WEEKLY WEATHER AND CROP BULLETIN

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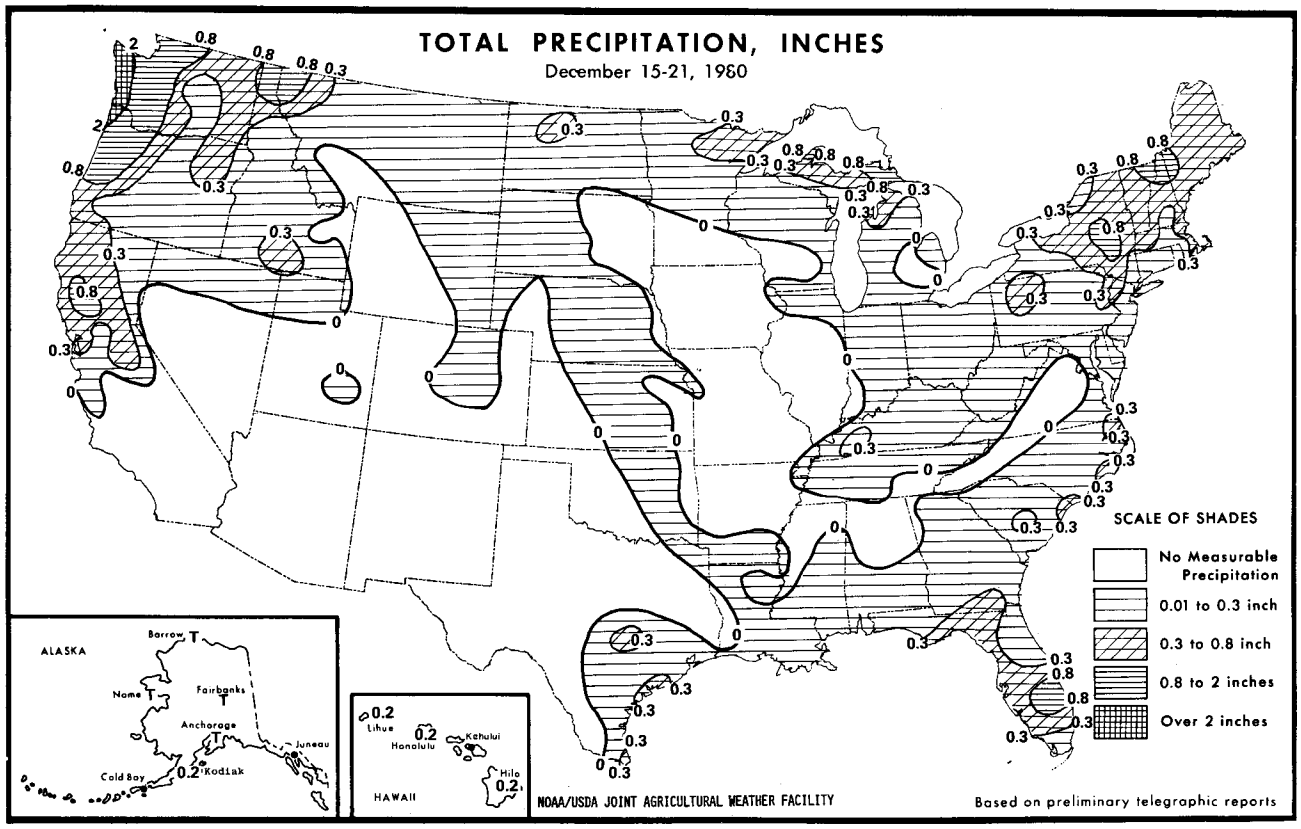


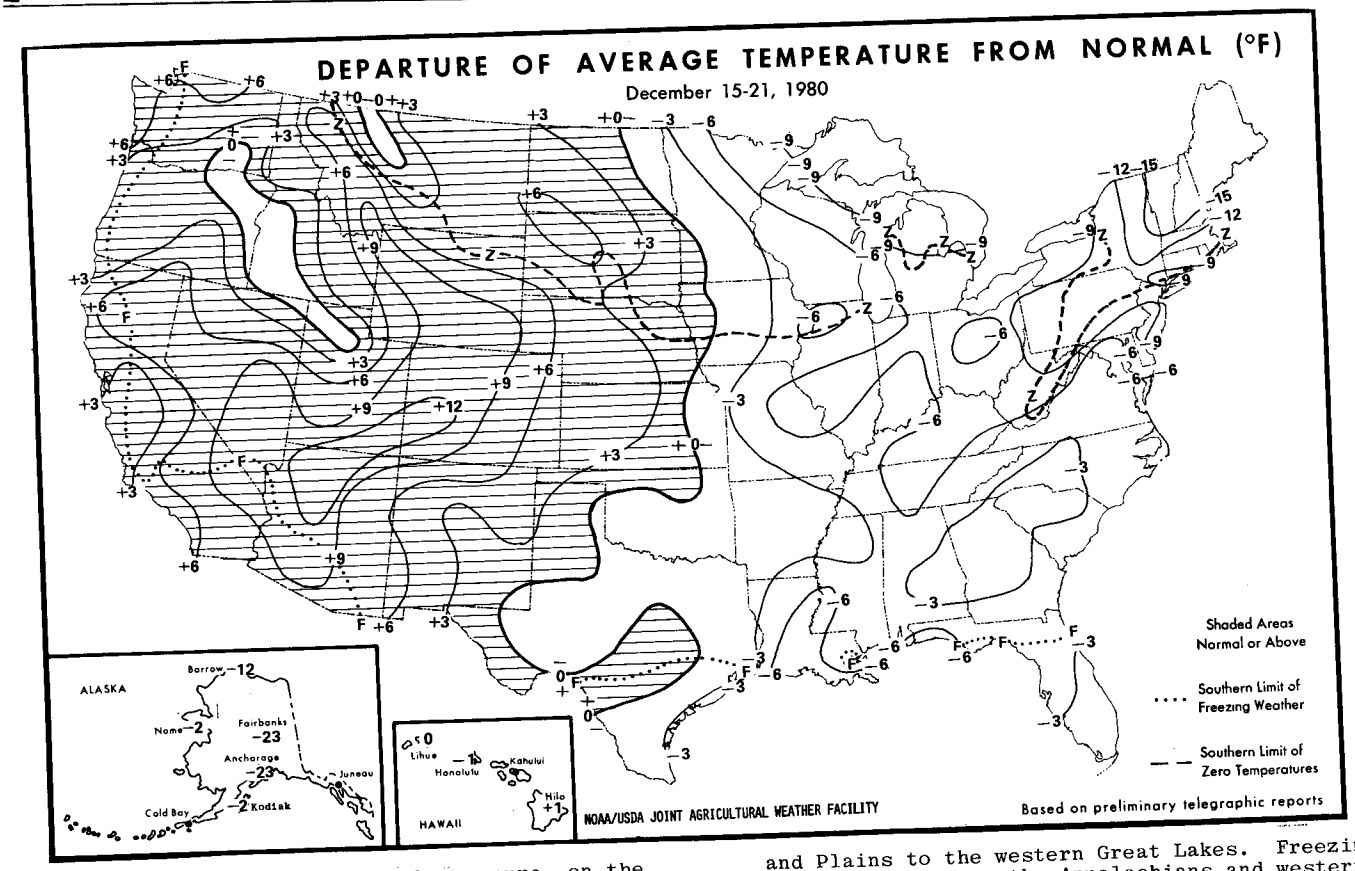
National Weather Summary

December 15-21, 1980

HIGHLIGHTS: A weather system moving slowly northeastward from the upper Ohio Valley early in the week spread snow--heavy in some areas--from Pennsylvania through New England. Light rainshowers from the system moved southeastward through Florida. A strong arctic outbreak dominated the latter part of the week and finally covered the eastern two thirds of the Nation. At week's end, a Pacific storm system was spreading rain, with snow at higher elevations, from central California through the Pacific Northwest.

MONDAY...A low pressure system moving northeastward from the upper Ohio Valley spread snow from Pennsylvania through New England. A mixture of rain and snow fell over the Ohio Valley and an area of light rain spread from the mid-Atlantic States to the Southeast and South. Temperatures were quite cool in most of the East--below zero in New England. A high pressure system centered over the central Plateau in the West, causing Chinook winds of 60 mph or more to blow down the eastern slopes of the northern Rockies and Santa Ana winds to sweep down the western slopes of the Southern Sierras into southern California. Abnormally warm temperatures resulted in both areas.

TUESDAY...The low pressure system moved along the Northeast coast and then eastward into the Atlantic Ocean. Light to moderate amounts of snow covered the area from Pennsylvania through New England; up to a foot accumulated in some areas. Showers and some rain fell along the south Atlantic coast and the eastern gulf coast. Scattered light snow was reported in the western Great Lakes area. Strong winds continued to warm mountain slopes in Montana and southern California while



near the center of the high pressure, on the central Plateau, fog and smog filled valleys and basins.

WEDNESDAY...Northerly winds continued to cause scattered light snow in the Northeast An outbreak of very cold air moved into the northern Plains and pushed southward and eastward. Light snow accompanied the cold front through the northern Plains, northern Mississippi Valley, and Great Lakes region. Early morning temperatures were very cold in the northern Great Lakes region but in the southern and central Plains, ahead of the advancing cold front, high temperatures for the day reached into the seventies as far north as Nebraska. Pueblo, Colo. reached 79°, a record for the date.

THURSDAY...The very cold air moved rapidly eastward and southward. Snow continued along the northern portion of the front. Snow showers were frequent through the Great Lakes and into the Northeast. Rainshowers accompanied the front from southern Ohio to Texas. Along the eastern slopes of the central and northern Rockies, freezing drizzle was mixed with the snow. Winds of 25 to 35 mph in the cold air kicked up dust to mix with the blowing snow in North Dakota. Wind chill posed severe problems for exposed livestock. The drop in temperature with the passage of the cold front was drastic in many areas. In the afternoon, parts of the central Plains droped as much as 30 degrees in 2 hours. Ahead of the arctic outbreak, record warm temperatures in the seventies and eighties prevailed in the southern Plains.

FRIDAY.. Arctic air blasted through most of the United States during the day. Early morning temperatures were below zero from the northern Rockies and Plains to the western Great Lakes. Freezing weather reached to the Appalachians and western Texas. High temperatures for the day stayed below freezing in the northern Mississippi Valley, and in the twenties in New England and central Plains. Light snow fell from the central Great Lakes and upper Ohio Valley through New England. Light rainshowers extended through the South to southeastern Texas. On the back side of the cold air, snow showers and freezing drizzle covered the eastern slopes of the Rockies. Light rain and some freezing rain spread through the Pacific Northwest.

SATURDAY...The arctic air covering the United States from the Rockies to the east coast was the coldest to cover so large an area this season. Below zero temperatures reached from the northern Plains through the Northeast. Harrison, in northern Arkansas, dropped to 9°; a record-breaking low of 2° was logged at the Atlantic City, N.J., airport. Light snow flurries were noted south and east of the warmer waters of the Great Lakes. Warmer air moving into the Pacific Northwest spread rainshowers over the western portion and snow eastward to the northern Plains.

SUNDAY...Cold weather centered in the upper Mississippi Valley and spread across the eastern two thirds of the Nation. Many record low temperatures were established, appropriately, on this first official day of winter. Minimum temperatures in the teens reached from northern Texas through Oklahoma and Arkansas to North Carolina. Percipitation in the East was confined to snow flurries in the Great Lakes area with light snow in the northern Plains. A Pacific weather system, moving into the Northwest, spread rain from central California to western Montana and northward.

National Agricultural Summary

DECEMBER 15-21

HIGHLIGHTS: Warm winds depleted most of the protective snow-cover on winter wheat fields in Montana, but opened up pastures and ranges so that some grazing was available during the week. By week's end light snow spread across the northern tier of Great Plains States giving much needed protection to winter wheat. Due to little snow-cover, wind erosion has become a problem to fall sown grains in the northern Plains. However, the long, mild fall with little snowfall prolonged grazing and conserved hay supplies. Temperatures averaged above normal in the western half of the Nation with much of the southwest and Great Plains receiving very little, if any, precipitation. Farmers had 3 to 6 days suitable for fieldwork, when they tilled soil, spread fertilizer, lime and manure, repaired machinery, hauled grain, and harvested late crops. The cotton harvest reached 84% complete in Texas, 85% in New Mexico, and neared completion in Arizona. From the Delta eastward, and in California, picking was virtually complete. Other row crop harvests were complete in nearly all areas; growers in the Southeast harvested a few soybeans. Southern pastures rated poor to fair. Livestock grazed pastures and crop stubble.

SMALL GRAINS: Winter wheat rated fair to good throughout the Nation. Most areas needed snow cover to prevent damage from winds. Kansas wheat rated good; late-emergining fields may be susceptible to winterkill. Small grain fields in Texas responded to unseasonably warm temperatures and made good progress. Some dryland wheat fields in the northern high Plains need moistue and were rated poor with limited grazing. Cooler temperatures in Oklahoma slowed the growth of small grains. Favorable weather aided small grains in California where winter wheat planting reached 84% finished and 23% of the average had emerged. Warm winds depleted most of the protective snow-cover in Montana and stands were subject to wind damage.

COTTON: The cotton harvest was virtually complete in all major producing areas except the southern Plains and the Southwest. Harvest reached 84% complete in Texas, 85% in New Mexico, and neared completion in Arizona. The Texas harvest picked up after delays caused by rain and snow to make excellent progress. Quality dropped in some areas of the Panhandle due to the unfavorable weather and in scattered fields, the cotton was stringing and falling out of the bolls. Most fields remaining for harvest in Arizona were in central and western areas. There were scattered fields that hadn't been picked for the first time. Some fields have been clipped in preparation for wintering. Harvest continued active in New Mexico; farmers were also busy shredding cotton stalks.

OTHER CROPS: Soybean combining rapidly drew to a close with only a few fields remaining for harvest in the Southeast. Sunflower harvest reached 95% complete in Texas; normally growers would have finished by this date. Sugarcane was in good to excellent condition in Florida where harvest continued active; Louisiana growers also continued with harvest activities. Tobacco auctions closed for the holidays. The Texas peanut harvest reached 97% finished, 3 points behind last year and the average.

