

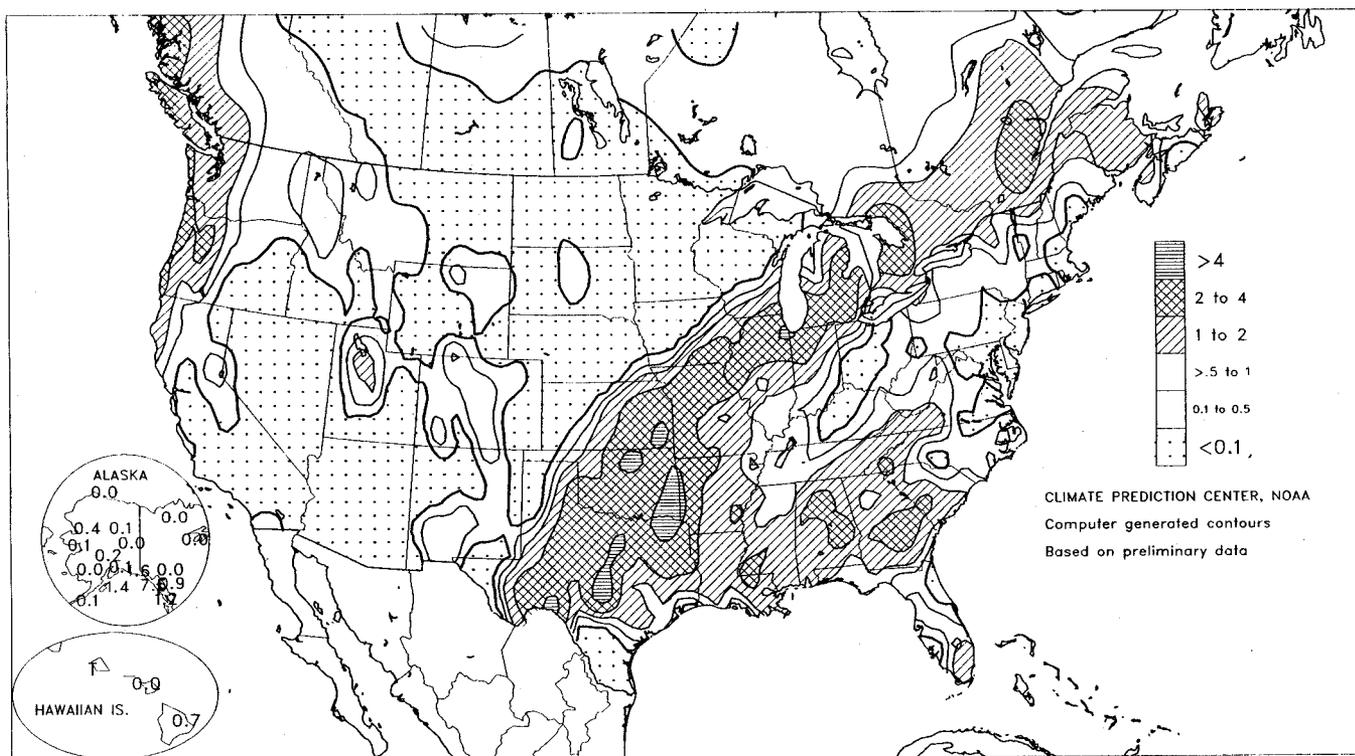
# WEEKLY WEATHER AND CROP BULLETIN

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

Total Precipitation (Inches)

FEB 16 - 22, 1997



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

## HIGHLIGHTS

February 16 - 22, 1997

**A**n usually wet February storm drenched areas from **central Texas to lower Michigan** with 2 to 4 inches of rain. The rainfall ended an 11-week dry spell from **central Texas to southeastern Kansas**, but caused flooding in other areas that ranged from minor to significant. Severe flooding developed in parts of **northern Illinois**. Under a "split-flow" regime for the third consecutive week, the Nation experienced above-normal temperatures. Weekly departures ranged from +5 to +15°F from the **northern and central Plains** to the **East Coast**. February-record warmth dotted the East at week's end. Despite some reduction of the **North Central States'** large snow pack, the threat of major spring flooding remained high in the **Red and James River basins**.

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Early in the week, a snow-producing storm system crossed the **Midwest** and **Northeast**, trailed by a short-lived shot of cold air. Snowfall on Sunday totaled 6.0 inches in **Chicago, IL** and **Erie, PA**. Six inches fell in **Chatham, MA** on February 16-17. In **Michigan**, **Marquette's** 6.2-inch accumulation on February 16 pushed their season-to-date snowfall past 200 inches on the earliest date on record. Farther east, cold air lingered until Monday, when **Caribou, ME** registered a daily-record low of -22°F. Meanwhile in **Kansas**, **Colby** notched a daily-record high of 75°F.

Despite warm weather in the **Northwest**, which included daily-record highs of 59°F at both **Olympia, WA** and **Astoria, OR** on Sunday, snow cover persisted in some valley locations east of the **Cascades**. On Tuesday, the snow depth in **Yakima, WA** remained at an inch or greater for the 92nd consecutive day, second only to a 100-day streak in 1955-56. Farther east, warmth spread into the snow-covered **North Central** and **Great Lakes States**. In **Marquette**, daily-record warmth (52°F) on Tuesday whittled 6 inches from a 43-inch snow depth. Farther south, the high reached 50°F in **Madison, WI** for the first time since November 17, 1996, while maxima reached daily-record levels in **Lincoln (64°F)** and **Springfield, IL (65°F)**.

Record warmth reached the **East** at midweek, briefly tempered on Thursday by a cold front that produced wind gusts to 57 mph in **Bridgeport, CT** and 52 mph in **Newark, NJ**. About five dozen daily records, including a handful of February records, were set from February 19-22. On Wednesday, highs topped 70°F as far north as **Baltimore, MD (72°F)**. Two days later, February records were broken in **New York** at **Rochester (73°F)** and **Buffalo (70°F)**, eclipsing standards that had been set on February 11, 1932. On Saturday, February records were topped in **Albany, NY (68°F)** and **Vero Beach, FL (89°F)**. In **New Hampshire**, **Concord's** high of 67°F was their warmest in February since 1880. Later on Saturday, however, cooler air swept in on westerly winds that gusted to 70 mph in **Rochester** and 54 mph in **Albany**.

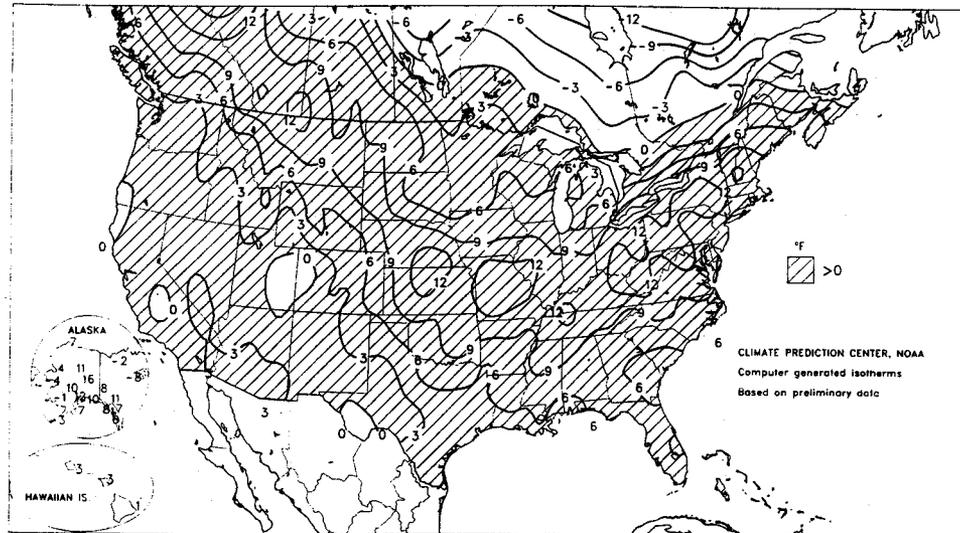
On February 20-21, rainfall rates reached February-record levels in the **Midwest**, where runoff was enhanced by partially frozen soils. February-record, 24-hour totals reached 3.05 inches in **Grand Rapids, MI** and at least 1.91 inches in **Moline, IL**. Near **Moline**, the **Rock River** at **Joslin** crested at an all-time record 6.77 feet above flood stage on Sunday, February 23. Widespread small-stream and flash flooding affected areas from **central Texas** to **lower Michigan**, but most main-stem rivers continued to rise at week's end, with crests expected in late February or early March.

In **Texas**, storm-total rainfall of 2.34 inches in **Dallas-Ft. Worth** and 2.39 inches in **San Angelo** padded month-to-date totals to 6.45 inches (364 percent of normal) and 4.40 inches (512 percent of normal), respectively. But in **Wichita, KS**, a 1.69-inch total accounted for 74 percent of their precipitation since December 1, 1996. Precipitation ended as wet snow in many areas, totaling 3.6 inches on Friday in **Kansas City, MO**. Heavier snow accumulated farther north, where snowfall at storm's end boosted weekly totals to 21.3 inches in **Alpena, MI** and 12.8 inches in **Caribou, ME**.

