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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World Food and Agricultural Outlook and Situation Board

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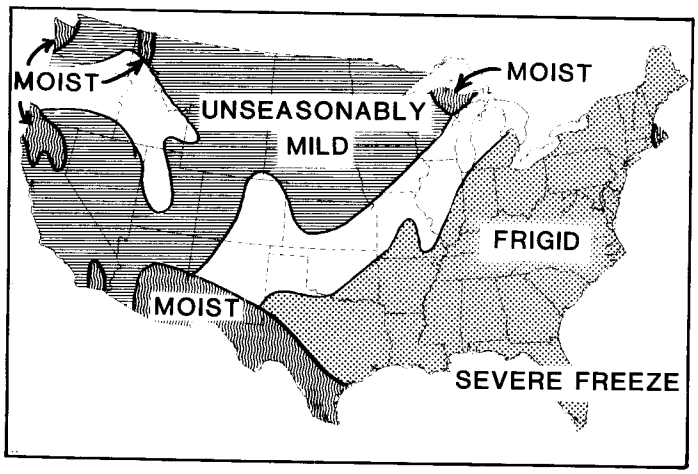


National Weather Summary

JANUARY 12 - 18, 1981

HIGHLIGHTS...A major freeze spread through the Florida peninsula on the 13th and 14th with a lesser freeze returning on the 18th. Considerable damage was done to fruits and vegetables as temperatures ranged from 7° in the Panhandle to 29° in parts of the Everglades. Bitter cold gripped all of the East. Welcome precipitation in the Southwest was in the form of snow in New Mexico and West Texas, spreading northward through the western Plains. Above-normal temperatures prevailed in the West.

MONDAY...The low pressure off the coast of southern California moved a little closer and spread showers all the way to southwestern Texas. A few light showers at the southern tip of Texas and snow showers in and south of the Great Lakes regions were the only other precipitation reports in the Nation. Eastern United States remained unseasonably cold as repeated surges of cold air enveloped the area and pushed further south. Freezing temperatures had already penetrated into southern Florida.

TUESDAY...Freezing temperatures reached into southern Florida. Fruits were severely damaged and many vegetable crops were wiped out as record-low temperatures were reached. Some of the records included the tropical city of Key West, in the Florida Keys, 41°; Miami, 32°; Ft. Meyers, 28°; Orlando, in the heart of the citrus belt, 23°; Jacksonville, 13°; and Tallahassee, in the northern Panhandle, a frigid 8°. Record lows were not confined to Florida. Other cities from New England to Florida had record cold. Light showers continued from Arizona to southern Texas and snow persisted in the Great Lakes and in West Virginia and Pennsylvania.

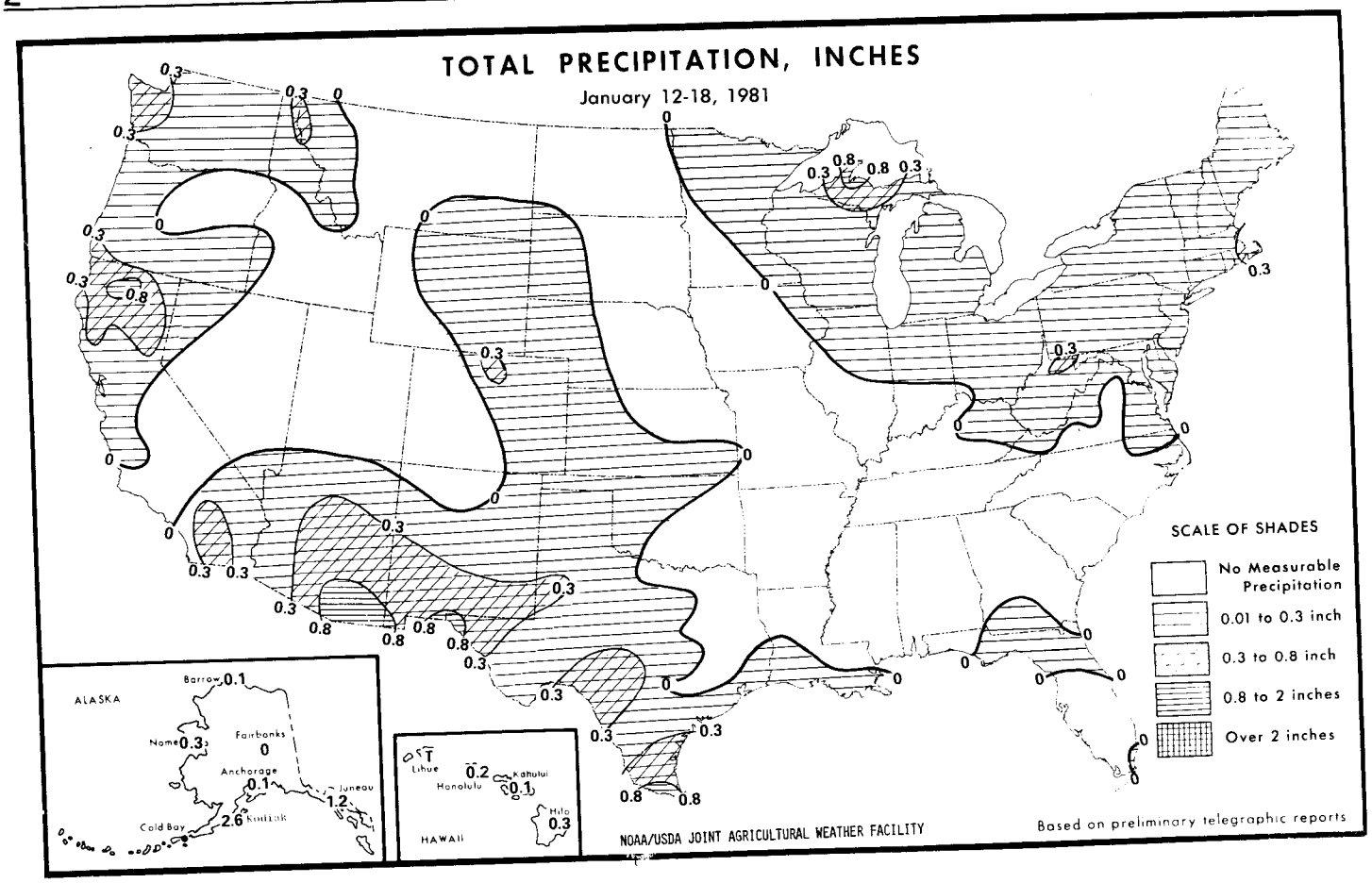
WEDNESDAY...The arctic air continued to flow into Florida and the East. Many of Florida's cities got even colder than the previous night and the devastation of fruits and vegetables continued. Orlando set an all-time record low for January with a reading of 20°. Out West, although night time temperatures were quite low at high elevations, the weather was warmer than normal. A low pressure system in the Gulf of Mexico began spreading light rain along the coast, bringing warmer air to the frozen areas of the South and Southeast.

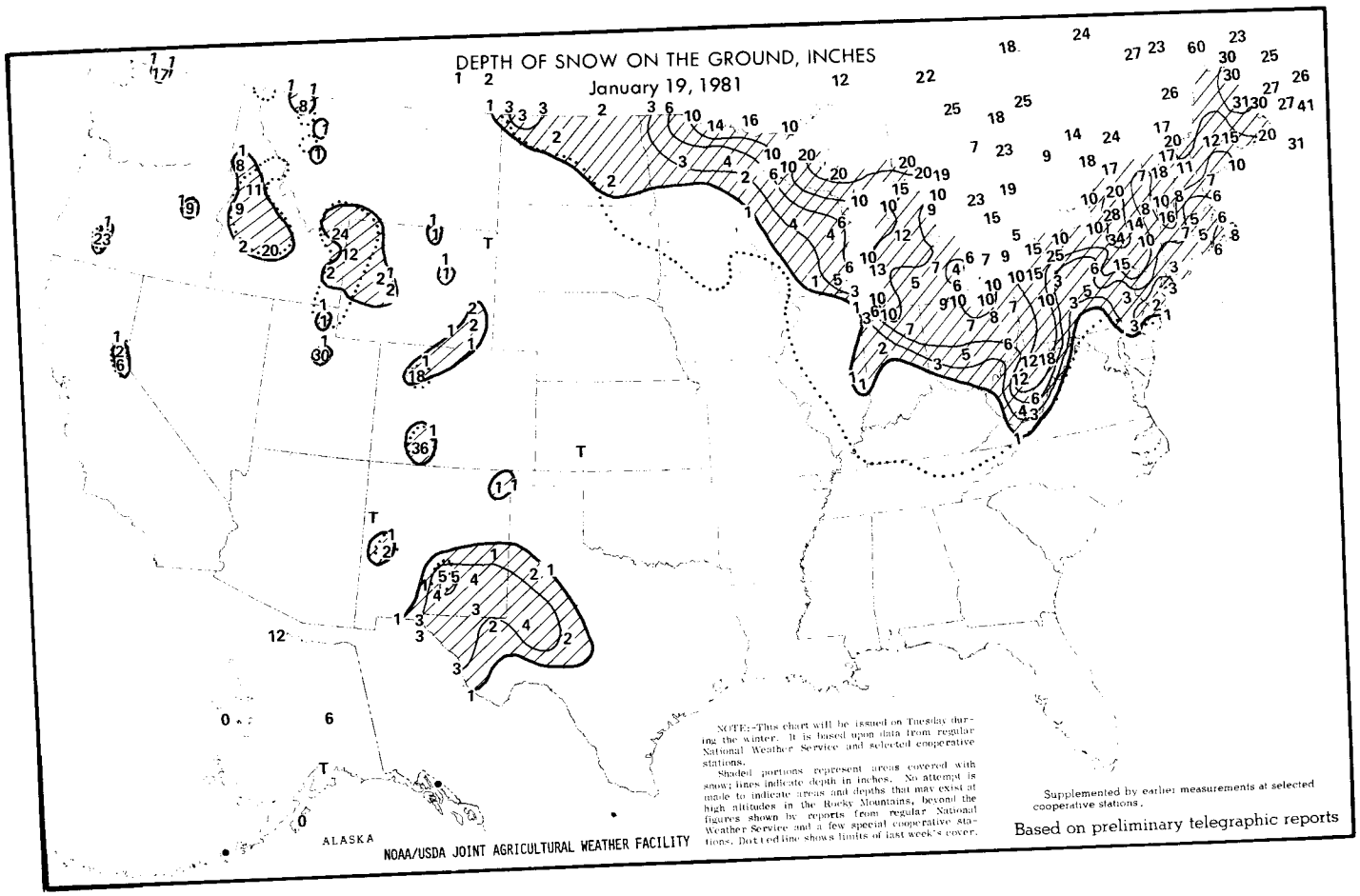
THURSDAY...Another surge of arctic air brought below zero temperatures to the northern Mississippi Valley and a low center spread snow across the upper Great Lakes into the Ohio Valley. Another disturbance dropped light snow through the mid-Atlantic States. Elsewhere, snow fell from the West Central Plains northward. A few rainshowers dotted central California in record-breaking warm weather. Temperatures in the East, while still cold, moderated somewhat.

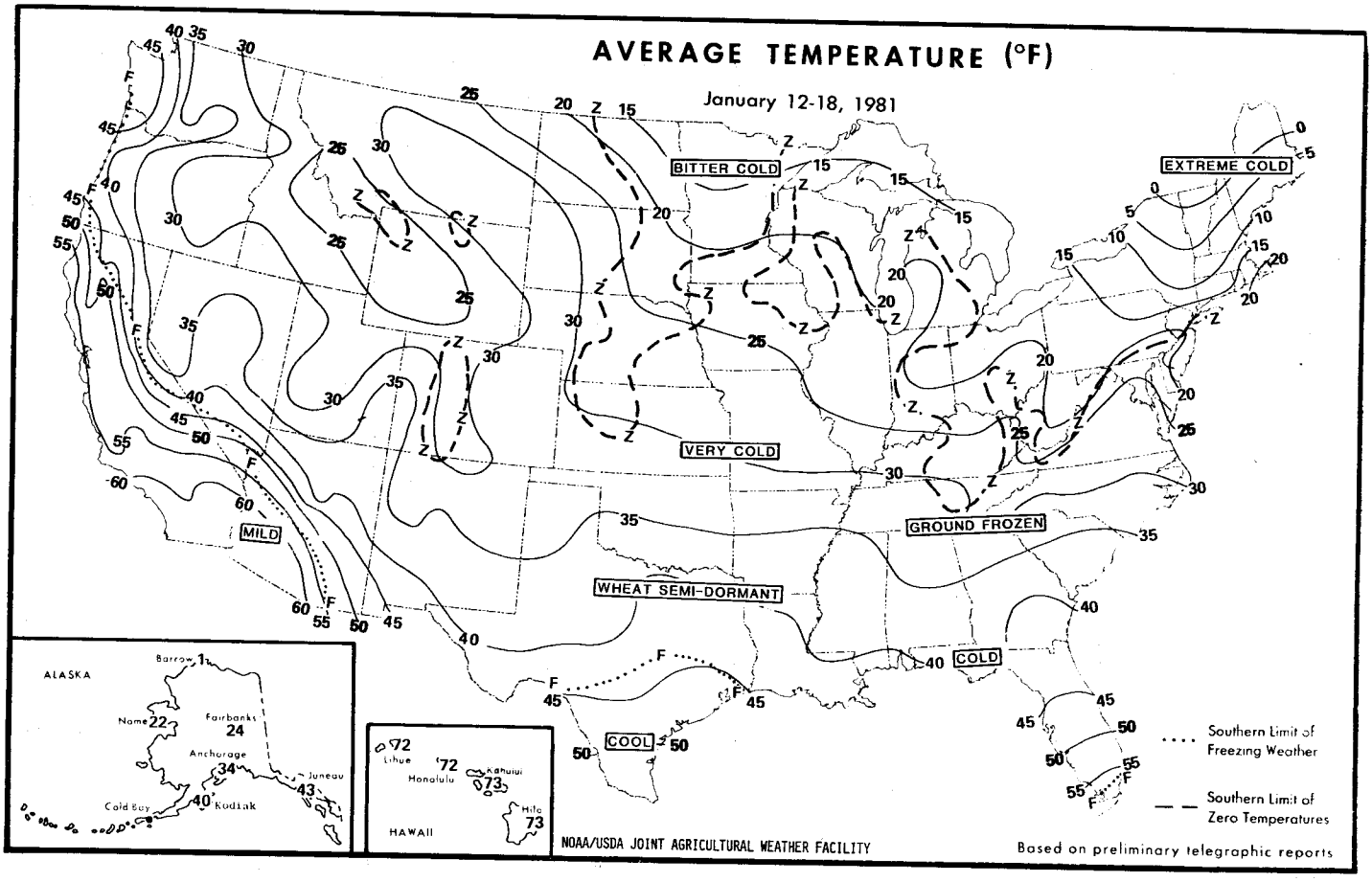
FRIDAY...Freezing rain changed to snow over Delaware, Maryland, and Virginia before spreading through Pennsylvania and into New England. Heavy snow covered the northern Great Lakes and the light snowshowers continued from the central to the northern Plains. Light rainshowers covered western coastal areas and some snow fell in the mountains. Moderate temperatures continued in most of the East, but frigid air began pushing southward and eastward from the northern Plains.

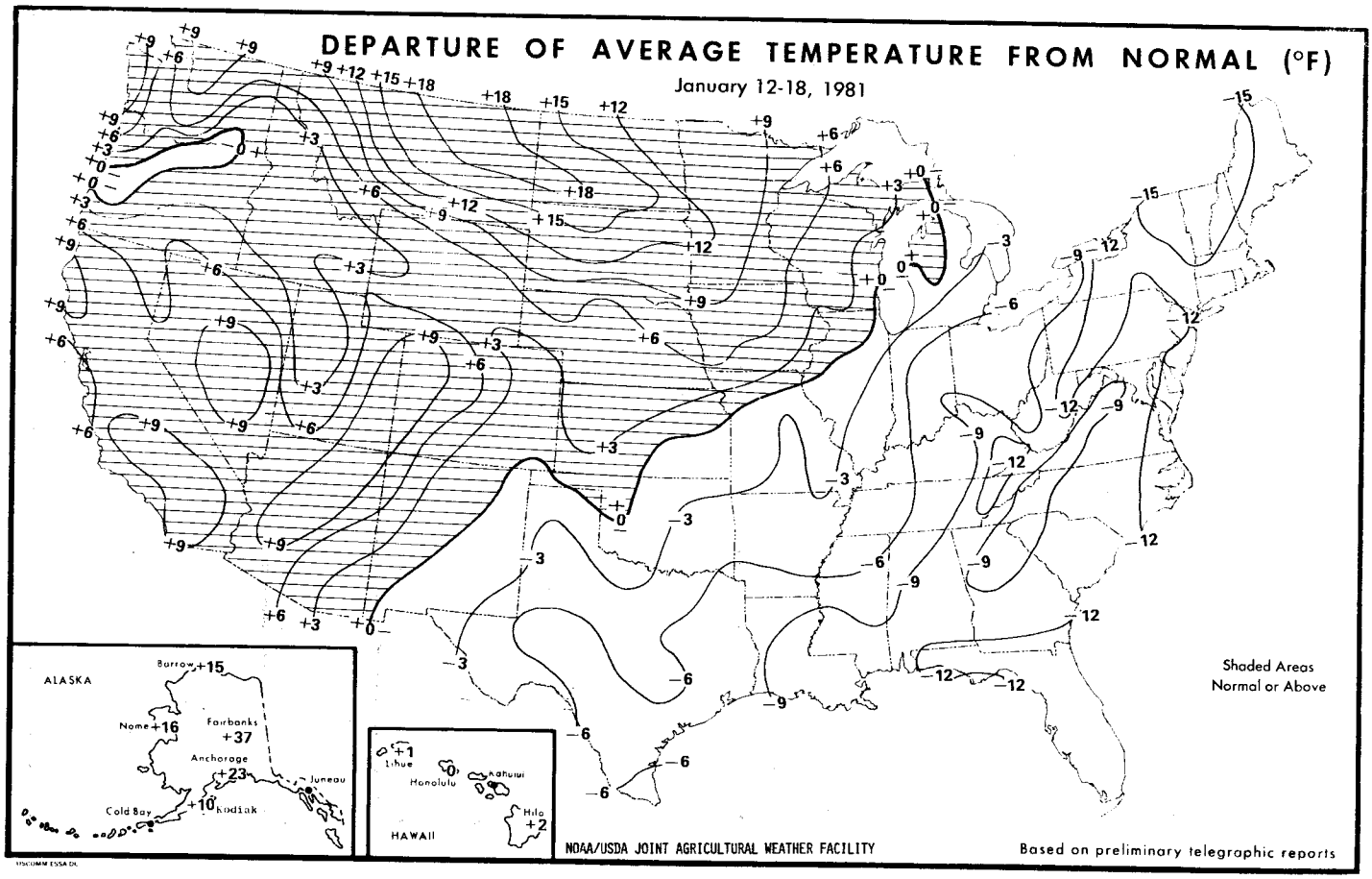
SATURDAY...Snow fell along the northeastern Atlantic coast with snow showers from the central Appalachians through the eastern Great Lakes States. Showers from New Mexico to southeastern Texas changed to snow from central Texas to New Mexico, prompting a livestock advisory due to cold, wet weather. In the Northwest, a cold front moved onshore and caused widespread showers from central California through the Pacific Northwest. The cold air advanced into the Southeast, again threatening the Florida area.

SUNDAY...Freezing weather reached into central Florida again but this time damage was probably minimal. Snow through eastern New Mexico and western Texas spread northward into southern Kansas. Cold rain covered eastern Texas. Warmer weather pushed into the mid-Atlantic States and northeastward but snow fell in New York and southern New England ahead of the advancing warm air. The persistant flow of arctic air into the Southeast again threatened Florida with freezing weather. Rain fell along the Washington coast and into the Cascade Mountains.


TOTAL PRECIPITATION, INCHES
January 12-18, 1981
SCALE OF SHADES
No Measurable Precipitation
0.01 to 0.3 inch
0.3 to 0.8 inch
0.8 to 2 inches
Over 2 inches
ALASKA
Barrow 0.1
Nome 0.3
Fairbanks 0
Anchorage 0.1
Juneau 1.2
Cold Bay 2.6
Kodiak
HAWAII
Lihue 0.2
Honolulu
Kahului 0.1
Hilo 0.3
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary telegraphic reports


DEPTH OF SNOW ON THE GROUND, INCHES
January 19, 1981
NOTE:—This chart will be issued on Tuesday during the winter. It is based upon data from regular National Weather Service and selected cooperative stations.
Shaded portions represent areas covered with snow; lines indicate depth in inches. No attempt is made to indicate areas and depths that may exist at high altitudes in the Rocky Mountains, beyond the figures shown by reports from regular National Weather Service and a few special cooperative stations. Dotted line shows limits of last week's cover.
Supplemented by earlier measurements at selected cooperative stations.
Based on preliminary telegraphic reports
ALASKA
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY


AVERAGE TEMPERATURE (°F)
January 12-18, 1981
BITTER COLD
EXTREME COLD
VERY COLD
MILD
GROUND FROZEN
WHEAT SEMI-DORMANT
COLD
COOL
Southern Limit of Freezing Weather
Southern Limit of Zero Temperatures
ALASKA
Barrow 1
Nome 22
Fairbanks 24
Anchorage 34
Juneau 43
Cold Bay
Kodiak 40
HAWAII
Lihue 72
Honolulu 72
Kahului 73
Hilo 73
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary telegraphic reports


DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F)
January 12-18, 1981
Shaded Areas Normal or Above
ALASKA
Barrow +15
Nome +16
Fairbanks +37
Anchorage +23
Juneau
Cold Bay +10
Kodiak
HAWAII
Lihue +1
Honolulu 0
Kahului
Hilo +2
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary telegraphic reports

