRAND JUNCTION	36	12	45	6	24	-7	0.00	-0.09	0.00	0.00	0	9.50	111	81	57	0	7	0	0
PUEBLO	50	14	65	-2	32	0	0.00	-0.07	0.00	0.11	122	13.35	110	84	48	0	7	0	0
CT BRIDGEPORT	42	25	52	18	33	-5	0.00	-0.76	0.00	0.53	54	56.77	136	60	39	0	7	0	0
HARTFORD	41	21	54	15	31	-3	0.00	-0.81	0.00	0.39	37	50.37	116	72	42	0	7	0	0
DC WASHINGTON	44	27	56	19	35	-7	0.00	-0.66	0.00	0.06	7	46.27	125	62	37	0	6	0	0
DE WILMINGTON	43	24	55	20	33	-6	0.00	-0.75	0.00	0.07	7	47.57	118	75	35	0	7	0	0
FL DAYTONA BEACH	71	50	82	42	60	-2	0.00	-0.58	0.00	0.02	3	28.20	60	87	45	0	0	0	0
JACKSONVILLE	63	40	73	32	52	-5	0.00	-0.55	0.00	0.01	1	35.20	70	84	48	0	1	0	0
KEY WEST	77	69	80	65	73	0	0.10	-0.34	0.10	0.16	28	34.99	94	84	69	0	0	1	0
MIAMI	80	66	84	62	73	2	0.00	-0.53	0.00	0.00	0	61.05	107	79	54	0	0	0	0
ORLANDO	73	53	84	46	63	-1	0.00	-0.53	0.00	0.08	12	32.84	70	85	54	0	0	0	0
PENSACOLA	57	32	67	26	45	-11	0.00	-0.85	0.00	0.00	0	40.15	65	57	25	0	3	0	0
TALLAHASSEE	60	32	69	21	46	-9	0.00	-0.83	0.00	0.03	3	41.02	68	74	39	0	5	0	0
TAMPA	73	54	81	45	63	-2	0.00	-0.52	0.00	0.00	0	53.47	124	78	45	0	0	0	0
WEST PALM BEACH	77	65	82	61	71	1	0.42	-0.43	0.35	0.42	37	43.52	73	87	59	0	0	2	0
GA ATHENS	53	32	63	19	42	-5	0.00	-0.79	0.00	0.11	12	35.34	78	***	***	0	3	0	0
ATLANTA	52	28	60	19	40	-7	0.00	-0.87	0.00	0.37	33	45.75	96	53	30	0	5	0	0
AUGUSTA	56	26	65	15	41	-8	0.00	-0.59	0.00	0.10	13	35.64	84	82	35	0	5	0	0
COLUMBUS	57	30	66	22	44	-7	0.00	-0.99	0.00	0.25	20	36.20	80	65	23	0	4	0	0
MACON	55	25	63	16	40	-10	0.00	-0.83	0.00	0.31	29	28.95	69	80	25	0	6	0	0
SAVANNAH	58	32	70	21	45	-8	0.05	-0.47	0.05	0.06	9	31.75	67	87	43	0	4	1	0
HI HILO	81	67	83	64	74	1	0.99	-1.86	0.59	4.46	119	119.00	100	84	75	0	0	4	1
HONOLULU	84	72	86	66	78	2	0.32	-0.27	0.31	0.32	42	29.41	182	71	62	0	0	2	0
KAHULUI	81	70	83	62	75	1	0.49	-0.11	0.49	3.08	405	17.28	105	79	69	0	0	1	0
LIHUE	79	71	81	67	75	1	0.06	-0.99	0.04	0.12	9	66.05	183	81	72	0	0	2	0
ID BOISE	40	21	48	18	31	-1	0.03	-0.29	0.03	0.03	7	10.46	93	81	67	0	7	1	0
LEWISTON	43	29	47	24	36	1	0.01	-0.22	0.01	0.01	3	11.56	97	86	67	0	6	1	0
POCATELLO	40	10	50	1	25	-2	0.00	-0.24	0.00	0.02	6	11.69	99	86	66	0	7	0	0
IL CHICAGO/O'HARE	26	10	35	4	18	-13	0.00	-0.61	0.00	1.25	158	40.05	116	73	59	0	7	0	0
MOLINE	31	9	39	2	20	-10	0.00	-0.54	0.00	0.30	43	34.61	95	69	56	0	7	0	0
PEORIA	27	8	35	-4	18	-13	0.00	-0.63	0.00	0.91	111	29.70	86	80	60	0	7	0	0
ROCKFORD	27	5	36	-3	16	-12	0.01	-0.52	0.01	0.96	139	36.29	103	78	61	0	7	1	0
SPRINGFIELD	30	8	39	-3	19	-15	0.00	-0.63	0.00	5.33	658	34.74	103	82	59	0	7	0	0
IN EVANSVILLE	38	18	49	9	28	-10	0.00	-0.91	0.00	0.22	18	61.83	147	76	52	0	7	0	0
FORT WAYNE	32	15	43	7	23	-9	0.03	-0.64	0.03	0.82	94	38.26	110	76	58	0	7	1	0
INDIANAPOLIS	35	15	46	7	25	-10	0.03	-0.72	0.03	0.52	53	46.32	119	78	47	0	7	1	0
SOUTH BEND	30	15	42	5	23	-9	0.13	-0.63	0.05	0.73	74	42.18	112	78	62	0	7	4	0
IA BURLINGTON	30	8	39	0	19	-12	0.00	-0.55	0.00	0.01	1	26.93	74	81	54	0	7	0	0
CEDAR RAPIDS	33	6	55	-1	20	-7	0.00	-0.39	0.00	0.00	0	28.18	87	89	47	0	7	0	0
DES MOINES	37	12	52	3	25	-3	0.00	-0.34	0.00	0.00	0	30.86	91	70	51	0	7	0	0
DUBUQUE																			

Weather Data for the Week Ending December 9, 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	45	20	56	12	32	-4	0.00	-0.32	0.00	0.00	0	27.67	94	74	47	0	6	0	0
KY JACKSON	41	19	53	10	30	-11	0.02	-1.01	0.02	0.22	17	43.82	94	70	33	0	7	1	0
KY LEXINGTON	38	17	50	9	28	-11	0.00	-0.91	0.00	0.49	42	50.23	117	73	46	0	7	0	0
KY LOUISVILLE	40	20	52	11	30	-11	0.02	-0.86	0.02	0.37	32	54.09	129	73	33	0	6	1	0
LA PADUCAH	40	19	52	10	30	-10	0.01	-1.11	0.01	0.08	6	62.73	135	83	38	0	7	1	0
LA BATON ROUGE	56	28	67	22	42	-12	0.00	-1.16	0.00	0.00	0	41.47	70	74	24	0	5	0	0
LA LAKE CHARLES	55	31	67	24	43	-12	0.00	-1.01	0.00	0.00	0	50.98	95	79	29	0	4	0	0
LA NEW ORLEANS	54	35	63	29	45	-12	0.00	-1.22	0.00	0.00	0	35.85	59	63	50	0	1	0	0
LA SHREVEPORT	53	29	62	22	41	-9	0.00	-1.04	0.00	0.00	0	36.95	77	70	29	0	5	0	0
ME CARIBOU	28	11	36	2	20	0	0.12	-0.58	0.06	0.75	83	39.28	112	88	67	0	7	4	0
ME PORTLAND	39	20	50	12	30	-1	0.12	-0.86	0.08	0.83	66	58.33	136	80	49	0	7	3	0
MD BALTIMORE	44	22	55	18	33	-6	0.00	-0.72	0.00	0.09	10	41.46	105	73	40	0	7	0	0
MA BOSTON	42	28	54	20	35	-3	0.19	-0.65	0.19	0.37	34	51.36	129	71	41	0	6	1	0
MA WORCESTER	37	21	49	14	29	-3	0.01	-0.83	0.01	0.74	68	49.59	107	79	44	0	7	1	0
MI ALPENA	29	14	40	7	21	-6	0.12	-0.29	0.07	0.42	79	30.45	112	85	63	0	7	4	0
MI GRAND RAPIDS	29	18	37	13	24	-7	0.38	-0.33	0.19	1.16	125	41.79	118	84	65	0	7	4	0
MI HOUGHTON LAKE	27	15	36	7	21	-6	0.12	-0.29	0.08	0.40	75	31.61	116	84	73	0	7	3	0
MI LANSING	29	18	36	14	23	-7	0.12	-0.45	0.07	1.02	138	34.91	116	79	67	0	7	4	0
MI MUSKOGON	32	22	39	18	27	-4	0.51	-0.14	0.18	1.07	127	37.96	122	73	65	0	7	5	0
MI TRAVERSE CITY	29	19	40	16	24	-6	0.09	-0.49	0.04	0.72	97	27.94	89	87	61	0	7	4	0
MN DULUTH	20	2	41	-7	11	-7	0.17	-0.10	0.11	0.20	56	23.53	77	78	66	0	7	3	0
MN INT'L FALLS	18	-3	41	-12	7	-6	0.24	0.06	0.16	0.33	138	17.64	75	85	67	0	7	3	0
MN MINNEAPOLIS	28	8	48	-1	18	-4	0.00	-0.25	0.00	0.00	0	25.44	89	66	53	0	7	0	0
MN ROCHESTER	28	7	48	0	18	-3	0.00	-0.28	0.00	0.00	0	30.22	98	72	58	0	7	0	0
MN ST. CLOUD	26	4	47	-5	15	-3	0.02	-0.14	0.01	0.02	9	22.73	85	81	51	0	7	2	0
MS JACKSON	52	25	64	20	38	-12	0.00	-1.20	0.00	0.00	0	45.67	88	79	28	0	6	0	0
MS MERIDIAN	54	22	63	16	38	-13	0.00	-1.20	0.00	0.00	0	43.57	79	84	28	0	7	0	0
MS TUPELO	46	21	53	14	34	-11	0.00	-1.39	0.00	0.00	0	42.59	83	79	48	0	7	0	0
MO COLUMBIA	36	11	45	-2	23	-12	0.00	-0.67	0.00	0.32	37	29.10	75	78	51	0	7	0	0
MO KANSAS CITY	39	17	49	8	28	-6	0.00	-0.43	0.00	0.00	0	29.11	79	76	43	0	7	0	0
MO SAINT LOUIS	38	19	50	11	28	-9	0.02	-0.73	0.01	0.40	41	28.29	77	70	56	0	6	2	0
MO SPRINGFIELD	40	14	50	5	27	-11	0.00	-0.90	0.00	0.09	8	37.25	87	70	53	0	7	0	0
MT BILLINGS	44	25	57	8	35	7	0.00	-0.11	0.00	0.00	0	12.63	89	69	41	0	5	0	0
MT BUTTE	36	6	41	-9	21	2	0.00	-0.11	0.00	0.00	0	12.17	98	88	55	0	7	0	0
MT CUT BANK	44	23	58	4	33	10	0.00	-0.06	0.00	0.00	0	3.87	32	79	43	0	6	0	0
MT GLASGOW	32	5	41	-16	19	0	0.01	-0.05	0.01	0.02	29	10.35	95	84	76	0	7	1	0
MT GREAT FALLS	45	28	57	15	36	10	0.01	-0.10	0.01	0.01	7	17.95	125	72	42	0	4	1	0
MT HAVRE	36	11	45	-10	24	2	0.04	-0.05	0.03	0.04	36	8.74	79	83	70	0	7	2	0
MT MISSOULA	29	16	40	12	23	-2	0.05	-0.20	0.05	0.05	16	16.01	123	87	79	0	7	1	0
NE GRAND ISLAND	45	16	63	0	31	3	0.00	-0.18	0.00	0.00	0	22.21	87	68	42	0	7	0	0
NE LINCOLN	43	14	61	4	29	0	0.00	-0.22	0.00	0.00	0	21.63	78	65	40	0	7	0	0
NE NORFOLK	41	15	58	1	28	2	0.00	-0.18	0.00	0.00	0	24.17	92	63	43	0	7	0	0
NE NORTH PLATTE	50	9	63	-5	29	1	0.00	-0.08	0.00	0.00	0	17.71	91	85	28	0	7	0	0
NE OMAHA	40	14	55	3	27	-2	0.00	-0.26	0.00	0.00	0	26.81	90	70	50	0	7	0	0
NE SCOTTSBLUFF	53	14	63	-1	34	7	0.00	-0.13	0.00	0.00	0	10.59	66	65	33	0	7	0	0
NE VALENTINE	48	8	69	-14	28	2	0.00	-0.08	0.00	0.00	0	13.51	70	73	43	0	7	0	0
NV ELY	51	11	57	-3	31	4	0.00	-0.08	0.00	0.00	0	8.90	93	70	33	0	7	0	0
NV LAS VEGAS	63	38	69	31	50	2	0.00	-0.06	0.00	0.00	0	1.59	38	28	19	0	2	0	0
NV RENO	49	20	59	16	35	0	0.00	-0.19	0.00	0.00	0	6.76	99	70	52	0	6	0	0
NV WINNEMUCCA	40	5	50	-5	23	-8	0.02	-0.15	0.01	0.05	24	8.85	114	85	59	0	7	2	0
NH CONCORD	37	20	50	14	29	-1	0.03	-0.66	0.03	1.03	116	52.74	148	80	46	0	7	1	0
NJ NEWARK	43	25	55	18	34	-5	0.00	-0.81	0.00	0.24	23	48.21	110	63	35	0	7	0	0
NM ALBUQUERQUE	48	24	55	19	36	-2	0.00	-0.08	0.00	0.00	0	11.56	127	60	30	0	7	0	0
NY ALBANY	37	20	44	10	29	-3	0.01	-0.62	0.01	0.45	55	45.03	124	76	52	0	7	1	0
NY BINGHAMTON	33	17	39	7	25	-5	0.09	-0.66	0.04	0.82	85	48.43	132	75	55	0	7	3	0
NY BUFFALO	34	20	43	11	27	-6	0.27	-0.63	0.16	1.43	122	42.68	113	82	56	0	7	3	0
NY ROCHESTER	38	23	47	14	31	-1	0.04	-0.61	0.02	1.29	154	39.33	123	67	51	0	7	3	0
NY SYRACUSE	37	21	45	11	29	-3	0.19	-0.61	0.14	1.45	139	44.89	118	78	50	0	7	3	0
NC ASHEVILLE	46	22	55	13	34	-7	0.00	-0.76	0.00	0.19	19	43.84	98	67	35	0	6	0	0
NC CHARLOTTE	51	25	57	14	38	-9	0.00	-0.66	0.00	0.03	3	42.08	102	70	26	0	6	0	0
NC GREENSBORO	48	25	54	16	37	-6	0.00	-0.66	0.00	0.05	6	48.71	119	61	28	0	6	0	0
NC HATTERAS	56	39	63	30	48	-4	0.40	-0.52	0.40	0.48	40	48.97	90	80	44	0	1	1	0
NC RALEIGH	51	26	59	16	38	-7	0.32	-0.31	0.32	0.55	67	51.24	125	74	34	0	6	1	0
NC WILMINGTON	54	29	64	19	42	-9	0.36	-0.47	0.36	0.40	38	59.94	110	89	36	0	5	1	0
ND BISMARCK	35	3	51	-15	19	0	0.06	-0.02	0.04	0.07	64	10.34	63	81	65	0	7	2	0
ND DICKINSON	39	7	53	-13	23	2	0.00	-0.08	0.00	0.00	0	11.27	70	85	47	0	7	0	0
ND FARGO	29	5	50	-9	17	1	0.09	-0.02	0.04	0.13	93	16.21	78	78	61	0	7	5	0
ND GRAND FORKS	25	3	45	-12	14	-1	0.02	-0.09	0.01	0.04	29	14.80	77	84	61	0	7	2	0
ND JAMESTOWN	31	4	53	-10	18	1	0.00	-0.08	0.00	0.00	0	14.44	80	86	59	0	7	0	0
ND WILLISTON	31	-4	41	-24	13	-3	0.04	-0.08	0.04	0.07	44	11.56	84	85	72	0	7	1	0
OH AKRON-CANTON	32	19	43	15	25	-9	0.19	-0.53	0.15	0.92	99	42.16	116	74	58	0	7	2	0
OH CINCINNATI	36	18	50	9	27	-10	0.00	-0.76	0.00	0.34	35	43.37	108	73	47	0	7	0	0
OH CLEVELAND	32	22	41	17	27	-7	0.52	-0.27	0.31	1.42	139	38.55	105	76	50	0	7	4	0
OH COLUMBUS	35	20	47	13	28	-8	0.00	-0.72	0.00	0.58	62	41.06	112	65	46	0	7	0	0
OH DAYTON	32	16	43	8	24	-11	0.00	-0.73	0.00	0.55	59	42.23	113	79	53	0	7	0	0
OH MANSFIELD	31	19	41	11	25	-8	0.00	-0.81	0.00	0.68	65	40.79	99	78	51	0	7	0	0

