

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

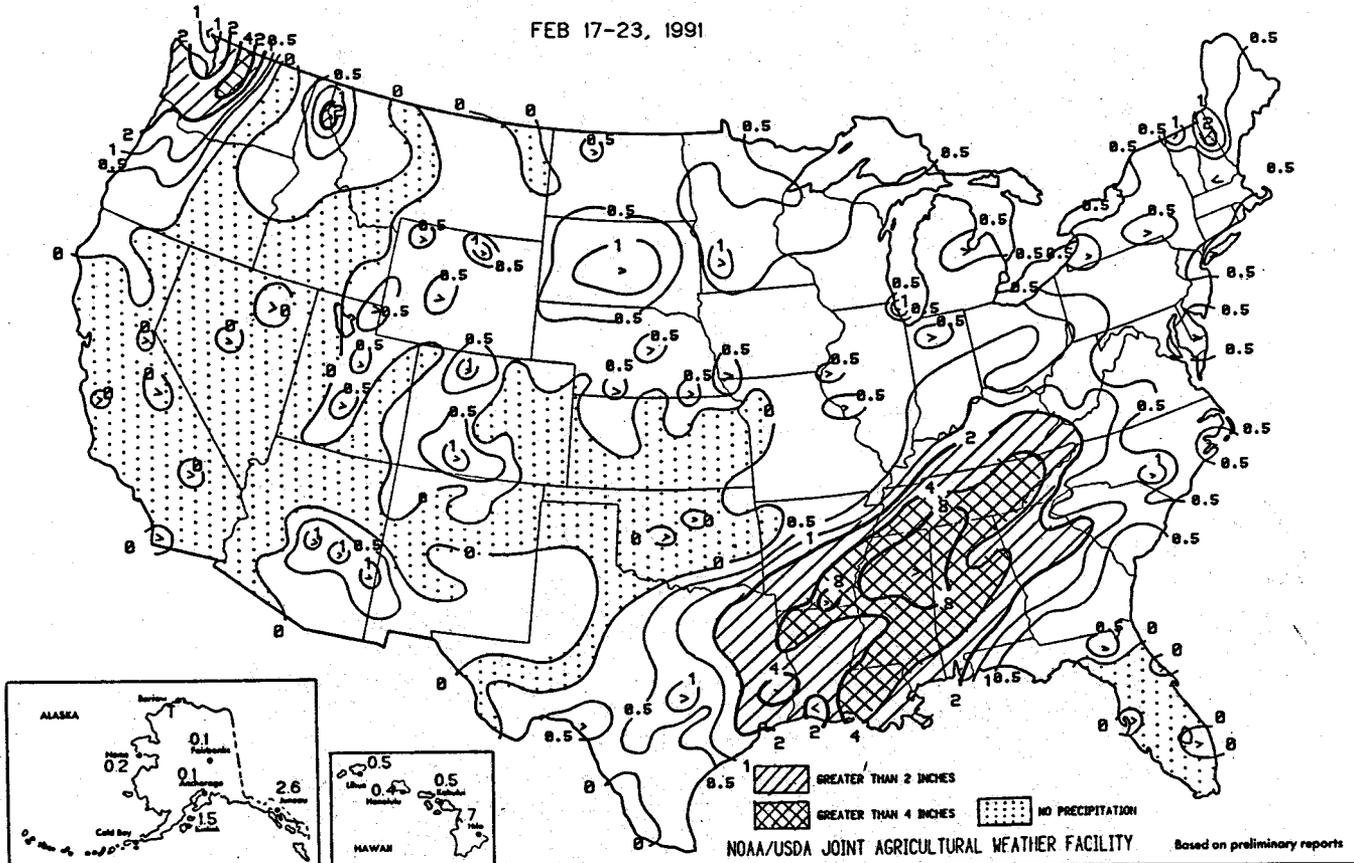
Volume 78, No. 8

Washington, D.C.

February 26, 1991

TOTAL PRECIPITATION, INCHES

FEB 17-23, 1991



HIGHLIGHTS

February 17-23, 1991

Incessant rain soaked parts of the Southeast, beneficial snow fell from the northern Plains to the upper Great Lakes, and California endured another week without drought relief. Anomalous late-winter warmth prevailed nationwide, as temperature departures reached +12° F in parts of the northern Plains. Early in the week, a strong winter storm dumped heavy snow from the northern and central Rockies to the upper Great Lakes. Storm totals reached 18 inches in central South Dakota. Meanwhile, a series of disturbances crossed the southern Rockies en route to the Gulf coast. Up to a foot of snow buried the mountains of New Mexico. Thunderstorms and heavy rain erupted late on Sunday in the Tennessee and lower Mississippi Valleys. In 6 days, up to 12 inches of rain drowned southeastern Arkansas, northeastern Louisiana, northern Mississippi, northern Alabama, and

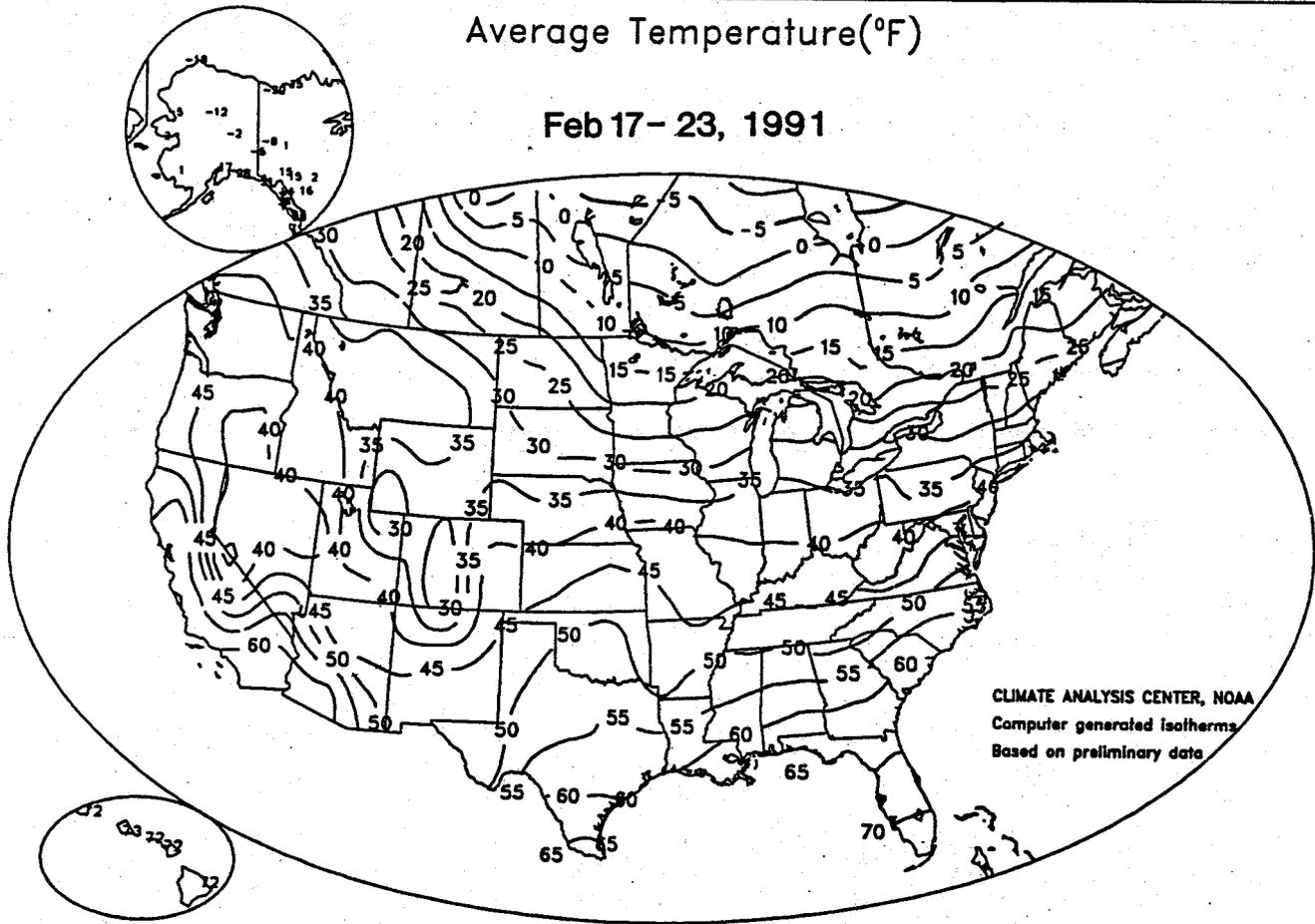
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Average Temperature(°F)

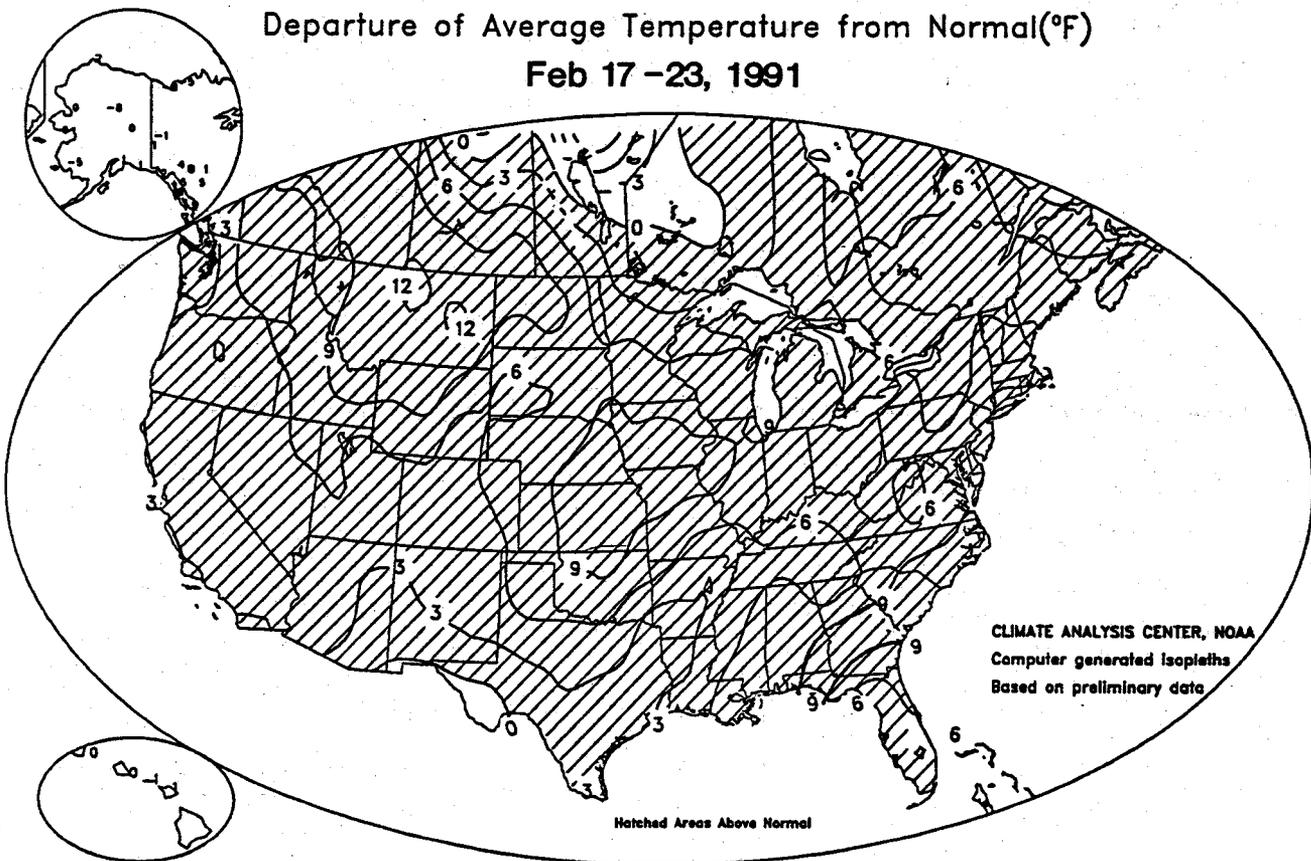
Feb 17-23, 1991



CLIMATE ANALYSIS CENTER, NOAA
Computer generated isotherms
Based on preliminary data

Departure of Average Temperature from Normal(°F)