FRUITS AND NUTS: Deciduous fruit growers continued to prune and spray trees. Pecan harvest across the South ranged from 82% complete in Texas to 87% in Georgia. Considerable damage caused by weevils, birds, and disease was reported in Texas.

Florida citrus groves rated excellent with generally adequate soil moisture. Growers were completing grove maintenance for the winter season as harvests increased. The Arizona citrus harvest continued active. California growers harvested avocados, dates, lemons, navel oranges, mandarines, tangerines, and pecans. Supplies of desert grapefruit were very light. Harvesting of oranges and grapefruit continued active in the Coastal Bend area of Texas.

VEGETABLES: Cool temperatures slowed plant growth in Florida's vegetable growing areas, but scattered light to moderate showers benefited soil moisture supplies. Spray programs remained active. Overall, vegetable shipments were up 6% from the previous week in Florida. Supplies held steady for Chinese cabbage, sweet corn, eggplant, and okra, declined for tomatoes, and increased for most other vegetables. Strawberry growth and fruit set continued good with light harvest underway. Land preparation and planting for spring crops was underway. California broccoli and cauliflower harvests decreased. The lettuce harvest neared completion in Palo Verde, and increased in the Imperial Valley. Planting of spring crops was about complete in the San Joaquin Valley. Market tomato harvests declined seasonally on the South Coast. In the Lower Rio Grande Valley of Texas, harvests of cabbage, peppers, broccoli, and cauliflower moved actively. In East Texas, land preparation and planting progressed well.

PASTURES AND LIVESTOCK: Pastures generally rated fair to good from Texas eastward. Favorable moisture and warm weather improved winter pastures in Texas. Rangeland was mostly dormant and supplemental feeding continued. Livestock remained in good condition. In the northern Plains, warm weather with little snowfall kept pastures open and conserved hay supplies.

Weather Data for the Week Ending Dec. 21, 1980

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	51	29	64	24	40	-4	T	- 1.2	T	.5	14	77	38	0	5	0	0
MOBILE	60	37	73	31	49	-4	.1	- 1.4	.1	.8	19	80	41	0	2	1	0
MONTGOMERY	57	35	64	28	46	-2	T	- 1.2	T	1.2	34	78	36	0	3	1	0
AK ANCHORAGE	-5	-18	0	-23	-11	-23	T	- .2	T	0	0	79	59	0	6	0	0
BARROW	-19	-30	-5	-32	-25	-1	T	0	T	T	0	79	67	0	6	1	0
FAIRBANKS	-29	-37	-24	-43	-33	-23	T	- .1	T	.3	75	84	63	0	6	0	0
KODIAK	33	22	38	15	27	-2	.2	- 1.0	.1	2.0	57	73	59	0	5	3	0
NOME	7	-9	20	-25	1	-2	T	- .1	T	.2	40	54	43	0	6	1	0
AZ FLAGSTAFF	57	27	65	22	42	13	0	- .5	0	1.4	93	--	25	0	6	0	0
PHOENIX	77	49	86	43	63	11	0	- .2	0	.1	20	51	20	0	0	0	0
TUCSON	73	46	81	38	60	9	0	- .2	0	.2	33	51	21	0	0	0	0
WINSLOW	57	27	66	23	42	9	0	- .1	0	.2	67	--	--	0	7	0	0
YUMA	80	49	84	46	64	8	0	- .1	0	.1	33	54	26	0	0	0	0
AR FORT SMITH	51	28	70	17	39	-2	T	- .6	T	1.3	65	73	36	0	5	0	0
LITTLE ROCK	51	29	69	14	40	-	0	- .9	0	2.2	79	69	38	0	4	0	0
CA BAKERSFIELD	66	39	72	30	53	5	0	- .1	0	.2	50	--	44	0	1	0	0
EUREKA	59	46	65	41	53	4	.3	- .2	.3	5.1	147	88	75	0	0	2	0
FRESNO	61	35	68	30	48	3	T	- .4	T	.5	42	97	56	0	1	0	0
LOS ANGELES	72	51	85	44	61	5	0	- .4	0	1.6	123	63	48	0	0	0	0
RED BLUFF	67	43	83	38	55	9	.5	- .9	.5	2.5	100	--	51	0	0	1	1
SAN DIEGO	72	52	84	46	62	5	0	- .4	0	.3	25	75	50	0	0	0	0
SAN FRANCISCO	62	45	71	39	53	4	.3	- .6	.3	1.7	65	81	53	0	0	1	0
STOCKTON	58	35	63	28	46	1	.3	- .3	.3	1.2	67	--	68	0	3	1	0
CO DENVER	53	28	73	21	41	9	T	0	T	.1	33	69	43	0	5	1	0
GRAND JUNCTION	53	26	54	24	40	11	0	- .1	0	.2	67	85	37	0	7	0	0
PUEBLO	56	25	82	18	40	8	T	- .1	T	T	0	70	37	0	7	1	0
CT BRIDGEPORT	35	17	42	11	26	-7	.1	- .7	.1	.5	20	69	48	0	7	1	0
HARTFORD	28	4	36	- 4	16	-11	.3	- .6	.2	.7	25	63	39	0	7	3	0
DC WASHINGTON	40	25	51	16	33	-4	T	- .7	T	.3	14	64	41	0	6	1	0
FL APALACHICOLA	63	40	72	34	51	- 4	.4	- .4	.2	.4	17	72	44	0	0	2	0
DAYTONA BEACH	67	45	74	37	56	-3	.2	- .3	.1	.2	15	90	55	0	0	2	0
FORT MYERS	73	51	76	41	62	-2	.4	.1	.4	.4	44	93	54	0	0	2	0
JACKSONVILLE	64	37	73	31	50	-5	T	- .6	T	.1	6	91	46	0	1	1	0
KEY WEST	74	63	77	57	68	-3	T	- .3	T	T	0	93	64	0	0	1	0
MIAMI	75	58	78	50	66	-2	.1	- .3	.1	.2	17	83	52	0	0	1	0
ORLANDO	69	46	75	41	57	-4	.2	- .2	.2	.2	17	97	52	0	0	2	0
TALLAHASSEE	62	35	70	27	49	-4	.3	- .7	.3	.3	10	78	44	0	3	1	0
TAMPA	67	45	71	40	56	-5	.3	- .2	.3	.3	20	97	60	0	0	1	0
WEST PALM BEACH	75	54	79	48	65	-2	.7	.2	.7	1.1	79	85	48	0	0	2	1
GA ATLANTA	51	31	59	27	41	-1	T	- 1.0	T	1.3	45	73	37	0	5	1	0
AUGUSTA	54	31	68	24	42	-3	.1	- .8	.1	.3	13	77	47	0	5	1	0
MACON	59	36	69	28	47	0	.1	- 1.0	.1	.5	17	75	45	0	2	1	0
SAVANNAH	56	36	67	31	46	-4	.1	- .6	.1	.2	9	75	48	0	1	1	0
HI HILO	--	--	--	--	73	1	.2	- 3.5	--	.2	2	--	--	-	-	-	-
HONOLULU	80	64	83	57	72	-1	.2	- .7	.2	1.9	76	97	56	0	0	1	0
KAHULUI	--	--	--	--	74	2	.5	- .1	--	--	--	--	--	-	-	-	-
LIHUE	--	--	--	--	72	0	.2	- 1.2	--	4.0	95	--	--	-	-	-	-
ID BOISE	37	23	47	19	30	-1	.1	- .2	.1	.5	50	97	74	0	7	2	0
LEWISTON	43	34	53	30	38	4	.2	- .1	.2	.4	44	90	71	0	3	1	0
POCATELLO	38	21	46	18	30	4	T	- .2	T	.3	43	93	65	0	7	1	0
IL CAIRO	41	26	55	14	33	-5	0	- .9	0	1.4	52	--	--	0	0	0	0
CHICAGO	27	15	36	-1	21	-5	.1	- .2	.1	2.5	192	68	54	0	7	2	0
MOLINE	28	13	39	1	20	-5	0	- .4	0	2.5	208	58	43	0	7	0	0
PEORIA	29	15	38	1	22	-5	0	- .4	0	2.0	154	77	49	0	7	0	0
ROCKFORD	25	12	36	-6	19	-5	.1	- .3	.1	2.4	200	67	46	0	7	1	0
SPRINGFIELD	31	17	40	2	24	-5	0	- .4	0	1.8	138	83	52	0	7	0	0
IN EVANSVILLE	38	24	52	10	31	-4	T	- .8	T	.7	30	66	47	0	5	0	0
FORT WAYNE	29	15	39	4	22	-6	.1	- .4	.1	1.5	100	81	59	0	7	2	0
INDIANAPOLIS	32	18	42	3	25	-5	.1	- .5	.1	.7	35	73	50	0	7	1	0
SOUTH BEND	31	15	38	2	23	-4	.2	- .4	.1	2.8	156	75	56	0	7	3	0
IA BURLINGTON	30	15	43	1	23	-4	T	- .4	T	2.9	242	--	--	0	0	0	0
DES MOINES	31	17	51	0	24	-1	T	- .2	T	1.0	125	60	45	0	6	0	0
DUBUQUE	25	12	38	-5	19	-3	.1	- .3	.1	1.5	115	68	50	0	7	1	0
SIOUX CITY	33	14	61	-5	23	0	0	- .1	0	.2	40	62	43	0	7	0	0
KS CONCORDIA	42	24	63	10	33	3	T	- .2	T	.8	133	80	50	0	5	1	0
DODGE CITY	50	26	76	11	38	5	0	- .1	0	.7	233	66	32	0	5	0	0
GOODLAND	47	23	79	7	35	5	T	- .1	T	T	0	56	39	0	5	0	0
TOPEKA	39	21	62	7	30	-1	T	- .4	T	3.7	370	72	50	0	7	0	0
WICHITA	45	26	64	13	35	1	.1	- .2	.1	2.1	233	71	40	0	5	1	0
KY LEXINGTON	37	21	50	8	29	-6	.1	- .7	.1	1.2	52	80	49	0	7	2	0
LOUISVILLE	39	22	54	9	31	-4	.1	- .6	.1	1.0	45	72	43	0	6	2	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Dec. 21, 1980

