

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

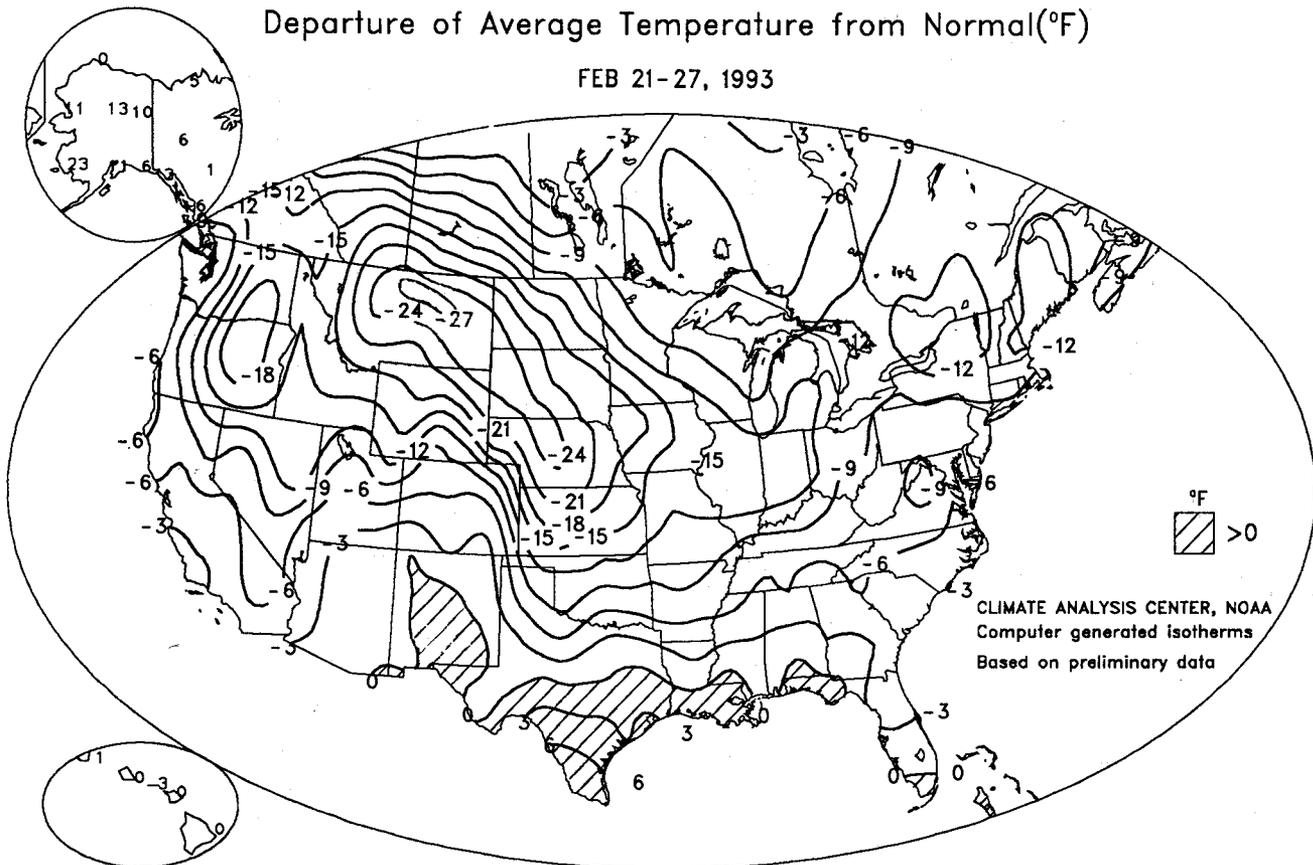
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Washington, D.C.

March 2, 1993

Departure of Average Temperature from Normal(°F)

FEB 21-27, 1993



HIGHLIGHTS

February 21 - 27, 1993

A blast of frigid air preceded a major snowstorm from the east-central Plains to the Middle Atlantic coast. Elsewhere, heavy snow continued in mountain areas from California to Colorado, and runoff from previous rainfall flooded winter vegetable areas in southwestern Arizona. Early in the week, a storm system progressed from the upper Midwest to New England, dropping more than 6 inches of snow from northern Iowa eastward. Westminster, MD, received 8 inches of new snow, and Augusta, ME, noted 12 inches. (The storm had dumped several feet of snow on Colorado's mountains late last week, resulting in an unstable snowpack on many slopes. By Sunday evening, more than 300 snowslides had occurred during the previous 48 hours in Colorado alone.) Meanwhile, the storm's trailing cold front spawned severe weather across parts of the Southeast.

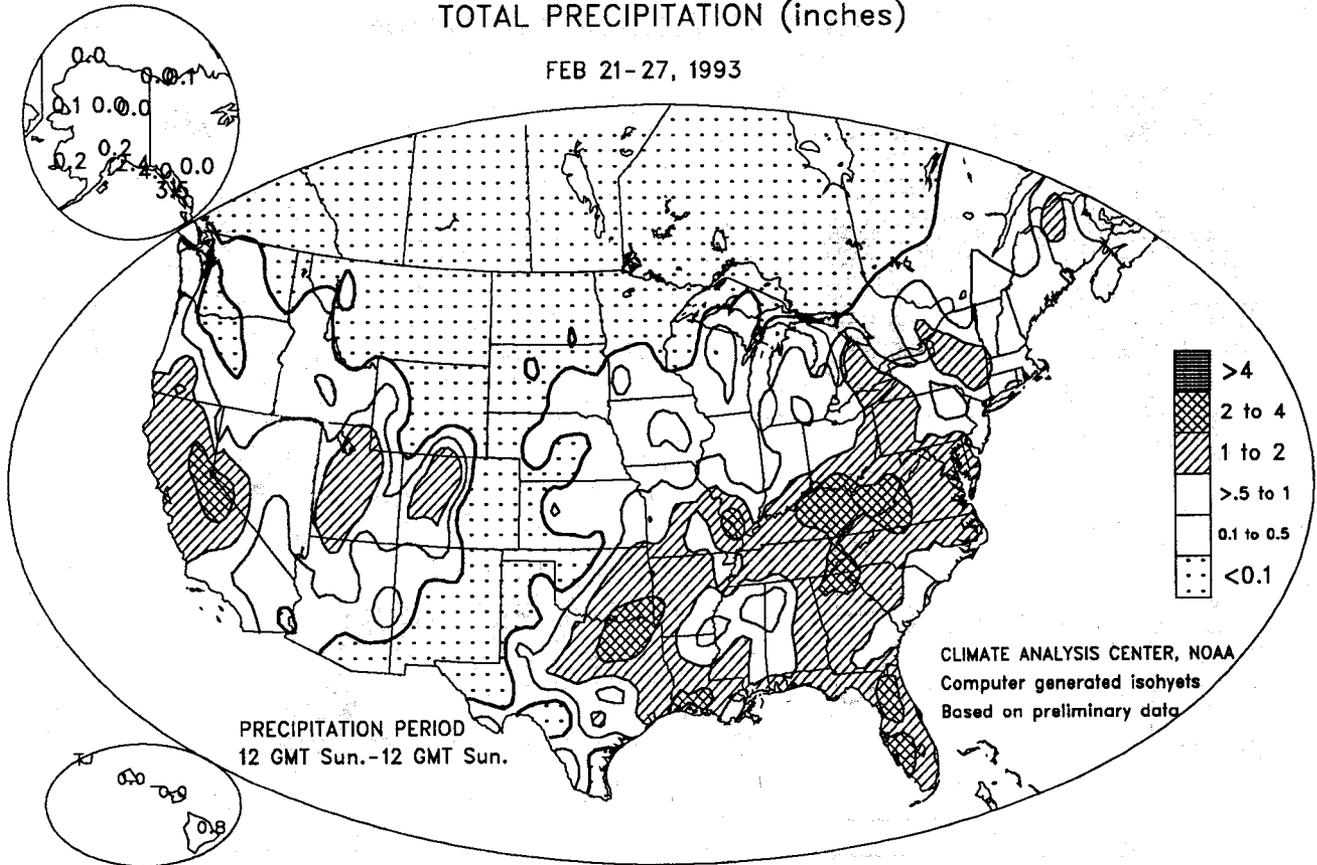
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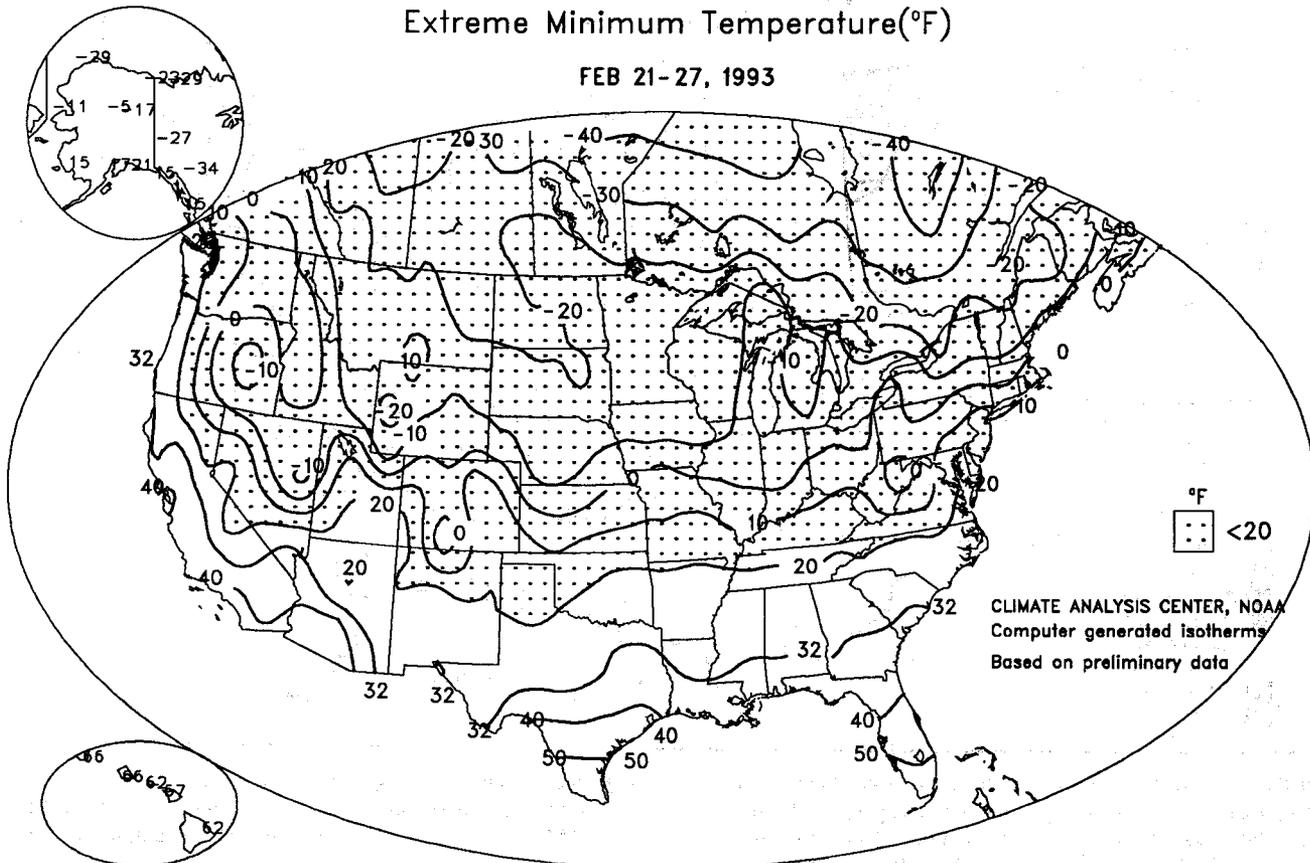
TOTAL PRECIPITATION (inches)