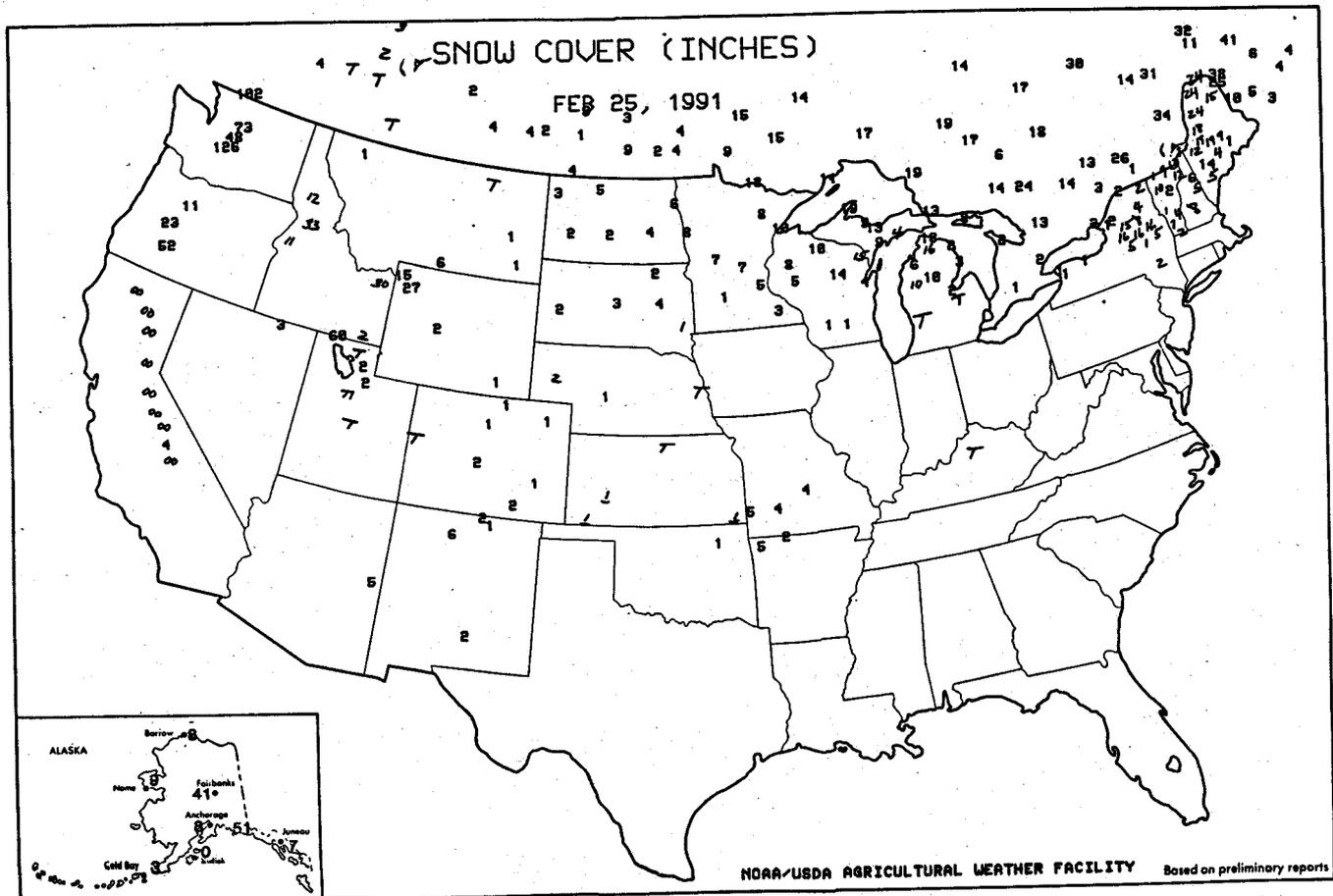
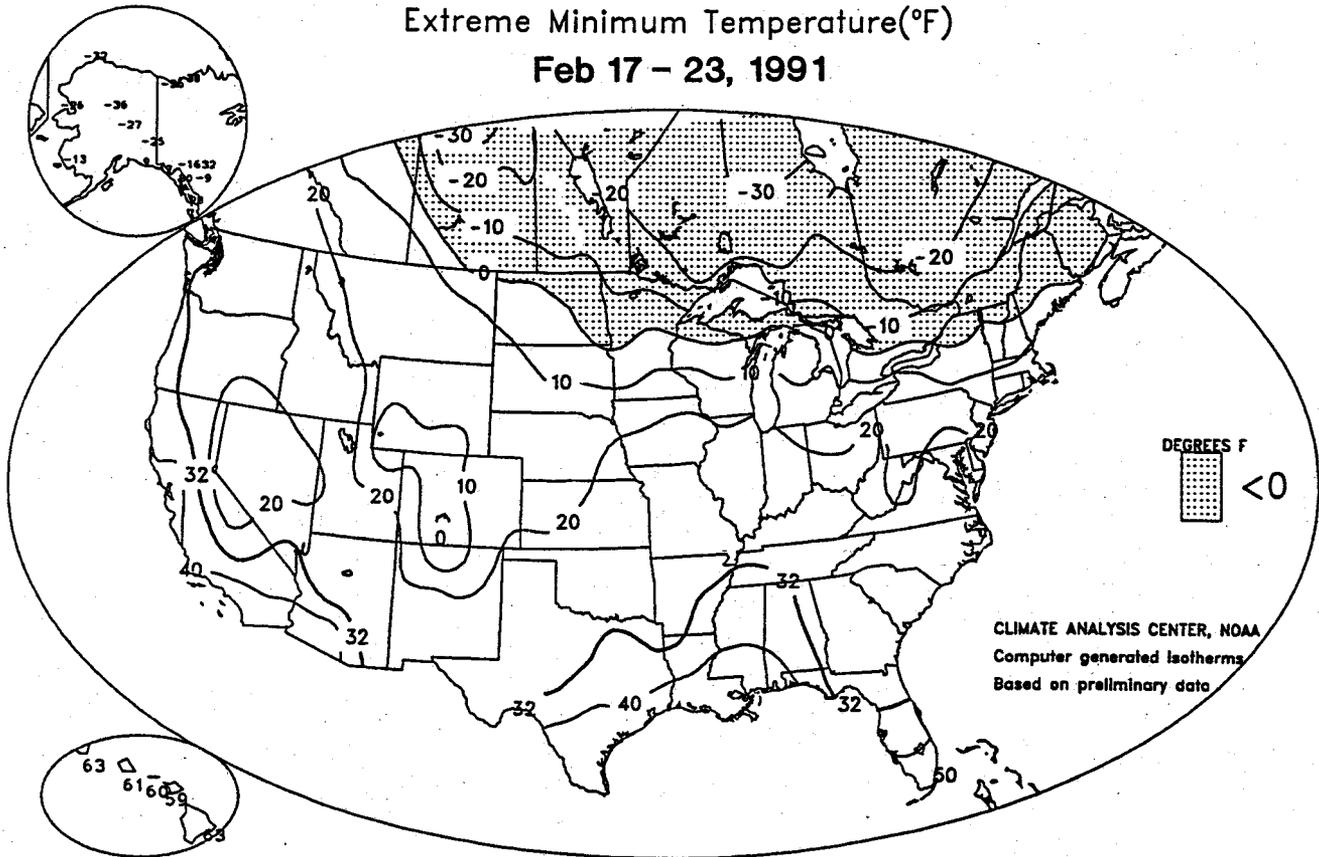
Feb 17-23, 1991



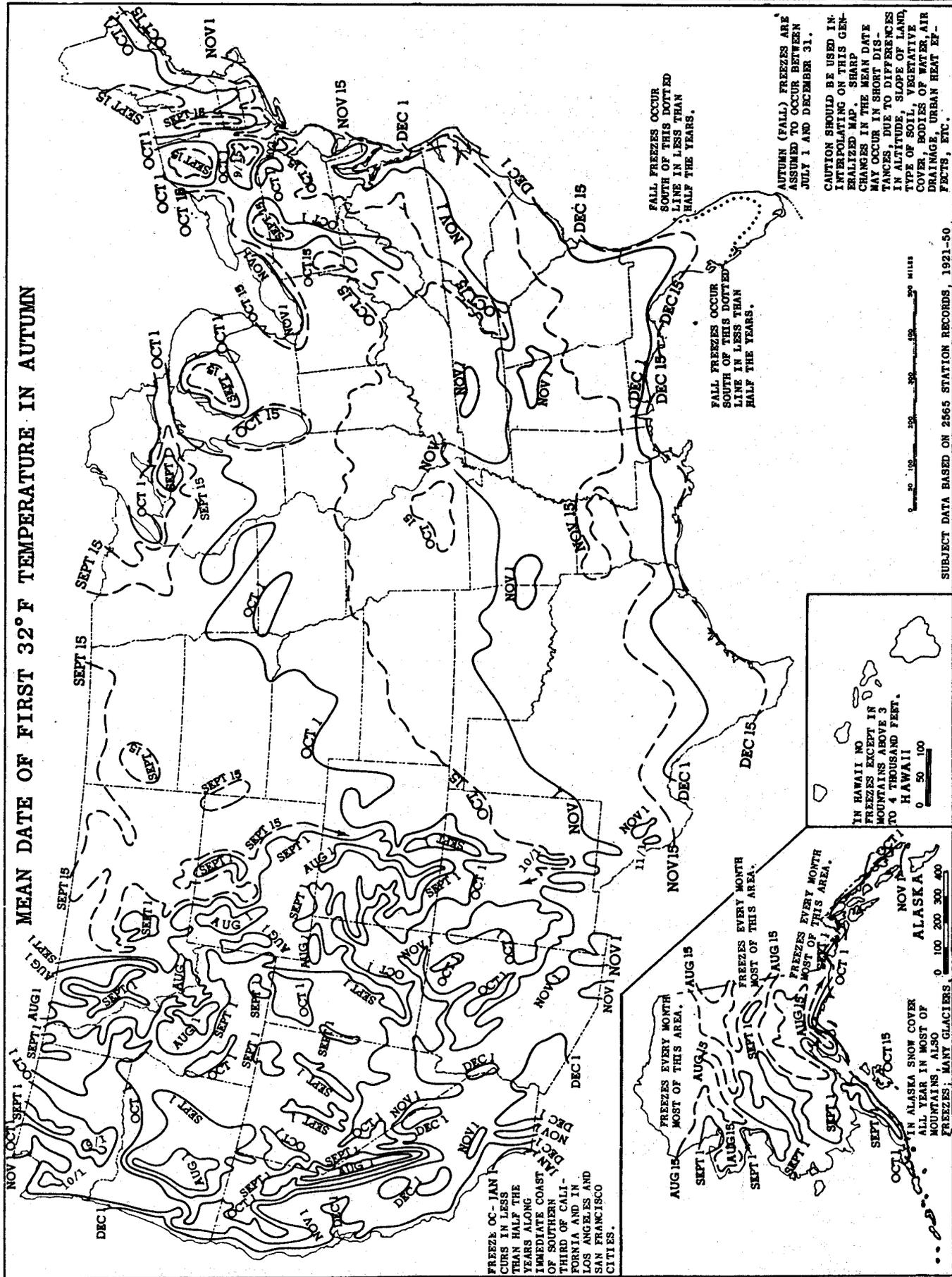
CLIMATE ANALYSIS CENTER, NOAA
Computer generated isopleths
Based on preliminary data

Hatched Areas Above Normal

Extreme Minimum Temperature(°F) Feb 17 - 23, 1991



MEAN DATE OF FIRST 32°F TEMPERATURE IN AUTUMN



FREEZE OCT - JAN CURS IN LESS THAN HALF THE YEARS ALONG IMMEDIATE COAST OF SOUTHERN CALIFORNIA AND IN LOS ANGELES AND SAN FRANCISCO CITIES.

FREEZES EVERY MONTH MOST OF THIS AREA. AUG 15 SEPT 1

FREEZES EVERY MONTH ALL YEAR IN MOST OF MOUNTAINS, ALSO FREEZES; MANY GLACIERS. SEPT 1 OCT 15

IN HAWAII NO FREEZES EXCEPT IN MOUNTAINS ABOVE 3 TO 4 THOUSAND FEET. HAWAII

FALL FREEZES OCCUR SOUTH OF THIS DOTTED LINE IN LESS THAN HALF THE YEARS.

FALL FREEZES OCCUR SOUTH OF THIS DOTTED LINE IN LESS THAN HALF THE YEARS.