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
LA BATON ROUGE	59	36	74	24	48	-5	.1	- 1.1	.1	2.1	60	86	45	0	2	2	0
LAKE CHARLES	61	38	76	29	49	-4	T	- 1.3	T	2.3	59	84	44	0	2	0	0
NEW ORLEANS	63	40	75	34	51	-3	.2	- .9	.1	1.3	37	81	48	0	0	2	0
SHREVEPORT	59	33	80	15	46	-2	T	- 1.0	T	.7	25	70	38	0	2	2	0
ME CARIBOU	8	-9	19	-16	-2	-17	.5	- .1	.4	2.1	117	58	42	0	7	4	0
PORTLAND	23	-3	33	-11	10	-15	.6	- .3	.3	1.0	33	81	47	0	7	4	0
MD BALTIMORE	37	19	47	9	28	-6	.1	- .6	.1	.3	13	71	37	0	7	2	0
MA BOSTON	30	12	39	4	21	-10	.5	- .4	.3	.8	27	61	45	0	7	2	0
CHATHAM	35	18	45	11	27	--	2.5	--	2.4	3.3	--	72	51	0	6	3	1
MI ALPENA	24	-3	34	-17	11	-11	.2	- .2	.1	1.7	131	--	--	0	7	3	0
DETROIT	29	10	37	2	19	-8	T	- .5	T	1.5	94	75	46	0	7	0	0
FLINT	27	9	35	3	18	-7	T	- .3	T	1.9	173	74	53	0	7	3	0
GRAND RAPIDS	28	10	38	1	19	-7	.1	- .3	T	2.7	180	89	53	0	7	2	0
HOUGHTON LAKE	23	0	34	-11	12	-10	.2	- .2	.1	1.4	108	78	50	0	7	4	0
LANSING	27	9	36	1	18	-8	T	- .4	T	2.0	143	78	55	0	7	0	0
MARQUETTE	17	-2	34	-8	7	-10	.6	.1	.4	1.4	88	82	48	0	7	5	0
MUSKEGON	28	11	38	6	19	-8	.3	- .3	.1	2.0	111	85	60	0	7	3	0
SAULT STE. MARIE	17	-5	33	-16	6	-13	1.7	1.2	.5	3.8	238	78	62	0	7	6	0
MN DULUTH	15	-3	34	-17	6	-7	.2	- .1	.1	.4	40	60	48	0	7	3	0
INT'L FALLS	12	-9	34	-24	1	-6	.3	.1	.1	.5	71	74	55	0	7	4	0
MINNEAPOLIS	24	7	45	-8	16	-2	T	- .2	T	.1	17	61	45	0	7	1	0
ROCHESTER	23	9	42	-7	16	-2	T	- .1	T	.3	60	69	53	0	7	0	0
SAINT CLOUD	22	4	44	-11	13	-2	T	- .2	T	.1	17	68	--	0	7	0	0
MS JACKSON	56	30	76	24	43	-5	T	- 1.1	T	.9	26	79	44	0	5	1	0
MERIDIAN	57	31	68	25	44	-3	.2	- 1.2	.2	.9	19	80	36	0	5	2	0
MO COLUMBIA	34	19	49	5	26	-5	T	- .4	T	1.1	85	71	53	0	7	0	0
KANSAS CITY	36	19	57	6	28	-3	0	- .4	0	5.3	482	69	47	0	7	0	0
SAINT LOUIS	36	20	49	7	28	-6	0	- .4	0	.6	43	77	52	0	7	0	0
SPRINGFIELD	43	22	60	8	32	-3	T	- .6	T	2.0	111	75	40	0	5	0	0
MT BILLINGS	40	20	69	1	30	4	.1	0	.1	.2	50	63	52	0	5	3	0
GLASGOW	30	13	57	-9	21	5	.2	.1	.1	.2	67	83	50	0	6	2	0
GREAT FALLS	33	18	63	-3	25	-1	T	- .1	T	.3	75	68	53	0	5	1	0
HAVRE	28	16	60	-7	22	5	.2	.1	.1	.4	133	86	56	0	5	4	0
HELENA	39	22	59	9	31	8	T	- .1	T	.2	67	71	52	0	6	1	0
KALISPELL	37	22	48	14	29	6	.7	.4	.4	1.7	189	70	62	0	6	2	0
MILES CITY	35	19	66	-10	27	6	.1	0	T	.1	33	70	45	0	4	2	0
MISSOULA	33	23	50	19	28	4	.1	- .2	.1	.6	75	83	70	0	7	1	0
NE GRAND ISLAND	40	19	71	1	29	3	T	- .1	T	.1	33	74	40	0	5	1	0
LINCOLN	38	18	67	1	28	1	0	- .1	0	.6	120	68	44	0	7	0	0
NORFOLK	35	15	66	-1	25	2	T	- .1	T	.2	67	63	44	0	7	2	0
NORTH PLATTE	44	17	75	3	31	4	T	- .1	T	T	0	70	33	0	7	1	0
OMAHA	36	17	63	0	26	2	T	- .1	T	.3	60	70	45	0	6	0	0
VALENTINE	40	15	66	-3	27	3	.1	0	.1	.3	100	81	36	0	5	1	0
NV ELY	51	19	58	13	35	10	0	- .1	0	1.1	275	80	37	0	7	0	0
LAS VEGAS	69	40	75	37	55	10	0	- .1	0	0	0	50	22	0	0	0	0
RENO	54	23	58	19	39	6	T	- .3	T	.6	86	97	40	0	7	0	0
WINNEMUCCA	55	15	56	12	35	5	T	- .2	T	.1	17	82	34	0	7	1	0
NH CONCORD	24	-6	32	-21	9	-14	.3	- .4	.2	.7	30	69	47	0	7	3	0
NJ ATLANTIC CITY	35	11	42	2	23	-11	.2	- .8	.1	.4	14	86	57	0	7	2	0
TRENTON	33	19	44	13	26	-8	.2	- .5	.1	.3	13	--	--	0	0	2	0
NM ALBUQUERQUE	53	24	65	16	39	3	0	- .1	0	.7	233	88	40	0	7	0	0
ROSWELL	56	28	79	21	42	3	T	- .1	T	.2	67	--	--	0	6	0	0
NY ALBANY	24	-3	34	-16	10	-14	.7	0	.3	1.3	62	73	44	0	7	4	0
BINGHAMTON	23	7	34	1	15	-9	.5	- .1	.3	1.3	68	88	65	0	7	3	0
BUFFALO	28	15	36	8	21	-5	.2	- .5	.1	1.8	82	79	59	0	7	6	0
NEW YORK	31	19	40	12	25	-9	.1	- .7	.1	.4	16	71	61	0	7	1	0
ROCHESTER	28	13	39	7	21	-6	.4	- .1	.2	1.9	119	87	62	0	7	5	0
SYRACUSE	26	10	36	1	18	-9	.6	- .1	.2	2.6	118	68	60	0	7	6	0
NC ASHEVILLE	47	23	62	13	35	-3	0	- .8	0	.1	4	87	42	0	6	0	0
CHARLOTTE	49	30	64	18	39	-2	T	- .8	T	.4	17	62	40	0	5	2	0
GREENSBORO	46	25	60	13	36	-3	T	- .7	T	.3	14	80	41	0	6	1	0
HATTERAS	51	35	60	24	43	-4	.2	- .8	.2	.5	16	76	57	0	4	1	0
RALEIGH	48	25	64	10	36	-4	.1	- .6	.1	.7	33	83	47	0	5	1	0
WILMINGTON	52	29	67	18	41	-6	.3	- .5	.3	.7	29	77	47	0	3	1	0
ND BISMARCK	28	10	48	-6	19	5	T	0	T	.1	33	75	53	0	7	1	0
FARGO	19	3	38	-13	11	-1	.1	- .1	T	.2	67	69	56	0	7	2	0
WILLISTON	26	12	50	-10	19	4	.2	.1	.1	.4	133	75	54	0	6	2	0
OH AKRON-CANTON	29	14	40	3	22	-7	.2	- .3	.2	1.2	75	81	55	0	7	3	0
CINCINNATI	32	19	46	6	26	-7	.2	- .4	.2	.8	42	73	54	0	6	2	0
CLEVELAND	28	15	37	6	22	-8	.2	- .2	.1	1.3	81	81	62	0	7	4	0
COLUMBUS	32	19	41	8	25	-4	.3	- .2	.3	1.2	75	74	58	0	6	2	0
DAYTON	31	16	41	3	23	-6	.1	- .4	.1	1.1	69	78	54	0	7	2	0
TOLEDO	28	9	36	-1	18	-8	T	- .4	T	1.3	87	84	55	0	7	1	0
YOUNGSTOWN	25	10	35	0	18	-10	.2	- .4	.1	.9	53	87	63	0	7	3	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

Weather Data for the Week Ending Dec. 21, 1980

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
OK OKLAHOMA CITY	50	26	68	12	38	-1	T	- .3	T	1.6	178	74	39	0	3	0	0
TULSA	50	27	66	12	39	0	T	- .3	T	1.4	127	77	37	0	3	1	0
OR ASTORIA	55	45	62	41	50	7	2.4	0	2.2	6.2	85	92	74	0	0	2	1
BURNS	46	20	50	15	33	6	.2	- .2	.1	.7	58	92	66	0	5	2	0
MEDFORD	45	32	59	26	38	1	.3	- .5	.2	1.9	79	99	83	0	4	2	0
PENDLETON	41	31	64	28	36	1	.3	- .1	.2	1.0	91	98	74	0	5	2	0
PORTLAND	51	36	59	31	44	3	1.5	.2	1.1	5.4	135	94	75	0	1	5	1
SALEM	48	36	62	30	42	1	1.4	- .1	1.2	5.8	129	95	83	0	1	2	1
PA ALLENTOWN	30	12	40	6	21	-8	.3	- .5	.2	.6	24	81	50	0	7	2	0
ERIE	28	17	36	9	23	-6	.3	- .3	.2	1.9	95	--	--	0	7	4	0
HARRISBURG	31	14	40	8	22	-10	.3	- .4	.2	.7	32	70	50	0	6	2	0
PHILADELPHIA	34	18	44	12	26	-8	.2	- .5	.1	.3	13	73	50	0	7	2	0
PITTSBURGH	29	14	37	2	21	-8	.3	- .3	.3	.9	50	76	57	0	6	2	0
SCRANTON	28	10	38	0	19	-9	.3	- .3	.2	1.0	56	65	42	0	7	3	0
RI PROVIDENCE	31	7	41	-1	19	-11	.3	- .6	.2	.7	25	68	41	0	7	4	0
SC CHARLESTON	55	33	69	28	44	-5	.2	- .5	.2	.3	14	92	50	0	4	1	0
COLUMBIA	54	31	69	26	42	-3	T	- .8	T	.6	26	74	44	0	5	1	0
GREENVILLE	51	28	63	21	41	-1	T	- 1.0	T	.3	10	65	38	0	5	1	0
SD ABERDEEN	29	11	48	-8	20	5	T	- .1	T	.1	33	76	36	0	7	0	0
HURON	32	14	51	-6	23	5	T	- .1	T	.1	33	73	47	0	7	0	0
RAPID CITY	41	20	67	2	31	5	T	- .1	T	.3	100	76	49	0	4	2	0
SIOUX FALLS	29	13	51	-8	21	2	T	- .1	T	.2	40	74	46	0	6	0	0
TN CHATTANOOGA	48	26	59	20	37	-3	T	- 1.2	T	.6	17	77	36	0	6	0	0
KNOXVILLE	47	26	59	17	37	-4	T	- 1.0	T	1.2	40	73	40	0	6	1	0
MEMPHIS	50	30	68	19	40	-2	T	- 1.1	T	1.7	52	67	42	0	4	0	0
NASHVILLE	46	23	62	13	34	-5	T	- 1.0	T	1.0	33	76	39	0	7	1	0
TX ABILENE	56	35	78	22	46	0	T	- .3	T	1.7	243	70	38	0	3	0	0
AMARILLO	51	25	77	11	38	0	T	- .2	T	.4	100	69	31	0	5	0	0
AUSTIN	62	43	78	32	52	1	.4	- .1	.4	1.3	81	74	46	0	1	1	0
BEAUMONT	62	42	73	31	52	-2	.2	- .9	.2	2.2	65	75	48	0	1	1	0
BROWNSVILLE	70	51	81	40	60	-2	.5	.3	.5	1.8	225	84	50	0	0	2	1
CORPUS CHRISTI	65	47	81	39	56	-3	.2	- .1	.2	.3	30	71	48	0	0	1	0
DEL RIO	62	42	77	34	52	0	0	.1	0	.9	300	74	43	0	0	0	0
EL PASO	62	31	79	30	47	3	0	- .1	0	0	0	92	39	0	5	0	0
FORT WORTH	57	37	81	19	46	-1	0	- .4	0	1.5	115	56	38	0	3	0	0
GALVESTON	59	47	72	34	53	-4	T	- .8	T	1.8	75	78	63	0	0	1	0
HOUSTON	64	43	82	34	54	0	.1	- .9	.1	1.3	45	69	42	0	0	1	0
LUBBOCK	56	30	78	17	43	2	T	- .1	T	.6	200	69	33	0	4	0	0
MIDLAND	55	33	75	24	44	-2	T	- .1	T	1.2	400	64	33	0	3	0	0
SAN ANGELO	58	37	78	26	47	-1	0	- .1	0	2.2	733	73	42	0	3	0	0
SAN ANTONIO	64	41	81	33	53	0	T	- .3	T	.6	55	70	41	0	0	1	0
VICTORIA	64	45	83	37	54	-1	.2	- .2	.2	.8	62	68	50	0	0	1	0
WACO	59	41	80	30	50	1	0	- .4	0	2.7	193	71	42	0	2	0	0
WICHITA FALLS	54	32	77	19	43	-1	0	- .3	0	2.0	222	75	39	0	3	0	0
UT BLANDING	55	28	63	26	42	13	0	- .3	0	.2	22	85	36	0	7	0	0
SALT LAKE CITY	31	26	33	24	28	-1	.1	- .2	.1	.4	36	89	81	0	7	1	0
VT BURLINGTON	16	-5	28	-15	6	-15	.3	- .1	.1	1.2	80	78	51	0	7	5	0
VA LYNCHBURG	41	23	54	6	32	-5	0	- .8	0	.2	9	73	--	0	6	0	0
NORFOLK	45	29	57	21	37	-5	.2	- .5	.2	1.1	52	70	49	0	4	1	0
RICHMOND	43	22	59	11	33	-5	T	- .7	T	.1	4	74	40	0	6	2	0
ROANOKE	43	23	56	11	33	-4	T	- .7	T	.3	14	73	36	0	7	0	0
WA COLVILLE	35	31	38	26	33	5	.4	- .1	.3	2.7	180	--	--	0	5	2	0
OMAK	36	31	39	29	34	--	.4	--	.3	1.7	--	--	61	0	5	4	0
QUILLAYUTE	52	43	57	36	47	7	2.6	- .9	1.4	11.0	104	99	90	0	0	5	2
SEATTLE-TACOMA	50	42	63	35	46	6	1.2	- .2	.7	2.9	71	94	87	0	0	2	1
SPOKANE	35	27	48	25	31	3	.7	.2	.6	2.5	167	89	86	0	7	2	1
WALLA-WALLA	41	34	58	30	36	-1	.5	.1	.3	1.4	117	94	89	0	2	3	0
YAKIMA	37	31	44	28	34	3	.4	.1	.3	2.0	250	94	85	0	5	2	0
WV BECKLEY	35	16	48	-2	26	-6	T	- .7	T	.5	23	82	43	0	7	3	0
CHARLESTON	37	19	51	4	28	-7	.2	- .5	.1	1.0	48	88	47	0	7	3	0
HUNTINGTON	38	20	51	5	29	-6	.2	- .4	.1	1.1	58	83	48	0	6	3	0
PARKERSBURG	31	20	42	7	26	-8	.2	- .4	.1	1.1	61	89	59	0	7	4	0
WI GREEN BAY	22	6	37	-6	14	-6	.1	- .2	.1	.7	70	65	38	0	7	2	0
LA CROSSE	25	9	41	-3	17	-4	T	- .2	T	.4	57	56	47	0	7	0	0
MADISON	26	9	37	-3	17	-3	T	- .3	T	1.1	100	60	44	0	7	0	0
MILWAUKEE	25	11	36	-2	18	-5	.1	- .3	.1	2.5	208	57	42	0	7	1	0
WY CASPER	48	23	60	10	35	10	.1	- .1	T	.4	100	67	34	0	5	2	0
CHEYENNE	51	26	65	9	38	9	.1	0	.1	.1	33	70	36	0	4	1	0
LANDER	46	22	62	12	33	10	T	- .1	T	.2	67	80	37	0	6	0	0
SHERIDAN	39	18	68	-2	29	4	.1	0	.1	.3	75	82	45	0	5	2	0
PR SAN JUAN	88	75	90	74	81	4	.3	- .8	.1	2.0	58	82	54	0	0	4	0

BASED ON PRELIMINARY REPORTS AND 1941-70 NORMALS

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 3° below normal. Light rain at beginning and end of period.

Soil moisture adequate. Fieldwork: 5.5 days. Supply of feed from pasture short. Stored feed short to adequate. Activities: Harvest, chores, care of livestock and poultry. Condition: Wheat and livestock fair to good. Pasture fair.

ARIZONA: Sunny, mild weather prevailed with no precipitation. Temperatures mostly 4 to 13° above normal.

Cotton harvest, crop residue disposal, land preparation for small grains major farm activities. Most cotton for harvest in central, western Arizona. Scattered fields not picked 1st time. Farmers anxious to get crop out of field. Some cotton fields have been clipped preparation for wintering, "stub cotton" next season. Limited acreage wheat, barley. Sorghum harvest practically complete. Sugarbeets making good progress. Most alfalfa fields dormant, being grazed by sheep. Lettuce harvest active Yuma, Salt River Valley. Harvest cauliflower active in Yuma. Leafy vegetables, green onions, broccoli and cauliflower moving from southwest, central areas. Citrus harvest continues active. Ranges in higher elevations fair, deserts and lower elevations very poor to poor. Livestock fair and water supplies short deserts, adequate higher elevations.