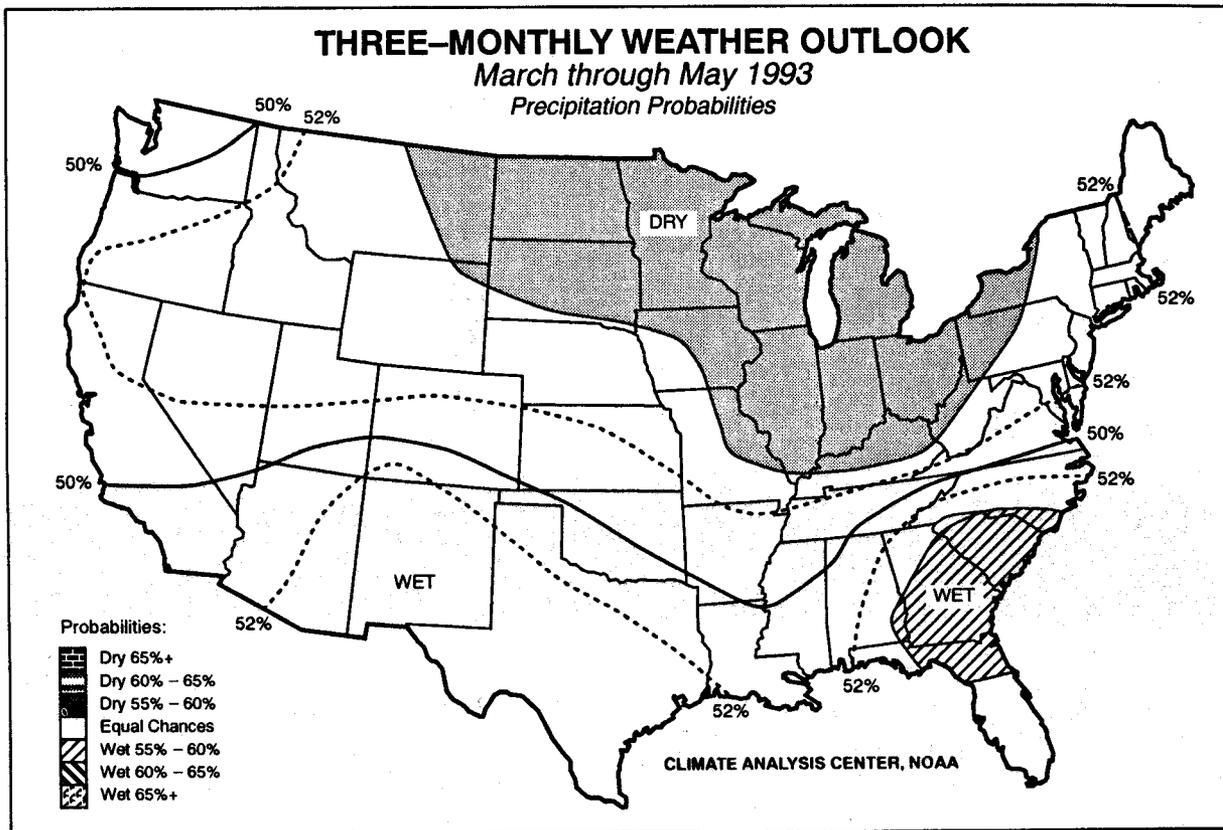
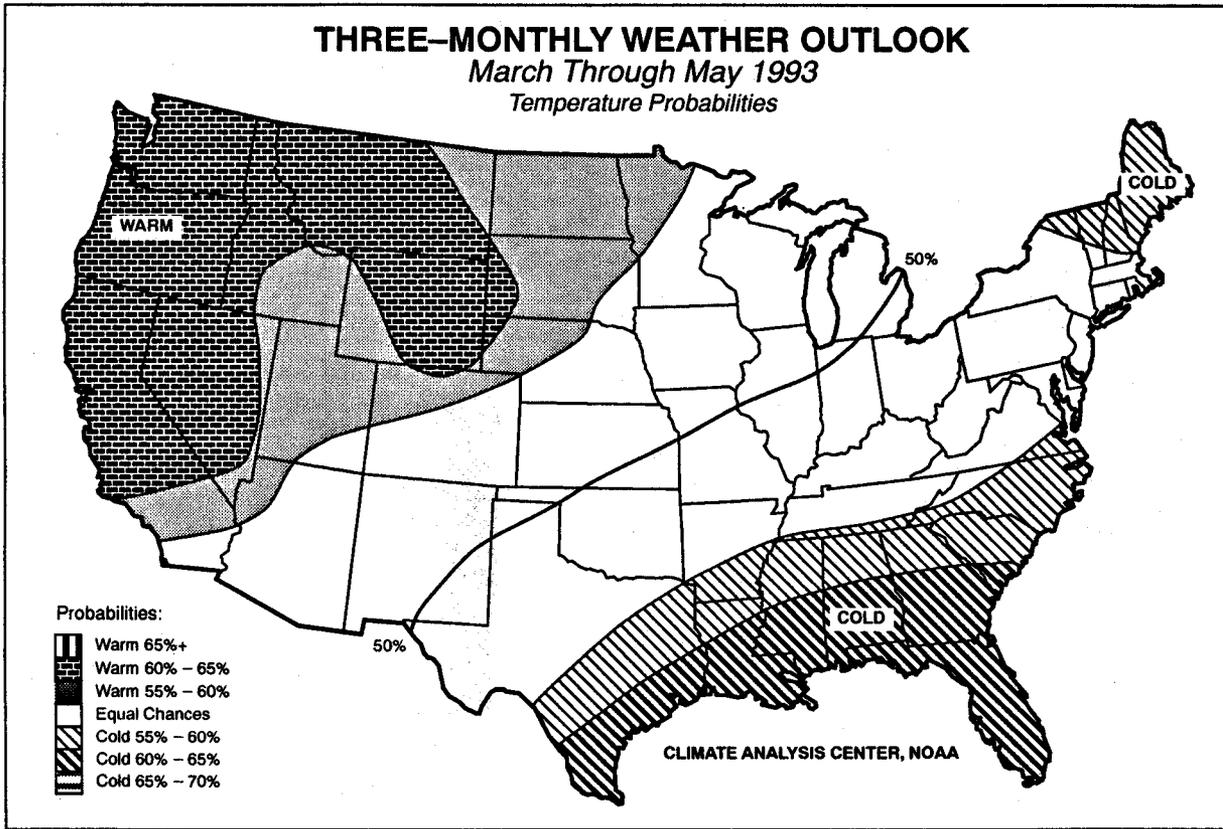
FEB 21-27, 1993



Extreme Minimum Temperature(°F)

FEB 21-27, 1993





For information on the techniques that the Climate Analysis Center's Prediction Branch uses to prepare the long-range outlooks, see the article by A. J. Wagner entitled "Medium- and Long-Range Forecasting," published by the American Meteorological Society in its journal, *Weather and Forecasting*, Sept. 1989, pp. 413-426. For information on subscribing to their 30- and 90-day outlooks, write to: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

National Weather Data for Selected Cities

Weather Data for the Week Ending February 27, 1993

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	.50 INCH OR MORE	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	54	36	72	26	45	.3	.5	-.8	.2	13.8	93	8.5	88	82	39	0	3	3	3	0	
MOBILE	64	44	73	33	54	-1.1	1.2	-.3	1.2	17.8	116	12.5	125	87	42	0	0	0	0	1	
MONTGOMERY	61	41	74	31	51	1	1.1	-.3	.7	17.4	114	9.6	96	87	40	0	0	0	0	1	
AK ANCHORAGE	33	23	36	17	28	8	.3	.1	.3	2.8	107	2.1	139	95	76	0	0	0	0	1	
BARROW	-13	-22	2	-30	-18	0	0	0	0	0	0	243	6	265	75	69	0	0	0	0	
FAIRBANKS	27	6	31	-9	16	16	.2	.1	.1	3.9	229	2.7	302	88	70	0	0	0	0	0	
JUNEAU	38	27	42	13	32	2	3.6	2.7	2.5	23.5	187	17.8	218	93	68	0	0	0	0	0	
KODIAK	38	32	41	27	35	4	2.5	1.3	1.1	15.1	78	10.3	82	97	80	0	0	0	0	0	
NOME	28	18	33	4	23	19	.2	.1	.2	3.6	161	2.3	166	84	68	0	0	0	0	0	
AZ PHOENIX	66	48	71	45	57	2	.2	.1	.2	9.6	419	6.6	493	76	33	0	0	0	0	0	
PRESCOTT	48	31	52	27	40	4	.1	-.2	.1	10.2	223	8.2	273	90	43	0	0	0	0	0	
TUCSON	66	40	72	38	53	3	.1	-.1	.1	9.5	366	6.0	395	83	30	0	0	0	0	0	
YUMA	69	50	73	46	59	3	.3	.2	.3	6.0	583	3.0	538	59	29	0	0	0	0	0	
AR FORT SMITH	45	27	63	23	36	3	1.0	.2	.5	12.6	170	7.1	162	90	55	0	0	0	0	0	
LITTLE ROCK	47	30	71	25	39	9	1.0	.1	.8	11.5	99	7.0	102	78	51	0	0	0	0	0	
CA BAKERSFIELD	60	44	65	39	52	3	.9	.6	.7	5.8	231	4.0	211	78	54	0	0	0	0	0	
KUREKA	52	38	58	33	45	4	1.4	-.2	.6	22.4	135	13.1	124	80	60	0	0	0	0	0	
FRESNO	57	42	62	37	49	4	.5	-.1	.3	20.3	202	7.6	207	84	44	0	0	0	0	0	
LOS ANGELES	59	49	61	46	54	4	.7	-.1	.3	20.3	314	16.2	336	89	59	0	0	0	0	0	
REDDING	53	39	61	32	46	6	.9	-.1	.4	28.2	178	17.9	172	81	50	0	0	0	0	0	
SACRAMENTO	54	40	59	35	47	5	1.2	-.5	.9	18.6	206	13.6	209	96	60	0	0	0	0	0	
SAN DIEGO	61	50	64	47	55	5	1.0	-.7	.9	16.3	332	13.7	416	84	56	0	0	0	0	0	
SAN FRANCISCO	56	45	61	42	50	5	1.2	-.5	.5	22.0	208	15.9	215	81	62	0	0	0	0	0	
CO DENVER	38	21	50	18	29	4	.1	-.1	.1	2.0	119	1.3	127	83	46	0	0	0	0	0	
GRAND JUNCTION	45	26	52	19	36	4	.4	-.3	.4	2.9	170	2.6	243	94	49	0	0	0	0	0	
PUEBLO	48	17	59	12	32	5	.7	-.1	.5	9.0	90	.5	79	87	34	0	0	0	0	0	
CT BRIDGEPORT	32	19	38	11	25	2	.5	-.3	.5	9.5	95	5.2	97	81	49	0	0	0	0	0	
HARTFORD	28	10	36	-1	19	11	1.7	-.2	.5	9.8	94	5.5	85	88	44	0	0	0	0	0	
DC WASHINGTON	37	26	56	18	31	9	1.0	-.3	.8	8.0	95	5.2	97	77	42	0	0	0	0	0	
FL APALACHICOLA	66	48	70	43	57	1	2.9	2.0	1.9	11.9	103	10.4	138	97	56	0	0	0	0	0	
DAYTONA BEACH	66	45	75	38	56	5	1.3	-.5	.7	7.8	93	7.3	127	97	56	0	0	0	0	0	
JACKSONVILLE	65	41	72	36	53	5	1.5	-.5	1.2	7.3	75	6.7	97	92	56	0	0	0	0	0	
KEY WEST	78	68	81	65	73	2	3	-.1	.3	8.4	145	8.3	220	86	66	0	0	0	0	0	
MIAMI	78	63	85	56	70	1	1.4	-.9	.8	9.1	156	7.2	179	85	57	0	0	0	0	0	
ORLANDO	70	50	76	44	60	7	1.1	-.2	.7	7.2	98	6.4	122	89	52	0	0	0	0	0	
TALLAHASSEE	68	43	76	32	55	0	2.3	-.8	1.4	15.4	102	14.1	139	78	42	0	0	0	0	0	
TAMPA	71	51	75	44	61	2	1.2	-.4	.7	6.9	97	5.9	120	89	55	0	0	0	0	0	
WEST PALM BEACH	75	59	82	52	67	0	.4	-.4	.2	11.9	158	10.1	190	86	55	0	0	0	0	0	
GA ATLANTA	52	35	66	29	44	4	.5	-.8	.3	14.6	106	8.2	88	78	43	0	0	0	0	0	
AUGUSTA	56	37	71	29	47	3	1.0	-.8	.3	11.4	99	9.2	113	81	40	0	0	0	0	0	
MACON	57	38	68	29	47	4	2.0	-.8	1.0	12.8	95	9.7	106	82	37	0	0	0	0	0	
SAVANNAH	60	41	73	34	51	3	.8	-.1	.7	10.4	107	8.9	132	78	44	0	0	0	0	0	
HI HILO	79	63	83	62	71	-1	.8	-.2	.3	21.4	67	4.4	22	89	53	0	0	0	0	0	
HONOLULU	82	67	84	66	74	1	1	-.5	.7	7.5	79	1.1	18	79	49	0	0	0	0	0	
KAHULUI	81	62	84	67	72	2	1	-.7	.7	4.8	46	2.3	33	81	48	0	0	0	0	0	
LIHUE	77	70	79	67	74	0	1	-.8	.7	23.1	162	.9	10	80	61	0	0	0	0	0	
ID BOISE	33	18	37	7	25	-13	.4	-.1	.2	3.5	92	2.6	106	95	62	0	0	0	0	0	
LEWISTON	35	19	37	13	27	-14	.7	-.2	.1	1.9	55	1.5	68	85	56	0	0	0	0	0	
POCATELLO	26	11	32	-13	18	-13	.7	-.5	.2	6.1	202	4.3	222	91	69	0	0	0	0	0	
IL CHICAGO	24	8	31	-5	16	-13	.5	-.0	.3	7.2	135	4.7	164	89	64	0	0	0	0	0	
MOLINE	24	6	33	-9	15	-13	.5	-.1	.2	6.9	140	2.9	107	88	64	0	0	0	0	0	
PEORIA	26	9	37	-4	17	-12	.8	-.4	.4	8.2	156	5.2	182	88	61	0	0	0	0	0	
QUINCY	25	10	34	2	17	-14	.4	-.1	.3	5.3	105	3.3	121	91	65	0	0	0	0	0	
ROCKFORD	23	3	31	-11	13	-13	.5	-.1	.3	6.6	150	3.3	137	91	65	0	0	0	0	0	
SPRINGFIELD	27	12	38	0	19	-13	.4	-.2	.3	7.8	132	5.5	170	88	62	0	0	0	0	0	
IN EVANSVILLE	36	21	63	11	29	-11	1.2	-.2	.9	8.0	80	6.3	100	82	54	0	0	0	0	0	
FORT WAYNE	26	9	35	-2	18	-11	.8	-.2	.5	9.7	147	7.0	190	88	65	0	0	0	0	0	
INDIANAPOLIS	28	11	44	-4	20	-13	.9	-.2	.5	7.5	93	5.6	120	89	66	0	0	0	0	0	
SOUTH BEND	25	7	32	-4	16	-13	.8	-.2	.3	9.5	130	5.5	136	92	66	0	0	0	0	0	
IA DES MOINES	21	6	29	-6	14	-15	.6	-.3	.4	5.1	155	3.1	162	88	62	0	0	0	0	0	
SIOUX CITY	17	-5	25	-18	6	-21	.4	-.1	.2	3.6	181	2.8	232	92	70	0	0	0	0	0	
WATERLOO	21	0	28	-16	11	-19	.6	-.2	.5	3.4	110	1.8	101	88	59	0	0	0	0	0	
KS CONCORDIA	24	6	29	-1	15	-19	.2	-.1	.2	3.8	179	2.4	191	90	65	0	0	0	0	0	
DODGE CITY	30	13	41	5	22	-16	.2	-.1	.2	4.1	239	3.2	302	94	66	0	0	0	0	0	
GOODLAND	26	6	35	-2	16	-18	.7	-.1	.2	1.6	136	1.4	189	91	70	0	0	0	0	0	
TOPEKA	30	11	38	3	20	-15	.4	-.1	.4	5.5	163	3.5	178	91	58	0	0	0	0	0	
WICHITA	32	18	38	11	25	-14	1.1	-.3	.1	4.1	124	2.9	151	89	55	0	0	0	0	0	
KY BOWLING GREEN	42	25	69	15	34	-6	1.3	-.2	.7	8.8	69	5.8	75	86	50	0	0	0	0	0	
LEXINGTON	37	22	63	11	29	-8	2.6	1.7	1.9	8.4	84	6.6	111	90	55	0	0	0	0	0	
LOUISVILLE	37	22	61	11	29	-9	2.1	1.2	1.3	9.3	96	7.7	127	88	53	0	0	0	0	0	
LA BATON ROUGE	67	46	76	33	57	1	1.3	-.1	1.1	20.8	132	16.1	157	91	46	0	0	0	0	0	
LAKE CHARLES	67	46	80	34	56	1	2.5	1.7	2.5	14.9	115	11.1	139	95	56	0	0	0	0	0	
NEW ORLEANS	66	48	76	38	57	1	.3	-.2	.3	14.2	86	8.6	79	92	55	0	0	0	0	0	
SHREVEPORT	60	40	79	32	50	-1	1.1	-.1	1.1	15.3	117	9.4	115	83	44	0	0	0	0	0	

Based on 1951-80 normals.

