WEEKLY WEATHER AND CROP BULLETIN

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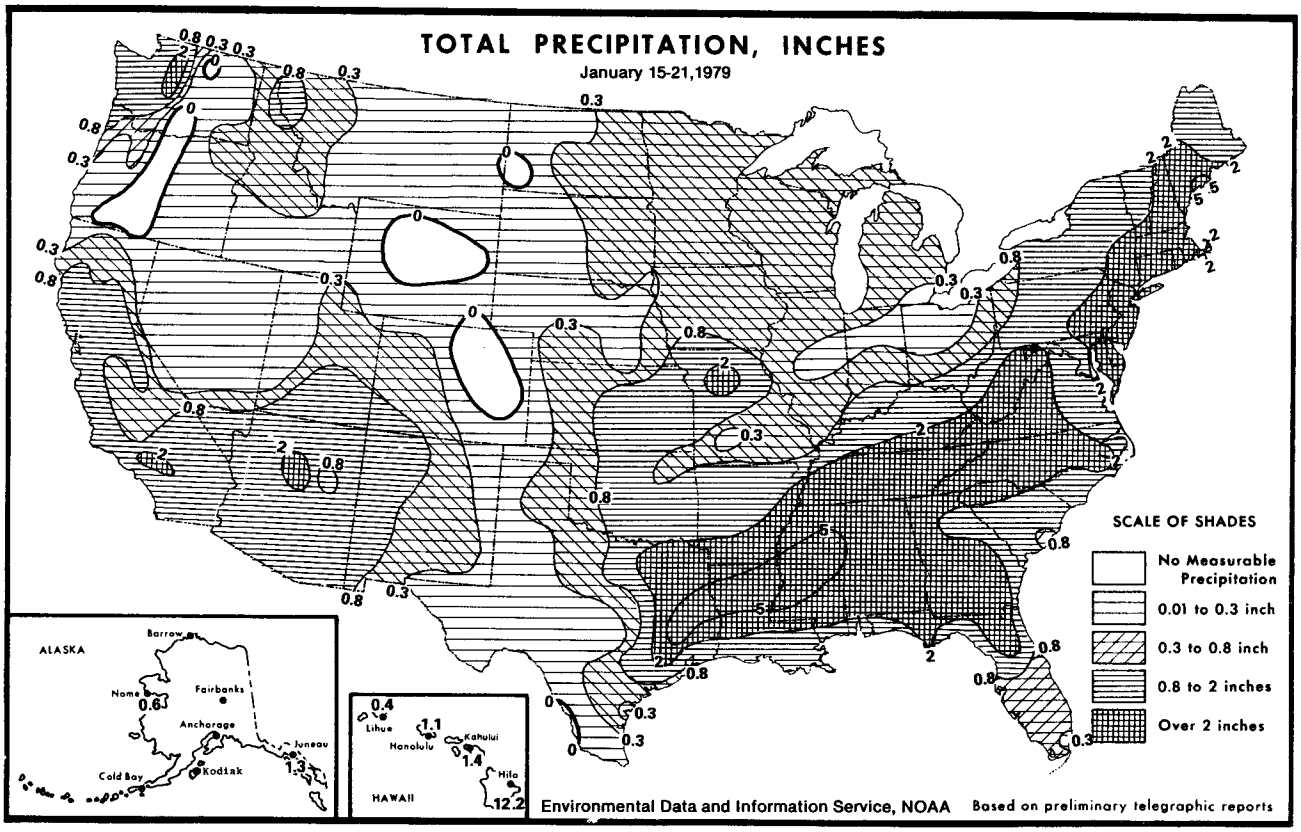


National Weather Summary

January 15 - 21

HIGHLIGHTS: A storm system off the coast of southern California brought moderate amounts of rain to the lower half of the State; the weather moved eastward carrying rain and snow to the Southwest. Later in the week, another storm produced rain in western Washington and snow eastward to the northern Rockies.

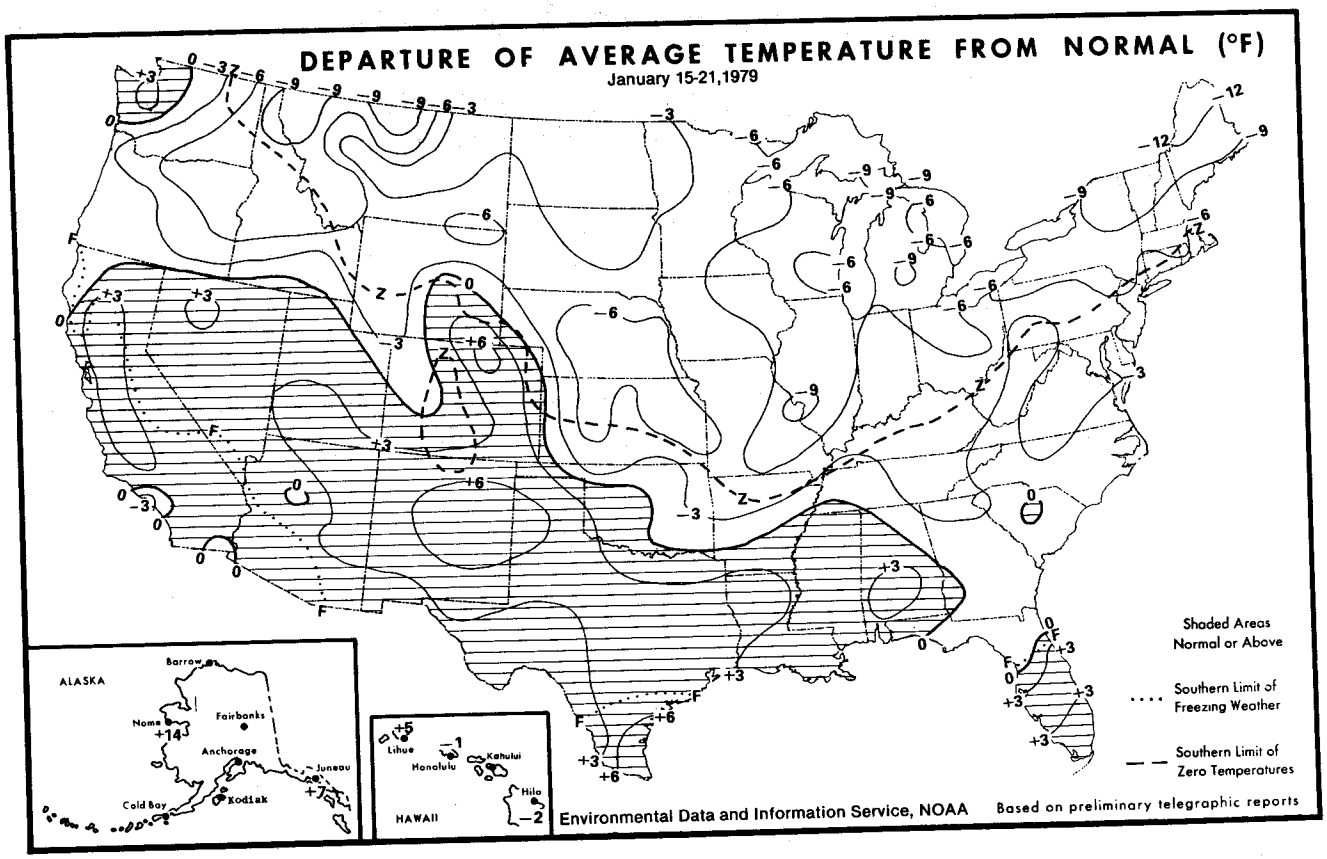
A third storm formed in the central Plains, headed southeastward, and veered northeastward packing a variety of moisture. Snow and freezing rain fell north of the system, while rain occurred south and east of the disturbance. Heavy rain drenched an area from East Texas to West Virginia and along the northeastern coast. Northern New England received large amounts of snow. Moderate accumulations of rain fell in the rest of the eastern United States.