ARKANSAS: Unseasonably warm. Arctic outbreak last two days. Spotty showers on two days, otherwise, dry. Highest temperature 77°, lowest 3°. Departures from normal ranged from -5 to +5°. Most rainfall 0.13 in., least zero.

Pastures making little growth. Protein supplements being fed to livestock. Hay supplies short.

CALIFORNIA: High barometric pressure clamped a tight atmospheric lid over the State. It produced fog and haze in the valleys, clear skies over mountains and deserts. Fog, dense in middle portions of the Central Valley, spread north and south toward Red Bluff and Bakersfield. While average temperatures were above normal, below normal means occurred where the fog was thickest and most persistent. Mountain and Desert stations showed the largest above normal temperature departures. No precipitation except for fog drip along the extreme north coast late in the week.

Cotton 99% harvested. Plowdown active. Favorable weather aiding small grains crop. Wheat 84% planted, 23% emerged. Barley planting progressing well. Pruning, fertilizing, dormant spraying, irrigating fruit orchards. Harvest continues avocados, dates, lemons, navels, mandarins, tangerines, pecans. Very light Desert grapefruit movement. Navel size, maturity problems. Chopping asparagus fern active all areas. Broccoli, cauliflower harvest decreased Central Coast. Celery harvest slowing over holidays. Lettuce harvest near complete Palo Verde, increasing Imperial. Planting spring crop about complete San Joaquin Valley. Early onion, garlic fields emerging San Joaquin Valley. Potato shipments ahead of last year Tolelaks-Butte Valley. Market tomato harvest declining seasonally South Coast. Rain northern California 21st will be beneficial to ranges. Southern areas deficient soil moisture. Supplemental feeding necessary most areas. Sheep grazing alfalfa fields.

COLORADO: Summer in December best describes Colorado weather during the week. By mid-week temperatures in eastern Plains climbed to record levels. High temperatures in the low 80's were recorded in the southeast, in the 70's at several other locations. A strong arctic cold front at week's end brought temperatures back to more seasonal levels. All river basins averaged 9 to 10° above normal. Precipitation almost non-existent. Very light precipitation recorded at several eastern slope locations at the end of the week. Ice and freezing drizzle accompanying the arctic front.

FLORIDA: Cold front passed through the State on the 16th and 20th with average rain amounts of 0.20 to 0.30 in. Both fronts produced considerable cloudiness. Otherwise partly cloudy to sunny days the morning of the 15th brought lows in the low 30's with patchy frost over the north repeated on the 16th. Temperatures 28 to 32° north and 32 to 40° central. Elsewhere lows averaged in low to mid 40's central; 50's and a few 60's south. High readings mild at mid 60's north to upper 70's south except for upper 50's over north 16th, 17th. The 21st was cloudy with only slightly cooler temperatures.

Soil moisture generally adequate south, continues short north, west. Recent light rains brought some relief. Sugarcane good to excellent condition, harvest active. Soybean harvest practically complete. Small grains fair to good condition depending on moisture. Farming activity slow in north, west. Pastures poor to fair, supplemental feeding fairly active. Cattle fair to good condition. Citrus groves excellent condition. Soil moisture generally adequate. Growers completing grove maintenance for winter season. Harvest increasing. A cold front at midweek brought cloudy to partly cloudy skies to most vegetable areas. Night temperatures dipped into the 30's and 40's. Cooler temperatures slowed plant growth, rainfall consisted of scattered, light to moderate showers. Spray programs are active. Overall vegetable shipments up 6% from previous week. Harvest very active for snap beans, cabbage, carrots, cauliflower, celery, cucumbers, escarole, lettuce, parsley, peppers, radishes, and squash. Supplies about steady for chinese cabbage, sweet corn, eggplant, and okra. Shipments declined for tomatoes. Strawberry growth and fruit set continues good. Harvest light. Volume expected in January. Light supply watermelons continues. Land preparation active. Planting for spring crop underway.

GEORGIA: Temperatures slightly above normal north, 4 to 6° below south. Averages near 40° north, low 50's south. Rainfall light, most totals less than 0.10 in., occurred midweek.

Soil moisture still variable, adequate north, mostly short to adequate central, and short south. Five days suitable for fieldwork. Soybean harvest 96% complete, last year 98%, condition poor to fair. Pecan harvest 87% complete, 95% last year, condition poor to fair. Cotton harvest virtually complete, last year 99%. Corn harvest complete, last year 99%. Wheat 94% seeded, last year 99%. Rye 97% planted, last year 99%. Other small grains 96% seeded, 99% last year. Pasture condition poor to fair, several reports of supplemental hay feeding. Cattle and hogs fair to good condition.

HAWAII: Favorable weather returned to the Island chain. However, low temperatures at high elevations slowed crop progress. Rains fell mainly early and latter part of week. Very beneficial to all agricultural segments needing more moisture. However, muddy conditions interrupted some farm activities. Spraying continued to control insect and disease infestations. Vegetable supplies adequate. Chinese cabbage harvest active on Island of Hawaii. Pickings of snap beans very light. Bananas; rains beneficial. Growers devoting much time salvaging, cleaning debris on orchards damaged by last week's strong winds. Supplies light. Papayas; production again active, mainly on the Island of Hawaii. Other areas light. Pineapples; slow. Harvesting erratic. Sugar; most mills stopped grinding. Annual maintenance in progress. Pastures; rains beneficial. Generally fair to good condition.

IDAHO: Temperatures averaged 2 to 5° above normal in most areas except along the Snake River Valley where temperature inversion all week caused departure to 10° below normal (Caldwell). Persistent high pressure held precipitation to near zero. Statewide high 53 Lewiston on the 15th. Low 16 below zero Fairfield the 14th.

Field activities minimal. Chores, bookkeeping, routine maintenance and machine repair very active. Livestock in good shape, feed supplies adequate.

ILLINOIS: Temperatures 4 to 6° below normal. Precipitation 0.10 north, none other areas.

Soil moisture 45% short, 55% adequate. Winter wheat condition 7% excellent, 73% good, 20% fair. Plowing 1981 corn and soybean acreage 79% complete, 76% 1979, 66% average. Activities: Machinery repair, livestock feeding, manure hauling, some grain hauling.

INDIANA: Cold and dry. Temperatures 5° below normal and ranged from 2 to 52°. Precipitation trace in west and north, 0.10 to 0.20 in. central and southeast. Snow cover 1 to 5 in. extreme north, most near Lake Michigan.

Limited fieldwork. Spreading lime, fertilizer and manure, cutting wood, equipment maintenance, stripping tobacco, hauling grain, cleaning fence rows, limited tilling, mending fences, caring for livestock and usual chores.

IOWA: Dry with seasonal temperatures west to colder than normal east. Temperatures ranged from 50's and low 60's west the 17th to subzero over much of north and west the 19th, 20th. Measurable precipitation the 18th was confined to Dubuque County and Environs.

KANSAS: Light precipitation with amounts limited to 0.15 in. or less occurring early morning of 16th over the central third of the State. Trace amounts also occurred over the southeast and in a few counties in the east central and northwest sections. Temperature averages from 35° southeast to 30° northwest or from normal in the east to 4 to 6° below normal in the west.

Wheat emerged 98%, last year 95%, condition good. Late emerging wheat may be susceptible to winterkill. Many cattle still grazing stubble. Some farmers forced to haul water to livestock due to low pond levels. Fieldwork: 3.5 days suitable.

KENTUCKY: Temperatures averaged 5 to 10° below normal. Precipitation measured less than 0.25 in.

The Christmas break for burley tobacco auctions is now being observed with sales to resume January 5, 1981. Burley sales before the break totaled 332,687,000 pounds, averaging $165.97 per cwt. Fall seeded grains in good condition. Livestock satisfactory.

LOUISIANA: Rain very light. Temperatures 1 to 6° below normal. Extremes: 17 and 80°.

Activities: Sugarcane harvest, caring for livestock, routine chores.

MARYLAND AND DELAWARE: Temperatures averaged 2° below normal in west, 3° above normal in south and normal in central areas. Precipitation minimal.

MICHIGAN: Entire State reported below normal temperatures. Average temperatures were 6 to 10° below normal. Precipitation averaged 0.50 in. Upper with an average snowfall of 6 in., northwest Lower average 0.45 in. precipitation with 6 in. of snowfall. Rest of Lower averaged 0.02 to 0.20 in. precipitation with a trace to 3 in. snowfall.

Farm activities limited to farm chores and feeding livestock.

MINNESOTA: Temperatures averaged 5 to 7° below normal northeast and near normal elsewhere. Extremes: 48° at Redwood Falls and 24° below at International Falls. Precipitation averaged 0.10 to 0.21 in. below normal except normal to 0.26 in. above normal northeast. Precipitation totals less than 0.10 except 0.10 to 0.56 in. northeast. Snowfall last week: 1 to 4 in. north central through northeast and a trace elsewhere. Snow depth at weeks end, 1 to 9 in. north central through northeast and 0 elsewhere.

MISSISSIPPI: Temperatures 1 to 9° below normal. Extremes 18 and 74°. Cold front early in week brought widely scattered showers. High pressure system settled over State later in the week.

Soil moisture adequate. Fieldwork: 5.0 days suitable. Wheat condition good to fair. Livestock and pasture conditions generally fair to poor. Hay and roughage supplies short to adequate. Feed grain supplies adequate to short.

MISSOURI: Colder air returned as temperatures generally fell to below normal readings. Precipitation was nonexistant except in the Bootheel where .06 in. fell. However, the average monthly precipitation remained above normal for the western half and the Bootheel.

MONTANA: Temperatures averaged well above normal for week. In southwest, temperatures averaged 9° above normal; elsewhere temperatures 5 to 7° above normal. The north central, northeast and southeast had very large temperature changes with very warm temperatures early in week but turning much cooler by end of week. Other areas had similar changes but to lesser extent. Highest 7° at Yellowtail Dam, lowest 13° below zero at Baker. Precipitation very light.

Warm winds depleted most of protective winter wheat snowcover. Pastures and ranges opened up and some grazing available. Livestock in good condition, most receiving supplemental feed. Stock water supplies mostly adequate.

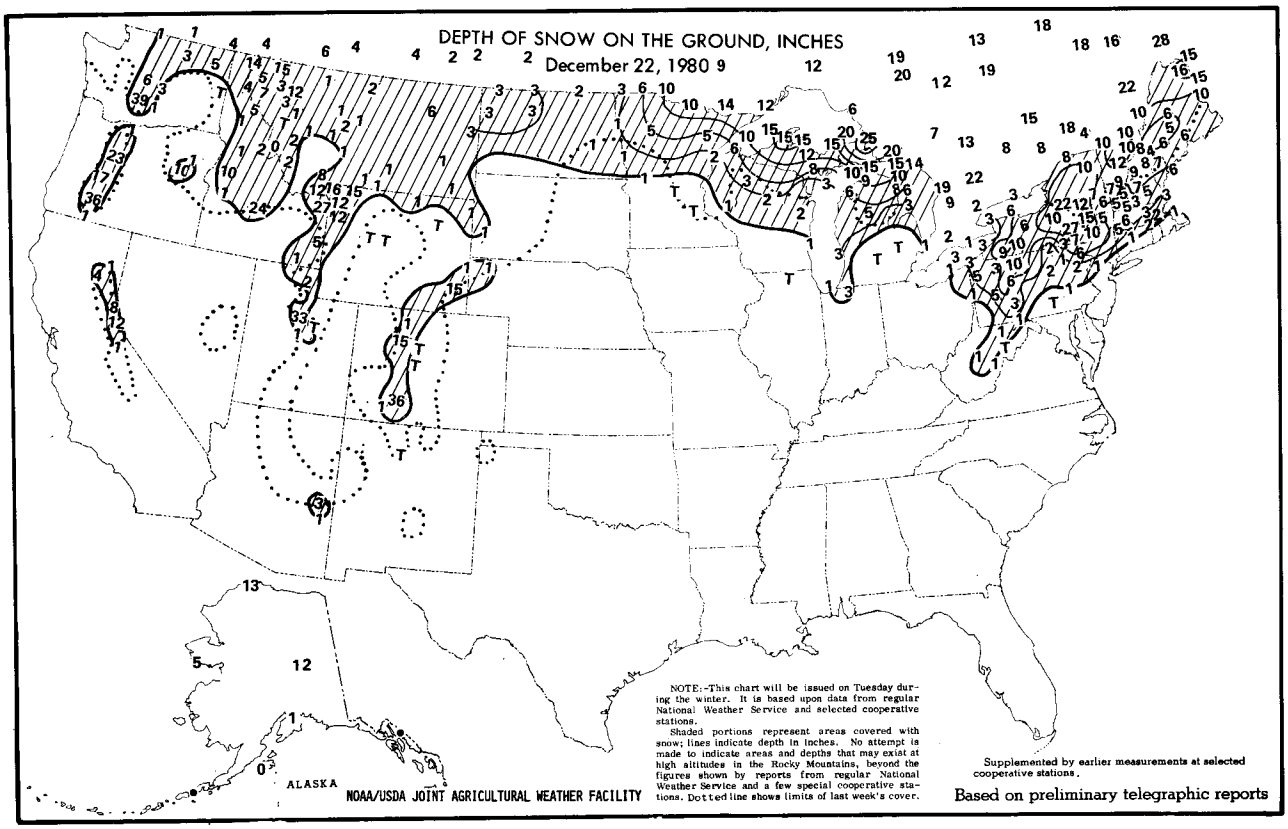
NEBRASKA: Temperatures above normal. First part of the week was warm followed by a cold outbreak. Precipitation was scattered and light.

NEVADA: Dry warm ridge of high pressure dominated most of week. Trace of rain extreme West late in week. Morning temperatures well below freezing North and Central, near freezing South. Afternoon temperatures above seasonal norms by 3 to 12°. Warmest temperatures 76° at Logandale, coldest -1° at Moustain City and Winnemucca.

Cotton harvest virtually complete. Warm dry weather benifical to livestock.

NEW ENGLAND: Temperatures well below normal with sub-zero readings the end of the period. Storm on the 16th left rain in the south and 6.00 to 9.00 in. of snow over the rest of the region. Cold front on 19th brought more rain south and flurries north.