Weather Data for the Week Ending February 27, 1993

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	PRECIP.
															.01 INCH OR MORE				.50 INCH OR MORE
ME CARIBOU	14	-8	20	-28	3	-12	.3	-2	.3	5.8	78	4.2	100	81	51	0	7	3	0
ME PORTLAND	21	1	26	-11	11	-15	.7	-2	.4	8.7	77	6.6	97	89	50	0	7	4	0
MD BALTIMORE	35	23	50	14	29	-8	1.1	.3	.8	10.2	108	5.5	91	77	39	0	7	2	1
MD SALISBURY	41	24	64	17	33	-6	1.5	.6	.9	12.0	112	6.5	93	90	52	0	6	1	1
MA BOSTON	30	16	36	9	23	-9	1.2	.3	.7	15.4	139	7.1	100	85	47	0	7	4	1
MA CHATHAM	32	20	42	12	26	-6	.4	.6	.3	13.1	108	6.1	80	77	53	0	6	0	0
MI ALPENA	23	-3	32	-15	10	-10	.6	.2	.3	3.3	68	2.1	72	91	53	0	7	3	0
MI DETROIT	27	11	33	-2	19	-9	.7	.2	.6	7.5	121	5.1	150	86	57	0	7	4	1
MI FLINT	23	2	27	-15	13	-13	.7	.3	.4	6.0	129	4.0	155	89	51	0	7	4	0
MI GRAND RAPIDS	23	3	29	-12	13	-13	.6	.2	.3	8.6	143	5.4	168	93	57	0	7	3	0
MI HOUGHTON LAKE	23	-3	31	-20	10	-11	.7	.4	.4	4.6	101	2.6	100	95	51	0	7	4	0
MI LANSING	24	-1	34	-16	12	-12	.6	.2	.3	6.4	138	4.3	162	90	57	0	7	2	0
MI MARQUETTE	22	-4	34	-14	9	-7	.3	.2	.2	5.6	86	3.1	80	81	54	0	7	3	0
MI MUSKOGON	25	11	34	-3	18	-9	.5	.2	.3	6.1	90	3.4	91	91	56	0	7	4	0
MI SAULT ST. MARIE	21	-3	31	-10	6	-7	.4	.4	.4	5.9	85	2.5	60	81	39	0	7	0	0
MN ALEXANDRIA	16	-3	23	-16	6	-11	.7	.2	.2	1.9	85	1.0	65	86	66	0	7	1	0
MN DULUTH	20	0	26	-13	10	-6	.2	.0	.2	3.4	106	2.2	112	80	47	0	7	3	0
MN INT'L FALLS	18	-8	29	-19	5	-7	.1	.1	.1	2.5	106	.8	52	80	45	0	7	2	0
MN MINNEAPOLIS	20	2	27	-11	11	-11	.2	.1	.1	2.7	95	1.7	93	88	57	0	7	2	0
MN ROCHESTER	16	-2	25	-13	7	-14	.5	.2	.4	3.3	132	2.0	134	87	55	0	7	2	0
MS GREENWOOD	55	34	78	28	45	-5	.6	.6	.5	11.3	75	5.7	62	86	43	0	5	2	0
MS JACKSON	61	37	80	30	49	0	1.2	.1	.7	12.5	76	8.1	81	89	40	0	3	2	1
MS MERIDIAN	60	39	78	31	50	-1	.8	.7	.6	20.4	124	14.5	139	85	39	0	2	2	1
MO CAPE GIRARDEAU	38	23	60	11	30	-9	1.0	.1	.6	10.5	100	8.7	142	85	57	0	6	3	1
MO COLUMBIA	29	14	43	8	22	-12	.9	.4	.7	7.0	121	4.4	136	88	59	0	7	4	1
MO KANSAS CITY	28	10	34	4	19	-16	.7	.4	.6	7.0	190	3.3	152	88	60	0	7	2	1
MO SAINT LOUIS	31	18	45	11	25	-13	1.4	.7	1.0	10.0	146	6.3	165	84	52	0	7	3	1
MO SPRINGFIELD	35	19	50	16	27	-11	1.3	.7	.7	9.8	157	5.5	154	89	51	0	7	2	0
MT BILLINGS	22	1	38	-6	12	-19	.1	.1	.0	1.3	56	.8	51	79	50	0	7	3	0
MT GLASGOW	7	-19	24	-26	-6	-27	.7	.0	.7	.8	79	.5	89	83	64	0	7	2	0
MT GREAT FALLS	15	-6	37	-16	5	-25	.1	.1	.1	2.2	94	1.9	128	81	59	0	7	2	0
MT HAVRE	8	-17	36	-26	-5	-29	.7	.1	.7	1.2	81	.6	74	63	48	0	7	0	0
MT HELENA	14	-9	25	-15	3	-26	.1	.0	.1	2.4	148	1.8	177	85	58	0	7	3	0
MT KALISPELL	26	2	31	-12	14	-15	.2	.1	.1	4.3	99	2.3	88	85	50	0	7	3	0
MT MILES CITY	14	-16	35	-23	-1	-27	.1	.0	.1	1.3	82	.9	93	89	63	0	7	3	0
MT MISSOULA	25	0	30	-11	13	-19	.1	.1	.0	2.3	72	1.5	76	88	54	0	7	2	0
NE GRAND ISLAND	19	0	32	-10	9	-21	.1	.2	.1	2.9	157	2.1	178	91	72	0	7	1	0
NE LINCOLN	22	3	33	-3	13	-17	.1	.2	.1	2.0	95	1.1	92	88	60	0	7	2	0
NE NORFOLK	18	-4	32	-15	7	-20	.4	.2	.2	3.9	200	3.0	242	88	60	0	7	3	0
NE NORTH PLATTE	20	-6	32	-17	7	-24	.4	.2	.2	2.5	198	2.1	273	90	66	0	7	4	0
NE OMAHA	21	4	31	-6	12	-17	.2	.1	.1	2.9	124	1.8	133	81	58	0	7	3	0
NE SCOTTSBLUFF	23	-2	34	-13	11	-21	.1	.0	.1	2.7	180	2.0	219	91	61	0	7	3	0
NE VALENTINE	18	-12	33	-20	3	-27	.2	.0	.2	1.1	76	1.0	100	88	53	0	7	2	0
NV ELY	29	5	37	-15	17	-14	.6	.4	.3	4.6	222	3.7	275	85	58	0	7	3	0
NV LAS VEGAS	56	40	62	36	48	-5	.7	.6	.4	5.6	438	3.9	430	70	38	0	0	2	0
NV RENO	39	26	44	22	33	-7	.4	.2	.2	5.6	184	3.7	180	85	47	0	7	5	0
NV WINNEMUCCA	36	18	41	-1	27	-11	.4	.2	.2	3.6	159	2.5	187	86	59	0	7	3	0
NH CONCORD	24	-4	29	-16	10	-15	.5	.1	.2	5.4	66	3.1	63	89	46	0	7	3	0
NJ ATLANTIC CITY	37	20	56	10	29	-7	.8	.0	.6	9.0	92	5.0	78	84	50	0	7	2	1
NM ALBUQUERQUE	55	32	61	27	44	1	.1	.0	.1	3.1	224	2.0	214	67	25	0	4	1	0
NM CLOVIS	54	26	61	18	40	-3	.7	.1	.7	.9	67	.7	80	81	31	0	6	0	0
NM ROSWELL	60	34	66	25	47	0	.0	.1	.0	1.4	109	.8	103	66	27	0	3	0	0
NY ALBANY	27	4	39	-4	16	-11	.8	.2	.5	8.0	108	5.0	110	88	49	0	7	3	1
NY BINGHAMTON	25	7	38	1	16	-9	.6	.0	.5	7.8	102	4.8	104	90	53	0	7	4	0
NY BUFFALO	28	8	36	-1	18	-8	.7	.1	.5	10.1	117	6.3	127	87	57	0	7	4	0
NY NEW YORK	32	22	41	16	27	-8	.7	.0	.7	11.8	128	6.3	109	78	43	0	7	3	1
NY ROCHESTER	26	6	37	-6	16	-11	.5	.1	.3	6.8	100	3.8	93	91	62	0	7	4	0
NY SYRACUSE	25	1	33	-11	13	-13	1.1	.5	.5	8.0	106	5.5	124	90	55	0	7	4	0
NC ASHEVILLE	44	28	59	21	36	-6	.6	.7	.2	9.5	75	5.8	71	87	44	0	5	3	0
NC CHARLOTTE	49	34	66	26	41	-3	.9	.1	.6	11.7	108	8.9	120	78	41	0	4	3	1
NC GREENSBORO	44	29	63	19	36	-6	1.8	.9	1.2	9.5	98	7.1	111	82	43	0	5	3	2
NC HATTERAS	52	37	67	31	44	-3	.8	.2	.7	16.7	121	11.0	119	83	50	0	2	4	1
NC NEW BERN	53	33	75	27	43	-5	.7	.4	.6	12.0	99	8.9	106	83	38	0	5	2	1
NC RALEIGH	48	30	70	22	39	-5	.7	.2	.4	8.9	86	6.4	91	85	44	0	6	5	0
NC WILMINGTON	55	36	77	27	46	-2	.7	.4	.7	13.2	102	8.8	98	76	35	0	3	1	1
ND BISMARCK	12	-16	30	-28	-2	-22	.1	.1	.0	1.1	80	.6	70	83	63	0	7	2	0
ND FARGO	12	-6	17	-18	3	-13	.1	.1	.1	1.5	87	1.0	88	82	64	0	7	2	0
ND GRAND FORKS	14	-6	23	-14	4	-10	.7	.1	.7	1.1	61	.4	33	83	66	0	7	1	0
ND WILLISTON	10	-16	28	-25	-3	-23	.1	.1	.1	.9	59	.5	48	85	64	0	7	1	0
OH AKRON-CANTON	29	12	44	-1	21	-10	.8	.2	.4	8.2	113	5.9	138	91	66	0	7	6	0
OH CINCINNATI	31	16	50	5	23	-11	1.5	.8	.9	8.6	104	7.2	141	92	64	0	7	4	1
OH CLEVELAND	28	12	44	-5	20	-9	.9	.3	.4	11.0	152	6.6	160	91	63	0	7	5	0
OH COLUMBUS	30	15	47	4	22	-8	.7	.1	.6	7.3	103	5.9	146	92	71	0	7	4	1
OH DAYTON	27	12	45	3	20	-13	.7	.0	.3	8.3	116	6.7	159	90	69	0	7	4	0

Based on 1951-80 normals.