A temperature line split the Nation from northern California to northern Florida. Above the line, colder-than-normal readings prevailed; to the south, averages were warmer.

On Monday, the Midwest got a welcome respite from snow when only the western Great Lakes reported the white stuff. On the West Coast, rain carried over into the new week; from San Francisco to southern California, stations showed one-half to more than an inch. The moisture changed to snow in the northern Rockies.

Very cold air covered an area from the Plains through the Mississippi Valley and Delta Region. Some records included Chicago's -19° (undercutting the 1893 mark by 3), Kansas City's -10°, and 18° at Baton Rouge, La.

Light rain persisted from the West Coast to southern Arizona on Tuesday; light snow continued



A record low temperature of -19° chilled Sault Ste. Marie, northern Michigan.

Snow spread from the Dakotas across the Midwest on Friday; however, the heaviest precipitation fell in the western Gulf Coastal States.

Cleveland, eastern Texas, measured more than 6 inches of rain, while other portions of East Texas, northern Louisiana, and Mississippi collected one to 4 inches.

By day's end, moisture reached through Arkansas and Tennessee to the Ohio Valley and Appalachians. Memphis tallied an inch and one-half of rain, and Little Rock weathered an inch.

An intense low pressure system hovering over the Southeast controlled much of the weather east of the Mississippi River on Saturday.

While rain soaked the Deep South, freezing rain glazed the middle Atlantic States and lower Mississippi Valley, and snow whitened an area to the north. In Mississippi, McComb to the south and Meridian to the east saw more than 3 inches of rain. Other points from Louisiana to North Carolina noted one to 2 and a half inches. Two inches of rain soaked eastern Kentucky triggering flooding. A tornado touched down in Elton, southern Louisiana.

As midnight approached, Wilmington, Del., and Philadelphia called in more than an inch of rain.

By early Sunday, the strong low pressure center had reached eastern Kentucky, carrying warm air from the Atlantic. One to 2 inches of rain combined with melting ice and snow to produce minor flooding in the East. Snow fell to the west and northwest of the center.

At the same time, unsettled weather trekked through the Pacific Northwest to the northern Rockies. Up to 4 inches of snow extended from eastern Washington to Wyoming.
in the Rockies. Snow moved into New York State with some points gathering 5 to 10 inches.

Though International Falls, northern Minnesota, plunged to a record low of -44°, a warming trend visited the Plains and most of the Midwest. The Texas Panhandle basked in the 60's, while western Kansas reached the 50's. Topeka, Kans., at 33°, topped the freezing mark for the first time this year and just missed equaling its record of 19 consecutive days below freezing.

On Wednesday, heavy rains persisted in the Southwest and changed to snow in the mountains. More than 4 inches of rain drenched portions of Arizona, while a half-foot and more of snow blanketed northern Arizona and southern Utah.

Meantime, a frontal system centered over Lake Huron pushed heavy snow into New England and New York State. Along Maine's coastline, Portland picked up 16 inches. Very cold air accompanied the storm; Caribou, northern Maine, scored a record -27° as the coldest spot in the country.

A deluge swept parts of the Hawaiian Islands; 6-day totals topped 60 inches of rain (normally the amount during 4 months) in some localities.

While snow continued in northern New England, a winter storm edged over the Plains into the Mississippi Valley on Thursday.

A combination of moisture showed 3 inches of snow in the northern Plains, freezing rain to the south, and one-half to 2 inches of rain from the southern Plains through Missouri. Light rain persisted in southern California and the Southwest.

Maine's additional snowfall produced a 24-hour record of 24.4 inches in Portland.

National Agricultural Summary

January 15 - 21

HIGHLIGHTS: Heavy precipitation from eastern Texas to the Atlantic Coast saturated soils and raised moisture supplies to adequate or surplus. In some areas, pastures became too wet to support cattle, and top growth deteriorated from the excessive moisture. Precipitation in parts of the Corn Belt on into New England added snow depth to protect fall-seeded grains. Snowcover receded slightly, but most winter wheat on the Great Plains had protection southward through Kansas. Snow also accumulated in the Pacific Northwest to provide additional protection for the winter wheat. Farmers accomplished only limited fieldwork, including hauling manure to fields in northern areas and disking crop residue in the South. Wet fields continued to hamper the final cotton harvests in Texas, Arizona, California, and New Mexico. Deciduous fruit growers pruned trees and vines in southern areas and the Northwest. Ice damaged some fruit trees in Arkansas and Virginia.