Weekly temperatures averaged 7 to 16°F above normal in **Alaska**, continuing a 3-week trend, except in western sections. On Friday, the mercury crept above the freezing mark in **Fairbanks**, ending a 136-day sub-freezing spell, their sixth longest on record. Meanwhile in **Hawaii**, mostly dry weather prevailed and temperatures averaged 1 to 3°F above normal, including a daily-record high (85°F) in **Honolulu** on Wednesday.

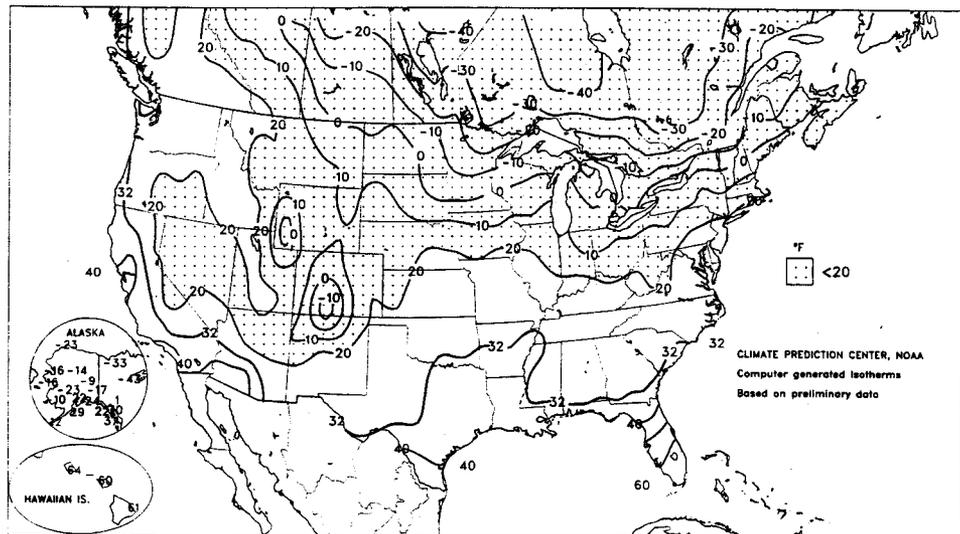
Departure of Average Temperature from Normal (°F)

FEB 16 - 22, 1997



Extreme Minimum Temperature (°F)

FEB 16 - 22, 1997



# National Weather Data for Selected Cities

Weather Data for the Week Ending February 22, 1997

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 Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN., SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	92 AND BELOW	TEMP. °F		PRECIP.	
																		01 INCH OR MORE	05 INCH OR MORE	01 INCH OR MORE	05 INCH OR MORE
AL BIRMINGHAM	68	43	76	26	55	8	0.89	-0.31	0.89	12.63	91	9.25	106	90	43	0	2	1	1	1	1
MOBILE	70	48	78	32	59	5	1.20	-0.21	1.20	15.64	110	8.67	97	96	50	0	1	1	1	1	1
MONTGOMERY	70	43	78	27	57	8	2.26	0.90	2.11	14.36	101	10.17	113	90	44	0	1	2	1	1	0
AK ANCHORAGE	36	27	43	22	31	12	0.06	-0.14	0.06	0.72	29	0.48	35	86	66	0	6	1	0	0	0
BARROW	-8	-14	-4	-23	-11	7	0.00	-0.03	0.00	0.08	24	0.08	38	79	77	0	7	0	0	0	0
FAIRBANKS	26	1	46	-9	14	16	0.00	-0.11	0.00	0.84	52	0.37	46	87	61	0	7	0	0	0	0
JUNEAU	39	34	46	30	37	7	-	-	-	-	-	-	-	98	89	0	4	-	-	-	-
KODIAK	40	35	43	29	38	7	1.44	0.20	0.63	21.85	117	15.27	131	97	86	0	1	5	2	0	0
NOME	8	-9	30	-16	0	-4	0.06	-0.08	0.06	2.09	98	1.46	114	80	65	0	7	1	0	0	0
AZ PHOENIX	74	50	83	42	62	4	0.00	-0.18	0.00	0.90	41	0.90	76	42	15	0	0	0	0	0	0
PRESCOTT	58	29	63	19	44	4	0.00	-0.39	0.00	2.17	51	1.93	71	59	15	0	5	0	0	0	0
TUCSON	72	43	80	32	58	3	0.00	-0.17	0.00	0.99	40	0.99	70	46	15	0	1	0	0	0	0
YUMA	78	52	83	47	65	4	0.00	-0.06	0.00	0.35	36	0.34	65	45	13	0	0	0	0	0	0
AR FORT SMITH	63	42	71	31	52	9	2.49	1.79	2.25	7.67	112	5.81	152	91	57	0	1	3	1	0	0
LITTLE ROCK	-	-	-	-	-	-	1.05	0.09	-	9.54	90	6.25	106	-	-	-	-	-	-	-	-
CA BAKERSFIELD	63	43	72	38	53	-1	0.13	-0.15	0.13	3.87	168	2.18	129	92	32	0	0	1	0	0	0
EUREKA	58	41	69	36	49	0	0.81	-0.55	0.37	31.79	202	10.53	108	93	53	0	0	5	0	0	0
FRESNO	63	41	69	37	52	0	0.01	-0.43	0.01	7.55	158	3.31	99	94	35	0	0	1	0	0	0
LOS ANGELES	73	53	79	48	63	5	0.00	-0.63	0.00	8.95	148	4.22	96	73	33	0	0	0	0	0	0
REDDING	63	43	65	39	53	2	0.42	-0.64	0.26	17.99	115	9.67	101	82	33	0	0	0	3	0	0
SACRAMENTO	64	45	68	43	55	3	0.08	-0.60	-	13.75	165	7.94	127	89	45	0	0	-	-	-	-
SAN DIEGO	69	51	74	49	60	1	0.01	-0.38	0.01	3.80	82	3.17	105	82	32	0	0	1	0	0	0
SAN FRANCISCO	61	46	65	42	53	1	0.15	-0.60	0.15	14.58	146	7.78	113	88	48	0	0	1	0	0	0
CO DENVER	50	25	66	16	37	3	0.28	0.13	0.28	0.57	37	0.53	59	86	32	0	6	1	0	0	0
GRAND JUNCTION	50	25	60	18	37	1	0.10	-0.03	0.10	1.11	72	0.58	62	75	35	0	6	1	0	0	0