AUTUMN (FALL) FREEZES ARE ASSUMED TO OCCUR BETWEEN JULY 1 AND DECEMBER 31. CAUTION SHOULD BE USED IN INTERPOLATING ON THIS GENERALIZED MAP. SHARP CHANGES IN THE MEAN DATE MAY OCCUR IN SHORT DISTANCES, DUE TO DIFFERENCES IN ALTITUDE, SLOPE OF LAND, TYPE OF SOIL, VEGETATIVE COVER, BODIES OF WATER, AIR DRAINAGE, URBAN HEAT EFFECTS, ETC.

SUBJECT DATA BASED ON 2565 STATION RECORDS, 1921-50.

National Weather Data for Selected Cities

Weather Data for the Week Ending February 23, 1991

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	60	47	65	35	54	6	3.8	2.6	2.0	12.9	93	7.5	83	96	61	0	0	0	0	5	2	
MOBILE	69	54	74	45	62	7	2.8	1.6	1.6	24.6	177	19.4	229	98	74	0	0	0	0	5	2	
MONTGOMERY	66	53	75	34	59	9	2.6	1.5	1.4	14.4	115	11.1	143	94	70	0	0	0	0	5	2	
AK ANCHORAGE	24	11	41	-1	18	-2	.1	-1.1	.1	2.7	105	.9	63	88	61	0	0	0	0	3	0	
BARROW	-13	-23	-9	-32	-18	2	.1	.0	.2	.2	42	.1	25	77	60	0	0	0	0	7	0	
FAIRBANKS	6	-11	20	-28	-3	-1	.1	.0	.1	4.3	267	1.4	152	77	52	0	0	0	0	1	0	
JUNEAU	37	32	39	30	35	5	2.6	1.7	1.6	16.3	143	10.8	160	99	76	0	0	0	0	6	1	
KODIAK	31	20	42	11	25	-6	1.5	.3	1.1	24.5	158	19.6	196	86	59	0	0	0	0	2	1	
NOME	11	-7	28	-18	2	-1	.2	.1	.2	2.8	156	1.6	130	84	54	0	0	0	0	3	0	
AZ PHOENIX	77	51	85	46	64	7	.8	.7	.8	1.9	95	1.4	123	61	14	0	0	0	0	1	1	
PRESCOTT	63	27	72	15	45	5	.2	-.4	.1	1.0	21	.7	24	66	15	0	0	0	6	0	0	
TUCSON	71	41	85	33	56	2	.2	-.1	.2	3.6	160	2.0	155	79	20	0	0	0	0	2	0	
YUMA	80	53	87	48	66	5	.1	-.1	.1	.9	94	.8	147	39	13	0	0	0	0	0	0	
AR FORT SMITH	66	35	77	26	50	7	.1	-.7	.7	7.8	118	3.0	79	88	31	0	0	0	0	0	0	
LITTLE ROCK	58	40	65	32	49	4	1.8	.8	.9	16.3	146	8.2	118	80	59	0	0	0	1	4	2	
CA BAKERSFIELD	71	43	82	40	57	3	.0	-.3	.0	.9	36	.6	34	77	34	0	0	0	0	0	0	
EUREKA	58	46	63	43	52	3	.0	-1.2	.7	7.2	41	4.3	38	97	74	0	0	0	1	0	0	
FRESNO	71	42	77	37	57	5	.0	-.4	.0	1.2	23	.5	14	87	31	0	0	0	0	0	0	
LOS ANGELES	69	52	76	47	60	3	.0	-.6	.0	1.4	21	1.4	27	86	46	0	0	0	0	0	0	
REDDING	72	39	75	36	55	3	.0	-1.4	.0	4.6	22	4.0	29	89	26	0	0	0	0	0	0	
SACRAMENTO	70	43	75	38	56	5	.0	-.7	.0	4.3	46	2.8	43	89	37	0	0	0	0	0	0	
SAN DIEGO	68	51	74	45	59	2	.2	-.4	.1	1.7	31	1.1	32	87	47	0	0	0	1	0	0	
SAN FRANCISCO	64	48	71	45	56	4	.1	-.7	.1	4.2	39	2.4	33	91	57	0	0	0	0	0	0	
CO DENVER	53	28	64	21	41	6	.1	-.2	.1	1.0	68	.8	75	67	23	0	0	0	5	0	0	
GRAND JUNCTION	50	28	58	22	39	4	.1	-.1	.1	2.0	123	1.0	97	86	37	0	0	0	6	1	0	
PUEBLO	60	22	71	17	41	5	.1	-.1	.1	.3	41	.1	18	66	18	0	0	0	7	0	0	
CT BRIDGEPORT	45	29	64	20	37	6	.5	-.2	.3	7.7	82	4.2	74	89	53	0	0	0	4	3	0	
HARTFORD	44	26	62	15	35	6	.3	-.6	.2	8.9	87	4.1	67	83	47	0	0	0	6	3	0	
DC WASHINGTON	56	36	72	28	46	7	.2	-.4	.1	8.4	106	3.7	77	82	45	0	0	0	2	3	0	
FL APALACHICOLA	69	56	73	32	63	7	.1	-.8	.1	25.8	258	24.2	372	95	70	0	0	0	1	1	0	
DAYTONA BEACH	79	53	86	30	66	6	.2	-.6	.1	4.2	59	3.9	79	96	50	0	0	0	1	2	0	
JACKSONVILLE	78	51	85	27	64	8	.2	-.9	.1	13.7	164	11.7	200	95	41	0	0	0	1	1	0	
KEY WEST	79	68	84	53	74	3	.0	-.5	.0	3.9	75	2.5	75	83	59	0	0	0	0	0	0	
MIAMI	80	64	89	45	72	4	.0	-.5	.0	4.0	72	3.0	79	84	52	0	0	0	0	0	0	
ORLANDO	81	55	86	33	68	6	.1	-.8	.1	4.1	62	3.3	70	94	44	0	0	0	0	0	0	
TALLAHASSEE	73	46	82	25	60	5	.1	-1.2	.1	24.3	183	19.8	228	98	52	0	0	0	1	1	0	
TAMPA	79	55	83	34	67	6	.1	-.8	.1	2.9	43	2.7	60	92	48	0	0	0	1	0	0	
WEST PALM BEACH	80	62	88	42	71	5	.1	-.6	.0	14.8	209	12.9	265	87	50	0	0	0	2	0	0	
GA ATLANTA	60	45	71	29	52	6	2.5	1.4	1.2	10.6	83	7.5	89	99	66	0	0	0	1	5	2	
AUGUSTA	71	46	82	21	59	10	.8	-.3	.5	11.5	110	9.5	131	93	48	0	0	0	1	3	1	
MACON	70	50	80	27	60	10	1.4	-.2	1.2	16.1	135	12.6	160	94	59	0	0	0	1	4	1	
SAVANNAH	75	50	84	28	62	10	.1	-.8	.1	11.3	134	9.2	163	94	43	0	0	0	1	1	0	
HI HILO	80	65	85	63	72	1	7.7	4.2	3.6	43.2	130	13.1	64	96	69	0	0	0	5	3	0	
HONOLULU	82	66	83	61	74	1	.4	-.3	.3	7.4	79	2.5	42	86	56	0	0	0	2	0	0	
KAHULUI	83	63	86	59	73	1	.5	-.2	.5	10.9	118	4.9	76	83	56	0	0	0	1	0	0	
LIHUE	78	66	81	63	72	1	.5	-.4	.2	5.6	38	2.3	24	89	65	0	0	0	4	0	0	
ID BOISE	55	31	63	24	43	6	.1	-.2	.1	2.3	61	1.4	56	86	39	0	0	0	4	0	0	
LEWISTON	57	40	60	33	49	9	.1	-.2	.1	.7	20	.3	12	65	40	0	0	0	1	0	0	
POCATELLO	49	30	59	26	40	9	.1	-.1	.1	2.1	76	.9	52	84	41	0	0	0	6	1	0	
IL CHICAGO	44	28	58	20	36	9	.4	.1	.4	3.9	81	2.0	80	86	57	0	0	0	5	1	0	
MOLINE	45	29	60	20	37	10	.3	.0	.3	4.7	103	1.6	61	89	59	0	0	0	5	1	0	
PHOENIX	46	29	59	22	38	9	.5	.1	.5	5.4	115	1.7	64	90	58	0	0	0	5	1	0	
QUINCY	49	31	63	24	40	9	.2	-.2	.1	2.5	61	.8	34	82	46	0	0	0	4	2	0	
ROCKFORD	41	27	54	19	34	9	.3	.0	.3	4.0	95	1.5	68	90	56	0	0	0	6	1	0	
SPRINGFIELD	50	30	63	25	40	9	.4	-.1	.4	7.0	139	2.0	69	93	55	0	0	0	5	1	0	
IN EVANSVILLE	52	34	63	27	43	7	.8	.0	.4	13.4	152	6.0	111	93	52	0	0	0	2	3	0	
FORT WAYNE	45	28	53	19	37	9	.4	-.1	.3	10.5	173	3.0	82	88	64	0	0	0	5	3	0	
INDIANAPOLIS	48	30	59	23	39	7	.7	.0	.6	11.1	147	3.4	75	90	59	0	0	0	4	2	1	
SOUTH BEND	46	29	57	19	38	10	.2	-.3	.2	8.2	118	3.2	79	86	56	0	0	0	5	1	0	
IA DES MOINES	48	28	67	24	38	11	.1	-.2	.1	3.2	114	1.1	59	87	46	0	0	0	5	1	0	
SIOUX CITY	45	25	57	18	35	10	.3	.1	.3	1.6	76	.8	60	91	56	0	0	0	7	1	0	
WATERLOO	38	25	51	21	31	9	.2	-.1	.2	2.3	86	1.0	68	96	69	0	0	0	7	1	0	
KS CONCORDIA	55	30	71	20	43	9	.2	-.1	.1	1.2	61	.7	59	82	36	0	0	0	4	2	0	
DODGE CITY	60	29	72	18	44	8	.1	-.2	.1	.9	70	.3	39	72	26	0	0	0	5	0	0	
GOODLAND	56	25	69	16	40	7	.1	.0	.1	.5	47	.3	53	78	27	0	0	0	7	1	0	
TOPEKA	57	31	73	25	44	10	.1	-.3	.1	1.8	60	.8	46	82	36	0	0	0	4	0	0	
WICHITA	61	32	72	24	46	10	.1	-.2	.1	1.1	49	.6	43	79	33	0	0	0	4	0	0	
KY BOWLING GREEN	55	34	63	27	45	6	3.1	2.1	1.7	22.0	178	10.5	135	94	57	0	0	0	4	3	2	
LEXINGTON	50	33	57	26	42	6	1.1	.2	.8	16.6	167	6.4	105	89	55	0	0	0	3	4	1	
LOUISVILLE	53	34	62	27	44	6	.8	-.1	.7	15.8	169	7.0	118	89	49	0	0	0	2	3	1	
LA ALEXANDRIA	63	49	71	39	56	2	3.2	2.0	1.4	21.9	167	13.7	166	93	72	0	0	0	0	5	3	
BATON ROUGE	69	53	75	45	61	7	5.1	3.8	2.5	21.5	158	16.7	193	95	70	0	0	0	0	3	3	
LAKE CHARLES	66	52	73	42	59	5	1.1	.3	.7	20.8	167	16.7	227	96	72	0	0	0	0	3	1	
NEW ORLEANS	71	56	77	43	64	8	3.4	2.1	1.6	34.4	237	24.7	267	95	68	0	0	0	4	3	3	