Based on 1971-2000 normals

*** Not Available

Weather Data for the Week Ending December 9, 2006

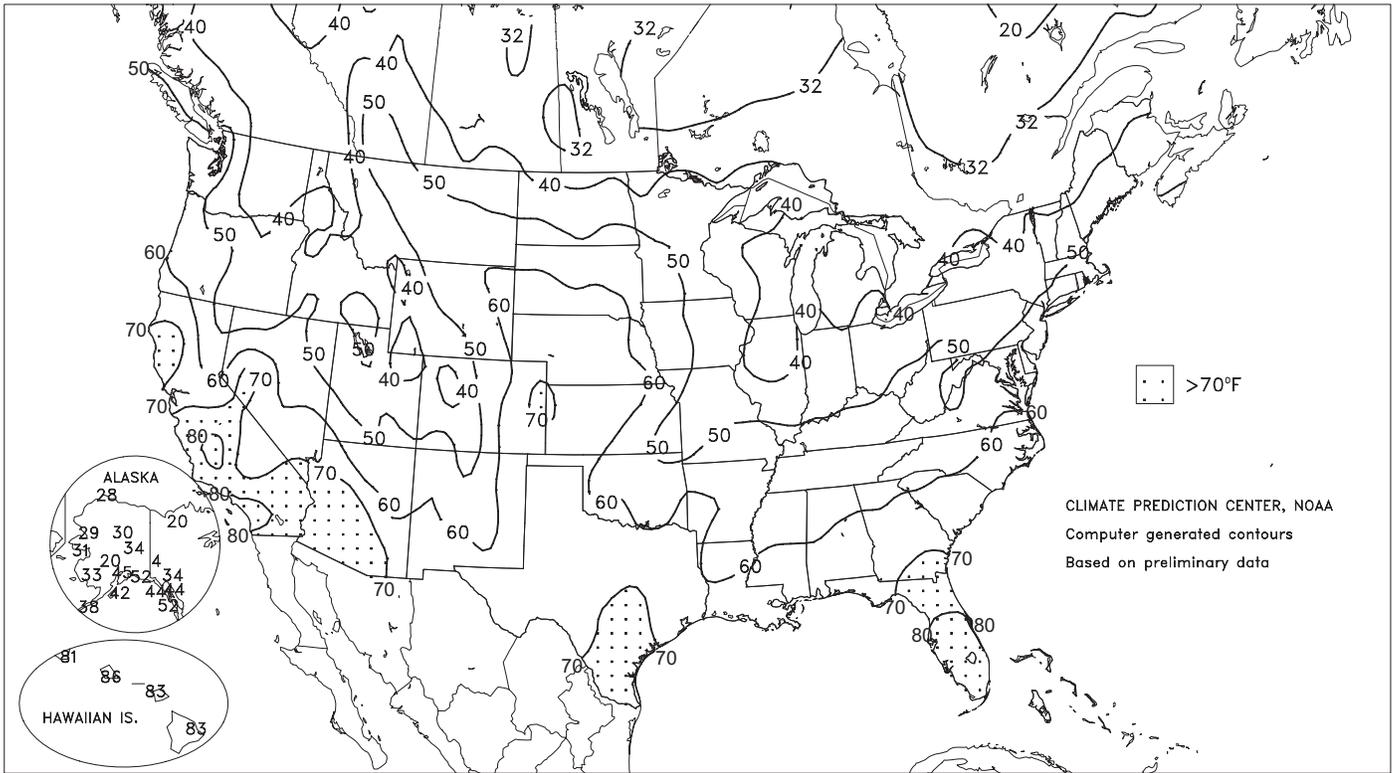
STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION							RELATIVE HUMIDITY PERCENT		NUMBER OF DAYS					
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL IN. SINCE DEC01	PCT. NORMAL SINCE DEC01	TOTAL IN. SINCE JAN01	PCT. NORMAL SINCE JAN01	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP. °F		PRECIP	
																		01 INCH OR MORE	50 INCH OR MORE	01 INCH OR MORE	50 INCH OR MORE
OK TOLEDO	32	20	43	15	26	-6	0.01	-0.64	0.01	1.03	123	41.35	132	73	57	0	7	1	0		
OK YOUNGSTOWN	32	20	43	16	26	-7	0.49	-0.25	0.30	0.88	92	46.29	129	77	59	0	7	5	0		
OK OKLAHOMA CITY	49	23	58	16	36	-6	0.00	-0.41	0.00	0.00	0	25.82	75	70	33	0	6	0	0		
OR TULSA	43	20	52	11	32	-10	0.00	-0.65	0.00	0.01	1	33.97	83	68	50	0	7	0	0		
OR ASTORIA	50	37	54	33	44	0	1.32	-1.17	0.97	1.33	41	71.42	119	86	77	0	0	4	1		
OR BURNS	34	6	41	-1	20	-7	0.05	-0.23	0.05	0.05	14	11.12	115	83	77	0	7	1	0		
OR EUGENE	45	30	55	24	37	-4	0.10	-1.92	0.06	0.10	4	41.70	92	97	92	0	5	2	0		
OR MEDFORD	52	30	64	25	41	2	0.01	-0.69	0.01	0.01	1	17.07	104	92	59	0	6	1	0		
OR PENDLETON	31	26	33	21	28	-7	0.06	-0.28	0.06	0.06	14	12.27	105	95	92	0	7	1	0		
OR PORTLAND	44	35	48	32	40	-1	0.19	-1.18	0.16	0.19	11	37.39	113	81	69	0	1	3	0		
OR SALEM	46	30	53	28	38	-3	0.26	-1.31	0.21	0.26	13	42.32	119	95	84	0	6	2	0		
PA ALLENTOWN	41	21	50	18	31	-4	0.00	-0.78	0.00	0.36	35	47.41	111	70	38	0	7	0	0		
PA ERIE	33	23	41	19	28	-8	0.32	-0.60	0.09	1.52	128	42.17	105	69	55	0	7	6	0		
PA MIDDLETOWN	41	23	49	21	32	-5	0.00	-0.80	0.00	0.02	2	43.82	114	73	38	0	7	0	0		
PA PHILADELPHIA	43	26	54	23	35	-5	0.00	-0.74	0.00	0.20	21	46.26	117	63	33	0	7	0	0		
PA PITTSBURGH	36	20	50	17	28	-7	0.01	-0.68	0.01	0.30	34	33.21	93	68	44	0	7	1	0		
PA WILKES-BARRE	37	21	45	13	29	-5	0.00	-0.63	0.00	0.34	41	44.64	125	72	41	0	7	0	0		
PA WILLIAMSPORT	39	21	45	16	30	-4	0.01	-0.73	0.01	0.73	75	46.14	116	69	45	0	7	1	0		
RI PROVIDENCE	43	25	57	19	34	-3	0.25	-0.69	0.24	0.63	52	52.53	121	70	45	0	7	2	0		
SC BEAUFORT	57	34	70	22	45	-8	0.10	-0.49	0.10	0.17	22	34.77	73	94	39	0	3	1	0		
SC CHARLESTON	58	33	70	19	45	-8	0.18	-0.46	0.18	0.18	22	47.16	96	87	37	0	3	1	0		
SC COLUMBIA	54	27	63	16	40	-9	0.01	-0.64	0.01	0.25	30	40.40	88	79	34	0	5	1	0		
SC GREENVILLE	53	27	59	19	40	-6	0.00	-0.83	0.00	0.03	3	37.56	79	58	28	0	6	0	0		
SD ABERDEEN	36	4	55	-12	20	1	0.01	-0.05	0.01	0.01	14	15.14	76	79	59	0	7	1	0		
SD HURON	39	8	56	-7	23	1	0.00	-0.08	0.00	0.00	0	16.32	79	77	42	0	7	0	0		
SD RAPID CITY	46	12	62	-7	29	3	0.01	-0.05	0.01	0.01	14	11.78	72	73	38	0	7	1	0		
SD SIOUX FALLS	34	8	56	-4	21	-1	0.02	-0.11	0.02	0.02	11	24.83	102	74	59	0	7	1	0		
TN BRISTOL	42	18	54	8	30	-9	0.00	-0.77	0.00	0.12	12	38.60	99	79	37	0	6	0	0		
TN CHATTANOOGA	48	23	56	16	35	-10	0.00	-1.11	0.00	0.10	7	43.35	85	69	35	0	6	0	0		
TN KNOXVILLE	44	22	57	14	33	-10	0.00	-1.01	0.00	0.14	11	45.85	102	74	34	0	6	0	0		
TN MEMPHIS	45	24	56	16	34	-12	0.00	-1.44	0.00	0.00	0	36.10	71	69	30	0	6	0	0		
TN NASHVILLE	44	22	55	17	33	-10	0.00	-1.09	0.00	0.24	17	42.55	95	61	27	0	7	0	0		
TX ABILENE	53	26	63	16	39	-8	0.00	-0.25	0.00	0.00	0	19.66	86	70	42	0	6	0	0		
TX AMARILLO	49	23	66	15	36	-3	0.00	-0.09	0.00	0.00	0	19.40	101	77	37	0	7	0	0		
TX AUSTIN	56	35	72	25	46	-8	0.00	-0.53	0.00	0.00	0	30.39	95	54	36	0	3	0	0		
TX BEAUMONT	55	34	64	28	45	-11	0.00	-1.13	0.00	0.00	0	59.00	105	75	32	0	4	0	0		
TX BROWNSVILLE	66	44	78	11	55	-8	1.02	0.76	0.63	1.05	300	20.71	77	87	66	0	1	4	1		
TX CORPUS CHRISTI	61	45	75	37	53	-7	0.61	0.24	0.44	0.61	130	32.44	105	70	52	0	0	3	0		
TX DEL RIO	56	38	67	29	47	-7	0.08	-0.09	0.08	0.08	38	9.34	53	67	41	0	1	1	0		
TX EL PASO	54	30	63	23	42	-5	0.00	-0.16	0.00	0.00	0	17.46	197	60	33	0	5	0	0		
TX FORT WORTH	53	29	63	20	41	-8	0.00	-0.54	0.00	0.00	0	26.42	80	69	27	0	6	0	0		
TX GALVESTON	57	44	64	35	51	-9	0.00	-0.80	0.00	0.00	0	45.67	110	72	41	0	0	0	0		
TX HOUSTON	56	36	64	30	46	-9	0.00	-0.84	0.00	0.00	0	55.79	123	76	38	0	3	0	0		
TX LUBBOCK	51	24	63	19	37	-4	0.00	-0.14	0.00	0.00	0	14.05	77	76	47	0	7	0	0		
TX MIDLAND	52	25	62	14	39	-7	0.02	-0.12	0.02	0.02	12	14.48	101	73	41	0	6	1	0		
TX SAN ANGELO	55	27	65	13	41	-7	0.00	-0.19	0.00	0.00	0	16.89	84	70	37	0	5	0	0		
TX SAN ANTONIO	57	39	72	29	48	-6	0.02	-0.42	0.02	0.02	4	18.92	60	66	33	0	1	1	0		
TX VICTORIA	59	40	72	27	50	-7	0.06	-0.49	0.03	0.06	8	37.43	98	78	43	0	2	2	0		
TX WACO	55	28	68	23	41	-9	0.01	-0.62	0.01	0.01	1	21.06	67	70	37	0	6	1	0		
TX WICHITA FALLS	53	25	62	17	39	-6	0.00	-0.37	0.00	0.00	0	20.01	73	66	39	0	7	0	0		
UT SALT LAKE CITY	40	19	53	15	30	-2	0.00	-0.27	0.00	0.00	0	15.19	97	84	47	0	7	0	0		
VT BURLINGTON	35	18	42	10	26	-3	0.24	-0.31	0.21	1.93	268	45.08	130	79	54	0	7	2	0		
VA LYNCHBURG	44	22	51	12	33	-7	0.00	-0.72	0.00	0.03	3	42.67	104	58	31	0	6	0	0		
VA NORFOLK	49	29	59	21	39	-8	0.38	-0.23	0.19	0.42	54	47.52	109	74	37	0	6	2	0		
VA RICHMOND	48	27	59	18	38	-5	0.25	-0.39	0.24	0.26	31	50.99	123	68	35	0	6	2	0		
VA ROANOKE	46	25	54	20	36	-5	0.00	-0.66	0.00	0.04	5	35.51	88	51	30	0	6	0	0		
WA WASH/DULLES	43	21	54	15	32	-7	0.00	-0.70	0.00	0.02	2	44.26	112	75	40	0	7	0	0		
WA OLYMPIA	46	32	49	25	39	0	0.25	-1.65	0.16	0.25	10	50.88	112	95	85	0	3	4	0		
WA QUILLAYUTE	51	38	61	32	44	3	1.01	-2.43	0.43	1.06	24	86.02	94	95	81	0	1	4	0		
WA SEATTLE-TACOMA	48	38	50	33	43	2	0.19	-1.17	0.19	0.20	11	41.33	124	95	79	0	0	1	0		
WA SPOKANE	32	19	36	12	26	-3	0.09	-0.45	0.09	0.12	17	18.86	125	94	83	0	7	1	0		
WA YAKIMA	31	17	35	11	24	-6	0.05	-0.25	0.05	0.05	13	7.05	97	91	84	0	7	1	0		
WV BECKLEY	38	17	53	8	28	-9	0.00	-0.69	0.00	0.16	18	44.25	112	66	48	0	7	0	0		
WV CHARLESTON	42	20	56	12	31	-9	0.00	-0.80	0.00	0.08	8	41.51	99	78	34	0	7	0	0		
WV ELKINS	38	12	53	2	25	-10	0.03	-0.77	0.01	0.20	19	37.98	87	86	36	0	7	2	0		
WV HUNTINGTON	41	20	54	12	30	-10	0.47	-0.30	0.46	0.60	61	48.03	120	69	35	0	7	2	0		
WI EAU CLAIRE	28	6	43	0	17	-5	0.00	-0.27	0.00	0.00	0	26.51	84	77	52	0	7	0	0		
WI GREEN BAY	26	10	35	2	18	-7	0.03	-0.34	0.03	0.06	12	27.86	99	75	56	0	7	1	0		
WI LA CROSSE	31	10	45	4	20	-6	0.00	-0.33	0.00	0.00	0	27.95	89	70	45	0	7	0	0		
WI MADISON	27	10	36	4	18	-9	0.00	-0.43	0.00	0.17	30	35.55	112	73	59	0	7	0	0		
WI MILWAUKEE	26	10	35	6	18	-12	0.02	-0.54	0.01	0.34	47	35.37	106	71	56	0	7	2	0		
WY CASPER	47	19	53	7	33	8	0.00	-0.14	0.00	0.00	0	10.25	81	58	35	0	6	0	0		
WY CHEYENNE	48	19	61	-1	34	6	0.00	-0.11	0.00	0.00	0	10.59	70	53	32	0	7	0	0		
WY LANDER	44	13	50	0	29	6	0.00	-0.14	0.00	0.00	0	7.09	55	78	30	0	7	0	0		
WY SHERIDAN	50	19	59	-3	35	11	0.00	-0.14	0.00	0.01	6	9.30	65	76	47	0	7	0	0		

Based on 1971-2000 normals

*** Not Available

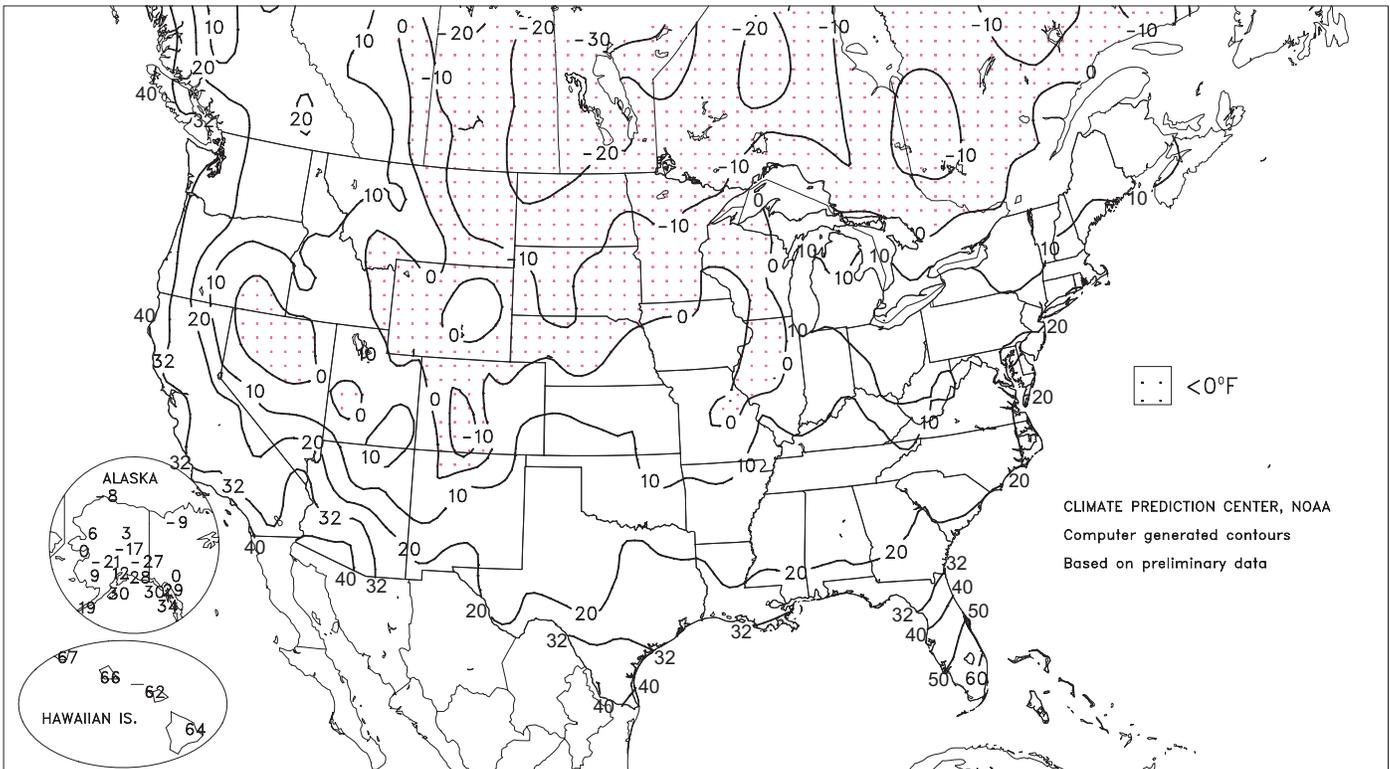
Extreme Maximum Temperature (°F)

DEC 3 - 9, 2006



Extreme Minimum Temperature (°F)

DEC 3 - 9, 2006



(Continued from front cover)

on December 5, 8, and 9. According to USDA/NASS, Louisiana's sugarcane (2006-07 production estimated at 12.18 million tons, or 41 percent of the national total) was 58 percent harvested on December 3, well behind the 5-year average of 70 percent, leaving a larger-than-usual portion of the crop exposed to an early-season cold snap. Elsewhere, significant precipitation was confined to **northern and central California, southern Texas**, and areas downwind of the **Great Lakes**. Precipitation in **California** and **Texas** arrived toward week's end, while snow showers in the **Great Lakes States** were most prevalent through Thursday. In **California**, a slow start to the 2006-07 wet season was briefly interrupted by locally heavy rain and snow showers. Moisture was especially beneficial for pasture growth in **California's Central Valley**. Meanwhile, a shallow to moderate snow cover persisted for several days across the **northern and southern Plains** and the **interior Northwest**, providing winter wheat with moisture and insulation. However, moisture reserves continued to diminish in wheat areas from **northwestern Oklahoma into western South Dakota**. Farther east, very cold, dry weather in the **eastern Corn Belt** allowed summer crop harvesting to near completion due to frozen fields. Late-season **Southeastern** fieldwork, including winter wheat planting and cotton and soybean harvesting, also advanced under a cool, mostly dry regime.