PUEBLO	57	19	70	8	38	2	0.18	0.10	0.08	0.65	68	0.44	83	84	26	0	7	3	0	0	0
CT BRIDGEPORT	48	32	61	21	40	9	0.00	-0.76	0.00	11.37	125	4.85	87	84	44	0	3	0	0	0	0
HARTFORD	49	29	69	18	39	11	0.00	-0.81	0.00	10.09	103	4.50	76	74	39	0	6	0	0	0	0
DC WASHINGTON	62	38	72	29	60	11	0.00	-0.69	0.00	10.33	130	4.83	100	67	37	0	2	0	0	0	0
FL PANAMA CITY	73	53	79	41	63	9	-	-	-	-	-	-	-	93	49	0	0	-	-	-	-
DAYTONA BEACH	76	59	86	48	67	8	0.02	-0.78	0.02	4.26	55	2.28	44	95	58	0	0	1	0	0	0
JACKSONVILLE	74	49	85	37	62	5	0.31	-0.68	0.31	7.04	78	3.80	62	97	52	0	0	1	0	0	0
KEY WEST	81	72	83	69	76	5	0.19	-0.25	0.15	5.70	104	4.28	124	87	71	0	0	3	0	0	0
MIAMI	81	70	83	65	75	8	0.66	0.14	0.48	4.07	74	3.04	84	89	65	0	0	4	0	0	0
ORLANDO	79	59	87	52	69	8	0.92	0.13	0.83	5.55	82	3.41	74	91	53	0	0	2	1	1	0
TALLAHASSEE	75	47	80	30	61	7	0.56	-0.87	0.55	15.25	108	9.10	100	93	48	0	1	2	1	0	0
TAMPA	81	60	87	51	71	9	0.16	-0.65	0.16	3.67	58	1.56	38	89	52	0	0	1	0	0	0
WEST PALM BEACH	79	70	82	66	74	7	1.41	0.67	1.07	9.31	133	7.81	165	87	64	0	0	2	1	1	0
GA ATLANTA	69	43	77	29	56	10	0.69	-0.53	0.69	11.74	92	8.82	104	82	41	0	1	1	1	1	0
AUGUSTA	72	37	80	26	55	6	1.23	0.15	1.09	9.92	82	7.84	107	98	40	0	3	2	1	1	0
MACON	70	40	79	26	55	5	1.55	0.36	1.55	13.49	107	10.25	124	96	44	0	3	1	1	1	0
SAVANNAH	71	43	79	31	57	4	0.77	-0.03	0.75	7.85	86	5.16	84	98	51	0	2	2	1	1	0
HI HILO	81	65	82	61	73	1	0.69	-1.96	0.20	11.89	40	5.00	28	91	63	0	0	5	0	0	0
HONOLULU	83	69	85	64	76	3	0.26	-0.25	-	9.07	99	7.18	133	80	51	0	0	-	-	-	-
KAHULUI	84	65	88	60	74	3	0.00	-0.67	0.00	13.47	138	3.28	51	85	58	0	0	0	0	0	0
LIHUE	-	-	-	-	-	-	-	-	-	-	-	-	-	83	68	-	-	-	-	-	-
ID BOISE	50	28	59	23	39	2	0.03	-0.22	0.03	5.63	156	2.87	126	78	37	0	5	1	0	0	0
LEWISTON	51	36	55	31	44	4	0.03	-0.19	0.03	5.70	177	3.08	154	83	40	0	2	1	0	0	0
POCATELLO	42	26	51	20	34	4	0.00	-0.23	0.00	5.08	179	1.95	112	86	49	0	7	0	0	0	0
IL CHICAGO	42	24	55	13	33	6	3.23	2.87	2.35	6.08	122	4.94	194	90	62	0	6	3	2	2	0
MOLINE	43	27	56	16	35	9	-	-	-	-	-	-	-	93	70	0	5	-	-	-	-
PEORIA	48	29	62	21	39	11	3.64	3.26	1.85	5.80	117	4.72	185	86	61	0	5	3	2	2	0
QUINCY	50	34	63	25	42	12	-	-	-	-	-	-	-	90	60	0	3	-	-	-	-
ROCKFORD	38	23	52	11	30	6	1.73	1.43	0.98	5.35	129	3.22	151	92	65	0	6	3	2	2	0
SPRINGFIELD	53	32	65	25	42	12	0.79	0.31	0.48	3.06	55	2.34	83	88	49	0	4	3	0	0	0
IN EVANSVILLE	57	36	73	23	46	11	0.53	-0.29	0.51	9.09	105	5.58	112	89	58	0	3	2	1	1	0
FORT WAYNE	46	23	59	0	35	8	0.99	0.49	0.64	6.78	109	3.57	108	90	71	0	5	4	1	1	0
INDIANAPOLIS	53	30	65	20	41	10	0.31	-0.34	0.11	7.03	94	4.70	113	85	47	0	4	4	0	0	0
SOUTH BEND	45	21	57	3	33	8	1.83	1.34	0.98	5.97	86	3.57	98	90	55	0	6	3	2	2	0
IA DES MOINES	43	26	59	18	35	8	0.31	0.04	0.21	1.33	43	0.82	49	91	63	0	5	3	0	0	0
SIOUX CITY	40	24	49	17	32	7	0.33	0.13	0.33	0.95	53	0.79	77	89	66	0	6	1	0	0	0
WATERLOO	36	23	49	7	30	8	0.07	-0.23	0.07	2.44	86	1.53	98	84	69	0	6	1	0	0	0
KS CONCORDIA	55	32	68	22	44	12	0.53	0.31	0.53	1.20	63	1.13	107	83	45	0	4	1	1	1	0
DODGE CITY	59																				