NEW JERSEY: Temperatures were 6 to 8° below normal averaging 22° north, 27° south and 31° coastal. Extremes: 8° at Newton and 46° at Long Branch and Atlantic City.



Precipitation was below normal averaging: 0.28 in. north, 0.19 in. south and 0.27 in. coastal. Heaviest 24 hour total reported was 0.29 in. at Toms River. Snow on ground Belvidere 1 in., Charlotteburg 1 in., Newton 2 in.

Farmers caring for livestock, pruning fruit trees and tending to other winter chores.

NEW MEXICO: Soil moisture conditions remained short to adequate. Farm activities include shredding of cotton stalks; harvest of cotton, red chile, and pecans; and clean-up of late season crops. Cotton harvest continued actively with 85% harvested. Winter wheat in fair to good condition with grazing varied from light to active depending of locality. Barley in fair to good condition. Pecan harvest continuing actively; harvest of red chile nearing completion. Ranges in mostly fair condition however some areas in poor condition and in need of rain. Livestock in good condition with some areas supplemental feeding. Warm beginning of week and turning colder 19th. Cold 20th with warming beginning 21st. No Precipitation except some drizzle eastern plains on 20th.

NEW YORK: Very cold temperatures kept average readings well below normal, mainly around 20° around the Great Lakes and 0 to 15° elsewhere, except warmer in New York City. Near normal precipitation brought generally 1 to 5 in. of new snow to the area except for higher amounts in the snow belt areas.

NORTH CAROLINA: Soil Moisture; 5% surplus, 79% adequate, 15% short, 1% very short. Fieldwork: 5.2 days suitable. Conditions: Wheat, oats, rye, barley good; pastures fair to good. Harvested: Soybeans 95%, 1979 92%, average 89%. Major activities: Harvesting soybeans, tending plant beds, fall plowing, cutting fire wood.

NORTH DAKOTA: Week began mild but cold arctic air overran the State during mid-week. Weekly temperatures averaged 2 to 5° above normal. Extremes varied from -17° northeast to +58° southwest. Precipitation limited to scattered light snow.

Topsoil moisture adequate for most of the State except southeast and southwest parts which is still short. With little snow cover, wind erosion has become a problem to the fall sown grains. The long mild fall with little snowfall conserved short hay supplies and prolonged grazing with a result of increasing feed supplies from short to fair and adequate.

OHIO: The week that ushered in winter produced temperatures from 0 to 11° below normal. Highs averaged from the mid 20's northwest to around 30° in the South and lows from around 10° North to the upper teens in the South. The lowest reported was 1° below zero at Toledo. Precipitation light. Totals averaged from 0.25 to 0.50 in. below normal.

Soil temperatures at 4 in. under bare ground have fallen below freezing at times over most areas. Average bare soil temperatures were above freezing over all but the northwest however.

OKLAHOMA: Temperatures averaged 1° above normal west to 2° below normal south central and southeast. The week was dry with no significant precipitation received.

Cooler temperatures have slowed growth of small grains and winter pastures. Greenbug infestations have been light. Infestations of winter grain mite; however, have been heavier and damage has been more severe in fields continuously seeded to wheat. Feed and forage supplies, although short, have been sufficient and cattle are in generally good condition.

OREGON: Temperatures were 4 to 5° above normal. Light precipitation reported in various sections of the State. The coast received up to 0.30 of an in. while the Willamette Valley and the north central stations average less than 0.10 of an in. for the week.

Soil moisture supplies were adequate throughout the State for this time of year. Winter wheat condition is

good. Field activities such as herbicide spraying of wheat and grass seed fields picked up following dryer weather. Livestock condition looks good and range and pasture condition remains good. Feed supplies are reported as adequate.

PENNSYLVANIA: Light snow 16th and 18th, very cold weekend. No new records but coldest week since end of February. Extremes: 44 and -14°. Precipitation 0.25 in. or less most places with new snow 1 to 3 in. most areas and 4 to 6 in. lee of Lake Erie.

PUERTO RICO: Island average rainfall 0.68 in. or 0.32 in. below normal. Highest weekly total 3.05 in. Temperatures averaged about 79° on coasts and 71 to 74° interior divisions. Extremes 93 and 55°.

SOUTH CAROLINA: Colder and drier than usual, late much colder. Only very light rainfall beginning of the week.

Soybean harvest winding down in favoring weather. Pruning or transplanting apple, peach trees; grape vines. Fumigating tobacco beds. Preparing for vegetable and other spring crops. Recordkeeping and planning for next season.

SOUTH DAKOTA: Week started out on the warm side and ended up on the cold side. The warmest temperature was shared by Rapid City and Newell with 67° on the 17th. The coldest point was Camp Crook with 15° below on the 19th. Weekly mean temperatures were mostly above normal and ranged from 1° below normal at Milbank and Mitchell to 10° above normal at Faulkton. The only significant precipitation fell over the central part of the State as rain on the 16th. The largest amount was 0.22 in. at Mission and 0.21 at Wood. The West and East had mostly traces or no precipitation

TENNESSEE: High pressure dominated. A cold front moved through State late 16th but warming occurred again by 18th. Temperatures averaged near normal through the 18th. Artic cold front late 18th and early 19th moved through State dropping temperatures 20 to 30°. Lows in teens were common during weekend. Rain amounts minimal.

Activities: Normal chores.

TEXAS: Weather: Cold front northern part mid-week; out South Texas later part. North frontal system skies cloudy, widely scattered rain. Temperatures above normal. Rainfall 0.10 in.; 0.25 in. below normal West Texas; 0.50 to 0.75 in. below normal elsewhere.

Crops: Unseasonably warm weather prevailed first part week; excellent conditions for most planting, harvesting operations. Cotton harvest picked up. Harvest been slow Trans-Pecos, fall rain, snow; excellent progress conditions permit. Some areas Panhandle quality dropped because rain, snow; scattered fields cotton stringing, falling out of bolls. Small Grain fields responded warm temperatures, making good progress. Much needed moisture; finish up seeding active. Some dryland wheat fields Northern High Plains poor condition; grazing limited. Reported wheat condition statewide 12% excellent; 37% good; 32% fair; and 19% poor. Peanut harvest nearing completion. Soybean harvest wind down; yields have varying. Many fields Central Texas baled for hay.

Range and Livestock: Favorable moisture, warm weather improved winter pastures. Rangeland mostly dormant. Supplemental feeding continued. Some spraying for lice and ticks active on Plains. Livestock remained in good condition.

Commercial Vegetables: In Lower Rio Grande Valley, harvest cabbage, peppers, broccoli, cauliflower active. Onions making good growth. Harvest of oranges, grapefruit continued in Coastal Bend. Harvest cabbage, other vegetables progressed well. In San Antonio-Winter Garden area, harvest carrots, cabbage, spinach active. In East Texas, planting of turnips, collards, spring onions active. Soil preparation continued. In Trans-Pecos area, turnips, red chili harvest continued. Onions making good growth. Pecan harvest neared completion. Production light with considerable damage caused by weevils, birds, disease.

UTAH: Strong high pressure cell dominated weather during period but few isolated light showers northwest portion over weekend. Intense local fog northwestern valleys until last of period but generally fair and mild everywhere. Average temperatures extremely variable ranging from 12° above normal to 12° below.

Sorting and marketing of onions, potatoes and apples continued. Only other activity was routine chores and care of livestock.

VIRGINIA: Warm at beginning of the period, cooling late in the week to very cold with temperatures below freezing over weekend. Extremes ranged from mid-60's to around 3° in the West over the weekend. Precipitation was light, occurring as rain in mid week and averaging less than 0.10 in.

Topsoil moisture short to adequate. Fieldwork: 5.1 days suitable. Condition of winter grains and grazing crops good to excellent. Feeding and caring for livestock. Mild conditions aiding fall lambing and calving. Hay and silage feeding increasing as grain supplies continue to decline. Feed supply varies short to adequate. Final soybean harvesting. Sun, fire and burley tobacco marketing active to December 18. Closed for holidays. Producers continue grading. Home butchering is active, along with firewood cutting, hunting, machinery repair, attending farm meetings and year-end bookkeeping. Fieldwork included liming, fertilizing, soil sampling, plowing, pruning apple and peach trees, and some small grain seeding in East. Many farmers filing for disaster loans.

WASHINGTON: West: Temperatures averaged 3 to 5° above normal. Precipitation averaged 1 to 2 in below normal. Night and morning fog common. Carrot harvest complete. Began digging rhubarb crowns for forcing. Christmas tree and holly harvests tapered off. Continuously pruning, tying caneberries. Feed supplies adequate.

East: Temperatures averaged 4 to 7° above normal. Precipitation averaged slightly below normal. Fall seeded grains reported in good condition. Soil moisture adequate, limited snow cover. Pruning underway in orchards and vineyards. Fruit trees in good shape. Feed, forage supplies adequate.

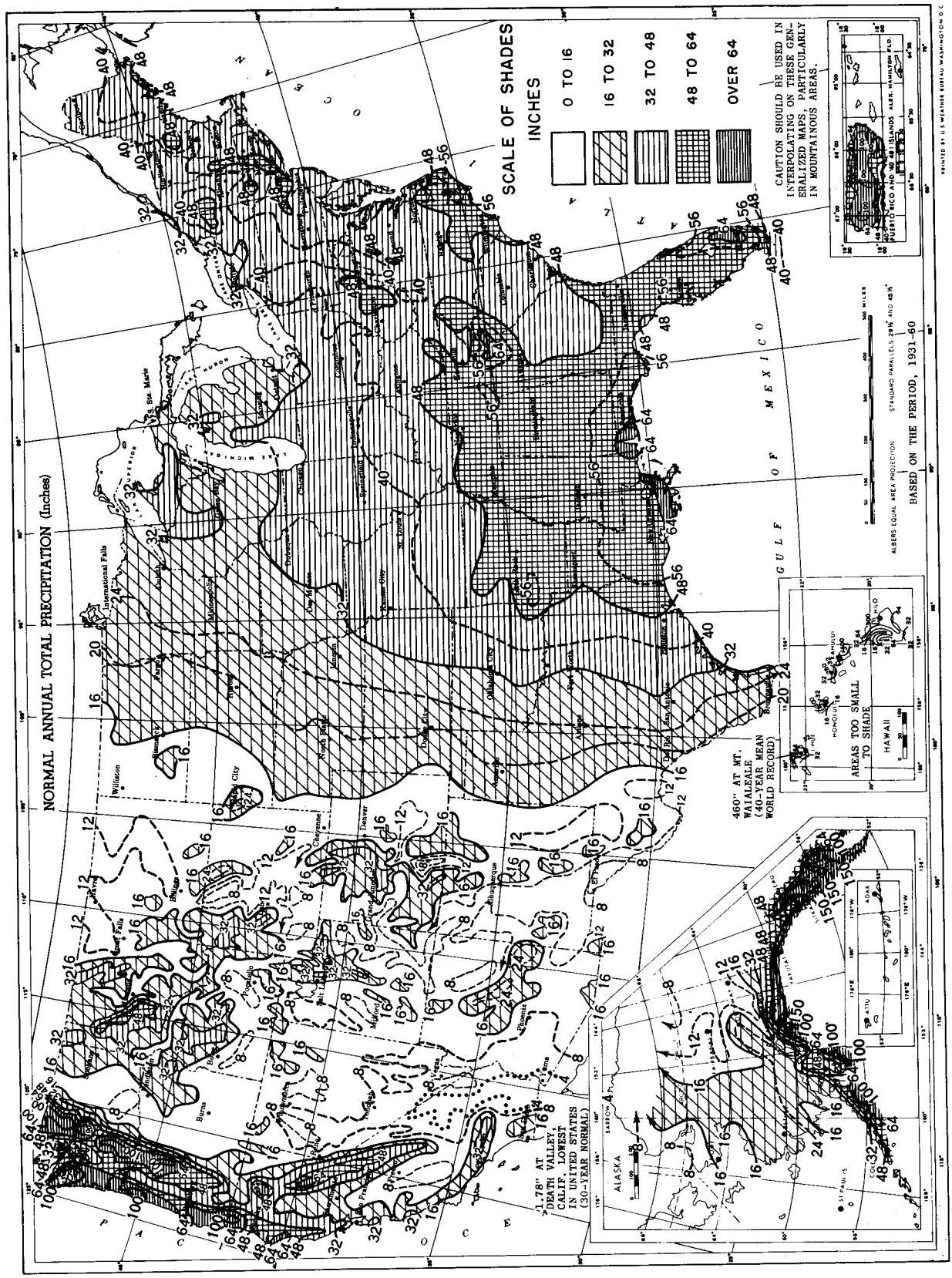
WEST VIRGINIA: Temperatures well below normal. High 55°, low -2°. Precipitation also well below normal.

Soil moisture adequate. Days suitable for fieldwork 3.7. Hay, grain, and other feed supplies all adequate.

WISCONSIN: Temperatures near normal until 19th when sharp cold frost brought coldest weather of the season. Below zero reading occurred Statewide on morning 19th as temperatures ranged from near zero southeast to 25° below northwest. Strong northwesterly winds produced chill factors of 20 to 40° below zero. Daytime temperatures continued in single digits or teens weekend. Precipitation remained light. Snow squalls of 2 to 4 in. occurred in Lake Superior snowbelt as cold air swept over warm lake water. Extreme southern Wisconsin had narrow band of 1 to 4 in. snow 18th. Snow depths as of 19th averaged only 1 in., one of lightest snow covers ever for this time of season. Frost depths increased to average of 7 in.

WYOMING: With exception of Jackson, which averaged 3° below normal, all other areas averaged well above normal. Greatest departure; 14° above normal. Warmest temperature 79°. All areas below normal precipitation wise.

Winter wheat mostly good, additional moisture would be beneficial. Livestock mostly good, very little weather stress thus far. Very little supplemental feeding except in areas with snow cover.