During the first 9 days of December, well over 200 daily-record lows were set or tied nationwide. From December 1-4, four consecutive daily-record lows were established in **Winnemucca, NV** (2, 0, -1, and -5°F); **Chanute, KS** (6, -2, 5, and 6°F); **Joplin, MO** (11, 6, 10, and 11°F); and **Tulsa, OK** (13, 9, 14, and 16°F). **Western** daily records for December 3 included -27°F in **Crested Butte, CO**, and -10°F in **Randolph, UT**. A day later, readings dipped to 0°F or lower in snow-covered locations such as **Bartlesville, OK** (-2°F), and **Springfield, IL** (0°F). Meanwhile in **southern California**, **Santa Barbara's** airport posted three consecutive record lows (32, 31, and 31°F) from December 4-6. **Southern California** also endured a high-wind event early in the week, with peak gusts well above 70 m.p.h. in locations such as **Laguna Peak** and **Wiley Ridge**. The 13,600-acre Shekell fire, which initially flared on the morning of December 3, destroyed at least five **Ventura County** homes.

Farther east, December 5 featured the first of three significant freezes in **Louisiana's sugarcane region**. **Alexandria, LA**, just northwest of the northern producing areas, posted records of 21, 23, and 18°F on December 5, 8, and 9, respectively. **New Iberia, LA** (26, 27, and 24°F), also notched record lows on those three dates. For **Alexandria**, the December 9 reading represented its lowest temperature since January 4, 2002, when the low was 17°F. For **New Iberia**, December 9 was the coldest day since January 24, 2003, when the low was 23°F. Meanwhile in **Alabama**, **Huntsville's** temperatures fell below 32°F on each of the first 7 days of December (the streak eventually reached 10 days) for the first time since 1979. In addition, **Huntsville's** low of 14°F on December 8 marked its coldest day since December 20, 2004, when it was also 14°F. Elsewhere, **Little Rock, AR** (14°F on December 8), posted its earliest reading below 15°F since December 7, 1950, when the low was 9°F. Additional record lows across the **South**,

Midwest, and **East** on December 8 included -4°F in **Peoria, IL**; 6°F in **Gilbert, AR**; 8°F in **Crossville, TN**; and 9°F in **Bluefield, WV**. In contrast, warmth arrived along the **West Coast** after mid-week and soon expanded to the **High Plains**. On December 7, daily-record highs included 87°F in **Woodland Hills, CA**, and 55°F in **Quillayute, WA**. A day later in **California**, **Fresno** experienced its warmest December day on record (77°F; previously, 76°F on December 1, 1926, and December 15, 1958), while **Bakersfield** (81°F) noted its warmest December day since December 3, 1979, when the high was 83°F. By December 9, daily-record highs on the **Plains** included 69°F in **Valentine, NE**, and 67°F in **Yankton, SD**. Elsewhere in **South Dakota**, **Philip's** low of -18°F on December 7 was followed 2 days later by a high of 63°F.

The majority of **Alaska** and **Hawaii** experienced mild, mostly dry weather. One exception was **southern Alaska**, where locally heavy precipitation fell. For example, **Juneau** followed its second-snowiest November (64.2 inches) with another 16.6 inches of snow during the first 10 days of December. December 1-10 **Alaskan** precipitation totals included 6.33 inches (273 percent of normal) in **Kodiak** and 3.39 inches (197 percent) in **Juneau**. Meanwhile, month-to-date (December 1-10) **Hawaiian** rainfall reached 3.08 inches (342 percent of normal) in **Kahului, Maui**, and 3.50 inches (86 percent) in **Hilo**, on the **Big Island**, although the majority of the precipitation fell during the first 2 days of the month. Weekly temperatures averaged as much as 20°F above normal across the **Alaskan mainland**, and ranged from 1 to 2°F above normal in **Hawaii**.

U.S. Crop Production Highlights

The following information was released by USDA's Agricultural Statistics Board on December 11, 2006. Forecasts refer to December 1.

All Cotton production is forecast at 21.3 million 480-pound bales, virtually unchanged from the November forecast but down 11 percent from last year's record-high production. Yield is expected to average 798 pounds per acre, unchanged from last month but down 33 pounds from last year. Compared with last year, yields are down in all States except Arizona, Arkansas, California, Tennessee, and Louisiana, with growers in Arkansas and Tennessee expecting a record-high production.

The **all orange** forecast for the 2006-07 season is 8.12 million tons, up 3 percent from the October forecast but down 9 percent from last season's final utilization of 8.90 million tons. Florida's all orange forecast, at 140 million boxes (6.30 million tons), is up 4 percent from the previous forecast but down 5 percent from the 2005-06 hurricane-reduced crop. This forecast is 43 percent lower than Florida's record-high utilization for the 1997-98 season of 244 million boxes. Early, midseason, and navel varieties in Florida are forecast at 75.0 million boxes (3.38 million tons), up 4 percent from the previous forecast but unchanged from last season's final utilization. Beginning with the current season, Temple oranges are included in this category. Florida's Valencia forecast is 65.0 million boxes (2.93 million tons), up 3 percent from the October forecast but down 11 percent from last season's final utilization. Average fruit sizes have increased and less fruit drop is now expected for all categories of oranges surveyed. Arizona, California, and Texas orange production forecasts are carried forward from October.

November Weather and Crop Summary

Weather

Weather summary provided by USDA/WAOB

Record-setting precipitation lashed the Northwest, triggering major flooding west of the Cascades but significantly improving soil moisture for winter grains. In contrast, little rain or snow fell across the Plains and the Southwest, promoting late-season fieldwork. However, the lack of moisture also maintained southern California's wildfire threat and reduced the Plains' moisture reserves for winter wheat establishment. Oklahoma and environs were particularly dry until month's end, when a major snow and ice storm blanketed areas from Texas' northern panhandle to Michigan. From November 29 - December 1, major snow (as much as 6 to 18 inches) and ice accumulations (locally one-half inch or more) severely stressed livestock and disrupted travel, but provided much-needed moisture for wheat from Texas to Missouri. Moisture was not welcomed, however, in the eastern Corn Belt, where the late-month storm ensured that final harvest activities would linger into December. Across the remainder of the Midwest, residual harvesting and other late-season fieldwork activities were completed under favorable conditions. Elsewhere, frequent storms lashed the Atlantic Coast States from the Carolinas northward into New England, while cool, mostly dry weather prevailed in Florida.

Mild weather returned nearly nationwide in November, following a pair of cooler-than-normal months. In fact, near- to below-normal temperatures were confined to the Southeast and the Pacific Northwest, while readings averaged at least 4°F above normal at several locations in the Northeast and from the Southwest into the upper Midwest.

From November 6-10, the month's most impressive warm spell tied or shattered more than three dozen monthly record highs across the Western and Central States. During the 5-day span, more than 300 daily-record highs were tied or broken nationwide. Some stations, including Hays, KS (90°F on November 8), and Lubbock, TX (90°F on November 9), reached the 90-degree mark in November for the first time on record. Lubbock's previous latest reading of 90°F or higher occurred on October 29, 2003. Similarly, Denver, CO (80°F on November 8), attained 80°F on a record-late date (previously, October 30, 1950). Elsewhere, monthly records were set from the Western communities of Monument, OR (80°F on November 6), and Woodland Hills, CA (101°F on November 7), to the Midwestern cities of Sioux City, IA (82°F on November 8), and Joplin, MO (87°F on November 9).

At the height of the warm spell, from November 6-8, Pacific Northwestern rivers rose to record levels. Many former records had been established during the floods of late-November 1990 or early-February 1996. For example, preliminary data indicated that the Skykomish River near Gold Bar, WA, crested 8.70 feet

above flood stage on November 6, edging by 1.21 feet the record set on November 24, 1990. Similarly, the Cowlitz River at Randle, WA, crested 7.14 feet above flood stage on November 7, surpassing the level set on February 9, 1996, by 0.9 foot.

Rainfall leading up to the record flooding was phenomenal; preliminary 24-hour State rainfall records were broken on November 6-7 in Washington, Oregon, and Idaho. At June Lake, WA, near Mount St. Helens, the 24-hour total of 15.20 inches broke the State record of 14.26 inches, set at Mt. Mitchell on November 23-24, 1986. In northwestern Oregon, Lee's Camp received 14.30 inches in 24 hours; the State record was 11.65 inches at Port Orford on November 19, 1996. Meanwhile in northern Idaho, Bear Mountain's 24-hour total of 9.40 inches shattered the State record of 7.17 inches, set at Rattlesnake Creek on November 23, 1909. Other Northwestern rainfall records included the wettest day at Stampede Pass, WA (8.22 inches on November 6; previously 7.29 inches on November 19, 1962), and the wettest 5-day period in Seattle, WA (7.57 inches from November 2-6; previously 6.69 inches in November 1990). Cooler weather returned later in the month, helping to blanket the Cascades and other Northwestern ranges. In the Oregon Cascades, for example, nearly 4 feet of snow blanketed White River in a 48-hour period from November 22-24, while more than 2 feet fell at Government Camp and Mount Hood Meadows. By month's end, the 70-inch snow depth at Hurricane Ridge, WA, was the highest end-of-November amount in the last quarter-century, surpassing the 64-inch depth in 1994.

Frequent precipitation through month's end propelled many Northwestern totals to November and all-time record proportions:

Record-High Monthly Precipitation (Inches)

Location	Total	Normal	Previous Record
Laurel Mountain, OR	49.59	18.36	49.57 in Dec. 1996
Paradise Ranger Stn., WA	41.64*	19.07	32.36 in Nov. 1990
Cushman Powerhouse, WA	35.25	15.16	32.01 in Jan. 2006
Quillayute, WA	30.76*	14.82	29.14 in Nov. 1983
Glenoma, WA	23.22*	10.07	20.63 in Dec. 1977
Seattle, WA	15.63	5.90	15.33 in Dec. 1933
Leavenworth, WA	12.76	4.27	12.39 in Jan. 2003
Bellingham, WA	12.06	5.44	11.60 in Nov. 1990
Troy, MT	8.65	3.66	8.06 in Jan. 1974
Thompson Falls, MT	7.40	2.66	6.68 in Dec. 1996

Record-High November Precipitation (Inches)

Location	Total	Normal	Previous Record
Laurel Mountain, OR	49.59	18.36	36.99 in 1995
Paradise Ranger Stn., WA	41.64*	19.07	32.36 in 1990
Cushman Powerhouse, WA	35.25	15.16	31.99 in 1998
Clearwater, WA	31.55	16.41	28.92 in 1977
Quillayute, WA	30.76*	14.82	29.14 in 1983
Bonneville Dam, OR	28.50	12.09	21.57 in 1995
Stampede Pass, WA	28.03*	12.84	25.43 in 1958
Glenoma, WA	23.22*	10.07	16.06 in 1988

Location	Total	Normal	Previous Record
Hoquiam, WA	21.38*	10.30	18.03 in 1990
Astoria, OR	21.07	10.31	19.60 in 1998
Mount Adams, WA	19.80	7.19	16.88 in 1983
Olympia, WA	19.68	8.13	15.51 in 1962
Snoqualmie Falls, WA	19.03	9.43	18.24 in 1990
Stehekin, WA	16.99*	6.50	13.13 in 1990
Longview, WA	16.54	7.44	14.77 in 1995
Seattle, WA	15.63	5.90	11.62 in 1998
Vancouver, WA	13.31	6.29	12.92 in 1942, 1973
Troutdale, OR	12.98	6.30	11.80 in 1960
Hillsboro, OR	12.85	6.03	12.76 in 1973
Leavenworth, WA	12.76	4.27	9.01 in 1955
Bellingham, WA	12.06	5.44	11.60 in 1990
Portland, OR	11.92	5.43	11.57 in 1942
Pierce, ID	11.09	5.29	8.58 in 1977
Headquarters, ID	10.79	5.00	10.55 in 1973
Haugan, MT	10.36	3.48	10.01 in 1927
Raleigh-Durham, NC	9.03	2.97	8.22 in 1948
Troy, MT	8.65	3.66	7.87 in 1973
Libby 32SSE, MT	7.64	3.06	6.14 in 1955
Thompson Falls, MT	7.40	2.66	5.97 in 1958
Superior, MT	5.05	1.66	4.21 in 1927

* November total estimated and subject to change due to equipment failure or other storm-related problems.

The Northwest was not alone in being wet, although Mid-Atlantic wetness was not quite comparable. Nevertheless, it was the wettest November on record in Raleigh-Durham, NC, with a monthly total of 9.03 inches (304 percent of normal). Raleigh-Durham netted daily-record totals on November 7, 16, and 22 (2.40, 2.36, and 1.46 inches, respectively). Elsewhere in North Carolina, monthly rainfall climbed to 13.09 inches in Ocracoke and 11.14 inches in Hatteras. In Richmond, VA, autumn rainfall of 22.31 inches (210 percent of normal), shattered its September-November 1999 standard of 19.86 inches. During the final East Coast storm of the month, selected peak wind gusts in North Carolina on November 22 included 71 m.p.h. in Elizabeth City and 67 m.p.h. Manteo. Storm-total rainfall topped 5 inches at several locations in the Carolinas, including Beaufort, NC (5.66 inches). The storm also produced some wet snow in the southern Atlantic region, as far south as the vicinity of Orlando, FL. November 21 featured the earliest trace of snow on record in locations such as Charleston, SC (previously, November 25, 1950), and Savannah, GA (previously, November 24, 1950). Farther inland, an inch of snow was reported on November 21 in locations such as Sylvania, GA, and Lodge, SC.

High winds were a common feature during November, especially around mid-month. Near the Oregon coast, wind gusts included 102 m.p.h. (on November 12) at Cape Blanco and 107 m.p.h. (on November 15) at Rockaway Beach. November 14 wind gusts in Utah were clocked to 89 m.p.h. on Ogden Peak and 66 m.p.h. in Wendover. On November 14-15, high winds reached the Plains, where northwesterly gusts reached 61 m.p.h. in Cheyenne, WY, Guymon, OK, and Wichita Falls, TX. A gust to 71 m.p.h. was reported in Boise City, OK. Farther east, however, a significant severe weather outbreak struck areas from the central Gulf Coast to the Carolinas. Early on November 15, a tornado killed an individual near Montpelier, St. Helena

Parish, LA, followed the next morning by a deadly F3 twister (winds estimated at 158 to 206 m.p.h.) in Riegelwood, Columbus County, NC. The Riegelwood tornado, which claimed eight lives, was the nation's deadliest since April 7, when eight people died in an F3 twister at Gallatin, TN. It was also the first deadly tornado of 2006 in the Eastern Time Zone. In addition, there had been only two U.S. tornado-related fatalities (both in Minnesota) from May 10 - November 14, a span of 189 days. However, the year-to-date tornado death toll reached 63, according to the Storm Prediction Center, the nation's highest annual number since 1999, when there were 95 tornado-related deaths.

Following the stormy, windy weather, mild, tranquil weather returned for a few days. In California, three consecutive daily-record highs were set from November 18-20 in locations such as Riverside (94, 94, and 95°F) and Woodland Hills (92, 96, and 94°F). In Arizona, Casa Grande posted consecutive highs of 90°F on November 19-20, setting daily records both days. Thanksgiving Day (November 23) featured additional record highs, including 76°F in both Ponca City, OK, and Joplin, MO. In Kansas, Wichita (69°F) experienced the second-warmest Thanksgiving Day during its 119-year period of record, behind only 71°F in 1965. Meanwhile, Rochester, MN, observed 5 consecutive days (November 22-26) with highs of 50°F or greater, its third-longest post-November 20 spell on record and longest since 1998 (11 days from November 25 - December 5). Meanwhile, Moline, IL, experienced 8 consecutive days (November 22-29) with readings of 60°F or higher, followed by an 8.3-inch snowfall on December 1.

Toward month's end, a major winter storm unfolded from the West into the Nation's mid-section. Alta, UT, received 32 inches of snow on November 27-28. Farther east, as much as 6 to 18 inches of snow fell from Texas' northern panhandle into parts of Michigan from November 29 - December 1. Official storm totals included 15.3 inches in Columbia, MO; 10.8 inches in Tulsa, OK; 10.7 inches in Rockford, IL; 7.2 inches in Amarillo, TX; and 6.4 inches in Houghton Lake, MI. In Tulsa, 10.5 inches of snow and sleet fell by the end of the month, breaking its November 1972 record of 5.6 inches. Tulsa's normal annual snowfall is 9.1 inches. Meanwhile, freezing rain glazed surfaces to a depth of one-half inch or more in an area stretching from east-central Missouri into central Illinois, including St. Louis, MO, and Springfield, IL. In St. Louis, storm-total (November 29 - December 1) precipitation reached 3.62 inches, including a substantial ice accumulation and 4.2 inches of snow and sleet. In the storm's wake, cold air blanketed the Nation, resulting in more than 150 daily-record lows from November 28 - December 1. Daily-record lows dipped to -20°F or lower in locations such as West Yellowstone, MT (-26°F on November 29), Stanley, ID (-21°F on November 29), and Alamosa, CO (-21°F on November 30). On the final day of November, monthly record lows were broken in Arizona locations such as Greer (-13°F; previously, -12°F on November 28, 1976) and the Grand Canyon Airport (-8°F; previously, -6°F

on November 19 and 20, 1985). A monthly record was also established in New Mexico on November 30 at El Morro National Monument (-23°F; previously -20°F on November 28 and 29, 1976).