Weather Data for the Week Ending February 27, 1993

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	.01 INCH OR MORE		.50 INCH OR MORE
													OR MORE							OR MORE	OR MORE	OR MORE
TOLEDO	27	11	33	-4	19	-9	.7	.2	.5	8.2	131	4.7	137	91	60	0	0	7	7	3	1	
YOUNGSTOWN	30	11	43	-1	21	-8	.8	.2	.4	9.2	131	5.7	139	90	60	0	0	7	7	5	1	
OK OKLAHOMA CITY	43	26	60	20	35	-9	.5	.1	.5	7.4	186	4.4	167	88	51	0	0	6	6	1	1	
TULSA	40	24	59	20	32	-11	1.0	.4	.8	10.1	183	4.9	145	91	57	0	0	7	7	2	1	
OR ASTORIA	48	28	53	23	38	-7	.6	-1.2	.5	13.5	48	7.5	43	92	53	0	0	6	6	2	0	
BURNS	23	2	31	-15	13	-19	.2	.0	.1	3.6	124	2.4	139	92	67	0	0	7	7	3	0	
MEDFORD	47	29	58	22	38	-7	.6	.1	.4	7.5	96	4.0	88	95	60	0	0	5	5	3	0	
PENDLETON	27	12	40	0	19	-22	.4	.2	.2	3.4	80	2.6	101	91	57	0	0	7	7	2	0	
PORTLAND	45	28	49	24	37	-8	.1	-.8	.1	8.8	58	3.8	42	86	50	0	0	5	5	1	1	
SALEM	45	25	49	20	35	-9	.3	-.8	.3	14.3	84	6.5	63	86	54	0	0	6	6	1	0	
PA ALLENTOWN	31	17	45	11	24	-8	.3	-.4	.3	8.0	85	4.8	79	82	48	0	0	7	7	2	0	
ERIE	29	12	39	4	20	-8	.7	-.1	.4	8.7	109	5.3	121	87	65	0	0	7	7	4	0	
HARRISBURG	33	19	48	11	26	-8	.4	-.3	.4	5.9	66	3.9	68	82	48	0	0	7	7	1	0	
PHILADELPHIA	35	24	48	15	30	-5	.6	-.2	.5	9.5	95	4.9	77	74	43	0	0	6	6	3	0	
PITTSBURGH	32	15	45	-1	24	-8	1.2	-.6	.6	8.7	113	5.9	123	92	63	0	0	7	7	6	1	
SCRANTON	30	13	43	6	22	-7	.1	-.5	.1	5.9	88	3.0	72	86	48	0	0	7	7	1	0	
RI PROVIDENCE	31	15	38	9	23	-9	.5	-.5	.3	14.4	123	7.5	103	88	47	0	0	7	7	2	0	
SC CHARLESTON	58	41	74	33	49	-3	.8	-.1	.6	13.5	138	12.0	182	77	42	0	0	0	0	3	1	
COLUMBIA	53	36	69	27	45	-4	.9	-.2	.5	14.0	117	10.8	128	81	38	0	0	2	2	4	0	
FLORENCE	54	38	72	26	46	-3	1.1	-.2	.8	12.8	131	9.1	137	75	36	0	0	1	1	2	1	
GREENVILLE	50	31	66	20	41	-5	1.1	-.1	.9	15.8	127	10.7	129	88	43	0	0	5	5	3	1	
SD ABERDEEN	13	-9	18	-22	2	-18	.2	.0	.1	1.3	75	1.1	90	87	54	0	0	7	7	4	0	
HURON	13	-8	20	-22	2	-21	.2	.0	.1	1.2	80	.9	84	86	53	0	0	7	7	4	0	
RAPID CITY	17	-6	31	-9	5	-24	.1	.0	.1	1.9	138	1.3	148	92	60	0	0	7	7	3	0	
SIoux FALLS	14	-4	19	-14	5	-18	.5	.3	.3	2.4	130	1.5	137	87	56	0	0	7	7	5	0	
TN CHATTANOOGA	49	32	72	25	41	-3	1.5	-.2	.8	14.4	98	8.8	93	82	41	0	0	5	5	3	2	
KNOXVILLE	44	29	65	21	37	-6	1.1	.0	.5	13.0	103	6.3	78	84	43	0	0	5	5	3	0	
MEMPHIS	48	30	74	25	39	-8	1.3	.1	.7	9.5	70	6.0	76	86	47	0	0	4	4	3	2	
NASHVILLE	46	29	73	19	37	-6	1.2	.2	1.0	8.7	74	5.8	81	81	40	0	0	6	6	3	1	
TX ABILENE	57	36	70	26	47	-3	.3	.0	.3	3.0	95	2.0	94	81	39	0	0	2	2	2	0	
AMARILLO	47	22	60	15	34	-7	.1	-.1	.1	1.6	105	1.1	105	92	42	0	0	7	7	1	0	
AUSTIN	68	47	79	37	57	2	T	-.5	T	9.2	162	5.9	155	79	38	0	0	0	0	1	0	
BRAUNTON	68	49	83	38	59	2	1.8	1.0	1.8	20.4	159	14.0	174	94	53	0	0	0	0	1	1	
BROWNSVILLE	80	61	98	57	71	6	T	-.2	T	5.4	139	4.5	173	93	64	0	0	0	0	0	0	
CORPUS CHRISTI	76	56	85	50	66	5	T	-.4	T	2.8	58	1.8	51	92	47	0	0	0	0	1	0	
DEL RIO	73	50	85	44	61	5	T	-.3	T	1.8	50	1.4	55	71	27	0	0	0	0	2	0	
EL PASO	63	42	69	34	53	2	T	-.1	T	2.9	208	1.6	194	61	22	0	0	0	0	1	0	
FORT WORTH	59	39	73	32	49	0	2.0	1.4	1.2	11.7	187	7.4	179	78	42	0	0	1	1	2	2	
GALVESTON	67	56	81	45	61	4	.7	.2	.7	16.8	188	13.0	239	89	61	0	0	0	0	1	1	
HOUSTON	69	48	82	41	59	3	1.5	.6	1.5	11.9	99	8.5	116	86	48	0	0	0	0	1	1	
LUBBOCK	55	30	66	20	43	-3	T	-.2	T	2.7	171	1.3	126	75	37	0	0	6	6	1	0	
MIDLAND	61	37	71	27	49	-2	T	-.1	T	2.5	168	1.9	187	73	34	0	0	2	1	1	0	
SAN ANGELO	65	38	75	29	52	0	.5	.2	.5	2.3	89	1.6	86	80	34	0	0	1	1	2	0	
SAN ANTONIO	72	47	82	39	59	3	.5	.0	.5	6.7	135	4.5	131	80	38	0	0	0	0	1	0	
VICTORIA	73	50	84	43	62	5	.2	-.5	.2	8.9	98	6.8	112	91	45	0	0	0	0	1	0	
WACO	63	40	77	32	52	0	1.0	.5	1.0	9.2	168	5.9	162	82	42	0	0	1	1	2	1	
WICRITA FALLS	51	32	65	24	41	-6	.7	.1	.7	6.5	135	4.2	131	84	47	0	0	4	1	1	1	
UT CRDAR CITY	40	24	45	21	32	-4	.5	.3	.3	5.4	241	4.3	280	93	56	0	0	7	7	5	0	
SALT LAKE CITY	37	20	42	12	29	-8	.3	.0	.2	5.7	152	4.6	199	95	56	0	0	7	7	5	0	
VT BURLINGTON	21	-4	30	-15	9	-12	.4	.0	.2	5.0	86	4.0	120	91	43	0	0	7	7	3	0	
VA NORFOLK	46	31	73	25	39	-4	1.3	.5	.8	10.4	101	7.3	102	76	40	0	0	5	4	1	1	
RICHMOND	43	27	67	16	35	-6	1.4	.5	.9	10.2	106	7.4	117	84	47	0	0	6	6	2	1	
ROANOKE	38	24	56	15	31	-9	2.0	1.2	1.3	9.8	116	7.2	130	79	40	0	0	7	7	3	1	
WA QUILLAYUTE	45	24	49	18	35	-8	T	-.3	T	18.6	44	8.8	33	84	49	0	0	7	7	1	0	
SEATTLE-TACOMA	46	29	53	26	37	-7	.1	-.9	.1	8.5	56	4.4	48	81	45	0	0	5	1	0	0	
SPOKANE	31	4	36	-5	17	-18	T	-.3	T	4.4	76	2.3	67	88	57	0	0	7	7	1	0	
YAKIMA	31	11	37	1	21	-18	T	-.2	T	3.9	117	1.6	83	90	56	0	0	7	7	0	0	
WV BECKLEY	34	20	50	6	27	-8	2.2	1.4	1.3	8.4	93	4.5	77	93	63	0	0	7	7	7	1	
CHARLESTON	38	23	58	10	31	-8	2.1	1.3	1.6	8.3	90	4.8	82	92	52	0	0	6	6	7	1	
HUNTINGTON	38	23	61	15	31	-5	2.4	1.6	1.6	8.7	92	5.9	99	93	57	0	0	6	6	6	1	
PARKERSBURG	35	18	51	3	26	-9	.9	.2	.5	6.5	73	4.5	76	88	53	0	0	7	7	5	1	
WI GREEN BAY	24	2	30	-11	13	-9	.3	.0	.3	4.0	111	1.8	83	86	45	0	0	7	7	2	0	
LACROSSE	23	-1	29	-14	11	-12	.5	.2	.5	3.9	128	2.3	129	88	47	0	0	7	7	3	0	
MADISON	24	1	29	-10	13	-11	.8	.5	.6	5.2	137	2.8	128	89	49	0	0	7	7	3	1	
MILWAUKEE	26	10	31	-2	18	-8	.7	.3	.5	6.1	115	3.6	121	86	59	0	0	7	7	4	1	
WAUSAU	24	-1	33	-16	12	-9	.2	-.1	.2	3.6	113	1.8	103	88	54	0	0	7	7	2	0	
WY CASPER	27	-1	35	-9	13	-15	.1	-.1	.0	2.6	146	1.7	155	85	56	0	0	7	7	4	0	
CHEYENNE	31	1	38	3	21	-9	.2	.1	.2	1.6	141	1.2	156	90	49	0	0	7	7	2	0	
LANDER	21	1	29	-9	11	-17	.1	-.1	.1	2.0	128	1.2	118	86	52	0	0	7	7	1	0	
SHERIDAN	22	-2	36	-8	10	-19	T	-.1	T	2.0	94	.7	52	86	51	0	0	7	7	1	0	

Based on 1951-80 normals.

HEATING DEGREE DAYS (Base 65° F) February 21 - 27, 1993

(Cumulative totals and departures from normal are for the period July 1, 1992 - February 27, 1993)

STATES AND STATIONS	WEEKLY		CUMULATIVE		STATES AND STATIONS	WEEKLY		CUMULATIVE		STATES AND STATIONS	WEEKLY		CUMULATIVE				
	TOTAL	DEPARTURE	TOTAL	DEPARTURE		TOTAL	DEPARTURE	TOTAL	DEPARTURE		TOTAL	DEPARTURE	TOTAL	DEPARTURE			
AL BIRMINGHAM	138	14	2179	-153	84	SHREVEPORT	102	2	1883	-13	184	DAYTON	317	86	4225	-52	262
MOBILE	75	4	1228	-224	-200	ME CARIBOU	429	82	7040	174	274	TOLEDO	321	62	4530	-294	256
MONTGOMERY	98	-3	1713	-185	-78	PORTLAND	375	95	5353	62	405	YOUNGSTOWN	309	50	4625	-136	330
AK ANCHORAGE	256	-63	7567	-138	388	MD BALTIMORE	252	54	3447	-110	54	OK OKLAHOMA CITY	211	58	3035	53	490
BARRON	574	-22	13031	-362	-607	MA BOSTON	225	39	3238	-63	178	TULSA	229	77	3168	166	719
FAIRBANKS	338	-122	10353	-342	43	MA BOSTON	291	63	4168	163	348	OR ASTORIA	191	47	3598	181	530
JUNEAU	226	-24	5987	-315	572	CHATHAM	270	41	4001	-3	281	BURNS	366	156	6137	1264	1454
KODIAK	207	-43	5963	107	353	MT ALPENA	384	66	5913	28	437	MEDFORD	189	41	3100	-301	320
NOME	291	-143	9954	364	931	MT DETROIT	318	58	4592	-206	266	PENDLETON	318	153	4439	589	996
AZ FLAGSTAFF	229	-3	4703	-208	207	FLINT	366	87	5013	-74	277	PORTLAND	197	53	3248	-12	652
PHOENIX	55	-5	833	-362	119	GRAND RAPIDS	364	89	5033	14	343	SALEM	208	60	3318	-58	565
PRESOTT	177	3	3178	-277	58	HOUGHTON LAKE	384	68	5824	-78	410	PA ALLENTOWN	285	49	4231	-81	386
TUCSON	85	10	1250	-133	68	LANSING	372	95	5152	81	330	ERIE	310	41	4279	-469	204
WINSLOW	167	-4	3744	54	-125	MARQUETTE	390	49	6842	142	317	HARRISBURG	274	54	3944	-61	328
YUMA	39	1	667	-170	222	MUSKEGON	328	54	4929	-6	349	PHILADELPHIA	246	36	3388	-321	153
AR FORT SMITH	202	59	2762	-55	343	SAULT ST MARIE	388	46	6633	147	467	PITTSBURGH	288	50	4150	-268	198
LITTLE ROCK	181	51	2589	13	326	MN ALEXANDRIA	407	62	6812	26	609	SCRANTON	300	46	4438	-214	143
CA BAKERSFIELD	90	16	1610	-75	-107	DULUTH	385	35	7024	-87	283	RI PROVIDENCE	293	54	4198	-38	426
EUREKA	136	24	2647	-370	128	INT'L FALLS	416	38	7723	-51	550	SC CHARLESTON	109	8	1470	-303	28
FRESNO	108	17	1816	-237	-19	MINNEAPOLIS	376	66	6011	8	329	COLUMBIA	141	23	2115	-43	182
LOS ANGELES	74	18	811	-206	186	ROCHESTER	403	88	6365	225	508	FLORENCE	130	12	1869	-224	84
REDDING	126	33	2077	64	231	SAINT CLOUD	397	61	6665	10	465	GREENVILLE	168	31	2677	94	376
SACRAMENTO	122	28	1988	-69	128	MS GREENWOOD	142	25	2004	-241	45	SD ABERDEEN	441	120	6675	270	1070
SAN DIEGO	66	17	732	-113	185	JACKSON	110	6	1740	-246	-38	HURON	435	129	6254	190	992
SAN FRANCISCO	101	10	1663	-437	28	MERIDIAN	109	1	1734	-317	-58	RAPID CITY	415	155	5999	745	1456
STOCKTON	116	23	1922	-123	41	MO CAPE GIRARDEAU	240	57	3423	-65	433	SIoux FALLS	419	120	6115	199	823
CO DENVER	249	39	4707	415	554	COLUMBIA	301	91	4107	101	511	TN CHATTANOOGA	168	20	2558	-294	58
GRAND JCT.	204	4	4162	-208	-320	KANSAS CITY	320	109	4295	209	600	KNOXVILLE	197	47	2862	-49	161
PUEBLO	226	30	4692	618	617	SAINT LOUIS	282	82	3685	-149	487	MEMPHIS	180	44	2459	-146	208
CT BRIDGEPORT	276	47	3919	13	295	SPRINGFIELD	263	77	3581	-14	423	NASHVILLE	193	36	2805	-179	153
HARTFORD	320	72	4654	91	469	MT BILLINGS	371	131	5624	452	1312	TX ABILENE	128	24	2127	-45	-90
DE WILMINGTON	248	40	3527	-197	208	GLASGOW	493	172	6975	398	1561	AMARILLO	213	49	3661	396	440
DC WASHINGTON	234	55	3205	27	329	GREAT FALLS	418	166	6177	664	1601	AUSTIN	54	-20	1337	-169	57
FL APALACHICOLA	59	-5	829	-373	-268	HAYNE	483	186	6906	556	1696	BEAUMONT	48	-18	1082	-199	-75
DAYTONA BEACH	63	15	509	-255	-114	HELENA	433	176	6466	623	1148	BROWNSVILLE	0	-27	385	-168	-157
FORT MYERS	8	-18	114	-285	-72	MT KALISPELL	356	105	6380	---	---	CORPUS CHRISTI	14	-27	676	-185	-67
JACKSONVILLE	84	18	979	-232	-111	MILES CITY	457	179	6302	451	1614	DEL RIO	29	-28	1118	-225	-55
KEY WEST	0	-7	8	-100	-6	MISSOULA	365	122	6198	562	1189	EL PASO	85	-18	1990	-249	-129
MIAMI	0	-9	25	-158	-30	NE GRAND ISLAND	387	141	5464	543	1246	FORT WORTH	110	10	1893	-31	102
ORLANDO	36	0	350	-236	-76	LINCOLN	364	115	5218	337	1082	GALVESTON	32	-29	803	-264	-125
TALLAHASSEE	65	-10	1054	-348	-282	NORFOLK	400	131	5536	224	978	HOUSTON	46	-22	1117	-216	-108
TAMPA	28	-13	347	-300	-117	NORTH PLATTE	405	157	5636	516	1251	LUBBOCK	155	12	2754	-60	34
W. PALM BEACH	5	-11	74	-168	-57	OMAHA	367	124	5119	354	762	MIDLAND-ODESSA	112	4	2211	4	-158
GA ATLANTA	148	20	2228	-202	231	SCOTTSDRUFF	378	147	5689	809	1271	SAN ANGELO	93	1	1905	-44	-65
AUGUSTA	129	14	1940	-172	22	VALENTINE	428	158	5892	489	1062	SAN ANTONIO	41	-26	1223	-168	-4
MACON	121	17	1858	-50	112	NV ELY	335	92	5669	366	745	VICTORIA	30	-26	936	-171	-9
SAVANNAH	99	11	1369	-255	14	LAS VEGAS	115	23	2003	-50	206	WACO	91	-3	1731	-55	139
ID BOISE	276	88	4715	498	810	RENO	226	43	4160	-77	686	WICHITA FALLS	165	43	2428	-45	183
LEWISTON	264	91	4236	259	747	WY WYOMING	266	70	4929	414	892	UT BLANDING	209	-1	4152	-302	133
POCATELLO	325	91	5666	579	884	NH CONCORD	384	100	5578	164	548	CEDAR CITY	226	22	4327	52	232
IL CHICAGO	342	88	4811	38	338	NJ ATLANTIC CITY	253	42	3690	-12	189	SALT LAKE CITY	254	53	4619	345	465
MOLINE	349	90	4915	-3	484	NM ALBUQUERQUE	147	-18	3238	-187	-64	VT BURLINGTON	391	79	5696	-45	229
PEORIA	332	85	4552	-173	305	CLOVIS	174	16	3185	38	-19	VA LYNCHBURG	225	45	3170	-163	220
QUINCY	332	99	4528	107	536	ROSWELL	127	6	2557	-21	-205	NORFOLK	183	26	2500	-141	169
ROCKFORD	362	91	5176	-15	444	NY ALBANY	345	70	5104	31	375	RICHMOND	207	37	2945	-149	264
SPRINGFIELD	318	89	4128	-191	258	BINGHAMTON	344	58	5439	191	682	ROANOKE	236	59	3293	-33	365
IN EVANSVILLE	251	58	3424	-265	121	BUFFALO	327	56	4803	-39	286	WA COLVILLE	329	107	5616	414	1009
FORT WAYNE	330	78	4555	-136	308	NEW YORK	262	51	3539	-60	383	QUILLAYUTE	211	50	3903	-7	534
INDIANAPOLIS	317	89	4128	-160	362	ROCHESTER	342	70	5062	249	422	SEATTLE-TACOMA	192	45	3326	-158	520
SOUTH BEND	342	88	4608	-80	296	SYRACUSE	360	87	5049	167	407	SPOKANE	332	118	5378	430	1063
IA DES MOINES	358	95	5102	119	606	NC ASHEVILLE	203	34	3139	-134	258	YAKIMA	307	122	4897	439	1029
DUBUQUE	372	87	5623	118	515	CAPE HATTERAS	144	15	1680	-324	46	WV BECKLEY	266	51	---	---	---
SIoux CITY	411	140	5558	260	822	CHARLOTTE	164	21	2448	-211	328	CHARLESTON	240	50	3370	-237	186
WATERLOO	379	86	5567	-105	448	GREENSBORO	199	36	3035	4	466	HUNTINGTON	239	51	3385	-213	162
KS CONCORDIA	348	128	4809	522	1104	NEW BERN	154	26	2001	-277	91	PARKERSBURG	270	68	3702	-65	121
DODGE CITY	302	107	4641	788	1106	RALEIGH-DURHAM	181	30	2658	-122	280	WI GREEN BAY	364	51	5768	-150	375
GOODLAND	340	119	5223	764	1165	WILMINGTON	133	16	1856	-143	62	LA CROSSE	377	81	5687	28	388
TOPEKA	310	102	4225	97	713	ND BISMARCK	467	138	7007	288	1201	MADISON	365	73	5423	-227	327
WICHITA	281	89	3940	204	724	FARGO	431	78	7090	147	830	MILWAUKEE	329	52	4937	-307	372
KY BOWLING GREEN	217	39	3231	-148	229	GRAND FORKS	424	59	7331	37	772	WAUSAU	372	48	6288	9	320
LEXINGTON	247	51	3497	-191	206	WILLISTON	472	143	7279	454	1462	WY CASPER	359	103	5526	151	659
LOUISVILLE	248	60	3237	-272	251	OH AKRON-CANTON	311	62	4519	-48	291	CHEYENNE	306	61	5299	275	624
LA BATON ROUGE	63	-11	1187	-256	-77	CLEVELAND	312	64	4319	-173	269	LANDER	376	116	6377	719	892
LAKE CHARLES	62	-8	1166	-191	-50	COLUMBUS	297	68	4009	-265	225	SHERIDAN	383	126	6204	619	1349
NEW ORLEANS	59	-9	983	-302	-235	CINCINNATI	290	77	3910	-85	342						

