

WEEKLY WEATHER AND CROP BULLETIN

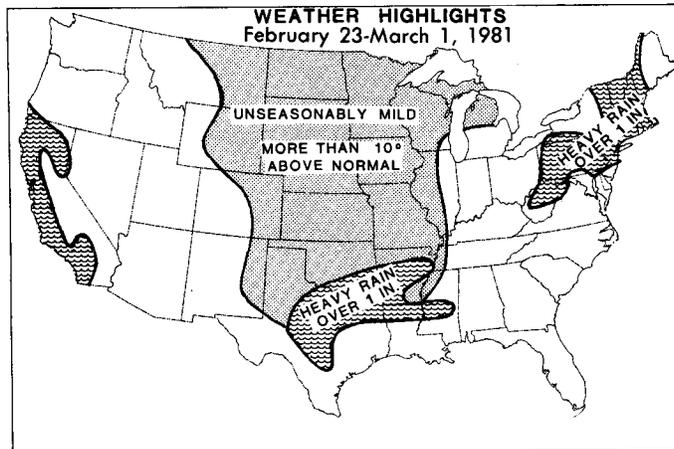
U.S. DEPARTMENT
OF COMMERCE
National Oceanic and
Atmospheric Administration,
National Weather Service

U.S. DEPARTMENT
OF AGRICULTURE
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National Weather Summary

Feb. 23 - Mar. 1, 1981

HIGHLIGHTS: Nearly all of the Nation recorded some precipitation during the week. Storms moving into the Pacific Northwest early in the week and later into central California brought some heavy rainfall to California but light to moderate amounts to most of the West. Heavy snows occurred in the mountains. In the East, almost daily rains in New England caused flooding in many areas. Showers and thunderstorms dumped large amounts of rain from central Texas through Arkansas. Unusually warm weather prevailed in central and northeastern United States but temperatures along west and southeastern coasts were near normal.

DROUGHT UPDATE: Well over half of the Nation is experiencing some degree of drought. In some areas, the drought is manifested by shortages of public water supplies, low reservoir levels, and stream flows. In other areas the effect is on agriculture. Winter wheat in the central Plains is short of soil moisture and the ground surface is subject to wind erosion. Elsewhere, the drought is a threat to spring crops. Recent rain has eliminated some drought areas in the Northeast and greatly relieved others in the East. The drought west of the Appalachians has become more severe in most regions (see maps on page 4).

MONDAY... A low center and associated cold front scattered rain across the Ohio Valley, Great Lakes region, and mid-Atlantic coast to southern New England. The combined effects of rain, melting snow, and ice jams caused flooding in some areas. Unseasonably mild temperatures continued over most of the Nation, with the warmest areas in the Great Plains.

TUESDAY... Rain continued over the North Atlantic coast and lower Great Lakes, with some heavy amounts in eastern New England. Showers were scattered from the northern Rockies through most

of California. Some heavy snow accumulated in the Cascades and Sierras.

WEDNESDAY... Rain -- with snow in the mountains -- continued in New England while strong winds buffeted the coast. Showers were scattered throughout the West to a line from Arizona to the northern Rockies. Isolated thunderstorms were reported in California with small hail in central areas. Light rain and drizzle began in the western gulf coast region. Temperatures remained unusually mild over the South, and in the central Plains.

THURSDAY... Storm systems moving through the western States scattered showers along the coast with snow in the Cascades and Sierras, intermountain region, and the central and northern Rockies. Drizzle continued in southeastern Texas and an area of light rain and showers developed in Nebraska and spread northeastward. Stormy weather in the Northeast eased somewhat, but light rain along the coast and snow in the mountains continued.

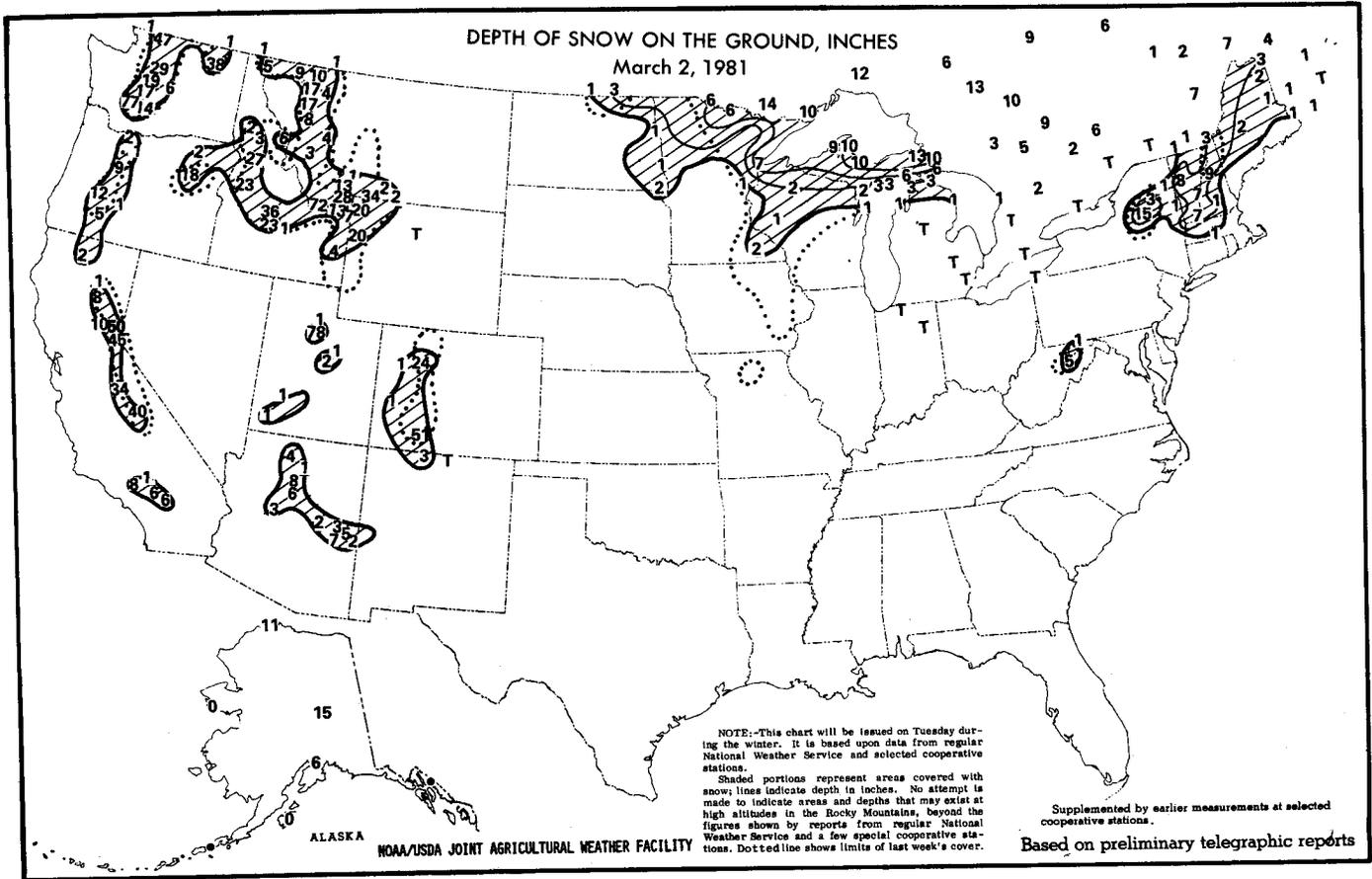
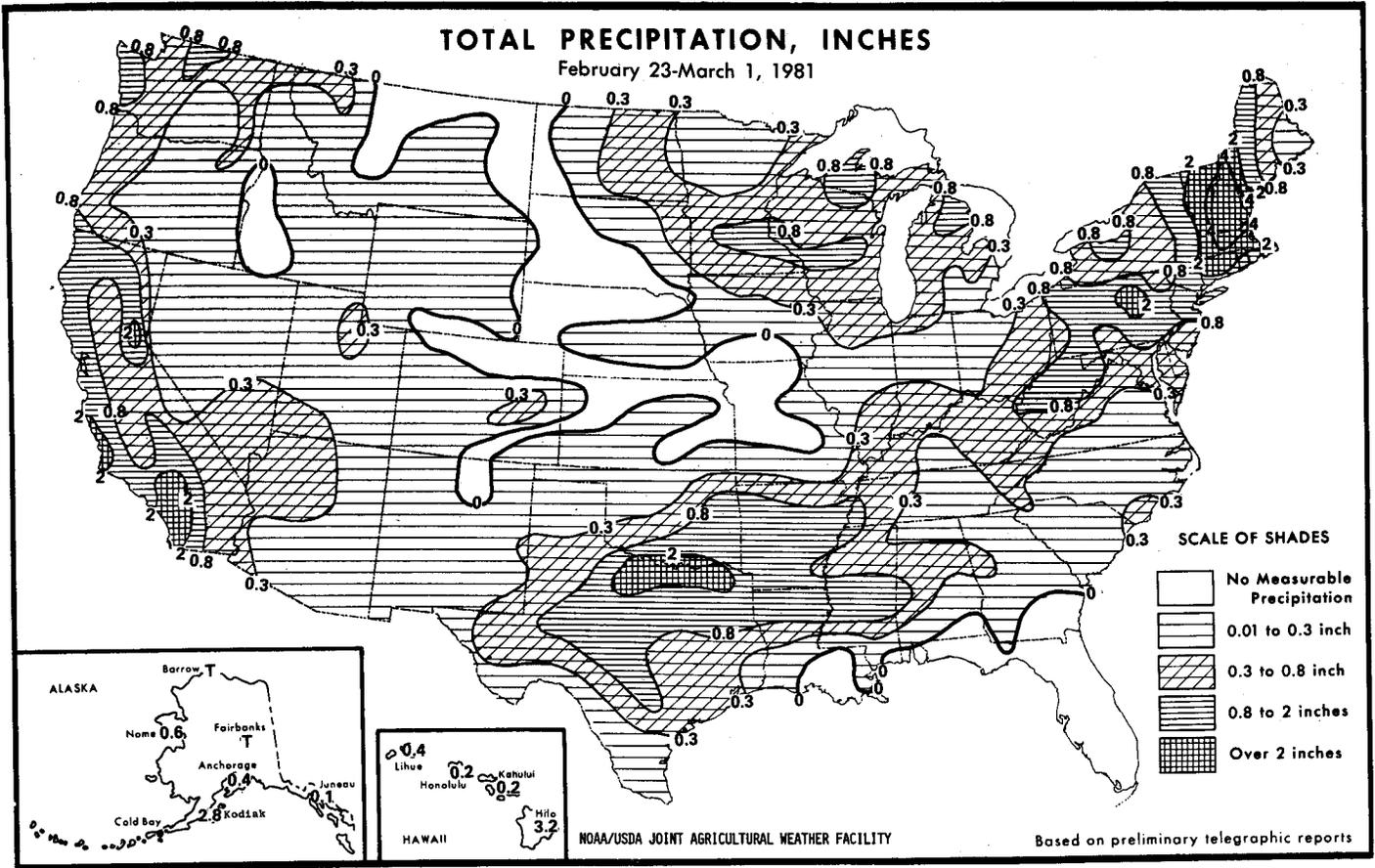
FRIDAY... A storm system moved from the central Plains through the upper Mississippi Valley, spreading rain showers or freezing rains across the northern Plains and showers and thundershowers from the southern Plains through the northern Mississippi Valley. The winter grain area in the central Plains reported only very light showers. The storms moved to the central Appalachians during the day. Record-setting warm weather reached into Iowa and prevailed throughout the South.