Aside from the late-month storm, wintry weather was fairly scarce east of the Rockies. There was, however, a Midwestern storm, which produced the snowiest November day on record in Rhinelander, WI (12.5 inches on November 10; previously 12.0 inches on November 23, 1991). Elsewhere in the upper Midwest, Rochester, MN (10.5 inches of snow of November 10), noted its snowiest November day since November 25, 1952, when 10.6 inches fell. Meanwhile in western South Dakota, 8.2 inches of snow blanketed East Rapid City on November 9-10. Farther east, though, it was the least-snowy November on record in Burlington, VT (a trace, or 7.2 inches below normal; tied 1915, 1937, and 1948). It was also the least-snowy November atop Mt. Mansfield, Vermont's highest peak, where the 0.5 inch monthly sum was significantly lower than the former monthly record (7.0 inches in 1964). It was also the warmest November on record at several Northeastern locations, including Mt. Mansfield (34.6°F; previously 31.7°F in 1966) and Caribou, ME (36.7°F, or 6.1°F above normal; previously, 36.5°F in 1953). Meanwhile, there were plenty of Plains and Southwestern locations with November precipitation totals below 0.10 inch. Monthly precipitation totaled just 0.06 inch in Flagstaff, AZ, and Dodge City, KS (3 and 6 percent of normal, respectively). Only a trace was reported during November in locations such as Phoenix, AZ (0.73 inch below normal); Midland, TX (0.65 inch below normal); and Mobridge, SD (0.55 inch below normal). Monthly snowfall was just 5 percent of normal in Bismarck, ND (0.5 inch), and Flagstaff (0.6 inch).

Locally heavy rain fell across Hawaii early in the month, when October 31 - November 2 totals on Oahu included 21.03 inches in Maunawili and 18.11 inches at the Wilson Tunnel. During the same period on Maui, West Wailuaiki netted 14.06 inches. At Hawaii's major airport sites, daily-record totals for November 2 included 2.73 inches in Kahului, Maui, and 2.35 inches in Honolulu, Oahu. That event accounted for the majority of the month's rainfall, which totaled 3.04 inches (140 percent of normal) in Kahului and 2.61 inches (115 percent) in Honolulu. A few heavy showers returned at month's end, when the Big Island location of Honokaa received 6.38 inches in a 24-hour period on November 30 - December 1. Elsewhere on the Big Island, late-month rainfall was not enough to prevent a very dry month in Hilo (3.21 inches, or 21 percent of normal).

In early November, mild weather continued for a ninth consecutive week across mainland Alaska, while cold air settled across the southeastern part of the State. The remainder of the month was very cold, with significant precipitation confined to southeastern Alaska. In fact, it was the second-snowiest November on record in Juneau, where the 64.2-inch monthly total (522 percent of normal) fell just shy of the 1994 standard of 69.8 inches. Juneau's snow fell in three waves, from November 6-9 (8.4 inches), 13-19 (35.7 inches), and 28-30 (20.1 inches). The final event featured Juneau's snowiest November

day on record, a 19.1-inch total on the 29th (previously, 17.1 inches on November 23, 1994). Remarkably, monthly precipitation was below normal in Juneau (3.40 inches, or 63 percent of normal), but even more significantly below normal in most mainland locations, including Anchorage (0.04 inch, or 4 percent) and Fairbanks (0.09 inch, or 13 percent). In fact, Yakutat's monthly total of 1.82 inches (12 percent of normal) was a record low for November (previously, 3.23 inches in 1985), while Anchorage's sum tied 1934 for its second-lowest November amount, behind 0.03 inch in 1921. Anchorage also posted its third-coldest November (11.9°F, or 9.9°F below normal), behind 9.4°F in 1955 and 10.1°F in 1990, while it was the coldest November on record in Juneau (19.4°F, or 12.6°F below normal; previously, 20.9°F in 1985). On November 26, Northway noted a low of -49°F, while Valdez (0°F) broke a monthly record previously set with a low of 1°F on November 11 and 12, 1989. Lows dipped to -5°F on November 27 and 28 in Juneau, tying its November record.

Fieldwork

Fieldwork summary provided by USDA/NASS

Above-normal temperatures prevailed across most of the Nation, with the exception of the Southeast. In the Great Plains, mostly dry weather was favorable for harvest of summer crops but caused some declines in winter wheat condition. The Southwest was also mostly dry, while moderate rainfall in the Mississippi Delta and Southeast did not seriously hamper fieldwork. In the eastern Corn Belt and Ohio River Valley, moderate precipitation in November, combined with lingering wetness from October rains, further delayed harvest of summer crops and winter wheat planting. Heavy precipitation along the Atlantic Coast from New England to the Carolinas did not significantly slow cotton and peanut harvest. In the Pacific Northwest, precipitation was heavy in coastal areas but moderate in the crop-producing areas further inland.

Corn harvest continued to progress behind the normal pace, mostly due to soggy field conditions in the eastern Corn Belt. By November 26, growers had harvested 97 percent of their acreage, 2 points behind last year and 1 point behind normal. Harvest was near or ahead of normal in all States, except Indiana, Michigan, and Ohio, where progress trailed over a week behind the normal pace. Harvest was complete or nearly complete across the western Corn Belt and Great Plains.

The sorghum harvest trailed normal early in the month but accelerated to end the month ahead of normal. By November 5, just 70 percent of the crop had been reaped, compared with 78 percent last year and 76 percent for the 5-year average. However, by November 26, harvest had advanced to 94 percent complete, 2 points ahead of normal. In Colorado, New Mexico, and Oklahoma, where the crop was well behind normal early in the month, harvest advanced 35, 40, and 41 points, respectively, in the final 2 weeks. At month's end, only Colorado trailed the normal harvest pace.

Winter wheat planting progressed at a normal pace through the first half of the month, reaching 96 percent complete by November 12. Progress was at or ahead of normal in most areas but trailed in the eastern Corn Belt due to wet field conditions. Emergence also progressed at a near-normal pace. By November 26, ninety-four percent of the crop had emerged, the same as last year but 1 point ahead of normal. Though progress was at or ahead of normal in most States, Ohio's crop trailed the normal pace by over 2 weeks, while Michigan's crop was over 4 weeks behind.

The Nation's soybean crop was harvested slightly behind normal. Growers had harvested 96 percent of their acreage by November 19, compared with 99 percent last year and 97 percent for the 5-year average. Progress was at or ahead of normal across the western Corn Belt and Great Plains but trailed normal in the Ohio River Valley and eastern Corn Belt due to wet conditions. Indiana, Kentucky, Michigan, and Ohio growers trailed the normal pace by a week or more.

After a slow start, the sunflower harvest progressed rapidly in late October through November, aided by mostly dry conditions. By November 19, harvest was 97 percent complete, 1 point ahead of last year and 4 points ahead of normal. Harvest was complete in North Dakota and at or ahead of normal in all States.

Peanut growers continued to trail the normal harvest pace during November. By November 26, ninety-seven percent of the acreage had been harvested, compared with 100 percent last year and 98 percent for the 5-year average. Harvest was complete in Virginia and the Carolinas. Farther south, however, harvest was behind normal in Florida and Georgia and over 3 weeks behind in Alabama.

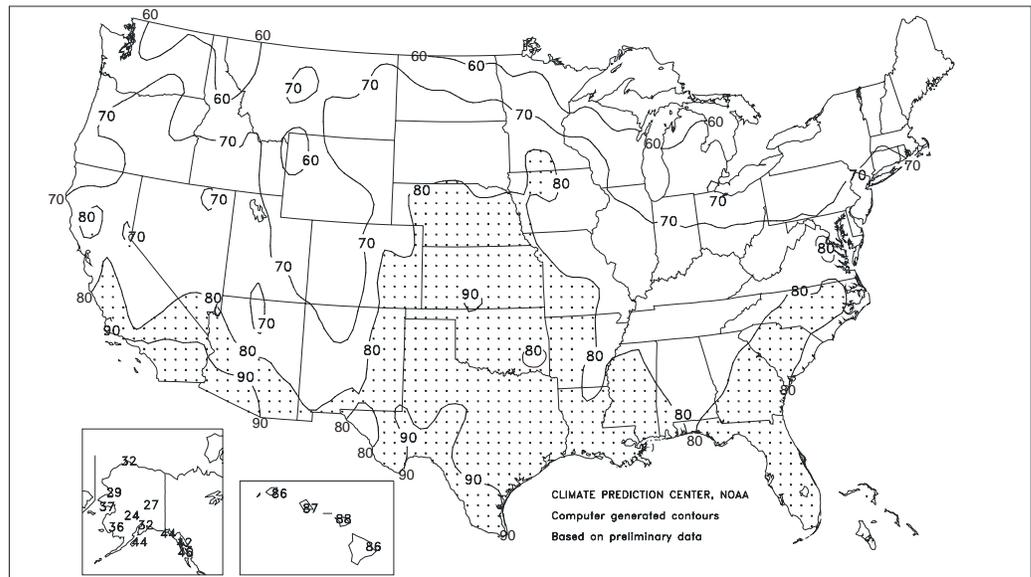
The cotton harvest began the month slightly behind normal but progressed steadily during November to slightly ahead of

normal. On November 26, harvest was 83 percent complete, the same as last year but 2 points ahead of normal. Progress was ahead of normal in the southern Great Plains, Mississippi Delta, and most of the Southeast, but slightly trailed the normal pace in Tennessee and the Carolinas and was a week behind in Arizona and Missouri.

In the four largest sugarbeet producing States, 98 percent of the acreage had been harvest by November 12. Harvest was complete in the Red River Valley and nearly complete in Idaho. In Michigan, however, harvest trailed normal by 7 points due to wet field conditions.

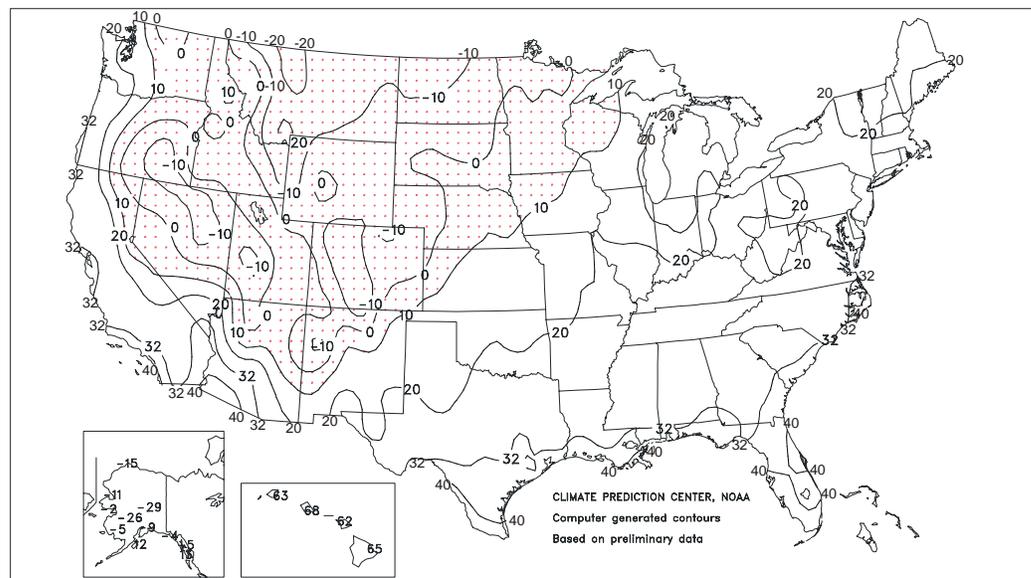
Extreme Maximum Temperature (°F)

November 2006



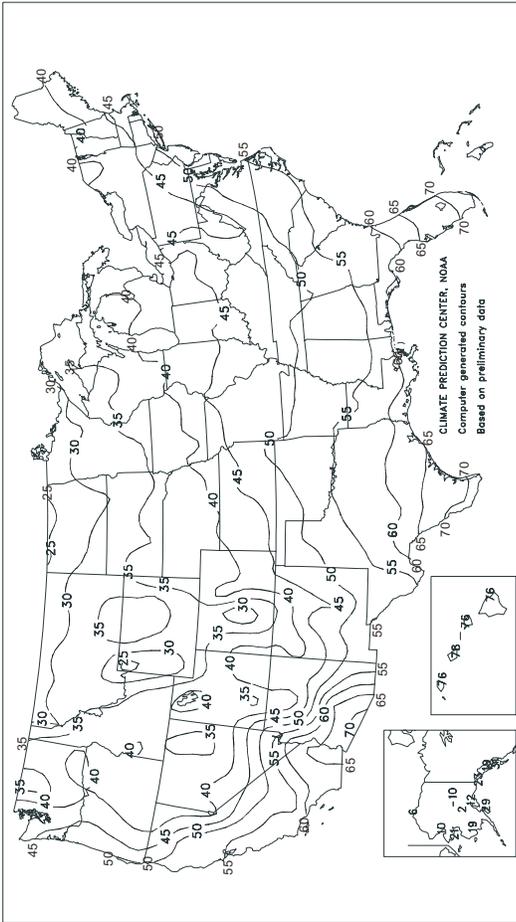
Extreme Minimum Temperature (°F)

November 2006



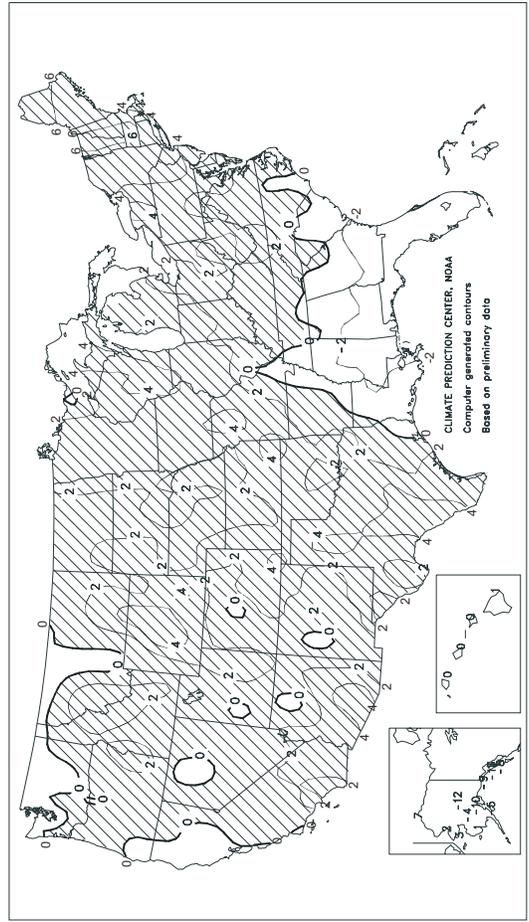
Average Temperature (°F)

November 2006



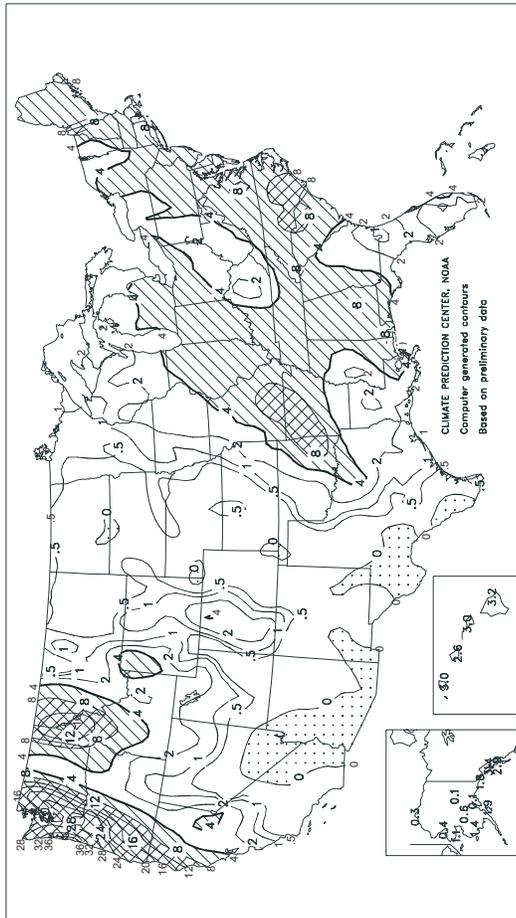
Departure of Average Temperature from Normal (°F)

November 2006



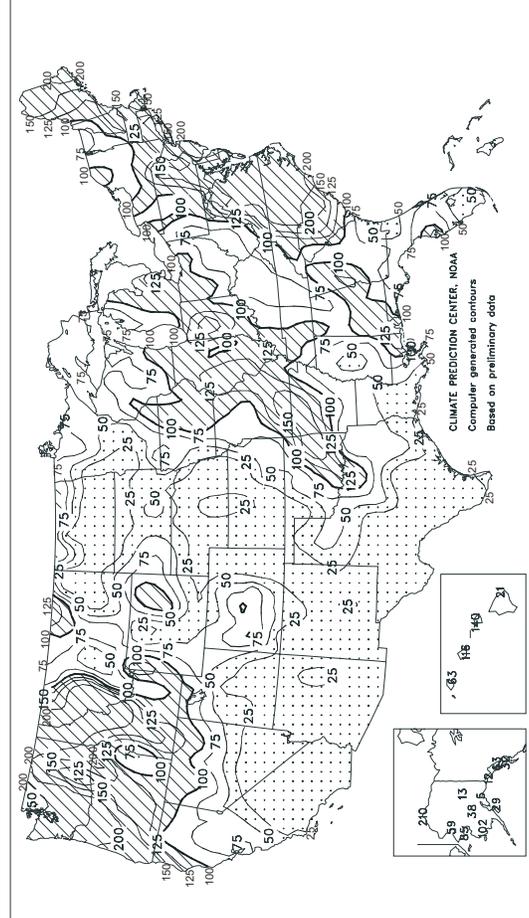
Total Precipitation (inches)