Based on 1951-80 normals.

National Agricultural Summary

February 22 - 28, 1993

HIGHLIGHTS: Snow moved across the upper Midwest and Northeast the first part of the week, increasing snow cover for the small grain and hay crops. A strong storm occurred in the Southwest at midweek, which caused flooding and hindered vegetable harvests in Arizona and California. This storm then moved across the country by the end of the week, halting fieldwork in the South, and increasing the snow cover for the small grain and hay crops elsewhere. Temperatures for the week were well below normal which further stressed livestock.

SMALL GRAINS: Snow cover across the northern half of the Nation remained adequate due to the passing storms and below-normal temperatures. The crop in Kansas remained dormant. The crop in Arkansas could use sunshine and dry weather. The condition of the crop in Texas was rated 70 percent (%) of normal, compared to 82% last year. Small grain crops in the southeast were reported in fair to good condition. Top dressing continued in the southern parts of the Nation where weather permitted.

COTTON: Cotton field preparations continued in Arizona. Spraying and leveling of fields was underway in California. Planting of this year's crop began in southwestern Arizona and south Texas.

OTHER FIELD CROPS: Potato planting continued in Texas and was underway in North Carolina. The potato harvest advanced in Florida. Sunny and dry conditions improved the Georgia onion crop. Onion planting in Texas advanced where weather permitted. Tobacco growers in the southeast continued planting as conditions allowed and maintained plant beds. Early planted safflower fields were starting to emerge in California. Newly seeded alfalfa and sugar beets in California were growing rapidly with the abundant moisture. The alfalfa crop in Arizona was in good condition with few insect or disease problems reported. Corn planting continued in Texas and began in southern Georgia. Land preparation for corn planting was underway in other southern States.

FRUIT AND NUTS: The citrus harvest advanced in central and western Arizona. The navel orange harvest neared completion, while the Valencia harvest continued. In Florida, citrus groves remained in good condition. The mid-season orange harvest was slowing as the Valencia harvest was increasing. The Florida

grapefruit harvest remained active along the east coast. Apples and stone fruit trees started blooming in California. Orchard work continued as weather permitted. The California navel orange harvest was half completed, with some disease problems reported. The California lemon harvest was winding down in all areas except along the south coast. Valencia orange and grapefruit harvests were active in the California desert. Peach trees continued to bloom in Texas with early blooming trees showing signs of fruit. Peach tree pruning was completed in Georgia. Concerns about adequate pollination caused almond growers in California to move beehives into their orchards.

VEGETABLES: The vegetable harvest in Arizona continued as growers tried to keep ahead of flood waters. Broccoli, cauliflower, lettuce, and spinach harvests advanced. Wet conditions also hampered field activities in parts of California. The broccoli harvest was moderate and the cauliflower harvest was light in the Salinas-Watsonville and Santa Maria areas. Lettuce in the Westside area was progressing normally under ideal growing conditions. The planting of melons continued in the Palo Verde Valley. Florida had cooler-than-normal temperatures in their major vegetable growing areas. Spring plantings had concluded in southern Florida. Tomato, peppers, cabbage, and lettuce continued to be harvested. Vegetable planting and harvesting continued in Texas where weather permitted.

PASTURES AND LIVESTOCK: The cold and wet conditions continued to stress livestock and increase the need for supplemental feeding. The cold weather has caused problems for calves in Washington, Missouri, and Kansas. Livestock problems were reported in Iowa, Illinois, and Indiana. Feed supplies were mostly fair to good, with spot shortages persisting. Wet pastures continued to plague producers in many areas of the South.

(Continued from front cover)

Tornadoes hit parts of Tennessee, Georgia, and the Carolinas. Arctic air streamed southeastward after the cold front's passage, dropping temperatures below 0°F into the central Plains and the Midwest. As the cold air swept across the largely ice-free Great Lakes, snow squalls immobilized local areas on Tuesday. Cleveland, OH, received a February-record 14.8 inches of snow in 24 hours. South Bend, IN, endured 19 inches. By midweek, cold air covered much of the northern half of the United States, while Pacific moisture streamed into the West. About 5 dozen daily record lows were set from the Pacific Northwest to the Northeast. On Wednesday, Bismarck, ND, dropped to -28°F, and Webster City, IA, hit -24°F. A day later, Flint, MI, recorded -15°F, and Elkins, WV, bottomed out at -11°F for its first sub-zero reading of the winter. Yakima, WA, set five daily record lows during the week. In contrast, temperatures remained above normal across most of Alaska for the third week in a row. In Hawaii, a second consecutive month of exceptionally dry weather concluded. After

heavy rains in December, precipitation has been scarce. Since January 1, 1993, rainfall has averaged less than 25 percent of normal. But in the western contiguous States, heavy rain and snow returned at midweek. More than 4 feet accumulated at Mammoth Mountain, CA, to boost their snow depth to nearly 17 feet. Rainfall, however, was not excessive in water-weary southern California or Arizona, although mountain totals topped 2 inches at Mt. Wilson and Lake Arrowhead, CA, and exceeded 1 inch at Kingman, AZ. But runoff from earlier precipitation brought major flooding to the Gila River in southwestern Arizona below the Painted Rock Dam. By Wednesday night, snow developed in the east-central Plains, and spread to the east coast by Friday morning. Several tornadoes touched down in Texas. Snowfall included 13 inches in Columbia, MO, 9 inches in Evansville, IN, 6 inches in Lexington, KY, and 6 inches at Cape May, NJ. At week's end, a warming trend developed, except where air stagnated in the West's valleys. Pocatello, ID, dipped to -13°F. A new storm entered the Southwest, but produced generally light precipitation.

State Summaries of Weather and Agriculture

These summaries provide brief descriptions of crop and weather conditions important on a national scale. More detailed data are available in Weather and Crop Bulletins published each Monday by NASS State Statistical Offices in cooperation with the National Weather Service.

ALABAMA: Rainfall none to 0.63 in. north; none to 0.65 in. central; none to 1.15 in. south. Temperatures 7 to 12° below normal north; 5 to 10° below normal central; 3 to 6° below normal south. Lows 18 to 30° north; 20 to 33° central; 29 to 35° south. Highs 52 to 64° north; 53 to 70° central; 62 to 69° south.

Primary activities: Soil testing; purchasing supplies; harvesting timber; land preparation for spring planting; applying fertilizer; marketing cattle; maintaining farm records, land-use planning, management, repairing machinery, fences; general care of livestock, poultry, catfish.

ARIZONA: Partly cloudy, light snow higher elevations, 21st; sunny 22nd to 23rd; scattered showers 24th; mostly sunny 25th to 26th; showers western two-thirds, 27th. Temperatures 4° below to 2° above normal. Extremes 13°; 71° higher elevations; 30°; 74° deserts.

Cotton field preparations continued; planting started southwest. Alfalfa good. Harvest light, all areas. Weed infestations moderate; insects, disease light. Small grains stands established 100%, 100% 1992, 100% avg.; jointing 35%, 45% 1992, 40% avg. Fields in good condition. Vegetables harvest active, trying to keep ahead of flood waters. Bok choy, broccoli, broccoflower, cauliflower, lettuce, cilantro, kale, parsley, napa, spinach, available western, central areas. Also available west: artichokes, celery, escarole, endive. Leeks, beets, cabbage, dill, kohlrabi, radishes, rapini, mixed greens, green onions, turnips available, central. Citrus harvest continued central, western areas. Sweet, navel orange harvest near complete; valencia orange harvest continued. Lemons, grapefruit, tangerines, tangelos available both areas. Tomatoes, pecans harvested eastern areas. Pasture, range conditions 108 percent of normal. Cattle, calves mostly fair north, central, fair to good southeast. Stockwater, soil moisture adequate to surplus statewide. Range, feed supplies average north, central, average to above average southeast. Insect damage light.

ARKANSAS: Temperatures averaging well above normal. Freezing precipitation in northern areas middle of week; scattered rain showers elsewhere. Extremes 16°; 75°. Rainfall 0.38 to 1.76 in.

Soil moisture supplies adequate to surplus. Wheat fair to good, needs sunshine, dry weather. Some wheat fields saturated. Field activities were halted because of rain, sleet, snow. Additional fuel was needed to heat the poultry houses, no additional damages occurred from excessive snow. Livestock good. Hay feeding increased due to cold weather. Pastures good.

CALIFORNIA: Rain observed over most State throughout week. Most significant amounts in middle week. System moved eastward out of State late week.

Progress field activities hampered; rain, wet soils most areas. Small grains, seedling alfalfa, sugarbeets growing rapidly, abundant moisture. Wheat stalk yellowing where fields in standing water. Small grains sprayed broadleaf weeds, as allowable. Few fields early seeded safflower emerging. Cotton fields prepared, leveled, sprayed preplant herbicides. Planting expected 2 to 3 weeks. New alfalfa seeded, limited areas; established fields treated weeds, weevils. Seasonal practices continued as weather permitted. Beehives moved into almond orchards; growers concerned about adequate pollination. Apples,

stone fruit blooming. One-half of Navel oranges picked; growers concerned about puff. Valencia orange picking began in desert. Lemons one-half picked in south coast; winding down in other areas. Desert grapefruit harvest continued. Wet conditions hampered field activities some areas. Broccoli harvest Salinas-Watsonville, Santa Maria moderate, variable quality. Broccoli harvested Modesto County, Westside. Westside lettuce thinned, progressing normally under almost ideal growing conditions. Asparagus harvest began Westside, tomato, strawberry, melon fields treated for weed control. Light cauliflower harvest, variable quality, Santa Maria, Salinas-Watsonville. Planting melon fields Palo Verde Valley continued. Planting tomato, squash, in the Tulare area. Winter vegetable harvest continued Riverside. Other crops harvested: Turnips, onions. Rangeland conditions good to excellent. Continued rains saturated soils, standing water evident low areas. Livestock good to excellent.

COLORADO: Snow, blowing snow from the 22nd through 24th in the mountains, with light precipitation at lower elevations. The heaviest mountain snows fell the night of the 23rd, 24th, while at lower elevations of the east, west there was mixed rain and snow. Temperatures were near normal to slightly below normal for the 22nd to 24th. The 25th was cooler, drier statewide, with only scattered snow showers in the mountains. High pressure, dry conditions prevailed on the 26th to 27th with temperatures above normal statewide. Snow increased in the mountains on the 28th with cooler than normal temperatures in the western half of State. On 28th, eastern plains warmed to above-normal temperatures. Calving, lambing, equipment repair were the main activities.