SMALL GRAINS: Winter wheat lay protected by a blanket of snow from Kansas northward through the Great Plains. A light snowcover protected small grains in the Corn Belt. Across the South, winter wheat rated mostly fair to good making very slow growth. Farmers began checking stands for weed and insect control. Winter wheat was virtually dormant on the southern Plains and appeared to have survived the recent subnormal temperatures. Growers in California and the Southwest continued to plant some late fields of small grains; earlier stands rated excellent. Pacific Northwest growers expect some freeze damage, but recent snow accumulations protected the crop from the current subnormal readings.

Kansas wheat was entirely snow-covered. Old snow accumulations melted in Oklahoma which allowed renewed grazing on wheat pastures as the ground firmed. Texas low temperatures slowed winter wheat growth to a near-dormant condition. However, most stands appeared to have enough vigor to recover from any freeze damage. Grazing of small grains was sharply curtailed. Snow covered winter wheat throughout the Mountain States; the crop rated good. Early Arizona stands rated excellent. California rains temporarily halted planting in the Imperial Valley, while growers in the San Joaquin and Sacramento Valleys applied weed control measures.

OTHER CROPS: Farmers made very little progress harvesting the few remaining fields of cotton. Texas picking stood at 98%. In previous years, the harvest was finished by now. Gins worked off their backlogs and trailers were readily available. Arizona growers had some cotton to harvest, but the quality was in doubt. Wet fields in California halted disking, shredding, and plowdown operations.

The Florida sugarcane harvest moved actively.

Tobacco plants in southern production areas rated fair to good. Further north in the major tobacco production States, farmers began marketing fire-cured and sun-cured leaf. The Kentucky burley crop was 90% sold.

Land preparation for seeding potatoes advanced into Eastern Shore Virginia.

FRUITS AND NUTS: Deciduous fruit growers performed maintenance chores including pruning trees and vines.

Florida citrus groves rated excellent with adequate moisture and no irrigation necessary. The orange harvest advanced actively and droppage varied by locality. Trees put on little new growth. The Texas shipping holiday ended on January 18, and fresh movement of grapefruit and oranges began. Most remaining oranges for fresh market will be Valencias; midseason varieties go to processors. Arizona citrus harvests advanced when conditions permitted. Harvests of Navels and sweets were complete. Lemon picking tapered off and grapefruit harvest showed steady but slow progress. California Navels held in fair supply. Growers also picked a few tangerines and mandarins, but rains delayed harvest in all areas.

VEGETABLES: Florida vegetables rated fair to good. Harvest was steady, but overall shipments declined 1% from the previous week. Cauliflower and potato volume advanced considerably. Snap beans, escarole, lettuce, radishes, strawberries, and squash also registered slight increases. Supplies of other vegetable crops held steady or declined. Wind scars lowered packout, however, general quality and size was good. Strong weekend winds whipped plants and burned foliage. The spring watermelon crop scored fair to good, recovering well from earlier cold damage.

Texas carrot, cabbage, lettuce, and spinach harvests moved actively. Growers planted watermelons in the Coastal Bend area. Wet soils and low temperatures prevented spring vegetable land preparation in other areas.

Arizona vegetable harvests advanced slowly; wet field conditions delayed the lettuce harvest. Harvests of broccoli, cauliflower, and celery progressed in southern California. The desert lettuce harvest was active despite the wet fields. Strawberries bloomed along the south coast. Growers planted market tomatoes in several areas.

PASTURES AND LIVESTOCK: Pastures were unavailable throughout the northern half of the Nation because of snowcover. Low temperatures also limited grass growth throughout many areas of the South. In the Southeast, pastures registered a slight decline and rated only fair. In South Florida, grasslands rated fair to good. In the Delta States, grazing held in short supply. Texas cattle moved from dormant small grain fields to native pastures. In southeastern Texas, saturated pastures could not be grazed and growth deteriorated from the wet conditions. Arizona rangeland improved and stock water supplies proved adequate. Winter and spring browse should be excellent. California rangeland growth was excellent. Herds began moving to low elevation ranges. Farmers provided cattle with heavy rations of feed, hay, and other roughage to combat the low temperatures. Supplies of animal feed were adequate with the exception of some southern States. Snow presented transportation problems in Northern areas. Calving and lambing got started with cold temperatures taking their toll in some parts of the Nation. Cattle losses in some States became more apparent after the previous week's severe storm.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., Jan. 21, 1979