NORMAL ANNUAL TOTAL PRECIPITATION (Inches)
SCALE OF SHADES
INCHES
0 TO 16
16 TO 32
32 TO 48
48 TO 64
OVER 64
CAUTION SHOULD BE USED IN INTERPOLATING ON THESE GENERALIZED MAPS, PARTICULARLY IN MOUNTAINOUS AREAS.
BASED ON THE PERIOD, 1931-60
ALBERS EQUAL AREA PROJECTION
STANDARD PARALLELS 29½° AND 45½°
460" AT MT. WAIALEALE (40-YEAR MEAN WORLD RECORD)
1.78" AT DEATH VALLEY, CALIF. LOWEST IN UNITED STATES (30-YEAR NORMAL)
AREAS TOO SMALL TO SHADE
HAWAII
ALASKA
GULF OF MEXICO
PACIFIC OCEAN
LAKE MICHIGAN
LAKE HURON
LAKE SUPERIOR
PRINTED BY U.S. WEATHER BUREAU WASHINGTON D.C.
USCOMM WB DC
Base map by United States Weather Bureau
MAP 1858

International Weather and Crop Summary

December 15-21, 1980

HIGHLIGHTS:

EUROPE: Conditions turned wetter and warmer over the region. No extreme cold was reported, but only in the extreme south and southwest were temperatures high enough for renewed grain growth.

USSR: Temperatures ranging much above normal caused substantial snow melt and maintained the danger of frost-heaving damage, especially in some wet areas across the south.

EASTERN ASIA: Virtually no precipitation fell in winter grain areas of China and South Korea, and cold conditions kept crops dormant.

SOUTH ASIA: No rain. Rain fell in the winter grain belt. Hot daytime conditions maintained high plant moisture needs, and crops in unirrigated fields were probably stressed.

AUSTRALIA: Winter grain harvest continued mostly unimpeded by light rainfall in the southeast. Tropical shower activity increased in the north, dropping some of the heaviest rainfall of this season.

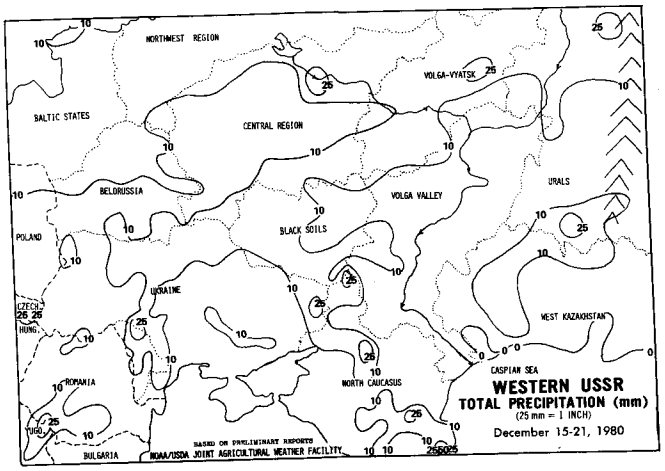
NORTHWESTERN AFRICA: Light rain benefited winter grain, in northern parts of Morocco. Heavier rains to the east were mostly beneficial, but may have caused some localized damage.

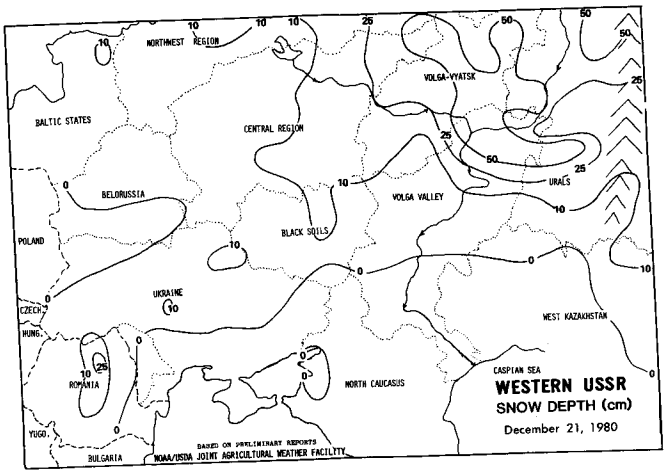
SOUTH AFRICA: Above-normal rainfall maintained good soil moisture over most of the region but some important corn areas in the western part of the Triangle were becoming too dry for optimal growth.

SOUTH AMERICA: Abundent rainfall over most Brazilan soybean areas may have necessiated some localized replanting, but the rains maintained good soil moisture over most of the belt and ameliorated dry conditions in parts of southeastern Porana. Soil moisture in Argentine crop areas remained good.

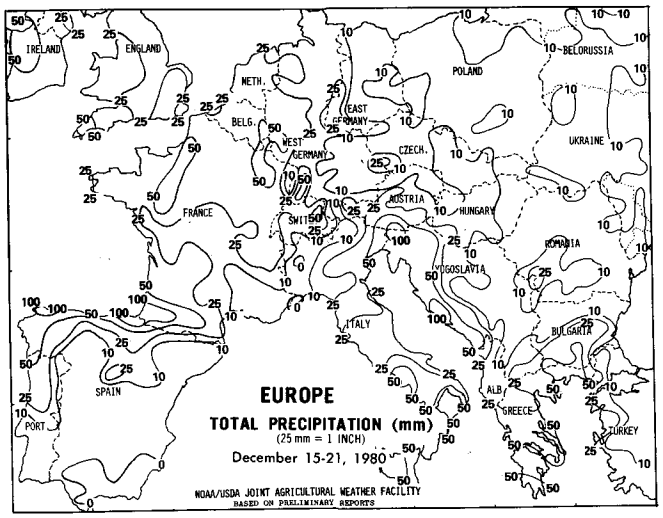
MEXICO: Generally mild, dry weather prevailed over most major agricultural areas, allowing an uninterrupted fall harvest. Tomatoes, cucumbers, and other vegetables should continue to develop well along the West Coast.

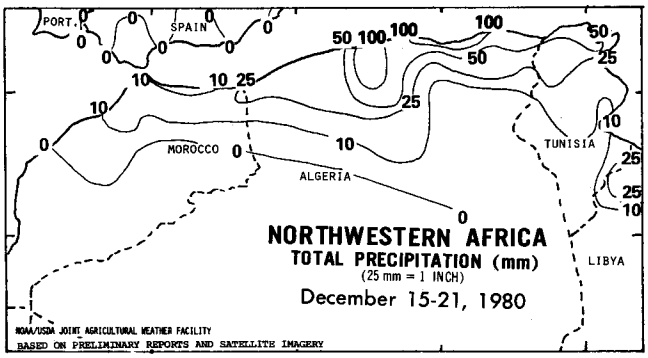
WESTERN USSR: Precipitation decreased somewhat, but remained above normal over much of the region. Some extensive southern portions of the winter grain belt received only light amounts. Substantial snowmelt occurred as temperatures ranged much above normal, with readings averaging above freezing in many areas. The danger of frost-heaving damage persisted, especially in those parts of the Ukraine and North Caucasus where the heaviest precipitation occurred. Furthermore, snow-free wheat fields lay exposed to the elements, should the cold return before more snow arrives.





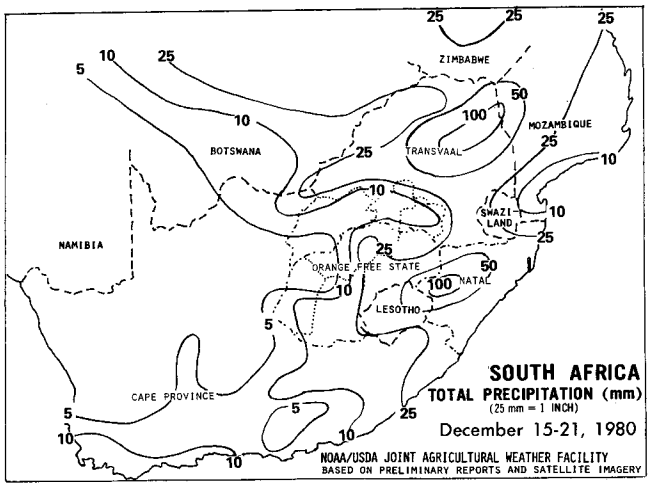
EUROPE: Precipitation and mean temperatures generally increased over the region. Temperatures averaged near normal in the west to somewhat above in the east, with no extreme cold reported. Conditions became warm enough for renewed winter grain growth only in the Iberian Peninsula, southern France, and southern Italy. Precipitation in the east was about normal, while heavier-than-normal amounts occurred in many western countries. The moisture fell mostly as rain, maintaining generally favorable wet conditions in most countries. Very little snowcover persisted in agricultural areas.



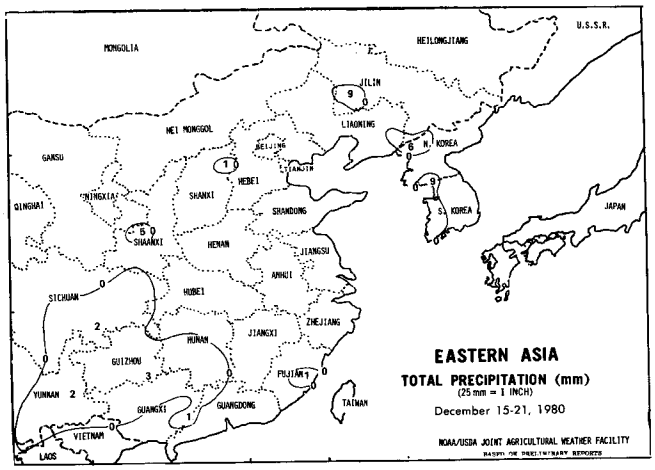


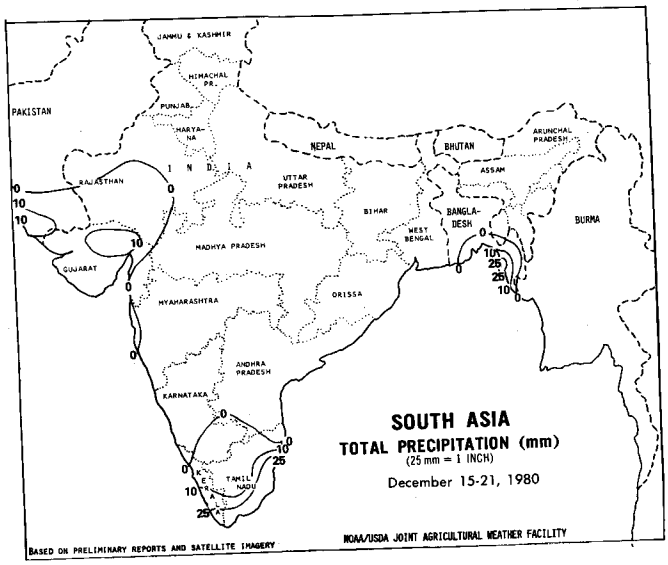
NORTHWESTERN AFRICA: Heavy rain fell across much of northern Algeria and Tunisia. The moisture was most beneficial in northwestern Algeria, where conditons had been too dry for winter grains. To the east, the rains maintained good soil moisture in most areas, but some excessive totals probably caused some damage to winter grains, at least on a localized scale. Winter grain areas in northern Morocco received beneficial light rainfall--the first in 4 weeks. Crops in this area should be in good condition, but drier conditions further south on lighter soils may be hurting grain crop prospects.

SOUTH AFRICA: Most corn-growing areas received above-normal rainfall, maintaining good soil moisture. However, important producing areas in the southwestern Transvaal and northwestern Orange Free State have been somewhat dry since late November. Temperatures remained near normal, and soil moisture there is probably still adequate for corn growth, but plant stress will increase if more rain does not fall soon.



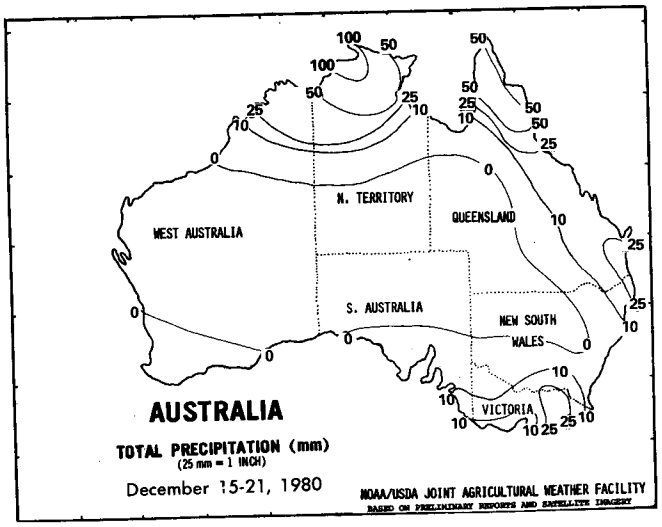
EASTERN ASIA: All agricultural areas in China remained essentially without precipitation, with light amounts falling only in the hills to the southwest. Near-normal temperatures kept winter grains dormant over nearly all of the North China Plain. Some very cold conditions were reported just to the north of Beijing, but winter grains probably escaped without damage. In South Korea, more moderate temperatures prevailed, although averages stayed just below normal. Only very light precipitation occurred, with winter barley in a dormant condition.





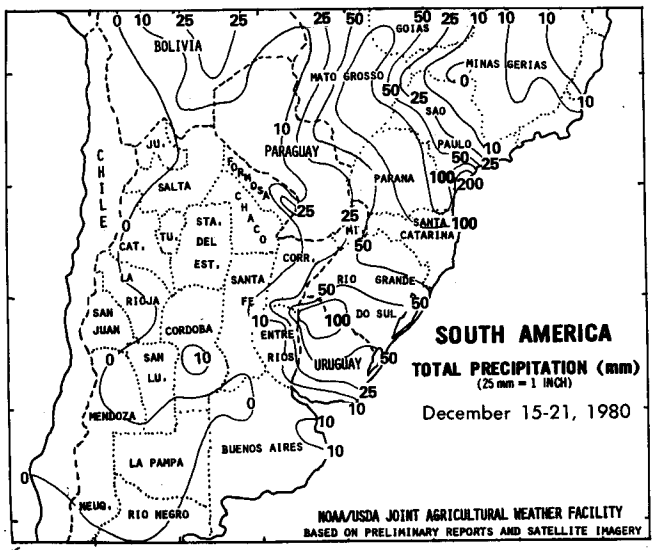
SOUTH ASIA: No rain fell over most of India. Totals on the southern tip dipped below normal, with rainfall activity becoming more limited. A westerly weather system dropped unexpected rainfall in western India, but the moisture did not reach parched, unirrigated winter grain fields. Average temperatures in the winter grain belt held near normal, but daytime highs reached into the low 30's (C), maintaining high moisture needs for the plants. However, even though winter grains in unirrigated fields may be stressed, water supplies for irrigated fields remain adequate.