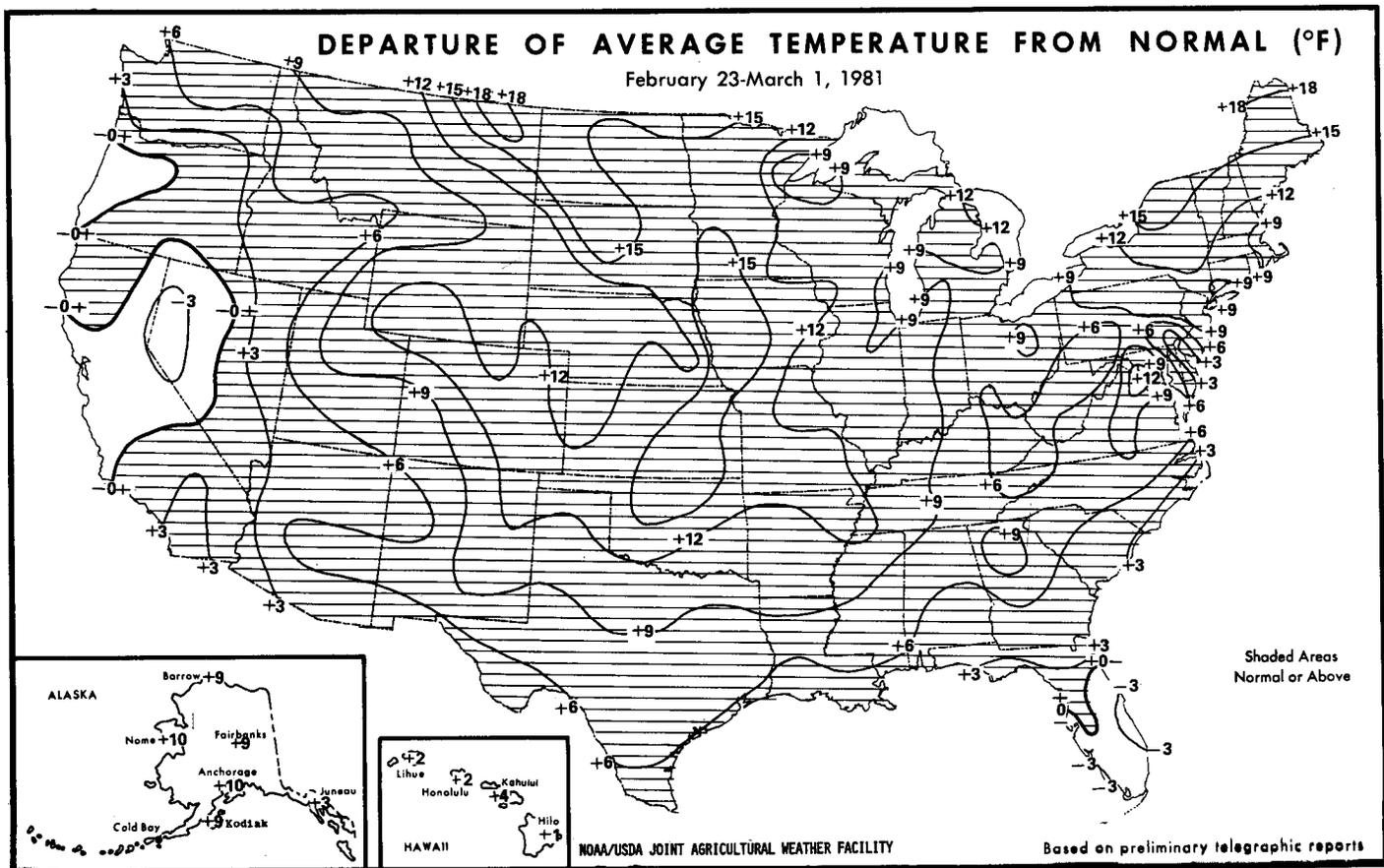
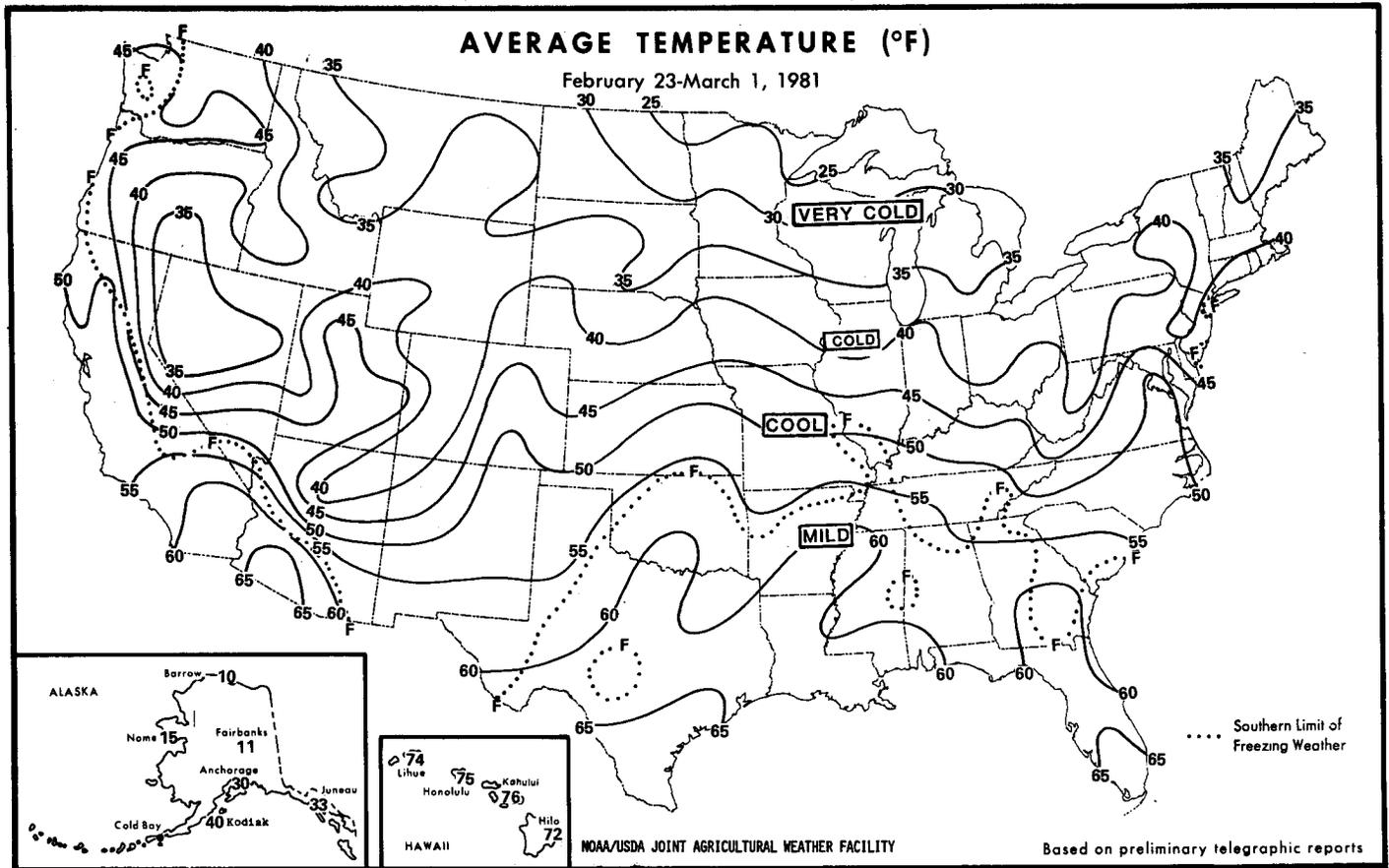
SATURDAY... A cold front spread rain from Texas to the mid-Atlantic coast and southern New England. Some heavy amounts fell from Oklahoma to Arkansas. Mild temperatures continued ahead of the front while somewhat cooler air prevailed behind it.

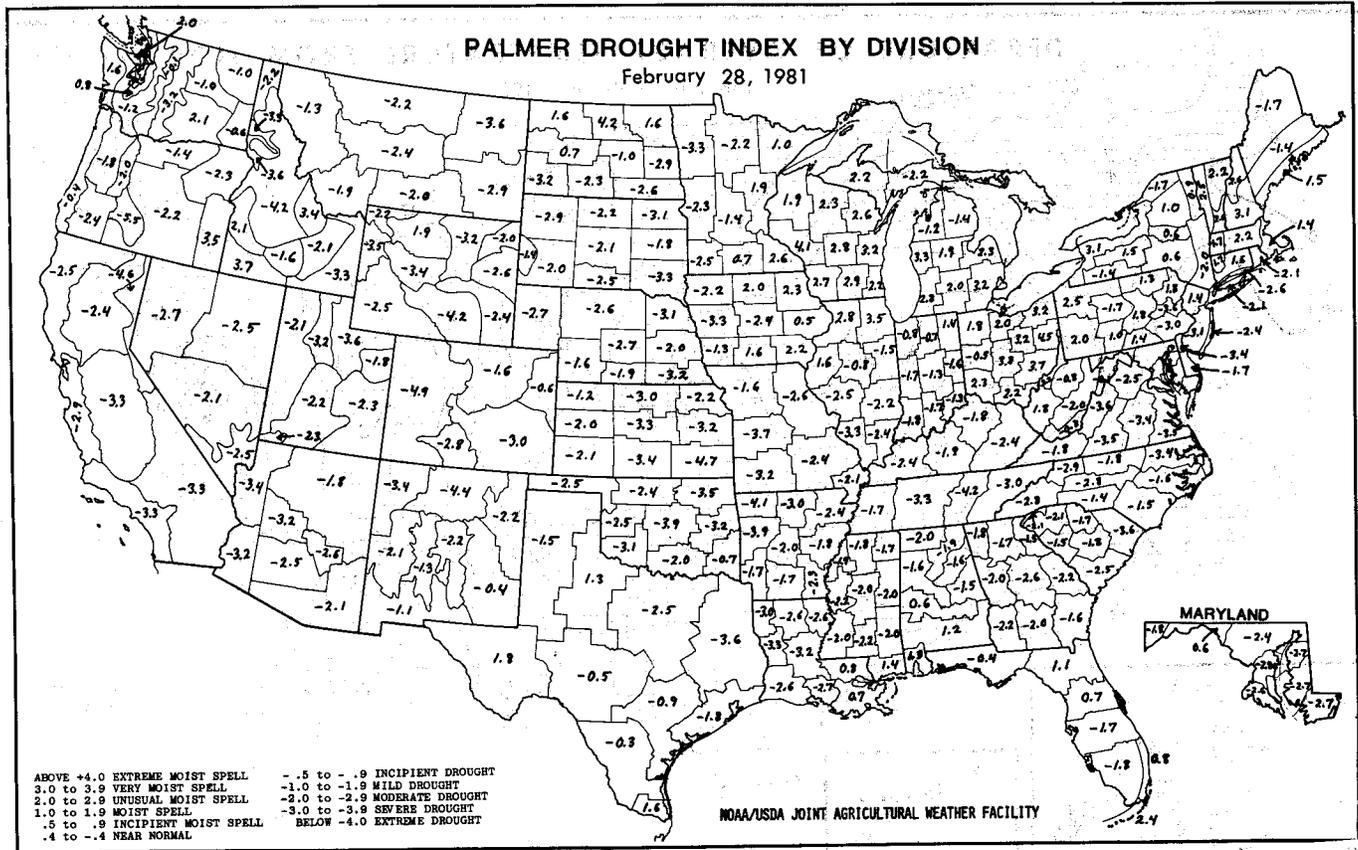
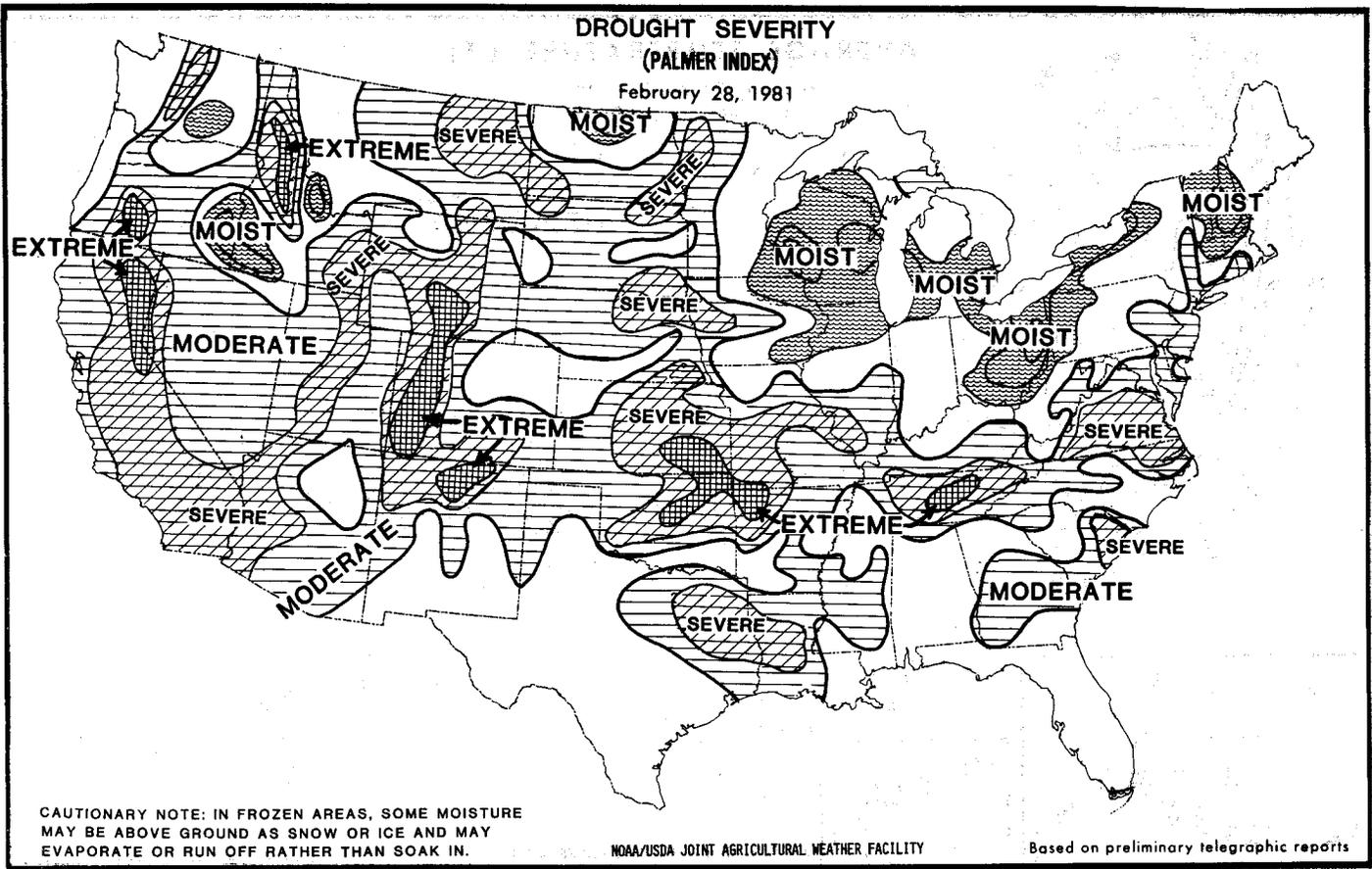
SUNDAY... It was wet and thundery from California to the Carolinas. Showers and thundershowers were scattered from southern California to the southern Plains and a cold front, extending through the southern States, caused thunderstorms throughout that region.

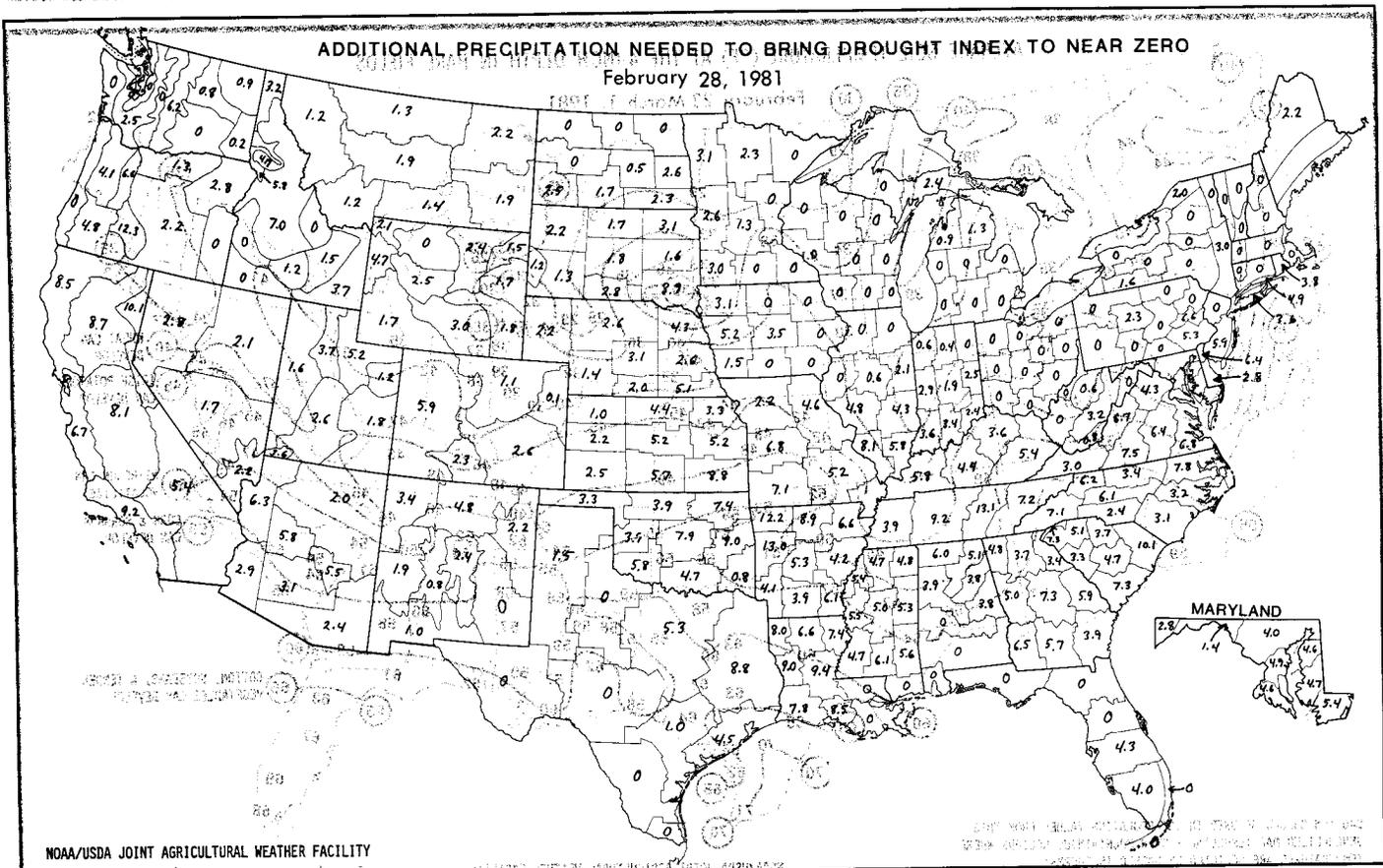
In This Issue

	<u>Page</u>
National Weather Summary	1
Precipitation and Snow Cover	2
Average Temperature & Departure	3
Drought Severity (Palmer Index)	4
Drought (Inches) & Explanation (continued page 6)	5
Soil Temperature	6
Average Weather Outlook-30 & 90 days	7
Weather Data for Selected Cities	8
Heating Degree Days Data	11
National Agricultural Summary	12
State Summaries of Weather and Agriculture	13
International Weather & Crop Summary; Eurasia 30-Day Outlook	17
Mexico Map & Corrected Mexico Map	20









A new chart, "Additional Precipitation Needed to Bring the Drought Index to Near Zero" is being issued to help depict and quantify the drought which covers over half of the country. This is a drought severity map -- with needed precipitation values given in inches -- which the user can apply in a practical way if the limitations of the data are taken into account. Precipitation values are theoretical, instantaneous, additional amounts required to end the meteorological drought in each climatological division.