November 2006



Percent of Normal Precipitation

November 2006



TEMPERATURE AND PRECIPITATION SUMMARY

November 2006

STATES AND STATIONS	TEMP, °F		PRECIP.		STATES AND STATIONS	TEMP, °F		PRECIP.		STATES AND STATIONS	TEMP, °F		PRECIP.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL BIRMINGHAM	54	1	2.60	-2.03	LEXINGTON	47	1	1.97	-1.47	COLUMBUS	46	2	2.12	-1.07
HUNTSVILLE	51	0	4.40	-0.82	LONDON-CORBIN	50	3	2.91	-0.99	DAYTON	44	2	3.17	-0.13
MOBILE	57	-2	9.10	3.69	LOUISVILLE	49	1	2.91	-0.89	MANSFIELD	43	3	3.14	-0.62
MONTGOMERY	55	-1	4.97	0.44	LOUDUCAH	48	1	5.65	1.12	TOLEDO	42	2	3.03	0.25
AK ANCHORAGE	12	-10	0.05	-1.04	LA BATON ROUGE	58	-1	2.86	-1.90	YOUNGSTOWN	44	3	2.46	-0.61
BARROW	6	7	0.34	0.18	LAKE CHARLES	60	0	1.49	-3.12	OK OKLAHOMA CITY	53	4	1.43	-0.68
COLD BAY	33	-2	5.32	0.53	NEW ORLEANS	60	-1	2.75	-2.34	TULSA	51	1	3.58	0.11
FAIRBANKS	-10	-12	0.09	-0.59	SHREVEPORT	58	2	3.21	-1.47	OR ASTORIA	47	0	21.07	10.57
JUNEAU	19	-14	3.40	-2.03	ME BANGOR	42	5	4.94	1.25	BURNS	36	3	1.31	0.20
KING SALMON	15	-8	0.41	-1.13	CARIBOU	37	6	4.94	1.82	EUGENE	46	1	14.28	5.84
KODIAK	29	-5	1.92	-4.71	PORTLAND	44	6	5.50	0.78	MEDFORD	45	1	3.78	0.85
NOME	21	4	1.09	-0.19	MD BALTIMORE	49	3	6.25	3.13	PENDLETON	42	1	2.06	0.43
AZ FLAGSTAFF	38	1	0.07	-1.79	MA BOSTON	49	4	5.80	1.82	PORTLAND	47	1	11.92	6.31
PHOENIX	67	5	0.00	-0.73	WORCESTER	46	6	7.09	2.75	SALEM	47	2	15.15	8.76
TUCSON	63	4	0.00	-0.67	MI ALPENA	38	3	2.09	0.01	PA ALLENTOWN	47	5	4.49	0.79
AR FORT SMITH	55	4	8.77	3.97	DETROIT	42	1	2.90	0.24	ERIE	45	2	3.16	-0.80
LITTLE ROCK	53	1	6.07	0.34	FLINT	41	3	2.47	-0.18	MIDDLETOWN	47	3	5.48	1.96
CA BAKERSFIELD	56	1	0.02	-0.57	GRAND RAPIDS	41	3	2.80	-0.55	PHILADELPHIA	51	4	4.88	1.72
EUREKA	50	-1	7.41	1.63	HOUGHTON LAKE	38	3	2.05	-0.09	PITTSBURGH	45	3	1.40	-1.62
FRESNO	55	2	0.23	-0.87	LANSING	41	3	3.75	1.09	WILKES-BARRE	46	4	6.06	2.94
LOS ANGELES	64	2	0.25	-0.88	MUSKIEGON	41	2	2.40	-0.83	WILLIAMSPORT	45	4	3.84	0.22
REDDING	52	1	3.88	-0.15	TRVERSE CITY	40	3	1.56	-1.11	PR SAN JUAN	81	1	5.71	-0.46
SACRAMENTO	54	1	1.12	-1.07	MN DULUTH	32	4	1.22	-0.90	RI PROVIDENCE	49	5	7.69	3.29
SAN DIEGO	64	2	0.15	-0.92	INTL FALLS	29	5	1.09	-0.27	SC CHARLESTON	58	0	4.18	1.52
SAN FRANCISCO	56	1	1.64	-0.85	MINNEAPOLIS	37	4	0.92	-1.02	COLUMBIA	54	-1	5.67	2.79
STOCKTON	55	2	1.08	-0.69	ROCHESTER	37	6	2.84	0.83	FLORENCE	55	0	5.68	3.09
CO ALAMOSA	33	5	0.15	-0.33	ST. CLOUD	33	4	0.72	-0.82	GREENVILLE	53	2	3.58	-0.21
CO SPRINGS	40	4	0.19	-0.33	MS JACKSON	54	-1	2.04	-3.00	MYRTLE BEACH	56	-1	4.21	1.24
DENVER	41	4	0.34	-0.26	MERIDIAN	53	-3	2.24	-2.71	SD ABERDEEN	30	1	0.12	-0.63
GRAND JUNCTION	40	2	0.55	-0.16	TUPELO	52	1	4.07	-0.94	HURON	33	2	0.27	-0.62
PUEBLO	42	4	0.18	-0.40	MO COLUMBIA	47	4	2.76	-0.71	RAPID CITY	37	4	0.47	-0.14
CT BRIDGEPORT	49	4	5.08	1.43	JOPLIN	51	4	3.64	-0.42	SIoux FALLS	34	3	1.00	-0.36
HARTFORD	47	5	4.99	0.93	KANSAS CITY	46	3	2.72	0.42	TN BRISTOL	47	1	2.75	-0.33
DC WASHINGTON	51	2	5.16	2.13	SPRINGFIELD	48	2	6.38	1.92	CHATTANOOGA	51	1	3.48	-1.40
DE WILMINGTON	49	3	4.31	1.12	ST JOSEPH	44	2	1.32	-0.84	JACKSON	50	0	3.90	-1.17
FL DAYTONA BEACH	65	-2	1.13	-1.90	ST LOUIS	47	2	5.25	-1.54	KNOXVILLE	49	0	3.24	-0.74
FT LAUDERDALE	73	-1	1.55	-3.02	MT BILLINGS	36	2	0.86	0.11	MEMPHIS	52	0	3.08	-2.68
FT MYERS	69	-3	1.11	-0.60	BUTTE	30	3	0.32	-0.28	NASHVILLE	51	2	4.05	-0.40
JACKSONVILLE	60	-2	0.39	-1.95	CUT BANK	28	-1	0.11	-0.31	TX ABILENE	57	3	0.12	-1.18
KEY WEST	73	-3	3.21	0.57	GLASGOW	29	1	0.40	0.01	AMARILLO	49	4	0.37	-0.31
MELBOURNE	67	-2	3.67	0.55	GREAT FALLS	32	0	0.43	-0.16	AUSTIN	61	1	0.80	-1.88
MIAMI	73	-1	1.63	-1.80	HELENA	33	2	0.55	0.07	BEAUMONT	61	0	1.08	-3.67
ORLANDO	66	-3	1.54	-0.78	MILES CITY	34	2	0.07	-0.45	BROWNSVILLE	71	3	1.16	-0.59
PENSACOLA	58	-3	4.02	-0.44	MISSOULA	35	3	2.05	1.09	COLLEGE STATION	61	1	0.62	-2.56
ST PETERSBURG	67	-3	3.07	1.03	NE GRAND ISLAND	39	3	0.21	-1.20	CORPUS CHRISTI	68	3	0.08	-1.66
TALLAHASSEE	58	-2	2.38	-1.48	HASTINGS	40	3	0.24	-1.22	DALLAS/FT WORTH	57	2	2.58	0.01
TAMPA	68	-1	2.76	1.14	LINCOLN	40	2	0.09	-1.49	DEL RIO	64	4	0.01	-0.95
WEST PALM BEACH	71	-2	4.75	-0.80	MCCOOK	40	2	0.01	-1.08	EL PASO	56	3	0.06	-0.36
GA ATHENS	53	0	3.18	-0.53	NORFOLK	37	2	0.26	-1.18	GALVESTON	65	0	0.47	-3.17
ATLANTA	54	1	4.39	0.29	NORTH PLATTE	36	1	0.07	-0.69	HOUSTON	63	2	0.92	-3.27
AUGUSTA	55	1	2.95	0.27	OMAHA/EPPLEY	40	2	0.26	-1.56	LUBBOCK	52	4	0.26	-0.45
COLUMBUS	57	0	4.63	0.66	SCOTTSBLUFF	36	2	0.06	-0.74	MIDLAND	55	3	0.00	-0.65
MACON	55	0	3.05	-0.17	VALENTINE	35	2	0.16	-0.56	SAN ANGELO	58	4	0.01	-1.09
SAVANNAH	57	-2	2.03	-0.37	NV ELKO	35	0	1.05	0.00	SAN ANTONIO	64	4	0.75	-1.83
HI HILO	76	2	3.21	-12.37	ELY	35	2	0.26	-0.37	VICTORIA	64	1	0.43	-2.21
HONOLULU	78	0	2.61	0.35	LAS VEGAS	58	3	0.00	-0.31	WACO	58	1	1.07	-1.54
KAHULUI	76	0	3.04	0.87	RENO	45	4	0.25	-0.55	WICHITA FALLS	56	4	0.87	-0.81
LIHUE	76	0	2.98	-1.72	WINNEMUCCA	37	0	0.94	0.14	UT SALT LAKE CITY	41	1	1.13	-0.27
ID BOISE	43	3	1.43	0.05	NH CONCORD	43	5	4.80	1.23	VT BURLINGTON	43	6	2.62	-0.44
LEWISTON	43	3	2.41	1.20	NJ ATLANTIC CITY	51	5	6.64	3.38	VA LYNCHBURG	48	1	4.77	1.59
POCATELLO	37	2	1.02	-0.11	NEWARK	51	5	6.95	3.07	NORFOLK	55	3	6.46	3.48
IL CHICAGO/O'HARE	43	4	3.65	0.64	NM ALBUQUERQUE	48	4	0.02	-0.60	RICHMOND	54	5	6.67	3.61
MOLINE	44	5	2.26	-0.47	NY ALBANY	45	6	3.13	-0.15	ROANOKE	50	3	4.22	1.01
PEORIA	44	4	3.86	0.87	BINGHAMTON	43	5	4.86	1.54	WASH/DULLES	48	3	5.31	2.00
ROCKFORD	41	4	2.69	0.06	BUFFALO	45	5	2.15	-1.77	WA OLYMPIA	44	2	19.68	11.55
SPRINGFIELD	46	4	3.93	1.06	ROCHESTER	46	6	2.89	0.05	QUILLAYUTE	43	-1	22.37	7.55
IN EVANSVILLE	47	1	4.95	0.77	SYRACUSE	45	5	2.62	-1.15	SEATTLE-TACOMA	44	-1	15.63	9.73
FORT WAYNE	43	2	2.39	-0.59	NC ASHEVILLE	47	1	4.52	0.70	SPOKANE	36	1	4.38	2.14
INDIANAPOLIS	45	2	4.25	0.64	CHARLOTTE	52	0	6.30	2.94	YAKIMA	37	0	1.14	0.09
SOUTH BEND	43	3	3.33	-0.06	GREENSBORO	51	2	5.95	2.99	BECKLEY	45	2	2.76	-0.52
IA BURLINGTON	45	4	3.07	0.35	HATTERAS	59	1	8.64	3.71	CHARLESTON	48	2	2.07	-1.59
CEDAR RAPIDS	40	3	1.78	-0.46	RALEIGH	53	2	9.03	6.06	ELKINS	44	3	2.62	-0.80
DES MOINES	42	4	2.55	0.45	WILMINGTON	56	0	6.01	2.75	HUNTINGTON	47	1	2.49	-0.83
DUBUQUE	40	4	2.59	0.10	ND BISMARCK	30	2	0.09	-0.61	WI EAU CLAIRE	36	4	2.01	0.09
SIoux CITY	37	2	0.47	-0.93	DICKINSON	31	2	0.02	-0.57	GREEN BAY	39	5	1.23	-1.04
WATERLOO	38	3	2.80	0.70	FARGO	32	5	0.12	-0.94	LA CROSSE	39	4	1.65	-0.45
KS CONCORDIA	43	2	0.10	-1.35	GRAND FORKS	29	3	0.42	-0.57	MADISON	39	4	2.24	-0.07
DODGE CITY	44	2	0.07	-0.94	JAMESTOWN	29	2	0.02	-0.69	MILWAUKEE	42	4	2.72	0.02
GOODLAND	40	3	0.04	-0.78	MINOT	28	1	0.04	-0.82	WAUSAU	36	4	1.61	-0.59
HILL CITY	41	1	0.06	-0.68	WILLISTON	28	2	0.23	-0.42	WY CASPER	36	4	0.84	0.02
TOPEKA	46	3	0.90	-1.41	OH AKRON-CANTON	44	3	2.54	-0.50	CHEYENNE	37	4	0.07	-0.57
WICHITA	48	4	0.46	-1.36	CINCINNATI	46	1	2.08	-1.38	LANDER	36	6	0.42	-0.57
KY JACKSON	49	1	2.43	-1.77	CLEVELAND	45	3	3.40	0.02	SHERIDAN	36	5	0.53	-0.27

Based on 1971-2000 normals

*** Not Available

Autumn Weather Review

Review provided by USDA/WAOB

Highlights: Following record warmth during the first two-thirds of the year, below-normal temperatures prevailed nearly nationwide in September and October. However, unusually mild weather returned in November, helping to boost the Nation's autumn average temperature to 54.5°F (0.3°F above normal)—the 44th-highest reading during the 112-year period of record, according to the National Climatic Data Center. Autumn temperatures generally ranged from 1 to 3°F above normal in New England and southern Texas, but were near to slightly below normal elsewhere. The coolest weather, relative to normal, affected the Southeast and a broad area stretching from the Four Corners region across the northern and central Plains. Temperatures in these areas averaged as much as 1 to 3°F below normal.

On the heels of last year's historic Atlantic tropical season, there were only nine named storms and five hurricanes. Only two tropical storms—Alberto and Ernesto—and no hurricanes struck the U.S. mainland during the summer months, and there were no additional landfalls from September-November. As a result, drier-than-normal autumn weather affected the southern Atlantic region, including much of Florida. Farther north and west, however, there were frequent episodes of heavy rain from the western and central Gulf Coast States into the Northeast. Most summer crop harvesting in the western and central Gulf Coast States was already complete when heavy rain arrived, but the eastern Corn Belt was not as fortunate. In fact, lower Midwestern wetness not only forced late-season corn harvesting to drag into December, but also adversely affected the emerging winter wheat crop. Corn and soybean harvesting advanced much more quickly in the western Corn Belt, where many areas experienced a drier-than-normal autumn. Meanwhile on the Plains, autumn showers promoted winter wheat emergence and establishment, except for a persistently dry area centered on northern Oklahoma. On the last day of November, an early-season snow and ice storm provided much-needed moisture to some of the Plains' previously dry areas, although long-term drought remained a concern from northwestern Oklahoma into western South Dakota. Elsewhere, significant autumn precipitation across the Rockies and the Northwest contrasted with a slow start to the 2006-07 wet season in California and much of the Southwest. Precipitation was particularly heavy in the Pacific Northwest, where early-November downpours triggered record flooding. In contrast, a lack of rain across southern California maintained the threat of additional wildfires into December.

September: The month opened with heavy rain and high winds in the Mid-Atlantic States, following the August 31 landfall of Tropical Storm Ernesto near Cape Fear, North Carolina. Farther west, September showers slowed summer crop harvesting and winter wheat planting in parts of the Midwest, but generally dry weather returned to the Southeast. Midwestern fieldwork delays were most significant in the Ohio Valley, while a late-month drying trend favored an acceleration of corn and soybean harvesting across the western Corn Belt. Meanwhile, harvesting advanced with few delays from eastern Texas to the southern Atlantic Coast, although underlying long-term drought remained a concern across much of the South. Farther west, locally heavy rain on the Plains boosted soil moisture for winter wheat establishment and promoted further recovery for drought-stressed pastures. Dryness returned, however, to parts of the Plains, including much of Kansas and Oklahoma.

Elsewhere, showery conditions across the Rockies and Intermountain West contrasted with mild, dry weather in the West Coast States. By month's end, some Northwestern winter grain areas remained unfavorably dry for proper autumn crop establishment.

In a sharp reversal from the summer months, cool weather took hold across much of the U.S. In fact, monthly temperatures averaged at least 4°F below normal in an area across the Nation's mid-section, including the central Plains. Consequently, the season's first freeze arrived early across parts of the High Plains and Intermountain West, although summer crops were largely mature enough to withstand the early-season chill without adverse effects.