Weather Data for the Week Ending Jan. 18, 1981

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION					RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
														TEMPERATURE °F		PRECIPITATION	
	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	.01 INCH OR MORE	.50 INCH OR MORE
AL BIRMINGHAM	48	20	57	10	34	-10	0	- 1.1	0	1.3	16	76	28	0	7	0	0
MOBILE	53	27	65	17	40	-11	0	- 1.1	0	1.9	21	73	30	0	4	0	0
MONTGOMERY	51	24	59	15	37	-10	0	- .9	0	1.9	26	68	28	0	7	0	0
AK ANCHORAGE	39	29	46	22	34	23	.1	0	T	.5	33	86	65	0	6	4	0
BARROW	5	-3	8	-8	1	15	.1	0	T	.2	67	85	80	0	7	5	0
FAIRBANKS	34	14	50	-1	24	37	0	- .1	0	.3	38	70	36	0	6	0	0
JUNEAU	48	38	55	32	43	20	1.2	.3	.4	--	--	93	44	0	1	7	5
KODIAK	42	37	44	35	40	10	2.6	1.5	.6	11.9	153	94	85	0	0	7	2
NOME	27	18	32	10	22	16	.3	.1	.1	.7	58	83	65	0	7	5	0
AZ FLAGSTAFF	44	31	49	27	38	10	.3	- .1	.2	1.9	58	--	67	0	6	3	0
PHOENIX	68	53	72	45	60	9	.5	.3	.5	.8	62	80	44	0	0	2	1
TUCSON	61	47	67	40	54	4	.9	.8	.7	1.5	115	77	49	0	0	3	1
WINSLOW	47	35	51	32	41	9	.4	.3	.2	.9	129	--	--	0	2	3	0
YUMA	74	52	76	49	63	8	.1	0	.1	.3	43	74	40	0	0	1	0
AR FORT SMITH	49	19	58	10	34	-5	0	- .5	0	1.4	33	83	30	0	7	0	0
LITTLE ROCK	46	25	59	15	36	-5	0	- .9	0	2.7	42	68	33	0	6	0	0
CA BAKERSFIELD	69	44	74	40	56	9	0	- .2	0	.2	17	--	45	0	0	0	0
EUREKA	64	48	73	41	56	9	.3	- 1.4	.2	6.7	61	87	56	0	0	2	0
FRESNO	65	40	70	35	52	7	0	- .4	0	.5	18	89	45	0	0	0	0
LOS ANGELES	69	53	75	51	61	7	0	- .7	0	1.7	52	81	54	0	0	0	0
RED BLUFF	62	42	66	35	52	7	.4	- .7	.2	3.2	50	--	57	0	0	3	0
SAN DIEGO	71	57	76	55	64	8	.1	- .3	.1	.7	24	88	58	0	0	1	0
SAN FRANCISCO	61	46	67	42	54	6	.2	- .7	.1	2.0	31	87	54	0	0	3	0
STOCKTON	62	40	66	34	51	7	T	- .7	T	1.2	27	--	51	0	0	2	0
CO DENVER	46	21	63	20	34	5	.1	0	.1	.2	29	64	34	0	7	1	0
GRAND JUNCTION	49	25	51	23	37	11	0	- .1	0	.2	29	73	32	0	7	0	0
PUEBLO	51	14	65	10	33	3	T	- .1	T	T	0	75	35	0	7	1	0
CT BRIDGEPORT	23	10	28	-3	17	-14	.1	- .5	.1	1.4	28	69	63	0	7	1	0
HARTFORD	22	0	32	-14	11	-13	.1	- .6	.1	1.2	20	64	45	0	7	1	0
DC WASHINGTON	33	19	42	11	26	-10	.1	- .5	.1	1.0	21	76	49	0	7	1	0
FL APALACHICOLA	53	31	63	17	42	-11	.1	- .6	.1	1.5	29	70	37	0	4	1	0
DAYTONA BEACH	57	30	71	19	43	-15	T	- .4	T	1.6	55	73	34	0	4	1	0
FORT MYERS	64	38	76	29	50	-13	0	- .4	0	.5	21	65	37	0	2	0	0
JACKSONVILLE	57	26	69	13	41	-14	0	- .6	0	.9	22	73	30	0	5	0	0
KEY WEST	64	51	76	41	57	-13	0	- .4	0	.5	20	71	59	0	0	0	0
MIAMI	67	44	78	32	55	-11	.1	- .4	.1	.3	10	79	42	0	1	1	0
ORLANDO	60	31	75	20	46	-14	T	- .5	T	.5	16	67	31	0	5	0	0
TALLAHASSEE	54	25	66	8	40	-13	.1	- .7	.1	1.6	25	65	33	0	5	1	0
TAMPA	58	35	72	22	46	-14	T	- .5	T	.4	11	68	36	0	4	0	0
WEST PALM BEACH	67	41	78	32	54	-12	0	- .6	0	1.4	37	66	40	0	1	0	0
GA ATLANTA	48	22	55	10	35	-7	0	- 1.0	0	1.5	22	64	27	0	7	0	0
AUGUSTA	50	20	60	13	35	-11	0	- .8	0	1.3	24	74	25	0	7	0	0
MACON	54	23	63	12	39	-9	0	- .8	0	1.7	26	72	20	0	7	0	0
SAVANNAH	51	26	63	14	39	-11	0	- .6	0	1.6	32	65	27	0	6	0	0
HI HILO	--	--	--	--	73	2	.3	- 1.5	--	--	--	--	--	-	-	-	-
HONOLULU	82	63	83	59	72	0	.2	- .8	.1	4.5	70	97	53	0	0	3	0
KAHULUI	--	--	--	--	73	1	.1	- .7	--	2.1	43	--	--	-	-	-	-
LIHUE	--	--	--	--	72	1	T	- 1.4	T	5.2	--	--	--	-	-	-	-
ID BOISE	35	25	50	23	30	2	T	- .3	T	1.5	68	88	71	0	7	1	0
LEWISTON	36	27	48	25	32	2	T	- .3	T	.9	43	86	72	0	7	1	0
POCATELLO	39	13	47	9	26	4	0	- .3	0	.6	35	88	60	0	7	0	0
IL CAIRO	40	21	53	13	31	-5	0	- .9	0	1.5	24	--	--	0	0	0	0
CHICAGO	31	12	43	-1	21	-1	T	- .4	T	3.5	121	85	61	0	7	2	0
MOLINE	34	12	50	0	23	2	T	- .3	T	2.9	107	73	43	0	7	2	0
PEORIA	32	13	48	-1	23	0	T	- .4	T	2.5	86	85	51	0	7	1	0
ROCKFORD	31	11	48	2	21	1	T	- .4	T	2.7	96	81	52	0	7	2	0
SPRINGFIELD	33	14	48	1	24	-3	T	- .4	T	2.2	76	86	61	0	7	0	0
IN EVANSVILLE	36	17	52	2	27	-5	T	- .8	T	1.1	21	64	45	0	7	0	0
FORT WAYNE	25	9	32	-1	17	-8	T	- .5	T	3.1	86	79	69	0	7	2	0
INDIANAPOLIS	27	12	36	-8	20	-8	.1	- .6	T	1.3	30	73	65	0	7	3	0
SOUTH BEND	30	10	38	3	20	-4	.1	- .5	T	4.6	110	80	64	0	7	2	0
IA BURLINGTON	36	13	52	5	25	3	T	- .4	T	3.1	111	--	--	0	7	0	0
DES MOINES	39	11	52	4	25	6	T	- .3	T	1.1	55	70	36	0	7	0	0
DUBUQUE	30	11	46	-1	20	3	.1	- .3	.1	1.9	66	86	59	0	7	1	0
SIOUX CITY	38	11	53	-2	25	8	T	- .1	T	.3	30	77	39	0	7	0	0
KS CONCORDIA	43	17	53	7	30	4	0	- .1	0	.9	90	75	38	0	7	0	0
DODGE CITY	47	20	61	8	33	3	.1	.1	.1	.8	133	73	42	0	7	2	0
GOODLAND	45	14	62	3	29	2	.1	.1	.1	.1	17	71	37	0	7	2	0
TOPEKA	42	14	53	6	28	1	0	- .2	0	3.8	173	85	40	0	7	0	0
WICHITA	45	16	51	10	30	-1	T	- .2	T	2.2	122	77	33	0	7	1	0
KY LEXINGTON	31	17	41	-2	24	-8	T	- .9	T	1.8	31	78	55	0	7	1	0
LOUISVILLE	34	18	48	3	26	-7	T	- .8	T	1.5	28	72	49	0	7	0	0
LA BATON ROUGE	51	28	60	18	40	-11	T	- 1.0	T	3.1	41	71	28	0	4	0	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Jan. 18, 1981

STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION					RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
														TEMPERATURE °F		PRECIPITATION	
	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	.01 INCH OR MORE	.50 INCH OR MORE
LAKE CHARLES	53	33	61	23	43	-9	T	- .8	T	2.7	34	71	40	0	3	1	0
NEW ORLEANS	53	32	62	17	42	-10	T	- 1.0	T	2.0	26	61	40	0	2	1	0
SHREVEPORT	53	27	63	21	40	-7	0	- .9	0	1.4	22	75	35	0	6	0	0
ME CARIBOU	8	-12	13	-18	-2	-13	.3	- .1	.2	4.2	111	79	50	0	7	3	0
PORTLAND	21	-2	26	-15	9	-12	.1	- .6	.1	2.2	36	73	47	0	7	2	0
MD BALTIMORE	31	13	41	0	22	-11	.1	- .6	.1	1.1	22	79	49	0	7	1	0
MA BOSTON	24	9	29	0	17	-12	.3	- .5	.2	1.8	28	59	49	0	7	3	0
CHATHAM	29	15	35	-2	22	-9	.5	--	.3	7.2	--	83	65	0	7	3	0
MI ALPENA	26	5	42	-11	16	-2	.2	- .2	.1	2.7	93	--	--	0	7	2	0
DETROIT	26	13	37	-4	20	-5	.1	- .3	.1	2.8	82	78	55	0	7	3	0
FLINT	26	11	33	-3	18	-4	.1	- .3	.1	3.5	125	89	69	0	7	3	0
GRAND RAPIDS	29	17	38	5	23	0	.1	- .3	.1	4.1	128	91	66	0	7	3	0
HOUGHTON LAKE	26	7	39	-7	17	0	.2	- .2	.1	2.7	93	87	59	0	7	3	0
LANSING	26	11	35	-6	19	-4	.1	- .3	.1	3.4	110	97	76	0	7	4	0
MARQUETTE	26	9	44	-2	18	5	.7	.3	.4	3.6	113	89	66	0	7	4	0
MUSKEGON	27	17	35	8	22	-2	.2	- .3	.1	4.1	105	88	72	0	7	4	0
SAULT STE. MARIE	22	3	34	-19	13	-1	.1	- .3	.1	4.8	137	76	66	0	7	2	0
MN DULUTH	24	7	41	-2	16	8	T	- .3	T	.7	32	76	52	0	7	2	0
INT'L FALLS	21	1	35	-13	11	10	.1	- .1	.1	.8	53	82	55	0	7	2	0
MINNEAPOLIS	32	8	46	-1	20	8	.1	- .1	T	.4	31	74	46	0	7	2	0
ROCHESTER	33	9	45	-1	21	9	.1	- .1	.1	.5	45	81	61	0	7	1	0
SAINT CLOUD	30	8	48	-2	19	11	.1	0	.1	.4	31	84	--	0	7	1	0
MS JACKSON	50	23	61	15	36	-11	0	- 1.0	0	1.8	23	81	32	0	6	0	0
MERIDIAN	54	23	65	14	39	-8	0	- .9	0	1.8	20	77	25	0	7	0	0
MO COLUMBIA	36	15	47	6	26	-3	T	- .4	T	1.2	41	65	37	0	7	0	0
KANSAS CITY	38	14	50	6	26	0	0	- .3	0	5.5	239	68	37	0	7	0	0
SAINT LOUIS	41	17	53	8	29	-2	T	- .4	T	.7	23	75	40	0	7	0	0
SPRINGFIELD	42	18	50	9	30	-3	0	- .4	0	2.0	57	75	36	0	7	0	0
MT BILLINGS	45	23	55	10	34	13	T	- .2	T	.3	33	60	35	0	7	1	0
GLASGOW	35	18	42	14	27	19	T	- .1	T	.2	29	87	67	0	7	0	0
GREAT FALLS	46	21	54	5	34	14	0	- .2	0	.3	25	68	35	0	7	0	0
HAVRE	43	16	52	2	29	19	T	- .1	T	.7	117	89	44	0	7	0	0
HELENA	37	14	51	10	25	8	T	- .1	T	.4	50	86	47	0	7	0	0
KALISPELL	29	22	37	18	25	7	.1	- .3	.1	2.7	113	81	70	0	7	1	0
MILES CITY	42	21	51	16	32	18	T	- .1	T	.4	57	78	48	0	7	0	0
MISSOULA	29	21	37	18	25	5	T	- .3	T	1.4	70	96	80	0	7	1	0
NE GRAND ISLAND	42	13	56	1	27	5	T	- .1	T	.2	29	77	35	0	7	0	0
LINCOLN	42	11	53	1	26	5	0	- .1	0	.8	89	80	34	0	7	0	0
NORFOLK	38	12	52	0	25	7	T	- .1	T	.2	29	78	40	0	7	0	0
NORTH PLATTE	43	11	56	0	27	4	T	- .1	T	T	0	79	35	0	7	1	0
OMAHA	38	14	50	2	26	6	0	- .1	0	.3	33	78	51	0	7	0	0
VALENTINE	41	11	57	0	26	6	T	- .1	T	.5	71	86	37	0	7	0	0
NV ELY	48	19	54	16	34	11	0	- .1	0	1.2	133	82	42	0	7	0	0
LAS VEGAS	63	42	67	38	52	8	T	- .1	T	T	0	71	35	0	0	1	0
RENO	51	24	54	19	38	6	T	- .3	T	.7	37	94	45	0	7	1	0
WINNEMUCCA	55	15	56	11	35	7	T	- .2	T	.2	11	75	34	0	7	1	0
NH CONCORD	19	-8	24	-21	6	-15	.2	- .4	.1	1.2	25	78	41	0	7	1	0
NJ ATLANTIC CITY	26	5	37	-6	16	-17	.3	- .6	.1	1.4	23	87	59	0	7	3	0
TRENTON	27	15	34	1	21	-11	T	- .6	T	.9	18	--	--	0	7	2	0
NM ALBUQUERQUE	48	24	56	19	36	1	.1	0	T	.8	114	72	40	0	7	2	0
ROSWELL	44	27	56	22	36	-2	.3	.2	.1	.5	83	--	--	0	5	3	0
NY ALBANY	17	-3	31	-16	7	-15	.1	- .4	.1	1.9	44	75	49	0	7	2	0
BINGHAMTON	19	4	29	-12	11	-11	.2	- .3	.1	2.3	55	86	65	0	7	3	0
BUFFALO	23	11	28	-2	17	-7	.2	- .5	.2	3.6	78	75	66	0	7	4	0
NEW YORK	25	14	30	1	19	-13	.1	- .5	.1	1.2	23	74	63	0	7	1	0
ROCHESTER	21	2	28	-15	11	-13	.2	- .3	.1	3.4	94	89	55	0	7	3	0
SYRACUSE	22	1	38	-18	11	-13	.2	- .4	.1	4.5	96	72	53	0	7	3	0
NC ASHEVILLE	41	17	53	8	29	-9	T	- .8	T	.6	11	81	35	0	7	0	0
CHARLOTTE	44	21	54	8	32	-10	0	- .8	0	.9	16	67	31	0	7	0	0
GREENSBORO	40	17	51	2	28	-11	0	- .7	0	.8	16	78	32	0	7	0	0
HATTERAS	37	23	49	16	30	-15	0	- .9	0	4.7	66	74	51	0	7	0	0
RALEIGH	40	17	50	4	29	-12	T	- .7	T	1.6	33	74	32	0	7	0	0
WILMINGTON	46	23	60	7	34	-12	0	- .7	0	5.6	108	72	32	0	5	0	0
ND BISMARCK	36	12	44	5	24	16	T	- .1	T	.3	43	89	55	0	7	0	0
FARGO	25	4	34	-6	15	9	T	- .1	T	.5	71	85	61	0	7	0	0
WILLISTON	35	10	43	2	23	15	T	- .1	T	.7	88	89	55	0	7	0	0
OH AKRON-CANTON	26	14	31	-6	20	-6	.1	- .5	.1	2.8	72	76	56	0	7	5	0
CINCINNATI	28	13	37	-4	20	-11	0	- .8	0	1.6	33	74	57	0	7	0	0
CLEVELAND	25	13	30	-3	19	-8	.2	- .4	.1	2.9	74	88	62	0	7	3	0
COLUMBUS	28	12	35	0	20	-8	.2	- .5	.1	2.8	68	81	58	0	7	4	0
DAYTON	27	14	33	-4	21	-7	.1	- .5	.1	1.9	48	83	63	0	7	4	0
TOLEDO	24	9	32	1	17	-7	.1	- .4	T	3.0	86	84	70	0	7	2	0
YOUNGSTOWN	22	11	29	-7	17	-9	.1	- .6	.1	2.1	48	86	64	0	7	2	0
OK OKLAHOMA CITY	46	21	62	9	33	-3	T	- .2	T	1.6	84	80	34	0	7	0	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Jan. 18, 1981

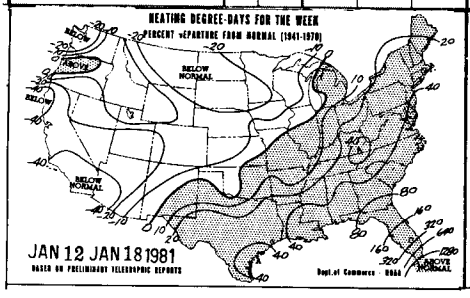
STATES AND STATIONS	TEMPERATURE °F						PRECIPITATION					RELATIVE HUMIDITY, PERCENT		NUMBER OF DAYS			
														TEMPERATURE °F		PRECIPITATION	
	AVERAGE MAXIMUM	AVERAGE MINIMUM	EXTREME HIGH	EXTREME LOW	AVERAGE	DEPARTURE FROM NORMAL	WEEKLY TOTAL, IN.	DEPARTURE FROM NORMAL	GREATEST IN 24-HOUR, IN.	TOTAL, IN., SINCE Dec. 1	PCT. NORMAL SINCE Dec. 1	AVERAGE MAXIMUM	AVERAGE MINIMUM	90 AND ABOVE	32 AND BELOW	.01 INCH OR MORE	.50 INCH OR MORE
TULSA	46	20	59	12	33	-3	0	- .3	0	1.4	54	78	32	0	7	0	0
OR ASTORIA	57	42	61	33	50	10	.1	- 2.1	.1	12.6	77	72	54	0	0	2	0
BURNS	43	16	48	15	30	5	.1	- .3	.1	1.5	54	91	53	0	6	1	0
MEDFORD	48	33	65	29	41	5	.1	- .8	T	2.7	47	96	68	0	4	2	0
PENDLETON	31	29	34	29	30	-1	T	- .4	T	1.2	44	93	88	0	7	0	0
PORTLAND	49	35	53	28	42	4	.1	- 1.3	T	9.9	103	76	54	0	2	2	0
SALEM	48	27	55	23	38	0	.1	- 1.6	.1	10.6	96	87	66	0	6	1	0
PA ALLENTOWN	25	11	31	-3	18	-10	.1	- .6	.1	1.3	24	75	51	0	7	2	0
ERIE	23	11	30	-3	17	-7	.1	- .5	.1	3.2	73	--	--	0	7	4	0
HARRISBURG	28	12	35	-4	20	-10	.1	- .5	.1	1.3	28	69	51	0	7	2	0
PHILADELPHIA	26	12	32	0	19	-13	.1	- .5	.1	1.2	24	69	61	0	7	3	0
PITTSBURGH	25	12	32	-5	18	-10	.1	- .5	.1	2.0	49	88	59	0	7	5	0
SCRANTON	23	6	32	-13	15	-12	.1	- .4	T	1.8	47	77	56	0	7	3	0
RI PROVIDENCE	25	6	30	-8	15	-13	.3	- .5	.1	2.3	37	63	46	0	7	3	0
SC CHARLESTON	51	23	65	13	37	-12	0	- .6	0	1.4	29	67	28	0	7	0	0
COLUMBIA	49	20	60	11	35	-10	0	- .8	0	1.6	29	71	29	0	7	0	0
GREENVILLE	47	21	55	9	34	-8	0	- .9	0	.8	12	66	26	0	7	0	0
SD ABERDEEN	35	9	45	0	22	13	T	- .1	T	.1	17	87	50	0	7	0	0
HURON	36	9	47	-2	23	11	T	- .1	T	.1	14	85	42	0	7	0	0
RAPID CITY	43	19	59	8	31	10	.1	0	.1	.7	117	72	43	0	7	1	0
SIOUX FALLS	36	11	47	-3	23	10	T	- .1	T	.3	33	78	49	0	7	0	0
TN CHATTANOOGA	44	18	52	8	31	-9	0	- 1.2	0	1.2	14	71	30	0	7	0	0
KNOXVILLE	39	19	48	7	29	-12	T	- 1.1	T	2.0	27	81	39	0	6	0	0
MEMPHIS	45	26	55	18	36	-4	0	- 1.1	0	2.6	34	65	37	0	6	0	0
NASHVILLE	43	21	56	5	32	-6	0	- 1.1	0	1.7	23	71	34	0	7	0	0
TX ABILENE	47	30	57	25	39	-4	.2	- .1	.1	2.9	181	74	48	0	5	2	0
AMARILLO	46	20	63	14	33	-3	T	- .1	T	.4	44	83	39	0	7	1	0
AUSTIN	53	36	63	31	44	-5	T	- .4	T	1.6	50	66	40	0	2	0	0
BEAUMONT	56	34	63	26	45	-7	.1	- .8	.1	2.9	40	68	32	0	2	1	0
BROWNSVILLE	62	48	72	41	55	-5	.8	.5	.3	2.9	145	93	67	0	0	5	0
CORPUS CHRISTI	57	42	68	35	50	-6	.4	.1	.2	.9	36	74	53	0	0	3	0
DEL RIO	50	38	64	31	44	-7	.6	.5	.5	1.5	250	82	57	0	1	2	1
EL PASO	49	33	60	26	41	-2	.9	.8	.4	1.2	150	93	57	0	3	5	0
FORT WORTH	51	28	64	21	40	-4	T	- .4	T	1.6	57	70	32	0	5	1	0
GALVESTON	52	42	60	36	47	-6	.4	- .3	.4	2.5	45	62	43	0	0	2	0
HOUSTON	58	34	69	27	46	-6	T	- .8	T	1.6	26	76	31	0	2	0	0
LUBBOCK	47	26	60	23	36	-3	.3	.1	.2	.9	113	76	42	0	7	2	0
MIDLAND	44	29	56	25	37	-6	.2	0	.1	1.7	213	68	53	0	6	2	0
SAN ANGELO	48	30	60	25	39	-7	.2	0	.2	3.3	330	77	54	0	6	2	0
SAN ANTONIO	53	35	65	31	44	-6	.1	- .2	.1	1.1	46	71	49	0	3	2	0
VICTORIA	56	37	65	32	47	-6	.1	- .3	.1	1.0	33	69	40	0	1	2	0
WACO	52	30	63	26	41	-5	T	- .4	T	2.9	97	75	38	0	5	0	0
WICHITA FALLS	51	29	65	22	40	-1	T	- .2	T	2.0	100	63	35	0	4	0	0
UT BLANDING	51	24	59	20	38	11	0	- .3	0	.2	10	82	32	0	7	0	0
SALT LAKE CITY	33	27	41	26	30	3	T	- .3	T	.5	22	87	71	0	7	0	0
VT BURLINGTON	11	-11	22	-18	0	-17	.2	- .1	.1	1.9	63	64	48	0	7	2	0
VA LYNCHBURG	36	17	47	4	27	-10	T	- .6	T	.7	14	83	--	0	7	1	0
NORFOLK	35	21	46	12	28	-13	T	- .8	T	2.7	54	66	44	0	7	1	0
RICHMOND	35	16	43	2	26	-12	T	- .6	T	.6	12	75	40	0	7	1	0
ROANOKE	37	19	47	5	28	-8	0	- .6	0	.7	15	68	34	0	7	0	0
WA COLVILLE	36	22	40	16	29	6	T	- .5	T	3.3	94	--	--	0	6	1	0
OMAK	35	28	40	26	31	--	T	--	T	2.3	88	100	92	0	7	1	0
QUILLAYUTE	59	36	65	29	48	10	.8	- 2.5	.8	19.3	79	95	55	0	2	1	1
SEATTLE-TACOMA	53	35	59	29	44	6	.3	- 1.0	.3	7.9	85	84	61	0	3	1	0
SPOKANE	32	22	40	14	27	3	T	- .6	T	3.7	93	98	78	0	7	1	0
WALLA-WALLA	34	32	34	31	32	0	T	- .5	T	3.0	94	89	84	0	5	0	0
YAKIMA	36	32	45	31	34	8	T	- .3	T	2.8	140	87	78	0	4	1	0
WV BECKLEY	27	13	40	-3	20	-11	.1	- .7	T	1.6	29	74	46	0	7	5	0
CHARLESTON	32	19	43	7	25	-9	.2	- .6	.1	2.5	48	87	51	0	7	6	0
HUNTINGTON	32	18	43	7	25	-9	.2	- .5	.1	2.3	49	79	48	0	7	5	0
PARKERSBURG	29	18	38	1	24	-9	T	- .7	T	1.6	36	91	71	0	7	0	0
WI GREEN BAY	25	8	35	-5	17	2	.1	- .2	T	1.5	75	69	56	0	7	2	0
LA CROSSE	32	10	49	-1	22	6	.1	- .1	.1	.7	47	87	40	0	7	1	0
MADISON	30	12	49	5	21	5	T	- .3	T	1.8	78	81	55	0	7	1	0
MILWAUKEE	28	10	39	-1	19	0	T	- .3	T	3.8	136	84	58	0	7	2	0
WY CASPER	39	13	50	0	26	3	.2	.1	.1	.6	86	75	45	0	7	4	0
CHEYENNE	43	15	59	7	29	3	.2	.1	.1	.3	43	72	39	0	7	2	0
LANDER	35	10	46	0	22	3	.1	0	.1	.3	50	79	46	0	7	2	0
SHERIDAN	42	11	62	-8	27	7	.2	.1	.2	.9	129	75	33	0	7	1	0
PR SAN JUAN	87	73	90	72	80	5	.8	- .1	.7	4.9	70	--	--	1	0	3	2

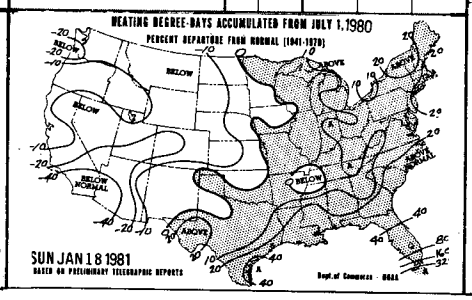
BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

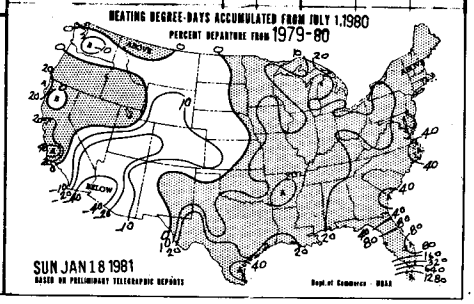
HEATING DEGREE DAYS (BASE 65°) FOR WEEK ENDING JAN. 18, 1981.