States and Stations	Temperature °F Average	Temperature °F Departure	Precipitation Inches Total	Precipitation Inches Departure
ALA.Birmingham	46	+ 2	2.4	+ 1.3
Mobile	53	+ 2	1.1	+ .1
Montgomery	50	+ 3	2.3	+ 1.4
ALASKA.Anchorage	--	--	--	--
Barrow	--	--	--	--
Fairbanks	--	--	--	--
Juneau	30	+ 7	1.3	+ .4
Kodiak	--	--	--	--
Nome	21	+14	.6	+ .4
ARIZ.Flagstaff	26	- 2	3.5	+ 3.1
Phoenix	54	+ 3	1.5	+ 1.4
Tucson	52	+ 1	.9	+ .7
Winslow	36	+ 4	.5	+ .4
Yuma	54	- 1	1.3	+ 1.2
ARK.Fort Smith	36	- 3	1.3	+ .8
Little Rock	37	- 2	.9	- .1
CALIF.Bakersfield	52	+ 5	.6	+ .4
Eureka	45	- 2	.2	- 1.5
Fresno	47	+ 2	.6	+ .2
Los Angeles	53	- 4	1.8	+ 1.1
Red Bluff	49	+ 4	.6	- .5
San Diego	58	+ 3	.9	+ .5
San Francisco	48	0	1.0	0
Stockton	47	+ 3	.8	+ .2
COLO.Denver	33	+ 3	T	- .1
Grand Junction	27	+ 1	.3	+ .2
Pueblo	31	+ 1	T	- .1
CONN.Bridgeport	26	- 4	4.7	+ 4.1
Hartford	19	- 5	2.7	+ 2.0
D.C.Washington	34	- 2	1.9	+ 1.3
FLA.Apalachicola	53	- 1	1.8	+ 1.1
Daytona Beach	61	+ 3	.8	+ .3
Ft. Myers	66	+ 3	.7	+ .3
Jacksonville	52	- 3	1.7	+ 1.1
Key West	71	0	.4	0
Lakeland	--	--	--	--
Miami	67	0	.3	- .2
Orlando	62	+ 2	.6	+ .1
Tallahassee	52	- 1	1.9	+ 1.1
Tampa	62	+ 2	.5	- .1
W.Palm Beach	66	+ 1	.5	- .1
GA.Atlanta	41	- 1	1.6	+ .6
Augusta	45	- 1	.9	+ .1
Macon	47	- 1	2.1	+ 1.3
Savannah	50	0	1.1	+ .5
HAWAII.Hilo	69	- 2	12.2	+10.4
Honolulu	71	- 1	1.1	+ .1
Kahului	72	0	1.4	+ .6
Lihue	76	+ 5	.4	- 1.0
IDAHO.Boise	22	- 7	T	- .4
Lewiston	24	- 7	.4	+ .1
Pocatello	22	- 1	.2	- .1
ILL.Cairo	32	- 4	.7	- .2
Chicago	17	- 7	.4	0
Moline	13	- 8	.5	+ .1
Peoria	17	- 6	.4	0
Rockford	12	- 8	.8	+ .4
Springfield	20	- 6	.3	- .1
IND.Evansville	29	- 3	1.0	+ .2
Ft. Wayne	21	- 4	.2	- .4
Indianapolis	24	- 4	.5	- .2
South Bend	21	- 3	.4	- .2
IOWA.Burlington	18	- 4	.5	+ .1
Des Moines	15	- 4	.3	0
Dubuque	9	- 8	.6	+ .2
Sioux City	11	- 6	.2	+ .1
KANS.Concordia	21	- 5	.3	+ .2
Dodge City	25	- 6	.7	+ .6
Goodland	30	+ 3	.2	+ .1
Topeka	21	- 7	1.1	+ .9
Wichita	26	- 5	.9	+ .7
KY.Lexington	29	- 4	1.2	+ .3
Louisville	30	- 3	1.2	+ .4
LA.Baton Rouge	51	0	1.8	+ .8
Lake Charles	54	+ 2	.8	0
New Orleans	54	+ 1	1.0	0
Shreveport	51	+ 4	4.7	+ 3.8
MAINE.Caribou	- 2	-12	1.0	+ .6
Portland	13	- 8	4.3	+ 3.5
MD.Baltimore	31	- 3	2.0	+ 1.4
MASS.Boston	24	- 5	3.0	+ 2.2
Chatham	28	--	1.6	--
MICH.Alpena	13	- 4	.4	0
Detroit	18	- 6	.3	- .1
Flint	15	- 7	.3	- .1
Grand Rapids	16	- 7	.4	0
Houghton Lake	10	- 7	.3	- .1
Lansing	13	- 9	.3	- .1
Marquette	--	--	--	--
Muskegon	16	- 8	.6	+ .1
S. Ste. Marie	4	-10	.5	+ .1
MINN.Duluth	5	- 3	.5	+ .2
Internatl Falls	- 3	- 4	.3	+ .1
Minneapolis	8	- 3	.5	+ .4
Rochester	4	- 8	.5	+ .4
St. Cloud	3	- 5	.5	+ .4
MISS.Jackson	48	+ 1	6.8	+ 5.8
Meridian	47	0	4.2	+ 3.3
MO.Columbia	25	- 4	.8	+ .4
Kansas City	22	- 5	1.1	+ .8
St. Louis	21	-10	.4	0
Springfield	28	- 5	.3	- .1
MONT.Billings	18	- 3	.2	0
Glasgow	7	- 1	T	- .1
Great Falls	18	- 2	.3	+ .1
Havre	- 2	-12	.1	0
Helena	10	- 7	.1	0
Kalispell	8	-10	.7	+ .3
Miles City	12	- 3	.1	0
Missoula	14	- 6	.6	+ .3
NEBR.Grand Island	16	- 6	.3	+ .2
Lincoln	14	- 8	.4	+ .3
Norfolk	14	- 4	.3	+ .2
N.Platte	16	- 7	.4	+ .3
Omaha	16	- 4	.5	+ .4
Valentine	15	- 5	.2	+ .1
NEV.Ely	23	0	.2	+ .1
Las Vegas	45	+ 1	1.1	+ 1.0
Reno	33	+ 1	.2	- .1
Winnemucca	31	+ 3	T	- .3
N.H.Concord	14	- 6	2.1	+ 1.5
N.J.Atlantic City	29	- 4	2.3	+ 1.5
Trenton	27	- 5	3.4	+ 2.8
N.MEX.Albuquerque	41	+ 6	.8	+ .7
Roswell	45	+ 7	.3	+ .2
N.Y.Albany	13	- 8	2.1	+ 1.6
Binghamton	16	- 6	1.8	+ 1.3
Buffalo	16	- 8	.9	+ .2
New York	26	- 6	4.9	+ 4.3
Rochester	17	- 7	1.2	+ .7
Syracuse	17	- 7	1.2	+ .6
N.C.Asheville	37	- 1	2.9	+ 2.1
Charlotte	40	- 2	2.5	+ 1.7
Greensboro	36	- 3	2.6	+ 1.9
Hatteras	44	- 1	1.3	+ .3
Raleigh	41	0	2.1	+ 1.4
Wilmington	45	- 1	1.4	+ .7
N.DAK.Bismarck	7	0	.4	+ .3
Fargo	4	- 1	.4	+ .3
Williston	4	- 3	.1	0
OHIO.Akron-Canton	21	- 5	.3	- .3
Cincinnati	26	- 5	.7	- .1
Cleveland	23	- 4	.3	- .3
Columbus	24	- 4	.3	- .4
Dayton	25	- 3	.4	- .2
Toledo	18	- 6	.2	- .3
Youngstown	20	- 6	.3	- .4
OKLA.Okla. City	38	+ 1	1.0	+ .8
Tulsa	34	- 2	.6	+ .3
OREG.Astoria	40	0	1.1	- 1.1
Burns	21	- 4	T	- .4
Medford	35	- 1	T	- .8
Pendleton	23	- 8	.2	- .2
Portland	35	- 3	.4	- .9
Salem	37	- 1	.1	- 1.5
PA.Allentown	23	- 5	2.4	+ 1.7
Erie	17	- 8	.4	- .2
Harrisburg	25	- 5	2.2	+ 1.6
Philadelphia	29	- 3	2.9	+ 2.3
Pittsburgh	28	0	1.0	+ .4
Scranton	19	- 7	1.9	+ 1.5
R.I. Providence	22	- 6	2.9	+ 2.1
S.C. Charleston	48	- 1	.6	0
Columbia	46	+ 1	.8	0
Greenville	39	- 3	3.1	+ 2.2
S.D. Aberdeen	8	- 1	.6	+ .5
Huron	10	- 2	.4	+ .3
Rapid City	16	- 5	.1	0
Sioux Falls	9	- 5	.4	+ .3
TENN.Chattanooga	37	- 3	2.8	+ 1.6
Knoxville	36	- 5	2.8	+ 1.7
Memphis	40	0	3.1	+ 2.0
Nashville	35	- 3	3.1	+ 2.0
TEX.Abilene	48	+ 5	.3	+ .1
Amarillo	43	+ 7	.4	+ .3
Austin	54	+ 5	.2	- .2
Beaumont	56	+ 4	1.2	+ .3
Brownsville	68	+ 8	.2	- .1
Corpus Christi	62	+ 6	.3	- .1
Del Rio	52	+ 1	.1	0
El Paso	45	+ 2	.3	+ .2
Fort Worth	48	+ 3	1.6	+ 1.2
Galveston	56	+ 3	.4	- .3
Houston	56	+ 4	1.0	+ .2
Lubbock	44	+ 5	.2	+ .1
Midland	45	+ 2	.1	0
San Angelo	47	+ 1	.T	- .2
San Antonio	55	+ 5	.5	+ .1
Victoria	58	+ 5	.6	+ .2
Waco	50	+ 3	.5	+ .1
Wichita Falls	43	+ 2	.7	+ .5
UTAH.Blanding	--	--	--	--
Salt Lake City	30	+ 2	.3	0
VT.Burlington	7	-10	1.3	+ .9
VA.Lynchburg	32	- 5	2.5	+ 1.9
Norfolk	39	- 2	1.5	+ .7
Richmond	35	- 3	1.9	+ 1.3
Roanoke	32	- 4	2.0	+ 1.4
WASH.Colville	20	- 3	.3	- .2
Omak	21	- 1	T	- .4
Quillayute	39	+ 1	1.7	- 1.6
Seattle-Tacoma	41	+ 3	1.1	- .2
Spokane	17	- 8	.3	- .3
Walla Walla	27	- 6	.4	- .1
Yakima	23	- 4	T	- .3
W.VA.Beckley	29	- 2	2.4	+ 1.6
Charleston	32	- 3	2.0	+ 1.2
Huntington	30	- 4	1.5	+ .8
Parkersburg	27	- 6	1.2	+ .5
WISC.Green Bay	8	- 7	.4	+ .1
La Crosse	10	- 6	.8	+ .6
Madison	10	- 6	.6	+ .3
Milwaukee	16	- 3	.6	+ .2
WYO.Casper	24	+ 1	0	- .1
Cheyenne	32	+ 6	T	- .1
Lander	15	- 4	0	- .1
Sheridan	14	- 6	T	- .1
P.R.San Juan	78	+ 3	.5	- .4