Based on 1951-80 normals

Weather Data for the Week Ending February 23, 1991

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		
SHREVEPORT	60	45	74	37	53	2	4.2	3.3	1.6	16.7	155	12.7	185	96	66	0	0	0	5	4	0	0
MR CARIBOU	29	5	43	-9	17	2	.5	-0	.3	8.8	122	3.2	78	86	55	0	0	7	4	4	0	0
PORTLAND	40	23	56	11	31	7	.3	-1	.3	12.7	113	4.8	71	86	45	0	0	6	3	3	0	0
MD BALTIMORE	54	33	69	22	44	8	.2	-1.5	1.1	9.1	104	4.3	80	77	43	0	0	3	3	0	0	0
SALISBURY	56	33	68	20	44	7	.8	-1.1	.5	10.8	110	6.8	111	91	53	0	0	3	4	0	0	0
MA BOSTON	47	28	62	17	38	6	.2	-1.7	.2	7.9	69	4.7	68	81	45	0	0	3	2	2	0	0
CHATHAM	43	29	51	19	36	4	.9	-1.1	.8	8.8	69	5.0	64	87	64	0	0	4	3	3	0	1
MI ALPENA	36	20	41	9	28	8	.3	-1.1	.2	3.2	68	1.4	51	51	59	0	0	6	3	3	0	0
DETROIT	42	26	55	15	34	7	.2	-1.2	1.1	6.7	117	2.3	72	88	60	0	0	5	4	0	0	0
FLINT	41	24	53	12	33	9	.3	-1.1	.3	4.6	98	2.1	79	89	57	0	0	6	2	2	0	0
GRAND RAPIDS	40	25	50	13	33	7	.3	-1.1	.3	4.9	84	1.9	60	89	62	0	0	6	3	3	0	0
HOUGHTON LAKE	33	19	41	-3	26	8	.3	-0	1.1	3.3	75	1.8	69	93	57	0	0	7	4	0	0	0
LANSING	42	24	53	12	33	10	.2	-1.2	.2	4.8	93	2.0	75	90	59	0	0	7	2	2	0	0
MARQUETTE	30	12	41	-8	21	6	.6	-1	.2	4.2	71	2.5	72	91	74	0	0	7	6	0	0	0
MUSKEGON	38	25	45	13	32	7	.2	-1.2	.2	4.6	74	2.0	55	91	64	0	0	6	2	0	0	0
SAULT ST. MARIE	29	10	34	-8	20	4	.3	-1.1	1.1	4.6	76	2.1	60	93	60	0	0	7	5	0	0	0
MN ALEXANDRIA	29	14	44	-1	22	8	.9	-1.7	.4	2.0	93	1.5	106	90	62	0	0	7	4	0	0	0
DULUTH	27	9	40	-6	18	4	.4	-1.1	.2	1.6	50	1.1	58	88	64	0	0	7	3	0	0	0
INT'L FALLS	22	-2	30	-14	10	0	.8	-1.6	.3	2.9	125	1.7	120	90	60	0	0	7	5	0	0	0
MINNEAPOLIS	35	16	49	9	25	6	.7	-1.4	.4	2.4	105	1.4	95	90	55	0	0	7	3	0	0	0
ROCHESTER	34	18	44	13	26	8	.2	-1.1	.2	2.8	124	1.1	83	93	68	0	0	7	3	0	0	0
MS GREENWOOD	59	46	66	38	53	4	9.1	8.0	4.6	21.7	153	12.9	147	95	68	0	0	0	6	4	0	0
JACKSON	64	48	69	39	56	6	3.8	2.7	2.3	15.8	115	10.1	120	98	72	0	0	0	6	2	0	0
MERIDIAN	67	49	73	38	58	8	6.8	5.6	4.9	16.7	117	13.1	151	96	65	0	0	0	6	2	0	0
MO CAPE GIRARDEAU	53	34	62	29	44	-	.5	-1.3	.3	15.2	168	6.1	115	96	57	0	0	2	3	0	0	0
COLUMBIA	56	30	72	23	43	8	T	-1.5	T	5.2	99	1.7	51	83	33	0	0	4	2	0	0	0
KANSAS CITY	55	31	71	27	43	8	T	-1.3	T	2.7	74	1.6	73	78	35	0	0	4	0	0	0	0
SAINT LOUIS	57	34	73	28	46	11	.5	-1.1	.4	9.0	161	2.5	75	78	34	0	0	3	2	0	0	0
SPRINGFIELD	58	33	68	24	46	8	.1	-1.5	1.1	9.6	165	3.5	109	82	35	0	0	3	1	0	0	0
MT BILLINGS	50	29	61	21	40	9	.3	-1.2	.3	1.7	74	1.2	80	83	38	0	0	5	2	0	0	0
GLASGOW	41	25	54	11	33	15	.1	-1.0	1.1	.9	99	.4	61	93	58	0	0	6	2	0	0	0
GREAT FALLS	49	25	55	15	37	8	T	-1.1	T	1.5	62	.7	46	85	30	0	0	6	2	0	0	0
HAVRE	44	26	53	16	35	12	.2	-1.1	.2	.5	36	.2	21	88	50	0	0	6	1	0	0	0
HELENA	50	29	55	16	40	12	T	-1.1	T	.8	48	.3	30	72	33	0	0	5	1	0	0	0
KALISPELL	42	28	45	19	35	7	.1	-1.1	1.1	6.5	160	2.1	85	93	53	0	0	5	2	0	0	0
MILES CITY	45	28	52	22	37	12	.2	-1.1	.2	1.1	66	.9	83	91	57	0	0	5	3	0	0	0
MISSOULA	46	31	51	24	38	8	.1	-1.1	1.1	1.9	58	.8	37	93	49	0	0	4	2	0	0	0
NE GRAND ISLAND	52	26	69	19	39	10	.1	-1.2	1.1	1.4	77	.6	54	88	38	0	0	5	2	0	0	0
LINCOLN	56	27	74	22	42	13	.1	-1.2	1.1	1.8	87	1.0	73	86	38	0	0	7	1	0	0	0
NORFOLK	47	25	62	17	36	10	.4	-1.2	.4	1.8	108	1.3	121	92	51	0	0	7	2	0	0	0
NORTH PLATTE	52	25	67	18	39	10	.2	-1.1	1.1	.7	56	.6	73	90	36	0	0	7	2	0	0	0
OMAHA	49	28	65	22	39	9	.4	-1.2	.4	2.1	99	1.4	97	78	53	0	0	6	1	0	0	0
SCOTTSBLUFF	52	26	64	18	39	8	.3	-1.2	.2	1.1	90	.7	101	84	34	0	0	6	2	0	0	0
VALENTINE	42	20	52	8	31	6	.5	-1.3	.3	1.0	92	.7	101	92	57	0	0	7	2	0	0	0
NV ELY	52	17	61	13	35	5	T	-1.2	T	.5	26	.2	16	75	25	0	0	7	0	0	0	0
LAS VEGAS	69	43	75	38	56	5	.0	-1.1	.0	.2	18	.1	7	38	14	0	0	0	0	0	0	0
RENO	61	25	70	20	43	5	.0	-1.2	.0	.6	18	.1	7	71	18	0	0	6	0	0	0	0
WINNEMUCCA	58	24	66	17	41	4	T	-1.2	T	1.1	49	.5	35	83	22	0	0	7	0	0	0	0
NH CONCORD	39	20	54	7	30	6	.2	-1.4	.2	7.4	90	3.3	68	91	49	0	0	7	3	0	0	0
NJ ATLANTIC CITY	52	29	68	17	41	6	.3	-1.5	.2	9.6	99	6.1	99	89	53	0	0	4	4	0	0	0
NM ALBUQUERQUE	58	33	66	27	45	4	T	-1.1	T	1.2	103	.6	90	61	18	0	0	4	0	0	0	0
CLOVIS	61	35	68	25	48	6	.1	-1.0	1.1	1.1	77	.7	81	72	27	0	0	2	2	0	0	0
ROSWELL	62	37	70	28	49	4	.3	-1.2	.3	.9	78	.5	71	76	27	0	0	2	2	0	0	0
NY ALBANY	41	23	53	10	32	8	.4	-1.2	.2	7.3	103	3.8	92	88	52	0	0	5	2	0	0	0
BINGHAMTON	38	21	47	6	30	6	.7	-1.1	.3	9.4	129	4.1	95	91	59	0	0	7	5	0	0	0
BUFFALO	40	25	53	12	33	7	.8	-1.2	.6	12.3	148	3.6	73	89	55	0	0	5	5	1	0	0
NEW YORK	50	33	64	24	42	8	.5	-1.3	.3	9.2	99	4.3	77	80	45	0	0	3	4	0	0	0
ROCHESTER	40	24	52	13	32	6	.2	-1.4	1.1	6.9	101	2.7	64	87	58	0	0	6	4	0	0	0
SYRACUSE	40	21	50	8	30	5	.5	-1.2	.2	9.1	115	3.8	81	91	56	0	0	6	5	0	0	0
NC ASHEVILLE	55	39	63	20	47	7	.7	-1.2	.3	9.4	106	4.9	86	97	55	0	0	1	5	0	0	0
CHARLOTTE	60	45	73	29	53	9	.8	-1.2	.3	10.5	103	7.3	107	88	55	0	0	1	4	0	0	0
GREENSBORO	59	40	68	24	49	8	.5	-1.4	.3	9.6	100	5.4	86	83	50	0	0	2	4	0	0	0
HATTERAS	63	49	73	30	56	10	.5	-1.5	.3	18.5	147	13.4	164	87	59	0	0	1	4	0	0	0
NEW BERN	66	46	81	21	56	9	.7	-1.3	.4	11.1	101	9.2	126	92	50	0	0	1	4	0	0	0
LEIGH	62	42	70	24	52	10	.2	-1.7	.2	7.8	83	4.7	74	84	47	0	0	2	3	0	0	0
WILMINGTON	69	49	81	22	59	10	.3	-1.5	.3	14.3	145	11.6	181	92	54	0	0	1	4	0	0	0
ND BISMARCK	34	20	51	6	27	10	.1	-1.0	1.1	.8	63	.3	40	90	63	0	0	7	3	0	0	0
FARGO	26	8	41	-9	17	4	1.0	-1.9	.6	2.3	157	1.5	179	89	66	0	0	7	3	1	0	0
GRAND FORKS	24	6	38	-9	15	4	.2	-1.1	.2	1.5	85	1.0	88	89	61	0	0	7	2	0	0	0
WILLISTON	36	18	55	2	27	10	.2	-1.1	.1	.9	67	.5	59	92	60	0	0	6	2	0	0	0
OH AKRON-CANTON	44	28	57	19	36	8	.6	-1.1	.3	11.0	159	4.3	100	92	61	0	0	5	3	0	0	0
CINCINNATI	49	32	59	25	40	7	.5	-1.2	.4	14.7	179	6.8	129	91	57	0	0	4	4	0	0	0
CLEVELAND	43	28	53	21	36	7	.5	-1.0	.3	12.9	185	4.3	102	89	62	0	0	5				