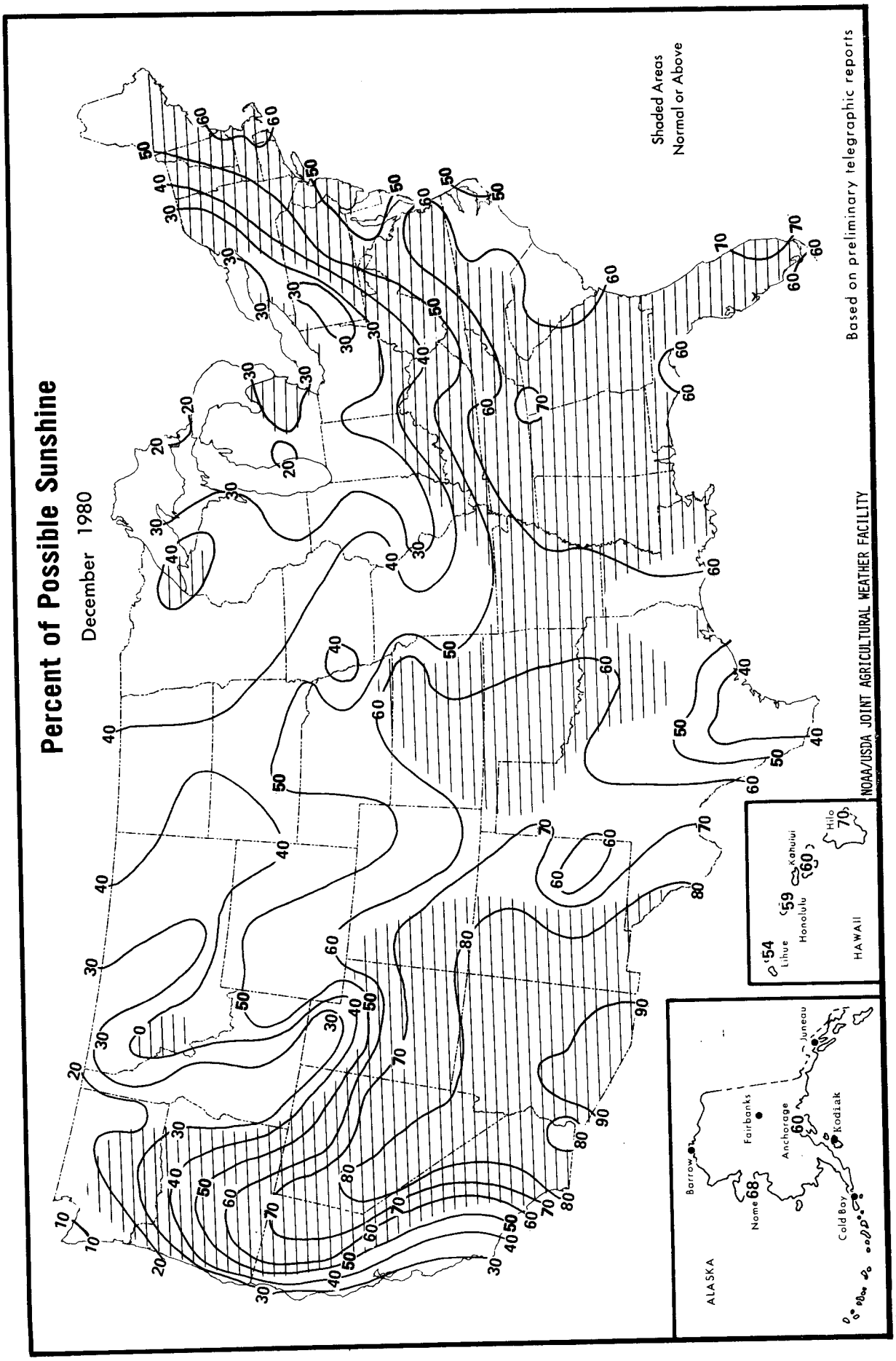
BASED ON 1941-70 NORMALS. + ACCUMULATION FROM JULY 1. 1980.

STATES AND STATIONS	WEEKLY TOTAL	WEEKLY DEPARTURE*	SEASONAL ACCUMULATION + TOTAL	SEASONAL ACCUMULATION + DEPARTURE*	SEASONAL ACCUMULATION + DEPARTURE FROM 1979-80
ALA. BIRMINGHAM	209	62	1748	217	355
MOBILE	168	63	1112	212	247
MONTGOMERY	186	60	1429	194	351
ARIZ. FLAGSTAFF	198	-64	2647	-908	-931
PHOENIX	43	-55	312	-527	-310
TUCSON	82	-18	616	-298	-133
WINSLOW	176	-55	2231	-261	-238
YUMA	20	-50	180	-388	-148
ARK. FORT SMITH	211	27	1861	84	38
LITTLE ROCK	197	15	1777	-5	324
CALIF. BAKERSFIELD	68	-58	992	-199	296
EUREKA	73	-53	2150	-180	430
FRESNO	95	-45	1261	-137	104
LOS ANGELES	30	-47	328	-434	-32
RED BLUFF	57	-43	1114	-254	-39
SAN DIEGO	16	-58	241	-405	-22
SAN FRANCISCO	86	-33	1368	-83	196
STOCKTON	102	-45	1363	-67	236
COLO. DENVER	211	-40	2349	-587	-538
GRAND JUNCTION	201	-72	2322	-621	-608
PUEBLO	222	-27	2388	-356	-388
CONN. BRIDGEPORT	333	88	2891	427	508
HARTFORD	370	85	3624	545	798
DEL. WILMINGTON	311	80	2704	306	509
D.C. WASHINGTON	260	56	2155	51	473
FLA. APALACHICOLA	158	74	912	198	214
DAYTONA BEACH	139	83	640	194	233
FORT MYERS	90	62	298	70	176
JACKSONVILLE	162	85	933	231	230
KEY WEST	56	53	112	92	104
LAKELAND	126	84	573	237	319
MIAMI	68	59	184	88	133
ORLANDO	133	91	541	188	268
TALLAHASSEE	169	78	1151	301	252
TAMPA	128	82	594	242	333
WEST PALM BEACH	73	56	221	77	92
GA. ATLANTA	206	45	1716	82	356
AUGUSTA	200	66	1646	267	294
MACON	178	54	1325	99	302
SAVANNAH	179	67	1296	237	376
IDAHO. BOISE	248	-10	2882	-100	202
LEWISTON	232	-12	2465	-377	-20
POCATELLO	273	-25	3410	-140	144
ILL. CAIRO	207	4	2054	61	236
CHICAGO	293	-4	3294	107	483
MOLINE	289	-19	3358	175	286
PEORIA	287	-7	3209	158	220
ROCKFORD	291	-24	3449	58	125
SPRINGFIELD	282	9	2950	156	392
IND. EVANSVILLE	255	24	2516	134	253
FORT WAYNE	327	47	3283	231	260
INDIANAPOLIS	300	38	3091	296	377
SOUTH BEND	306	19	3091	-48	441
IOWA. BURLINGTON	282	-19	3247	172	272
DES MOINES	273	-49	3223	-113	308
DUBUQUE	307	-29	3530	-43	293
SIOUX CITY	273	-63	3406	-95	131
KANS. CONCORDIA	233	-40	2559	-274	-37
DODGE CITY	210	-34	2191	-368	-429
GOODLAND	233	-33	2593	-460	-277
TOPEKA	249	-15	2675	-6	110
WICHITA	233	-5	2274	-133	31
KY. LEXINGTON	275	48	2703	311	405
LOUISVILLE	260	36	2426	64	316
LA. BATON ROUGE	165	60	1155	247	122
LAKE CHARLES	147	49	1091	297	187
NEW ORLEANS	153	62	938	158	150
SHREVEPORT	168	42	1342	180	150
MAINE. CARIBOU	448	69	5187	502	870
PORTLAND	379	75	4011	449	659
MD. BALTIMORE	297	74	2640	300	587
MASS. BOSTON	330	78	3183	570	731
MICH. ALPENA	341	11	4192	161	377
DETROIT	310	26	3642	539	566
FLINT	319	18	3848	468	754
GRAND RAPIDS	293	-1	3649	386	704
HOUGHTON LAKE	338	2	4342	318	574
LANSING	321	25	3723	402	502
MARQUETTE	330	-35	4919	277	354
MUSKEGON	298	11	3641	394	442
S. STE. MARIE	358	1	5162	802	891
MINN. DULUTH	341	-58	5025	244	624
INTERNATL FALLS	374	-73	5453	160	149
MINNEAPOLIS	309	-63	4011	-31	316
ROCHESTER	302	-67	4078	14	400
ST. CLOUD	325	-72	4413	10	224
MISS. JACKSON	191	58	1564	333	155
MERIDIAN	178	46	1459	146	169
MO. COLUMBIA	271	19	2755	187	277
KANSAS CITY	262	-8	2721	-2	199
ST. LOUIS	242	4	2454	43	250
SPRINGFIELD	236	7	2353	14	312
MONT. BILLINGS	219	-89	2920	-659	-139
GLASGOW	285	-113	3841	-614	-116
GREAT FALLS	218	-101	3428	-330	-89
HAVRE	269	-115	3863	-502	-142
HELENA	281	-55	3678	-474	-47
KALISPELL	280	-49	3888	-512	-119
MILES CITY	246	-108	3290	-667	-278
MISSOULA	286	-29	3640	-454	-11
NEBR. GRAND ISLAND	255	-48	2961	-265	-95
LINCOLN	258	-48	2863	-275	-27
NORFOLK	270	-59	3230	-261	-2
NORTH PLATTE	255	-39	3044	-354	-85
OMAHA	273	-28	3195	-153	-78
VALENTINE	250	-65	3196	-424	-197
NEV. ELY	230	-64	3328	-497	-7
LAS VEGAS	95	-52	938	-493	-311
RENO	201	-35	2644	-396	-57
WINNEMUCCA	217	-45	2921	-424	-102
N.H. CONCORD	401	91	4290	710	958
N.J. ATLANTIC CITY	337	113	3069	699	720
TRENTON	313	82	2840	464	706
N. MEX. ALBUQUERQUE	205	-5	2184	-97	-3
ROSWELL	198	-9	1924	-123	-119
N.Y. ALBANY	400	96	4021	676	976
BINGHAMTON	374	73	4067	572	833
BUFFALO	332	45	3525	284	621
NEW YORK	313	82	2845	558	727
ROCHESTER	372	85	3629	462	608
SYRACUSE	375	88	3752	614	868
N.C. ASHEVILLE	244	55	2309	125	364
CHARLOTTE	220	59	2019	321	362
GREENSBORO	248	66	2270	272	423
HATTERAS	232	92	1623	383	503
RALEIGH	244	71	2105	271	402
WILMINGTON	205	72	1596	343	414
N.DAK. BISMARCK	296	-107	4041	-464	-285
FARGO	349	-69	4616	12	186
WILLISTON	305	-99	4082	-515	-150
OHIO. AKRON-CANTON	311	38	3346	328	447
CINCINNATI	299	61	3039	506	528
CLEVELAND	316	50	3425	482	635
COLUMBUS	305	46	3072	218	445
DAYTON	298	39	3213	417	516
TOLEDO	330	44	3664	533	668
YOUNGSTOWN	330	57	3692	591	724
OKLA. OKLAHOMA CITY	211	9	1889	-35	159
TULSA	213	10	1869	-52	200
OREG. ASTORIA	116	-59	2039	-542	-71
BURNS	251	-32	3511	-116	196
MEDFORD	176	-27	2280	-214	210
PENDLETON	239	1	2552	-170	-154
PORTLAND	168	-25	1859	-547	-95
SALEM	189	0	2199	-205	-7
PA. ALLENTOWN	325	66	3020	175	544
ERIE	327	47	3413	218	684
HARRISBURG	309	64	2960	346	494
PHILADELPHIA	313	82	2818	458	632
PITTSBURGH	319	60	3350	403	585
SCRANTON	353	80	3524	445	830
R.I. PROVIDENCE	339	81	3364	567	907
S.C. CHARLESTON	188	69	1377	239	319
COLUMBIA	205	65	1749	347	298
GREENVILLE	215	54	1978	305	430
S.DAK. ABERDEEN	301	-91	3935	-371	-8
HURON	294	-77	3755	-262	71
RAPID CITY	231	-77	3066	-491	-110
SIOUX FALLS	285	-75	3799	-128	153
TENN. CHATTANOOGA	228	53	2075	213	315
KNOXVILLE	240	71	2216	384	477
MEMPHIS	196	21	1609	-102	161
NASHVILLE	220	31	2084	147	261
TEXAS. ABILENE	179	25	1393	0	137
AMARILLO	210	4	2193	57	1
AUSTIN	139	27	979	52	110
BEAUMONT	128	30	1026	218	170
BROWNSVILLE	69	14	446	127	88
CORPUS CHRISTI	99	29	687	202	216
DEL RIO	141	36	940	58	199
EL PASO	167	13	1503	-26	-71
FORT WORTH	170	24	1317	70	133
GALVESTON	115	31	807	217	156
HOUSTON	125	27	906	149	18
LUBBOCK	191	9	1793	-66	84
MIDLAND	191	37	1717	295	357
SAN ANGELO	175	42	1324	93	40
SAN ANTONIO	142	37	916	65	158
VICTORIA	121	37	825	186	76
WACO	158	29	1175	84	-22
WICHITA FALLS	168	0	1565	27	157
UTAH SALT LAKE CITY	244	-18	2723	-319	152
VT. BURLINGTON	441	105	4547	774	1184
VA. LYNCHBURG	262	65	2426	260	363
NORFOLK	248	80	2005	311	511
RICHMOND	269	75	2366	354	598
ROANOKE	253	50	2405	211	329
WASH. QUILLAYUTE	128	-61	2585	-356	15
SEATTLE-TACOMA	150	-41	2221	-369	-37
SPOKANE	265	-18	3251	-291	15
WALLA WALLA	255	-6	2285	-258	-88
YAKIMA	222	-47	2693	-505	-333
W. VA. BECKLEY	303	65	3102	264	399
CHARLESTON	267	52	2687	337	457
HUNTINGTON	270	53	2658	305	517
PARKERSBURG	278	51	2721	301	395
WIS. GREEN BAY	337	-13	4169	230	505
LACROSSE	306	-37	3730	52	265
MADISON	304	-37	3932	120	392
MILWAUKEE	317	-5	3731	159	633
WYO. CASPER	261	-33	3249	-438	-442
CHEYENNE	240	-33	2965	-533	-342
LANDER	293	-29	3344	-601	-451
SHERIDAN	253	-62	3325	-484	-222








Percent of Possible Sunshine
December 1980
Shaded Areas
Normal or Above
Based on preliminary telegraphic reports
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
ALASKA
Barrow
Nome 68
Fairbanks
Anchorage 60
Juneau
Kodiak
Cold Bay
HAWAII
Lihue 54
Honolulu 59
Kahului 60
Hilo 70

National Agricultural Summary

January 12 - 18, 1981

ADDITIONAL CROP LOSS IN FLORIDA

Following hard freezes on the mornings of January 13th and 14th, additional frost and freezing temperatures occurred on the morning of the 19th, causing further damage to tender vegetables.

A detailed discussion of the January 13th and 14th freeze damage in Florida is found on page 10 of this bulletin.

HIGHLIGHTS: Cold arctic air plunged southward into Florida setting many record low temperatures. Hard freezes occurred almost statewide on the mornings of the 13th and 14th, resulting in severe damage to citrus and vegetable crops. Subnormal temperatures continued to dominate in most eastern areas of the Nation, while above normal temperatures prevailed in the western half. Very little, if any, precipitation fell in most major winter wheat growing areas. A major part of the Great Plains had no snowcover, leaving fall-seeded grains vulnerable to wind and freeze damage. Nearly all areas needed rain or snow to help restore soil moisture supplies, which were rated short to adequate. Across the South, where farmers normally can accomplish some fieldwork, only 2 to 5 days were suitable for such activity. Cotton farmers were finishing picking operations in the Southwest, although moisture delayed harvesting in parts of Texas. Cattlemen fed heavy rations of hay, roughage, and grains to help animals combat the low temperatures. Most areas held adequate amounts of feed though some spot shortages developed. Open weather in many northern areas helped farmers stretch short feed supplies.

SMALL GRAINS: Winter wheat generally rated fair to good in the major production areas. Stands lay snowcovered in the Corn Belt, but on the Great Plains most fields had no snowcover, leaving stands vulnerable to wind and freeze damage. Moisture supplies were rated short to adequate in all major production areas.

In Kansas, winter wheat showed little or no growth because of short moisture supplies. Grazing was limited. There was little or no snowcover, but wind damage has been light--occurring mostly in central and western areas. Light precipitation improved soil moisture conditions in Oklahoma: increasing numbers of winter grain mites limited wheat and other small grain development; growers will begin chemical applications to control winter grain mites and army cutworms as soon as temperatures warm. Dryland small grain fields in Texas continued to deteriorate as moisture was rapidly depleting. Cool temperatures slowed growth. Irrigated fields furnished grazing. Statewide, winter wheat rated mostly fair to good. Montana stands rated fair to good with wind damage light thus far. Small grains in New Mexico rated fair to good with 85% of the irrigated and 65% of the dryland fields being grazed.

OTHER CROPS: The Arizona cotton harvest was virtually completed with growers busy with residue disposal and preparing to plant other crops. The Texas harvest neared completion on the High and Low Plains but moisture in the Trans-Pecos and Edwards Plateau delayed picking. Gins on the High Plains cought up, althouh some modules remain in the fields.

Tobacco growers in the major producing States continued grading and marketing the 1980 crop. In Kentucky, volume was light on the Burley markets, with some markets closed for the season. Several markets recessed until weather conditions improve for handling tobacco. Growers prepared seedbeds for planting the 1981 crop.

The Florida sugarcane harvest continued at maximum speed. Freezing temperatures caused minor damage to young sugarcane, but is not expected to reduce yields. Mature cane came through the cold in fair condition.

FRUITS AND NUTS: The pecan harvest reached 99% finished in Texas, 3 points ahead of last year but equal to the average.

Extremely cold weather prevented most deciduous fruit growers from performing ochard maintenance activities in northern areas, although some pruning was done in the south.

Most of the Florida citrus acreage suffered temperatures in the mid 20's or lower for several hours duration on two nights. Fruit icing was widespread and damage to tree foilage was heavy and widespread. The Arizona harvest progressed normally. The lemon harvest continued, while the Navel and sweet orange harvest was virtually complete. Grapefruit picking continued seasonally slow. California growers picked avocados and lemons. There was light movement of Desert grapefruit. Warm weather speeded lemon coloring. The Navel orange color and appearance was very good, but size and maturity problems still face growers. The citrus harvest continued active in the Lower Rio Grande Valley of Texas.

VEGETABLES: Record low temperatures occurred in vegetable growing areas of Florida. Night temperatures in the teens and 20's killed or damaged crops. Irrigation was active since most areas had little or no rainfall. Total shipments were down 11% from the previous week. Strawberry plants in the Hillsboro-Manatee area came through the cold with the help of sprinklers. Plant condition is fairly good except where sprinkler coverage was poor. Light harvest continues. Supplies of tender vegetable crops will be reduced considerably for several weeks. In California, mild weather accelerated vegetable growth. Asparagus cutting was light. Carrot movement was slowed by rain in the Desert. Lettuce harvest was active in the Imperial Valley and progressed well in the San Joaquin Valley. Strawberries on the South Coast had good fruit set, and limited tomato harvesting continued. In the Rio Grande Valley of Texas, harvesting of cabbage, cauliflower, broccoli, and spinach was delayed by wet fields. Producers prepared land for cantaloup and watermelon planting. In East Texas, the Coastal Bend area, and the Trans-Pecos area land preparation continued.

PASTURES AND LIVESTOCK: Low temperatures slowed pasture growth throughout the South. Permanent pastures browned from the cold weather and short moisture supplies and small grains growth was slow. Herdsmen fed large amounts of hay, forage, and grain to offset the reduced grazing. Adequate supplies of stored roughage were available throughout much of the Nation, although some local shortages were reported. Open weather in many northern areas helped farmers stretch short feed supplies. Texas range and pasture conditions deteriorated due to dry conditions. Grazing of small grains was below normal. Cattle were in fair to good condition. Grazing in Florida was severly limited and supplemental feeding was heavy. Condition of cattle was mostly poor to fair, except good in the extreme lower Peninsula. Arizona ranges rated very poor to poor except at higher elevations where the condition was reported fair to good. Livestock rated poor to fair. California ranges rated poor, due to lack of rain.