Based on 1941-70 normals

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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 ESCS State offices in cooperation with the National Weather Service.

ALABAMA: Temperatures near normal north, 2° above normal south. Heavy rain 19th and 20th; heaviest amounts near 4.00 in. northwest. Some snow and sleet 21st.

Fieldwork: 2.7 days suitable. Soil moisture adequate; outdoor activity mainly livestock care, equipment repair. Fieldwork behind schedule. Pasture feed supply short, stored feed supply adequate. Pastures poor condition. Wheat fair condition.

ARIZONA: Heavy rains, flooding along Salt, Aqua Fria, Verde River basins. Precipitation up to 2.50 in. lower, mid-elevations. From 2.50 in. to 6.50 in. mountains. New snow 5 to 15 in. Mogollon rim, White mountains. Temperatures near normal.

Moderate to heavy rain, field activities virtual standstill. Substantial cotton remaining, quality in doubt, especially ground cotton. Earlier planted small grains excellent progress. Sugarbeet harvest still unfinished, spring beets excellent progress. Alfalfa haying seasonally slow. New, renovated fields growing well. Vegetable harvest slow. Lettuce harvest delayed by field conditions. Other mixed vegetable harvest equally slow. Later plantings growing well. Citrus harvest active, conditions permitting. Harvest Navels and sweets about complete. Lemon picking tapering off, grapefruit slow but steady. Range conditions vastly improved, substantially better than normal. Rain, snow showers beneficial, restoring stock water, soil moisture. Prospects winter, spring browse excellent. Cattle, calves good to excellent condition. Movement restricted some areas, bad roads.

ARKANSAS: Cold early week with warmer temperatures later. Precipitation from midweek with heaviest totals at end of week. Extremes: 64 and -1°. Highest normal 46°; lowest 36°. Highest mean 48°; lowest 30°. Precipitation ranged from 0.21 to 4.47 in.