Weather Data for the Week Ending February 22, 1997

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 Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMP, °F		PRECIP.	
																80 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.05 INCH OR MORE
ME CARIBOU	24	4	37	-22	14	1	1.05	0.58	0.39	9.29	131	5.67	145	88	82	0	7	3	0
ME PORTLAND	44	28	57	7	35	10	0.08	-0.75	0.08	10.71	100	4.37	71	77	44	0	6	2	0
MD BALTIMORE	59	33	72	23	46	10	0.00	-0.79	0.00	11.88	134	4.91	89	81	37	0	3	0	0
MD SALISBURY	60	35	74	26	47	10	0.12	-0.75	0.12	11.55	116	5.29	84	83	37	0	3	1	0
MA BOSTON	51	31	66	15	41	10	0.01	-0.90	0.01	9.05	87	3.38	53	76	45	0	3	1	0
MA CHATHAM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MI ALPENA	35	8	54	-14	22	3	1.66	1.34	1.54	9.99	216	4.80	184	90	63	0	6	3	1
MI DETROIT	44	22	61	6	33	7	1.72	1.27	0.95	6.72	114	4.17	136	89	60	0	6	4	2
MI FLINT	42	19	55	-1	31	6	1.97	1.64	1.33	6.30	142	4.24	181	86	61	0	6	4	1
MI GRAND RAPIDS	40	21	51	10	31	6	3.88	3.32	3.05	8.48	148	6.24	215	88	58	0	6	4	1
MI HOUGHTON LAKE	34	12	47	-11	23	4	1.79	1.50	1.43	6.15	143	3.98	167	86	63	0	6	4	1
MI LANSING	42	18	54	-3	29	7	2.50	2.19	1.78	6.99	152	4.07	172	89	61	0	6	4	2
MI MARQUETTE	31	8	52	-12	20	5	0.42	-0.02	0.29	12.02	197	7.57	217	94	58	0	7	5	0
MI MUSKEGON	39	21	48	8	30	5	2.08	1.72	1.38	6.50	100	4.61	132	89	60	0	6	3	2
MI SAULT ST. MARIE	28	4	46	-6	16	1	0.27	-0.15	0.18	7.19	108	3.13	83	91	62	0	7	3	0
MN ALEXANDRIA	30	8	37	-9	19	4	-	-	-	-	-	-	93	71	0	7	-	-	-
MN DULUTH	31	8	46	-12	19	6	0.00	-0.20	0.00	2.02	66	1.51	84	89	58	0	7	0	0
MN INT'L FALLS	25	2	39	-34	14	4	0.00	-0.16	0.00	2.31	104	0.83	61	86	57	0	7	0	0
MN MINNEAPOLIS	33	17	42	2	25	5	0.08	-0.15	0.08	3.46	131	1.77	112	88	64	0	7	1	0
MN ROCHESTER	32	18	40	2	25	7	0.11	-0.09	0.07	3.57	154	2.39	184	91	69	0	7	2	0
MS GREENWOOD	70	44	82	31	57	9	-	-	-	-	-	-	90	43	0	2	-	-	-
MS JACKSON	71	42	79	29	58	9	1.12	-0.08	1.02	12.98	84	9.65	105	92	43	0	2	2	1
MS MERIDIAN	72	40	81	27	56	8	0.60	-0.60	0.54	11.96	83	9.26	99	98	38	0	3	2	1
MO CAPE GIRARDEAU	59	39	68	27	49	11	0.67	-0.21	0.41	8.00	82	5.16	96	90	58	0	2	2	0
MO COLUMBIA	57	36	68	27	46	14	2.90	2.42	1.82	6.00	111	5.60	199	87	54	0	4	2	2
MO KANSAS CITY	51	33	64	20	42	10	1.87	1.57	1.16	2.81	82	2.81	149	89	54	0	4	2	2
MO SAINT LOUIS	57	38	70	28	48	13	1.31	0.74	0.93	5.40	85	4.50	134	86	54	0	3	2	1
MO SPRINGFIELD	58	40	67	27	49	12	2.46	1.93	2.26	4.60	90	3.89	125	86	53	0	1	2	1
MT BILLINGS	47	31	55	16	39	9	0.00	-0.17	0.00	1.10	50	0.94	67	74	39	0	5	0	0
MT GLASGOW	37	15	42	0	26	7	0.01	-0.05	0.01	0.84	88	0.33	57	89	71	0	7	1	0
MT GREAT FALLS	46	30	55	19	38	10	0.04	-0.10	0.04	0.59	27	0.24	18	75	38	0	4	1	0
MT HAVRE	45	29	51	15	37	14	0.00	-0.08	0.00	0.99	44	0.14	18	81	53	0	5	0	0
MT HELENA	43	29	50	25	36	8	0.02	-0.09	0.02	0.66	62	0.37	39	75	48	0	7	1	0
MT KALISPELL	40	27	44	21	33	5	0.05	-0.21	0.05	5.13	124	1.86	77	92	68	0	6	1	0
MT MILES CITY	47	27	53	14	37	12	0.00	-0.11	0.00	0.67	44	0.23	26	93	50	0	7	0	0
MT MISSOULA	40	26	44	19	33	3	0.12	-0.07	0.09	6.64	218	2.19	116	89	59	0	6	2	0
NE GRAND ISLAND	52	29	61	23	41	12	0.00	-0.20	0.00	0.78	46	0.63	65	88	48	0	5	0	0
NE LINCOLN	51	28	66	20	40	12	0.00	-0.20	0.00	0.85	35	0.53	62	86	52	0	4	0	0
NE NORFOLK	45	26	52	18	36	10	0.00	-0.22	0.00	1.17	66	0.83	80	91	58	0	5	0	0
NE NORTH PLATTE	54	22	58	17	38	9	0.00	-0.12	0.00	0.53	47	0.53	79	88	35	0	7	0	0
NE OMAHA	47	28	62	19	38	9	0.00	-0.21	0.00	1.33	58	1.01	80	90	60	0	5	0	0
NE SCOTTSBLUFF	52	20	63	13	36	6	0.00	-0.12	0.00	0.61	44	0.42	52	87	28	0	7	0	0
NE VALENTINE	51	25	65	12	38	12	0.00	-0.12	0.00	0.62	67	0.48	86	91	45	0	7	0	0
NV ELY	43	24	54	13	34	3	0.02	-0.15	0.02	1.80	92	1.48	120	83	40	0	7	1	0
NV LAS VEGAS	66	45	70	34	55	3	0.00	-0.11	0.00	0.20	17	0.20	24	39	15	0	0	0	0
NV RENO	54	28	64	21	41	2	0.02	-0.23	0.02	6.72	234	3.77	198	84	29	0	5	1	0
NH WINNEMUCCA	50	25	63	13	38	0	0.00	-0.16	0.00	4.58	217	1.61	131	81	30	0	6	0	0
NH CONCORD	47	25	67	12	36	13	0.08	-0.55	0.05	10.77	141	5.02	112	81	37	0	6	2	0
NJ ATLANTIC CITY	55	34	69	22	45	11	0.00	-0.76	0.00	12.76	139	6.18	108	77	39	0	3	0	0
NM ALBUQUERQUE	55	31	62	22	43	2	0.01	-0.10	0.01	0.58	45	0.58	74	65	25	0	4	1	0
NM CLOVIS	55	32	66	21	43	2	-	-	-	-	-	-	90	40	0	3	-	-	-
NM ROSWELL	58	34	69	27	46	0	-	-	-	-	-	-	93	45	0	3	-	-	-
NY ALBANY	46	25	68	6	35	11	0.06	-0.52	0.04	5.94	84	1.77	43	82	51	0	5	2	0
NY BINGHAMTON	45	24	60	8	35	11	0.17	-0.42	0.14	8.30	115	1.96	47	77	48	0	5	2	0
NY BUFFALO	50	25	70	5	38	12	0.49	-0.09	0.19	9.37	115	5.96	132	83	50	0	5	5	0
NY NEW YORK	54	36	70	22	45	11	0.09	-0.63	0.07	12.21	141	6.31	120	67	37	0	2	2	0
NY ROCHESTER	51	25	73	7	38	13	0.54	0.02	0.44	6.37	99	3.40	92	79	46	0	5	3	0
NY SYRACUSE	49	25	65	4	37	12	0.24	-0.30	0.08	6.85	93	2.40	60	77	45	0	4	5	0
NC ASHEVILLE	60	33	66	20	47	6	0.66	-0.51	0.65	11.88	101	7.96	109	89	41	0	3	2	1
NC CHARLOTTE	67	40	74	28	53	10	0.22	-0.76	0.22	8.50	84	5.89	88	84	32	0	2	1	0
NC GREENSBORO	61	35	68	21	48	7	0.28	-0.56	0.25	8.66	95	4.82	84	88	44	0	3	2	0
NC HATTERAS	56	44	64	37	50	4	0.14	-0.85	0.10	11.39	87	7.08	82	92	68	0	0	2	0
NC NEW BERN	66	42	74	29	54	8	0.60	-0.45	0.42	9.13	80	6.82	89	91	44	0	1	2	0
NC RALEIGH	65	35	74	24	50	7	0.15	-0.79	0.15	8.54	89	5.67	89	85	41	0	3	1	0
NC WILMINGTON	65	40	74	28	53	6	0.50	-0.57	0.41	9.30	78	6.65	82	98	47	0	2	2	0
ND BISMARCK	36	12	42	1	24	6	0.18	0.07	0.13	2.00	155	1.32	165	89	67	0	7	3	0
ND FARGO	28	6	40	-10	17	4	0.01	-0.10	0.01	0.78	47	0.59	57	86	69	0	7	1	0
ND GRAND FORKS	26	5	40	-9	15	3	0.02	-0.09	0.02	1.48	86	0.76	71	92	69	0	7	1	0
ND WILLISTON	36	14	40	-1	25	7	0.12	0.01	0.10	1.49	101	0.31	35	91	74	0	7	2	0
OH AKRON-CANTON	51	28	70	9	40	11	0.18	-0.40	0.10	6.46	95	2.53	66	80	51	0	4	3	0
OH CINCINNATI	55	31	68	18	43	10	0.04	-0.66	0.03	7.05	91	3.90	85	80	48	0	3	2	0
OH CLEVELAND	52	31	70	9	42	13	0.23	-0.34	0.15	5.58	82	2.55	69	79	51	0	4	3	0
OH COLUMBUS	54	31	71	12	42	12	0.11	-0.47	0.06	6.66	99	3.31	86	80	49	0	4	3	0
OH DAYTON	52	29	67	15	41	10	0.17	-0.40	0.06	7.09	106	3.62	97	86	55	0	5	3	0