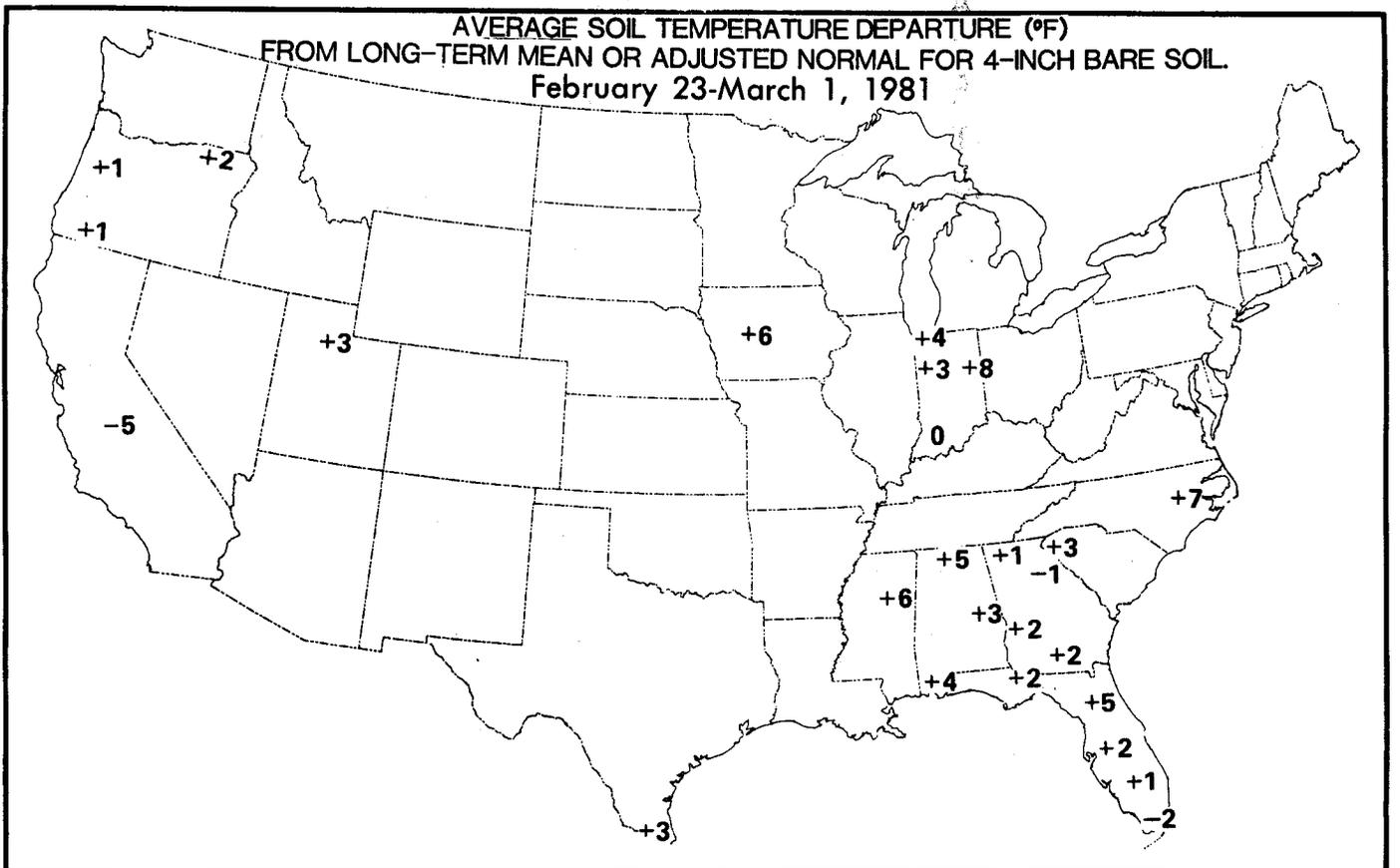
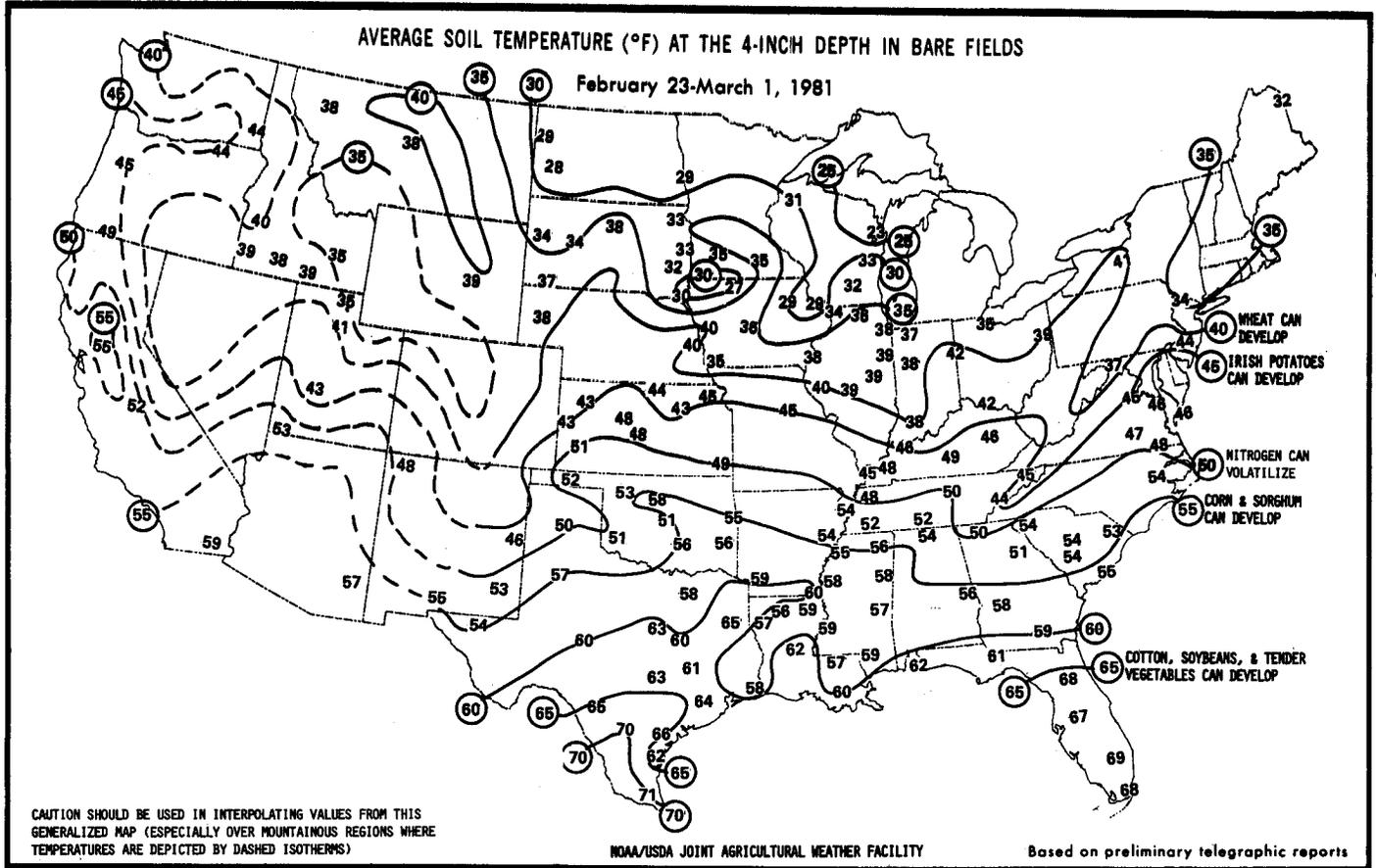
Variations in the data can be large between adjacent divisions or even within a division, as occurs naturally. In the case of very large values, caution should be used in assuming that a single, torrential rain would end the drought. Rain can fall so fast that most of it runs off instead of soaking into the subsoil. To be effective, it must fall slowly enough to allow normal infiltration and storage.

In using this chart to make projections, one must remember that the values are instantaneous, valid only at the time shown on the chart. These values will increase if rainfall is below normal during the oncoming period of interest: week, month, or season. For example, if 10 inches is needed now to end the drought in a certain division, and only the normal amount of rain falls during the coming period, the index would remain the same or improve only slightly. It would take 10 inches, plus near-normal rainfall to end the drought.

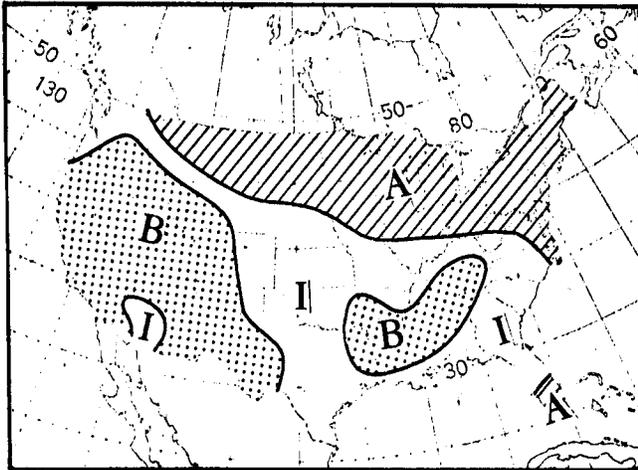
Large values needed to end the meteorological drought do not necessarily imply low crop prospects. The key to crop production often lies in the timeliness of the rain; occasional light amounts may be ample for germination and seedling growth, while moderate amounts may not be needed until a couple of months later during the flowering and filling stages.

These values depict meteorological drought, including all of the effects of a prolonged dry spell on the environment. Therefore, soil moisture may be entirely adequate for agriculture, but a drought will be depicted if rain has not produced enough additional water to feed rivers, lakes, and reservoirs.

Formulas used to calculate the drought severity values in these charts are imperfect. They are empirical for the most part, covering a complex situation and requiring numerous assumptions and adjustments. Errors can be made anywhere from the basic input data (divisional averages of precipitation, temperature, and daylength) through the calculation, to the printing of the data. Fortunately, they appear to be compensative and small, but the end product generally depicts a practical, broadview of the Nation's drought situation. Discrepancies noted between calculated and observed divisional conditions are usually small.



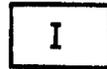
OUTLOOK FOR SPRING AVERAGE TEMPERATURES
MARCH THROUGH MAY 1981



ABOVE NORMAL, 60% CHANCE OF OCCURRENCE



BELOW NORMAL, 60% CHANCE OF OCCURRENCE

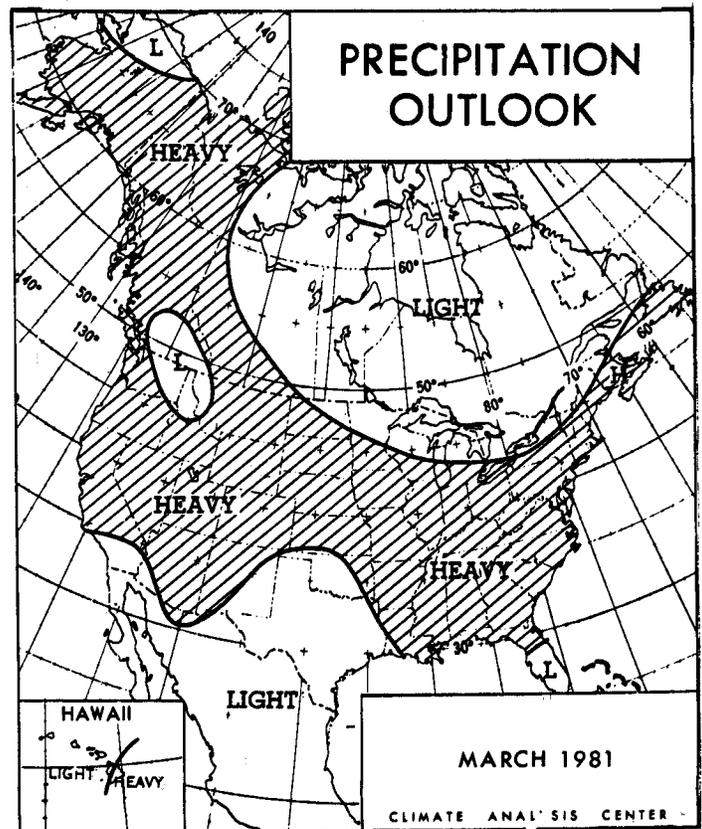
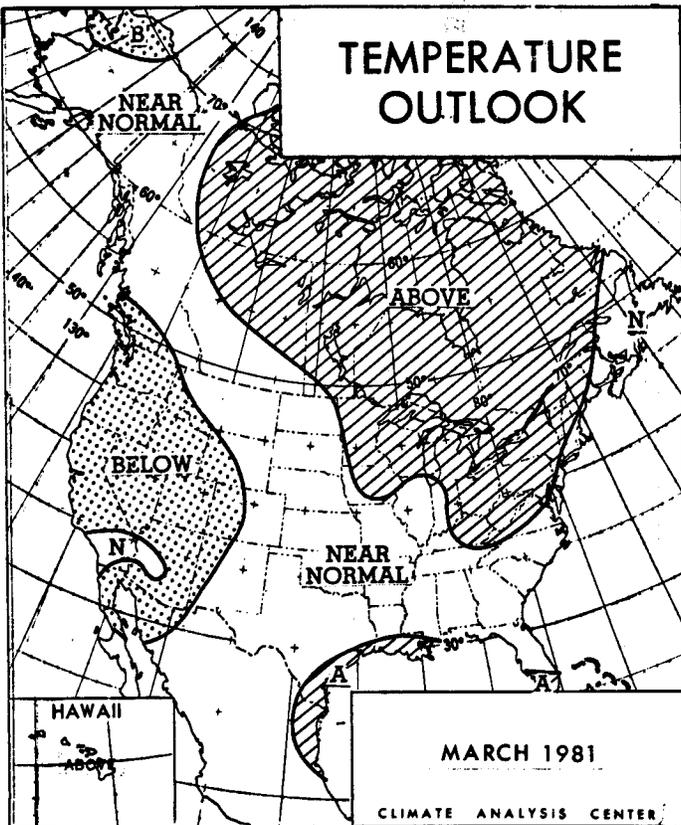


INDETERMINATE, 50% CHANCE OF ABOVE NORMAL
50% CHANCE OF BELOW NORMAL

The two categories Above and Below are to be compared to the long-term average or "normal" temperatures of the year 1941-70. Each category has a natural climatic frequency or probability of 50%. Each carries a 60% probability of occurring where forecast (shaded area), based on the verification scores of twenty-two years of experimental seasonal predictions.