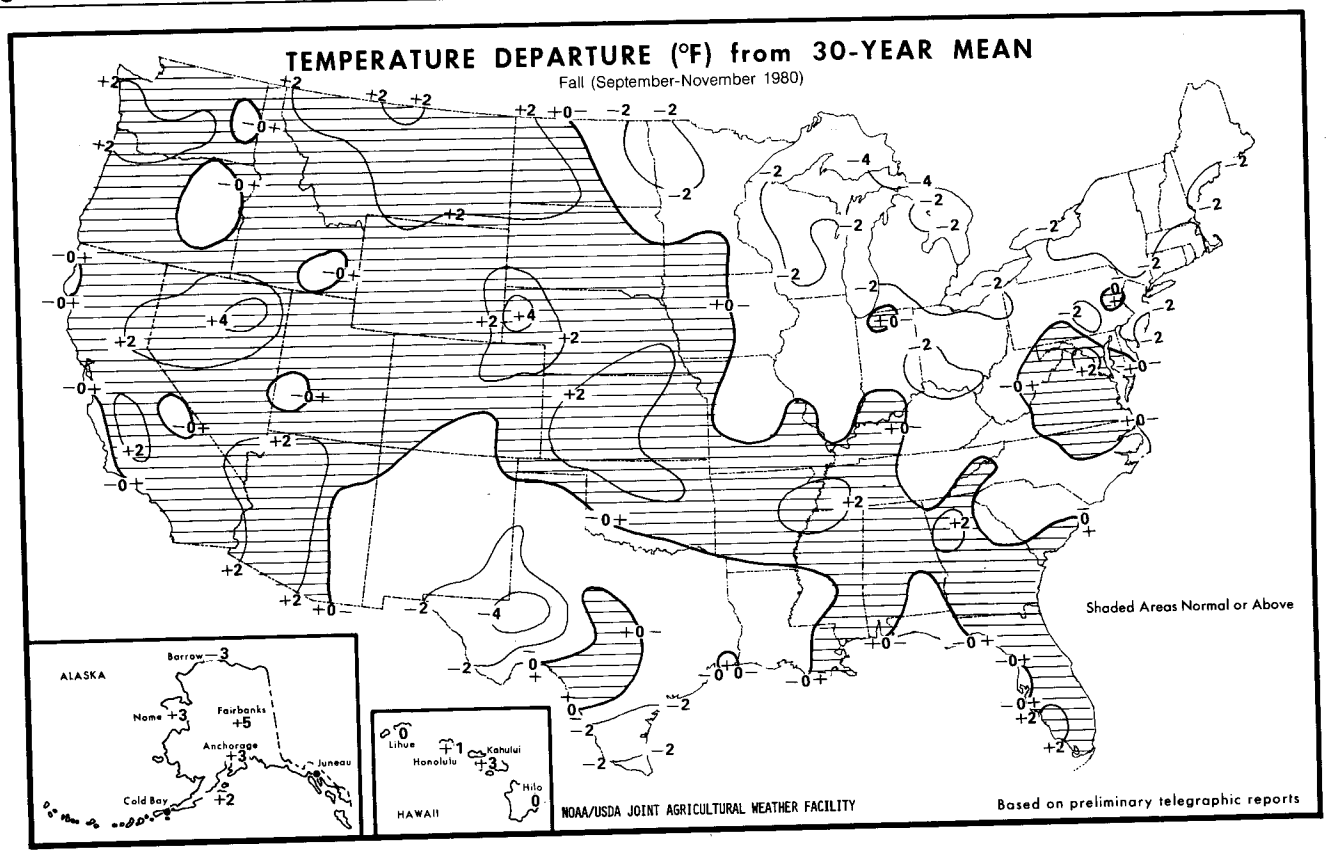
AUSTRALIA: Light to moderate showers in southeastern parts of the winter grain belt only caused minor delays in the harvest. Average temperatures remained near normal, with daytime highs in the upper 20's (C) keeping conditions sufficiently dry. Rainfall in the north increased again as tropical rain systems moved into the region. Sugarcane in northeastern coastal areas of Queensland received some of the heaviest rainfall of the season, arriving a bit late this year.



MEXICO: Generally mild, dry weather prevailed over most major agricultural areas, permitting an uninterrupted fall harvest. However, a few showers dotted the east coast. Rainfall was too light to improve soil moisture except around Valles where up to 12 mm helped in some of the drier citrus orchards. West coast vegetable districts were seasonably sunny and warm with temperatures averaging around 21°C. Tomatoes, cucumbers, and other vegetables should continue to develop well.

SOUTH AMERICA: Abundant rainfall continued in Rio Grande do Sul State of Brazil. Soybean sowing was nearly complete, and some localized areas may have to be replanted due to heavy rains, but for the most part, conditions remain very favorable for the plants. Sowing was complete in areas to the north. Heavy rainfall totals were recorded in some eastern parts of the belt during the week, but the rains were spread over several days, and no damage from excessive water should be expected in major growing areas. Southwestern parts of Parana had become somewhat dry since late November. Relatively high temperatures caused some stress of soybeans early in the week, but showers then ameliorated conditions over most of this important growing area. In Argentina, only light rain fell in important crop areas, but conditions remained favorable for agriculture. Soil moisture in corn and soybean growing areas was good due to abundant rainfall in recent weeks. Temperatures held below normal, with no detrimental high readings occurring. Winter grain harvesting continued in full swing in southern Buenos Aires without interruption.





Fall Weather Review

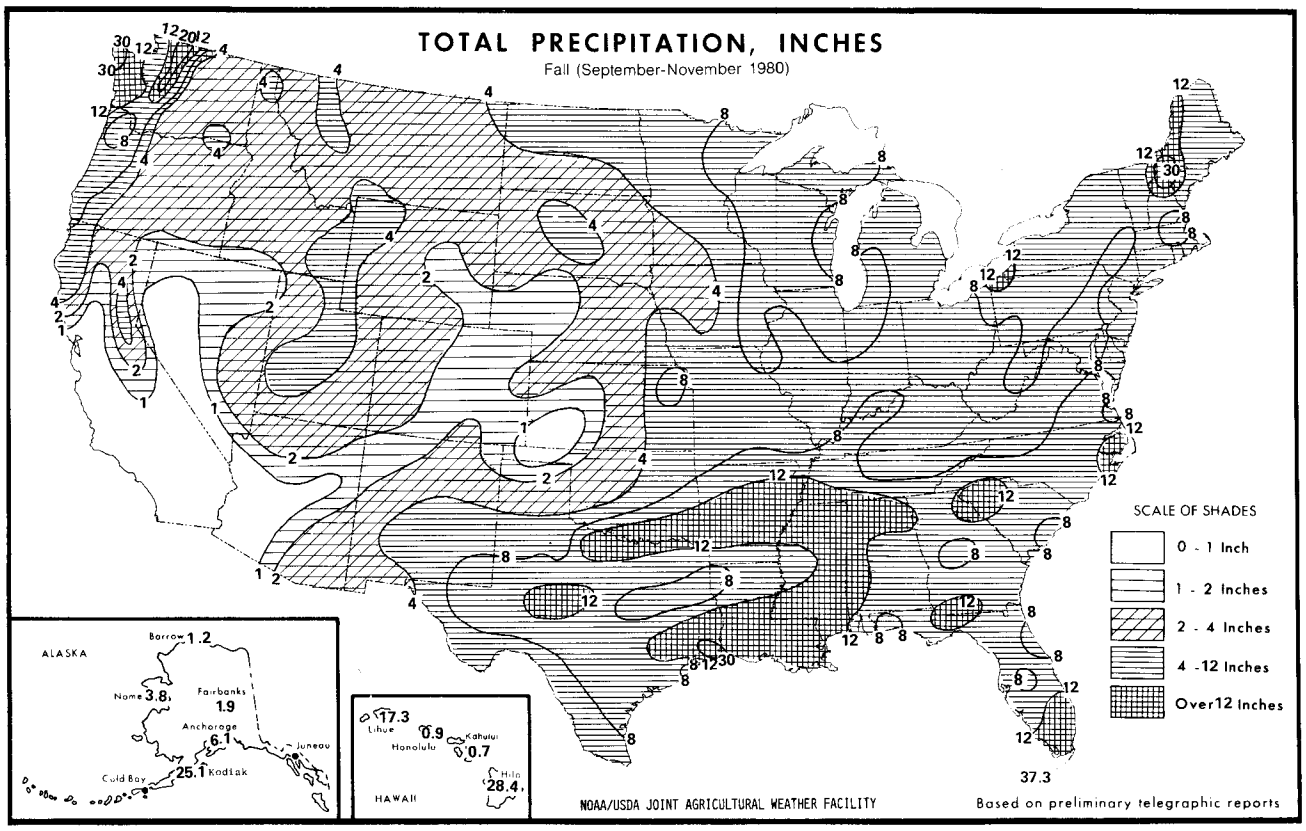
(September, October, and November)

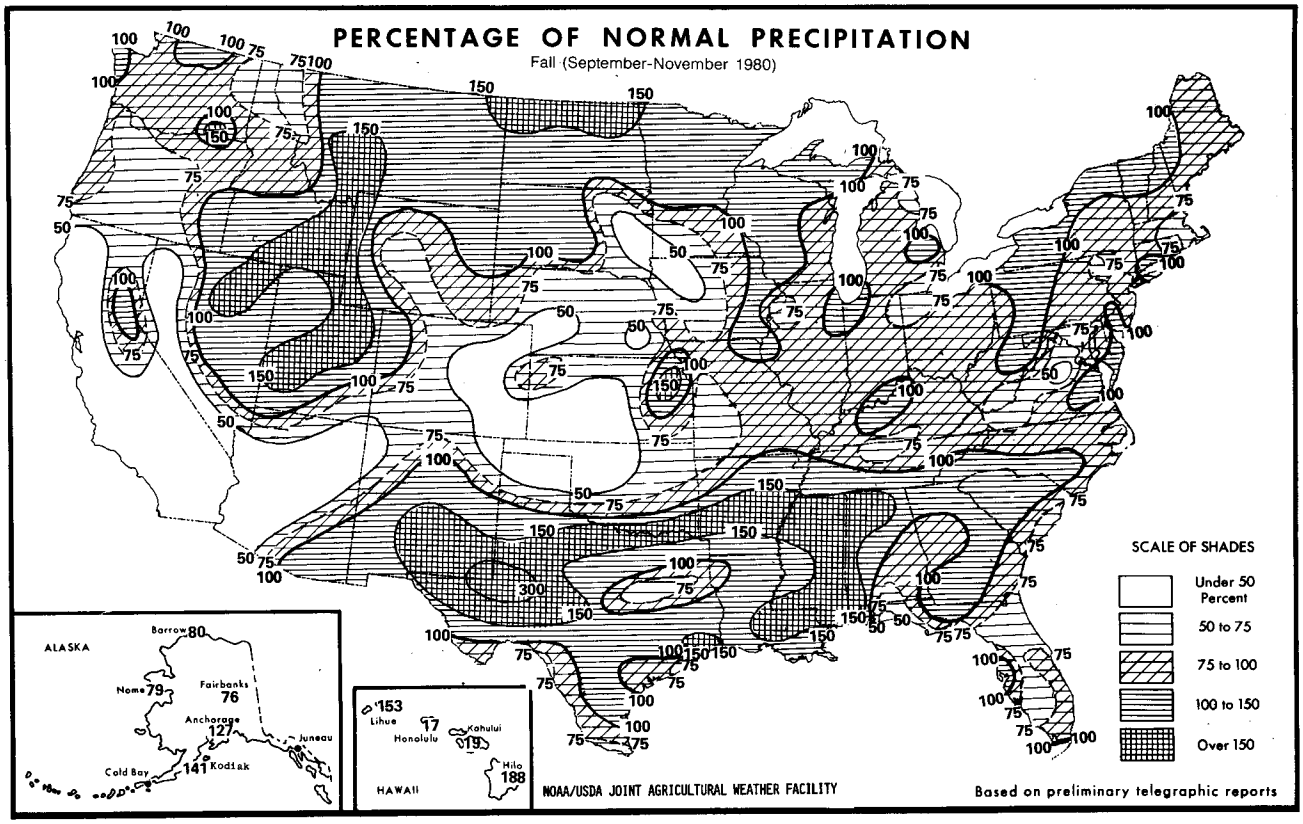
HIGHLIGHTS: The drought and heat wave that had dominated the summer continued into the early part of fall. But by the end of September, the ridge of high pressure associated with the hot weather, moved westward and the area east of the Rockies cooled. By the end of October, cooler air spread over most of the Nation. Periodic incursions of warm air into various parts of the Nation caused the seasonal average to be near normal in most areas. Some precipitation fell over most of the country but the largest totals were from central Texas to New England. The northern Plains welcomed above-normal precipitation but the west central Plains got drier with much less than the normally expected amounts.