Based on 1961-90 normals

Weather Data for the Week Ending February 22, 1997

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 Dec 1	PCT. NORMAL SINCE Dec 1	TOTAL, IN, SINCE Jan 1	PCT. NORMAL SINCE Jan 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMP, °F		PRECIP.	
																		01 INCH OR MORE	05 INCH OR MORE		
OK TOLEDO	47	23	63	6	35	9	1.49	1.04	1.21	7.30	122	4.74	156	88	60	0	5	3	1	0	
OK YOUNGSTOWN	51	29	71	10	40	13	0.00	-0.52	0.00	3.65	55	0.97	26	79	48	0	4	0	0	0	
OK OKLAHOMA CITY	62	41	70	32	51	9	1.74	1.32	1.54	2.51	68	2.51	111	87	48	0	1	2	1	0	
OR TULSA	62	43	71	30	53	11	2.02	1.49	1.93	2.77	54	2.67	90	83	36	0	1	3	1	0	
OR ASTORIA	53	38	59	30	46	1	1.30	-0.52	0.80	35.59	134	15.55	97	97	89	0	1	4	1	0	
OR BURNS	43	24	52	20	34	3	0.06	-0.13	0.06	5.76	212	2.81	179	94	48	0	7	1	0	0	
OR MEDFORD	55	33	58	29	44	0	0.24	-0.23	0.11	14.25	189	4.29	101	97	44	0	4	3	0	0	
OR PENDLETON	52	36	64	28	44	4	0.00	-0.28	0.00	3.09	77	1.40	58	78	48	0	2	0	0	0	
OR PORTLAND	54	38	69	29	46	2	0.57	-0.36	0.30	20.54	141	8.42	100	93	50	0	1	3	0	0	
PA SALEM	54	37	57	27	45	2	0.73	-0.35	0.33	25.18	154	10.47	110	97	56	0	1	4	0	0	
PA ALLENTOWN	52	29	67	22	41	11	0.00	-0.74	0.00	11.24	126	3.94	72	77	39	0	4	0	0	0	
PA ERIE	52	28	70	1	40	13	0.52	-0.07	0.34	5.56	74	3.24	82	86	53	0	4	3	0	0	
PA HARRISBURG	56	36	71	27	48	13	0.09	-0.85	0.09	9.34	112	3.36	66	67	33	0	2	1	0	0	
PA PHILADELPHIA	55	34	70	27	45	11	0.11	-0.58	0.10	14.10	161	5.36	100	82	41	0	3	2	0	0	
PA PITTSBURGH	54	30	73	15	42	12	0.12	-0.49	0.07	4.83	67	2.94	68	78	44	0	5	3	0	0	
PA SCRANTON	49	29	62	16	39	12	0.09	-0.46	0.07	7.83	125	2.56	68	74	40	0	5	2	0	0	
RI PROVIDENCE	50	31	64	19	40	10	0.09	-0.82	0.07	12.68	115	6.07	91	85	39	0	5	2	0	0	
RI SC CHARLESTON	70	43	79	34	57	6	0.55	-0.29	0.33	6.92	76	4.78	80	96	45	0	0	2	0	0	
RI SC COLUMBIA	71	39	81	26	55	7	0.86	-0.17	0.77	10.52	94	8.18	107	89	36	0	3	2	1	0	
RI SC FLORENCE	69	41	81	30	55	7	-	-	-	-	-	-	-	98	39	0	1	-	-	-	
RI SC GREENVILLE	65	39	71	26	52	8	0.54	-0.59	0.54	12.46	107	8.29	111	86	40	0	2	1	1	0	
SD ABERDEEN	34	11	40	-4	22	4	0.04	-0.11	0.04	3.02	194	2.15	203	94	72	0	7	1	0	0	
SD HURON	36	16	41	1	26	5	0.00	-0.19	0.00	1.56	118	1.29	150	89	72	0	7	0	0	0	
SD RAPID CITY	49	26	59	16	38	10	0.11	-0.03	0.10	1.87	151	0.88	117	84	47	0	7	2	0	0	
SD SIOUX FALLS	35	16	40	6	25	4	0.00	-0.18	0.00	2.24	136	1.46	154	92	89	0	7	0	0	0	
TN CHATTANOOGA	66	37	74	24	51	8	1.64	0.42	1.62	12.67	92	9.29	108	92	42	0	3	2	1	0	
TN KNOXVILLE	64	37	74	26	51	9	1.29	0.26	1.05	12.76	108	7.41	102	86	44	0	4	2	1	0	
TN MEMPHIS	64	44	76	33	54	9	0.92	-0.21	0.91	16.31	128	10.15	144	84	43	0	0	2	1	0	
TN NASHVILLE	64	39	76	26	51	10	0.36	-0.62	0.35	9.94	90	5.69	91	85	44	0	3	2	0	0	
TX ABILENE	63	43	69	27	53	5	0.75	0.45	0.69	3.41	116	3.41	177	88	48	0	1	2	1	0	
TX AMARILLO	57	33	70	24	45	5	0.25	0.08	0.16	1.07	79	1.02	107	84	42	0	3	3	0	0	
TX AUSTIN	68	47	76	37	58	4	0.44	-0.11	0.41	6.28	119	4.10	120	88	45	0	0	2	0	0	
TX BEAUMONT	70	49	77	35	59	4	0.08	-0.74	0.04	11.65	95	8.39	112	93	55	0	0	2	0	0	
TX BROWNSVILLE	78	55	85	42	65	2	0.00	-0.24	0.00	1.61	43	0.83	34	90	52	0	0	0	0	0	
TX CORPUS CHRISTI	77	51	92	37	64	4	0.08	-0.40	0.07	1.72	38	0.99	30	92	38	1	0	2	0	0	
TX DEL RIO	68	47	73	35	58	2	1.82	1.57	1.55	2.55	131	2.20	167	93	41	0	0	3	1	0	
TX EL PASO	65	39	73	32	52	3	0.20	0.09	0.19	0.64	48	0.64	86	61	23	0	2	2	0	0	
TX FORT WORTH	65	46	71	32	56	8	2.33	1.70	1.77	7.19	125	6.72	184	97	64	0	0	2	2	0	
TX GALVESTON	67	53	77	43	60	4	0.34	-0.19	0.34	9.62	112	6.06	120	97	66	0	0	1	0	0	
TX HOUSTON	71	48	75	34	59	4	0.58	-0.14	0.55	11.00	121	6.91	123	96	55	0	0	2	1	0	
TX LUBBOCK	58	36	67	23	47	3	0.89	0.70	0.83	1.57	110	1.57	174	87	43	0	3	2	1	0	
TX MIDLAND	62	39	69	28	50	1	1.34	1.20	0.80	1.85	131	1.85	201	88	42	0	2	3	2	0	
TX SAN ANGELO	62	41	69	29	52	2	2.38	2.08	2.31	4.78	197	4.71	285	93	50	0	2	2	1	0	
TX SAN ANTONIO	70	46	78	34	58	3	0.40	-0.04	0.29	3.74	81	2.20	70	91	44	0	0	2	0	0	
TX VICTORIA	72	49	78	37	60	3	0.54	0.06	0.54	7.24	124	5.23	138	93	48	0	0	1	1	0	
TX WACO	65	45	69	35	55	5	1.65	1.01	1.37	11.10	218	9.13	290	92	52	0	0	2	1	0	
TX WICHITA FALLS	66	42	72	30	54	8	1.75	1.36	1.48	3.14	91	3.14	145	90	46	0	1	3	1	0	
UT CEDAR CITY	51	28	61	21	39	4	0.02	-0.22	0.02	3.22	158	2.24	186	87	31	0	6	1	0	0	
UT SALT LAKE CITY	47	30	55	23	39	3	0.52	0.20	0.33	5.31	153	3.59	175	88	40	0	6	3	0	0	
VT BURLINGTON	38	18	53	-5	28	9	0.43	0.02	0.36	6.22	114	2.59	85	77	44	0	5	4	0	0	
VA NORFOLK	61	40	73	29	50	9	0.00	-0.85	0.00	8.29	85	4.47	69	87	45	0	2	0	0	0	
VA RICHMOND	62	35	73	25	49	9	0.18	-0.82	0.18	9.11	102	4.20	74	78	30	0	3	1	0	0	
VA ROANOKE	60	35	68	25	48	10	0.28	-0.50	0.28	7.99	101	5.33	108	74	36	0	3	1	0	0	
WA QUILLAYUTE	51	36	55	26	43	1	2.80	-0.29	1.22	40.56	102	26.22	108	99	77	0	2	5	3	0	
WA SEATTLE-TACOMA	50	39	58	34	44	0	0.69	-0.26	0.47	19.82	137	8.62	100	93	69	0	0	4	0	0	
WA SPOKANE	44	29	47	24	37	2	0.55	0.19	0.39	6.94	125	2.84	90	95	61	0	6	2	0	0	
WA YAKIMA	49	30	51	24	39	2	0.00	-0.17	0.00	6.93	217	1.34	73	86	53	0	6	0	0	0	
WV BECKLEY	57	36	67	19	46	13	0.55	-0.19	0.35	7.29	86	4.38	84	88	43	0	3	3	0	0	
WV CHARLESTON	63	38	78	24	51	14	0.28	-0.50	0.10	4.81	56	3.04	58	83	38	0	3	3	0	0	
WV HUNTINGTON	61	38	74	20	49	15	0.09	-0.69	0.05	5.43	61	3.31	61	78	42	0	2	2	0	0	
WV PARKERSBURG	57	31	73	15	44	10	0.05	-0.67	0.03	5.33	64	2.91	54	81	43	0	4	2	0	0	
WI GREEN BAY	34	17	46	4	26	6	0.86	0.39	0.39	4.16	122	2.94	154	89	65	0	6	2	0	0	
WI LACROSSE	37	22	50	7	30	8	0.04	-0.20	0.04	4.27	153	2.86	180	88	54	0	6	1	0	0	
WI MADISON	37	22	51	11	29	8	1.41	1.13	1.12	4.49	126	3.19	165	89	59	0	6	3	1	0	
WI MILWAUKEE	41	25	52	16	33	8	1.														

## Response to Readers' Questions About Bad U.S. Precipitation Data

In recent months, we have received a number of letters and questions pertaining to the continuity of the U.S. precipitation data, particularly those published in our weekly table of selected cities. While we have made efforts to examine the data, some errors will continue to plague our weekly tabular data.

The major issue is that the National Weather Service (NWS), as part of its overall modernization program, has implemented automated observing equipment (ASOS) at airport sites around the country. Of particular concern are the data received during specific situations such as frozen precipitation events, when the reported values can be non-representative. Quality of ASOS temperature data is not a significant problem. Since a major thrust of the modernization program is to reduce the requirement for human resources, much of the above data is not updated through human observation. In a limited number of cases, however, quality-controlled precipitation measurements--termed "supplementary climate data"--continue to be reported. By the end of this decade, we expect that about 120 NWS forecast offices (listed below) will be reporting the supplementary data. Of these 120 sites, about 45

(highlighted below within the 120-station listing) will not have been relocated. In addition, we note that the NWS continues to examine the problem and is working to improve the ASOS equipment.

The weekly U.S. precipitation map, which usually appears on the *Weekly Weather and Crop Bulletin's* front cover, is based on a much larger data set, including thousands of co-operative (volunteer) observations, and has been relatively unaffected by the data problems cited above. In addition, the monthly tabular data for selected cities is more accurate than the weekly data, since our preliminary totals are checked against final NWS monthly climatic reports.

The following is a complete list of the reliable NWS precipitation sites expected to be available by the end of the decade. This will likely become our future selected cities list. Some of these weather offices are already open and reporting reliable precipitation data; the remainder will be transmitting supplementary climate data within a few years.