FLORIDA FREEZE DAMAGE

During the mornings of January 13 and 14 agricultural crops on the Florida Peninsula have experienced extremely severe and damaging cold weather, with temperatures much below freezing and of long duration. Conditions were less severe and damaging east and south of Lake Okeechobee although these areas received some below-freezing temperatures on the 13th. Following are preliminary summaries for the two nights, issued by the National Weather Service Office, Ruskin, Florida:

Tuesday Morning, January 13, 1981 - Lowest temperatures over the north and north central Peninsula were in the low-to-mid teens. Duration of less than 28 degrees or lower was 10 to 13 hours. Lows thru the Central Peninsula ranged from the teens to upper 20's. Some locations had 28 degrees 4 to 7 hours. In the south Central Peninsula lows were in the low to mid 20's with duration up to 9 hours for less than 28 degrees. Low temperatures in vegetable areas of south Florida were generally 26 - 30 degrees, with up to 12 hours below 32 degrees.

Wednesday Morning, January 14, 1981 - Record-breaking temperatures again occurred. Lowest temperatures in the north and north Central Peninsula were generally 17 - 24 degrees. Duration of 28 degrees or less was generally 8 - 12 hours. Lowest temperatures through the central Peninsula were mostly 18 - 27 degrees. Colder areas realized generally 7 - 12 hours of below 28 degrees. Temperatures in east central Florida were mostly in the low to mid 20's. Duration below 28 degrees was quite variable with an average of 3 - 6 hours but some locations experienced 7 - 9 hours. Vegetable areas in south Florida were mostly in the upper 20's to mid 30's. There was extensive frost in most areas of the Peninsula.

CITRUS: Florida Crop and Livestock Reporting Service staff completed orange cutting surveys on January 13 and 14 at 101 sites. The surveys were started with first available morning light, about 6:30, and completed before full sunrise. The survey indicated that 90 percent of the oranges had internal ice on January 13, and 84 percent had ice on January 14. This compares with 98 percent with ice during the January 20, 1977 freeze. The percent with hard centers (solid ice vs slush) was 49 percent and 34 percent, respectively, on the 13th and 14th compared with 48 percent on January 20, 1977.

Freezing effects on January 13 in the areas excluded from the survey were greatest in the central areas south to Collier County and progressively lighter from the Indian River to areas south. On January 14 the Indian River district was relatively much harder hit, with all areas receiving temperatures in the upper twenties, or lower, and of much longer duration than the previous night. Groves in Martin County and south received minimums in the upper twenties on the 13th, warmer on the 14th, and escaped serious damage.

The extent of damage to fruit resulting in lost production cannot be directly inferred by the survey icing percentages. These conditions will reduce production through fruit dehydration, droppage and rotting.

About 33 percent of the Florida early and mid-season orange crop had been harvested before the freeze. Steps were taken immediately for maximum salvage of crops as Governor Graham declared a State of Emergency lifting restrictions on local truck load limits, and processing plants went to a 24-hour-a-day operation to receive and process the damaged fruit. Normally, 7 percent or less of the Florida orange crop is used for fresh market. With a record crop expected from California and good crop in Texas, an adequate supply for the fresh fruit market is available. Protected groves are expected to meet known fresh market demands for Florida oranges and grapefruit.

Unusually cold weather over the previous four weeks placed trees in the best possible condition to withstand the cold. However, the condition of foliage indicates severe wilt and burning, with defoliation expected to be heavy and widespread over most growing areas.

VEGETABLES: Hastings area: Considerable potato acreage has been planted but is not up as yet. There was no damage. Cabbage received some damage, with ice causing some cracking of heads. Prolonged cold earlier caused most cabbage to be acclimated and thereby reduced overall damage. Temperatures early Tuesday morning were 17 to 18 degrees. Freezing started at 8:00 p.m. Monday night.

Sanford - Zellword: A low of 15 degrees occurred but readings were mostly in the low 20's. Some damage occurred to carrots, leaf crops and radishes. Some replanting will be necessary. No tender crops are grown in the area at this time. Sprinklers were used on ferns, and plants were iced over for protection. Considerable damage is expected but undetermined at this time.
Some icing and cracking occurred in cabbage but damage is expected to be light.

Plant City: The area had readings of 22 degrees. Most growers used water for protection. Considerable bloom and fruit loss is expected on strawberries. Some damage to leaf crops also expected.

Immokalee - LaSalle: Readings were mostly 19 to 23 degrees in the farming area. Some tomatoes were frozen and damage is heavy. Considerable acreage will be lost. If plants can be found the area can be back in production in 6 to 8 weeks. Green pepper damage was heavy, with considerable acreage lost. Young watermelons that were up were frozen and most of these fields will have to be replanted. Cucumbers and squash were declining seasonally and remaining acreage will be wiped out. Some foliage damage occurred to potatoes but the crop is expected to grow out of it. Some greenhouse plants, mostly peppers and tomatoes, were lost.

Belle Glade area: Temperatures were mostly 29 degrees in the farming area, and were below 30 degrees by 12 p.m. Monday. Some ice was found in celery but overall damage will be light. Leaf crops have some outer leaf damage. Some young crops will likely have to be replanted. No frost occurred but cold winds caused the damage.

Delray - Pompano: Temperatures were at 27 to 31 degrees early Tuesday morning. Old cucumbers and squash that were left were damaged and some salvage harvest will take place. Some young acreage will be lost. There will be considerable loss of bloom and young fruit for most crops. Considerable acreage of young corn will be lost. Some snap bean acreage will be lost. Some acreage will survive but will have light to severe damage. Eggplant had light to moderate damage on young fields. Old fields experienced moderate to severe damage. No acreage is expected to be lost. Green peppers came through the cold with only light to moderate damage, mostly top foliage burn. Tomato vines received light to moderate damage. No frost occurred but cold temperatures caused the damage. Young fruit and bloom will be lost.

Dade County and vegetables: There were 29 degree temperatures on Tuesday morning. Snap beans and squash received moderate to heavy damage. Considerable acreage will be lost. Young tomatoes experienced light to moderate damage.

Older tomatoes that have been picked, received considerable damage but no acreage is expected to be lost. Picking continues active. Potatoes received only light foliage damage. Sprinklers were used for protection of the fruit crops. Ice formed from sprinkling in groves and some breakage of limbs occurred, primarily on avocados. Limes were apparently not affected, but there may be some damage to new avocado wood and buds. Foliage plants in unprotected areas received light to moderate damage in a few areas. Most plants in greenhouses were not damaged by the cold. Some foliage in south Florida received light but undetermined damage. Temperatures on Tuesday night moderated and no additional damage occurred.

SUGARCANE: Sugarcane in the Belle Glade area was expected to come through in good condition. Some young cane may have been damaged very slightly which may affect next year's crop.

A quantitative assessment of the freeze impact will be available with the February 1 forecast of citrus crops in the February Crop Production report available from USDA's Economics and Statistics Service.

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 9° below normal. No rain. Soil moisture short. Fieldwork on schedule with 5.0 days suitable. Plowing complete 40%. Feed supply: Stored feed short; pastures very short to short. Conditions: Wheat fair to good; pasture poor to fair; livestock fair. Activities: Turning land, care of livestock and poultry, general chores, fertilizing, construction and repair of farm buildings and fences.

ARIZONA: Temperatures ranged 2 to 10° above normal. Rain, 0.10 to 0.80 in., fell east two-thirds of State early part of week. Light snow fell 8,000 ft. level. No measurable snow depths. Cotton harvest virtually complete. Residual disposal, preparations planting other crops continues. Small grain planting running ahead normal. Early planted wheat growing well. Sugarbeet tap root growth well ahead normal due unusually warm conditions. Alfalfa haying minimal. Many fields still being used for sheep pasturing. Lettuce harvest, Yuma area, progressing normally. Planting, central area, expected to continue into February. Harvest, mixed vegetables making good progress. Citrus harvest progressing normally. Lemon harvest continues. Navel, sweet harvest virtually complete while grapefruit harvest continues seasonally slow. Rain fell across much of Arizona early week bringing some relief to ranchers. Slight runoff noted some localities, soil moisture improved considerably. Range very poor to poor, higher elevations fair to good. Livestock poor to fair. Water supplies short to adequate.

ARKANSAS: Dry and cold. Highest normal 46°, lowest 36°. Highest mean 40°, lowest 29°. Highest temperature 65°, lowest 1°. All departures from normal ranged from -3 to -8°. Most rainfall, trace; least, zero.

Pastures in poor condition. Water supplies short with some well and stock ponds going dry. Cattlemen have not yet had to buy as much hay as planned due to the mild winter.

CALIFORNIA: Fifth consecutive week with average temperatures above normal Statewide. Scattered light rain over portions of the State early in the week and late in the week. Largest totals along the South Coast and in the southeastern Desert area. Warmest departures from normal along the Central Coast and in the northern Sierra Nevada were nearly a dozen degrees. Coldest temperatures, generally in the teens, were restricted to the high Sierra and high valleys near the Oregon border.

Small grain crops progressing slowly due to lack of moisture. Field preparation continues. Pruning, dormant spraying, clearing brush, digging nursery stock, new planting, irrigating. Picking avocados, lemons. Light desert grapefruit movement, good color, appearance very good; size, maturity problems. Mild weather accelerated vegetable growth. Asparagus light. Artichokes decrease Salinas-Watsonville. Broccoli and cauliflower continue active. Carrot movement slowed by rain in Desert; Kern District active. Celery movement to increase South Coast. Lettuce active Imperial; San Joaquin progressing well. Potato movement above last year. South Coast strawberries good fruit set. Limited harvest tomatoes South Coast. Ranges poor condition due lack rainfall. Supplemental feeding continues most areas. Sheep grazing alfalfa. Stock water supplies short most areas.

COLORADO: Mild and dry early in week with temperatures well above seasonal normals. Cold arctic air moved into the eastern Plains 16th bringing sharply colder temperatures and light snow, generally 2 in. or less. Some mountain areas had light snow showers 16th and 18th. Temperatures averaged 3 to 5° above normal for the week except the Colorado River Basin which averaged about 9° above normal.

FLORIDA: One of the coldest periods on record. Hard freezes occurred almost Statewide mornings of 13th, 14th. Temperatures dipped into the teens throughout the Interior to south of Everglades. Record lows for January were established almost Statewide with some all time record lows occurring. Extensive heavy frost several mornings. Temperatures averaged near 15° below normal. The persistent blocking pattern over the western States kept the door open for continued invasions of cold arctic air deep downstate. A warmup to near or slightly above normal temperatures came, 15th and 16th. A low pressure system developed in the Gulf, bringing in warmer air in advance of another surge of arctic air. Cold air returned with strong northerly weekend winds. Freezing temperatures, morning of 15th were confined to the far north but dipped into southern sections the 16th. Hard freezes covered northern half of State with averages in mid 20's and pockets of near 20°. Little or no frost occurred weekend because of freezing northerly winds. A few showers fell the 15th, averaging less than 0.10 in. The overall dry spell continued with numerous fires sweeping across the State, killing vegetation especially in central, south; strong, gusty winds, excess of 20 mph at times, added to fire problems.

Soil moisture short over practically entire State. Freezing temperatures caused minor damage to young sugarcane but no loss expected. Mature cane came through cold in fair condition. Harvest continues at maximum speed. Small grains slow

growth, no freeze damage reported. Seeding of tobacco beds nearly completed. Grazing severely limited due to extreme cold, and generally very dry soils. Hay feeding is heavy. Cattle condition mostly poor to fair except good extreme Lower Peninsula. Most of the Florida citrus acreage received temperatures in the mid 20's or lower for several hour's duration on two nights during the week. Fruit icing was widespread; a 10-day fresh fruit shipping embargo began at 12:01 on the 18th. Damage to tree foliage is heavy and widespread. Record lows occurred early in the week in vegetable growing areas. Night temperatures in the teens and 20's killed or damaged crops in vegetable areas. Irrigation was active as most areas had little or no rainfall. Additional frost and freezing temperatures occurred, morning of 19th, causing further damage to tender vegetables. Total shipments were down 11 percent from the previous week. Supplies increased for cauliflower. Volume was about steady for celery, chinese cabbage, escarole, and tomatoes. Supplies declined for snap beans, cabbage, carrots, sweet corn, cucumbers, eggplant, lettuce, okra, parsley, peppers, radishes, and squash. Watermelon supply light and declining. Strawberry plants, Hillsboro-Manatee area came through the cold with the help of sprinklers. Plant condition is fairly good except where sprinkler coverage was poor. Light harvest continues. Supplies of tender vegetable crops will be reduced considerably for several weeks.

GEORGIA: Temperatures 10 to 14° below normal northern half, 11 to 18° below normal southern half. Averages mid 20's in mountains to low 40's coastal sections. Precipitation 0.06 in. or less in extreme southeast. No rainfall elsewhere. The 17th and 18th were cool and dry.

Soil moisture short most of State, very short in north. Fieldwork activity increasing. Small grain topdressing and liming. Cold weather slowing growth small grain and tobacco plants. Tobacco plants good condition. Some cold and dry weather injury to wheat, condition fair. Pasture conditions fair, cattle fair to good.

HAWAII: Rainfall continues very light. Some showers in dry areas beneficial to crops. However, more rains needed. Non-irrigated crops continue to show stress, especially cucumbers, tomatoes and flowers. Water supplies were low in some reservoirs, both on Hawaii and Maui. Irrigation moratorium imposed limiting frequency. Spray continues for insect and disease control. Vegetables: Supplies adequate - head and chinese cabbage heavy. Most others light to moderate. Bananas: Supplies light. Hawaii plantings continue to show stress from the dry spell. Papayas: Some beneficial showers, Puna orchards on Hawaii. More rains needed. Supplies steady at moderate to heavy level. Disease problems at a minimum because of the dry conditions. Pineapples: Slow; erratic harvesting. Sugar: Most sugar mills not grinding - closed for repairs. Pastures: generally fair to good. Rains on upper slopes Kona area Island of Hawaii beneficial. Some areas need more moisture.

IDAHO: Temperatures averaged above normal in most areas except the southwest where readings were slightly below normal. Practically no precipitation as strong high pressure dominated. Dense fog blanketed many valleys.

Calving and lambing becoming active many areas. Feed supplies remain adequate. Cattle doing well. Fieldwork minimal. Bookkeeping and chores active. Growing concern about low snow and rain levels.

ILLINOIS: Temperatures mostly 1 to 3° above normal north; 2 to 5° below normal south. Precipitation none south, 0.10 in. north.

Soil moisture 81% short, 19% adequate. Snow 1.0 in. north. Winter wheat 3% excellent, 55% good, 38% fair, 4% poor. Livestock mostly good condition. Activities: Machinery repair, livestock feeding, manure hauling, general farm work.

INDIANA: Cool, dry week. Temperatures ranged from zero to 52° and averaged 5° below normal. Precipitation trace to 0.10 in. Snowcover 1.00 in. central, 7.00 to 10.00 in. north. Sunshine 60% of possible.

Fieldwork nil. Overwintering crops under snowcover. Well water flow dropping off in some areas. Activities: Hauling grain, keeping water pipes thawed, cutting wood, maintaining buildings and equipment, hauling manure, attending chemical machinery and extension meetings, preparing taxes, attending farm sales, late stripping of tobacco, caring for livestock and usual chores.

IOWA: A warm, dry week. Temperatures to 51° at Glenwood the 12th and to 54° at Fort Dodge the 18th. Ground bare. A few snow flurries at midweek with measurable amounts confined to some eastern-most counties.

KANSAS: Precipitation little or none central and east to 0.10 in. west as snow, accumulating 1.00 in. to 2.00 in. to locally 4.00 in. extreme northwest. Temperatures averaged 29° east central to 33° south central, 1° above normal southeast to 2 to 4° above normal elsewhere.

Wheat showing little or no growth because short moisture. Grazing restricted. Little or no snowcover but wind damage light and appears mostly central and western areas.

KENTUCKY: It was cold and dry once again. Only a few snow flurries fell. Most areas had no measurable snow and the temperatures were about 8° below normal.

Volume light on burley markets, some points closed for season. Several markets in recess until weather conditions improve for handling tobacco. January very dry month. Burley quota expected to be announced this week. Supplemental feeding heavy with cold and some snowcover. Livestock satisfactory condition.

LOUISIANA: Rain minimal. Temperatures 6 to 12° below normal. Extremes: 15 and 66°.

Activities: Routine chores and caring for livestock.

MARYLAND AND DELAWARE: Temperatures averaged 15° below normal. Highs averaged mid 20's to mid 30's. Lows averaged in the teens. Precipitation minimal. The highest reported was 0.21 in. in Oakland. Southern Maryland received the least amount of precipitation at 0.06 in. Central areas averaged 0.08 in.

MICHIGAN: Winter's grip loosened this week. Temperatures averaged 2 to 5° above normal Upper, normal to 5° below normal Lower. Precipitation relatively light. Average precipitation less than 0.20 in. Lower, 0.20 in. to 0.50 in. Upper. Snowfall 2 to 11 in. Upper, less than 3 in. Lower. Extensive snowcover entire State.

MINNESOTA: Temperatures averaged 5 to 10° above normal. Extremes: 56° at Redwood Falls and 13° below at International Falls. Precipitation averaged 0.14 to 0.27 in. below normal. Precipitation totals from none in west to 0.01 in. in east. Snowfall trace, except 1 to 2 in. in north central through east central. Snow depth 4 to 11 in. in north central and 3 to 11 in. in northeast less than 1 in. elsewhere.

MISSISSIPPI: Temperatures continued 10 to 15° below normal. Extremes: 1 and 66°. A few dry cold fronts crossed the State. No measurable rainfall anywhere in the State.

Soil moisture short to very short. Fieldwork: 4.0 days suitable. Wheat condition poor to fair.

Pasture condition poor. Livestock condition fair. Hay and roughage and feed grain supplies short to adequate.

MISSOURI: Drought conditions continued with no precipitation during the week. Temperatures continued cold averaging 2 to 7° below normal.

MONTANA: Mild weather continued as temperatures averaged from 5 to 17° above normal. Highest, Roundup with 58° and lowest -12° at Cooke City. Little, if any, precipitation.

Winter wheat condition fair to good. Wind damage light. Snowcover very light to none. Stock water supply short to adequate eastern part of State, adequate elsewhere. Cattle and sheep condition good.

NEBRASKA: Precipitation: Western half 0.10 in.; remainder of State no precipitation. Temperatures: 4 to 7° above normal.

NEVADA: High pressure system dominated most of week. Small low pressure spread light rain south early. Weakened weather front produced light rain north late in period. About foot snow fell higher elevation mountains north. Daytime temperatures mild, nighttime temperatures normal. Resulting mean temperatures 5 to 10° above normal. Extremes: 68 and 8°.

Feeding livestock main ranch activity.

NEW ENGLAND: Bitter cold temperatures early week were followed by a slight moderating trend through the weekend. Readings of 15 to 25° below zero were common. Snowstorm early week left 6 to 12 in. of snow on Cape Cod and southeastern Maine. Storm on 16th left up to 10 in. on Cape Cod.

NEW JERSEY: Temperatures were 14 to 18° below normal averaging 11° north, 17° south and 21° coastal. Extremes: -24° at Newton and 40° at Toms River and Atlantic City. Precipitation well below normal averaging 0.08 in. north, 0.08 in. south and 0.16 in. coastal. Heaviest 24-hour total reported was 0.21 in. at Cape May Court House on 16th.

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

NEW MEXICO: Light rain in south 12th and 13th then significant snowfall and some rain over most of the State 16th through 18th. Temperatures averaged 5 to 6° warmer than normal northeast and west, and 2 to 5° colder than normal east and south.

Soil moisture remains short. However, recent rains and snowfall should help improve most areas. The major farm and ranch activities included land preparation for spring planting, supplemental feeding of range cattle and some clean-up harvest. Wheat and barley in fair to good condition most areas. Approximately 85% of irrigated and 65% of the dryland is being grazed. Planting of spring lettuce continuing. Fall planted onions and some spring lettuce emerging to acceptable stands. Pecan harvest complete in Mesilla Valley, however, is continuing in the Roswell area. Ranges continue in poor to fair condition. Livestock in good condition with supplemental feeding of cattle continuing.

NEW YORK: Very cold temperatures continued with 10 to 20° below normal average readings ranging from near zero in the north country to the teens in the south and west. Precipitation also remains well below normal with less that 0.25 in. in all areas.

NORTH CAROLINA: Temperatures: Record low. Precipitation: Trace to 0.03 in.

Soil moisture: 9% very short, 52% short, 34% adequate, 5% surplus. Fieldwork: 3.4 days suitable. Conditions: Wheat, oats, barley, rye fair to good and declining; pastures fair. Supplies: Hay and roughage and feed grains mostly adequate. Major activities: Machinery repair, tending livestock, cutting firewood.

NORTH DAKOTA: Generally mild temperatures with below normal precipitation. Temperatures averaged from 10 to 15° above normal. Temperature extremes: 50 and -8°.

Snowcover mostly non-existent. The only real snowcover is in the north central and northeastern portions. Up to 4 in. on the ground in the north central division. Another warm week. Very beneficial to livestock stretching feed supplies. Cattle on feed gaining more rapidly with less energy requirements to just keep warm. Cows in excellent condition. Marketing of crops and livestock about normal. Grain storage has only spot heating and insect problems. Roads in excellent condition. Farmers attending meetings, making plans for spring and getting updated on varieties and herbicides. New machinery sales almost nil.

OHIO: Continued below normal temperatures prevailed until weekend. There is still snowcover although no heavy new snow fell.

Farm activities were livestock feeding, attending meetings, beginning income tax preparation, and cutting of firewood.

OKLAHOMA: Temperatures averaged near normal west and north central areas and 3 to 5° below normal elsewhere. Light precipitation fell over much of the State late week. Amounts mostly less than 0.10 in.

Light precipitation improved soil moisture conditions. Moisture seems to be sufficient for growth in the plant root zone. Dormant stage of plant growth and increasing numbers of winter grain mite limiting wheat and other small grain development. Wheat growers will begin chemical applications to control winter grain mites and army cutworms as soon as temperatures warm. Greenbugs present in fields of southwest and west central counties, but numbers generally light. Pastures and ranges generally grazed down and ranchers relying on baled forage supplies and other supplemental feeds. Hay prices stabilized somewhat and actually declined in some areas. Ranchers cut back sharply this winter on stockers and feeders as a result of short grazing conditions. Cattle in generally fair to good condition.

OREGON: Mild temperatures continued. Much above normal temperatures prevailed along the coastal area and in the Willamette Valley. Fog persisted in some valley locations of east, the southwest and the southern Willamette Valley. Only minor precipitation reported, mostly along southern coast and south central portions. Only traces reported elsewhere.

Soil moisture supplies adequate. Winter wheat condition mostly good; spraying continuing for weeds. More and more concern for fruit crops at the lower elevations where warmer than normal temperatures have prevailed for past month; swelling buds and some blooming in apples, peaches, and pears. Livestock condition fair to good. Feed supplies adequate to surplus as cattle still on winter ranges and stubble due to lack of snow and freezing weather.

PENNSYLVANIA: Dry, cold weather continued. Temperatures ranged from 9 to 12° below normal. Below normal precipitation for most areas. Amounts ranged from around 0.10 to 0.20 in. in the form of snow. Snowfall 1 to 3 in. Extremes: 39 and -25°.

PUERTO RICO: Island average rainfall 1.37 in. or 0.60 in. above normal. Highest weekly total 7.51

in. Temperatures averaged 76 to 78° on Coasts and 73 to 72° Interior divisions. Extremes: 90 and 53°.