FLORIDA: Temperatures 3 to 6° below normal north, central, 6 to 10° below normal northeast, near normal extreme south. Lows; 30s north, 40s central, 50s extreme southeast. Highs upper 60s to low 70s north, low to mid 80s south. Rainfall 0.50 to 1.50 in., local totals exceeding 2.00 in.

Sugarcane harvest active. Tobacco growers maintaining plant beds, making preparation to start transplanting. Farmers making field preparation for corn, other spring planted crops. Citrus groves good. Bloom slowly advancing, some open bloom. Moisture adequate to surplus. Early-mid orange harvest slowing. Valencia movement increasing. Grapefruit harvest active east coast. Tangelo harvest almost complete. Caretakers cutting cover crops, hedging harvested groves, storing heaters. Cooler than normal temperatures in major vegetable growing areas. Spring planting winding down south. Volume leaders: Tomatoes, peppers, cabbage, potatoes, iceberg lettuce. Also available: Snap beans, carrots, celery, chinese cabbage, sweet corn, cucumbers, eggplant, escarole, romaine, specialty lettuces, radishes, squash, strawberries, cherry tomatoes. State's pastures fair to excellent. Pasture 5% poor, 25% fair, 60% good, 10% excellent. Moisture levels mostly adequate. State's cattle herds mostly good condition.

GEORGIA: Snow, freezing rain, sleet across the northern third of State 25th. Snowfall 4 to 6 in. higher terrain northeast areas, freezing rain, sleet as far south as Atlanta to Athens to Augusta. Rain remainder of State 0.50 to 1.00 in. Remainder of week dry with below normal temperatures. Temperatures 7 to 10° below normal north, central, 3 to 6° below normal south. Coldest upper teens to low 20s mountains mostly low 30s south. Warmest from low 50s northeast mountains to mid 70s extreme southwest.

Soil moisture adequate to surplus, wet fields delaying field activities west, north. Land preparation active drier areas south, little progress north. Small grain nitrogen applications active southern two thirds, just starting north. Pruning peach trees virtually complete. Corn planting underway south. Tobacco plants good to excellent. Onions improved with drier, sunny weather, now mostly good to excellent. Small grains fair to good. Pastures poor to fair. Cattle fair to good. Hogs good.

HAWAII: Sunny, dry days with cool nights, early mornings occurred throughout the State. High pressure system brought local gusts near midweek. Scattered showers fell over windward areas, higher elevations, other areas mostly dry. Temperatures high 50s to low 80s. Rainfall none to 1.90 in.

Longer day length, increased sunshine were beneficial to most orchard crops. Evenings, early mornings still chilly, reflecting seasonal weather pattern, slowing crop progress. Most field operations were normal. Irrigation necessary as soil moisture levels low many areas. Banana, papaya orchards depending on natural rainfall needed more showers.

IDAHO: Temperatures in State 8 to 17° below normal. Scattered precipitation was reported throughout the State.

Soil moisture varied across the State adequate north, southwest; short south central; short to adequate southeast. Activities: Planning spring field activities, plowing snow, repairing farm machinery, attending meetings. Hay, roughage supplies adequate. Livestock activities: Cattle on winter hay, calving, lambing in progress. Livestock fair to good; however, weather causing some calving problems in parts of State.

ILLINOIS: Arctic high pressure followed by surging cold air, brought second winter storm and more snow. Temperatures 10 to 18° below normal. Highs mid 20s; upper 30s. Lows single digits or teens. Precipitation, liquid equivalent, averaged 0.33 to 0.66 in. across the State.

Farm activities continued, with respiratory illness, some calving problems resulting from cold temperatures. Winter wheat remained snowcovered in many areas.

INDIANA: Temperatures 12 to 20° below normal. Highs in the 20s to low 30s. Lows near zero in the north, single digits over the remainder of the State except in the far south. Precipitation, liquid equivalent, 0.20 in. north to 0.75 in. far south.

Once again, heavy snow, cold weather halted many farm activities. Snowcover remains heavy in most areas, is protecting the wheat crop. Open feedlots are reporting problems with livestock. Hay supplies fair to good, most locations.

IOWA: Coldest week of winter. Temperatures 14 to 20° below normal. Extremes -27° 24th, Clarion (north central); 43° 28th Lamoni (south central). Temperature rose above freezing for first time in 17 days on 28th. Precipitation 0.01 in. northeast to 0.63 in. south: average 0.18 in. (normal 0.31 in.).

Snow, ice, cold weather made movement on rural roads very difficult, caused stress, illnesses among livestock. Farmers are concerned with spoilage of grain stored in bins as it requires special care, handling.

KANSAS: Temperatures 10° below normal for State; 15° below normal northwest, north central. Precipitation light to moderate; low 0.02 in. north, high 0.64 in. east central.

Wheat continues dormant. Most fields need several weeks of warm dry weather before spring seedbed preparation can start. Livestock holding up well; feedlots very muddy. Weather hard on newborn but calving continues.

KENTUCKY: Temperatures much below normal. Maximums 12 to 17° below normal; minimums 7 to 13° below normal northern areas, 1 to 6° below normal south. Precipitation generally below normal, despite significant snowfall most areas. Snowfall 6 to 10 in. along Ohio River, lesser amounts south, east. Precipitation 0.50 to 1.00 in. most areas.

Little or no fieldwork. Most fields snowcovered or too wet. Topsoil moisture mostly adequate to ample. Wheat generally satisfactory. A few cleanup burley sales continue. Cold, wet conditions stressing livestock, increasing needs for supplemental feed. Hay supplies generally adequate.

LOUISIANA: Temperatures 2.0° below normal to 2.3° above normal. Extremes 28°; 83°. Rainfall 0.48 in. northeast to 2.16 in. southwest.

Spring plowing beginning in most areas. Wheat fertilization coming to a close. Land preparation starting for corn planting. Fertilization of pastures as well as hay fields continued. Crawfishing remained active.

MARYLAND & DELAWARE: MARYLAND: Precipitation 0.96 in. Temperature 30.0°, normal 37.5°. Extremes -12°; 66°.

Hay supplies adequate. Cutting firewood, feeding hay, caring for livestock. Small grains good. Tax preparation. Making plans for spring planting. Tobacco growers in final stages of stripping tobacco. Preparing, delivering bales to markets.

DELAWARE: Precipitation 0.71 in. Temperature 32.8°, normal 38.1°. Extremes 13°; 60°.

Hay supplies adequate. Pastures, livestock mostly excellent. Small grains good. Tax preparation. Making plans for spring planting.

MICHIGAN: Extremes -20°; 36°. Precipitation none to 0.38 in. across the State. Many areas in the Lower Peninsula experienced daily record low temperatures.

Snowfall for the week was moderate, allowed some corn to be harvested. Corn harvest advanced to 95%. Most livestock in good condition, feed supplies remain adequate to short. Major activities included: Blowing snow, hauling livestock to market, hauling manure, paying bills, repairing equipment.

MINNESOTA: Temperatures 5 to 17° below normal for the State. Extremes -24°; 39°. Precipitation 0.01 to 0.32 in., 0.04 in. above normal for the south central, 0.07 to 0.16 in. below normal elsewhere. Greatest weekly total was 0.57 in. Snowfall less than an inch with snow depth at weekend averaging 8 to 15 in. for State.

Cold temperatures finally gave way to seasonable temperatures over the weekend. Snowcover throughout the winter has been adequate to protect fall seeded grains, alfalfa. Livestock mostly good.

MISSISSIPPI: Temperatures 46°, 3.2° below normal. Extremes 20°; 80°. Rainfall was below normal across the entire State, 0.60 in.; 0.74 below normal. Soil temperatures 48°.

Days suitable for fieldwork 1.8, 1.7 1992, 1.5 avg. Soil moisture 40% adequate, 40% surplus, 20% excessive. Wheat 14% poor, 22% fair, 64% good. Hay supply 20% short, 60% adequate, 20% surplus. Feed grain 80% adequate 20% surplus. Livestock 13% fair, 87% good. Pasture 96% or normal. Activities: Feeding cattle, preparing for planting.

MISSOURI: Precipitation 0.84 in., 0.56 in. northwestern district to 1.01 in. central district. Snowstorm 15th, 16th brought up to 16 in. snow in some central counties. Temperatures 6° below normal Bootheel to 16° below normal northwest.

Midweek snow blocked roads temporarily, limited farmers to essential livestock chores. Topsoil 31% adequate, 69% surplus.

Wheat 2% poor, 52% fair, 46% good. Hay 2% very short, 24% short, 70% adequate, 4% surplus. Livestock 2% poor, 39% fair, 57% good, 2% excellent. Weather of past 2 weeks causing health problems in new calves.

MONTANA: Temperatures 15 to 25° below normal. Precipitation light statewide.

The protectiveness of snowcover for winter wheat is 2% poor, 17% fair, 41% good, 40% excellent. Winter wheat still 100% dormant. Grazing was 1% open, 56% difficult, 43% closed. More than 93% of livestock receiving supplemental feed. Calving 17% complete and lambing 22% complete.

NEBRASKA: Temperatures 15 to 20° below normal. Precipitation in the form of freezing rain, snow averaged from trace amounts to 0.75 in.

Winter wheat 1% poor, 26% fair, 67% good, 6% excellent. Feed grain supplies 1% short, 78% adequate, 21% surplus. Hay, forage supplies 3% short, 85% adequate, 12% surplus. Supplemental feeding of livestock due to snow cover. Cattle 4% poor, 44% fair, 51% good, 1% excellent. Some losses of newborn calves due to the cold temperatures, wet conditions. Other activities included monitoring, working with farm stored grain to minimize spoilage, record keeping, equipment maintenance, routine chores.

NEVADA: Week began with low pressure spreading some snow, clouds over northern half of State. Another low pressure area further south responsible for locally heavy rain, low snow levels southern areas. Temperatures remained cool across north; averaged 7° below normal northwest, 9° below normal northeast. Temperatures south central, extreme south near normal. Extremes -15°; 69°.

Outlook is for irrigation water supplies to be closer to normal most areas this year. Fieldwork starting south. Main farm/ranch activities: Calving, lambing, care of livestock, preparing for spring work.

NEW ENGLAND: Precipitation 0.20 to 0.67 in. Connecticut, Rhode Island; 0.47 to 1.07 in. Massachusetts; 0.32 to 0.88 in the north. Temperatures single digits to low 20s. Maximum temperatures low 20s to high 30s. Minimum temperatures minus 36° to minus 7° north, minus 12 to 11° south.

Major farm activities: Tending livestock, cutting firewood, making general repairs.

NEW JERSEY: Temperatures much below normal, averaged 22° north, 27° south, 29° coastal. Extremes 2°; 56°. Precipitation below normal; averaged 0.01 in. north, 0.09 in. south, 0.14 in coastal. Heaviest 24 hour total 0.21 in. on 26th, 27th. Heaviest 24 hour snowfall 3 in. on 26th, 27th. Depth of snow on ground 1st 1 to 4 in.

Farmers caring for livestock, tending to other normal winter chores, plowing snow.

NEW MEXICO: Generally warm temperatures were felt across much of the State despite periods of cloudiness. Temperatures 2 to 4° above normal over the western, central areas. Weekly averages along the eastern border were near or slightly cooler than usual. Scattered mountain snows, lowland rain showers produced variable amounts, generally less than 0.10 in. at lower elevations, up to 0.90 in. mountain locations.

Farmers were busy with land preparation, spring planting, onion transplants, pruning orchards, pre-irrigations.

NEW YORK: Week began with high temperatures in mid teens to mid 20s. Weather warmed briefly on 22nd, mercury once

again dropped during midweek. Low temperatures were frequently near or below zero. Extremes -28°; 45°. Precipitation near normal. Most areas received 0.50 to 0.75 in. liquid equivalent. Almost all fell as snow during early week. Some rain in New York City, Long Island. Locations downwind from Great Lakes received heavier amounts of snow.

Major activities: Caring for livestock, cutting firewood, attending meetings, maintenance work. Coldness, snow made outside chores difficult.

NORTH CAROLINA: Temperatures 2 to 6° below normal. Precipitation 3.21 in. at Wallace Gap to 0.08 in. at the French Broad River near Asheville.

Crop condition: Winter wheat 39% fair, 61% good. Oats 36% fair, 64% good. Barley 35% fair, 65% good. Rye 27% fair, 73% good. Tobacco plant beds 63% fair, 37% good. Hay, roughage supplies 11% short, 85% adequate, 4% surplus. Feed grain supplies 96% adequate, 4% surplus. Major activities included: Tobacco plant bed maintenance; top dressing small grains, preparing land for planting. Other activities included: Planting potatoes; tending livestock; equipment repair; general farm maintenance.

NORTH DAKOTA: Cold arctic air dominated the weather across the State. Temperatures 24° below normal southwest to 15° below normal northeast, east central. Extremes -31° west central; 36° north central, southwest. Precipitation 0.02 in. northeast to 0.15 in. southwest.

Snow depth averaged 5.2 in. Snowcover sufficient to protect 92% winter wheat, 93% rye, 93% alfalfa. Winter wheat seedings 21% fair, 77% good, 2% excellent. Rye seedings 30% fair, 67% good, 3% excellent. Cattle 8% fair, 87% good, 5% excellent; sheep 6% fair, 91% good, 3% excellent. Calving 9% complete, lambing 20%, shearing 37%. Range cattle, calves receiving supplemental feed 100%, sheep, lambs 99%. Hay, forage 97% adequate, 3% plentiful. Sales of cattle and/or calves mostly normal. Secondary, county roads mostly open, dry.

OHIO: Another winter storm brought moderate to heavy amounts of snow to central, southern areas on 25th. Lake-effect snow blanketed northeastern areas throughout the week. Daily high temperatures for the week averaged from the mid, upper 20s in the north to the mid 20s to mid 30s in the south. Lows averaged from the single digits to the teens across the State. Temperatures 7 to 18° below normal. The coldest readings occurred on 25th morning with lows mostly in the single digits to as much as 8° below zero. Precipitation (water equivalent) 0.25 in. or less in the northwest to around 0.15 to 0.85 in. over much of the south, east, which was generally 0.25 to 0.50 in. below normal. Snowcover at the end of the week averaged 2 to 7 in. across much of State.