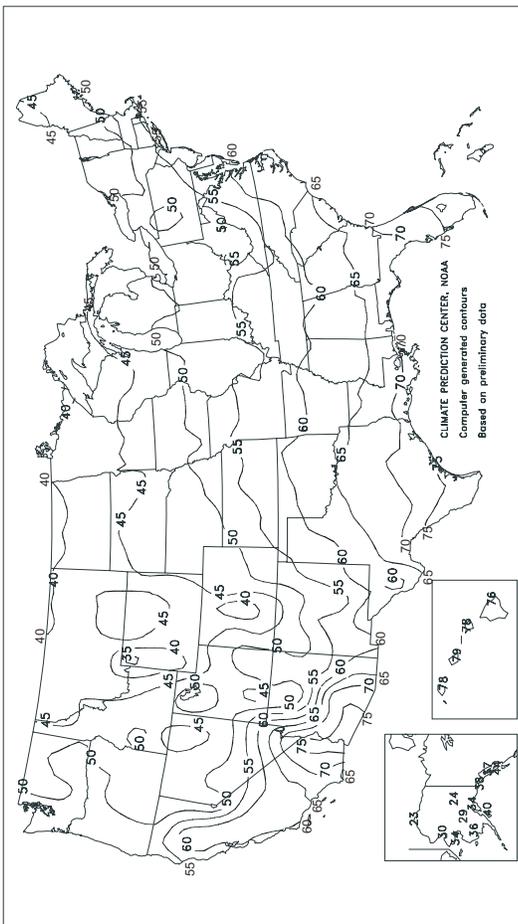
October: Cool weather prevailed nearly nationwide, but precipitation patterns were highly erratic. The variability was perhaps most extreme in the Midwest, where dry weather in the western Corn Belt contrasted with incessant rains across the Ohio Valley and the lower Great Lakes region. As a result, corn and soybean harvesting neared completion in the upper Midwest, while fieldwork languished across the eastern Corn Belt. Due to cool conditions, late-planted Midwestern winter grains were also slow to emerge. Meanwhile on the Plains, October precipitation boosted topsoil moisture for winter wheat emergence, despite underlying long-term drought. An exception was northern Oklahoma and adjacent areas in southern Kansas, where persistent dryness stressed emerging wheat. South Dakota and environs also experienced a return to dry weather in October, following widespread, drought-easing rains in August and September. Late in the month, a shallow snow cover helped to insulate Montana's winter grains from local readings below 0°F, but some emerged wheat in western portions of South Dakota and Nebraska was exposed to temperatures of 10°F or lower. Farther west, stormy conditions across the Intermountain region contrasted with generally dry weather along the West Coast. Winter grains across the interior Northwest benefited from an increase in rainfall, although a late-month cold snap temporarily halted crop development. Meanwhile in California, a slow start to the 2006-07 wet season favored autumn fieldwork but left conditions ripe for wildfire activity. Elsewhere, generally wet conditions prevailed from the western and central Gulf Coast States northeastward into New England. Areas from southeastern Texas into Mississippi were hit particularly hard by several rounds of heavy rain. Fortunately, harvest activities for cotton and other summer crops were nearing completion in the western and central Gulf Coast States when heavy rains arrived. In contrast, rainfall largely bypassed the southern Atlantic region, where mild, mostly dry weather promoted fieldwork but increased citrus irrigation demands and stressed cool-season pastures.

Following a balmy start to October, chilly weather settled across most of the Nation for the remainder of the month. October temperatures averaged at least 5°F below normal at several locations on the northern Plains, and generally ranged from 3 to 5°F below normal in the Midwest. Significant October warmth was confined to southern Texas, where readings averaged as much as 3°F above normal.

November: *A complete summary appears from pages 8-11.*

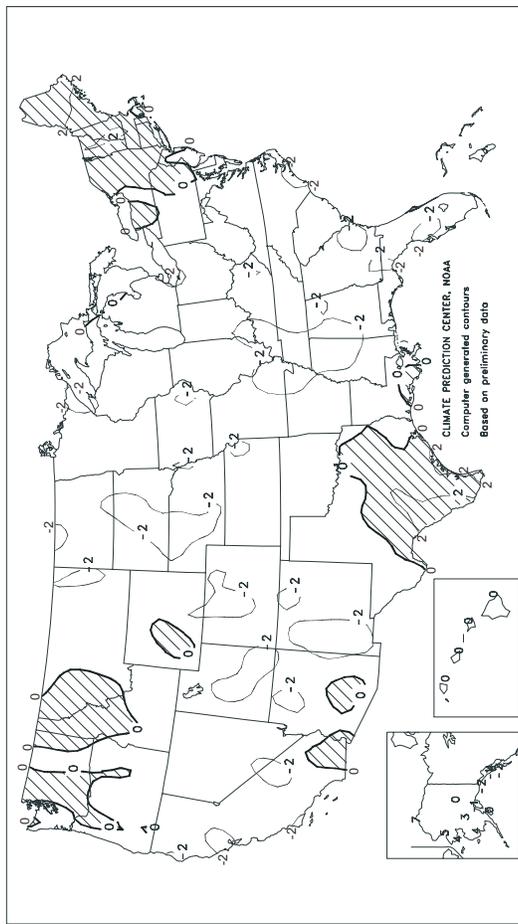
Average Temperature (°F)

SEP - NOV 2006



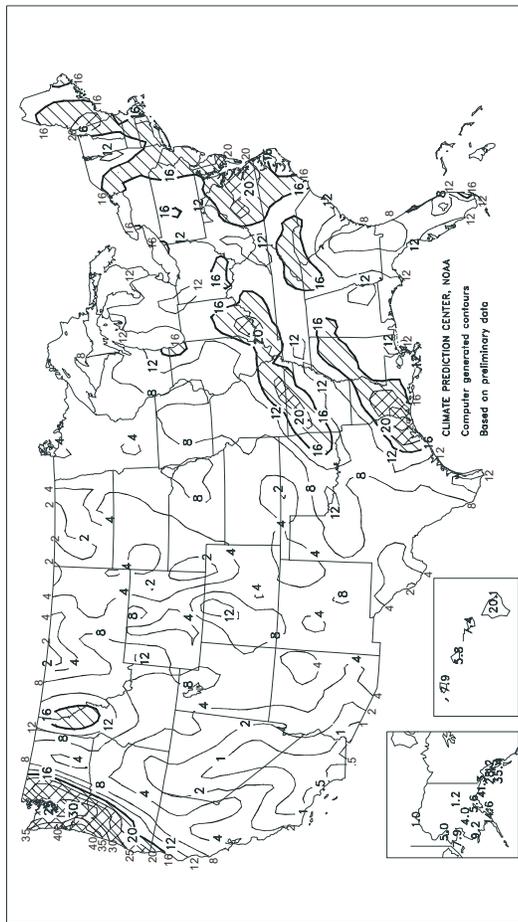
Departure of Average Temperature from Normal (°F)

SEP - NOV 2006



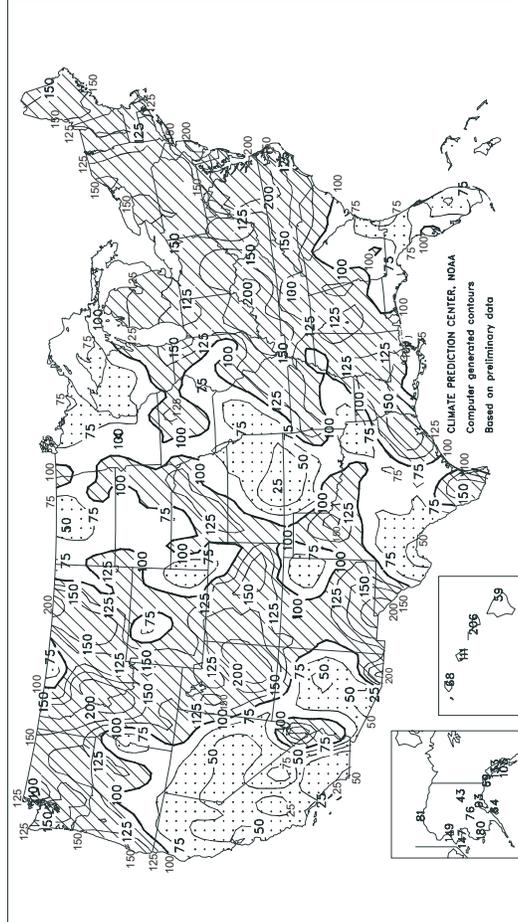
Total Precipitation (inches)

SEP - NOV 2006



Percent of Normal Precipitation

SEP - NOV 2006



TEMPERATURE AND PRECIPITATION SUMMARY

Autumn 2006

STATES AND STATIONS	TEMP, °F		PRECIP.		STATES AND STATIONS	TEMP, °F		PRECIP.		STATES AND STATIONS	TEMP, °F		PRECIP.	
	AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE		AVERAGE	DEPARTURE	TOTAL	DEPARTURE
AL BIRMINGHAM	63	0	11.31	-0.60	LEXINGTON	55	-2	18.51	9.26	COLUMBUS	54	-1	14.17	5.75
HUNTSVILLE	60	-2	12.26	-0.79	LONDON-CORBIN	56	-1	13.88	3.81	DAYTON	52	-2	12.86	4.19
MOBILE	67	-1	17.86	3.19	LOUISVILLE	57	-2	17.01	7.37	MANSFIELD	51	0	10.15	0.27
MONTGOMERY	65	-1	12.51	1.18	PADUCAH	57	-1	22.54	11.00	TOLEDO	51	-1	9.67	1.70
AK ANCHORAGE	34	-1	5.63	-0.41	LA BATON ROUGE	69	1	16.40	2.99	YOUNGSTOWN	51	0	15.04	5.62
BARROW	23	8	1.01	-0.23	LAKE CHARLES	69	0	15.22	0.72	OK OKLAHOMA CITY	62	1	6.75	-2.98
COLD BAY	41	0	16.08	2.24	NEW ORLEANS	70	0	10.71	-2.98	TULSA	61	-1	6.90	-5.38
FAIRBANKS	24	1	1.17	-1.55	SHREVEPORT	67	0	10.17	-2.17	OR ASTORIA	52	-1	25.80	7.08
JUNEAU	37	-5	28.19	6.92	ME BANGOR	49	1	16.64	6.08	BURNS	46	2	2.41	0.08
KING SALMON	35	0	7.95	1.51	CARIBOU	45	3	13.42	4.04	EUGENE	53	0	15.46	2.13
KODIAK	40	-1	14.61	-8.22	PORTLAND	51	3	17.45	4.96	MEDFORD	56	1	4.22	-0.80
NOME	34	5	7.90	2.53	MD BALTIMORE	56	0	19.56	9.30	PENDLETON	52	0	2.93	-0.32
AZ FLAGSTAFF	46	-1	3.86	-2.05	MA BOSTON	56	1	12.02	0.78	PORTLAND	55	0	14.18	4.04
PHOENIX	76	2	1.00	-1.27	WORCESTER	52	2	16.37	3.09	SALEM	54	1	16.34	5.49
TUCSON	71	1	1.87	-1.46	MI ALPENA	46	0	8.92	1.71	PA ALLENTOWN	53	1	13.82	2.42
AR FORT SMITH	62	0	18.90	6.55	DETROIT	51	-1	8.74	0.58	ERIE	52	-1	17.27	4.66
LITTLE ROCK	63	0	13.46	-0.23	FLINT	48	-1	9.25	0.50	MIDDLETOWN	55	0	16.03	6.07
CA BAKERSFIELD	65	-1	0.31	-0.73	GRAND RAPIDS	49	-1	13.20	2.77	PHILADELPHIA	58	0	17.27	7.48
EUREKA	51	-3	8.08	-0.92	HOUGHTON LAKE	45	-1	9.93	2.42	PITTSBURGH	52	-1	9.50	1.02
FRESNO	65	1	0.31	-1.70	LANSING	49	0	9.77	1.34	WILKES-BARRE	52	0	15.65	5.65
LOS ANGELES	66	0	0.25	-1.50	MUSKEGON	49	-1	11.15	1.60	WILLIAMSPORT	53	1	14.72	3.93
REDDING	63	0	4.10	-2.59	TRVERSE CITY	48	-1	11.06	1.87	PR SAN JUAN	83	2	18.74	1.91
SACRAMENTO	61	-2	1.28	-2.16	MN DULUTH	42	0	5.86	-2.85	RI PROVIDENCE	55	1	17.99	6.20
SAN DIEGO	66	-1	0.91	-0.81	INTL FALLS	40	0	3.91	-0.84	SC CHARLESTON	66	-1	10.89	-0.46
SAN FRANCISCO	60	0	1.97	-1.76	MINNEAPOLIS	47	0	3.77	-2.97	COLUMBIA	63	-1	11.28	1.57
STOCKTON	63	-1	1.43	-1.49	ROCHESTER	46	0	6.97	-0.36	FLORENCE	63	-2	11.36	2.16
CO ALAMOSA	42	0	2.34	0.30	ST. CLOUD	44	0	6.95	0.24	GREENVILLE	60	-1	12.13	0.50
CO SPRINGS	48	0	3.27	0.66	MS JACKSON	65	0	12.24	0.55	MYRTLE BEACH	64	-1	12.71	0.93
DENVER	50	1	2.21	-0.30	MERIDIAN	64	-2	8.74	-3.13	SD ABERDEEN	43	-2	2.96	-1.23
GRAND JUNCTION	51	-1	4.71	2.09	TUPELO	62	0	15.53	3.79	HURON	45	-2	5.01	0.73
PUEBLO	51	-1	3.78	1.72	MO COLUMBIA	55	0	7.85	-2.22	RAPID CITY	46	-1	2.81	-0.27
CT BRIDGEPORT	56	1	14.34	3.57	JOPLIN	59	0	6.42	-6.80	SIoux FALLS	46	-1	5.21	-0.66
HARTFORD	54	2	13.93	1.80	KANSAS CITY	56	0	8.23	-2.04	TN BRISTOL	55	-1	10.55	2.09
DC WASHINGTON	58	-1	16.53	6.49	SPRINGFIELD	57	-1	10.83	-1.93	CHATTANOOGA	60	-1	13.25	0.80
DE WILMINGTON	56	0	16.05	5.77	ST JOSEPH	53	-3	6.45	-2.90	JACKSON	59	-2	9.41	-2.74
FL DAYTONA BEACH	72	-2	6.63	-7.49	ST LOUIS	56	-2	10.20	0.71	KNOXVILLE	58	-2	13.52	3.85
FT LAUDERDALE	79	1	10.56	-8.71	MT BILLINGS	47	0	5.81	2.46	MEMPHIS	62	-2	7.90	-4.48
FT MYERS	76	-1	12.07	-0.09	BUTTE	40	0	2.93	0.45	NASHVILLE	61	1	11.03	0.12
JACKSONVILLE	69	-1	6.75	-7.35	CUT BANK	41	-1	0.75	-1.32	TX ABILENE	65	0	4.72	-2.39
KEY WEST	79	-1	12.99	0.56	GLASGOW	42	-1	4.06	1.98	AMARILLO	57	-1	4.17	0.11
MELBOURNE	74	-1	10.67	-4.41	GREAT FALLS	44	0	3.73	0.98	AUSTIN	70	0	8.52	-1.04
MIAMI	78	-1	20.00	2.00	HELENA	45	1	3.04	0.85	BEAUMONT	70	0	21.41	5.89
ORLANDO	74	-1	7.58	-3.23	MILES CITY	45	-2	2.67	-0.17	BROWNSVILLE	76	1	9.85	-0.99
PENSACOLA	68	-2	16.67	2.33	MISSOULA	46	2	5.28	2.41	COLLEGE STATION	70	0	16.21	4.90
ST PETERSBURG	74	-2	13.12	0.85	NE GRAND ISLAND	50	-1	6.13	0.78	CORPUS CHRISTI	75	2	9.44	-1.27
TALLAHASSEE	67	-2	8.23	-3.89	HASTINGS	51	-1	3.89	-1.98	DALLAS/FT WORTH	68	1	9.52	0.42
TAMPA	75	-1	16.03	5.58	LINCOLN	51	-2	4.92	-1.52	DEL RIO	72	2	2.93	-2.09
WEST PALM BEACH	77	-1	12.77	-6.34	MCCOOK	51	-1	5.04	1.30	EL PASO	64	0	5.97	3.13
GA ATHENS	62	0	8.92	-1.79	NORFOLK	49	-1	7.04	1.63	GALVESTON	74	0	18.50	5.61
ATLANTA	62	-1	10.74	-0.56	NORTH PLATTE	46	-3	3.66	0.34	HOUSTON	72	2	18.67	5.65
AUGUSTA	64	0	8.02	-1.45	OMAHA/EPPLEY	51	-1	5.39	-1.81	LUBBOCK	60	0	6.43	1.45
COLUMBUS	66	0	11.26	1.89	SCOTTSBLUFF	47	0	1.22	-1.81	MIDLAND	63	-1	2.72	-2.01
MACON	64	0	6.74	-2.11	VALENTINE	46	-2	2.34	-1.21	SAN ANGELO	66	1	4.84	-1.78
SAVANNAH	66	-1	8.29	-2.31	NV ELKO	47	0	1.90	-0.54	SAN ANTONIO	72	2	8.30	-1.14
HI HILO	76	1	20.15	-14.21	ELY	45	0	1.73	-0.84	VICTORIA	72	0	11.14	-0.76
HONOLULU	79	-1	5.77	0.59	LAS VEGAS	69	1	1.07	0.21	WACO	69	1	6.35	-2.81
KAHULUI	78	0	7.43	3.82	RENO	54	2	0.67	-1.00	WICHITA FALLS	65	1	10.52	2.54
LIHUE	77	-1	7.87	-3.77	WINNEMUCCA	47	-2	1.35	-0.64	UT SALT LAKE CITY	52	0	4.02	-0.28
ID BOISE	53	1	1.99	-0.91	NH CONCORD	50	2	14.01	3.82	VT BURLINGTON	50	2	12.09	2.08
LEWISTON	53	1	3.50	0.53	NJ ATLANTIC CITY	57	1	19.05	9.79	VA LYNCHBURG	55	-2	19.26	8.81
POCATELLO	46	-1	3.76	0.77	NEWARK	58	1	17.08	6.02	NORFOLK	62	0	21.64	11.13
IL CHICAGO/O'HARE	51	-1	13.54	4.55	NM ALBUQUERQUE	56	-1	2.82	0.13	RICHMOND	61	2	22.32	11.68
MOLINE	52	0	5.83	-2.86	NY ALBANY	51	1	11.95	2.15	ROANOK	57	0	12.76	2.55
PEORIA	53	0	7.70	-1.17	BINGHAMTON	49	1	12.96	3.03	WASH/DULLES	56	0	17.25	6.75
ROCKFORD	50	0	9.12	0.45	BUFFALO	51	0	17.85	6.90	WA OLYMPIA	51	1	21.81	7.46
SPRINGFIELD	54	-1	8.75	0.43	ROCHESTER	53	3	13.24	4.35	QUILLAYUTE	49	-1	28.54	-0.24
IN EVANSVILLE	55	-2	19.16	9.21	SYRACUSE	51	1	12.36	1.24	SEATTLE-TACOMA	53	0	18.61	7.89
FORT WAYNE	51	-1	9.56	1.14	NC ASHEVILLE	55	-1	15.25	4.54	SPOKANE	48	1	5.63	1.57
INDIANAPOLIS	54	-1	13.23	3.98	CHARLOTTE	60	-2	14.48	3.63	YAKIMA	49	0	1.95	-0.02
SOUTH BEND	51	-1	11.37	0.92	GREENSBORO	59	0	16.09	5.57	WV BECKLEY	51	-2	11.45	2.70
IA BURLINGTON	53	-1	6.79	-2.44	HATTERAS	65	-1	20.38	4.46	CHARLESTON	56	0	11.00	1.22
CEDAR RAPIDS	49	-2	6.68	-1.04	RALEIGH	60	-1	21.03	10.62	ELKINS	51	0	9.44	-0.66
DES MOINES	52	0	8.08	0.21	WILMINGTON	64	-1	17.34	4.08	HUNTINGTON	55	-1	16.58	7.73
DUBUQUE	48	-1	9.43	0.88	ND BISMARCK	43	-1	2.94	-0.65	WI EAU CLAIRE	46	0	7.24	-0.66
SIoux CITY	48	-2	6.74	0.93	DICKINSON	42	-2	2.92	-0.63	GREEN BAY	47	0	7.70	0.15
WATERLOO	48	-1	10.19	2.65	FARGO	45	2	4.99	-0.22	LA CROSSE	48	-2	6.16	-1.50
KS CONCORDIA	53	-2	5.08	-0.71	GRAND FORKS	42	0	3.90	-0.75	MADISON	47	-1	8.45	0.88
DODGE CITY	55	-1	2.38	-1.78	JAMESTOWN	42	-1	4.09	0.24	MILWAUKEE	51	0	9.59	1.10
GOODLAND	50	-1	3.80	0.81	MINOT	42	-1	1.69	-2.23	WAUSAU	45	-1	5.46	-3.45
HILL CITY	52	-2	3.88	-0.37	WILLISTON	41	-1	2.39	-0.48	WY CASPER	45	0	3.18	0.24
TOPEKA	56	0	6.41	-2.60	OH AKRON-CANTON	51	-1	10.62	1.62	CHEYENNE	45	0	1.67	-1.15
WICHITA	58	0	2.12	-5.11	CINCINNATI	54	-2	12.77	3.53	LANDER	45	0	3.53	0.03
KY JACKSON	55	-3	14.31	3.16	CLEVELAND	52	0	12.37	2.49	SHERIDAN	46	2	4.73	1.14