<u>State</u>	<u>Metro Area</u>	<u>Approximate Location</u>
AL	Birmingham	Shelby County Airport
	Mobile	Mobile Regional Airport
AK	Anchorage	Anchorage International Airport
	Fairbanks	University of Alaska, Fairbanks, AK
	Juneau	(not yet determined)
AZ	Flagstaff	Camp Navajo, Bellemont, AZ
	Phoenix	Salt River Projects Office, Phoenix, AZ
	Tucson	University of Arizona, Tucson, AZ
AR	Little Rock	North Little Rock Municipal Airport
CA	Eureka	Woodley Island, Eureka, CA
	Los Angeles	Oxnard, CA
	Sacramento	Sacramento, CA
	San Diego	San Diego, CA
	San Francisco Bay Area	Naval Post Graduate School, Monterey, CA
	San Joaquin Valley	Hanford Municipal Airport
CO	Denver/Boulder	Boulder, CO
DC	Baltimore/Washington	Sterling, VA
	Grand Junction	Walker Field, Grand Junction Airport
	Pueblo	Pueblo Memorial Airport
FL	Jacksonville	Jacksonville International Airport
	Melbourne	Melbourne Regional Airport
	Miami	Florida International University, Miami, FL
	Tallahassee	Florida State University, Tallahassee, FL
	Tampa Bay Area	Ruskin, FL
GA	Atlanta	Falcon Drive, Peachtree City, GA
GU	Agana	Agana, Guam
HI	Honolulu	University of Hawaii, Honolulu, HI
ID	Boise	Boise Interagency Fire Center
	Pocatello/Idaho Falls	Pocatello Municipal Airport, Pocatello, ID
IL	Central Illinois	Logan County Airport, Lincoln, IL
	Chicago	Lewis University Airport, Romeoville, IL
IN	Indianapolis	Indianapolis International Airport
	Northern Indiana	North Webster, IN
IA	Des Moines	Johnston, IA
	Quad Cities	Davenport Municipal Airport, Davenport, IA
KS	Dodge City	Dodge City Regional Airport
	Goodland	Goodland, KS
	Topeka	Philip Billard Municipal Airport
	Wichita	Wichita Mid-Continent Airport
KY	Jackson	Julian Carroll Airport, Noctor, KY
	Louisville	Louisville, KY
	Paducah	Barkley Regional Airport
LA	Lake Charles	Lake Charles Regional Airport
	N. Orleans/Baton Rouge	Slidell Airport, Slidell, LA
	Shreveport	Shreveport Regional Airport
ME	Portland	Gray, ME

MA	Boston	Taunton, MA
MI	Detroit	Pontiac/Indian Springs Metropark, White Lake, MI
	<b>Grand Rapids</b>	<b>Kent County International Airport</b>
	<b>Marquette</b>	<b>Marquette County Airport</b>
	North Central Lower MI	Passenheim Road, Gaylord, MI
MN	Duluth	Duluth, MN
	Minneapolis-St. Paul	Chanhassen, MN
MS	<b>Jackson</b>	<b>Jackson Municipal Airport</b>
MO	Kansas City/Pleasant Hill	Pleasant Hill, MO
	St. Louis	Research Park, St. Charles County
	<b>Springfield</b>	<b>Springfield Regional Airport</b>
MT	Billings	Overland Avenue, Billings, MT
	Glasgow	Valley County International Airport
	<b>Great Falls</b>	<b>near Great Falls International Airport</b>
	Missoula	U.S. Forest Service Aerial Depot
NE	Hastings	Hastings, NE
	<b>North Platte</b>	<b>North Platte Regional Airport</b>
	Omaha	Valley, NE
NV	Elko	Elko, NV
	Las Vegas	Las Vegas, NV
	Reno	Desert Research Institute, Reno, NV
NM	<b>Albuquerque</b>	<b>Albuquerque International Airport</b>
NY	Albany	State University of New York, Albany
	<b>Binghamton</b>	<b>Binghamton Regional Airport</b>
	<b>Buffalo</b>	<b>Greater Buffalo International Airport</b>
	New York City	Brookhaven National Lab, Upton, NY
NC	Morehead City	Newport, NC
	Raleigh-Durham	N.C. State University, Raleigh, NC
	<b>Wilmington</b>	<b>New Hanover International Airport</b>
ND	<b>Bismarck</b>	<b>Bismarck Municipal Airport</b>
	Eastern North Dakota	near University of North Dakota, Grand Forks, ND
OH	Cincinnati	Wilmington, OH
	<b>Cleveland</b>	<b>Cleveland-Hopkins International Airport</b>
OK	Oklahoma City	University of Oklahoma, Norman, OK
	Tulsa	Guaranty Bank Building, Tulsa, OK
OR	<b>Medford</b>	<b>Medford-Jackson County Airport</b>
	<b>Pendleton</b>	<b>Eastern Oregon Regional Airport</b>
	Portland	Portland, OR
PA	Central Pennsylvania	Penn State University, State College, PA
	Philadelphia	Mt. Holly, NJ
	Pittsburgh	Coraopolis, PA
PR	<b>San Juan</b>	<b>Luis Muñoz Marín International Airport</b>
SC	<b>Charleston</b>	<b>Charleston International Airport</b>
	<b>Columbia</b>	<b>Columbia Metropolitan Airport</b>
	<b>Greenville-Spartanburg</b>	<b>Greenville-Spartanburg Airport, Greer, SC</b>
SD	<b>Aberdeen</b>	<b>Aberdeen Regional Airport</b>
	Rapid City	South Dakota School of Mines, Rapid City, SD
	<b>Sioux Falls</b>	<b>Joe Foss Field, Sioux Falls, SD</b>
TN	Knoxville/Tri-Cities	Morristown Airport Industrial District
	Memphis	Agricenter International Complex, Germantown, TN
	Nashville	Old Hickory, TN
TX	<b>Amarillo</b>	<b>Amarillo International Airport</b>
	Austin/San Antonio	New Braunfels Municipal Airport, New Braunfels, TX
	<b>Brownsville</b>	<b>Brownsville/South Padre Island International Airport</b>
	<b>Corpus Christi</b>	<b>Corpus Christi International Airport</b>
	Dallas/Ft. Worth	Fort Worth, TX
	El Paso	Dofia Ana County Airport, Santa Theresa, NM
	Houston/Galveston	Dickinson, TX
	Lubbock	Science Spectrum, Lubbock, TX
	<b>Midland/Odessa</b>	<b>Midland International Airport</b>
	<b>San Angelo</b>	<b>Mathis Field</b>
UT	<b>Salt Lake City</b>	<b>Salt Lake City International Airport</b>
VA	Roanoke	Blacksburg, VA
	Wakefield	Wakefield, VA
VT	<b>Burlington</b>	<b>Burlington International Airport</b>
WA	Seattle/Tacoma	NOAA Western Regional Center, Seattle, WA
	Spokane	North Rambo Road, Spokane, WA
WV	Charleston	Ruthdale, WV
WI	Green Bay	Green Bay, WI
	La Crosse	La Crosse, WI
	Milwaukee	Dousman, WI
WY	<b>Cheyenne</b>	<b>Cheyenne Airport</b>
	Riverton	Riverton Regional Airport



# International Weather and Crop Summary

February 16 - 22, 1997

**FSU-WESTERN:** Cold weather briefly covered winter grain areas early in the week and was accompanied by light snow.

**EUROPE:** Continued mild weather and rain in England, France, and western Germany likely promoted early greening of winter grains.

**NORTHWESTERN AFRICA:** Drought intensified in Algeria and Tunisia.

**SOUTHEAST ASIA:** Showers maintained moisture supplies for main-season rice in Java but slowed second-season crop harvesting in the Philippines.

**EASTERN ASIA:** Unseasonably warm weather continued to reduce hardness for winter wheat across the North China Plain.

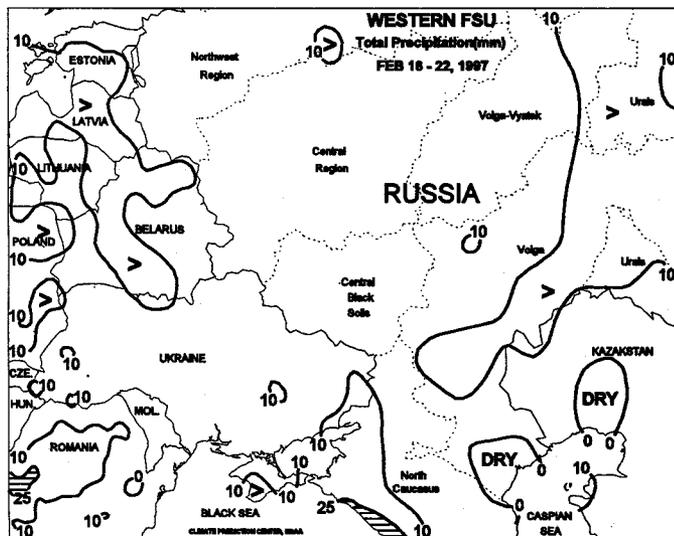
**SOUTH AMERICA:** Early-week rain brought some relief to southern Santa Fe, Argentina, but more rain is needed to ease stress on reproductive soybeans.

**SOUTH AFRICA:** Warm, dry weather stressed immature corn.

**AUSTRALIA:** Beneficial rain fell in Western Australia as warmer, drier weather favored summer crop growth in the east.