Farm activities limited mostly to feeding and caring for livestock. Wheat condition good, generally covered by snow and ice during extremely cold weather. Fruit tree limbs damaged from heavy ice, extent of damage not expected to be severe.

CALIFORNIA: Precipitation several days mainly southern half. Rain over 2.00 in. central and south coast; 1.00 to 2.00 in. Central Valley. Temperatures near normal but San Joaquin Valley up to 6° above normal.

Small grain planting continued San Joaquin, Sacramento Valleys after rain. Wheat planting halted Imperial Valley. Growth earlier planted small grains look good. Sugarbeet planting slowed by rain central coast. Alfalfa, small grain, limited weed control applied Sacramento and San Joaquin Valleys. Cotton shredding, disking halted by wet fields San Joaquin Valley and Riverside County. Cotton plowdown halted. Field activities in deciduous fruit orchards and vineyards active. Avocados, grapefruit, lemons, Navels fair supply. Few table grapes, tangerines, and mandarins being picked. Rains delayed harvest all areas. Harvest broccoli, cauliflower, celery active south. Lettuce harvest active desert despite wet fields. Strawberries blooming south coast. Planting market tomatoes several areas. Rangelands growth excellent. Stock moving to low ranges. Water supplies good. Sheep grazing alfalfa.

COLORADO: Moisture from Pacific to Rocky Mountains spread abundant snow across large areas of mountains. Heaviest snowfall totals 80 and 70 in. at two southwestern ski areas. Light rains and snows spread into eastern plains on 18th. Temperatures 2 to 5° below normal.

FLORIDA: Freezing temperatures prevailed over north morning of 15th with below normal readings elsewhere. Moderating trend set in by midweek. Cold front on 20th moved into Panhandle and off the south coast by evening 21st. Tornado watch in effect night of 20th. Strong winds accompanied front and continued on 21st. Rainfall averaged 0.50 to 1.00 in. central, south; 1.00 to 2.00 in. north. Temperatures a little below normal; near normal south.

Soil moisture mostly adequate, a few wet spots upper east coast and middle Gulf coast. Sugarcane harvest continued active, crop in good condition. Small grains fair condition, growth slow due to cold. Farmwork limited because of cold. Limited grazing central to northern areas. Supplemental feeding necessary. Southern pastures fair to good. Cattle fair to good condition. Citrus grove condition excellent, moisture adequate, no irrigation. No freeze this past week. Very little new growth. Orange droppage varied; orange harvest very active. General vegetable crop condition fair to good; harvest steady. Overall shipments decreased 1% from previous week. Cauliflower, potato shipments up considerably. Snap beans, escarole, lettuce, radishes, strawberries, squash increased. Supplies cabbage, carrots, celery, chinese cabbage, sweet corn, parsley held steady but cucumbers, eggplant, okra, peppers, tomatoes decreased. Quality, size, yields generally good but packout lowered by wind scars. Strong weekend winds whipped plants, burned foliage. Spring planting slowing for some crops as schedules being completed. Strawberry crop condition improving. Quality, yields down as result of recent cold weather. Volume low. Spring watermelon crop condition fair to good, recovering well from earlier cold damage. Planting very active, seed germination slow. Winter crop potato digging increasing. Quality generally good.

GEORGIA: Temperatures upper 30's north to lower 50's southeast. Rain statewide. Extremes: 74 and 9°. Rainfall 0.08 to 1.32 in. Precipitation 20th and 21st general, with heaviest amount of 4.04 in.

Soil moisture adequate to mostly surplus. Cold, wet conditions, still limiting fieldwork. Some activity in central and east. Small grains fair north and central, good east and southwest. Pasture conditions continued slight decline, still fair. Cattle fair to good, down from previous week. Tobacco plants fair to good.

HAWAII: Weather variable. Heavy rains east Hawaii continued. Truck crops heavily battered. Some flooding of sugar, flower fields, mainly anthurium. Spoilage losses expected for tender crops. Rainfall generally light other Islands. Spraying frequent for disease and insect control.

Vegetable supplies light; quality generally poor. Banana supplies light to moderate. Papaya supplies light. Pineapple harvesting slow. Sugar harvesting slack. Pastures generally good.

IDAHO: Temperatures moderated some but still ranged from 0 to 11° below normal. Extremes: -15 and 43°.

Snowcover limited farmwork to mainly feeding and caring for livestock. Warmer weather eased stress on livestock. Conditions more favorable for early calving and lambing.

ILLINOIS: Temperatures 3 to 10° below normal; fourth straight week. Precipitation 0.50 to over 1.00 in.; heaviest south; few northern areas 1 to 2 in. new snow. Snow depths north 23 in., south 2 in.

Winter wheat good; snowcover protecting crop. Grain movement slowed by bad weather. Livestock good condition. Soil moisture adequate.

INDIANA: Rough weather. Temperatures ranged from 0 to 46° and averaged 1° below normal. Sunshine 34% of possible. Precipitation 0.20 in. north, 0.50 in. central, 0.80 in. south. Freezing rain and glazed roads most of state 19th along with heavy fog. Snowcover 1 in. except 18 in. near Lake Michigan.

Farm activities mostly limited to caring for livestock, hauling manure.

IOWA: Early week cold moderated to near normal temperatures at late week to average around 5° subnormal for whole week. Most precipitation fell on 18th to 19th as mostly ice and sleet south and 2 to 4 in. snow in north. Water content 0.30 to 0.60 in. averaged 150% of normal.

KANSAS: Moisture ranged 0.25 to 0.50 in. west to 0.50 to 1.50 in. east. Rain or freezing rain fell 18th to 19th. Temperatures ranged from 21° north central to 29° southeast and 23 to 27° elsewhere, 2° below normal northwest and southeast to 3 to 7° below normal elsewhere.

Weekend storm of 12th to 14th hard on livestock. Some death losses in cow herds and commercial feedlots. Other reports of cattle falling through ice on ponds. Tight supply of hay and forage in many areas. Wheat acreage remained snow covered.