Weather Data for the Week Ending February 23, 1991

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	
																			90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
DAYTON	46	30	59	20	38	7	.7	-.2	.5	15.1	225	5.1	120	89	60	0	0	4	2	1	0	
TOLEDO	43	28	53	15	36	8	.2	-.2	.2	8.3	137	2.6	76	87	60	0	0	5	2	0	0	
YOUNGSTOWN	43	26	54	17	34	7	.4	-.2	.1	10.0	140	3.5	78	93	63	0	0	6	4	0	0	
OK OKLAHOMA CITY	66	37	79	28	52	9	T	-.4	T	2.4	76	.9	47	73	22	0	0	2	0	0	0	
TULSA	66	36	76	28	51	9	T	-.5	T	4.7	104	1.7	64	74	30	0	0	2	0	0	0	
OR ASTORIA	52	39	56	31	46	1	3.5	1.7	2.2	20.5	71	15.4	90	88	72	0	0	1	4	0	3	
BURNS	52	25	59	21	39	4	T	-.2	T	1.2	31	1.1	44	88	35	0	0	7	1	0	0	
MEDFORD	59	37	67	31	48	5	.1	-.4	.1	4.2	49	3.1	60	98	51	0	0	2	1	0	0	
PENDLETON	53	38	58	31	46	5	.1	-.2	.1	2.4	56	1.6	59	88	51	0	0	1	2	0	0	
PORTLAND	56	41	60	32	48	4	1.3	.4	1.2	8.5	54	6.1	64	92	62	0	0	1	3	1	1	
SALEM	57	41	59	32	49	5	.6	-.5	.4	9.0	50	6.1	57	95	67	0	0	1	4	0	0	
PA ALLENTOWN	47	27	63	18	37	6	.3	-.5	.2	9.6	101	3.9	68	87	50	0	0	5	4	0	0	
ERIE	42	27	53	17	34	8	.3	-.2	.2	10.5	143	3.5	87	87	63	0	0	5	3	0	0	
HARRISBURG	48	28	65	21	38	6	.2	-.5	.1	9.6	115	4.0	77	86	44	0	0	6	2	0	0	
PHILADELPHIA	52	33	66	23	42	8	.3	-.5	.1	8.6	98	4.8	89	88	53	0	0	4	3	0	0	
PITTSBURGH	47	29	59	19	38	8	.6	-.0	.3	12.9	177	4.4	94	89	53	0	0	6	4	0	0	
SCRANTON	43	25	54	15	34	6	.3	-.2	.2	7.2	113	2.9	74	84	50	0	0	6	4	0	0	
RI PROVIDENCE	47	26	65	14	36	6	.5	-.4	.3	11.1	97	5.6	80	85	45	0	0	5	3	0	0	
SC CHARLESTON	73	51	82	27	62	11	.2	-.7	.1	11.4	126	8.7	146	94	60	0	0	1	2	0	0	
COLUMBIA	70	48	83	21	59	11	1.2	-.2	.8	9.0	81	7.4	97	92	46	0	0	1	3	1	0	
FLORENCE	69	49	82	22	59	11	.2	-.7	.1	9.1	99	6.6	105	88	48	0	0	1	2	0	0	
GREENVILLE	57	41	66	27	49	5	1.1	-.1	.4	10.2	86	6.9	89	96	59	0	0	1	6	0	0	
SD ABERDEEN	32	19	48	6	25	8	.6	-.4	.4	1.1	74	.7	73	94	69	0	0	7	3	0	0	
HURON	35	21	45	9	28	8	.8	-.6	.4	1.3	87	.9	89	97	67	0	0	7	2	0	0	
RAPID CITY	41	22	52	12	31	4	.7	-.5	.5	1.4	107	1.1	122	92	59	0	0	6	2	0	0	
STOUK FALLS	40	22	50	13	31	10	.2	-.1	.2	1.1	55	.4	36	93	62	0	0	7	1	0	0	
TN CHATTANOOGA	55	43	64	28	49	6	6.5	5.3	2.8	21.1	149	10.7	120	94	63	0	0	1	6	3	3	
KNOXVILLE	55	40	61	25	47	5	5.7	4.6	2.3	18.2	145	9.2	115	97	61	0	0	1	6	3	3	
MEMPHIS	59	42	64	35	50	4	4.0	2.9	2.1	20.0	154	9.4	116	90	53	0	0	0	4	3	3	
NASHVILLE	56	37	63	29	47	5	3.7	2.7	1.6	19.0	155	8.3	108	96	50	0	0	1	3	3	3	
TX ABILENE	66	40	79	26	53	4	.1	-.2	.1	3.7	139	2.9	160	78	26	0	0	4	0	0	0	
AMARILLO	63	32	71	22	48	7	T	-.2	T	1.1	78	.9	93	65	19	0	0	4	0	0	0	
AUSTIN	66	48	81	42	57	2	1.5	.9	.9	12.7	223	11.9	330	93	44	0	0	0	3	2	2	
BRAUNMONT	66	53	74	44	60	4	2.5	1.4	1.8	23.1	185	19.3	254	98	72	0	0	0	3	1	1	
BROWNSVILLE	76	55	84	44	65	2	T	-.4	T	3.0	81	3.0	117	94	45	0	0	0	1	0	0	
CORPUS CHRISTI	71	53	83	42	62	2	.4	.1	.3	4.2	102	3.7	131	95	51	0	0	0	2	0	0	
DEL RIO	70	45	84	39	58	1	.6	.4	.4	1.4	80	1.2	98	75	28	0	0	0	2	0	0	
EL PASO	62	37	71	28	49	0	.2	.1	.1	1.6	150	1.3	175	83	29	0	0	3	3	0	0	
FORT WORTH	67	42	79	31	54	4	1.5	1.0	.9	6.7	136	5.3	164	86	33	0	0	1	3	2	2	
GALVESTON	63	54	69	48	58	2	1.6	1.1	1.5	18.7	219	16.9	342	92	69	0	0	0	3	1	1	
HOUSTON	66	53	75	39	59	3	2.2	1.4	1.4	15.8	158	14.0	224	92	65	0	0	0	3	2	0	
LUBBOCK	64	36	71	28	50	6	.5	.3	.4	2.1	180	1.7	209	74	26	0	0	2	2	0	0	
MIDLAND	66	36	75	25	51	2	T	-.1	T	2.5	196	1.8	214	81	23	0	0	3	1	0	0	
SAN ANGELO	68	38	81	25	53	2	.2	.0	.2	2.5	128	2.3	173	84	25	0	0	1	2	0	0	
SAN ANTONIO	68	48	83	42	58	2	.5	.0	.4	7.6	172	7.4	241	87	41	0	0	0	3	0	0	
VICTORIA	67	53	76	42	60	3	.4	-.2	.2	11.4	195	10.6	284	94	56	0	0	0	3	0	0	
WACO	66	43	79	36	55	3	.4	-.1	.2	5.6	107	4.3	128	92	41	0	0	0	4	0	0	
WICHITA FALLS	67	38	81	26	53	6	.0	-.3	.0	3.6	126	2.7	159	78	23	0	0	2	0	0	0	
UT CEDAR CITY	53	27	63	23	40	5	T	-.2	T	2.0	103	.9	72	82	30	0	0	7	0	0	0	
SALT LAKE CITY	50	30	61	22	40	5	.1	-.3	.0	2.3	61	1.7	72	85	43	0	0	5	2	0	0	
VT BURLINGTON	38	18	48	3	28	9	.2	-.2	.2	5.7	101	2.1	64	84	47	0	0	5	3	0	0	
VA NORFOLK	61	41	77	25	51	9	T	-.8	T	7.9	84	5.3	83	83	40	0	0	1	1	0	0	
RICHMOND	59	37	71	24	48	8	.4	-.4	.3	7.9	86	4.4	76	86	48	0	0	2	3	0	0	
ROANOKE	55	34	66	23	45	6	1.1	.3	.7	9.2	111	5.4	101	80	43	0	0	3	4	1	0	
WA QUILLAYUTE	50	36	54	30	43	1	3.7	.7	1.9	46.4	111	29.5	121	100	75	0	0	1	4	2	0	
SEATTLE-TACOMA	51	38	53	35	45	1	1.8	.8	1.6	12.8	81	9.2	96	98	68	0	0	0	3	1	1	
SPOKANE	47	30	52	26	39	5	.1	-.2	.1	4.2	67	2.5	67	94	56	0	0	6	2	0	0	
YAKIMA	58	28	66	24	43	5	T	-.1	T	.8	24	.6	28	92	32	0	0	6	1	0	0	
WV BECKLEY	52	33	60	24	43	9	.9	-.1	.4	11.7	129	6.5	108	88	48	0	0	2	4	0	0	
CHARLESTON	54	35	63	28	45	8	.9	-.1	.3	12.4	135	5.4	91	90	48	0	0	3	4	0	0	
HUNTINGTON	52	36	61	29	44	7	1.0	.3	.3	13.6	158	5.5	100	87	49	0	0	3	4	0	0	
PARKERSBURG	51	32	59	21	41	6	.3	-.4	.1	12.5	163	5.5	110	89	50	0	0	5	4	0	0	
WI GREEN BAY	35	19	41	9	27	7	.3	.0	.2	3.1	91	1.0	49	82	65	0	0	7	3	0	0	
LACROSSE	37	21	49	17	29	7	.2	.0	.2	4.3	161	1.4	87	88	56	0	0	7	2	0	0	
MADISON	38	23	49	16	31	8	.2	-.1	.1	5.1	149	1.6	84	91	60	0	0	7	2	0	0	
MILWAUKEE	40	27	54	20	34	9	.2	-.2	.2	4.6	98	1.9	72	88	58	0	0	5	1	0	0	
WAUSAU	34	13	45	2	24	6	.5	-.2	.3	3.2	109	1.2	73	94	68	0	0	7	2	0	0	
WY CASPER	43	24	53	13	34	6	.4	-.2	.2	1.6	112	.9	102	89	50	0	0	6	4	0	0	
CHEYENNE	47	23	56	14	35	5	.1	.0	.1	.8	80	.4	66	74	28	0	0	6	2	0	0	
LANDER	46	24	55	12	35	8	.7	.5	.6	1.5	99	1.1	110	79	40	0	0	7	2	1	1	
SHERIDAN	45	29	56	17	37	9	.3	.1	.3	1.7	79	1.3	92	84	49	0	0	6	1	0	0	

Based on 1951-80 normals

National Agricultural Summary

February 18-24, 1991

HIGHLIGHTS: The eastern half of the Nation had adequate to surplus moisture. The Delta and parts of the Ohio Valley had excessive moisture that slowed planting and fieldwork. Most areas of the West and the Plains continued dry. Low soil moisture may slow spring planting and retard small grain growth.

SMALL GRAINS: Wheat condition was mostly good to fair in most States. Topdressing continued in areas where the soil was not too wet. Wheat in central Kansas was treated for army cutworms. Kentucky wheat, where not covered by water, was green and in satisfactory condition. Montana wheat was breaking dormancy early due to warm weather. Winter wheat in Wyoming was mostly good, with additional moisture needed for development. Wheat in the High Plains of Texas was greening, but additional moisture was needed. Oregon winter wheat was growing well in spite of the freeze damage in the Columbia Basin with little reseeding expected. Spring wheat, barley, and canola seeding was underway in Washington.

OTHER FIELD CROPS: California cotton planting preparation continued slow because of unknown irrigation water availability. Sugarbeet harvest continued. Corn planting began and sugarcane harvest continued in Florida. Corn planting began in southwest Georgia. North Carolina, South Carolina, and Virginia tobacco beds were in mostly good condition. In Arizona, cotton field preparation continued with limited seeding in the southwest. Texas sorghum planting continued where fields were not too wet.

FRUIT AND NUTS: Florida citrus groves were dry and irrigation continued in most areas. Early orange harvest was almost complete, while the grapefruit harvest continued. South Carolina fruit growers were actively pruning fruit trees, with tree activity on schedule. Arizona

grapefruit and Valencia orange harvests continued, while the lemon harvest was essentially complete. California Central Valley lemon harvest was complete and oranges were harvested for juice. Lemon picking continued in the southern areas. Avocado and grapefruit harvests were steady.

VEGETABLES: Warm weather in Florida benefited the winter vegetable crops, while harvests continued. Watermelon planting was active. Georgia onions were fair to good with considerable leaf damage due to extreme cold weather last week. North Carolina Irish potato and cabbage plantings continued. Arizona vegetable harvests continued. Greenbean and melon planting continued in the west. Texas Rio Grande Valley cabbage harvest was slowed because of a weak market, while melon planting continued. Onions progressed well in the San Antonio Winter Garden area. Spinach and carrot harvests were slowed due to wet conditions. On the High Plains, some onion and potato planting began. California winter potato and strawberry harvests continued. The desert winter vegetable harvests neared completion.

PASTURES AND LIVESTOCK: Pastures and livestock were in mostly fair to good condition. Hay and roughage supplies were adequate or better in most States. Pastures in the Delta were mostly poor due to excessive rain. Texas pastures were greening and showing signs of spring. Spring sheep shearing increased in the Texas Hill Country.

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 3.00 to 6.00 in. north, over 8.00 in. local areas; 1.00 to 3.00 in. south, over 5.00 in. local areas. Temperatures 4 to 8° above normal north; 8 to 12° above normal south.

Wet conditions delayed land preparation, other field activities. Localized flooding low lying areas. Wheat conditions mostly good to fair. Primary activities: Soil testing; maintenance, repair of farm equipment; routine care of livestock, poultry, catfish.

ARIZONA: Cold front entered State 17th; wind gusts, heavy rain south; thunderstorms, snow north, east; cooler, cloudy statewide. Hail southeast 18th. Warming, sunny 19th to 22nd. Temperatures normal to 7° above. Extremes 35°; 85° deserts, 13°; 77° higher elevations. Precipitation none north central to 0.51 in. southeast.

Cotton field preparations continued; activities listing, pre irrigation, applying pre emergent herbicides; limited seeding southwest. Wheat, barley established 100%, 100% 1990, avg.; 38% jointing, 50% 1990, 37% avg., small grains good to excellent, except fair southeast. Alfalfa first cut continued west, clipping elsewhere; weeds, insects, diseases light, except west applied alfalfa aphid, Egyptian alfalfa weevil controls, crop good. Grapefruit, valencia orange harvests continued west, central. Lemon harvest essentially completed. Tangerine harvest completed west. Mixed vegetable harvests continued west, central. Green beans, melons planted west.

ARKANSAS: Temperatures continuing above normal. Heavy rainfall southern part first, end of week. Light rain northern part, northwest 4.00 to 5.00 in. of snow on 24th. Extremes 28°; 65°. Rainfall none to 12.48 in.

Wet soil, prevented wheat fertilizing. Cattle good, hay quality down. Hay supplies fair to good. Bradley county tomatoes 90% seeded in greenhouses. Fruit trees showing little bud swelling, danger still exists if warm weather followed by hard freeze.

CALIFORNIA: Strong high pressure continued with light amounts of precipitation recorded over the weekend. Daytime temperatures were near record levels by the end of the week. Offshore winds kept humidities low over many growing areas.