SOUTH CAROLINA: Much colder than usual with northwest dipping below 10°, but not so cold near end of week. No precipitation reported. Activities when weather permitted were preparing, seeding tobacco beds; pruning, setting peach trees; preparing land for spring crops; feeding livestock.

SOUTH DAKOTA: The mild, dry weather continues. Temperatures were above average. The northeast and northwest were about 10° above normal. The northeast averaged in the low 20's while the northwest average was in the high 20's. The remainder of the State was about 6 to 8° above normal. High temperatures ranged from the mid 40's in the northeast to mid 50's elsewhere. Maximum temperatures reported were 60° at Oral and 59° at Rapid City. Minimum temperatures averaged about 3° below northeast, 2° below southeast, and about 4° in the west. Lowest reported temperature was 10° below at Brookings and Conde early in the week. The only appreciable precipitation was over the west. Ft. Meade had 0.10 in. for the maximum amount. Newell, Spearfish, Custer and Elm Springs had 0.08 in. Precipitation was west of a line from Camp Crook to Ft. Pierre, to Harrington. Only a trace reported elsewhere.

TENNESSEE: A high pressure system brought cold air at the beginning of the week. A second cold front moved through on 14th and another high pressure system brought more cold air to reinforce the already cold weather. No rain reported. Average temperatures were in the upper 20's in the east and over the Plateau while the middle and west were in the low 30's. These temperatures were 7 to 10° below normal for this time of the year.

Farm activities included general chores and feeding of livestock.

TEXAS: Weather: High pressure dominated during beginning of week. Toward end of week, upper level disturbance moved in from west. This caused snow West Texas, rain across rest of State. Temperatures near normal East Texas, rest of State 4 to 8° below normal. Average temperatures range from 40° in northwest Texas to middle 50's southern part. Rainfall was 0.25 to 0.50 in. below normal East Texas, 0.50 to 1.00 in. above normal southern tip of State, near normal elsewhere. Average rainfall 0.10 in. or less West Texas, to 0.50 to 1.00 in. eastern part State.

Crops: Cotton harvest progressed, nearing completion in the High, Low Plains. Moisture in Trans-Pecos, Edwards Plateau delayed cotton harvest. High Plains gins caught up, some modules remain in the fields. Dry weather provided ideal conditions for land preparations. South Texas farmers applying pre-plant fertilizers, herbicides. Dryland small grain fields continue deteriorate as moisture is depleting rapidly. Cool temperatures slowed growth. Irrigated wheat fields furnishing grazing High Plains. Blacklands, wheat suffering from lack of moisture, infestations of greenbugs and grain mites. Rain in South Texas, the Valley improved wheat stands. Reported wheat condition; 6% excellent; 34% good; 42% fair; 18% poor. Cotton harvested 98%, 100% 1979, 99% average. Pecans harvested 99%, 96% 1979, 99% average.

Range and livestock: Range, pasture conditions continued to deteriorate, some benefit expected from rain, snow. Livestock fair to good. Grazing small grains below average. Supplemental feeding continued. Movement of cattle slowed.

Commercial vegetables: Rio Grande Valley, harvest of cabbage, cauliflower, broccoli, spinach delayed by wet fields. Onions progressing well, producers preparing land for cantalope, watermelon planting. Citrus harvest continued. Coastal Bend and East Texas land preparation continued. Winter vegetable, onion development slow due to cool temperatures. San Antonio-Winter Garden area harvest of cabbage, carrots continued. Onions developing well. Trans-Pecos region, land preparation continued.

UTAH: Few isolated very light brief snow flurries in fog areas otherwise no precipitation reported. Fog persisted principally northwestern lower valleys much of week.

Mild open weather permits limited land preparation in south. Repair and upkeep of farm buildings and machinery progressed. Routine chores and care of livestock and poultry. Sorting and marketing of apples, potatoes, and onions continued as orders arrived.

VIRGINIA: Another cold, dry week. Average temperature in low 20's, about 12° below normal. Extremes: Upper 40's to below zero. Precipitation very light, occurring on 15th and 16th. Less than 0.10 in., in the form of snow most locations, except rain in southeast.

Continuing cold, dry weather further stressed livestock water supplies. A low water table along with frozen pipes and streams caused problems as farmers attempted to keep water supplies available for livestock. Farm activity also slowed as only two days were suitable for fieldwork. Topsoil moisture rated in short supply. Pasture condition: Poor to fair Statewide. Beef cattle getting 15% of forage needs from grazing; dairy 4%; sheep 16%. Winter grains fair condition. Farm activities included: Care and feeding of livestock; liming and fertilizing; farm record work; tax preparation; attending farm meetings; machine repair; planning for spring plantings; preparing for small grain topdressing; wood cutting; thawing water pipes; filing for loans and preparing sun-cured and dark tobacco for market.

WASHINGTON: West: Mild weather prevailed throughout the week. No rain was reported. Tying and pruning of caneberries, harvest of forced rhubarb, Christmas tree planting, lettuce seeding for spring transplant and maintenance-type operations were the activities of the week. Local hay supplies available with some alfalfa coming from east.

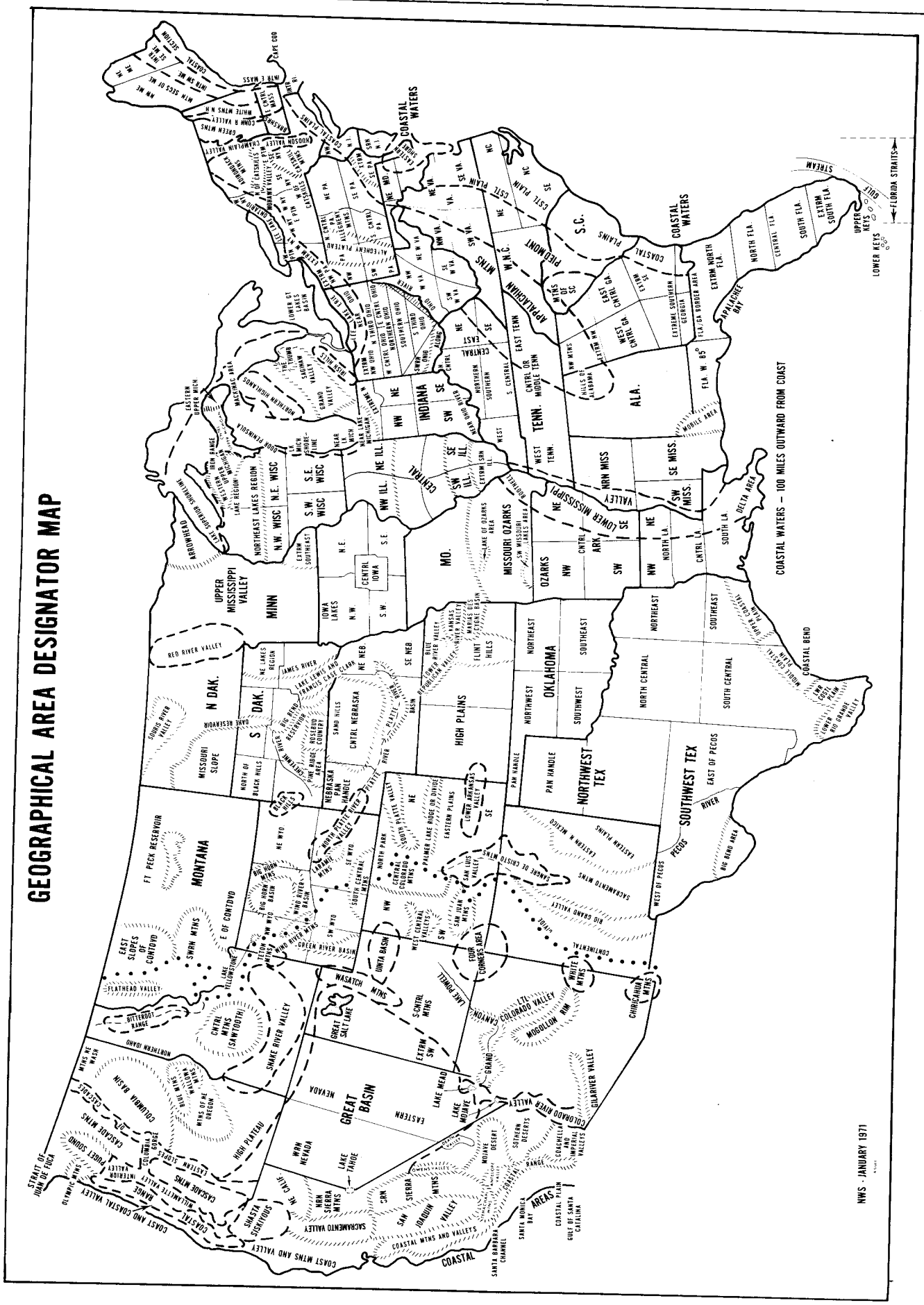
East: Weather continued relatively mild with below freezing nighttime temperatures warming during the day. No snowcover or precipitation reported during the week. Fall seeded crops were in good condition with winter dormancy evident from the colder temperatures. Pruning continued as field preparation got underway in several areas. Livestock in good shape with feed supplies adequate.

WEST VIRGINIA: Temperatures averaged well below normal. High 43°, low -7°. Precipitation well below normal.

Soil moisture adequate to short. Days suitable for fieldwork: 1.6. Hay, grain and other feed supplies adequate. Some problems due to frozen water supplies and lack of precipitation.

WISCONSIN: Temperatures above normal. Highs in 20's through 16th, warmed to 30's 17th and 40's 18th. Lows in single digits or teens, with a few below zero readings. Extremes: 52 and 12° below. Precipitation continued light except Lake Superior snowbelt where 16 in. snow fell 15th. Dusting of 1 in. or less other areas 14th, 15th. Snow depths as of 16th averaged less than 4 in., with deepest snow northeast. Frost depths increased

(Continued on page 28.)


GEOGRAPHICAL AREA DESIGNATOR MAP
COASTAL WATERS – 100 MILES OUTWARD FROM COAST
NWS - JANUARY 1971
MONTANA
N DAK.
S DAK.
MINN
UPPER MISSISSIPPI VALLEY
MO.
IOWA
INDIANA
ILL.
WISC
MICH
OHIO
TENN.
ALA.
MISS.
ARK.
LA.
OKLAHOMA
TEX
S.C.
N.C.
VA.
PA.
N.Y.
MASS.
ME.
GREAT BASIN
NEVADA
HIGH PLAINS
MISSOURI OZARKS
APPALACHIAN MTNS
PIEDMONT
NORTHWEST TEX
SOUTHWEST TEX
COASTAL WATERS
FLORIDA STRAITS
STRAIT OF JUAN DE FUCA
COASTAL AREAS

International Weather and Crop Summary

JANUARY 12 - 18, 1981

HIGHLIGHTS

WESTERN USSR: The winter wheat crop remained dormant under a generally widespread snowcover with seasonal to slightly above-average temperatures.

EUROPE: Precipitation fell over most of Europe except for northern Italy and Spain. Temperatures were near the seasonal average in northern and central Europe while below-average in southern portions. The weather posed no significant problem for winter wheat.

NORTHWESTERN AFRICA: Substantial moisture fell in previously dry crop areas of Morocco. Showers continued to provide beneficial moisture for crops in northern Algeria and Tunisia.

SOUTH AFRICA: Low soil moisture reserves are causing some concern for the corn crop, now entering the reproductive stages in southern and western areas. Moisture is sufficient in other portions of the Maize Triángle.

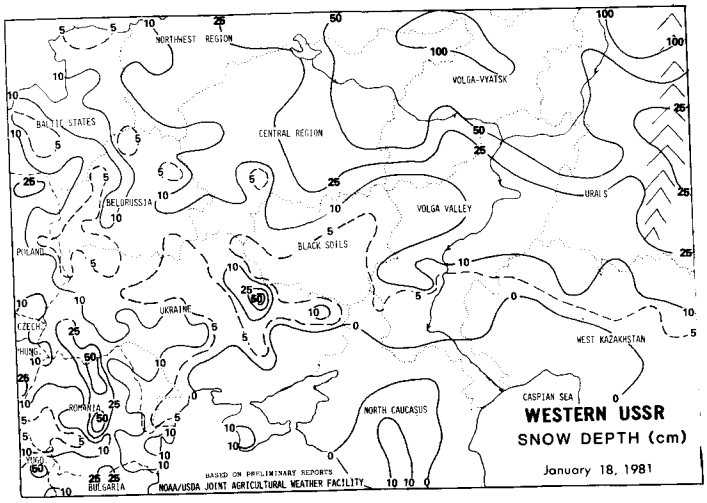
CHINA: Seasonably dry, cold weather continued in winter wheat areas, which are generally snowfree.

INDIA: Dry weather returned to the winter wheat area with rainfall confined to southeastern portions of the country.

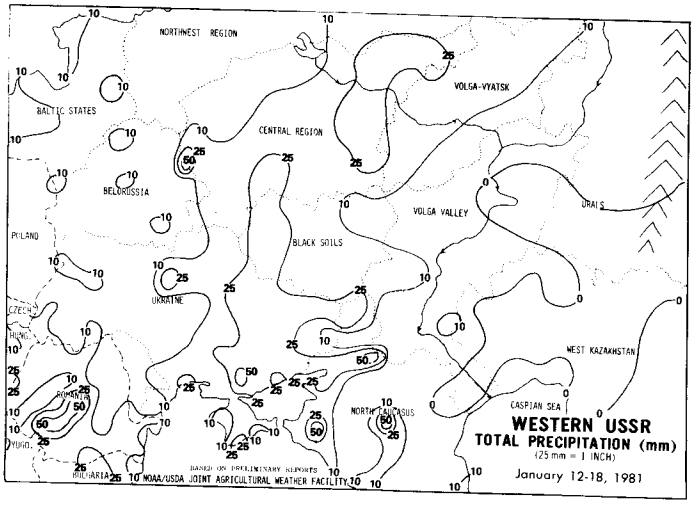
AUSTRALIA: Very heavy rainfall over northeastern Queensland may have caused some crop damage to sugarcane.

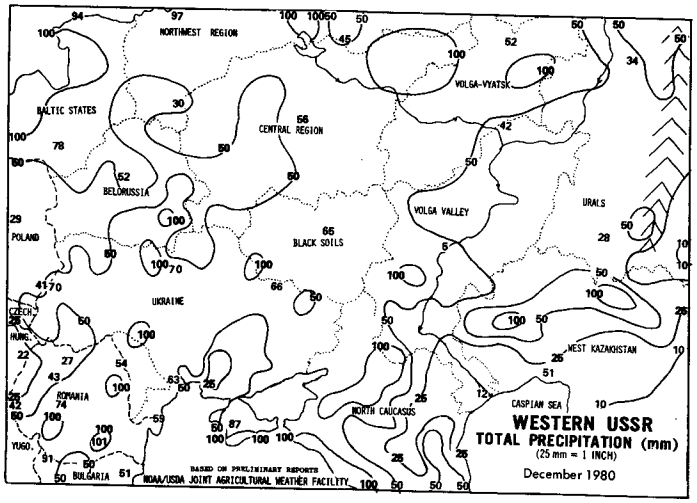
MEXICO: A rainy pattern over crop and watershed areas benefited crop growth and water supplies but slowed harvesting activities.

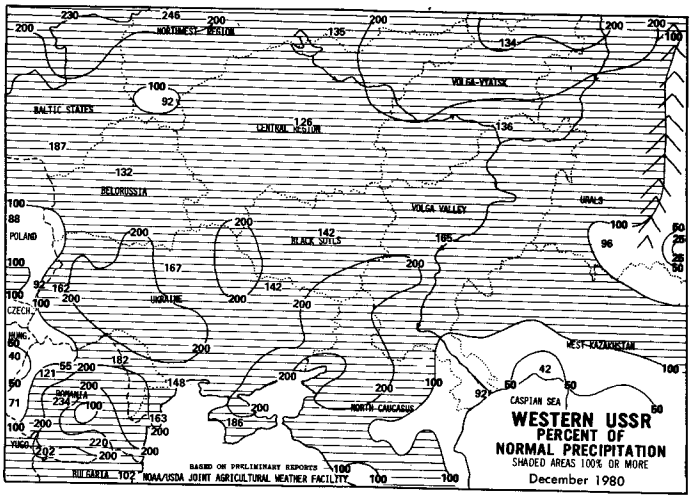
SOUTH AMERICA: Corn and soybeans are entering reproductive periods with generally favorable moisture and temperature conditions, except for some pockets of dryness remaining in western Parana.

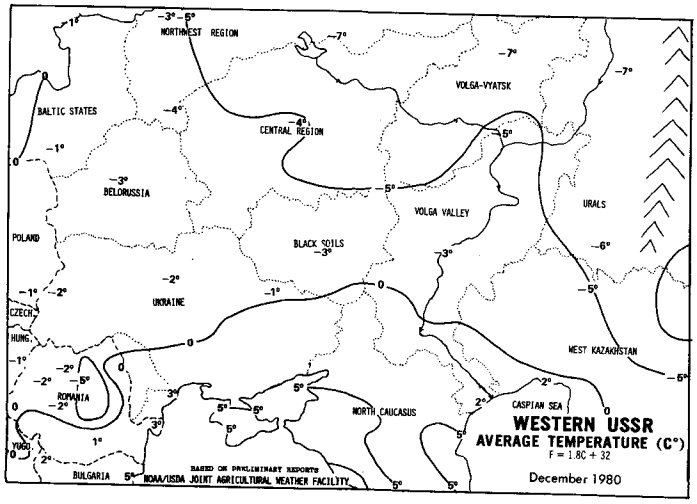


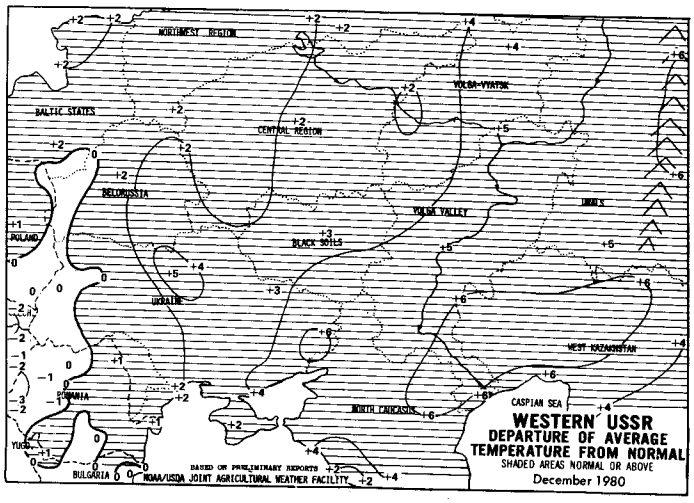
WESTERN USSR: Precipitation was abovenormal (25 to 50 mm) in eastern Ukraine, Black Soils, and the eastern section of the Central Region. Elsewhere, weekly totals were generally less than 10 mm. Temperatures showed no significant departures from normal, although a tendency toward warmer than average weather kept snow depths in major wheat areas generally in the 5 to 10 cm range except in southern crop areas which were mostly snow free. Precipitation in December was well above normal in most winter wheat areas. Monthly temperatures were warmer than normal with freeze-thaw weather prevailing throughout the month.

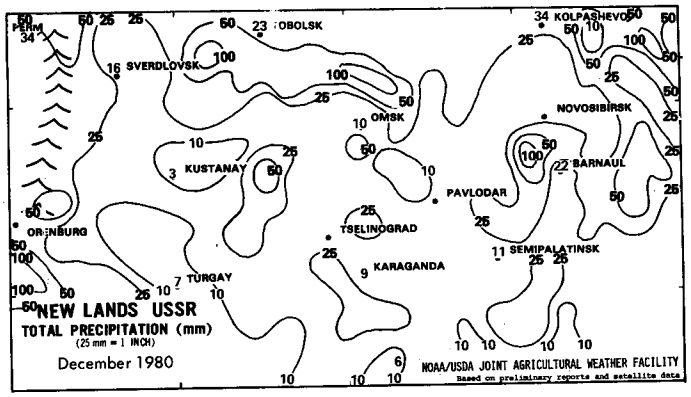


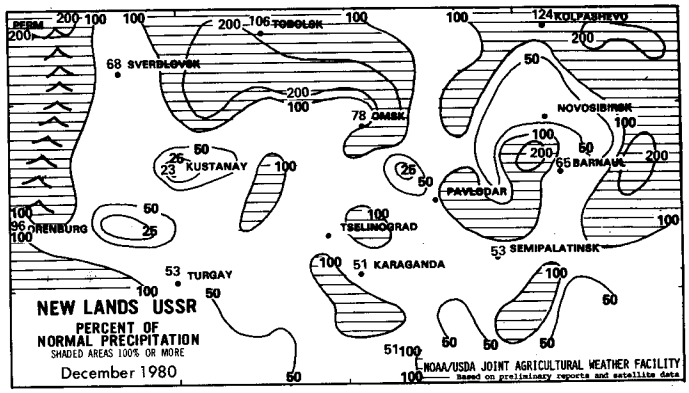


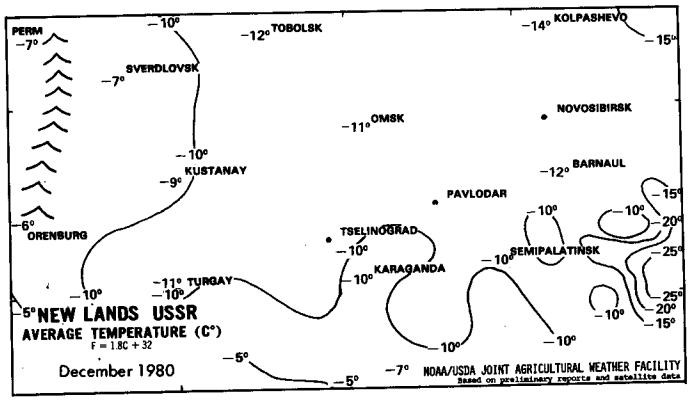


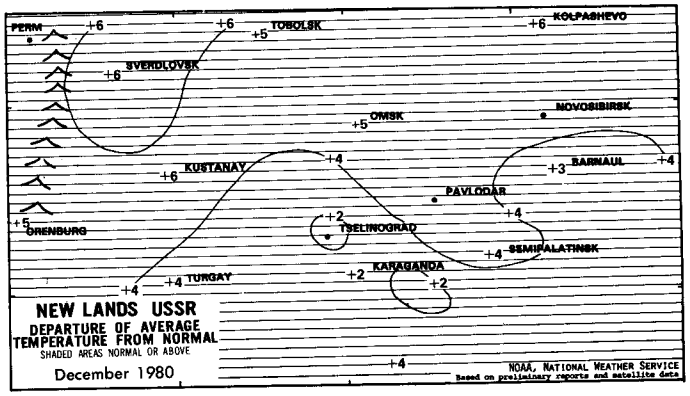


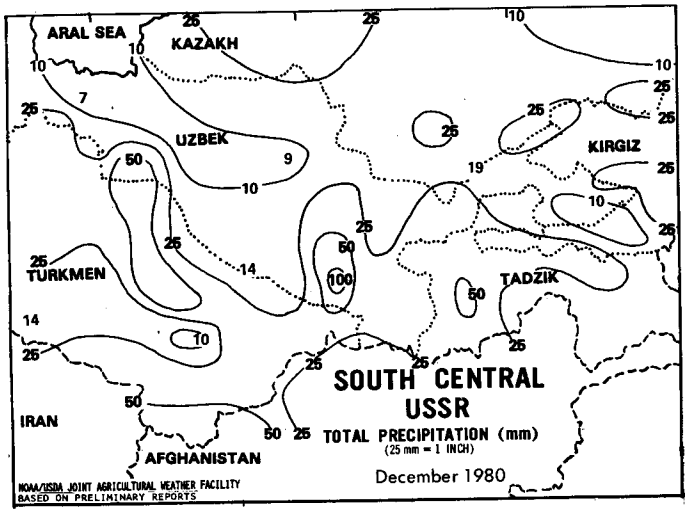


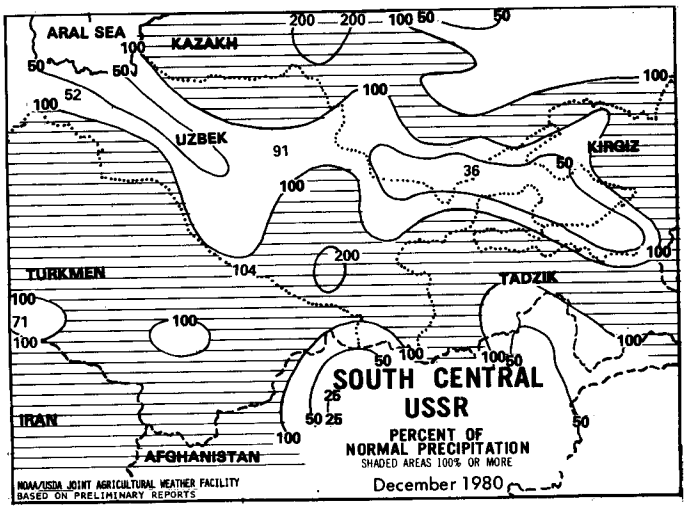

NEW LANDS USSR
TOTAL PRECIPITATION (mm)
(25 mm = 1 INCH)
December 1980
NOAA/USDA JOINT AGICULTURAL WEATHER FACILITY
Based on preliminary reports and satellite data
PERM
TOBOLSK
KOLPASHEVO
SVERDLOVSK
OMSK
NOVOSIBIRSK
KUSTANAY
BARNAUL
PAVLODAR
TSELINOGRAD
ORENBURG
SEMIPALATINSK
KARAGANDA
TURGAY