Based on 1971-2000 normals

*** Not Available

National Agricultural Summary

December 4 - 10, 2006

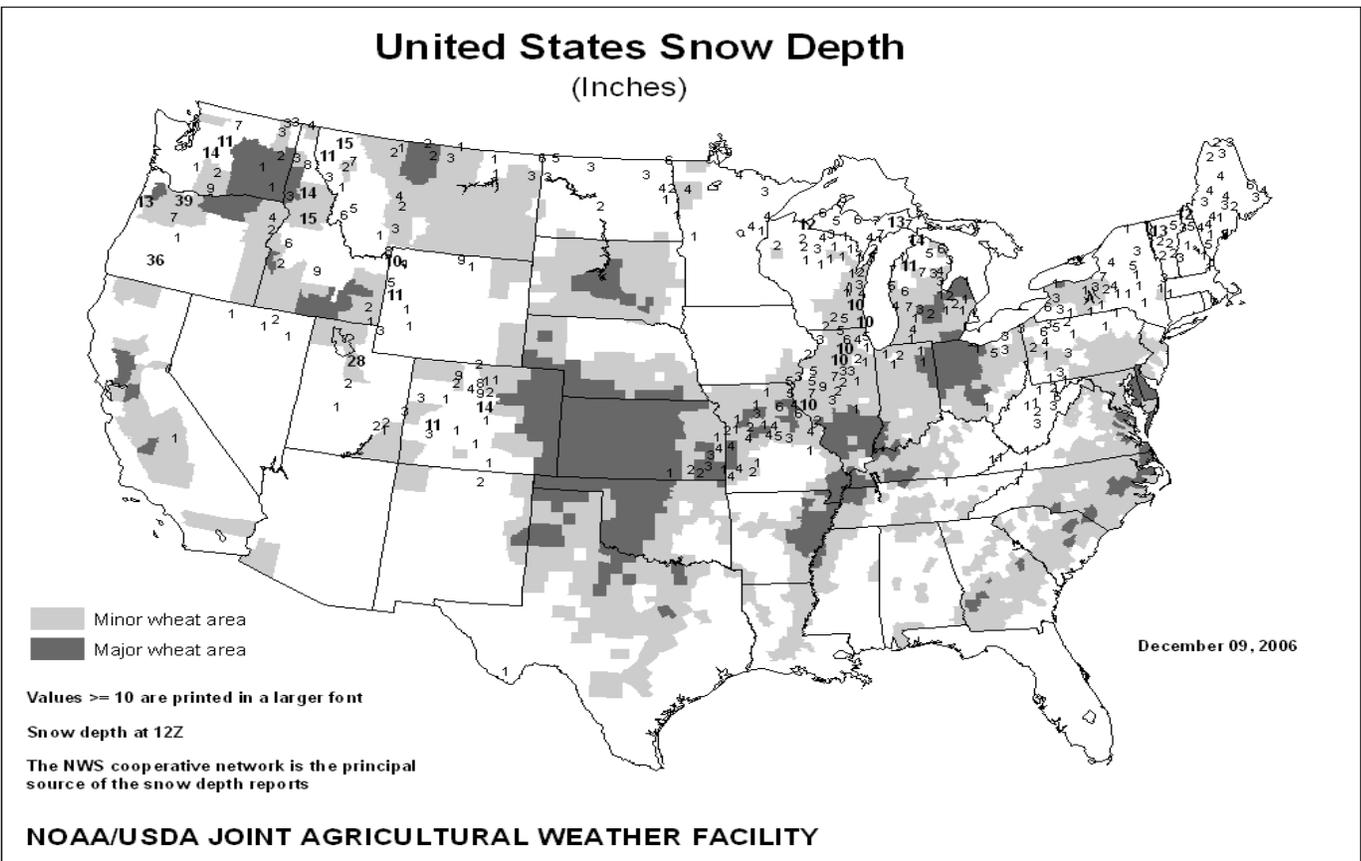
Weekly National Agricultural Summary provided by USDA/NASS

HIGHLIGHTS

Dry conditions prevailed nearly nationwide, with the exception of California. Elsewhere, only light precipitation fell in widely scattered, small areas. Minimum temperatures fell below 0 degrees F in the northwestern Corn Belt, northern Great Plains, and central Rocky Mountains, where much of the winter wheat crop was left unprotected due to a lack of snow cover. Across the Corn Belt, temperatures dropped to the single digits, but adequate snow cover existed in most areas.

In California, rainfall was beneficial for pastures and emerging winter wheat. Citrus harvest was well underway, with some concern about frost damage. Cold, dry weather in Texas slowed crop progress and forced supplemental feeding of livestock. The cotton harvest was nearly complete in Georgia, where freezes ended the fall vegetable harvest and caused some damage to newly emerged winter wheat. Warm weather in Florida was favorable for vegetable growth, with harvest well underway for the holiday season.

United States Snow Depth
(Inches)



December 7 ENSO Update

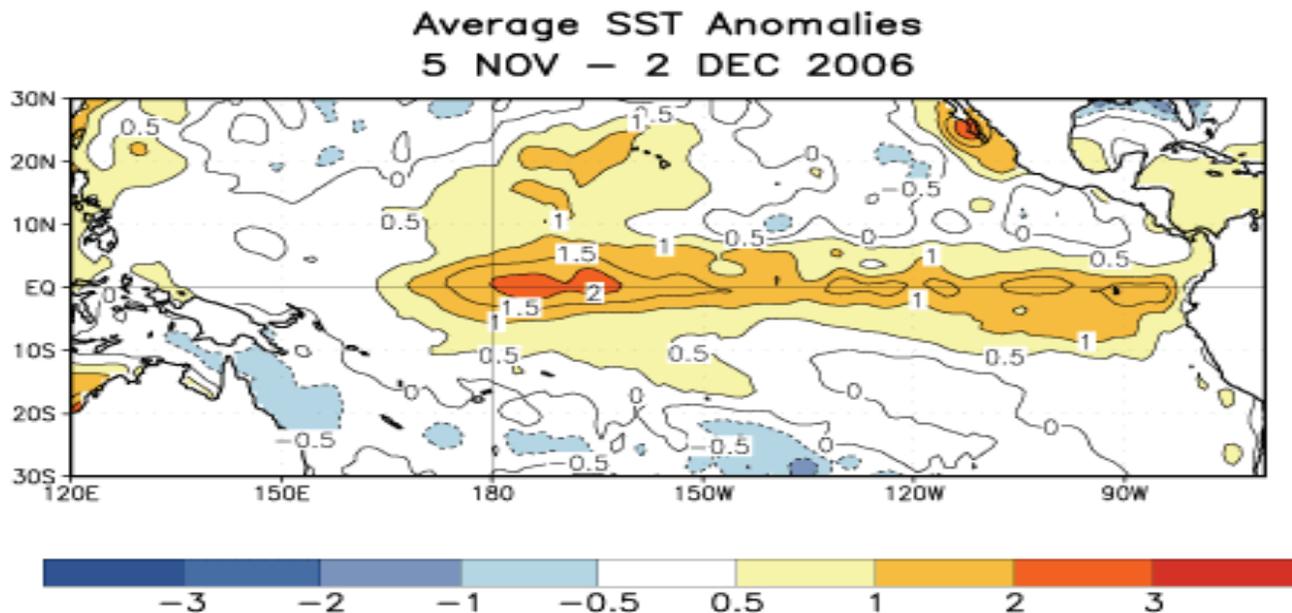


Figure 1. Average SST anomalies ($^{\circ}\text{C}$) for the four-week period 5 November – 2 December 2006. The SST anomalies are computed with respect to the 1971-2000 base period means (Smith and Reynolds, 1998, *J. Climate*, 11, 3320-3323).

Synopsis: El Niño Conditions are likely to continue through May 2007.

Equatorial Pacific SST anomalies greater than $+1^{\circ}\text{C}$ were observed in most of the equatorial Pacific between 170°E and the South American coast (Fig. 1). The latest SST departures in the Niño regions are between 1.1°C and 1.3°C , except for Niño 1+2. The increase in SST anomalies during the last several months has been accompanied by weaker-than-average low-level equatorial easterly winds across most of the equatorial Pacific and negative values of the Southern Oscillation Index (SOI). Collectively, these oceanic and atmospheric anomalies are consistent with the early stages of El Niño in the tropical Pacific.

Beginning in February 2006 the basin-wide upper ocean heat content increased, and since early April 2006 positive anomalies have been observed. The upper ocean heat content has been modulated by oceanic Kelvin wave activity, initiated by variations in the intensity of the low-level equatorial easterly winds. Four distinct Kelvin waves have occurred in the last several months, with the amplitude of each wave exceeding that of its predecessor. The most recent Kelvin wave is expected to affect the west coast of South America during the last half of December 2006, resulting in a substantial warming of the subsurface and surface waters along the coasts of Ecuador and northern Peru.

Most of the statistical and coupled model forecasts, including the NCEP Climate forecast System (CFS), indicate that El Niño conditions will peak during the NH winter (December 2006-February 2007), followed by weakening during March-May 2007.

Typical El Niño effects are likely over North America during January-March 2007, including warmer-than-average temperatures over western and central Canada, and over the northwestern and northern United States, wetter-than-average conditions over portions of the U.S. Gulf Coast and Florida, and drier-than-average conditions in the Ohio Valley and in portions of the Pacific Northwest. Global effects that can be expected during December-March include drier-than-average conditions over most of Malaysia, Indonesia, northern and eastern Australia, some of the U.S.-affiliated islands in the tropical North Pacific, northern South America and southeastern Africa, and wetter-than-average conditions over equatorial East Africa, central South America (Uruguay, northeastern Argentina, southeastern Paraguay and southern Brazil) and along the coasts of Ecuador and northern Peru.

This discussion is a consolidated effort of NOAA and its funded institutions. Oceanic and atmospheric conditions are updated weekly on the Climate Prediction Center website ([El Niño/La Niña Current Conditions and Expert Discussions](#)). Forecasts for the evolution of El Niño/La Niña are updated monthly in the Forecast Forum section of CPC's Climate Diagnostics Bulletin. The next ENSO Diagnostics Discussion is scheduled for 11 January 2007. To receive an e-mail notification when the monthly ENSO Diagnostic Discussions are released, please send an e-mail message to: ncep.list.ens0-update@noaa.gov.

International Weather and Crop Summary

December 3 - 9, 2006

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

HIGHLIGHTS

EUROPE: Unseasonably warm weather continued across much of the region, with dry conditions increasing moisture deficits in southeastern Europe.

FSU-WESTERN: Unseasonably warm weather continued to favor dormant winter grains in Ukraine, Russia, and Belarus, but kept most crop areas snow free.

SOUTH AFRICA: Unseasonable warmth and dryness continued across the corn belt, reducing moisture for summer crop establishment.

NORTHWESTERN AFRICA: Favorable showers overspread much of the region, although significant moisture deficits persist in central growing areas.

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

AUSTRALIA: Showers in eastern Australia were too sparse to benefit summer crops, while dry weather in southeastern and western Australia favored winter grain harvesting.

EASTERN ASIA: Showers provided beneficial moisture for overwintering wheat and winter rapeseed.

SOUTHEAST ASIA: Typhoon Utor became the second typhoon in as many weeks to make landfall in the Philippines, although the storm did not severely impact agriculture.

BRAZIL: Heavy showers covered major soybean areas of central Brazil but pockets of dryness developed in the south and northeast.

ARGENTINA: Rain continued throughout major summer crop areas of central and northern Argentina, maintaining adequate to abundant moisture for emerging grains, oilseeds, and cotton.

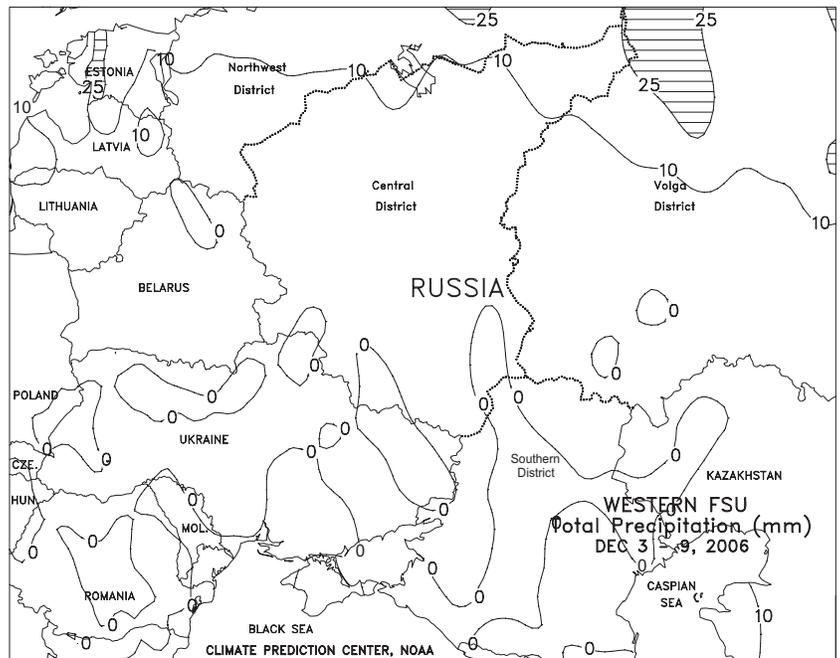
EUROPE

Unseasonably warm conditions continued across much of the region, with dry weather increasing moisture deficits in southeastern growing areas. A large area of high pressure across eastern Europe maintained temperatures up to 9 degrees C above normal from France eastward into the Balkans, Poland, and the Baltics. The unusually warm weather coupled with above-freezing nighttime low temperatures limited winter grain cold hardiness and continued to prevent crops from entering dormancy. In addition, winter grain areas remain devoid of a protective snow cover, leaving crops exposed to potential outbreaks of bitter cold. Furthermore, citrus trees have reportedly begun blooming in southern growing areas, increasing the risk of freeze damage. Meanwhile, a slow-moving cold front generated locally heavy rain and high-elevation snow (25-100 mm liquid equivalent) in Germany, western Austria, and northern Italy; the moisture provided a much-needed boost to irrigation reserves on the heels of a drier-than-normal November. Farther west, a month-long wet trend continued from the Iberian Peninsula northward into France and England. Rainfall exceeded 100 mm at numerous locations in Portugal and northwestern Spain, increasing reservoir levels but causing flooding. Additionally, moderate to heavy rain (25-100 mm) over much of France and England maintained adequate to excessive moisture reserves for winter grain development but caused fieldwork delays. In contrast, dry weather continued across most of eastern Europe. In Poland and the Baltics, early-autumn rainfall has helped mitigate the effects of the recent dry spell. However, protracted dryness across Hungary and the Balkans has reduced topsoil moisture and irrigation reserves for developing winter grains.