Open weather permitted progress field activities. Small grains, forage crops grew steadily. Dryland fields showed moisture stress. Irrigation ongoing where pumped water available. Herbicide applications continued. Seeding still underway. Established alfalfa received rodent, weed, weevil treatments. First cutting desert alfalfa made. Spring planted row crop groundwork progressed. Cotton field preparation continued slow; unknown water availability. Over wintered sugarbeet harvest continued. Orchard, vineyard work active. Almonds, stonefruit bloomed. Pollination active. Central Valley lemon harvest completed;

desert area, southern areas picking continued. Central valley navel oranges picked for juice; southern areas harvest active. Desert area grapefruit harvest steady. Avocado picking continued. Winter potato harvest continued Hemet San Jacinto area. Strawberry harvest continued south coast counties. Desert winter vegetable harvest neared completion. Sweet potato hotbed preparation underway Merced area. Soil fumigation began market tomatoes. Cattle on supplemental feed most areas. Range conditions poor very poor southern two thirds of State poor to good northern third. Water short most areas extremely short southern counties. Cattlemen selling cattle due to the high feed costs, lack of water. Current outlook for spring, summer pasture not good.

COLORADO: A strong storm dumped up to 2 feet of snow in some mountain areas on 18th to 19th with some snow reaching parts of the lower elevations. Dry, unseasonably warm weather returned 20th to 22nd with spring like temperatures recorded in all areas. Another storm came into the state on the weekend bringing much needed moisture to the eastern part of the state as well as some mountain areas. Temperatures for the period were again above normal due to the warm period in the middle of the week.

FLORIDA: Warm weather returned. Maximum temperatures 7 to 10° above normal. Daytime highs reached mid to upper 80s except upper 70s, Panhandle. Nighttime lows mostly upper 40s north; 50s central, interior south; 60s lower southeast coast. Rain 0.50 to 1.00 in. Panhandle, otherwise less than 0.25 in.

Soil moisture adequate to surplus Panhandle, northern Peninsula; short to adequate, central Peninsula; mostly adequate southern Peninsula. Tobacco growers maintaining beds, making field preparations. Growers making field preparation for spring planted crops. Corn planting underway. Sugarcane harvest continued active. Pasture conditions Panhandle fair to excellent; northern Peninsula fair to good; central Peninsula fair; southern Peninsula fair to good. Cattle condition Panhandle, northern Peninsula fair to excellent; central Peninsula poor to fair; southern Peninsula fair to good. Citrus groves dry with warm temperatures. Irrigation most areas. Bloom cycle started, all phases of bloom on young trees. Early orange harvest almost over. Valencia movement increasing. Grapefruit harvest active. Temples going to both fresh, processed usage. Warmer weather benefitted vegetables, all areas. Planting spring crops continued movement north. Harvest winter crops active. Volume leaders: Tomatoes, peppers, cabbage, potatoes, squash, celery, snap beans. Also available carrots, sweet corn, eggplant, lettuce, radishes. Watermelon planting underway, northern areas.

GEORGIA: Warm week. Temperatures 4 to 12° above normal northern half, 10 to 12° above normal south. Highs mid, upper 60s mountains to low 80s central, south. Lows mid, upper 30s northeast

mountains, extreme eastern counties; mid, upper 40s elsewhere. Most northern half rain totals 2.00 to 4.00 in., few totals over 7.00 in. Rain totals southern half under 0.50 in., isolated locations over 1.00 in.

Soil moisture mostly adequate to surplus. Onions fair to good, considerable leaf damage southeast due to extreme cold last week. Small grains mostly fair to good, top dressing nearly three fourths complete. Tobacco plants fair. Land preparation active end of week. Corn planting underway, southwest. Pastures mostly fair to good. Cattle, hogs fair north central, good elsewhere.

HAWAII: Variable weather. Cloudy, thundershowers early in week. Replaced by mostly sunny. Light damage to exposed crops by wind, rain. Spraying heavy due to dampness. Temperatures low 60s to mid 80s. Rainfall 0.30 to 11.0 in.

Days suitable for farm work 7.0. Papaya production remains low. Ginger root harvesting active; heavy rains slowed field preparations. Head cabbage production steady.

IDAHO: Temperatures statewide above normal. Precipitation amounts light, spotty averaging below normal. The exception was extreme northern Panhandle where slightly over an 1.00 in. of rain was recorded.

Soil moisture adequate in north, remainder of State short. Activities included livestock care, attending meetings, shop work. Livestock in good condition. Hay, roughage supplies adequate.

ILLINOIS: Temperatures 5 to 8° above normal. Precipitation generally less than 0.50 in. across State. Soil moisture mostly adequate. Winter wheat fair to good.

INDIANA: Temperatures 6 to 10° above normal. Lows mid 20s to mid 30s, highs mid 40s to mid 50s. Precipitation 0.01 to 0.53 in.

Fieldwork limited. Other activities: Selling grain, hauling manure, cleaning fence rows, attending farm auctions, machinery maintenance, purchasing supplies, attending meetings, applying fertilizer, tax preparation, care of livestock. Hay supplies adequate. Livestock mostly good. Wheat fair to good. Warm, mild, muddy week.

IOWA: Temperatures 5 to 9° above normal. Extremes 2°; 68°. Precipitation none to 0.76 in.; average 0.12 in. Locally heavy snow northwest on 18th. Only north central, northeast have snow cover remaining after record high temperatures on 21st. Livestock mostly good. Feeder cattle brisk. Farmers planning spring planting.

KANSAS: Temperatures 10° above normal. Precipitation 0.09 to 0.01 in. or less.

Wheat, new alfalfa being treated for army cutworms central, south central districts. More moisture needed most of State. Livestock good. Stockwater supplies adequate.

KENTUCKY: Temperature 30 to 35°, plus 5 to 10°. Precipitation 1.50 in., 0.50 to 1.20 in. above normal.

Soil moisture continues surplus with standing water many lowlands. Farmers would like a drying trend and sunshine. Wheat is green, satisfactory condition where not covered by water. Burley markets closed, producers will soon be planning plantbeds. Livestock satisfactory condition.

LOUISIANA: Temperatures 2 to 7° above normal. Extremes 24°; 79°. Rainfall 2.17 in. southwest to 5.53 in. north central; greatest weekly total 7.82 in.

Rains, excessive soil moisture limited field activities during the week. There was limited spring plowing, top dressing wheat and winter pastures. Main activities caring for livestock, repairing equipment, harvesting crawfish, attending meetings, preparing farm plans. Other activities included soil testing, drainage work, pruning fruit trees.

MARYLAND & DELAWARE: **MARYLAND:** Precipitation 0.34 in. Temperature 41.3°, normal 35.5°. Extremes 0°; 74°.

Activities for the week: Repairing fence; hauling manure; spreading fertilizer; maintaining machinery; tax preparation; caring for livestock.

DELAWARE: Precipitation 0.46 in. Temperature 42.3°, normal 36.5°. Extremes 12°; 71°.

Activities for the week: Repairing fence; hauling manure; spreading fertilizer; maintaining machinery; tax preparation; caring for livestock.

MICHIGAN: Temperatures 3 to 9° above normal. Extremes -9°; 57°. Precipitation 0.01 to 0.86 in. across the State. Warm temperatures during the middle of the week gave way to more seasonable weather by weeks end. Overall, above average conditions enabled farmers to engage in outdoor activities. Livestock in good shape, some reports indicate that fluctuating temperatures are responsible for an increase in health related problems with cattle. Feed supplies are in good shape.

Major activities included: Fruit tree pruning, hauling manure, tax preparation, purchasing seed for spring planting, caring for and marketing livestock.

MINNESOTA: Temperatures 3 to 9° above normal for the State. Extremes -20° Itasca; 51° above at Lambertson, Mankato. Precipitation near normal to 0.70 above normal for the State. Greatest precipitation for the week was 1.04 in. at Montevideo.

MISSISSIPPI: Temperatures 4° above normal. Extremes 8°; 75°. Temperatures 53°. Wet statewide. Rainfall 6.12 in., 4.90 in. above normal. Soil temperature 53°.

Days suitable for fieldwork 0, .6 1990, 1.3 avg. Soil moisture 63% surplus, 37% excessive. Pasture 35% poor, 16% fair, 33% good, 16% excellent. Livestock 51% fair, 33% good, 16% excellent. Hay supply 63% short, 25% adequate, 12% surplus. Feed grain 12% short, 75% adequate, 13% surplus. Wheat 9% very poor, 60% poor, 17% fair, 14% good. Activities: Feeding livestock, preparation for spring planting.

MISSOURI: Temperatures 2° above normal southeast to 10° above normal north. Precipitation 0.15 in., virtually none northwest, west central.

Dry fields permitted some fertilization of wheat north. Weather favorable for winter grazing, calving until light snow across southern counties on 24th.

MONTANA: Temperatures 7 to 8° above normal west to 15° above northeast. Light snow most areas. Heaviest amounts northwest.

Winter wheat 9% very poor, 29% poor, 50% fair, 12% good. Condition poorest in eastern areas. Snow cover protection lacking. Warm days causing crop to break dormancy early. Nearly 3% greening. Grazing 97% open, 3% closed. Cattle,

calves receiving supplemental feed 96%, sheep and lambs 99%. Calving 21% done, lambing 17%.

NEBRASKA: Temperatures 5 to 10° above normal. Precipitation first of the week with amounts 0.10 in. northwest to 0.50 in. northeast.

NEVADA: Temperatures well above normal. Extremes 11°; 78°. Precipitation none to 0.25. Temperatures were warmer across the State, with most areas 5 to 10° above normal. Most precipitation fell in northern areas.

Irrigation water supplies continue to concern farmers. Major farm, ranch activities include caring for livestock, general maintenance.

NEW ENGLAND: Precipitation 0.15 to 0.85 in. Temperatures 10° northern Maine, low 20s to low 30s elsewhere north, low to mid 30s south. Maximum temperatures low 40s north to mid 60s south; minimum temperatures -21° north to 19° south.

Activities: General repairs, maintenance, tending livestock, moving crops from storage, starting to tap maple.

NEW JERSEY: Temperatures much above normal, 35° south, 42° north, 44° coastal. Extremes 7°; 68°. Precipitation below normal, 0.38 in. north, 0.37 in. south, 0.45 in. coastal. Heaviest 24 hour total 0.37 in. on 18th, 19th.

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

NEW MEXICO: Temperatures were generally above normal, 1° below normal at Alamogordo to 5° above at Clayton. Precipitation over the State a trace at Albuquerque to 0.99 in at Silver City.

NEW YORK: Unseasonably mild. Temperatures 5 to 9° above normal. Temperatures on the 19th to 22nd climbed into the 40s, 50s, a few spots topped 60°. Extremes -14°; 64°. Precipitation was near normal. Lake snow belts received better than 6.00 in. of snow early in the week, a little more late in the week. Elsewhere, light snow common early week, light rain mid week.

Major farm activities: Tending livestock, spreading manure, moving crops from storage, maintenance work, making plans, purchases for upcoming season.

NORTH CAROLINA: Temperatures 6° above normal in the mountains, 7° above in the Piedmont, 8° above at the Coast. Precipitation 0.04 to 4.44 in.

Days suitable for fieldwork 3.2. Soil moisture 1% very short, 4% short, 69% adequate, 26% surplus. Pasture 2% very poor, 14% poor, 30% fair, 53% good, 1% excellent. Crop condition: Wheat 17% fair, 80% good, 3% excellent; oats 20% fair, 78% good, 2% excellent; barley 19% fair, 80% good, 1% excellent; rye 1% poor, 17% fair, 78% good, 4% excellent. Tobacco plant beds 24% fair, 74% good, 2% excellent. Hay and roughage supplies 1% very short, 12% short, 83% adequate, 4% surplus. Feed grain supplies 1% very short, 5% short, 92% adequate, 2% surplus. Activities: tending livestock; preparing, seeding tobacco plant beds; cutting wood; pruning trees; equipment repair; top dressing small grains, pastures; land preparation; planting Irish potatoes, cabbage, general farm maintenance.

NORTH DAKOTA: Temperatures 5 to 10° above normal. Precipitation 0.10 in. southwest to 0.51 in. southeast.

Snow cover gone in many areas. Livestock good. Calving 10 to 15% complete. Hay supplies adequate.