NOAA, National Weather Service, Climate Analysis Center

Average Monthly Weather Outlook



Weather Data for the Week Ending Mar. 1, 1981

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	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	TEMPERATURE °F		PRECIPITATION	
																.01 INCH OR MORE	.50 INCH OR MORE		
AL BIRMINGHAM	72	41	80	32	57	8	.4	-1.0	.4	7.2	46	82	22	0	1	1	0	0	
MOBILE	76	48	82	41	62	6	T	-1.4	T	11.3	71	86	37	0	0	0	1	0	
MONTGOMERY	71	41	77	34	56	4	T	-1.2	T	9.6	71	89	40	0	0	0	1	0	
AK ANCHORAGE	34	25	41	19	30	10	.4	.2	1	2.5	89	83	71	0	7	5	0	0	
BARROW	-6	-14	3	-23	-10	9	T	0	T	4	50	84	82	0	7	1	0	0	
FAIRBANKS	23	0	42	13	11	9	T	-1	T	1.3	93	55	44	0	7	0	0	0	
JUNEAU	40	27	42	20	33	3	.1	.7	.1	9	96	67	0	7	2	0	0	0	
KODIAK	47	32	44	23	40	9	2.8	1.7	1.4	23.4	156	78	76	0	4	5	2	2	
NOME	30	1	36	-26	15	10	.6	.4	.2	3.0	125	77	66	0	7	6	0	0	
AZ FLAGSTAFF	50	24	61	17	37	5	.6	.2	.5	3.9	67	--	33	0	7	2	1	1	
PHOENIX	77	52	83	46	65	8	.1	-1	1	2.0	105	54	26	0	0	0	2	0	
TUCSON	73	47	80	41	60	5	.1	-1	1	2.3	100	51	24	0	0	0	1	0	
WINSLOW	60	29	70	24	45	3	.1	0	T	1.1	85	--	--	0	6	3	0	0	
YUMA	77	50	86	46	63	2	.5	.4	.5	.9	69	44	14	0	0	1	0	0	
AR FORT SMITH	69	43	77	30	56	11	1.4	.5	1.4	5.6	64	84	45	0	1	2	1	1	
LITTLE ROCK	69	48	80	41	58	11	1.3	.1	1.3	8.4	66	76	43	0	0	1	1	1	
CA BAKERSFIELD	65	46	81	38	55	1	.5	.3	.3	2.1	75	--	49	0	0	4	0	0	
EUREKA	57	43	63	40	50	2	1.5	.3	.7	17.5	90	87	64	0	0	4	2	0	
FRESNO	60	41	79	32	51	-1	.7	.3	.5	4.8	92	88	53	0	0	3	0	0	
LOS ANGELES	63	50	69	44	57	1	1.5	.9	.7	5.3	76	69	55	0	0	4	2	0	
RED BLUFF	61	42	72	40	52	1	.6	-1	.5	10.0	85	--	48	0	0	3	0	0	
SAN DIEGO	65	54	71	47	60	2	3.1	2.7	1.6	5.8	88	72	70	0	0	3	3	3	
SAN FRANCISCO	57	45	63	42	51	-1	1.4	.7	.7	10.0	86	83	65	0	0	6	1	1	
STOCKTON	61	39	70	35	50	-1	.5	0	.2	6.3	80	--	47	0	0	4	0	0	
CO DENVER	61	30	68	27	46	12	T	-2	T	.8	53	54	18	0	6	0	0	0	
GRAND JUNCTION	59	31	68	24	45	8	.1	-1	.1	.5	33	57	27	0	5	1	0	0	
PUEBLO	68	31	78	24	50	13	.3	.2	.3	.6	46	46	21	0	5	1	0	0	
CT BRIDGEPORT	45	34	52	26	39	7	1.6	.8	.8	6.1	67	80	72	0	1	5	2	2	
HARTFORD	45	35	50	25	40	11	3.0	2.2	1.7	8.4	79	77	59	0	2	6	2	2	
DC WASHINGTON	59	41	68	38	50	11	.6	-1	.6	3.9	47	74	41	0	0	1	1	1	
FL APALACHICOLA	72	47	76	40	59	2	0	-1	0	5.6	53	92	48	0	0	0	0	0	
DAYTONA BEACH	74	46	80	40	60	0	0	0	0	0	101	90	37	0	0	0	0	0	
FORT MYERS	78	49	83	41	64	-2	0	-1	0	2.9	56	89	36	0	0	0	0	0	
JACKSONVILLE	77	44	82	35	60	2	0	-1	0	5.8	64	92	33	0	0	0	0	0	
KEY WEST	75	63	78	60	69	-4	0	-1	0	3.1	58	74	54	0	0	0	0	0	
MIAMI	78	56	80	50	67	-2	0	-1	0	5.3	79	38	0	0	0	0	0	0	
ORLANDO	78	46	83	40	62	-1	0	-1	0	5.1	69	80	26	0	0	0	0	0	
TALLAHASSEE	77	40	82	32	59	2	T	-1.3	T	4.1	85	95	27	0	1	0	0	0	
TAMPA	75	49	80	43	62	T	0	-1	0	4.2	43	90	34	0	0	0	0	0	
WEST PALM BEACH	78	49	81	44	63	-4	0	-1	0	6.0	80	86	37	0	0	0	0	0	
GA ATLANTA	70	44	78	34	57	10	.2	-1	0	8.9	66	64	29	0	1	2	0	0	
AUGUSTA	72	47	78	30	56	6	.2	-1	0	7.0	64	72	28	0	0	1	0	0	
MACON	75	44	81	33	59	7	.1	-1	1	10.6	84	75	30	0	0	1	0	0	
SAVANNAH	73	44	80	35	59	5	T	-1	T	5.2	57	59	28	0	0	0	0	0	
HI HILO	--	--	--	--	72	1	3.2	-1	-1	--	--	--	--	0	0	0	0	0	
HONOLULU	81	69	85	67	74	2	.2	-1	.4	5.8	53	78	53	0	0	1	0	0	
KAHULUI	--	--	--	--	76	4	.2	-1	.5	--	--	--	--	0	0	0	0	0	
LIHUE	--	--	--	--	74	2	.4	-1	.7	7.1	41	--	--	0	0	0	0	0	
ID BOISE	55	31	60	26	43	5	T	-1	T	3.7	88	71	33	0	6	0	0	0	
LEWISTON	58	33	62	30	45	5	T	-1	T	3.0	86	82	37	0	4	1	0	0	
POCATELLO	51	25	58	23	38	7	.1	-1	1	1.8	62	84	39	0	7	1	0	0	
IL CAIRO	63	42	73	37	53	11	.9	-1	.9	6.2	53	--	--	0	0	1	1	0	
CHICAGO	45	31	60	26	38	9	.4	0	.3	5.8	116	88	70	0	5	2	0	0	
MOLINE	47	30	61	27	38	10	.3	-1	.2	5.4	92	78	59	0	4	3	0	0	
PEORIA	48	31	64	28	40	9	.2	-1	.2	5.0	79	85	64	0	5	1	0	0	
ROCKFORD	43	31	53	25	37	10	.4	0	.3	5.3	108	81	62	0	5	4	0	0	
SPRINGFIELD	52	34	68	30	43	10	.2	-1	.2	4.3	82	86	59	0	3	2	0	0	
IN EVANSVILLE	59	38	74	31	49	10	.5	-1	.3	4.3	41	78	45	0	1	3	0	0	
FORT WAYNE	43	31	52	24	37	7	.1	-1	1	6.3	91	83	66	0	4	2	0	0	
INDIANAPOLIS	51	33	62	29	42	8	.3	-1	.2	4.2	53	82	53	0	3	2	0	0	
SOUTH BEND	48	34	55	28	41	12	.5	0	.3	6.6	92	82	61	0	3	3	0	0	
IA BURLINGTON	49	31	64	28	40	10	.2	-1	.4	1	4.7	98	77	--	0	5	2	0	0
DES MOINES	54	33	68	27	43	16	T	-1	T	2.5	74	74	39	0	4	0	0	0	
DUBUQUE	42	30	51	27	36	11	.3	-1	.2	4.4	90	85	65	0	5	4	0	0	
KS CONCORDIA	63	32	77	23	48	14	T	-1	T	1.1	52	79	43	0	5	0	0	0	
DODGE CITY	65	34	77	30	49	12	.1	-1	1	1.1	79	57	24	0	3	1	0	0	
GOODLAND	59	27	73	20	43	10	T	-1	T	1.0	77	81	31	0	6	1	0	0	
TOPEKA	63	38	77	25	51	15	0	-1	0	4.3	119	76	41	0	2	0	0	0	
WICHITA	67	41	77	27	54	15	T	-1	T	2.7	87	65	26	0	2	0	0	0	
KY LEXINGTON	54	34	67	29	44	7	.6	-1	.3	6.6	59	79	47	0	3	2	1	1	
LOUISVILLE	58	36	69	29	47	9	.6	-1	.6	4.9	46	76	42	0	2	2	0	0	
LA BATON ROUGE	76	49	80	42	63	7	T	-1.2	T	10.8	76	90	36	0	0	0	0	0	

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Mar. 1, 1981

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	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERA- TURE °F		PRECIPI- TATION	
														90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
LAKE CHARLES	73	50	77	43	62	5	T	-1.1	T	7.5	52	93	49	0	0	1	0
NEW ORLEANS	77	49	81	41	63	6	T	-1.2	T	10.8	73	86	39	0	0	1	0
SHREVEPORT	74	48	80	38	61	8	1.3	.4	1.1	7.1	59	85	49	0	0	2	1
ME CARIBOU	40	28	52	22	34	18	.6	.1	.4	7.3	104	90	58	0	7	3	0
PORTLAND	42	31	48	24	37	11	4.2	3.4	2.1	9.3	84	87	68	0	4	3	2
MD BALTIMORE	56	35	65	32	45	8	.7	.1	.7	4.2	46	66	42	0	1	1	1
MA BOSTON	44	35	49	31	39	7	3.9	3.0	2.2	8.7	76	83	65	0	1	5	2
CHATHAM	45	37	49	31	41	--	3.0	--	1.3	13.1	--	89	74	0	1	6	3
MI ALPENA	37	26	43	13	32	12	.9	.5	.6	4.7	92	--	--	0	6	5	1
DETROIT	42	29	47	23	36	7	.2	.3	.1	5.9	100	31	63	0	5	4	0
FLINT	39	29	46	20	34	8	.4	.1	.2	5.5	104	87	71	0	5	3	0
GRAND RAPIDS	42	30	49	27	36	9	.6	.2	.5	6.1	109	87	66	0	5	3	1
HOUGHTON LAKE	35	28	43	20	32	11	1.0	.6	.7	5.1	106	87	67	0	6	4	1
LANSING	41	30	48	21	35	9	.2	.2	.1	4.9	89	89	72	0	4	4	0
MARQUETTE	32	23	38	17	27	11	.7	.2	.3	6.4	114	86	72	0	7	5	0
MUSKOGON	41	29	46	23	35	8	.4	0	.3	7.0	106	85	65	0	5	2	0
SAULT STE. MARIE	33	23	40	9	28	10	1.0	.7	.3	7.4	130	83	69	0	7	5	0
MN DULUTH	29	19	32	15	24	9	.4	.2	.4	2.4	67	90	68	0	7	2	0
INT'L FALLS	32	21	37	13	26	15	.1	.1	.1	1.1	42	81	51	0	7	1	0
MINNEAPOLIS	39	26	47	22	33	13	1.1	.8	1.0	2.6	108	77	50	0	7	2	1
ROCHESTER	36	25	39	20	31	11	.7	.5	.6	2.6	144	92	72	0	7	2	1
SAINT CLOUD	39	23	45	19	37	14	.4	.2	.4	1.7	68	94	--	0	7	2	0
MS JACKSON	76	43	83	34	59	8	1.2	.1	1.2	6.3	43	86	31	0	0	1	1
MERIDIAN	77	41	84	33	59	7	1.0	.3	.9	8.2	53	86	30	0	0	1	1
MO COLUMBIA	58	37	74	27	48	12	T	.5	T	3.1	58	68	30	0	1	1	0
KANSAS CITY	61	36	76	25	49	14	T	.4	T	6.3	143	73	39	0	3	0	0
SAINT LOUIS	61	38	79	33	49	12	.2	.4	.1	3.6	59	85	48	0	0	2	0
SPRINGFIELD	65	40	74	29	52	13	.2	.4	.1	4.7	71	78	47	0	2	2	0
MT BILLINGS	49	27	61	22	38	9	T	.2	T	.6	35	66	34	0	6	1	0
GLASGOW	45	27	55	21	36	17	T	.1	T	.3	23	85	50	0	7	1	0
GREAT FALLS	47	24	61	16	35	7	T	.2	T	1.1	46	78	44	0	6	0	0
HAVRE	44	23	55	15	33	13	T	.1	T	.8	62	85	44	0	7	0	0
HELENA	47	24	55	18	36	8	T	.1	T	.6	46	87	39	0	7	0	0
KALISPELL	45	26	56	23	35	8	.3	0	.1	6.1	139	92	53	0	7	2	0
MILES CITY	48	26	58	19	37	12	T	.1	T	.6	46	82	39	0	6	0	0
MISSOULA	50	26	59	19	38	8	.1	.1	.1	2.3	72	92	45	0	6	2	0
NE GRAND ISLAND	58	27	73	20	42	12	T	.2	T	.6	38	83	40	0	6	1	0
LINCOLN	57	29	72	18	42	11	T	.3	T	1.2	60	78	43	0	4	1	0
NORFOLK	52	27	70	17	39	13	.1	.2	.1	.7	37	84	45	0	5	1	0
NORTH PLATTE	56	23	68	18	40	10	.1	.1	.1	.3	21	71	37	0	7	1	0
OMAHA	55	31	68	21	43	14	T	.3	T	.7	30	79	49	0	4	0	0
VALENTINE	50	23	64	16	37	10	T	.1	T	.7	54	82	41	0	6	0	0
NV ELY	49	24	60	14	36	7	.1	.1	.1	2.1	124	67	35	0	7	2	0
LAS VEGAS	65	41	76	35	53	2	.6	.5	.6	.9	69	51	27	0	0	1	1
RENO	51	23	63	18	37	-2	T	.2	T	1.6	48	80	42	0	7	1	0
WINNEMUCCA	52	20	62	15	35	-1	T	.2	T	1.2	46	82	31	0	7	0	0
NH CONCORD	40	29	46	17	35	9	4.2	3.5	2.0	9.0	103	85	66	0	4	4	3
NJ ATLANTIC CITY	50	32	55	21	41	5	.5	.4	.4	5.1	46	80	46	0	4	2	0
TRENTON	50	39	58	33	44	9	1.0	.2	.8	4.4	50	--	--	0	0	3	1
NM ALBUQUERQUE	65	31	70	27	48	6	.2	0	.2	1.5	107	50	19	0	4	1	0
ROSWELL	69	40	78	29	55	10	.2	.1	.2	.7	54	--	--	0	2	2	0
NY ALBANY	45	33	53	19	39	13	1.8	1.2	.8	7.0	93	87	61	0	2	5	3
BINGHAMTON	40	31	51	24	36	11	.5	.1	.4	6.3	84	85	62	0	5	4	0
BUFFALO	43	31	59	24	37	11	.7	.1	.6	7.3	85	83	64	0	4	4	1
NEW YORK	50	40	57	35	45	10	1.4	.6	.6	6.7	69	74	60	0	0	4	1
ROCHESTER	45	32	55	22	38	12	1.0	.3	.6	6.9	95	84	62	0	4	4	1
SYRACUSE	47	33	58	22	40	13	.8	.1	.5	7.6	87	64	54	0	3	3	1
NC ASHEVILLE	65	33	75	25	49	8	.2	.8	.2	5.8	54	90	30	0	4	1	0
CHARLOTTE	68	39	76	32	53	8	.1	.9	.1	4.9	45	76	36	0	1	1	0
GREENSBORO	63	37	74	28	50	7	.1	.8	.1	5.0	51	77	27	0	2	1	0
HATTERAS	58	39	65	26	49	2	.2	.8	.2	8.3	62	77	50	0	2	2	0
RALEIGH	66	37	76	31	51	7	T	.8	T	5.4	55	73	28	0	2	1	0
WILMINGTON	64	40	67	31	52	3	T	.9	T	9.6	94	79	33	0	2	1	0
ND BISMARCK	41	23	53	18	32	15	.3	.2	.3	.8	62	86	54	0	7	1	0
FARGO	37	19	49	9	28	13	.2	.1	.2	1.0	77	72	58	0	7	2	0
WILLISTON	41	27	54	22	34	17	T	.1	T	1.1	79	78	48	0	7	0	0
OR AKRON-CANTON	44	32	55	28	38	8	.5	.1	.4	7.5	100	79	59	0	3	3	0
CINCINNATI	50	33	59	25	41	6	.2	.6	.1	5.7	62	91	60	0	3	1	0
CLEVELAND	44	32	55	29	38	8	.3	.2	.3	5.8	78	81	60	0	3	2	0
COLUMBUS	46	34	57	26	40	7	.4	.2	.3	7.5	97	86	65	0	3	2	0
DAYTON	45	32	53	25	38	6	.1	.5	.1	5.2	69	81	60	0	3	2	0
TOLEDO	43	30	52	23	36	6	.2	.3	.1	6.4	102	88	66	0	4	3	0
YOUNGSTOWN	42	31	54	26	37	8	.7	.1	.4	6.1	75	78	61	0	3	5	0
OK OKLAHOMA CITY	71	46	78	35	59	15	.3	0	.3	2.9	76	79	36	0	0	2	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