KENTUCKY: Temperatures near normal. Mixed precipitation with nearly all of it during latter half ranging from 4.50 in. southeast to 1.25 in. elsewhere.

Rain and warmer temperatures melted most snow and ice cover. Fields wet, and farm activity minimal except for feeding and caring of livestock. Opening auctions of fire-cured tobacco. Burley sales continued; approaching 90% sold.

LOUISIANA: Temperatures 2 to 3° above normal. Extremes: 75 and 14°. Rain statewide late week.

Activities: Care and feeding of livestock.

MARYLAND & DELAWARE: Temperatures 4° below normal. Highs upper 30's to low 40's. Lows 20's. Precipitation light; 0.50 in. Sleet with freezing rain 20th followed by rain. Early morning rain 21st followed by mostly cloudy skies.

MICHIGAN: Temperatures 2 to 10° below normal. Maximum reached low 30's; minimum -37°. Precipitation 0.26 to 0.62 in. in Lower and 0.48 to 1.08 in. Upper. Snowcover from 4 to 47 in.; most around 20 in.

Farm chores and livestock feeding.

MINNESOTA: Temperatures 2 to 8° below normal. Extremes: 29 and -44°. Precipitation near normal except 0.25 to 0.55 in. above normal east central and southeast. Precipitation total 0.18 to 0.50 in. except 0.50 to 0.79 in. east central and southeast. Snowfall 5 in. west to 10 in. central and east. Snow depth 10 in. west and southwest to 20 in. elsewhere except over 20 in. extreme southeast and north central through northeast.

MISSISSIPPI: Cold early week. Warmer midweek with drizzle, fog. Some heavy rainfall late week. Temperature extremes 6 and 74°.

Soil moisture surplus. Fieldwork: 0.6 day suitable. Feeding livestock main activity. Several days of warmer weather improved wheat condition somewhat but still mostly fair to poor. Livestock condition fair. Hay and roughage supplies and feed grain supplies adequate to short.

MISSOURI: Temperatures 3° below normal. Lows below zero early week. Precipitation moderate, averaging between 0.75 and 1.50 in. melted. Snowcover averaging 1 to 4 in. south and central; 6 to 19 in. north central; maximum 26 in. northeast.

MONTANA: Light snow first of week, mostly ending by midweek. Snow became widespread and heavy at times 21st with strong northerly winds causing near blizzard conditions. Amounts near 12 in. reported. Temperatures below normal in west, near normal elsewhere.

Winter wheat condition good. Livestock fair to good. Grazing closed with all livestock on supplemental feed.

NEBRASKA: Temperatures normal to 5° below normal. Panhandle precipitation less than 0.10 in.; elsewhere 0.25 to 0.50 in. Freezing rain 18th caused isolated power outages.

Livestock requiring heavy supplemental feeding.

NEVADA: Low pressure system brought precipitation. Temperatures near to slightly above normal. Extremes: 60 and -12°.

Supplemental feeding continued heavy; supplies adequate. Livestock mostly good condition.

NEW ENGLAND: Temperatures 4 to 8° subnormal early week, 15 to 25° below normal midweek, near normal end of week. Low density snow, 17th and 18th, water content 0.30 to 0.50 in. most areas. Snow, sleet, freezing rain and rain 20th and 21st. Water content averaged 2.00 to 3.00 in.

NEW JERSEY: Temperatures 4 to 8° below normal; 21° north, 27° south, and 30° coastal. Extremes: 0 and 59°. Precipitation excessive; 2.97 in. north, 2.90 in. south, and 2.71 in. coastal. Light snow mostly inland sections 17th. Snow depth 1 to 3 in.

Farmers caring for livestock and tending to other winter chores.

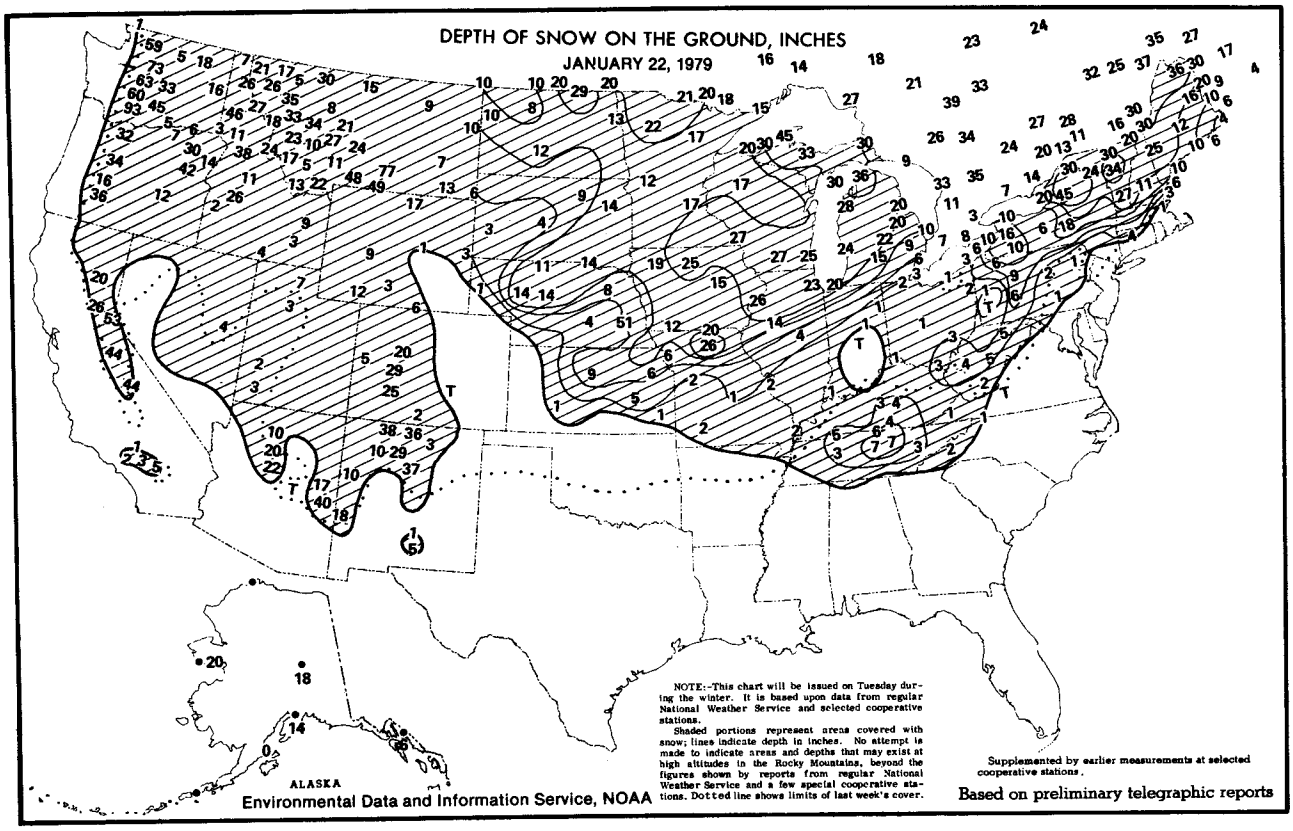
NEW MEXICO: Almost daily snows northern mountains and showers lower elevations and south through 18th. Several precipitation totals to more than 1.00 in.