OHIO: Milder, drier than normal weather prevailed as waves of low pressure moved along a slow moving cold front brought precipitation early in the period. Daily high temperatures mid 40s to mid 50s; 5 to 9° above normal. Lows mid 20s to mid 30s; 5 to 11° above normal. Precipitation 0.10 to 0.60 in. water equivalent; 0.20 to 0.40 in. below normal.

The dry, mild weather was a welcome relief from earlier cold, wet conditions. Little or no snow cover remained throughout the State. Soil temperatures at the 4.00 inch depth under bare soils averaged in the mid to upper 30s.

OKLAHOMA: Temperatures 4° above normal south central to 8° above normal northeast. Precipitation none western third of State to 0.15 in. northeast.

Moisture improvement limited. Rain needed for wheat, other small grains. Producers made good progress on land preparation, top dressing. Cattle good, feeder cattle prices steady from preceding week.

OREGON: Temperatures well above normal along with significant precipitation statewide. Temperatures 5° above normal. Precipitation 3.00 in. or more north coast; 0.33 to 1.75 in. central, south coast; 0.25 to 1.33 in. Willamette Valley; 0.10 to 0.50 southwest interior; up to 0.50 in. northeast; a trace to 0.10 in. central, southeast.

Soil moisture adequate west, mostly short east. Winter wheat fields are growing out of freeze damage Columbia Basin, little reseeding expected, yield potential appears reduced. Western grain producers are weed spraying, planning fertilizer applications. Pruning continued in orchards, berry fields. Livestock good. Range, pasture poor to good. Light rains, warm weather have started spring grass growth.

PENNSYLVANIA: Warm dry week. Temperature 35°, 7° above normal. Extremes 5°; 60°. Precipitation 0.35 in, 0.30 in. above normal.

Activities: Spreading manure; maintaining machinery; caring for livestock.

PUERTO RICO: Rainfall 2.16 in., 1.60 in. above normal. Highest weekly total 6.90 in. at Manati, 6.47 in. at Pico Del Este Luquillo, 5.03 in. at Rio Piedras Aes. The highest 24 hour total was 4.00 in. at Pico Del Este Luquillo. Divisional temperature 75 to 76° on the coasts, 69 to 72° in the Interior with mean station temperature 61.7° at Pico Del Este Luquillo to 78.7° at Roosevelt Roads N.S. Extremes 50°; 90°.

SOUTH CAROLINA: Temperatures 12° above normal in coastal Plains to 6° above normal across the Upstate. Numerous record high temperatures set during week. Rainfall 1.70 in. northwest to 0.40 in. south. The largest 24 hour total was 2.46 in. at Calhoun Falls.

Farm activities: Wet conditions continued to slow land preparation for spring planting. Applying nitrogen top dressing to small grains, pastures as weather permitted. Tobacco plant beds in generally good condition. Fescue pastures greening up, good condition. Fruit growers actively pruning peach trees which are currently on schedule.

SOUTH DAKOTA: Major snowstorm covered most of the State causing widespread precipitation. Temperatures rebounded quickly, melted much of the snow. Extremes -11°; 58°. Precipitation below normal to above normal. Up to 14.0 in. of snow in central portion.

TENNESSEE: Cold front 18th stalled until major rain system moved through State 21st, 22nd. Temperatures 4 to 8° above normal. Extremes 29°; 64°. Precipitation 1.00 to 4.00 in. above normal most areas. Heaviest more than 5.00 in. southeast.

Primary activities: Attending livestock; preparing, seeding tobacco plant beds; cutting wood; pruning trees; equipment repair; general farm maintenance.

TEXAS: Slow moving upper air disturbance across Mexico triggered showers in State. Significant rains southwestern parts. Upper coast, east, heaviest amounts. High Plains missed most showers. Lower Valley, Coastal Bend some showers, amounts were light. Rains did fall Trans Pecos. East, upper coast, Trans Pecos, Edwards Plateau more rain than expected, greatest departure from normal, east. Lower Valley, south, high plains, below normal.

Crops: Small grain conditions slowly improving Plains; warmer weather further depleted soil moisture. Rainfall needed badly many fields as greening continued increase. Fields Blacklands, Central also improving. Some producers got fertilizer down, most fields too wet. Hill Country, growth slow, many oat fields did not survive winter. Fields South responding warmer weather. Grain sorghum planting limited progress Central, South last week. Continued wet conditions kept many producers out fields. Progress little better Valley. Wet fields delayed beginning planting season Blacklands, Upper Coast. Many parts State have best subsoil several years. Small amount planting occurred Blacklands, Central. Cotton planting begin soon in Valley, Coastal Bend.

Commercial Vegetables: Rio Grande Valley, onion harvest expected begin earnest next week. Yield expectations very good. Harvest cabbage slowed because weak market. Melon planting continued. San Antonio Winter Garden, onions making good progress. Spinach harvest slowed, quality remained varied. Carrot harvest slowed. East, wet conditions slowed planting activities. Heavy rains caused some damage planted fields. High Plains, land preparations moved ahead, some onion, potato planting. Trans Pecos, land preparations underway. Onions in Presidio Valley off good start.

Range and Livestock: Range, pasture grasses showing signs spring. Growth slow Plains, adequate many other areas. Pastures East, very saturated. Not much fertilization occurred to date. Forage from wheat High Plains remained short dryland acreage. Livestock markets good. Spring shearing increased Hill Country. Range, pasture conditions: 2% very poor, 11% poor, 51% fair, 31% good, 5% excellent.

UTAH: Precipitation light. Temperatures 5° above normal.

Lambing, calving continue. Moisture short for summer irrigation. Winter ranges short. Some supplemental feeding needed. Livestock fair to good. Death losses minimal. Farm activities: Hauling manure, buying seed and fertilizer; feeding, care of livestock, attending farm meetings, farm planning, record keeping.

VIRGINIA: Temperatures seasonably cold early, above normal mid, cold end. Extremes -2°; 77°. Precipitation mostly west, 0.04 in. to 2.84 in.

Days suitable for fieldwork 2.1. Topsoil moisture 3% short, 62% adequate, 35% surplus. Winter grains 3% poor, 29% fair, 61% good, 7% excellent. Forage requirements from grazing 6% dairy cattle, 17% beef cattle 17% sheep. Seeding tobacco plantbeds. Top dressing small grains, liming, fertilizing, plowing, disking, overseeding pastures. Calving, lambing active, feed supplies adequate to surplus.

WASHINGTON: Temperatures 2 to 14° above normal, east; 1 to 6° above normal, west. Precipitation none to 0.46 in., east; 1.28 to 4.40 in., west.

Days suitable for fieldwork 2.7. Soil moisture 67% short, 30% adequate, 3% surplus. Range, pasture 9% very poor, 38% poor, 17% fair, 36% good. Hay, other roughage 93% adequate, 7% good. Winter wheat 58% very poor, 35% poor, 7% fair. Temperatures across State above normal, except in the central Basin. Heavy rains early in the week prevented fieldwork in western areas. Spring seeding was underway in eastern areas for wheat, barley, canola. Winter pruning in some fruit orchards was completed. Mild weather was forcing peach buds in Yakima fruit areas. Calving in full swing on most ranches.

WEST VIRGINIA: Temperature 43°. Extremes 17°; 67°. Precipitation 0.59 in., above normal in south, while below normal in the north, east.

Days suitable for fieldwork 2.0. Soil moisture 30% adequate, 70% surplus. Wheat, barley condition, good. Cattle, sheep condition, good. Calving 23% complete. Lambing 31% complete. Hay supplies 72% adequate, 28% surplus. Other feeds 80% adequate, 20% surplus. Farm activities: General maintenance, feeding livestock, calving, lambing.

WISCONSIN: Temperature 27°. Extremes -16°; 54°. Rainfall 1.00 to 6.00 in. north, central on 18th. Rain, drizzle south. Snow on 23rd: 4.00 to 8.00 in. north; 2.00 to 4.00 in. central; less than 1.00 in. south. Late February snow depth 3.60 in.; 29 year average 9.30 in. Mild winter temperatures have melted snow; some bare ground showing in southern counties. Frost depth 13.9 in.; avg. 17.8 in.

WYOMING: Temperatures above normal. Precipitation below normal northwest, southeast. Above normal elsewhere. Winter wheat fair to good, additional moisture needed. Livestock mostly good. Calving, lambing, shearing continuing. Mild weather decreasing stress.

International Weather and Crop Summary

HIGHLIGHTS

February 17-23, 1991

WESTERN USSR ... Overwintering conditions continue favorable for dormant winter grains.

NORTHWESTERN AFRICA ... Soaking rain benefits Moroccan winter grains.

EUROPE ... Seasonal temperatures and little precipitation cover dormant winter grains in central and northern areas. Rain benefits Mediterranean winter grains.

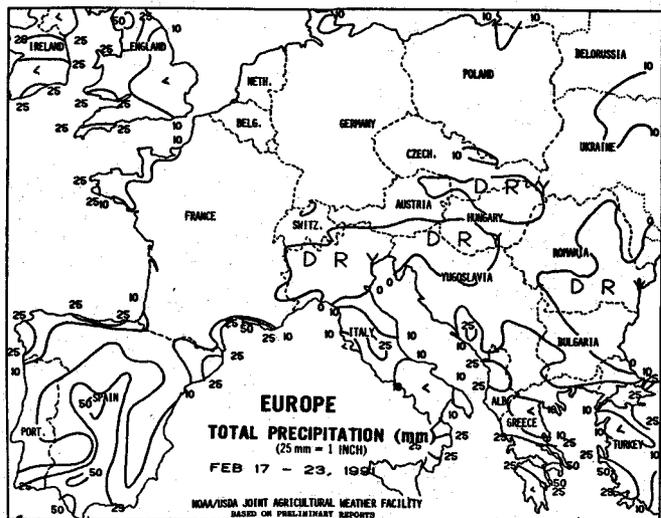
EASTERN ASIA ... Cold weather in China's wheat areas causes minor damage to crops that recently broke dormancy.

SOUTHEAST ASIA ... Rain continues over southern Indonesia's rice areas. Rain brings some relief from drought to the eastern Philippines.

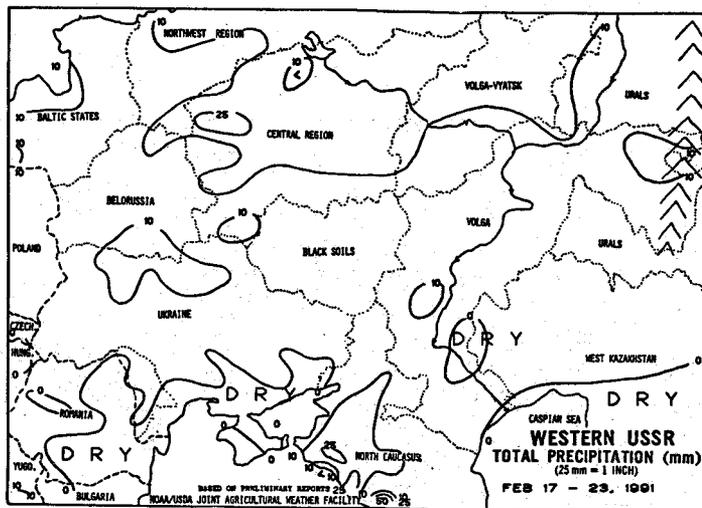
SOUTH AFRICA ... Showers maintain favorable conditions for late-planted immature corn.

SOUTH AMERICA ... Deficient moisture persists in Brazil's southern soybean areas. Variable showers fell in Brazil's northern soybean areas and Argentina's summer crop areas.

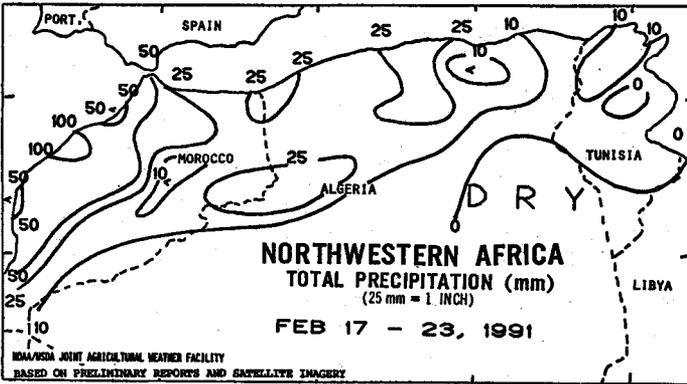
AUSTRALIA ... Soaking tropical showers continue across the north.