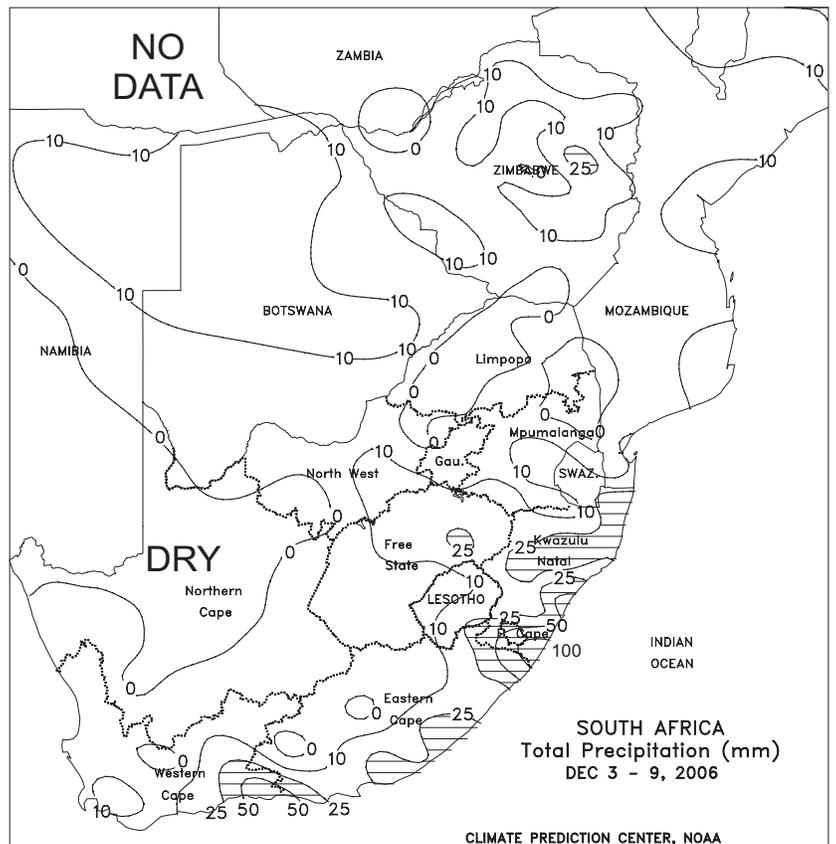
FSU-WESTERN

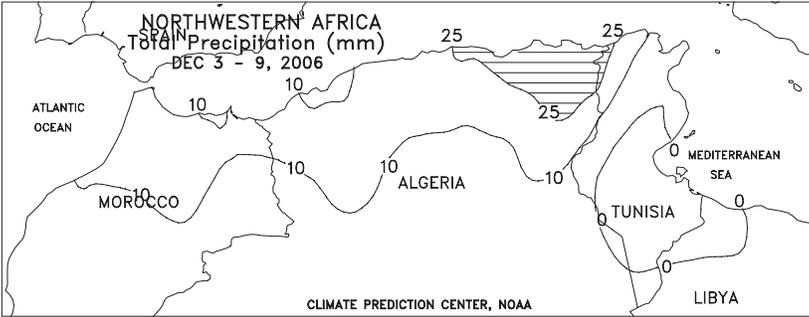
A dominant area of high pressure continued to bring mild, dry weather to most winter grain areas. Weekly temperatures averaged 2 to 6 degrees C above normal in Ukraine and the Southern District in Russia and 6 to 12 degrees C above normal in Belarus and the Central and Volga Districts in Russia. Temperatures rose above freezing in most areas, with the warmest weather (extreme maximum temperatures ranging from 8-15 degrees C) observed in Ukraine and the Southern District in Russia. In northern Russia and Belarus, maximum temperatures rose to as high as 8 degrees C. As a result of the continued unseasonably mild weather, winter grain areas across most of the region remained snow free during the week, leaving crops exposed to potential extreme cold. Winter grains were dormant, except along the Black Sea Coast, where crops continued to grow. Dry weather continued to prevail over most of the region, helping late-season fieldwork in the south.



SOUTH AFRICA

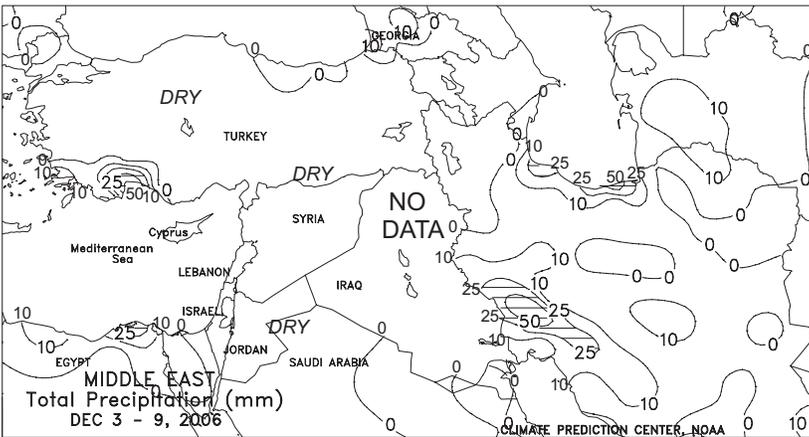
Warmer- and drier-than-normal weather dominated the corn belt, and moisture was becoming limited in some areas for uniform germination and establishment of recently planted summer crops. Light to moderate showers (greater than 10 mm) kept topsoils moist for tillage in white corn areas of central Free State and North West, but more rain was needed to ensure normal early crop development after several weeks of warmth and patchy dryness. A drying trend has also gripped Gauteng and much of Mpumalanga. Temperatures reached the lower 30s degrees C throughout the corn belt, enhancing moisture losses. Elsewhere, seasonably heavy showers (25-50 mm or more) covered most sugarcane areas of KwaZulu-Natal, as well as many primary growing areas of Eastern Cape. Rainfall was generally scattered and light (less than 5 mm) in major crop areas of Western and Northern Cape, although near to slightly below-normal temperatures lowered irrigation requirements to more seasonable levels than in recent weeks.





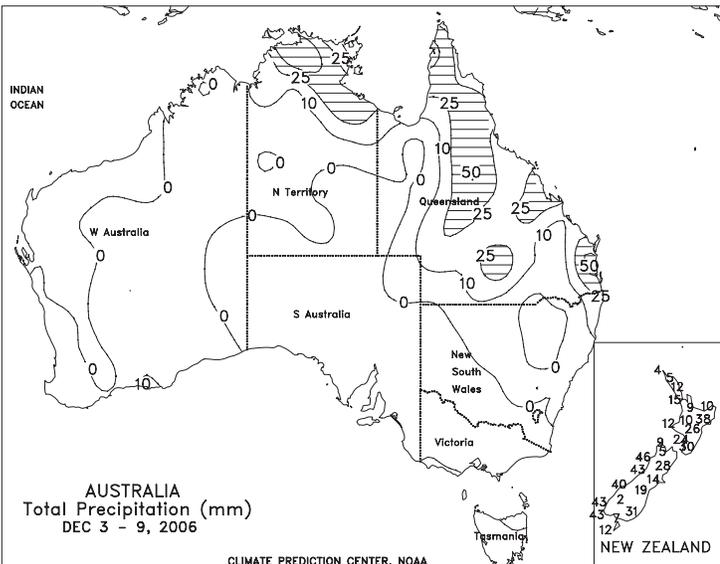
NORTHWEST AFRICA

Favorable showers overspread much of the region, although significant moisture deficits linger in portions of Algeria. A slow-moving upper-air disturbance generated a band of moderate to locally heavy rain (10-50 mm) across most major winter grain areas, providing much-needed topsoil moisture for crop planting and establishment. However, long-term precipitation deficits persist in central and western Algeria (less than 50 percent of normal rainfall since September 1), where more rain will be needed over the upcoming weeks to ensure sufficient moisture for winter wheat and barley planting and establishment.



MIDDLE EAST

Persistent dryness across much of the region reduced topsoil moisture for developing winter grains and left much of the region devoid of snow cover. In Turkey and Syria, the month-long dry spell is in sharp contrast to the historic flooding which hit the region in late October. 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 (10-55 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.



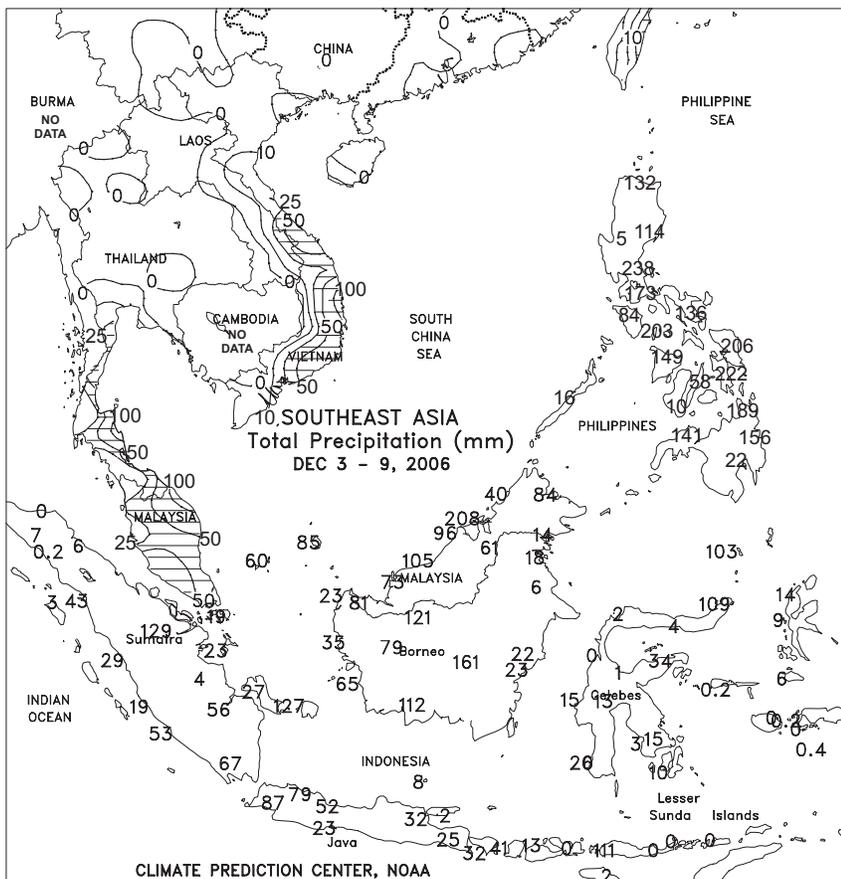
AUSTRALIA

Showers (2-25 mm) in southern Queensland were too widely scattered to significantly improve moisture supplies for summer crop planting and early development. In northern New South Wales, dry weather enhanced net evaporative losses, further reducing topsoil moisture and reservoir levels for dryland and irrigated summer crops. Elsewhere in Australia, predominately dry weather in southern New South Wales, Victoria, South Australia, and Western Australia provided no relief from locally severe drought. Nevertheless, the dry weather favored fieldwork, including winter grain harvesting, and helped maintain the quality of unharvested winter wheat and barley. Temperatures in western and southeastern Australia averaged about 1 to 2 degrees C above normal, with maximum temperatures generally in the middle 30s to near 40 degrees C. In contrast, temperatures in northern New South Wales and southern Queensland averaged about 1 to 2 degrees C below normal, with maximum temperatures in the lower to middle 30s degrees C.



EASTERN ASIA

Showers (10-25) fell across southern parts of the North China Plain and the eastern Yangtze Valley. The rainfall increased soil moisture for overwintering wheat and winter rapeseed entering dormancy. Temperatures were 1 to 3 degrees C below normal throughout most of China and the freezing line extended just south of the Yangtze River. Minimum temperatures across the North China Plain were between 10 and 5 degrees C but winter wheat was likely dormant and well cold hardened. The winter growing areas receive little snow cover throughout the winter and winter crops rely almost exclusively on dormancy for protection against the cold.



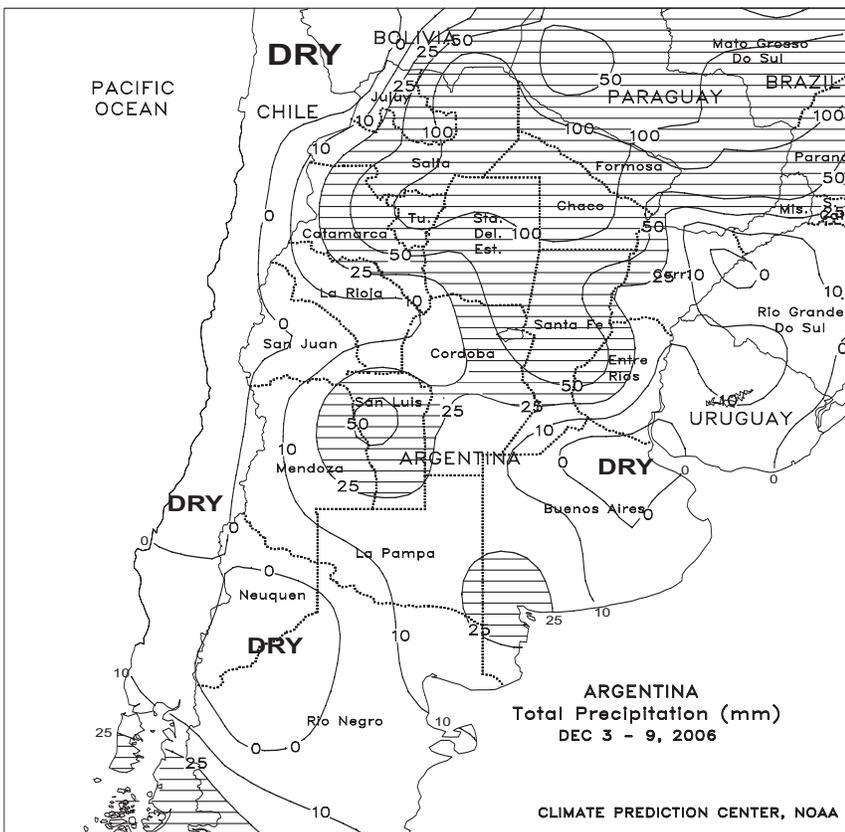
SOUTHEAST ASIA

The second typhoon in less than ten days to hit the Philippines caused flooding and damage to infrastructure but generally bypassed major agricultural areas. Typhoon Utor made landfall in the east-central Philippines on December 9 with sustained winds of approximately 65 knots (Category 1). The cyclone weakened as it interacted with land, but re-intensified once over the open waters of the South China Sea late in the week. The heaviest rain (50-220 mm) fell in the central Visayan islands, with feeder bands on the north side of the storm dumping locally more than 200 mm in southeastern Luzon. Typhoon Utor followed Super Typhoon Durian, which struck the Philippines last week farther north in Luzon. Most major agricultural areas are in the far northern or far southern Philippines, and were likely not severely affected by Utor. Reservoirs in the Philippines rely heavily on tropical cyclones to maintain adequate levels and have benefited from the tropical activity over the last two months. In Vietnam, monsoon showers (50-120 mm) enhanced by Typhoon Durian slowed coffee harvesting in the Central Highlands and likely caused some flooding. Seasonal showers (50-110 mm) increased moisture supplies for second-season rice on peninsula Thailand. In Malaysia, showers (25-100 mm) maintained adequate moisture supplies for oil palm. Widespread showers (25-100 mm) continued throughout Indonesia, increasing moisture supplies for oil palm and rice. The recent rains allowed farmers to finally start planting rice in Java, although the delayed planting raised concerns about yield potential.



BRAZIL

Widespread, moderate to heavy showers (25-50 mm, locally exceeding 100 mm) maintained generally favorable early-season moisture levels for soybeans and other summer crops throughout the main growing areas of central Brazil. In addition, near-to slightly above-normal temperatures (highs in the upper 20s and lower 30s degrees C) promoted development of vegetative to reproductive row crops as well as that region's coffee and citrus. Farther south, heavy rain (greater than 100 mm at many locations) ended a brief dry spell in southern Mato Grosso do Sul, western Sao Paulo, and northern Parana, but mostly dry weather prevailed for the second week in Rio Grande do Sul. Unseasonable warmth (1-3 degrees C above normal, with highs in the middle and upper 30s degrees C) accompanied the dryness, maintaining high evapotranspiration rates in an area that has experienced problems in recent years with extended periods of dryness. Elsewhere, warmer- and drier-than-normal weather (temperatures averaging 1-3 degrees C above normal, accompanied by sparse rain) continued to dominate most states along Brazil's northern coast, with dryness continuing for a second week in soybean areas of western Bahia and northern Tocantins.



ARGENTINA

Conditions remained overall favorable for emerging summer grains and oilseeds in central Argentina. For example, warm, showery weather (highs in the 30s degrees C, with rainfall totaling 10-25 mm or more) benefited emerging summer grains and oilseeds in previously dry growing areas of eastern La Pampa and southwestern Buenos Aires. Mostly dry weather aided crop development in central and eastern Buenos Aires. Lingering showers (10-50 mm or more) kept fields unseasonably wet in parts of Cordoba, Santa Fe, and Entre Rios. While helping to alleviate long-term moisture deficits in these states, the continuing wetness is hampering seasonal fieldwork. Heavy rain (50-100 mm or more) soaked the northern cotton areas, disrupting planting but providing abundant moisture for establishment. It was the second week of favorable rain in Santiago del Estero and northern growing areas of Cordoba after an extended period of dryness. According to Argentina's Ministry of Agriculture (SAGPyA), sunflowers and corn were 91 and 81 percent planted, respectively, as of December 7. Soybeans were 65 percent planted, compared with 69 percent last year. Winter wheat was 43 percent harvested, 20 percentage points ahead of last year's pace. Wheat harvesting was 90 percent complete in Cordoba, up 36 points from last week. Wheat was 5 percent harvested in Buenos Aires, slightly ahead of last year.

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

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