Fieldwork is at a standstill due to snow, freezing temperatures. Snowcover kept winter wheat protected.

OKLAHOMA: Temperatures 7° below normal south central to 11° below normal north central. Precipitation 0.11 in. north central to 1.74 in. south central.

Topsoil moisture 24% adequate, 76% surplus. Subsoil moisture 100% adequate. Wheat 9% poor, 45% fair, 46% good; 32% grazed. Pastures 89% of normal. Livestock 11% poor, 47% fair, 42% good. Prices last week for steers under 700 lbs. firm to \$2.00 per cwt. higher, over 700 lbs. steady. Heifers under 600 lbs. were \$3.00 to \$5.00 higher, over 600 lbs. firm to \$2.00 higher. Marketings were average.

OREGON: Bitter cold temps, statewide. Western temperatures 2 to 10° below normal, eastern temperatures 7 to 21° below normal. Snow, rain reported, western areas; eastern areas 1 to 2 feet snow.

Soil moisture mostly adequate, statewide. Snow packs normal to above normal. Fruit, nut winter orchard activities continue, Willamette Valley. Cranberry weed control, sanding, planting underway, southern coast. Livestock good. Lambing, calving continues. Hay supply short due to heavy snow, eastern areas.

PENNSYLVANIA: Below normal temperatures, slightly below normal precipitation. Temperature 23°, 5° below normal. Extremes -10°; 48°. Precipitation 0.63 in., 0.02 in. below normal.

Activities: Hauling manure; maintaining machinery; fixing fence; caring for livestock.

PUERTO RICO: Rainfall 0.77 in., 0.23 in. above normal. Highest rainfall 5.74 in. at Pico del Este, 2.31 in. at Adjuntas Aes. Highest 24 hour total 5.00 in. at Pico del Este. Temperatures 75° coast, 68 to 70° interior with mean station readings 62.1° at Pico Del Este to 79.1° at Guayama. Extremes 52°; 93°.

SOUTH CAROLINA: Temperatures across the State 4 to 6° below normal. Average rainfall 0.80 in.

Farm activities: Land preparation for corn, other crops increasing; wheat condition improved; some tobacco bed damage from rain, cold; pastures wet; livestock fair to good.

SOUTH DAKOTA: Temperatures 15 to 30° below normal across the State. Average temperatures 2° below zero to 10° above. Extremes -31°; 54°. Precipitation less than 0.25 in. over the northern, eastern portions of the State. Much of the southeast received between 0.25 to 0.50 in. of precipitation.

Snow continues to cover the State with depths ranging from 2 to 24 in. Farm activities included: Monitoring calving, lambing, livestock care, equipment maintenance, routine chores.

TENNESSEE: Temperatures 8 to 15° below normal, with the Plateau region being the coldest. Precipitation amounts were well below normal despite rain, snow that fell on the 25th, 26th. Weekly precipitation departures from normal ranged from around 0.50 in. shy in the West to nearly an inch short on the Plateau.

Wheat mostly good. Farm activity remains limited: Livestock care, general maintenance.

TEXAS: Cold air stuck over the north. North, South Texas picked up significant rains as cold air replaced warm. South Texas, Lower Rio Grande Valley warm, dry. Temperatures below normal Plains, North Central. Southern half at or above normal temperatures. Greatest departures in South Plains area where departures reached -9°. Weekly rainfall slightly above normal North Central Texas, High Plains, West Texas.

Crops: Planting corn fields active South Texas, Rio Grande Valley, along Coastal Bend, where conditions were dry. Some early fields planted Blacklands, East Texas as conditions allowed. Other areas preparing to plant when fields dry, conditions improve. Planting grain sorghum also active South Texas, Rio Grande Valley. Planting began East Texas, along Coastal Bend, other areas continued preparation for planting. Cotton planting began Coastal Bend, South Texas, Rio Grande Valley where conditions were favorable. Small grain growth active with warmer temperatures. Powdery mildew, leaf rust evident some fields Blacklands. Fields East Texas suffered excess moisture. Greenbug populations increasing Coastal Bend. Wheat fields several areas top-dressed with fertilizer. Grazing small grain fields limited extremely wet areas. Statewide wheat condition 70% normal, 82% 1991.

Commercial Vegetables: Rio Grande Valley, carrot, cabbage, broccoli harvest continued. Citrus harvest progressed. High Plains, land preparation potato, onion planting well underway.

East Texas, onion, potato, cabbage planting continued, weather permitting. Trans-Pecos, potatoes planted. Peaches continued bloom Hill Country, Blacklands, East, Central Texas. Spraying dormant oil continued. Some early blooming trees began show signs fruit.

Range and Livestock: Supplemental feeding continued most areas, hay supplies dwindled. Winter pastures improved with warmer weather, grazing hampered by mud. Lice infestations increasing Blacklands, East Texas, becoming problem Cross Timbers. Overall livestock fair, good.

UTAH: Temperature maximums 5° less than normal, minimums 2° above normal. Precipitation was heavy in the Dixie, North Central, Northern Mountains divisions, moderate elsewhere.

Activities: hauling manure, feeding, caring for livestock. Calving, lambing are under way with no major losses reported.

VIRGINIA: Temperatures below normal. Extremes 9°; 73°. Precipitation near normal. Snowfall 1 to 6 in.

Days suitable for fieldwork 2.1. Topsoil 72% adequate, 28% surplus. Pasture 7% very poor, 10% poor, 57% fair, 26% good. Wheat 4% poor, 72% fair, 24% good. Barley 4% poor, 45% fair, 51% good. Alfalfa 3% very poor, 10% poor, 52% fair, 35% good. Peach 7% poor, 40% fair, 53% good. Tobacco plantbed 26% poor, 48% fair, 26% good. Tobacco plantbeds 34% seeded. Forage from pastures, grazing crops dairy cattle 4%, beef cattle 11%, sheep 12%. Calving, lambing, pruning fruit trees, seeding tobacco plantbeds, topdressing small grains, fertilizing, liming land, attending production meetings, soil sampling, preparing for taxes.

WASHINGTON: Temperatures 5 to 9° below normal west; 11 to 19° below normal east. Precipitation 0.07 in. to 0.47 in.

Days suitable for fieldwork 6.4. Soil moisture 17% short, 83% adequate. Hay, other roughage 10% very short, 15% short, 62% adequate, 13% surplus. Range, pasture 11% very poor, 51% poor, 27% fair, 11% good. Winter wheat dryland 60% fair, 40% good; irrigated 15% fair, 85% good. Barley dryland 70% fair, 30% good; irrigated 5% fair, 95% good. Below normal temperatures, precipitation continued. Field preparation advanced slowly west, further delayed east. Fruit growers used wind machines, heating systems in efforts to protect tender peach, apricot, cherry buds. Low precipitation, snowpack concerns rising in both dryland, irrigated areas; water rationing is expected in Yakima Valley irrigation districts. Some calf losses, pneumonia reported as cold persists.

WEST VIRGINIA: Temperature 26°. Extremes -11°, 50°. Precipitation 0.54 in.

Hay feed supplies adequate. Other feed supplies adequate. Cattle good. Sheep good. Wheat good. Farm activities: General maintenance, feeding livestock, calving, lambing, bookkeeping.

WISCONSIN: Temperature 12°. Extremes -27°; 41°. Snowfall on the 22nd added 1 to 3 in. new snow across the State. Scattered snow showers, flurries lingered into the 23rd. The fresh snowcover allowed temperatures to plummet to below zero across the State early on the 25th bringing the coldest night so far this winter.

WYOMING: Temperatures below normal statewide. Northeast was the coldest; around 20° below normal. Precipitation was normal to slightly above normal. The exception was the northeast which received slightly below normal precipitation.

1993 Winter wheat crop fair to good. Continued cold weather is a stress on livestock. Supplemental feeding continuing. Hay supplies are short in scattered regions. Farm, ranch activities include feeding, caring for livestock. Producers are calving, lambing. Some farm flocks are already done lambing.

International Weather and Crop Summary HIGHLIGHTS

February 21 - 27, 1993

FSU-WESTERN: The first significant precipitation of the 1993 winter season increased moisture reserves in Ukraine. Snow cover increased and advanced southward.

EUROPE: Colder weather pushed across the region, but dryness persisted over the southwestern half of the Iberian Peninsula.

NORTHWESTERN AFRICA: Drought continued over Morocco and western Algeria.

SOUTH AFRICA: Rain benefited filling corn in primary grain areas.

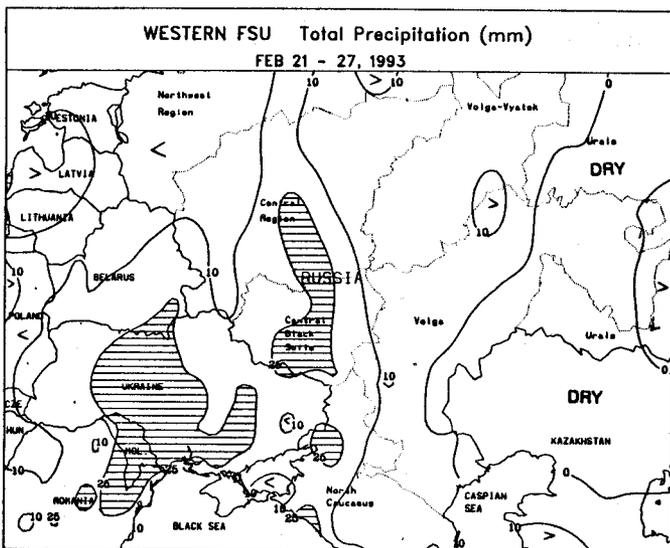
SOUTH ASIA: Showers helped reproductive to filling winter grains and oilseeds.

SOUTHEAST ASIA: Scattered showers over Indonesia and the eastern Philippines maintained favorable moisture reserves for rice.

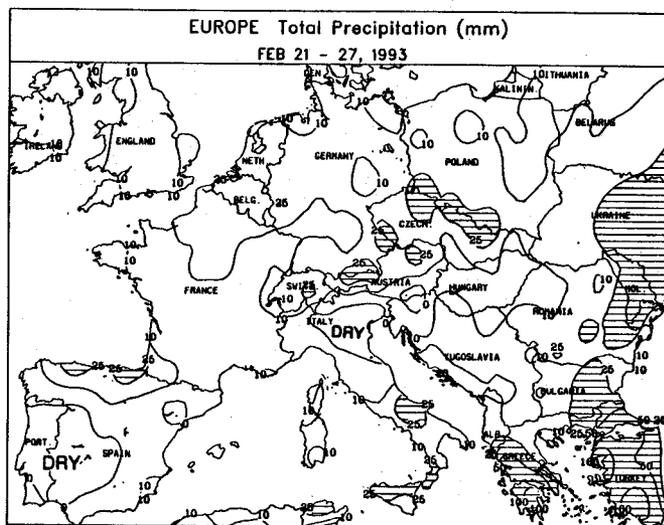
EASTERN ASIA: Cool weather burned back greening winter wheat across the North China Plain. Widespread rain continued to benefit southern China's reservoirs.

AUSTRALIA: Rain brought some relief to stressed eastern summer crops.

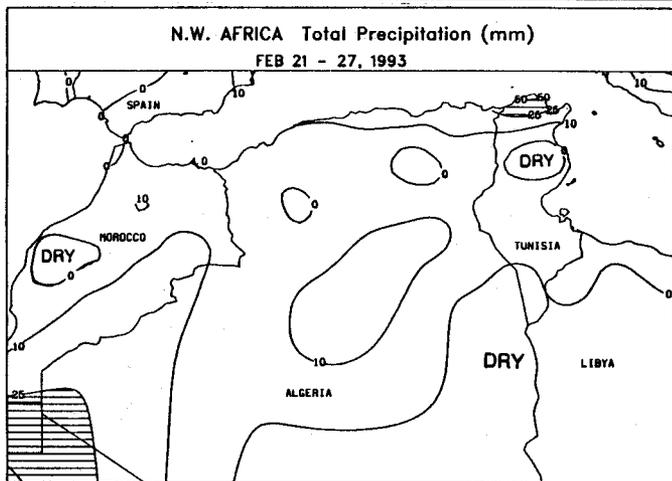
SOUTH AMERICA: Dryness reduced soil moisture reserves in Argentina, which remained adequate for crop development.



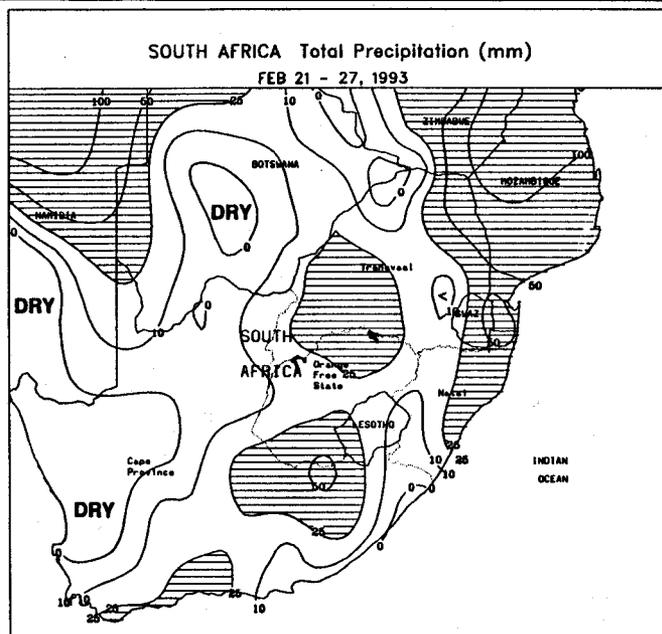
FSU-WESTERN: The first significant precipitation of the 1993 winter season covered Ukraine, increasing moisture reserves. Precipitation amounts ranged from 10 to 40 mm, falling mainly in the form of snow in northern Ukraine, and rain in the south. Moldova, Black Soils Region, and western North Caucasus also received significant moisture (10-50 mm). Light precipitation, mainly snow, covered crop areas over the remainder of the region. Protective snow cover increased and moved southward. By week's end, the only areas without a protective snow cover were those in the southern Ukraine and western North Caucasus. Weekly average temperatures were 2-6 degrees Celsius (C) above normal over the region, with extreme cold (temperatures less than -15 degrees C) remaining well to the north of the major winter wheat producing area.