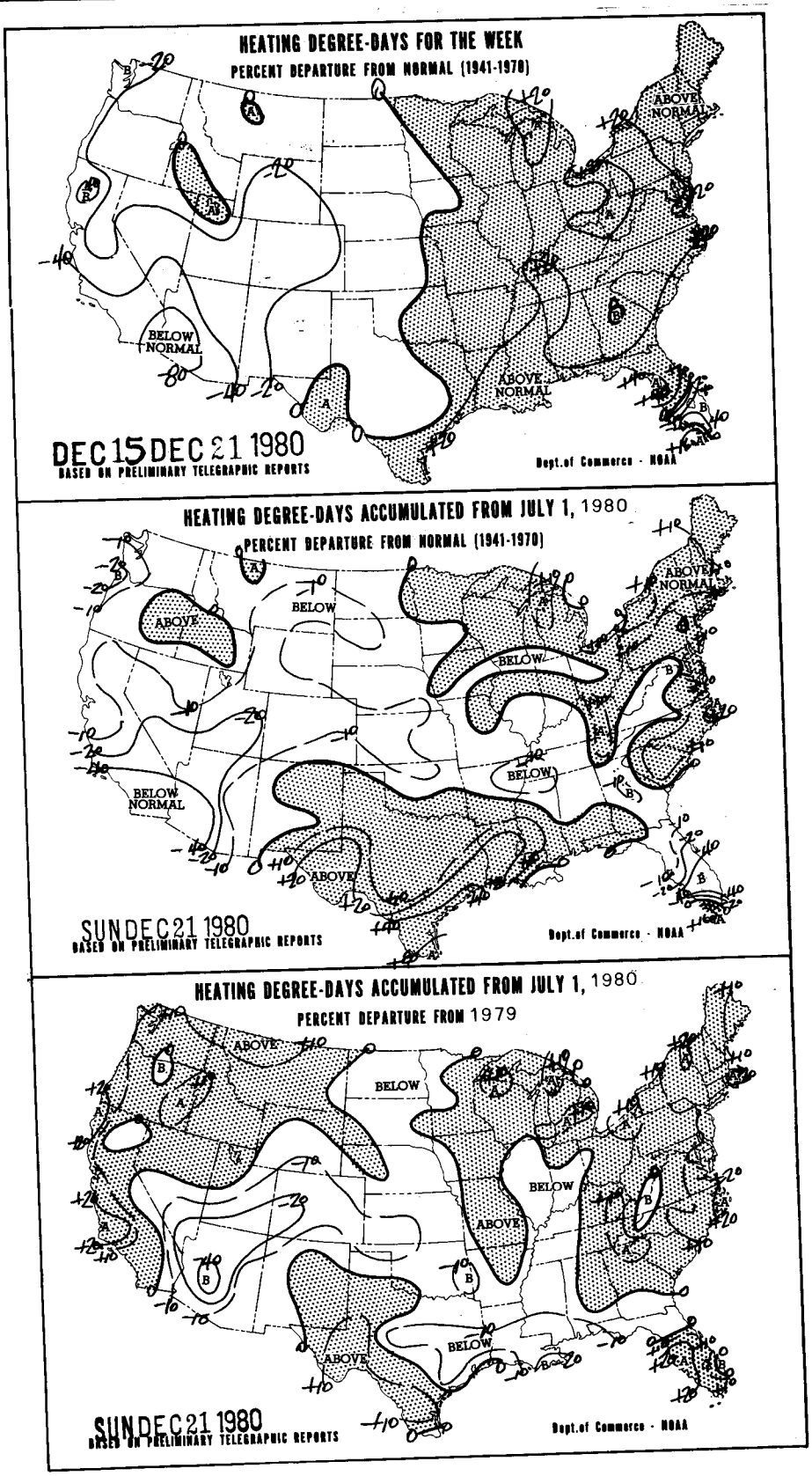
SEPTEMBER...The summer heat wave continued into the first month of fall. Early in the month, temperatures rose to 100 degrees as far north as South Dakota. During the third week of the month, cooler air began moving into the northern Plains with greater frequency and penetrated deeper and deeper into the country. However, the South and the Southeast remained hot and muggy until the very end of the month when cool, polar air was welcomed throughout the area. Rainfall was excessive along a line from normally dry southwestern Texas to South Carolina. Local areas in Texas accumulated amounts in excess of 12 inches. A tropical storm moved into Texas from the Gulf of Mexico early in the month spreading heavy rain all the way to New Mexico. The cool air moving slowly southward triggered heavy showers through the same area and eastward to South Carolina.

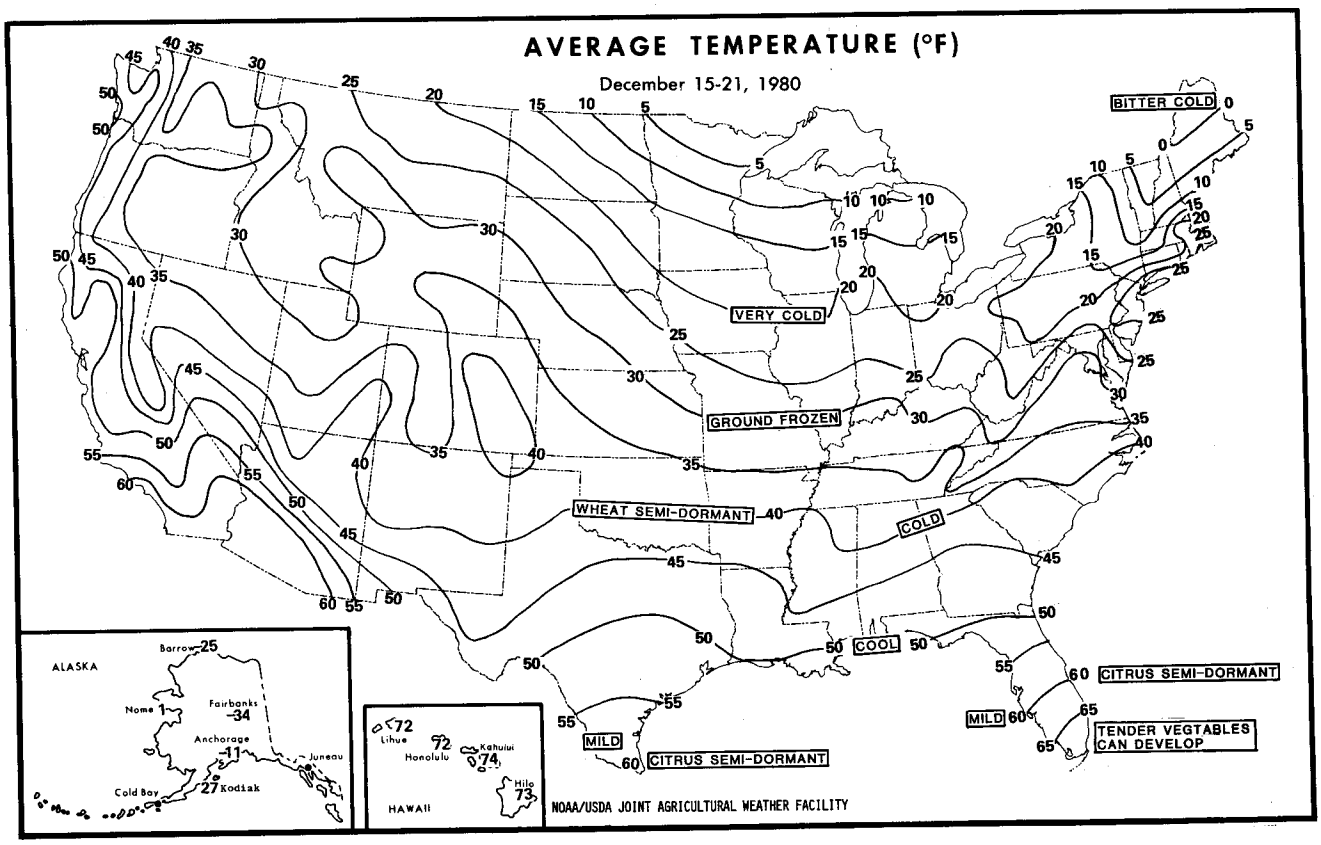
OCTOBER...Fall weather really began in the first week of the month. Increasingly cooler surges of polar air moved rapidly through most of the United States. As a ridge of high pressure over central United States moved westward, the area west of the Rockies became warmer than normal. Parts of California and the Plateau were as much as 9 to 12 degrees warmer than normal early in the month. But by the end of October, cooler air had spread over most of the West. Some incursions of warm air did push northward through the Plains but they were rapidly displaced by the cool outbreaks. Early winter storms developed in the central Rockies and the northern Plains and spread snow, first in the Rockies and then eastward into northern Illinois. Rain also fell in the northern and east central Plains to help germination and early growth of winter grains. Rain along the mid-Atlantic coast helped replenish moisture shortages.

NOVEMBER...Most of the month's rain fell from southern Texas to New England and in the Pacific Northwest. An unusual late season tropical storm formed in the Gulf of Mexico and moved westward. After dropping nearly 27 inches of rain over the Florida Keys, the storm moved westward and wet the Texas coast before turning northeastward through Louisiana. In the latter part of the month, snow fell in most areas from west Texas to New England. Seasonal precipitation began in the Pacific Northwest where heavy amounts of rain accumulated along the coast. Watersheds in the Cascades and northern Sierras began to load with snow. The average temperature for the month was warmer than normal in all of the United States except the southern Plains and the Northeast.


TOTAL PRECIPITATION, INCHES
Fall (September-November 1980)
SCALE OF SHADES
0 - 1 Inch
1 - 2 Inches
2 - 4 Inches
4 -12 Inches
Over12 Inches
ALASKA
Barrow 1.2
Nome 3.8
Fairbanks 1.9
Anchorage 6.1
Juneau
Cold Bay 25.1
Kodiak
HAWAII
Lihue 17.3
Honolulu 0.9
Kahului 0.7
Hilo 28.4
37.3
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary telegraphic reports


PERCENTAGE OF NORMAL PRECIPITATION
Fall (September-November 1980)
SCALE OF SHADES
Under 50 Percent
50 to 75
75 to 100
100 to 150
Over 150
ALASKA
Barrow 80
Nome 79
Fairbanks 76
Anchorage 127
Juneau
Cold Bay 141
Kodiak
HAWAII
Lihue 153
Honolulu 17
Kahului 19
Hilo 188
NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY
Based on preliminary telegraphic reports


HEATING DEGREE-DAYS FOR THE WEEK
PERCENT DEPARTURE FROM NORMAL (1941-1970)
ABOVE NORMAL
BELOW NORMAL
ABOVE NORMAL
DEC 15 DEC 21 1980
BASED ON PRELIMINARY TELEGRAPHIC REPORTS
Dept. of Commerce - NOAA
HEATING DEGREE-DAYS ACCUMULATED FROM JULY 1, 1980
PERCENT DEPARTURE FROM NORMAL (1941-1970)
ABOVE
BELOW
ABOVE NORMAL
BELOW
BELOW
BELOW NORMAL
ABOVE
SUN DEC 21 1980
BASED ON PRELIMINARY TELEGRAPHIC REPORTS
Dept. of Commerce - NOAA
HEATING DEGREE-DAYS ACCUMULATED FROM JULY 1, 1980
PERCENT DEPARTURE FROM 1979
ABOVE
BELOW
BELOW
ABOVE
BELOW
ABOVE
SUN DEC 21 1980
BASED ON PRELIMINARY TELEGRAPHIC REPORTS
Dept. of Commerce - NOAA



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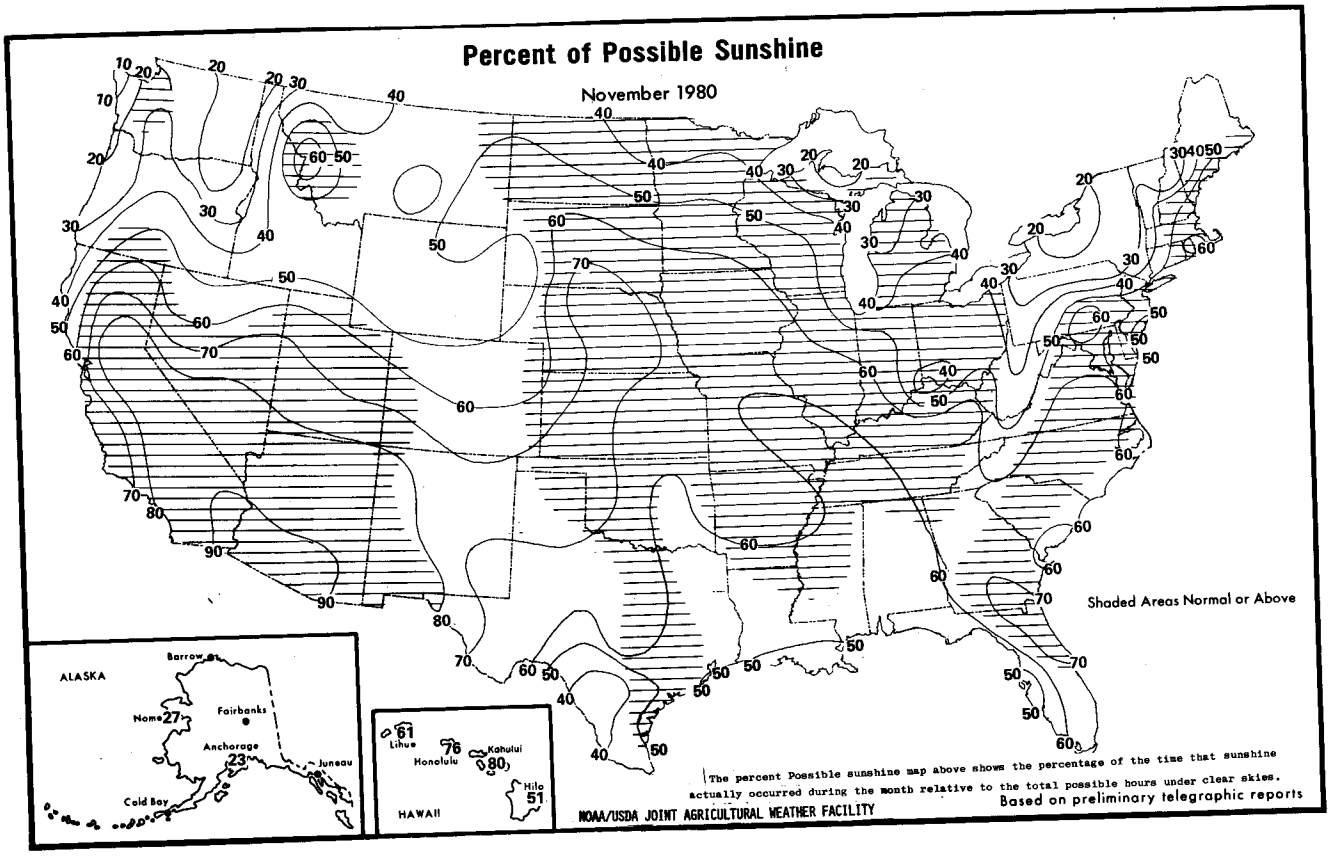
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