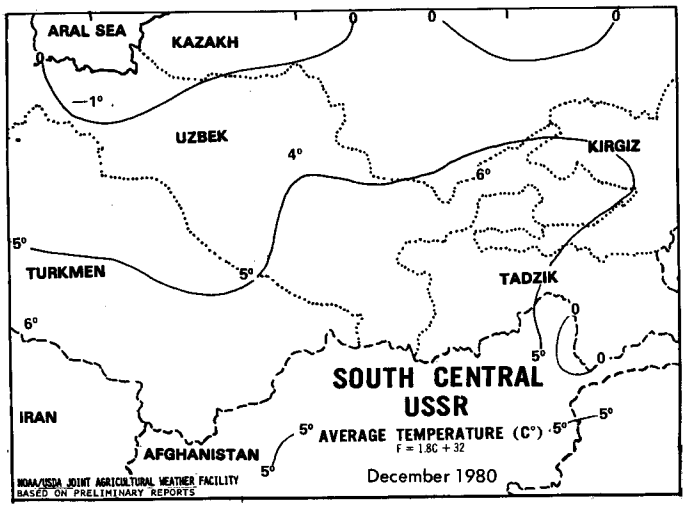

NEW LANDS USSR
PERCENT OF
NORMAL PRECIPITATION
SHADED AREAS 100% OR MORE
December 1980
NOAA/USDA JOINT AGICULTURAL WEATHER FACILITY
Based on preliminary reports and satellite data
PERM
TOBOLSK
KOLPASHEVO
SVERDLOVSK
OMSK
NOVOSIBIRSK
KUSTANAY
BARNAUL
PAVLODAR
TSELINOGRAD
ORENBURG
SEMIPALATINSK
KARAGANDA
TURGAY

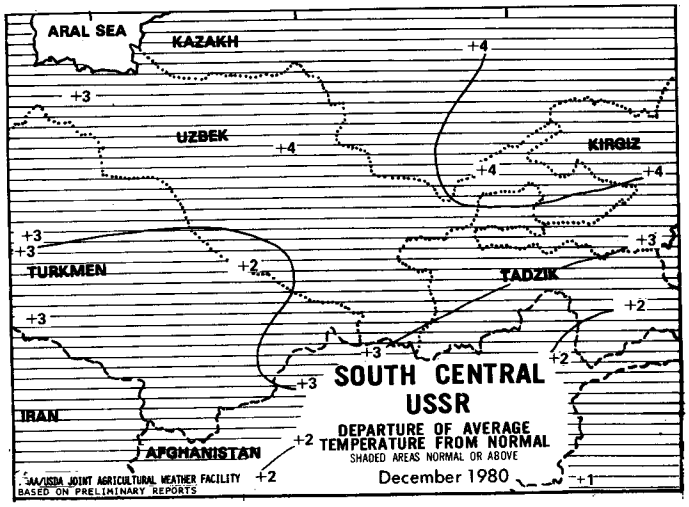

NEW LANDS USSR
AVERAGE TEMPERATURE (C°)
F = 1.8C + 32
December 1980
NOAA/USDA JOINT AGICULTURAL WEATHER FACILITY
Based on preliminary reports and satellite data
PERM
TOBOLSK
KOLPASHEVO
SVERDLOVSK
OMSK
NOVOSIBIRSK
KUSTANAY
BARNAUL
PAVLODAR
TSELINOGRAD
ORENBURG
SEMIPALATINSK
KARAGANDA
TURGAY


NEW LANDS USSR
DEPARTURE OF AVERAGE
TEMPERATURE FROM NORMAL
SHADED AREAS NORMAL OR ABOVE
December 1980
NOAA, NATIONAL WEATHER SERVICE
Based on preliminary reports and satellite data
PERM
TOBOLSK
KOLPASHEVO
SVERDLOVSK
OMSK
NOVOSIBIRSK
KUSTANAY
BARNAUL
PAVLODAR
TSELINOGRAD
ORENBURG
SEMIPALATINSK
KARAGANDA
TURGAY

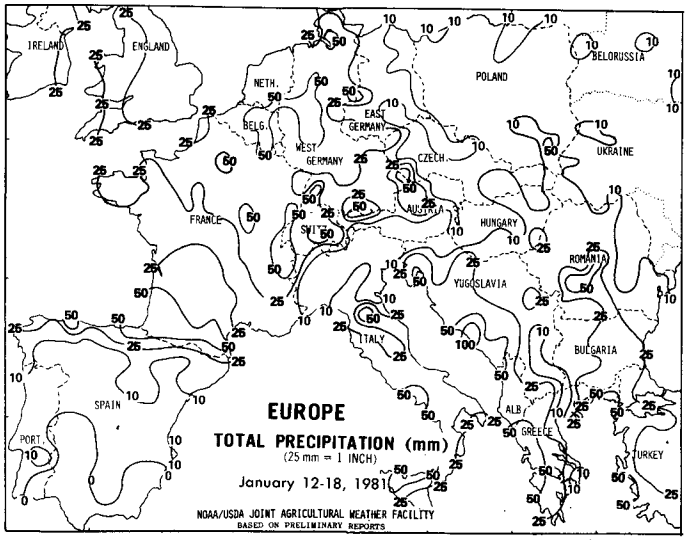

SOUTH CENTRAL
USSR
TOTAL PRECIPITATION (mm)
(25 mm = 1 INCH)
December 1980
NOAA/USDA JOINT AGICULTURAL WEATHER FACILITY
BASED ON PRELIMINARY REPORTS
ARAL SEA
KAZAKH
UZBEK
KIRGIZ
TURKMEN
TADZIK
IRAN
AFGHANISTAN

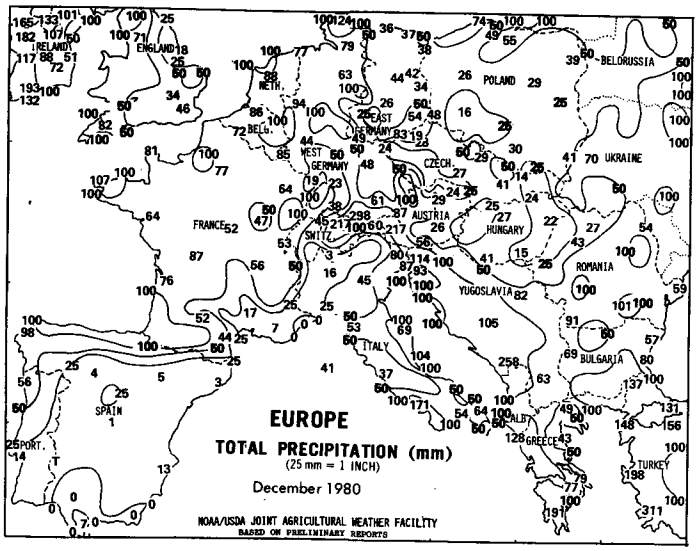

SOUTH CENTRAL
USSR
PERCENT OF
NORMAL PRECIPITATION
SHADED AREAS 100% OR MORE
December 1980
NOAA/USDA JOINT AGICULTURAL WEATHER FACILITY
BASED ON PRELIMINARY REPORTS
ARAL SEA
KAZAKH
UZBEK
KIRGIZ
TURKMEN
TADZIK
IRAN
AFGHANISTAN

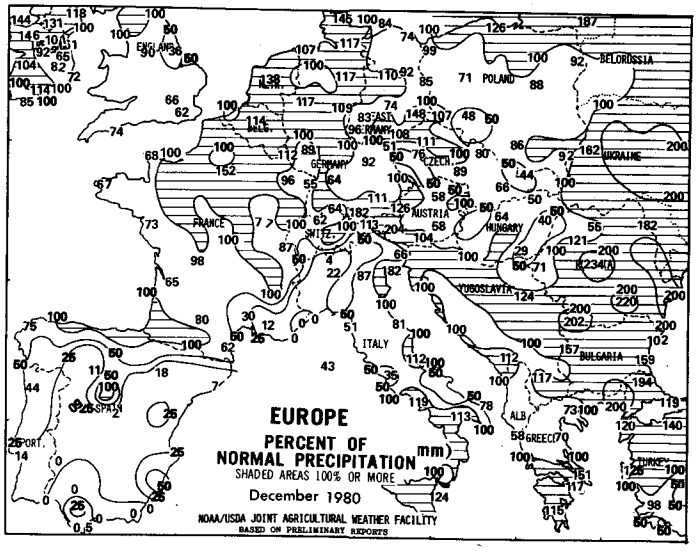

SOUTH CENTRAL
USSR
AVERAGE TEMPERATURE (C°)
F = 1.8C + 32
December 1980
NOAA/USDA JOINT AGICULTURAL WEATHER FACILITY
BASED ON PRELIMINARY REPORTS
ARAL SEA
KAZAKH
UZBEK
KIRGIZ
TURKMEN
TADZIK
IRAN
AFGHANISTAN

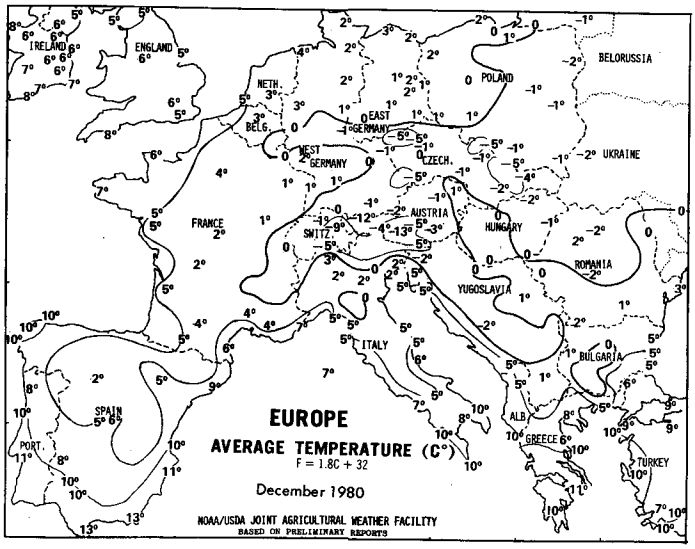

SOUTH CENTRAL
USSR
DEPARTURE OF AVERAGE
TEMPERATURE FROM NORMAL
SHADED AREAS NORMAL OR ABOVE
December 1980
NOAA/USDA JOINT AGICULTURAL WEATHER FACILITY
BASED ON PRELIMINARY REPORTS
ARAL SEA
KAZAKH
UZBEK
KIRGIZ
TURKMEN
TADZIK
IRAN
AFGHANISTAN

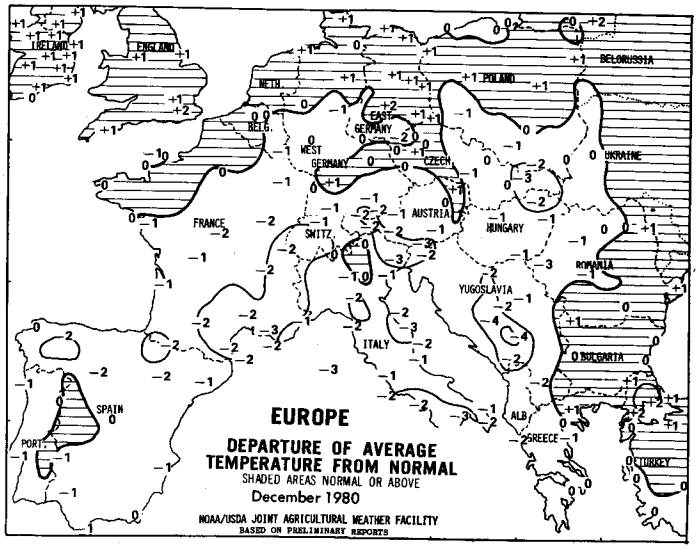
EUROPE: Weekly precipitation averaged 25 to 50 mm in western Europe except for northern Italy and the Iberian peninsula where minimal rainfall occurred. In eastern Europe, 5 to 25 mm of weekly rainfall generally occurred, except in southeastern portions, where up to 50 to 100 mm fell in localized areas of Yugoslavia and Greece. In December, seasonal precipitation (50 to 100 mm) occurred in northwestern Europe and above average precipitation (75 to 150 mm) fell over southeastern countries. Elsewhere, precipitation was generally below average with 25 to 50 mm falling over eastern Europe, less than 25 mm occurring in northern Italy, and minimal amounts recorded over most of Spain. Monthly temperatures averaged slightly above freezing in western portions and slightly below freezing in eastern areas. In general, significant departures from normal occurred mostly in southern Europe which has experienced below average temperatures for the month.



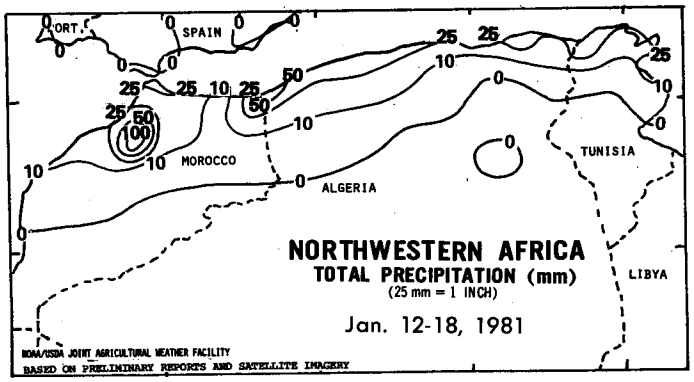


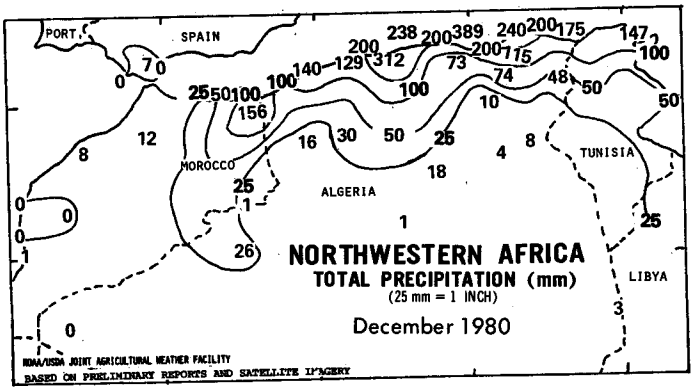


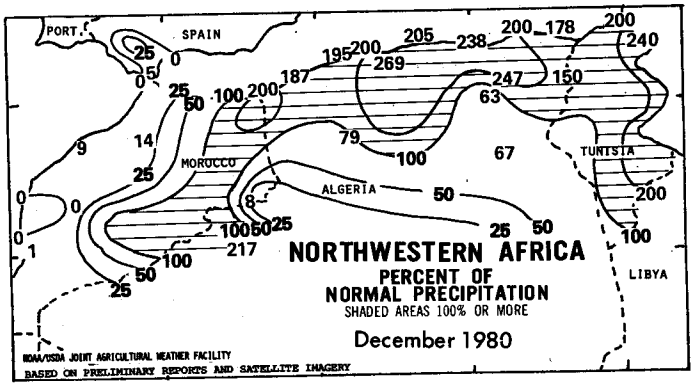


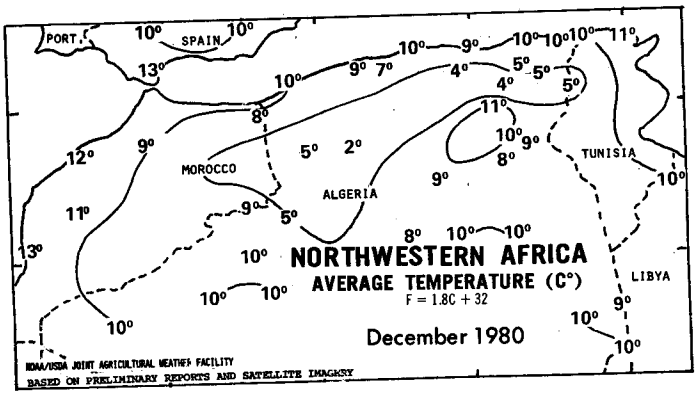


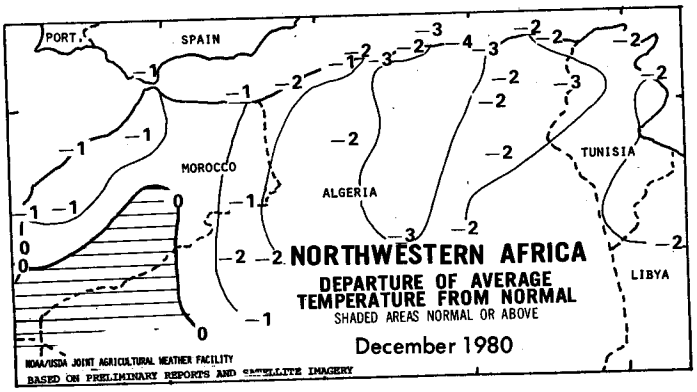
NORTHWESTERN AFRICA: A storm system which formed just off the Mediterranean Spanish coast brought substantial moisture to previously dry areas of Morocco. This area had well below average rainfall in December and early January, causing some concern for potentially-stressed crops. Elsewhere, above average rainfall in December, supplemented by 10 to 25 mm this past week, has provided a good supply of moisture for crops growing in northern Algeria and Tunisia. In coastal areas, 50 to 200 mm of rain fell in December and periodic showers have continued through the first half of January.