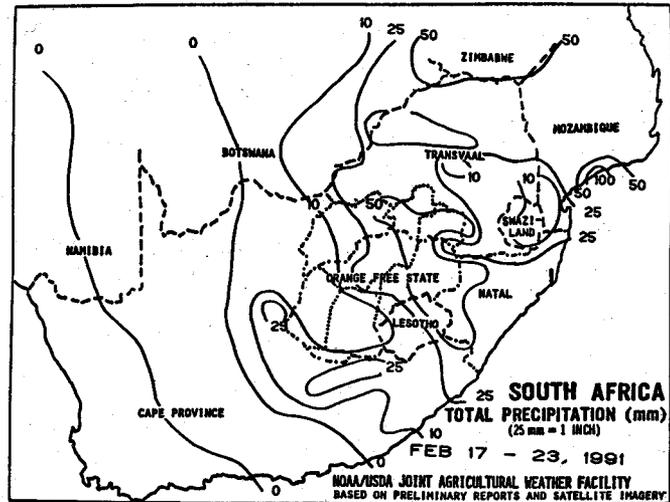
EUROPE ... Showers covered Mediterranean crop areas, benefiting winter grains in the vegetative stage. Precipitation amounts in Spain, Italy, and Greece generally ranged from 10 to 40mm, with local amounts in excess of 50mm. Seasonal temperatures and little precipitation (amounts less than 5mm) covered winter grain areas that stretched from eastern England, through northern France and Germany, into southeastern Europe.



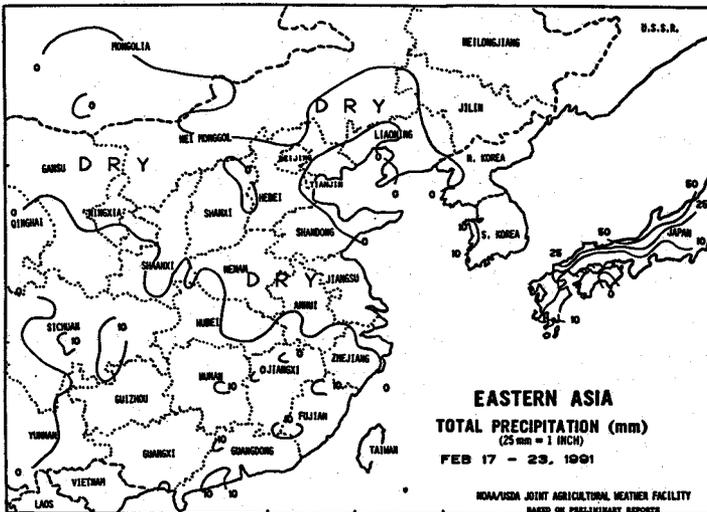
WESTERN USSR ... An early-week storm produced widespread light to moderate snow over central and northern winter grain areas. Greatest amounts of snow (10-25mm liquid equivalent) covered the northern Ukraine, the Central Region, and parts of the lower Volga. Further south, mostly dry weather covered the southern Ukraine, while light rain (10-25mm) moistened topsoils in the western North Caucasus. Weekly average temperatures ranged from 2 to 4 degrees Celsius (C) above freezing in the extreme southern Ukraine and the western North Caucasus to 6 degrees below freezing in the Central Region. Winter grain areas north of a line, which stretched southeastward from the northern Ukraine through the northern North Caucasus, were protected by a moderate to deep snow cover. Most winter grain areas in the southern Ukraine and the western North Caucasus lacked a protective snow cover.



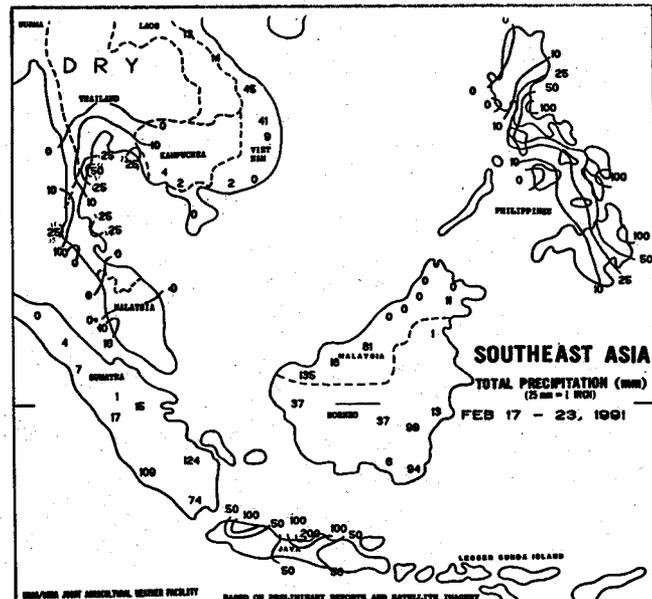
NORTHWESTERN AFRICA ... Soaking rain (45-65mm, with local amounts in excess of 100mm) benefited Moroccan winter grains. The rain which covered southern Morocco was the first substantial moisture since late December, helping to ease stress on crops. Additional rain will be needed in upcoming weeks as winter grains enter the reproductive phase of development. Further east, unseasonably cool, wet weather covered winter grains in Algeria and Tunisia. Precipitation amounts, ranging from 10 to 39mm, continued to provide ample moisture for winter grains in the vegetative stage. Unseasonably cool weather (weekly average temperatures 1-4 degrees C below normal) slowed crop growth.



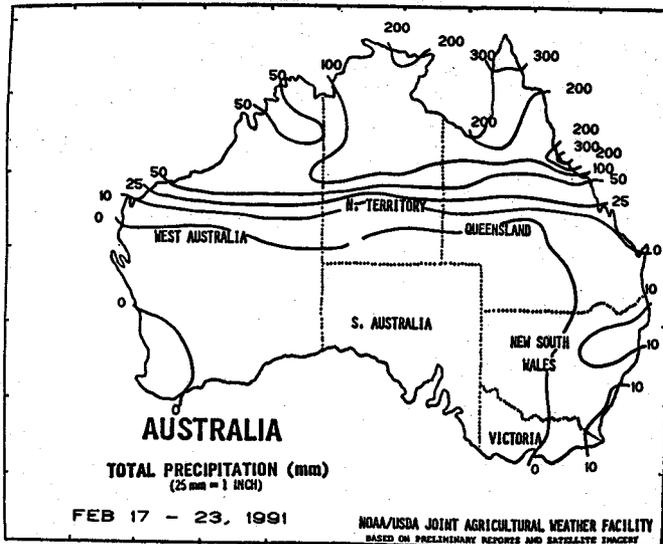
SOUTH AFRICA ... Moderate to heavy showers (22-66mm) covered much of the Maize Triangle, maintaining generally favorable conditions for late-planted immature corn. Lighter rain (15mm or less), however, dominated eastern and southernmost areas. Temperatures averaged 1-2 degrees C below normal, slowing growth rates of immature crops. Elsewhere, light to moderate rain (10-66mm) covered crop regions of the eastern Cape Province and Natal.



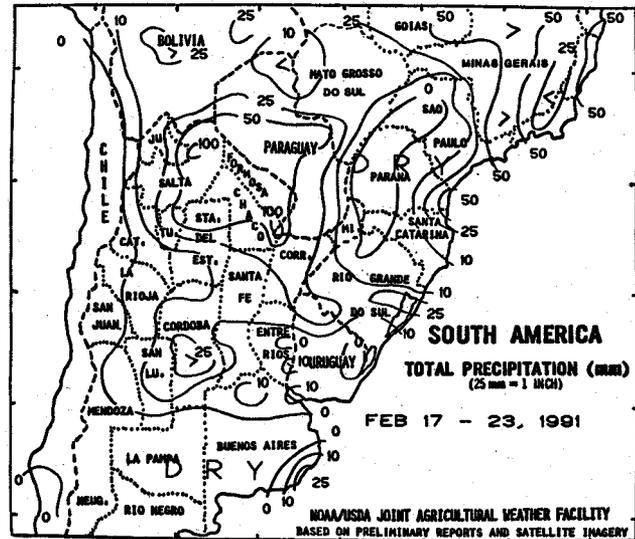
EASTERN ASIA ... Late-week, cold weather moved into China's winter wheat areas, reversing the trend of unseasonably mild weather that allowed some southern crops to break dormancy earlier than usual. Lowest minimum temperatures ranged from -1 to -8 degrees C in wheat regions of Henan, Anhui, and Jiangsu, possibly burning back new growth. Colder temperatures (-10 to -15 degrees C) in North China Plain wheat areas from Shandong northward likely had little impact on dormant crops, although the area was void of snow cover. In the south, rainfall was light over most spring crop regions, with amounts of 10mm or more limited to local areas. Moisture conditions are favorable in most southern crop areas for planting, due to began in early March.



SOUTHEAST ASIA ... Moderate to heavy showers (25-50mm or more) continued across the major rice areas of southern Indonesia, maintaining adequate irrigation reserves. Local excessive rains (100-270mm), however, caused some flooding. Drier-than-normal conditions continued over most Malaysian crop areas, but moderate to heavy showers (25-50mm or more) fell locally in eastern Malaysia's southern crop areas. Further north, moderate to heavy showers (10-53mm) from peninsular Thailand to Bangkok improved moisture reserves for plantation crops and irrigated secondary rice. In the Philippines, much needed moderate to heavy rain (25-135mm) fell from southern Luzon to northeastern Mindanao, but crop regions elsewhere remained mostly dry. Although fall grain harvests are usually underway in most areas, a return to a more seasonable rain is critical for upcoming main season planting throughout the islands.



AUSTRALIA ... Light, scattered showers fell over eastern summer crop areas, comprising southeastern Queensland and northern New South Wales. Summer crops in late development stages benefited from the relatively dry weather. Locally heavy tropical rain continued along Queensland's east coast sugarcane areas, with weekly rainfall ranging from 47 to 351mm producing local flooding. Widespread heavy showers (100-250mm) soaked much of northern Queensland and the northern half of the Northern Territory. Weekly rainfall totaled 25-97mm over the northern one-third of West Australia. Dry weather prevailed throughout the winter wheat growing areas, but planting activities will not begin until May.



SOUTH AMERICA ... In south-central Brazil, much needed rain (10-34mm) reached southern Rio Grande do Sul late in the week, providing some moisture relief in extreme southern soybean areas. However, significant rain failed to develop over the severely stressed soybeans in northwestern Rio Grande do Sul. Dry weather prevailed in western Santa Catarina and much of Parana as well, reducing moisture supplies for flowering to pod filling soybeans. Variable shower activity prevailed over Brazil's northern soybean areas, where growing conditions have been favorable during much of the season. In Argentina, where growing conditions have also been generally favorable for much of the season, beneficial showers (10-29mm) helped corn and soybeans in southern Cordoba and southwestern Santa Fe. Mostly light showers (2-19mm) fell over northern Buenos Aires. Locally heavy showers (45-101mm) fell over northern cotton areas as the late-week storm system skirted the persistent dry areas of southern Brazil.

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

Annual subscriptions: domestic second class \$35, first class \$50, foreign \$50 (in U.S. funds by international money order or check drawn on U.S. bank) payable to U.S. Department of Commerce, NOAA. POSTMASTER: Send address changes to Weekly Weather and Crop Bulletin, NOAA/USDA, Joint Agricultural Weather Facility, USDA South Building, Room 5844, Washington, D.C. 20250. Order subscriptions from the office and address listed above. Second class postage paid at Washington, D.C. and additional mailing offices.

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(Continued from front cover)

central Tennessee, resulting in widespread flooding. The Tombigbee River in **west-central Alabama** crested at more than 20 feet above flood stage in **Gainesville**. Small hail fell in the **Southwest** on Sunday; hail and thunderstorm winds raked the **Gulf coast** on Monday. In addition, three tornadoes touched down in **eastern Texas**. A strong Pacific storm crashed ashore Tuesday, pounding the **Pacific Northwest** with heavy rain and high winds. Snow and wind roared into the **Cascades** and **northern Rockies** at midweek. Mild air overspread the Nation ahead of the storm, producing over 40 record highs from coast to coast from Wednesday onward. The storm deposited up to a foot of snow in **northern Minnesota**, and pulled colder air into the **Northeast**. **California** remained in a "split flow" weather pattern, with storms bypassing the State to the north and the south. At week's end, a fast-moving system dropped a powdery, 6-inch snow from **North Dakota** to **Wisconsin**.

NOAA/USDA Joint Agricultural
Weather Facility
Room 5844 USDA South Building
Washington, D.C. 20250

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NOAA PERMIT NO.
ISSN 0043 1974

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**WEEKLY NEWS BULLETIN
SECOND CLASS**