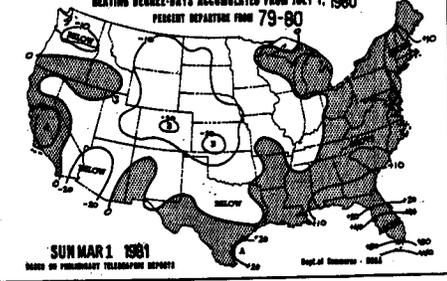
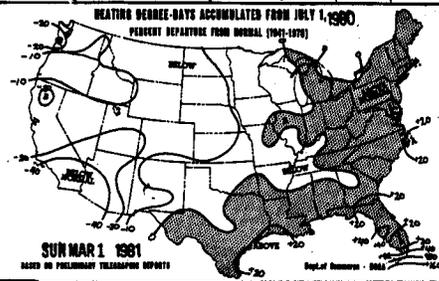
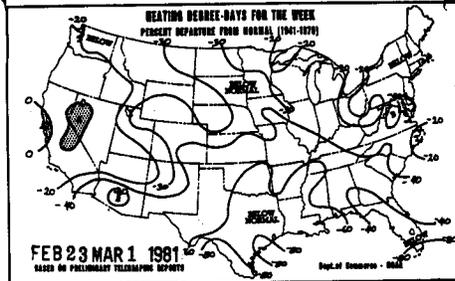
Weather Data for the Week Ending Mar. 1, 1981

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	AVERAGE MAXIMUM	AVERAGE MINIMUM	TEMPERATURE °F		PRECIPITATION	
														90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
OR TULSA	70	47	80	34	58	15	.8	.3	.7	3.8	73	78	18	0	0	2	1
OR ASTORIA	57	38	66	33	48	3	.8	-1.0	.5	23.5	82	92	60	0	0	2	0
OR BURNS	46	24	51	20	35	2	.1	-.2	.1	3.1	65	90	45	0	7	1	0
OR MEDFORD	57	32	65	28	45	2	.5	-.1	.2	5.0	54	95	45	0	4	2	0
OR PENDLETON	53	32	57	29	42	1	.2	-.1	.2	3.5	74	87	52	0	5	2	1
OR PORTLAND	58	36	67	32	47	3	.6	-.3	.5	15.2	94	99	57	0	1	3	0
OR SALEM	56	31	65	27	44	0	.5	-.7	.2	15.9	86	94	56	0	4	3	1
PA ALLENTOWN	48	35	56	29	42	10	1.0	-.3	.9	6.0	63	86	52	0	2	2	1
PA ERIE	42	28	55	16	35	8	1.1	.5	.9	8.6	112	--	--	0	6	5	1
PA HARRISBURG	47	34	52	30	41	6	1.6	.9	1.6	7.2	87	78	51	0	4	2	1
PA PHILADELPHIA	44	32	55	28	38	2	.8	0	.5	4.3	49	77	53	0	1	4	1
PA PITTSBURGH	44	32	55	28	38	6	.7	.1	.5	6.0	77	82	59	0	3	4	1
PA SCRANTON	44	35	52	28	40	10	.8	.3	.7	9.9	150	78	62	0	2	2	1
RI PROVIDENCE	49	34	62	26	41	10	1.5	.5	.6	7.1	63	81	62	0	3	5	1
SC CHARLESTON	72	42	78	32	57	4	T	-.9	T	4.5	47	66	29	0	1	1	0
SC COLUMBIA	70	37	76	28	54	4	.1	-.9	.1	6.3	58	85	29	0	3	2	0
SC GREENVILLE	69	38	74	29	53	7	.3	-.9	.3	4.8	38	68	27	0	2	1	0
SD ABERDEEN	45	24	57	17	35	15	.1	0	.1	.5	36	88	44	0	6	2	0
SD HURON	48	22	57	15	35	14	T	-.2	T	.2	13	92	48	0	6	1	0
SD RAPID CITY	51	24	61	16	37	10	T	-.1	T	.9	69	78	35	0	7	0	0
SD SIOUX FALLS	48	27	60	21	38	15	.2	-.1	.1	.8	35	77	52	0	6	2	0
TN CHATTANOOGA	67	38	75	28	53	8	.1	-1.3	.1	8.1	50	85	33	0	0	3	0
TN KNOXVILLE	63	39	70	33	51	6	.3	-.9	.1	6.6	46	74	33	0	0	3	1
TN MEMPHIS	70	48	80	42	59	13	1.0	-.2	1.0	6.8	46	69	38	0	0	1	1
TN NASHVILLE	67	37	78	29	52	9	.3	-.8	.3	6.9	50	71	32	0	1	1	0
TX ABILENE	70	50	80	36	60	10	1.1	.9	.6	4.3	139	76	48	0	0	3	1
TX AMARILLO	69	37	81	26	53	11	T	-.1	T	.7	47	63	31	0	3	1	0
TX AUSTIN	72	55	79	43	63	8	.6	-.1	.5	4.7	63	81	60	0	0	2	1
TX BEAUMONT	74	52	78	45	63	6	.1	-.9	.1	9.0	66	89	61	0	0	2	0
TX BROWNSVILLE	78	59	82	45	69	4	T	-.3	T	4.4	102	94	56	0	0	0	0
TX CORPUS CHRISTI	76	57	80	42	67	5	.1	-.3	.1	4.7	87	92	57	0	0	1	0
TX DEL RIO	73	56	77	40	64	6	.1	-.1	.1	1.8	86	87	55	0	0	2	0
TX EL PASO	72	42	77	23	57	7	.2	0	.1	1.6	114	61	22	0	2	2	0
TX FORT WORTH	71	51	78	39	61	10	1.1	.6	.8	3.9	64	83	51	0	0	3	1
TX GALVESTON	68	57	73	53	62	5	.5	-.2	.3	5.3	56	84	68	0	0	2	0
TX HOUSTON	74	55	80	42	65	7	.4	-.4	.4	5.9	52	88	58	0	0	2	0
TX LUBBOCK	67	41	81	27	54	9	.4	.3	.2	1.5	115	68	42	0	1	2	0
TX MIDLAND	69	45	77	31	57	7	.8	.7	.6	2.5	192	75	37	0	1	3	1
TX SAN ANGELO	70	49	77	30	60	7	1.2	1.0	1.2	4.5	205	80	50	0	1	2	1
TX SAN ANTONIO	73	54	77	36	64	7	.9	.4	.8	4.4	79	88	57	0	0	3	1
TX VICTORIA	75	56	80	44	66	7	.6	.1	.3	4.2	68	82	58	0	0	2	0
TX WACO	69	51	76	35	60	7	.6	.1	.5	5.9	94	91	67	0	0	2	1
TX WICHITA FALLS	72	47	82	40	60	12	3.0	2.7	2.7	5.5	149	76	41	0	0	2	1
UT BLANDING	55	26	59	22	41	6	.1	-.1	.1	.6	18	78	22	0	7	1	0
UT SALT LAKE CITY	56	35	68	27	46	10	.6	.2	.5	1.9	46	73	40	0	2	2	0
VT BURLINGTON	42	32	55	23	37	16	2.1	1.7	1.2	7.4	132	89	75	0	2	4	1
VA LYNCHBURG	62	37	76	32	49	9	.2	-.6	.2	4.8	54	65	--	0	2	1	0
VA NORFOLK	61	38	73	31	50	6	.1	-.8	.1	5.8	58	70	35	0	2	1	0
VA RICHMOND	62	36	76	31	49	7	.1	-.6	.1	3.8	41	75	34	0	1	1	0
VA ROANOKE	59	35	73	28	47	7	.2	-.6	.2	3.4	37	70	26	0	1	2	0
WA COLVILLE	51	31	56	27	41	8	.6	.3	.2	6.0	105	--	--	0	5	3	0
WA OMAK	52	32	64	29	42	--	.8	--	.5	5.3	118	--	--	0	4	4	0
WA QUILLAYUTE	56	35	62	29	45	3	.9	-1.9	.5	33.7	79	93	55	0	3	4	0
WA SEATTLE-TACOMA	56	40	65	37	48	5	.4	-.5	.4	14.3	91	83	49	0	0	2	0
WA SPOKANE	52	31	57	27	41	7	.1	-.2	.1	6.1	91	91	42	0	4	2	0
WA WALLA-WALLA	53	34	58	33	44	1	.4	.1	.4	7.2	129	86	66	0	0	1	0
WA YAKIMA	57	33	62	29	45	7	.1	-.1	.1	4.4	129	86	49	0	3	2	0
WV BECKLEY	51	31	65	18	41	6	.7	.2	.3	4.0	38	89	32	0	4	4	0
WV CHARLESTON	53	33	66	22	43	5	1.5	.7	.7	7.4	74	89	53	0	2	4	2
WV HUNTINGTON	52	35	62	25	43	5	.9	.1	.4	6.8	74	85	58	0	3	4	0
WV PARKERSBURG	50	36	60	26	43	6	.7	0	.4	5.5	63	79	49	0	2	2	0
WI GREEN BAY	37	29	42	25	33	12	.7	.4	.7	4.1	111	87	73	0	5	4	1
WI LA CROSSE	41	28	47	19	35	11	.8	.5	.7	2.9	100	87	66	0	5	4	1
WI MADISON	42	28	49	20	35	12	.3	0	.2	4.3	108	84	66	0	5	2	0
WI MILWAUKEE	39	29	49	22	34	9	.4	.1	.4	6.7	146	79	66	0	5	3	0
WY CASPER	55	26	63	12	40	12	T	-.1	T	1.1	85	84	22	0	5	1	0
WY CHEYENNE	56	25	65	20	41	10	T	-.1	T	.6	46	65	22	0	7	1	0
WY LANDER	51	28	58	25	40	12	T	-.2	T	1.1	73	65	27	0	7	1	0
PR SHERIDAN	50	24	63	17	36	8	T	-.2	T	1.3	65	78	33	0	7	1	0
PR SAN JUAN	83	73	85	70	79	3	.4	-.1	.4	8.6	77	81	59	0	0	1	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

HEATING DEGREE DAYS (BASE 65°) FOR WEEK ENDING MAR. 1, 1981.
BASED ON 1941-70 NORMALS. + ACCUMULATION FROM JULY 1, 1980.

Table with columns for STATES AND STATIONS, WEEKLY ACCUMULATION, and SEASONAL ACCUMULATION. Rows list various cities across the United States with their corresponding heating degree day values.



National Agricultural Summary

February 23 - March 1, 1981

HIGHLIGHTS: Above-normal temperatures continued to dominate most regions of the Nation, encouraging growth of crops and pastures and promoting early planting in southern areas. The warm weather also helped winter wheat and other fall seeded grains break dormancy as far north as the northern Plains. Farmers in most areas across the South had 4 to 6 days suitable for fieldwork. Widespread precipitation temporarily curtailed field activities, but helped restore soil moisture supplies. However, more rain is needed in many regions of the Nation to relieve drought conditions.

Winter wheat generally rated fair to good. Farmers fertilized wheat in areas where mild temperatures encouraged growth. Farmers in the extreme South were able to plant limited acreages of corn and sorghum. Above-normal temperatures and recent rains improved pasture conditions with most rated fair to good. Fruit growers pruned mature trees, set out new trees, and applied dormant sprays. Vegetable planting and harvesting continued active across the South. Calving and lambing remained active throughout the Nation. Cattle generally rated fair to good. Producers moved herds from winter wheat fields.

SMALL GRAINS: Winter wheat condition generally was fair to good in major producing States. Farmers fertilized fields where mild temperatures and ample soil moisture encouraged early spring growth. The crop started jointing in Mississippi and was forming heads in Arizona.

Kansas wheat condition averaged fair, but was extremely variable throughout the State. Stands started to green Statewide and billering began in southern areas. The oat crop was 30% planted and spring barley planting reached 10% complete.

Oklahoma growers sprayed fields with heavy insect infestations or where weeds were becoming a problem. Recent rains should help wheat crop development.

In Texas, some small grain fields were showing signs of moisture stress. Spraying for greenbugs continued. Irrigated fields were in fair condition, providing limited grazing. Wheat condition rated poor to good.

Nebraska winter wheat was in mostly fair condition. Variable amounts of wind erosion were evident in most areas. Fields were beginning to turn green.

OTHER CROPS: Limited acreage of corn was planted in Alabama, Arizona, Florida, Louisiana, Mississippi and Texas. Progress ranged as high as 3% complete in Mississippi. Warm temperatures prompted early planting throughout the region.

Sorghum planting started in Arizona and continued in southern Texas.

Tobacco growers prepared and planted seedbeds. Plants were in fair to good condition.