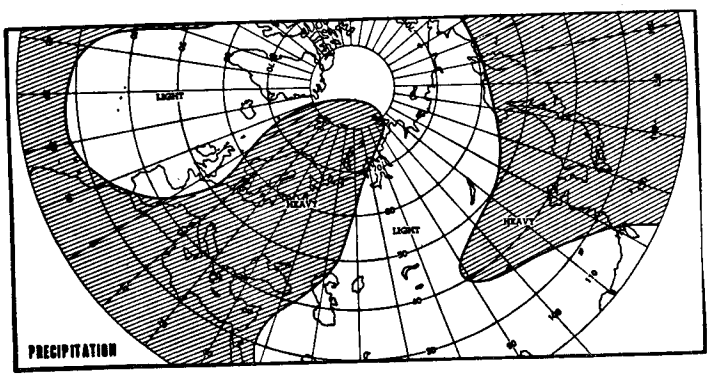


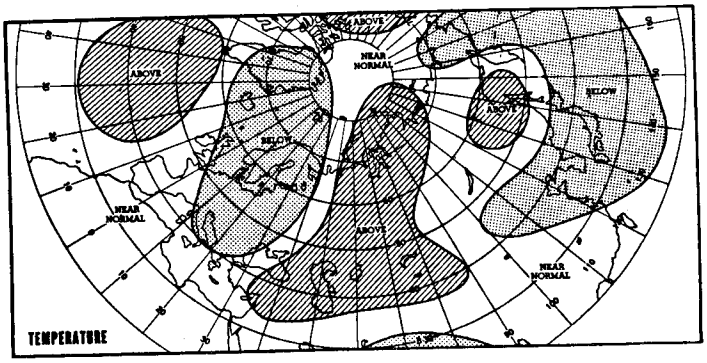




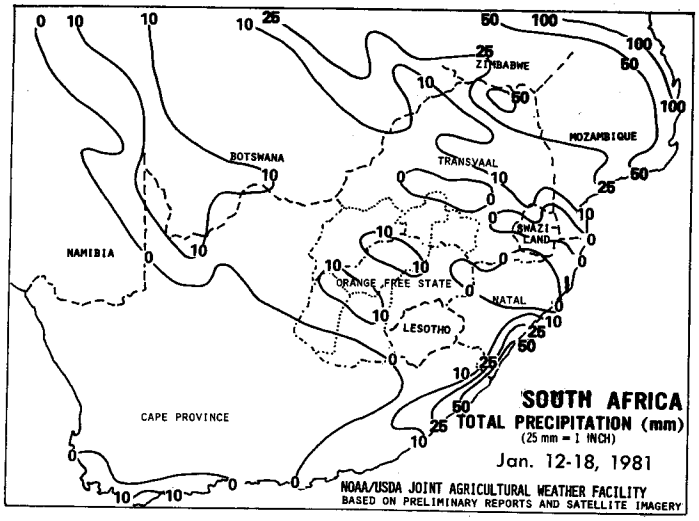


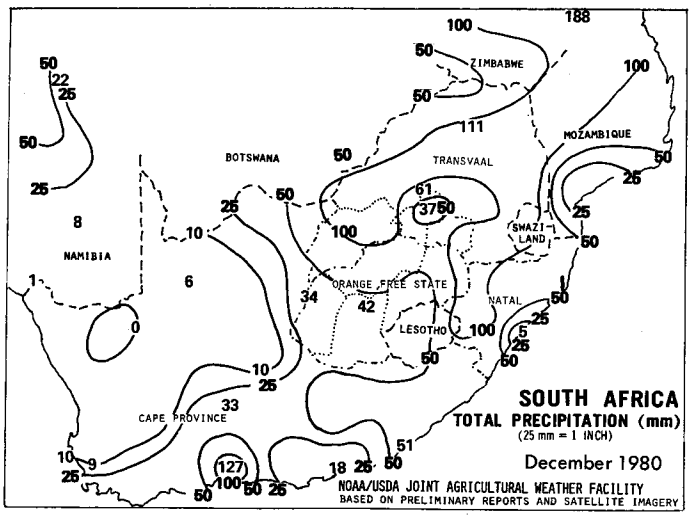
EURASIA WEATHER OUTLOOK...MID-JAN. - MID-FEB. 1981...CLIMATE ANALYSIS CENTER

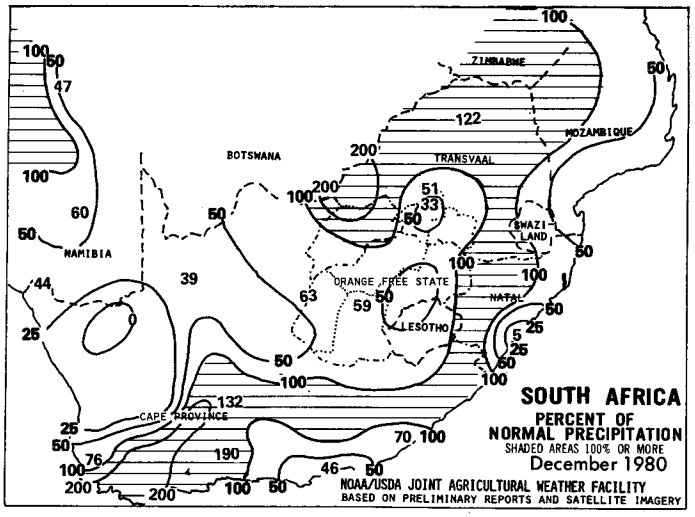


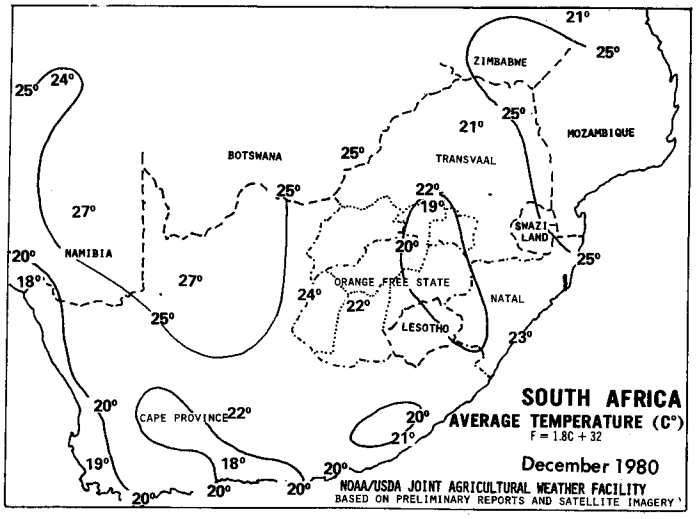


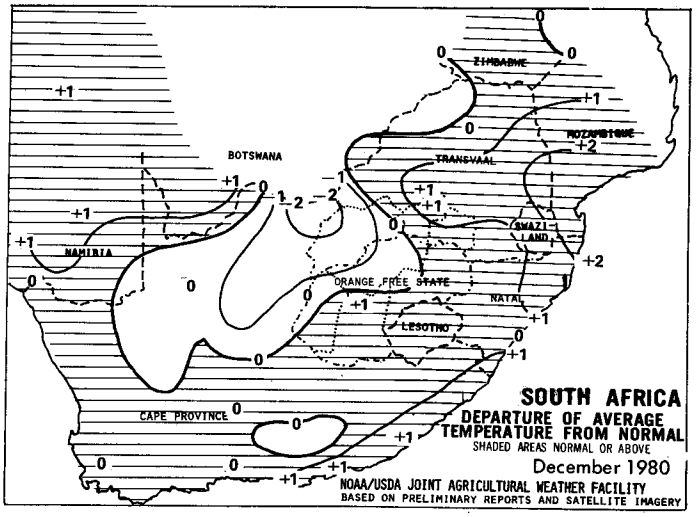
SOUTH AFRICA: Southern and western portions of the Maize Triangle continue to have a moisture deficit, since the pattern of below average rainfall, which started in December, has extended into January. Crop moisture demands have increased as the corn crop advances through vegetative development and enters the reproductive stage. Rainfall is particularly needed in the Orange Free State, a major corn producer. Northern and eastern portions of the Maize Triangle have benefited from above normal December rainfall. Rainfall was less than 10 mm in most areas this past week.



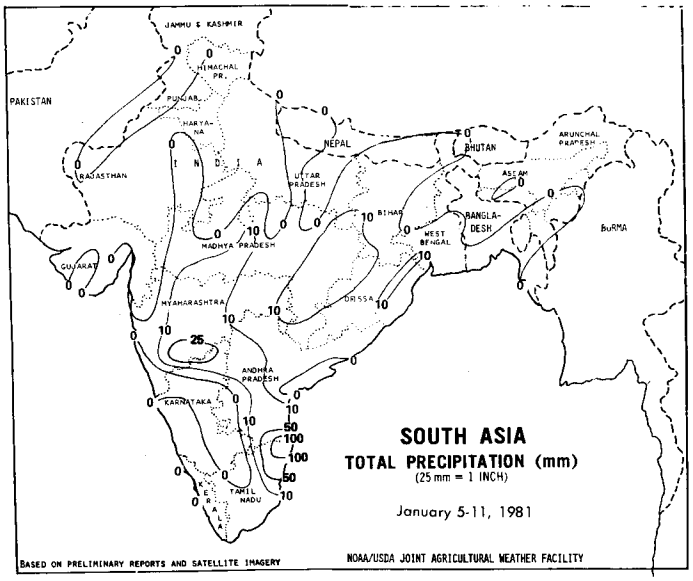


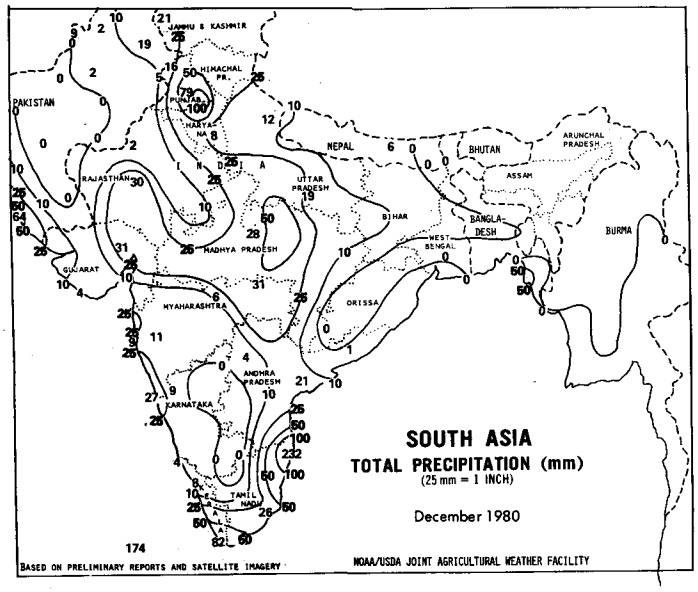


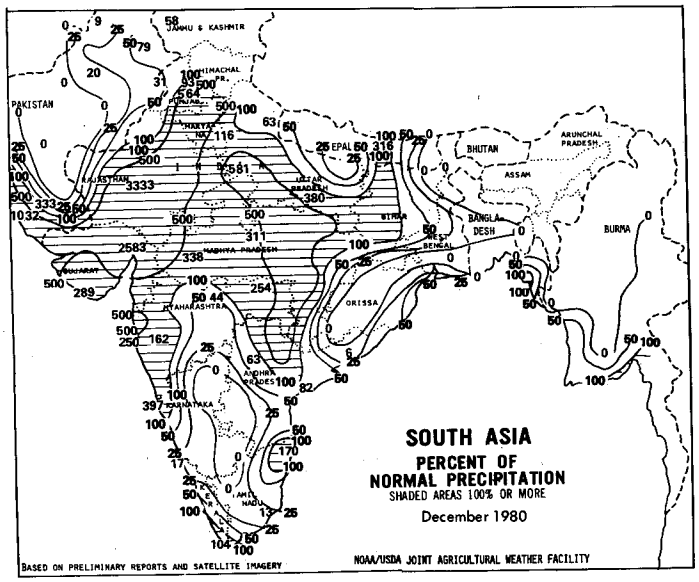


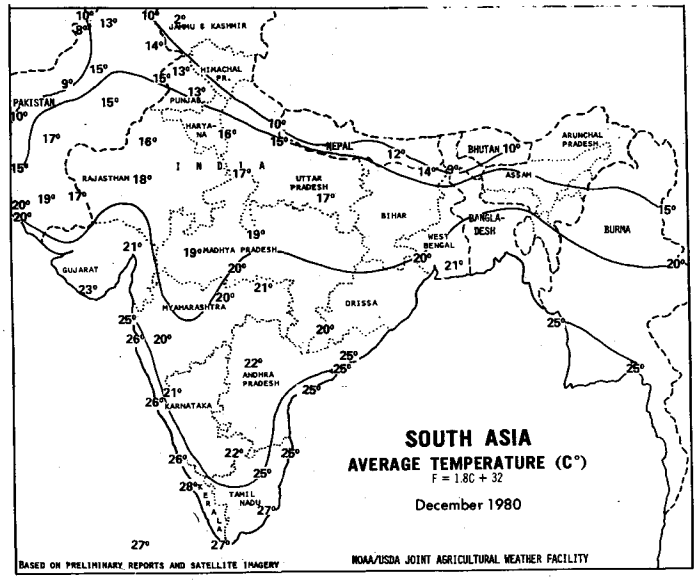


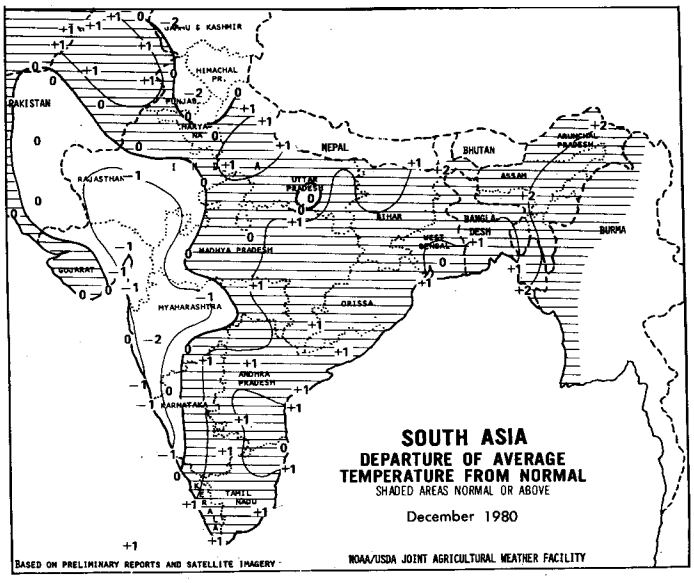
SOUTH ASIA: December monthly rainfall of 20 to 50 mm provided unusual, though timely, moisture for both the winter wheat crop and irrigation reservoirs. The above average December rains were followed by more typical drier weather in January as the wheat crop approaches the heading stage of development. Rainfall this past week was mostly concentrated in southeast India.



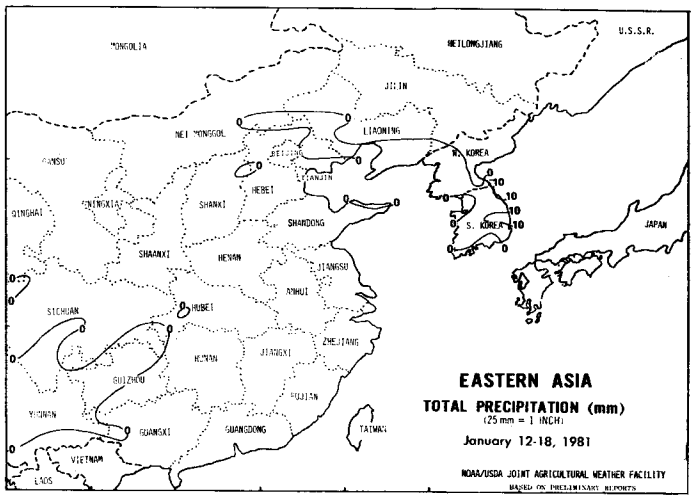


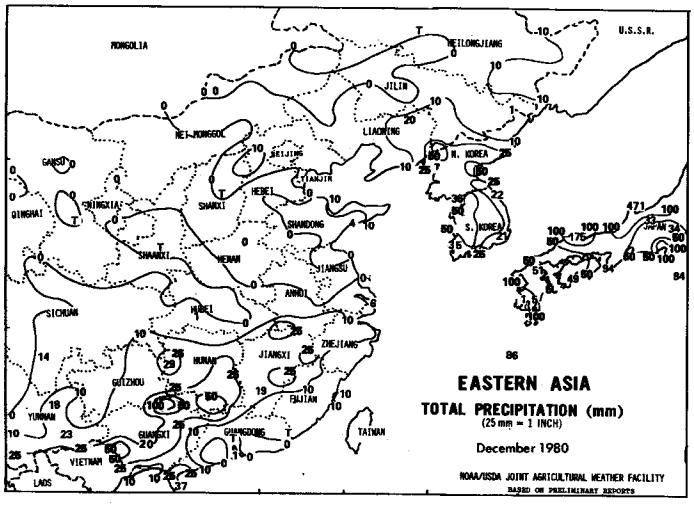


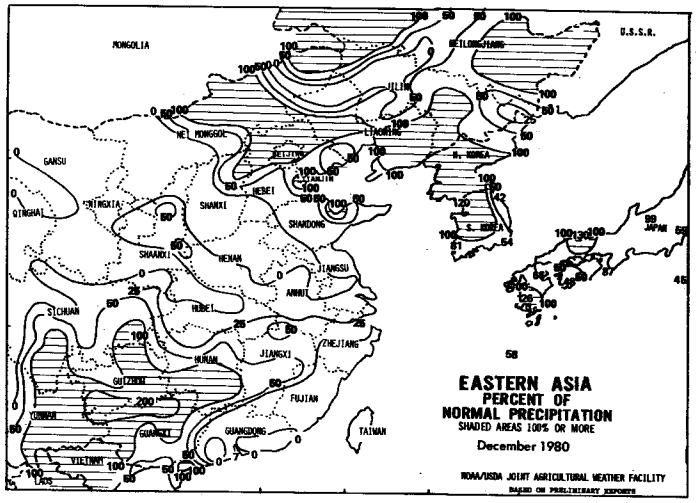


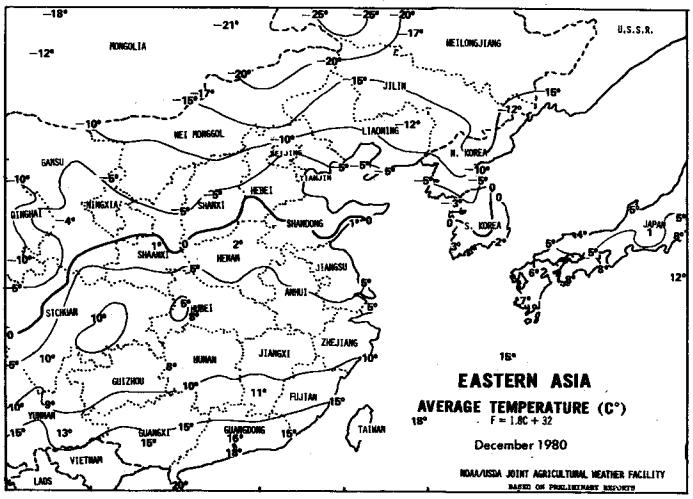


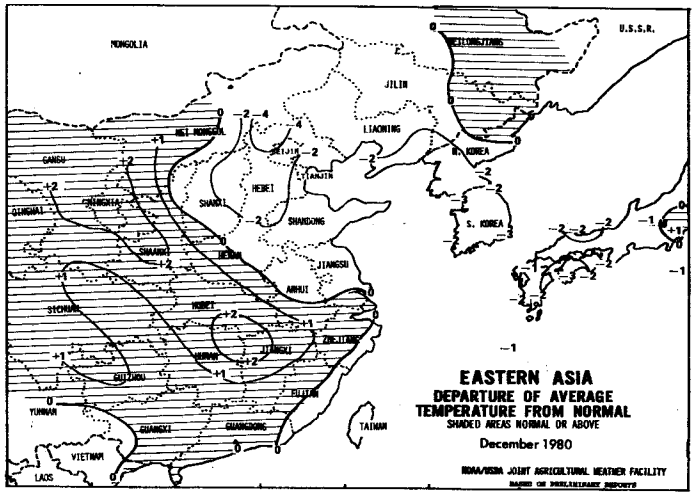
EASTERN ASIA: Seasonably dry weather prevailed in China's winter wheat area during the month of December and the first half of January. Although several cold air intrusions have penetrated into the North China Plain this winter, the winter wheat crop has not been exposed to severely cold weather for any long duration. Mean temperatures averaged near the freezing level in most wheat areas during December, and unseasonably cold weather remained mostly north of the winter wheat zone during the first 2 weeks of January as well. During this past week, minimum temperatures averaged about -5 to -7 C in the wheat areas with extreme minimums generally falling to -12 to -15 C in northernmost crop areas.



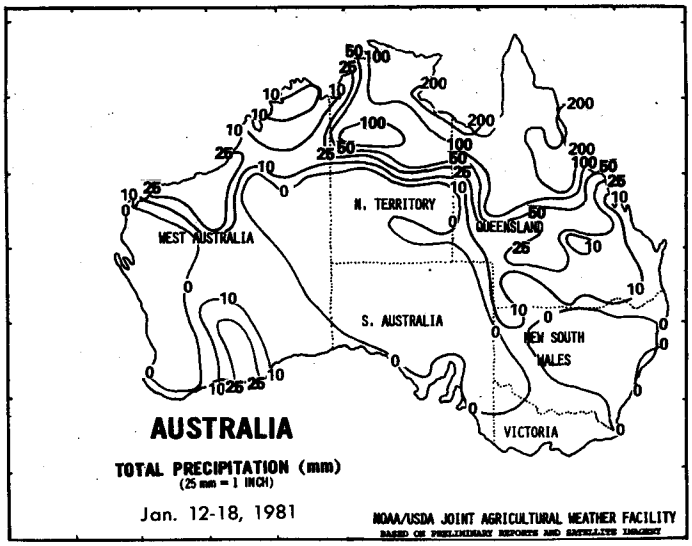


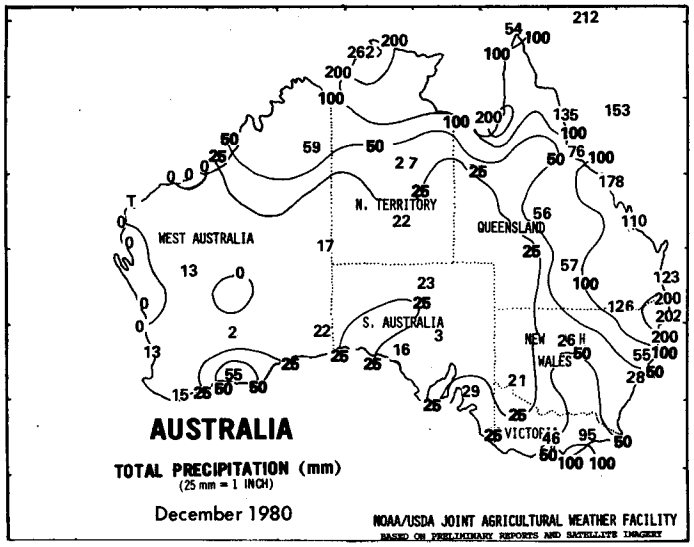


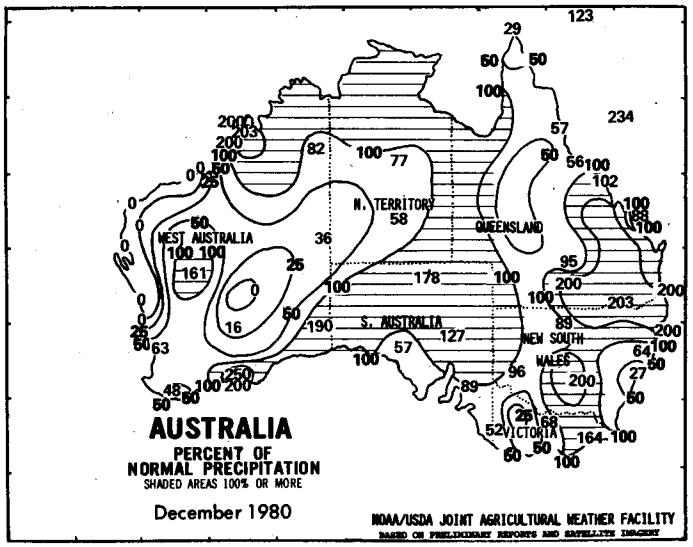


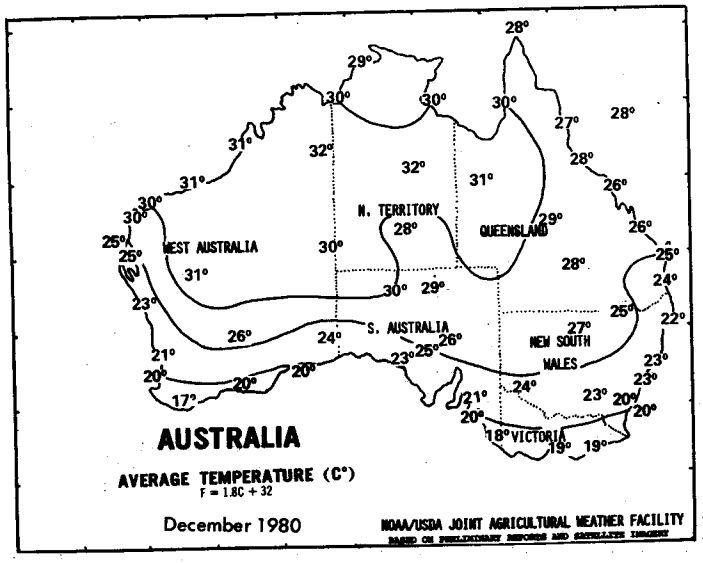


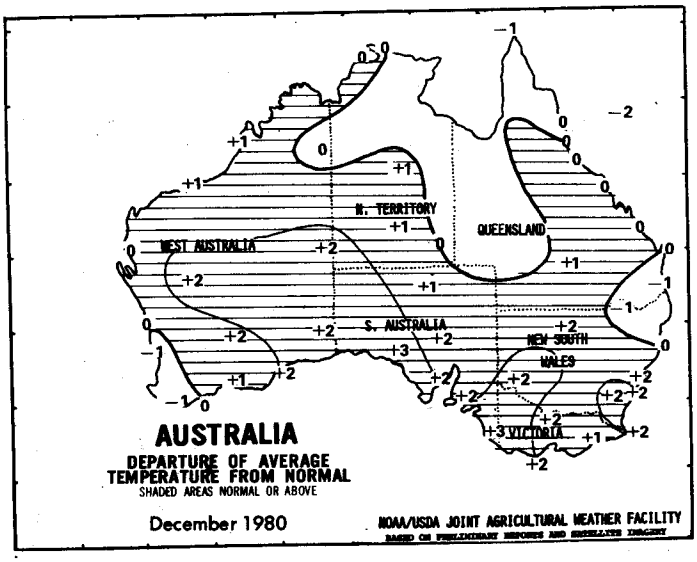
AUSTRALIA: Extremely heavy rain (greater than 200 mm) fell over northeastern Queensland which may have caused soil erosion and crop damage, especially to sugar cane. Abundant moisture has fallen during the past several weeks over northern Australia. Well above average December rainfall (50 to 100 mm) in eastern Australia benefited summer crops and soil moisture reserves. Warmer than average December weather should have aided the wheat harvest in southern portions of the continent.