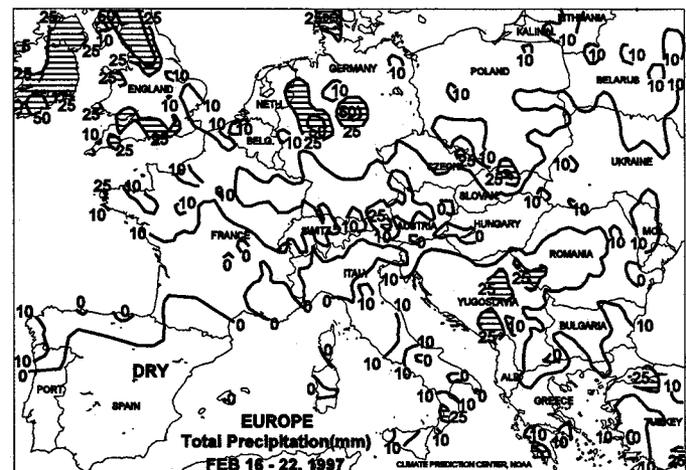
## FSU-WESTERN

Early in the week, unusually cold weather spread southward over the region, accompanied by light snow. Extreme minimum temperatures ranged from -8 to -15 degrees C in southwestern Belarus, western and southern Ukraine, and the western North Caucasus region in Russia, and -15 to -25 degrees C in the Baltics, eastern Belarus, eastern Ukraine, and most of Russia. The cold weather likely had minimal impact on winter grains because it was accompanied by light snow and was of short duration. By week's end, a warming trend brought favorable conditions to dormant winter grains in most areas but melted protective snow cover in the west and south.

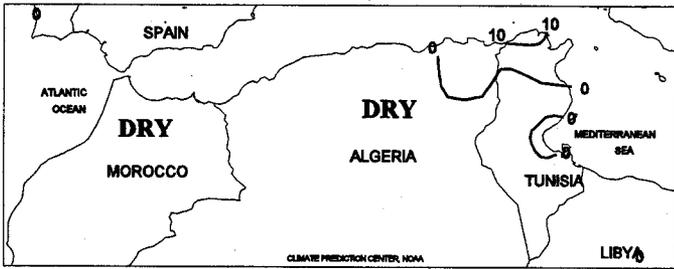


## EUROPE

Unseasonably mild weather persisted over most of Europe, providing mostly favorable conditions for winter grains. Weekly temperatures averaged 2 to 5 degrees C above normal in most areas, except in extreme eastern Europe, where temperatures averaged near normal. Widespread, light precipitation (10-25 mm) continued to fall from England and northern France, eastward through Germany, into Poland, boosting topsoil moisture. The combination of continued mild weather and rain in England, France, and western Germany likely promoted greening of winter grains. Winter grains remained dormant throughout most of eastern Europe but were losing hardness. Farther south, light if any rain fell in Spain and Italy. Winter grains were likely in the jointing stage of development in southern Spain.



NORTHWEST AFRICA Total Precipitation (mm)  
FEB 16 - 22, 1997



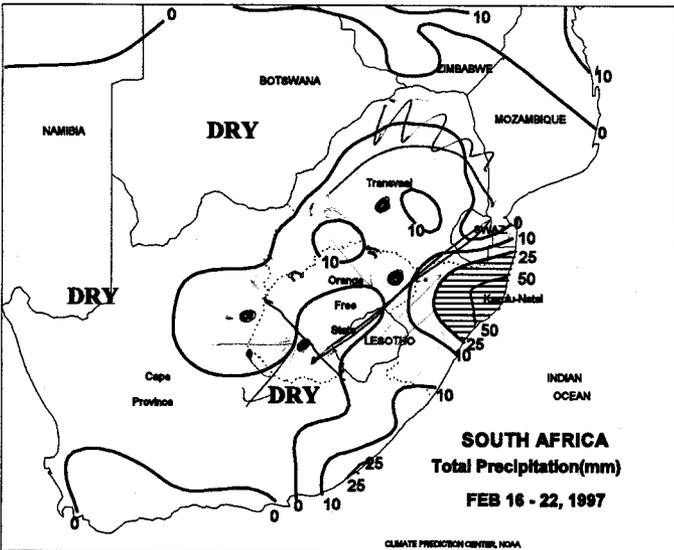
**NORTHWESTERN AFRICA**

In Morocco, the fourth consecutive week of dryness prevailed over winter grain areas. Soil moisture in Morocco was likely sufficient to maintain normal crop development. However, the combination of continued dryness and unusually mild weather has diminished soil moisture reserves and rain is needed soon to prevent crop stress. Farther east, dry weather prevailed over winter grain areas in Algeria and Tunisia, where drought conditions continued to intensify. Prolonged dryness in these two countries has likely caused spotty emergence, stunted plant growth, and accelerated crop development. The adverse dryness in these areas has reduced yield prospects and rain is needed soon to prevent further declines in yield.

**SOUTH AFRICA**

Warm, dry weather dominated the corn belt, further stressing immature crops. Rainfall totaled 10 mm or less over most of the region, with many western and central locations receiving no rain. In addition, the highest temperatures of the season were recorded across the corn belt, ranging from 30 degrees C in the east to the upper 30's C in the west. Corn development ranges from late reproductive to filling, and the continued poor growing conditions threaten the crop with declines in yield potential. Elsewhere, isolated moderate to heavy showers (25-50 mm or more) dotted the coast.

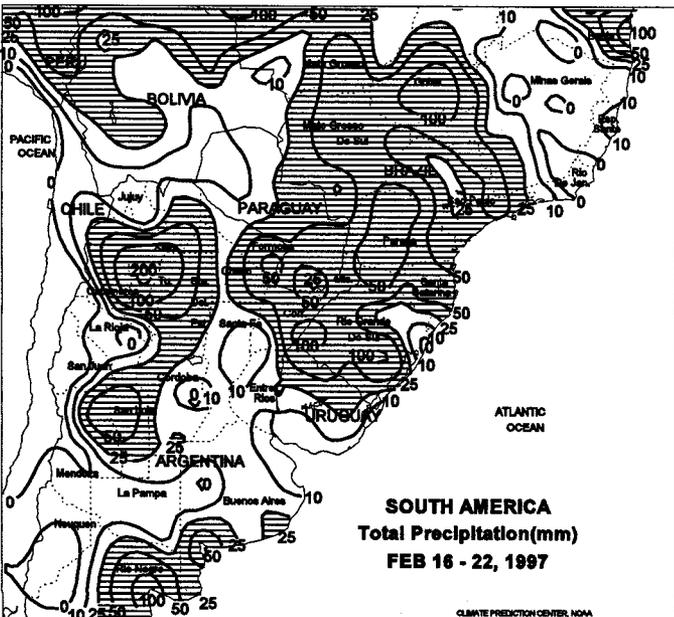
SOUTH AFRICA  
Total Precipitation(mm)  
FEB 16 - 22, 1997



**SOUTH AMERICA**

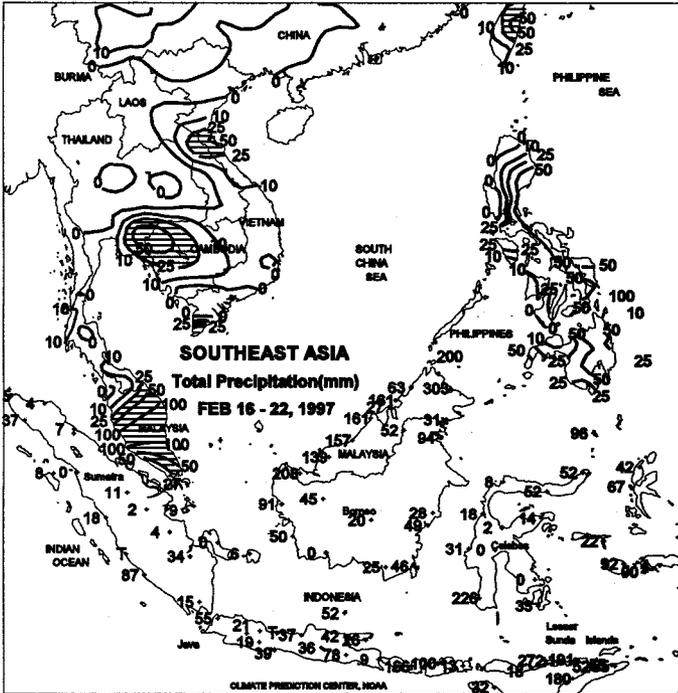
In central Argentina, early-week rain (15-25 mm) fell across southern Santa Fe and southern Cordoba, easing dryness and aiding reproductive soybeans. However, more rain is needed to reduce stress on soybeans and replenish soil moisture supplies. Across Buenos Aires, rain (15-25 mm) maintained adequate to abundant soil moisture. Temperatures averaged 1 to 2 degrees C below normal, helping to reduce crop water use. This was especially beneficial in southern Santa Fe. Moderate to heavy showers (15-140 mm) slowed cotton maturation and harvesting in northern Argentina. In southern Brazil, widespread showers (50-100 mm) covered the major soybean areas, aiding filling soybeans, but slowing early harvesting. Temperatures averaged 1 to 2 degrees C above normal.