Maple syrup producers were tapping trees and preparing equipment for the upcoming processing. Mild temperatures encouraged an early flow of sap. As a result, syrup making was already underway in some areas.

FRUITS AND NUTS: Growers in northern areas continued to prune trees, berries, and vineyards and apply dormant spray. New trees were set out in some areas.

Florida citrus groves were in good condition in all areas. Ideal weather conditions and

adequate soil moisture supplies an abundance of new growth and swelling bloom buds. Freeze damaged trees were recovering slowly in the colder areas. Early and mid-season orange harvests were slowing, but the grapefruit harvest was very active.

In the Rio Grande Valley of Texas, the grapefruit harvest neared completion, and harvest of late oranges gained momentum. Peach trees were budding in the Coastal Bend and eastern areas of the State.

The Arizona citrus harvest made good progress. Blooming increased and trees showed abundant new growth.

California almonds reached full bloom and peaches were 30% in bloom. Bee activity was strong in most areas. Harvesting of Desert grapefruit, lemons, and Navel oranges continued. The Valencia orange harvest began in the Desert.

VEGETABLES: Near ideal weather conditions prevailed in Florida's vegetable growing areas. Overall shipments were 6% below the previous week. Harvest of snap beans, cabbage, sweet corn, and peppers increased, but harvest held steady for carrots, celery, escarole, parsley, squash, and tomatoes. Volume declined for cauliflower, Chinese cabbage, cucumbers, eggplant, lettuce, radishes, and potatoes. The watermelon crop was in fair to good condition. Strawberry volume was down because of a gap in blooming caused by the earlier freeze.

Growers in the Rio Grande Valley of Texas harvested carrots, spinach, cabbage, and broccoli. Planting was underway for tomatoes, watermelons, and cucumbers. In the Coastal Bend and eastern areas, growers planted cabbage, potatoes, lettuce, and broccoli. Wet fields slowed land preparation activities in the San Antonio-Winter Garden area, but harvesting of carrots and cabbage continued. Spinach and onions showed good growth. Onions made excellent growth in the Trans-Pecos region. Producers applied herbicides to these crops.

The lettuce harvest in the Yuma area of Arizona was in full swing while other mixed vegetable harvests continued at a steady rate. Lettuce and other mixed vegetables for late winter or early spring harvesting experienced very good growth. Planting of watermelons and cantaloups progressed favorably.

California growers began harvesting asparagus in the Delta region, while in the Desert area harvesting continued light. The broccoli and cauliflower harvest remained active, although there was a slight decrease on the Central Coast. Carrot harvesting was ending in the Kern area and increasing in the Imperial Valley. Lettuce harvesting decreased in the Imperial Valley, but increased in the Blythe area. Tomato planting continued active. Strawberry picking decreased due to the wet, cool weather. Movement of bee hives into deciduous orchards continued active.

PASTURES AND LIVESTOCK: Across the South, pastures generally rated fair to good and were improving as a result of recent rains and mild temperatures. Feed and hay supplies proved adequate except in a few isolated areas. Calving and lambing continued with no apparent problems. Cattle were in fair to good condition.

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 ESS State offices in cooperation with the National Weather Service.

ALABAMA: Temperatures averaged 6° above normal with highs in 80's on the 27th and 28th. Rain totaled less than 1.00 in. in the north.

Fieldwork: 4.5 days suitable. Soil moisture was adequate. Plowing was 65% complete. Fieldwork was on schedule. Feed supply from pasture short. Stored feed supply very short to short. Condition: Wheat fair; pastures poor to fair; livestock fair. Activities: Plowing, application of herbicides, spreading lime and fertilizer, planting corn and spring vegetables, care of livestock and poultry.

ARIZONA: Mild, dry weather early in the week. Storms later, with rain, snow, and cooler air; rain mostly 0.25 to 0.75 in. but over 1.00 in. in the central basins, Mogollon Rim, and White Mountains; snow mostly 2 to 8 in.; average temperatures 2 to 8° above normal.

Small grains were ahead of normal, with the earliest plantings forming heads. Stalks in many cotton fields remain unshredded, although the progress of the new cotton crop in full swing. Sugarbeets and alfalfa growing rapidly. Land preparations were limited to planting of sorghum; corn was underway. Safflower planting was active. Lettuce harvest in the Yuma area was in full volume. Mixed vegetable harvest continued at a steady rate. Lettuce and other mixed vegetables for late winter or early spring experienced very good growth. Lettuce harvest expected shortly in Salt River Valley. Land preparations, planting watermelons and cantaloups showing good progress. Citrus harvest good. Bloom increasing, with trees showing abundant new growth. Ranges in Desert areas very poor to poor, higher elevations fair. Livestock fair to good. Water short to adequate.

ARKANSAS: Another warm week with temperatures averaging well above normal. Rain fell the first of the week and the last 2 days of the week. Normal high temperature 52°; normal low 44°. Highest temperature 89°, lowest 19°. All departures from normal ranged from 12 to 6°. Most rainfall 2.52 in., least 0.54 in.

Wheat was in good condition, with growth progress above normal to date. Nitrogen fertilizer application 75% complete. Winter forages making good growth, especially wheat and rye. Pasture prospects in northwest good following weekend rains. Rains replenished soil moisture supplies. Fieldwork possible 6.0 days. Field progress generally ahead of schedule. Livestock in good condition.

CALIFORNIA: Precipitation was clustered around midweek from a very cold upper level disturbance near the North Coast. Snow was reported as low as 2,000 feet in the Sierra foothills with as much as two foot accumulations overnight at higher elevations. Precipitation amounts were heaviest over North Coast mountains and the northern Sierra Nevada. Weekly mean temperatures generally were only a few degrees above normal with greatest departures along the extreme South Coast. Recent rains supplied needed additional moisture.

Small grain growth remains good. Field activity restricted to aerial application of herbicides, topdressing of fertilizer. A few alfalfa growers applying insecticide for weevil control. Some gopher control activity observed in Lassen County. No fruit crop problems due to weather. Almonds in full bloom. Peaches about 30% in bloom. Bee activity strong most areas. Harvest of Desert grapefruit, lemons and Navel oranges

continued. Valencia orange harvest began in Desert. Artichokes increasing. Asparagus began Delta, Desert continues light. Broccoli, cauliflower active, slight decrease Central Coast. Carrots ending Kern, increasing Imperial; Coachella active. Celery very active Oxnard; San Diego almost complete. Transplants increasing Central Coast. Lettuce winding down Imperial; increasing Blythe. Winter potatoes almost complete. Kern spring potatoes to begin early, excellent condition. Strawberries decrease with wet, cool weather. Tomato planting continues. Warmer daytime temperature, rainfall during week, produced good grass growth. Calving, lambing increasing northern counties. Movement bee hives into deciduous orchards continues active.

COLORADO: Dry, unseasonably warm weather again characterized the weather for the week. Only significant precipitation was about 0.33 in. of moisture near week's end at a few western mountain locations. Temperatures were again well above seasonal normals. The Arkansas and Kansas River Basins reached 11° above normal; Platte River Basin, 9°; Colorado River Basin, 7°; and Rio Grande Basin, 5° above normal.

FLORIDA: Mild, dry high pressure area over the southeast U.S. remained stationary through the week. No precipitation of consequence with temperatures near normal. No frost central or south Peninsula.

Soil moisture variable, adequate in parts of south, north, west but generally short central, middle east coast and part of Panhandle. Corn planting active west, underway north. Land preparation active all areas. Tobacco plants in plant beds fair to good condition. Sugarcane harvest continues, nearing completion. Small grains improving with better weather conditions. Permanent pastures poor to fair but improving. Winter pastures providing good grazing. Cattle fair condition. Citrus groves progressed well all areas with ideal weather, adequate soil moisture. Abundance of flushing new growth, and swelling bloom buds. Freeze damaged trees recovering slowly in colder areas. Early and mid-orange harvest slowing with depleted supplies. Grapefruit harvest very active. Near ideal weather with warm days and cool nights prevailed in vegetable areas. Temperatures averaged near normal. Skies mostly clear to partly cloudy with little or no rainfall. Winds were light to moderate. Overall shipments 6% below previous week. Harvest gained for snap beans, cabbage, sweet corn and peppers. Steady supplies available for carrots, celery, escarole, parsley, squash and tomatoes. Volume declined for cauliflower, chinese cabbage, cucumbers, eggplant, lettuce and radishes. Potato harvest declining. Spring red and white crops progressing well. Watermelon crop condition fair to good. Fieldwork very active. Strawberry volume down because of bloom gap caused by freeze. Volume increase expected this week.

GEORGIA: Milder and drier than normal. Temperatures slightly above normal in the south, and 8° above normal at some northern locations. The coldest period was midweek, following rainfall which ranged from 0.50 in. over northern counties to less than 0.10 in. southeast, and none near the lower coast.

Soil moisture adequate, except in the southeast. Small grains fair in central portion, and good elsewhere. Pastures and tobacco plants fair

to good. Cattle, fair to good. Topdressing of small grains active.

HAWAII: Rains brought welcomed relief to dry areas, Island of Hawaii. Rains in watershed areas increased water levels in reservoirs but water use still limited to 2 hours per day in Waimea vegetable growing area. However, irrigated crops in good condition. Showers light other sections Island chain. Spraying for insects, disease control continues. Vegetables: Supplies generally light. Head cabbage moderate to heavy. Bananas: Strong winds continue to affect orchard progress. Supplies light. Papayas: Rains beneficial. Supplies moderate. Pineapples: Harvesting light and down. Sugar: More mills grinding. Pastures: Rains beneficial in dry areas. Condition generally fair to good.

IDAHO: Temperatures ranged from 3 to 10° above normal. Some southern stations experienced near record high on 23d. Precipitation ranged from trace amounts at several locations to 0.54 in. at Coeur D'Alene. Strong, gusting winds in excess of 30 mph occurred at many stations.

Lack of winter precipitation increases concern over summer water supplies. Warmer weather sparks fieldwork, plowing and some early spring wheat planting. Calving and lambing proceeding well and feed supplies remain adequate due to the mild winter.

ILLINOIS: Temperatures averaged 7 to 12° above normal. Precipitation amounted to 0.25 to 0.50 in. in most areas, but nearly 1.00 in. in the extreme south.

Winter wheat rated mostly good condition. Livestock were in mostly good condition. Farm activities included machinery repair, livestock feeding, manure hauling, general farmwork.

INDIANA: Temperatures averaged 9° above normal and ranged from 24 to 74°. Sunshine 40% of possible. Precipitation 0.20 in. to 0.30, least in southeast.

Muddy field conditions limiting fieldwork. Some greening up, mostly in south. Activities: Cleaning fence rows, readying equipment and planning for 1981 crop season, hauling livestock and grain to market, attending meetings, hauling manure, buying fertilizer and chemicals, grinding feed, cutting wood, caring for livestock and usual chores.

IOWA: A mild, dry week. Temperatures averaged 10 to 15° above normal and precipitation was light except in northern division and a few western-most counties. The early week snowcover in east was virtually all melted by the weekend.

KANSAS: Moisture generally totaled less than 0.10 in.; maximum 0.25 in. extreme southeast. Temperatures averaged 44 to 48° west, 51 to 56° east and south central or 11 to 17° above normal. Numerous high temperature records were established at midweek.

Sub-zero lows at mid-February killed large numbers of greenbugs in south. Enough bugs remain to cause scattered economic damage if weather encourages population growth. Wheat condition rated fair Statewide, but extremely variable. Tillering beginning south. Wheat started to show green Statewide. Oats 30% planted, spring barley 10%. Ranchers using more pasture per animal unit than normal. Principal activities were planting oats and barley, topdressing wheat. Fieldwork: 6.0 days suitable.

KENTUCKY: Most of the week was dry with temperatures well above normal. The only near or below normal readings were at the beginning and end of the week. Rainfall totaled 0.75 to 1.00 in., oc-

curring at the beginning of the week and again over the weekend.

Fields were beginning to dry prior to weekend showers. There was some concern that warm temperatures could cause plants to break winter dormancy too early.

LOUISIANA: Rainfall was scattered. Temperatures averaged 3 to 7° above normal. Extremes: 35 and 83°.

Fieldwork: 5.2 days suitable. Spring plowing 26% complete, 17% 1980. Corn planting underway. Irish potato planting active. Vegetables fair. Wheat fair to good. Pastures fair. Livestock fair. Supplemental feeding continued.

MARYLAND AND DELAWARE: Temperatures averaged 9 to 10° above normal; highs averaged in the mid 50's while lows averaged in the low 40's. The Patuxent River station reported the most precipitation at 2.00 in. Remaining parts of the State averaged a little more than 0.50 in.

MICHIGAN: Another warm week with temperatures averaging 10 to 12° above normal in Upper and northern Lower and 7 to 9° above in southern Lower. Precipitation near or below normal in southern Lower, above normal remainder. Precipitation amounts were 0.10 to 0.50 in. in Lower and 0.50 to 1.25 in. in northern Lower and Upper. Heaviest precipitation was in western Upper. Little or no snowcover in Lower, and 2 to 13 in. in Upper.

MINNESOTA: Temperatures averaged 11 to 14° above normal in all districts except the extreme northeast 8 to 9° above normal and extreme northwest 15° above normal. Extremes: 55° Worthington and 12° Hallock. Precipitation averaged 0.50 to 0.83 in. above normal in south central, east central, central and southeast districts; slightly above normal northwest and northeast; up to 0.14 in. below normal southwest and north central districts. Precipitation totals were 0.25 in. or less in the northern districts except locally in extreme northwest and extreme northeast up to 0.50 in.; 0.50 to 0.75 in. central and west central districts; up to 1.00 in. southeast and east central districts; less than 0.25 in. southwest district except locally in some areas. Snowfall was varied but generally 1 to 3 in. except southwest none. Snowdepth was 2 in. or less except in extreme north central and northeast up to 6 in. Extremes: 0.07 International Falls and 1.57 in. Canby.

MISSISSIPPI: Temperatures 2 to 10° above normal. High pressure prevailed allowing for plentiful sunshine and warm temperatures. Weak cold front over weekend brought rain to most areas.

Soil moisture short to adequate. Fieldwork: 5.3 days suitable. Land preparation, liming and wheat fertilization underway. Much needed rain over weekend halted fieldwork. Plowing 40% complete, well ahead of normal. Corn 3% planted. Winter wheat 2% jointing; fair to good condition. Hay, roughage, and feed grain supplies short to adequate. Pasture condition fair to poor. Livestock condition fair to good.

MISSOURI: Temperatures averaged 11 to 16° above normal. Precipitation fell over most of the State and averaged 0.40 in.

Topsoil moisture supplies mostly short. Condition of winter wheat mostly fair to good. Condition of livestock fair to good.

MONTANA: Temperatures averaged 7 to 19° above normal. Greatest departures in northeast and southeast. Highest 63° at Thompson Falls and Roundup, lowest -3° at West Yellowstone. Moderate precipitation confined to valleys in west and most mountain areas.

Winter wheat condition generally fair. Wind damage light to moderate. Snowcover light to none. Topsoil and subsoil moisture short to adequate, except in west, where it was adequate to surplus. Calving and lambing about 15% complete. Grazing open.

NEBRASKA: Temperatures were 10 to 15° above normal. Precipitation was light, near 0.10 in. over east; only trace amounts central and west.