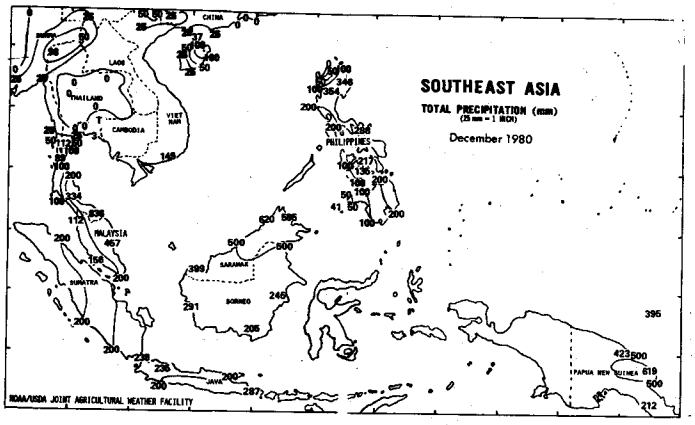


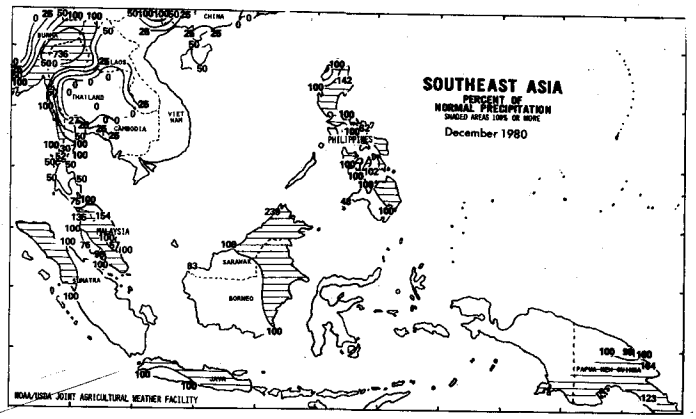


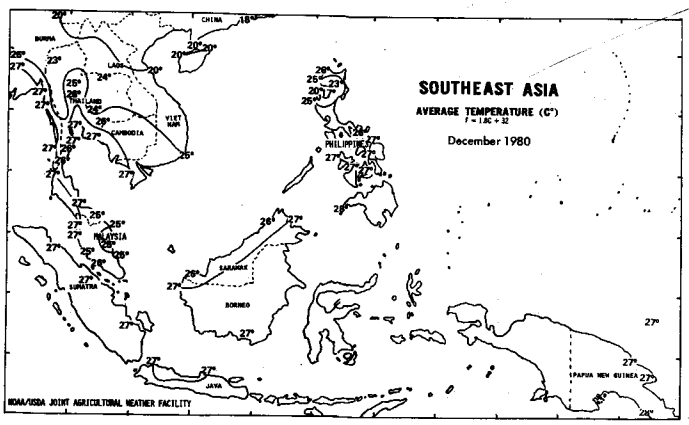


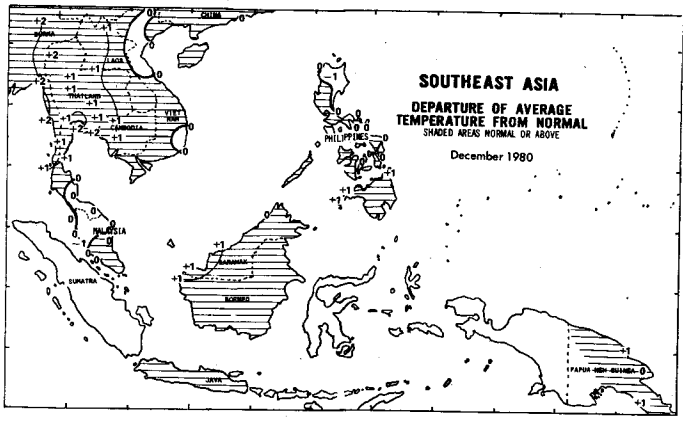


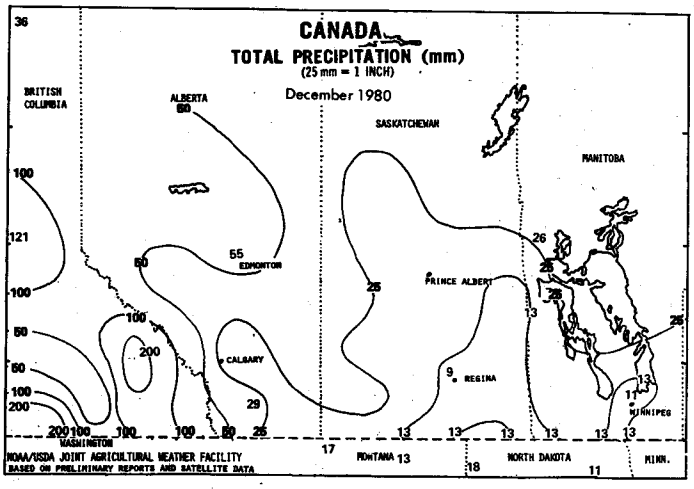


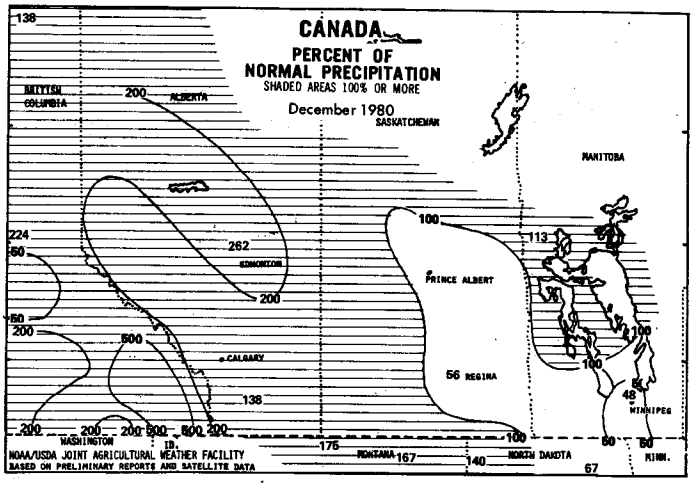

SOUTHEAST ASIA
TOTAL PRECIPITATION (mm)
(25 mm = 1 INCH)
December 1980
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY


SOUTHEAST ASIA
PERCENT OF NORMAL PRECIPITATION
SHADED AREAS 100% OR MORE
December 1980
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY


SOUTHEAST ASIA
AVERAGE TEMPERATURE (C°)
F = 1.8C + 32
December 1980
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY


SOUTHEAST ASIA
DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL
SHADED AREAS NORMAL OR ABOVE
December 1980


CANADA
TOTAL PRECIPITATION (mm)
(25 mm = 1 INCH)
December 1980
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
EDMONTON
PRINCE ALBERT
CALGARY
REGINA
WINNIPEG
WASHINGTON
MONTANA
NORTH DAKOTA
MINN.
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
BASED ON PRELIMINARY REPORTS AND SATELLITE DATA


CANADA
PERCENT OF NORMAL PRECIPITATION
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December 1980
BRITISH COLUMBIA
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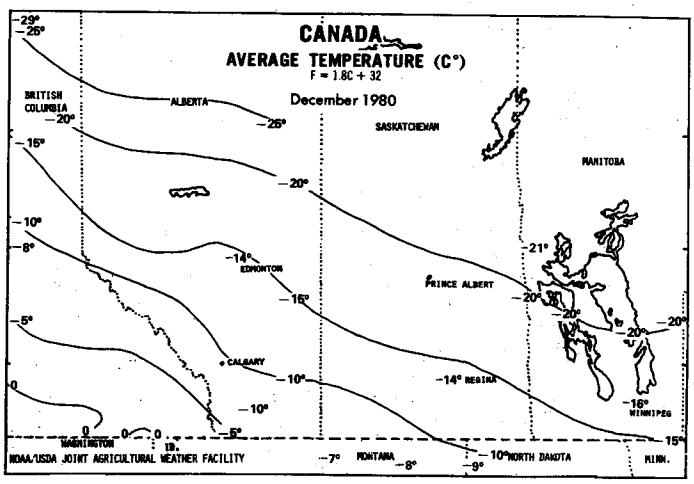
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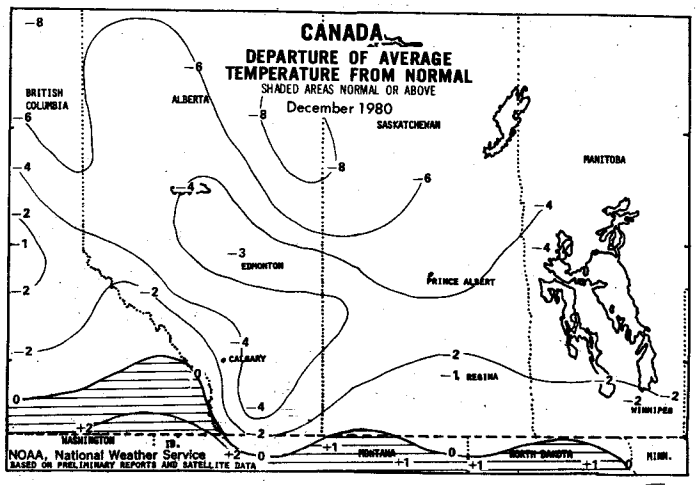
CANADA
DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL
SHADED AREAS NORMAL OR ABOVE
December 1980
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REGINA
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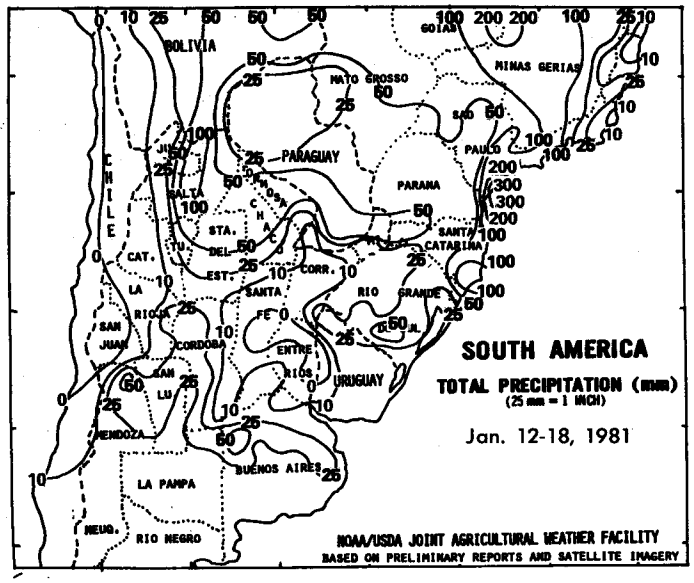
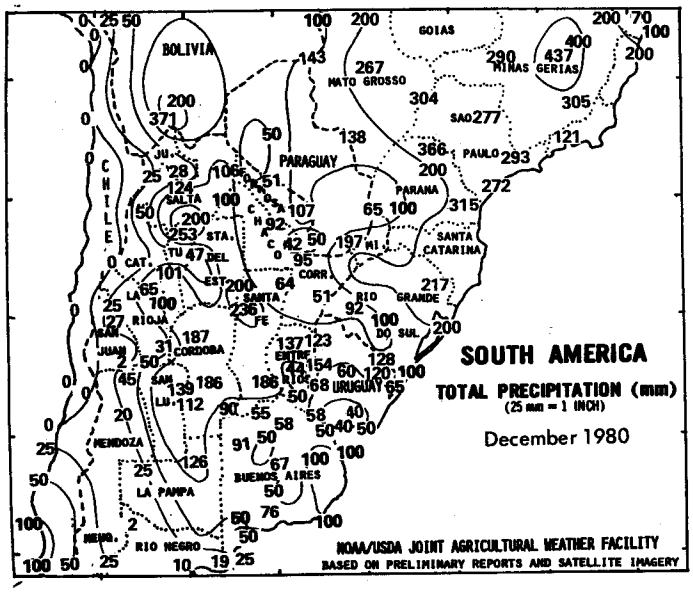
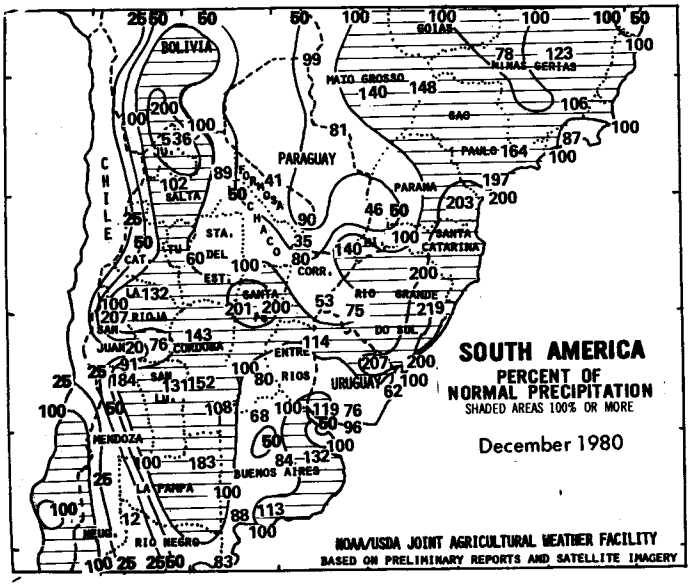
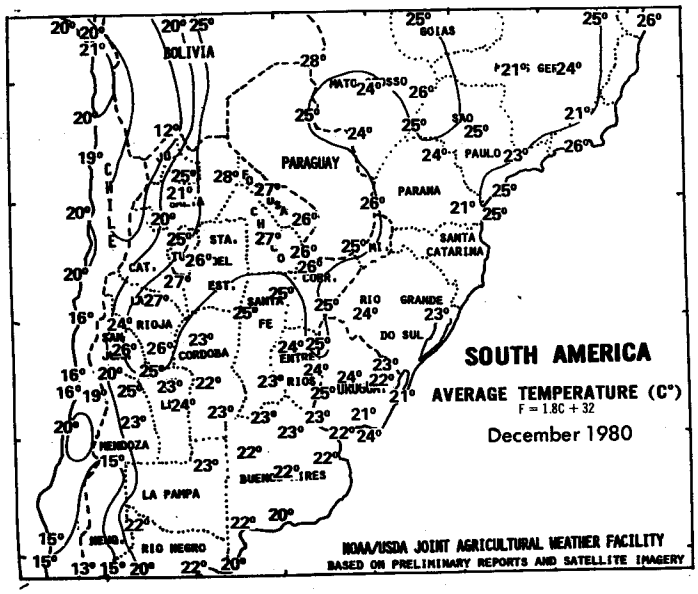
MONTANA
NORTH DAKOTA
MINN.
NOAA, National Weather Service
BASED ON PRELIMINARY REPORTS AND SATELLITE DATA

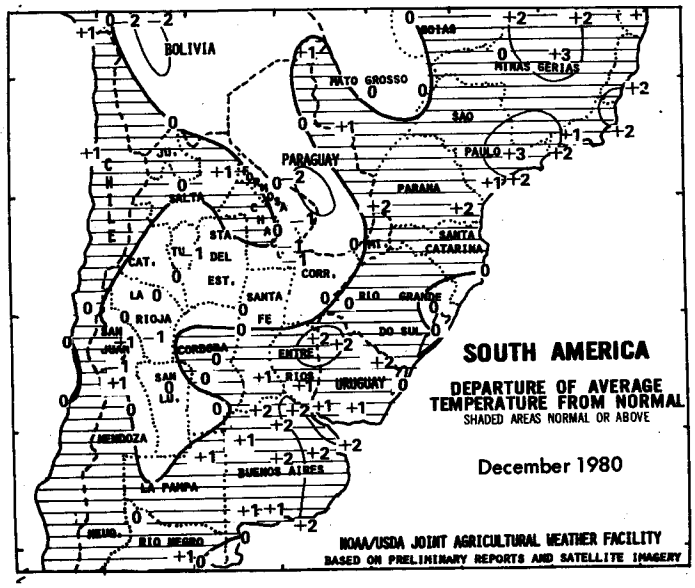
SOUTH AMERICA: Fair weather over eastern Argentina and southern Brazil early in the week was replaced by shower activity as a storm system works its way across the continent. Weekly totals ranged from 10 to 40 mm in Argentina's corn area, and from 20 to 75 mm through the principal soybean region of Brazil. Very heavy rains (100 to 300 mm) occurred along the Brazilian coast from Santa Catarina northward to Minas Gerais. The corn and soybean crops are progressing through reproductive stages with ample moisture supplies, except for some local dryness in western Parana, and generally favorable temperatures. As noted above, the only major problem area is in western Parana, where December rainfall was well below average. This area did receive some moisture during the week, but additional rainfall is needed within the next 2 weeks.



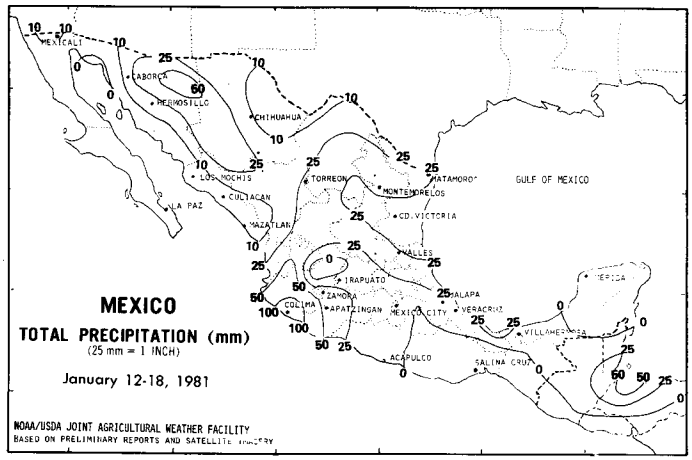


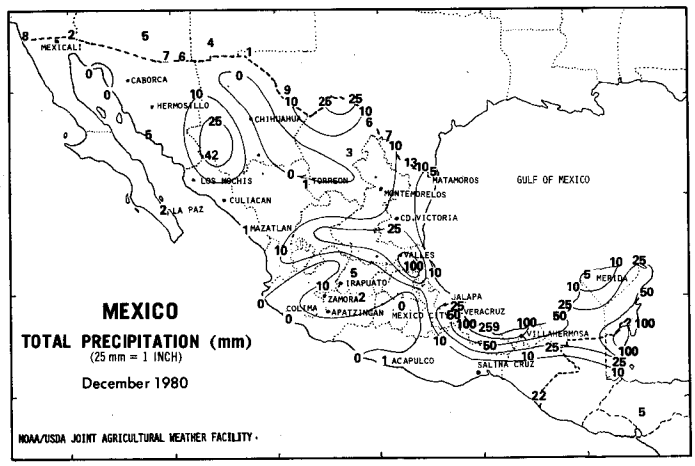


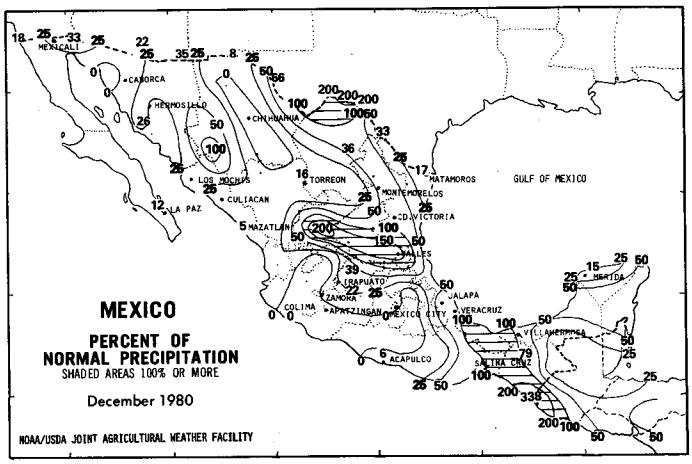


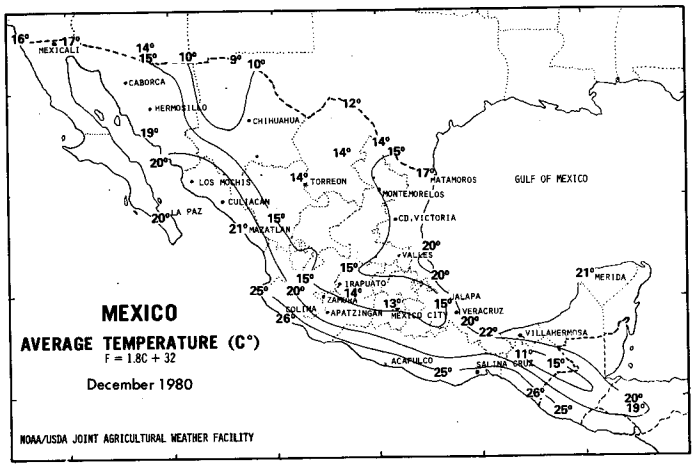


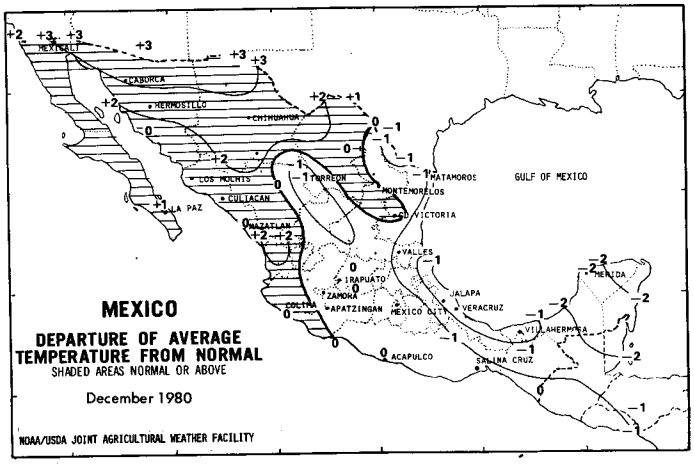
MEXICO: Heavy rains over the northwestern watersheds during the first half of January is greatly benefiting winter wheat and pastures as well as increasing the water supply for spring and summer crops. Only a small part of the watershed area had normal rainfall in December. West coast vegetables should be progressing well with temperatures warmer than usual; however, cloudiness has somewhat restricted sunlight. Rains moved across fruit and vegetable areas of Colima into the southwestern corn belt of the Southern Plateau. The rainy pattern slowed crop harvesting but greatly improved soil moisture which had become quite short in December. Beneficial rains, 20 to 35 mm, falling this week over most northeastern citrus districts should boost tree conditions in the non-irrigated orchards. A return to cool weather helped color citrus fruit but slowed development of tender vegetables and sugar cane.











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STATE SUMMARIES (cont'd from p. 14)

to average of 24 in., deepest ever recorded for a mid-January date.

WYOMING: Temperatures slightly above normal, particularly north central region. Precipitation continued below normal pattern although towards end of week a Canadian cold front brought widely scattered snow showers. Areas reporting precipitation included Wind River drainage and southeastern portion.

Winter wheat mostly good condition, additional moisture needed. Few farmers started spring plowing. Livestock mostly good condition with minimal supplemental feeding.