SOUTH AMERICA  
Total Precipitation(mm)  
FEB 16 - 22, 1997



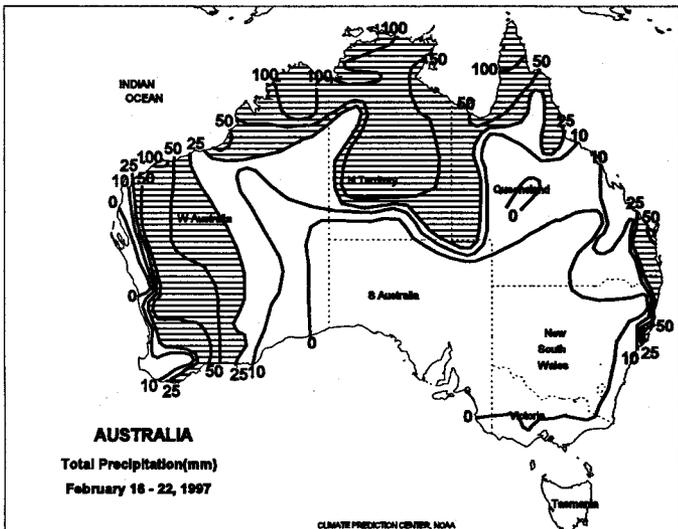
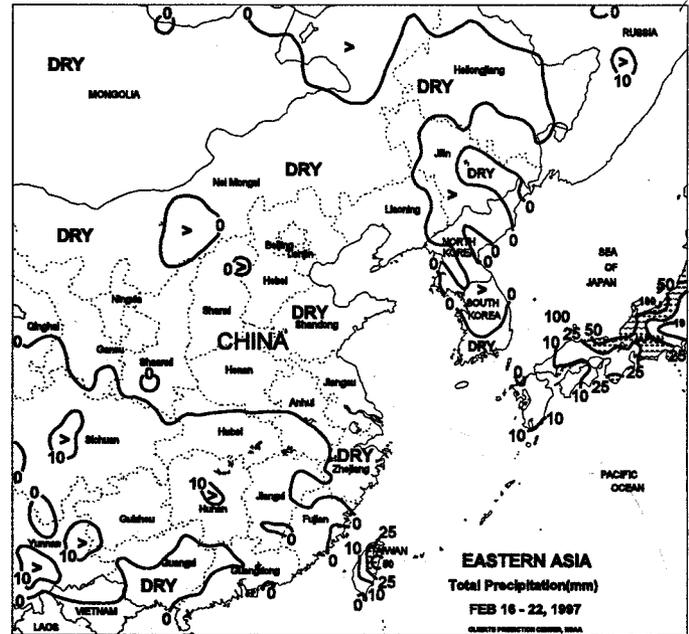
**SOUTHEAST ASIA**

Light to moderate showers (20-50 mm, with isolated amounts greater than 75 mm) fell across Java, maintaining moisture supplies for filling rice. Seasonable showers (25-100 mm) slowed second-season crop harvesting across the eastern Philippines, but increased moisture supplies for the upcoming main crop season. Scattered heavy showers (greater than 100 mm) fell across peninsular Malaysia, with most areas receiving less than 10 mm.



**EASTERN ASIA**

Unseasonably warm weather (3-5 degrees C above normal) continued to reduce winter hardiness for dormant winter wheat across the North China Plain. Additional warm weather will cause winter wheat to begin to break dormancy. Typically, winter wheat across the North China Plain breaks dormancy by mid-March. Light precipitation (less than 10 mm) fell across central China.



**AUSTRALIA**

Widespread, locally heavy showers (10-25 mm, exceeding 50 mm at some locations) fell throughout Western Australia's main agricultural areas. The moisture was especially welcomed for livestock. In the east, generally warmer, drier weather spurred growth of cotton and sorghum following last week's excessive rain. However, moderate showers (25-50 mm or greater) continued in easternmost summer crop areas, this week reaching Queensland's southern sugarcane areas. In New Zealand, moderate showers (10-25 mm or more) benefited pastures over North Island while the south remained generally dry.

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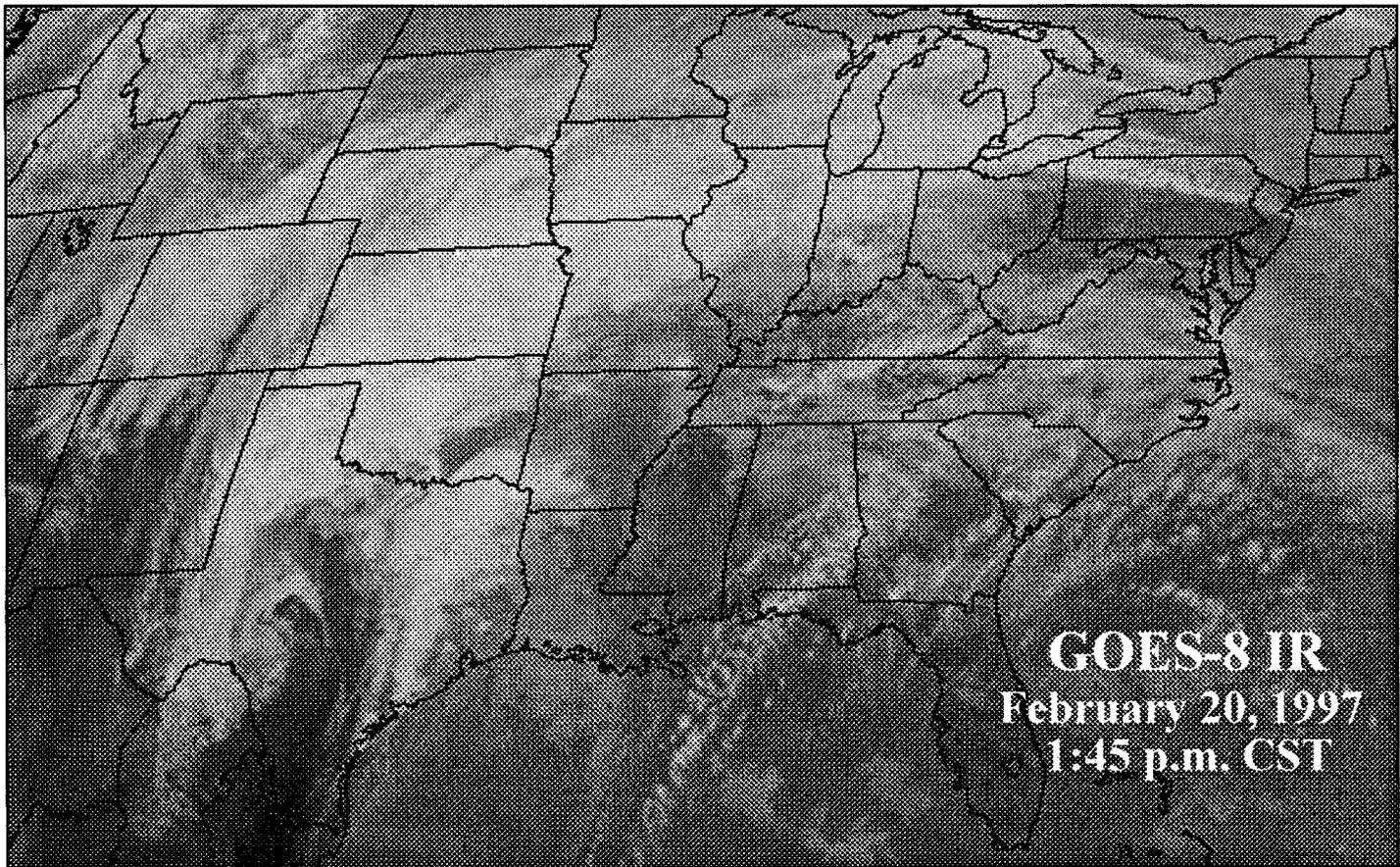
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**U.S. DEPARTMENT OF COMMERCE**

National Oceanic and Atmospheric Administration  
National Weather Service/Climate Prediction Center  
Managing Editor ..... **Douglas Le Comte** (202) 720-7919  
fax (202) 720-1455  
Editor ..... **Brad Rippey** (202) 720-1444  
Meteorologists .... **David Secora, Jeff Savadel, Brian Morris**  
Special Requests ..... (202) 720-7917  
Subscriptions ..... **John Kopman** (301) 763-8227, ext. 7534  
fax (301) 763-8395

**U.S. DEPARTMENT OF AGRICULTURE**

Economic Research Service  
E.R.S. Editor ..... **Sharon Lee**  
National Agricultural Statistics Service  
Agricultural Statistician ..... **Greg Preston** (202) 720-7621  
State Summaries Editor ..... **Klara Haskins** (202) 720-8033  
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Climate Prediction Center, W/NP52  
Attn: *Weekly Weather & Crop Bulletin*  
NOAA/NWS/NCEP  
NOAA Science Center, Room 605  
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