Winter wheat condition was mostly fair with variable amounts of wind erosion evident in most areas. Greenup of fields began appearing during past two weeks. Soil moisture supplies were considered well below normal in most areas. Calving and lambing was getting underway. Livestock weight gains were above normal. Hay and forage supplies were average or above over 90% of the State.

NEVADA: Mild weather most of period. Weak storms brought light, scattered precipitation beginning and end of week. Daytime temperatures near average, night temperatures relatively low.

Fieldwork gaining momentum extreme south. Good progress with calving and lambing operations. Lack of snowcover in low elevations easy on livestock.

NEW ENGLAND: Mild, wet weather for the period. Temperatures averaged 10 to 20° above normal. A slow-moving storm brought large amounts of precipitation to the region. Southern and central areas generally had over 4.00 in. of rain, with lesser amounts in the north. Mild temperatures have given maple sugar operators an early start, with some syrup making already.

NEW JERSEY: Temperatures were 6 to 8° above normal, averaging 43° north, 44° south and 44° coastal. Extremes: 20° at Long Valley and Newton and 61° at several stations. Precipitation was slightly above normal averaging 1.14 in. north, 0.90 in. south and 0.82 in. coastal.

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

NEW MEXICO: Temperatures generally averaged 5 to 10° warmer than normal for the week. Cloudiness increased over the weekend with showers in all sections.

Soil moisture remained in short supply in most areas. Farm activities continued until late week when rain occurred in almost all areas. Irrigated winter wheat was in good condition with about 55% being grazed. Dryland winter wheat was in poor to fair condition with about 30% being grazed. Barley was in fair to good condition with about 50% being grazed. Onion and lettuce were in good condition. Ranges were in poor to fair condition. Livestock were in fair to good condition with supplemental feeding continuing. Movement of cattle off wheat fields continued.

NEW YORK: Temperatures continued well above normal, but turned moderately downward on the 7th. Temperatures averaged in the mid 30's to around 40°. Significant precipitation fell, particularly in the extreme east where precipitation amounts were from 1 to 2 in. for the week. Farther west, amounts were closer to normal.

NORTH CAROLINA: Temperatures ran 6 to 8° above normal. Precipitation was mostly light with most areas receiving no rain.

Soil moisture: 1% very short, 37% short, 62% adequate. Fieldwork: 5.0 days suitable. Conditions: Wheat, oats, barley, and rye fair to mostly good. Pastures mostly fair to good. Feed supplies: Hay, roughage, and feed grains mostly adequate. Major activities: Topdressing small grains and pastures, preparing and seeding

tobacco plant beds, spraying small grains with herbicides, pruning fruit trees, caring for livestock, planting spring cabbage and Irish potatoes.

NORTH DAKOTA: It was another mild week with overnight low temperatures never falling into the single digits. Extremes: 12 and 56°. Precipitation across the State was very scattered and light. Heaviest amount fell at Wahpeton (south-east corner) with 0.58 in. The week ended with very few locations reporting any snowcover except in west central areas.

Warm weather continues to stretch forage supplies but stocks were getting short. Calving started with only a few losses reported. Calving was 7% complete and lambing was 14% complete. New snow was beneficial, but snowcover continues light with about half the State bare. The drier areas continued to experience significant wind erosion. Some fieldwork has been done but operations were mostly limited to fertilizer spreading and chemical applications. The dormancy of some winter wheat, rye and alfalfa was broken but it is still too early to evaluate winter kill. Insect activity increased in grain bins.

OHIO: Temperatures fell to near normal readings. Highs were in the 40's most of the week and reached the 50's at some stations over the weekend. Lows were above freezing late in the week. Precipitation was light; totals were less than 0.25 in.

Soil temperatures at 4 in. under bare ground were above freezing over virtually all of the State. Temperatures under sod were only a few degrees lower. Highest values remained under 50°. Wheat was greening over much of the State. Maple syrup was running.

OKLAHOMA: Temperatures averaged 9° above normal in the southeast to 15° above normal in the northeast. Cooling occurred over weekend due to cloudiness and rain. Precipitation received Statewide, ranging from 0.04 in. west central to 2.12 in. south central.

Weekend rains will help wheat and grass development, spring tillage and seeding activities. Improved wheat stands and land tillage operations will help reduce soil blowing in the sandier soils. Insect infestations generally light and fields with heavier infestations being sprayed. Weed problems earlier and more widespread this year. Problem fields being sprayed. Cattlemen preparing to remove cattle from wheat pasture. Cattle coming through winter in fair condition. Cattle and new crop calves lighter weight than cattlemen would like. Extreme high and low temperature fluctuations have caused some health problems for feedlot cattle in the Panhandle. Spring calving over 30% completed.

OREGON: Average temperatures ranged from mid-30's in east to 40's and low 50's in western portions and along coastal areas. Precipitation totaled 0.80 to 2.20 in. along coast; 0.45 to 1.20 in. in terior valleys and north central portions; and less than 0.20 in. in east.

Soil moisture supplies adequate. Winter wheat mostly good condition; much concern about possible disease problems. Fertilizing and weed spraying as conditions permit. Grass seed crops fair to good.

PENNSYLVANIA: Unseasonably mild weather through the second consecutive week with temperatures 5 to 9° above normal, but 10° below previous week. Daily readings were mostly in the 20's and 50's with extremes 59° and 18°. Wet weather at the beginning and end of the week extended above normal precipitation through fifth consecutive week. Amounts were from 0.60 in. in the extreme southeast and southwest to 1.50 in. in the Susquehanna Valley.

PUERTO RICO: Island average rainfall 0.65 in. or 0.07 in. above normal. Temperatures averaged about 76° on Coasts and 71 to 69° Interior Divisions. Extremes: 90 and 43°.

SOUTH CAROLINA: Below normal temperatures early in the week changed to unseasonably warm weather. Extremes: 20 and 79°. Lighter than usual rainfall; scattered showers occurring in some areas mostly during the weekend.

Spraying fruit trees, and land preparation were major activities. Small grains and pastures improved with favorable weather and recent nitrogen applications.

SOUTH DAKOTA: An unusual February ended with thundershowers occurring over the eastern third of the State. The rain from these showers was a welcome relief for some areas, but more is needed. Amounts of precipitation up to 0.98 in. were recorded in the eastern third of the State. Clear Lake received 0.98 in. of rain; Madison 0.96 in.; Brookings 0.89 in.; Milbank and Waubay 0.72 in. Milbank, Watertown and Brookings are now slightly above average for precipitation through March 1st. Mostly traces of precipitation were noted over the remainder of the State, except for 0.06 at Deadwood; 0.05 in. at Isabel, and a few hundredths over the north central portion of the State. Temperatures remained mild with averages generally 10 to 15° above normal. The northeast averaged near 33°, the southeast near 39°, and west of the river the average was about 36°. The maximum temperature reported was 70° at Yankton, while Pickstown, Armour, Wagner and Tyndall all reported 69°. Camp Crook reported 49 for the minimum temperature in the State, while Aberdeen had 9°. Most other minimum temperatures were in the 15 to 20° range.

TENNESSEE: Rainfall amounts continued at less than normal. The west totaled about 0.75 in., the middle and Cumberland Plateau averaged near 0.25 to 0.50 in., while in the east rainfall totaled a little more than 0.25 in. Temperatures were 6 to 8° above normal in the east, around 10° above normal in the mid-State and 14° above normal in the west.

Farm activities included spring plowing, topdressing of small grains, tobacco bed preparation and seeding, pasture renovation, general farm chores and caring for livestock.

TEXAS: Weather: Midweek cold front triggered showers west. Front continued eastward and late week triggered rain Statewide. Temperatures were about 10° above normal. Rainfall was 0.25 in. above normal western third of State, near normal central third, 0.10 to 0.25 in. below in eastern third.

Range and livestock: Warm temperatures promoted growth of grasses, small grain. Topsoil moisture remains short. Supplemental feeding continues. Livestock in generally good condition. Local market activity steady.

Commercial vegetables: Rio Grande Valley harvest of carrots, spinach, cabbage, broccoli continued. Volumes of carrots, cabbage good, while broccoli, spinach off slightly. Planting tomatoes, watermelons, cucumbers, grapefruit harvest nearing completion, late oranges gaining momentum. Coastal Bend and East Texas planting of cabbage, potatoes, lettuce, broccoli continuing. Budding of peach trees. San Antonio-Winter Garden area wet fields slowed land preparation. Spinach, onions continue to progress well. Harvest of carrots, cabbage continued. Trans-Pecos region, onion growth excellent. Producers applying herbicides.

Crops: Warm weather allowed producers to continue land preparation. Most areas still in need of topsoil moisture. Cold front brought heavy rains in some areas, scattered showers and drizzle to others. Corn planting continued Rio Grande

Valley, South Texas. Warm temperatures prompted early planting throughout State. Sorghum planting continued valley, South Texas. Small grains made some progress during week. Some small grains fields showing signs of moisture stress. Greenbugs continued to be problem, spraying continued. Irrigated fields in fair condition, providing limited grazing. Wheat condition 1% excellent; 30% good; 43% fair; 26% poor. Sugarcane harvest continues.

UTAH: Scattered areas of rain and snow during latter part of week, principally in the north and west. Accumulated amounts of moisture generally light to moderate but locally heavy in a few localities. Average temperatures continued above normal, ranging between 2 and 10°.

Soil moisture deficit continues to increase in most localities. Early grasses and forage on lower elevations beginning to green but providing very little feed. Cattle and sheep on ranges were in good condition with supplemental feeding. Spring lambing and calving in progress. Turkey placements continued. Some potatoes and apples were still in storage.

VIRGINIA: Temperatures averaged in the upper 40's. Extremes: Upper 70's and upper teens. Precipitation averaged 0.50 in. with most in the central region.

Springlike temperatures and additional rainfall prevailed, improving topsoil moisture from mostly short to mostly adequate. Pasture and winter grain condition, however, still rated only fair. Fieldwork: 2.7 days suitable. Beef cattle getting 13% of forage requirements from grazing; dairy herds 7%; sheep 11%. Major tasks: Over-seeding pastures; topdressing small grains; care and feeding of livestock; tax record work; plowing and disking; soil sampling; liming and fertilizing; tobacco plant bed preparation and seeding; lice treatment of cattle; manure spreading; potato planting on the Eastern Shore, and tapping maple trees in the west.

WASHINGTON: West: Temperatures were mainly 3 to 4° above normal, and precipitation on the Olympic Coast was very much below normal, while elsewhere only a little below. Field activities were limited to tree seedling plantings and harvest of forced rhubarb and daffodils, due wet conditions. Trees were blooming and shrubs were in bloom. Pastures and berries showed early green growth. Livestock were in good shape with local hay supplies available.

East: Temperatures were generally 6 to 8° above normal, while precipitation was above normal in the Okahogan and northeastern sections, and below average in the Central Basin and Palouse-Blu Mountains. In areas dry enough to permit fieldwork, the planting of spring wheat and barley got underway. Soil preparation for other crops also began. Spraying for pear psylla continued. Fall seeded crops were in good condition and showing growth. Livestock were in good condition with adequate hay supplies.

WEST VIRGINIA: Temperatures averaged above normal High 69°, low 9°. Precipitation averaged below normal in northeast, above normal elsewhere.

Soil moisture adequate. Days suitable for fieldwork: 2.8. Hay, grain and other feed supplies adequate.

WISCONSIN: Temperatures were above normal with highs in the 30's and 40's, lows mostly in the 20's. Extremes: 51 and 11°. Light rain and snow on the 23d, showers and thunderstorms on the 27th, some snow in the extreme north. Snow-cover limited to the west and north. Snow depths averaged only 1 in. as of 27th, lightest ever for

(Continued on page 20.)

International Weather and Crop Summary

FEBRUARY 23 - MARCH 1, 1981

HIGHLIGHTS

WESTERN USSR: Drier weather in the winter grain belt gave southern fields a chance to dry out somewhat, and thereby decreased the probability of frost-heaving damage. Colder weather threatened the area late in the week, but not seriously enough to cause damage, even in snowfree southern areas.

EUROPE: Increased precipitation maintained good moisture conditions in many western countries, but northern Italy and much of Spain still remained too dry. Below-normal temperatures kept winter grains dormant across most of the region.

NORTHWESTERN AFRICA: Only very light rain in most crop areas kept crop potentials on the decline in Morocco, while Algeria and Tunisia had good moisture supplies.

SOUTH AFRICA: Periods of showers as well as sunshine are providing good growth conditions for corn, now in the grain-filling stage.

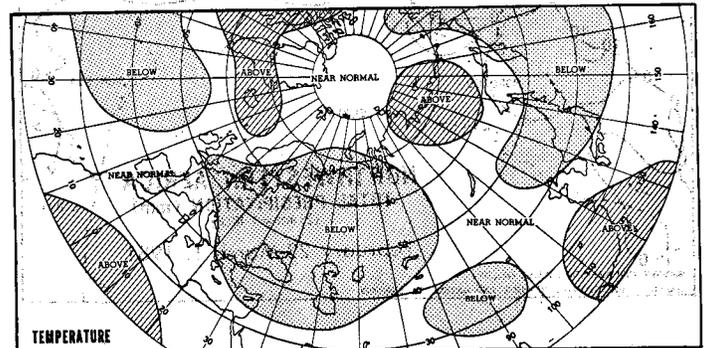
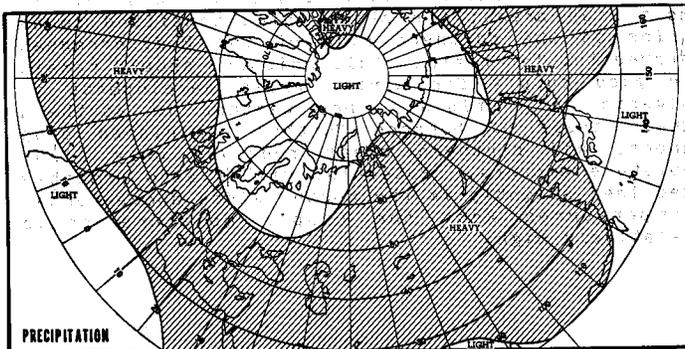
CHINA: Cold weather may have caused some minor winterkill of winter grains. Precipitation fell mainly in the hills south of the Yangtze River.

INDIA: Light precipitation fell on major winter grain areas in the north, with greater amounts in the hills. Later-planted fields should benefit from the new moisture; nearly-mature early fields were not hurt by it.

MEXICO: Warm, sunny weather favored west coast vegetables, as well as northeastern corn and grain sorghum planting. Citrus buds are swelling and blooming.