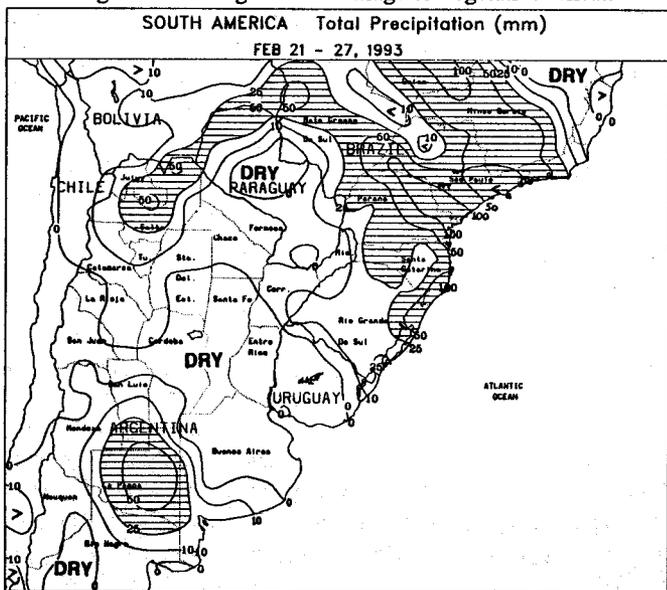
EUROPE: Showers and colder weather covered much of Europe. However, no rain fell over southern and western portions of the Iberian Peninsula, where drought has caused severe water shortages, and over Italy's Po Valley. Elsewhere, beneficial, widespread precipitation (5-15 mm) fell over winter grain and oilseed areas from northern France to Poland. Locally heavy amounts (25-70 mm) were scattered across central and southeastern Europe, replenishing moisture reserves for spring growth. Colder weather pushed into the region, with temperatures averaging 3-7 degrees C below normal from northern Spain to Romania. The lower temperatures slowed early crop growth in the Iberian Peninsula, but reduced crop moisture demand of the stressed winter grains. Winter crops remained dormant in the north and east.



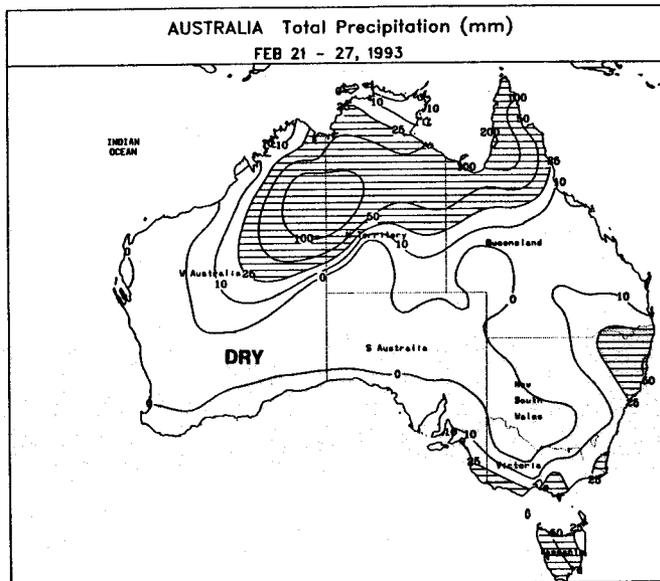
NORTHWESTERN AFRICA: Drought continued over Morocco and western Algeria. The adverse dryness in these areas reduced yield prospects for winter grains, lowered reservoirs to critical levels, and caused pasture and range conditions to deteriorate. Rain is needed soon to prevent further water shortages. Further east, light rain (10-35 mm) continued to benefit northernmost winter grain areas in eastern Algeria and Tunisia. Southernmost crops in these areas received little, if any, rainfall. Average temperatures were 1-2 degrees C above normal in Morocco, increasing crop-water usage. A cooling trend covered Algeria and Tunisia, where average temperatures were 3-5 degrees C below normal. Subfreezing temperatures (-1 to -3 degrees C) on some nights covered interior winter grain areas in Algeria and Tunisia. Temperatures did not fall low enough to cause significant damage to vegetative wheat.



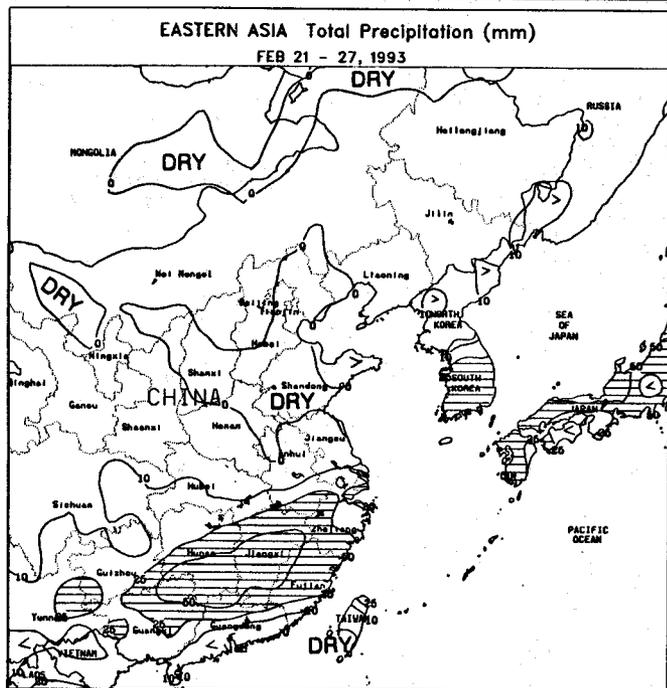
SOUTH AFRICA: Widespread showers (12-38 mm) benefited filling corn across the primary grain regions. Most of southwestern and south-central Transvaal and northern Orange Free State received more than 25 mm, improving topsoil moisture following a recent dry spell. Temperatures continued to average near normal, with highs averaging in the mid to upper 20's C. Rainfall was light (2-21 mm) over grain areas of eastern Cape Province and Natal, but moderate showers (21-41 mm) covered most of Natal's coastal sugarcane areas.



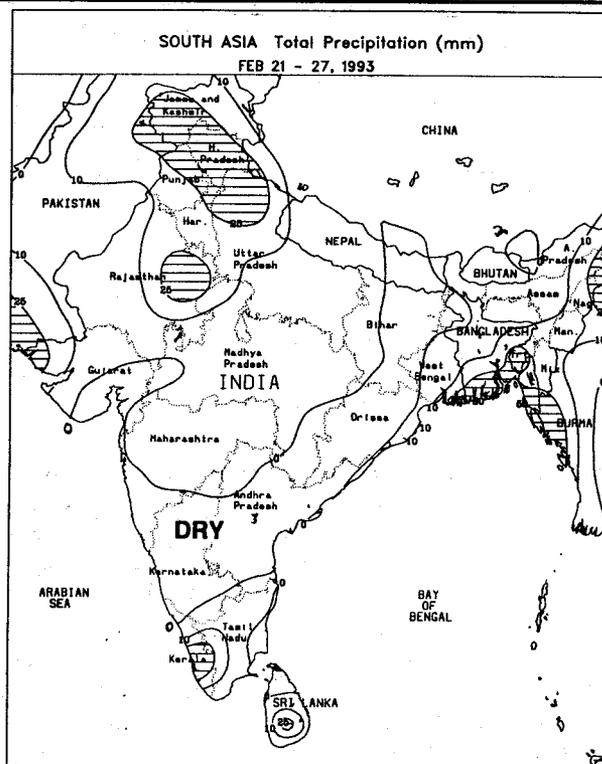
SOUTH AMERICA: In Argentina, dry weather prevailed across southern Santa Fe and northern Buenos Aires, reducing soil moisture reserves that remained adequate for soybean and corn development. The dryness aided early corn and sunflower harvesting. Temperatures averaged 1-2 degrees C below normal across the region, reducing crop water use. Further west, light to isolated heavy showers (10-90 mm) were reported across La Pampa and southern Cordoba, aiding corn and sorghum. Widespread but variable showers (18-100 mm) fell across southern Brazil's crop areas, favoring corn and pod-filling soybeans. Isolated heavier showers (exceeding 100 mm) fell across northern Parana, southern Sao Paulo, and eastern Minas Gerais, delaying early soybean harvesting and possibly causing flooding.



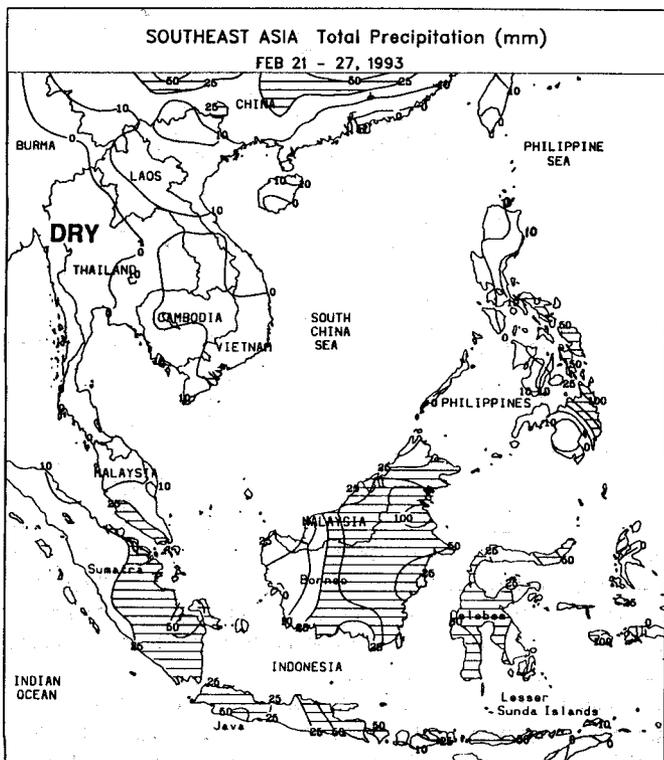
AUSTRALIA: Light to moderate rain (8-30 mm) fell across southern Queensland and northern New South Wales, bringing relief to stressed summer crops. Temperatures averaged 1-4 degrees C below normal across the eastern summer crop region, reducing evapotranspiration rates for cotton and sorghum. However, additional moisture is needed to stabilize crop yield prospects. Only the northern portion of Queensland's sugarcane region received significant moisture (27-42 mm). Rainfall was light (less than 10 mm) throughout the rest of the sugarcane region.



EASTERN ASIA: Widespread moderate rain (10-75 mm) fell across southern China, replenishing reservoirs. The North China Plain was seasonably dry, with cooler temperatures (minimum temperatures ranged from -4 to -8 degrees C), burning back greening winter wheat. Recent cooler weather has slowed further greening of wheat.



SOUTH ASIA: Light to moderate showers (5-43 mm) swept across winter grain and oilseed areas of Pakistan and north-central India, benefiting reproductive to filling crops. The rain was especially welcomed for rainfed crops (typically 10-15 percent of the total crop) following months of drier-than-normal weather. Temperatures across the region averaged near to below normal, alleviating stressful conditions for reproductive winter crops, as well as reproductive rice in southeastern India. Elsewhere, scattered, light rain was prevalent at many locations, but moderate showers (10-48 mm) were limited to the far east and an isolated area of southwestern India.



SOUTHEAST ASIA: Scattered showers continued across Indonesia, with most of Java receiving 25-50 mm or more. Secondary rice, much of which is planted during January and February, should have adequate to abundant moisture for early development. In contrast, unseasonably dry weather dominated Malaysia, with only southern portions of the Malay Peninsula accumulating more than 15 mm. Further north, scattered, light showers (20 mm or less) fell from central Thailand to northern Vietnam. During March, rainfall should increase to 5-15 mm per week over primary rice and corn areas north of Bangkok. However, seasonably hot weather, which limits crop activity, does not usually abate until late-April with the onset of the southwest monsoon. In the Philippines, moderate to heavy showers (25-50 mm or more) continued over eastern grain areas, improving conditions for rice and corn establishment.

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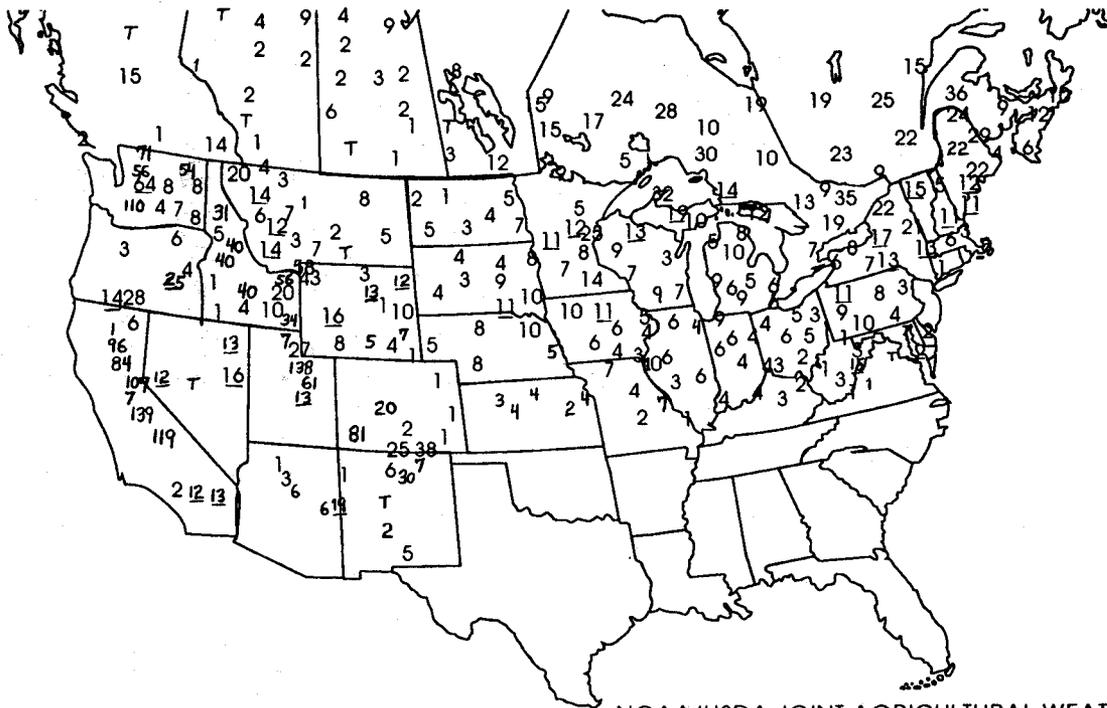
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Total Snow Cover (Inches) March 1, 1993



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