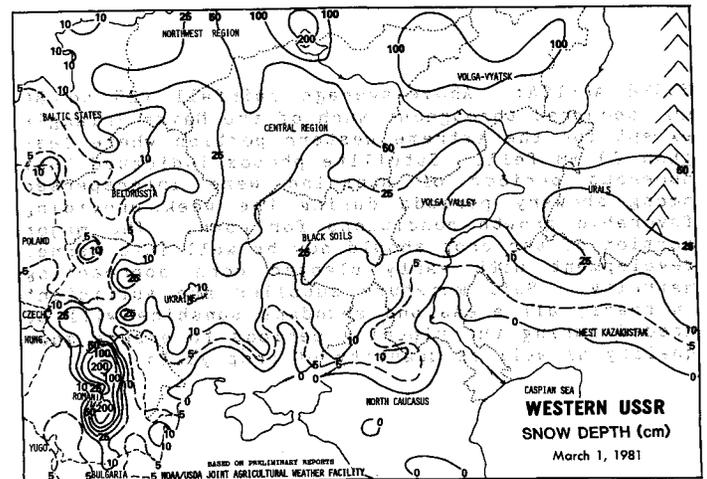
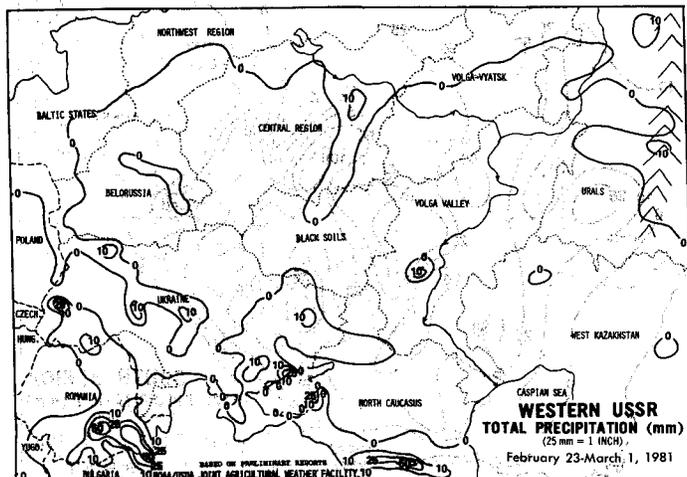
SOUTH AMERICA: Hot, dry weather prevailed in the corn and soybean areas of Brazil and Argentina. Conditions are favorable for ripening except in northern corn areas of Brazil which are becoming somewhat dry.

EURASIA OUTLOOK FOR MARCH

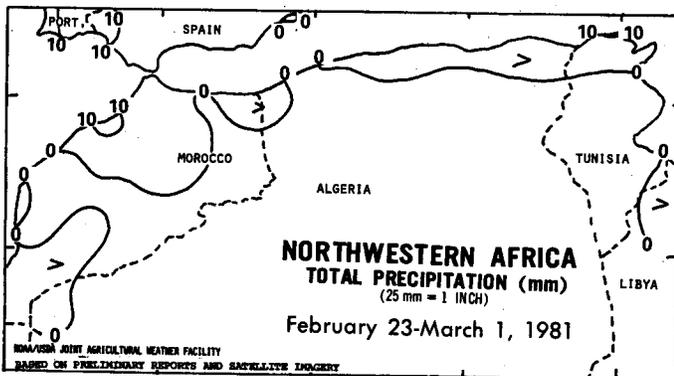
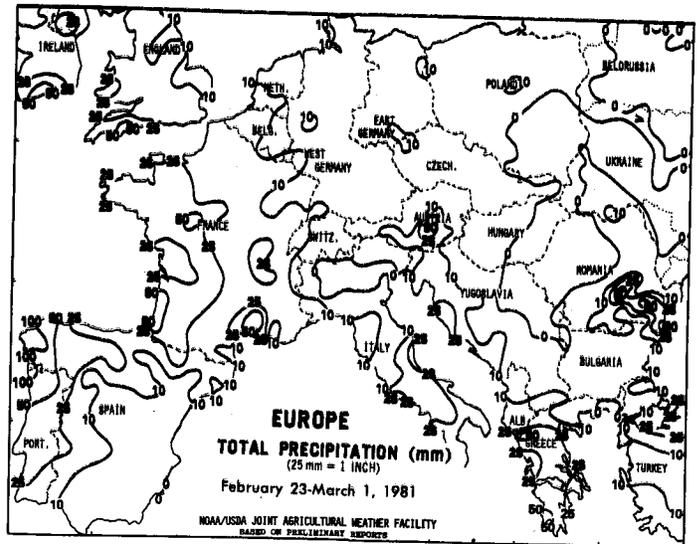


WESTERN USSR: Precipitation occurred only at scattered locations in the winter grain belt. This drier weather came as a relief to many areas, giving fields a chance to dry out somewhat and thereby decreasing the probability of frost-heaving damage. Below-normal temperatures

prevailed over most of the belt. Some snowmelt occurred, and southern parts of the belt became snowfree. Sharply colder weather at the week's end raised concern about possible winterkill, but crops remained safe.

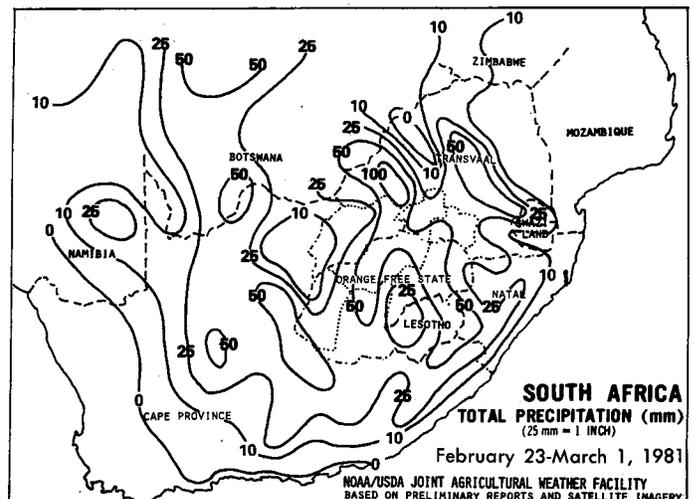


EUROPE: Increasing precipitation benefited many western countries, but left northern Italy and much of Spain still too dry. Heavy rains in Portugal reportedly promoted germination of many crops, but it is too late for winter grains to develop sufficiently before the normal dry season begins. Similar conditions existed in northern Spain, but most of central and southern Spain did not receive enough moisture to prevent further deterioration of winter grain prospects. Potential yields in northern Italy are probably also declining somewhat due to moisture shortages. Little precipitation fell in the eastern countries; however, soil moisture remained adequate, with winter grains still dormant. Below-normal temperatures kept winter grains dormant across most of the region, except for Iberia and southern France. Snowcover decreased in the east as daytime temperatures nudged above freezing, and fields in the west were snowfree.

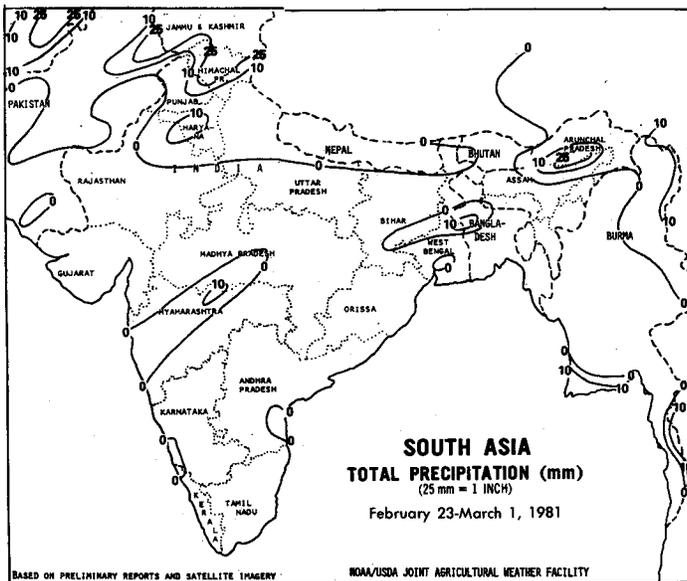
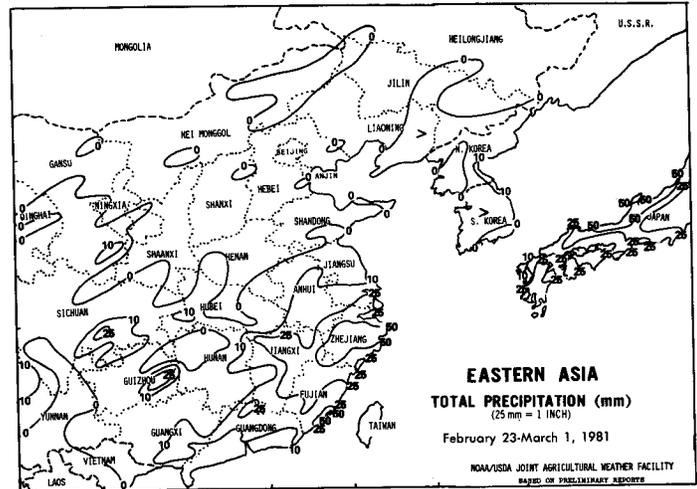


NORTHWESTERN AFRICA: Only very light rain fell in most crop areas; the storm which benefited countries on the northern side of the Mediterranean stayed too far north. Soil moisture should remain in good supply for winter grain development in Algeria and Tunisia. Dry weather in southern grain areas of Morocco further diminished crop hopes, and northern areas received only light moisture amounts. Potential yields also probably declined slightly in the north, since above-normal temperatures kept the crop's moisture needs relatively high.

SOUTH AFRICA: Above-average rainfall (25 to 80 mm) occurred throughout much of the Maize Triangle except for the extreme western portion where less than 20 mm fell. Satellite photos indicated that numerous periods of sunshine were interspersed among showery periods during the week, providing favorable growth conditions for corn. The major portion of the crop should now be well into kernel development with early planted corn approaching maturity. Soil moisture supplies are sufficient in nearly all areas and abundant sunshine will be needed during the ripening periods to ensure good quality as well as quantity of crop yield.

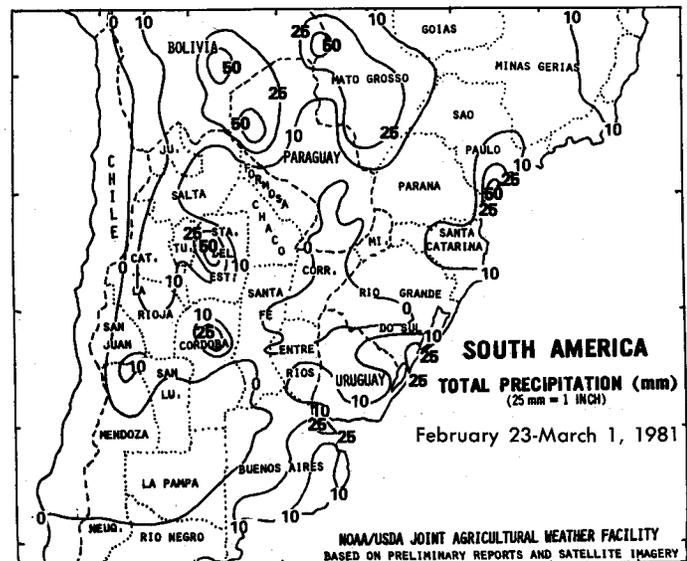


EASTERN ASIA: Temperatures continued to decline over most of the winter grain belt. Substantial departures below normal nearly equalled the extremes for this winter at some locations, and some winterkill may have resulted where sensitivity of plants had been increased by earlier warm conditions. All but the southernmost winter grain areas remained without precipitation, but the cold kept water needs to a minimum. Rainfall in the hills to the south of the Yangtze River continued the normal replenishment of water supplies in that area. Greatest amounts fell in the east near Shanghai.



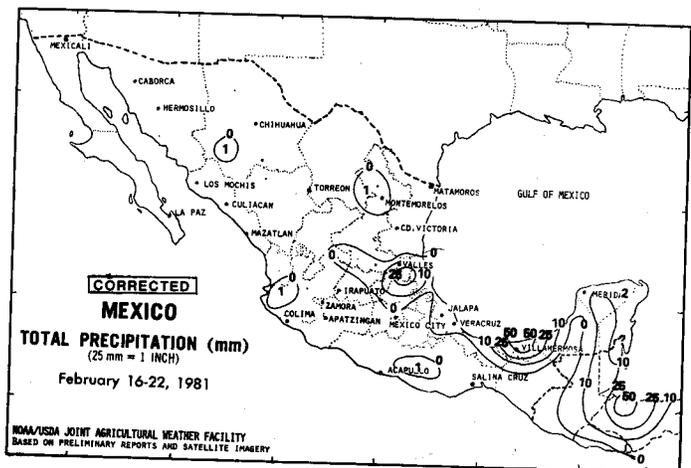
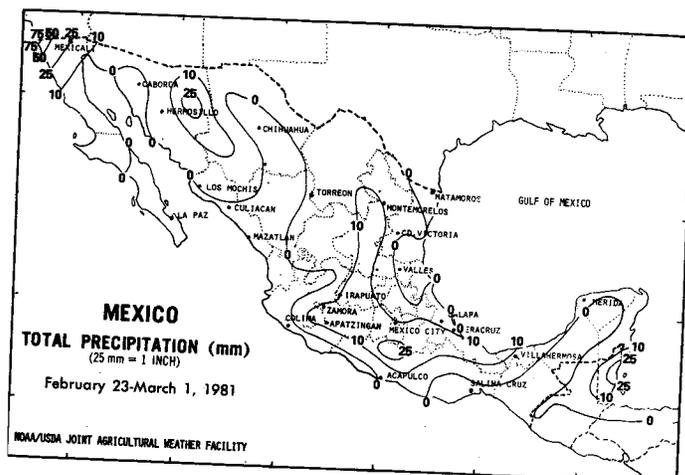
SOUTH ASIA: Light precipitation fell in some major winter grain areas in northern India, with heavier amounts closer to the mountains and in northeastern Pakistan. The moisture may have benefited late-planted winter grains still in the grain filling stage and it was not enough to interfere with maturation of more advanced fields. Later maturing grains in the western Himalayan foothills probably benefited the most. Rainfall in Bangladesh and eastern India stayed below normal for a second consecutive week, but with no serious consequences this early in the season.

SOUTH AMERICA: The major corn and soybean areas of Brazil and Argentina received minimal rainfall while temperatures averaged 2 to 5° C above normal. Extreme maximum temperatures ranged mostly between 33° and 36° C. The hot dry weather favored ripening of early-planted corn in both countries, as well as soybeans in Brazil. Harvest activities have already begun in many areas. Soil moisture supplies are generally adequate for crop development in most areas, although northern corn areas of Brazil (Goias and Minas Gerais) are becoming dry. These two states produce about 23 percent of the corn crop. The dryness should not have a substantial impact on corn yields unless a prolonged period of hot dry weather persists over the next several weeks. Soybeans yields will not be affected in this area because the harvest has already begun.





MEXICO: Sunny, dry weather generally persisted over the principal agricultural areas. Rain was mostly limited to the mountains of eastern Sonora where it will improve rangeland and possibly some irrigation water storage. Little or no rain fell over the West Coast tomato and cucumber districts; thus, vegetable development, disease control and harvesting should have progressed well. North-eastern temperatures averaged near 20° C, favoring planting and germination of corn and grain sorghum, as well as citrus blooming in southern orchards and buds swelling at Montemorelos.



THIS MAP WAS IN ERROR IN VOL. 68,
NO. 8 - FEBRUARY 24, 1981

WISCONSIN: cont'd from p. 16

a late February date. Frost out of ground in top several inches. Frost depths averaged 24 in. as of 27th, decline of 10 in. from 2 weeks earlier.

WYOMING: Weather continued unseasonably warm and dry except for small amount of precipitation in

the west and southwest. Slightly less than 0.33 in. reported in the Green and Bear drainages. Temperatures averaged above normal. Highest temperature, 70° in southeast, coldest temperature, 20° in northwest.

Winter wheat mostly in good condition. Live-stock mostly good. Some early calving, lambing and shearing.