More moisture over most of state. Cotton and pecan harvest still slow due to weather. Wheat and barley good. Livestock fair with supplemental feeding necessary.

NEW YORK: Very cold weather held average temperature 5 to 10° below normal before warmer air moved into the area over weekend. Precipitation was well above normal ranging from 1.00 in. in west to almost 5.00 in. near New York City.

NORTH CAROLINA: Temperatures 2 to 5° subnormal. Precipitation 1.00 in. east; elsewhere 1.00 to 3.00 in.

Fieldwork: 2.9 days suitable. Soil moisture adequate. Condition of small grains fair to good.



Pastures fair. Supplies hay and roughage mostly adequate to surplus. Feed grains adequate.

NORTH DAKOTA: Temperatures well below normal beginning of week to above normal weekend. Extremes: 35 to -35°. Moisture ranged from a trace southwest to 0.80 in. southeast. Snowfall above 4 in. portions of south central.

Farmers welcomed return to more seasonal temperatures weekend. Higher temperatures also brought additional snowfall to portions of eastern half, which again hindered travel and slowed farm activities. Pastures closed and heavy livestock feeding continued. Both feed supplies and livestock appear to be holding up well.

OHIO: Cold weather continued. Highs 4 to 8° below normal and average temperatures ran 2 to 4° below normal. Extremes: 49 to -4°. Precipitation widespread but totals 0.10 to 0.30 in. below normal. Some heavier rain in parts of south. Totals 0.12 to 1.15 in.

Industry preparing for seasonal Valentine flower demand. Farm activities limited to repairing machinery, spreading manure.

OKLAHOMA: Temperatures normal to 2° above normal in Panhandle and from normal to 5° below normal elsewhere. Precipitation fell several times as snow with scattered thunderstorms 18th. Most areas averaged more than 0.50 in.; amounts ranged from 0.23 in. Panhandle to 1.57 in. south central.

Old snowcover melted allowing renewed grazing on wheat pasture as ground firms. Livestock in good condition.

OREGON: Temperatures from near to 5° below normal except 10° below normal in northeast. Maximums occurred first of week and were in 40's and lower 50's west; 30's and lower 40's east. Minimums generally in 20's west of Cascades and generally 5° below to 5° above normal. Precipitation occurred at first half of week ranging from 0.40 to 0.80 in. Elsewhere precipitation 0.20 to 0.40 in.

Another cold week; some moisture early, clearing but cold latter part of week. Fieldwork nil. Livestock feeding main chore on livestock farms. Feeding heavy, but supplies good. Storage supplies of potatoes and onions continue to move into processing and fresh market. Onion quality fair to good.

PENNSYLVANIA: Cold, wet; light snow midweek. Major ice storm weekend. Power lines, tree limbs downed, traffic snarled. Small stream flooding southeast 21st. Weekly precipitation 3.00 in. southeast corner to under 0.50 in. northwest. Snowcover trace southeast and southwest corners up to 12 to 15 in. north central mountains and Poconos. Temperatures 2 to 4° below normal southeast; 6 to 10° below elsewhere. Extremes: 56 and -15°.

Normal winter chores.

PUERTO RICO: Island average rainfall 0.44 in. or 0.33 in. below normal. Temperatures averaged about 76° on coasts and 71° interior. Extremes: 90 and 45°.

SOUTH CAROLINA: Temperatures near normal, midweek above normal. Northwest rainfall heavier than usual, near normal elsewhere. Freezing rain early in north central, freezing rain or snow later in higher elevations.

Disking crop residue, soil sampling, liming, pruning fruit trees, grape vines main activities.

SOUTH DAKOTA: Temperatures warmed from extremely cold conditions of past 3 weeks. Readings 8 to

19°; 3° above to 6° below normal. Extremes: -30 and 46°. Precipitation greatest in east, 0.25 to 0.50 in. West generally received less than 0.10 in. Snowcover in eastern third, 8 in. or more; southwest and northwest, 8 to 12 in.; elsewhere, 4 to 6 in.

TENNESSEE: Precipitation 6 of 7 days. Rain each day until weekend when rain changed to snow. Snow up to 5 in. Total precipitation for week 2.00 in. west, 3.50 in. east. Temperatures below normal, highs in 40's, lows 30's.

Soil moisture surplus. Small grains and pastures fair. Cattle good. Main activities general chores and care of livestock.

TEXAS: Fair weather early week; dense fog 16th mixed drizzle over eastern half. Cold front 18th showers, thunderstorms over east. Temperatures much below normal. Rainfall near normal central, western areas; much above normal eastern third.

Wheat, oat stands little or no growth as cold temperatures continued. Grazing sharply curtailed, result cold January weather. Cotton harvest resumed scattered localities High, Low Plains toward end of week. Wet weather southern half brought seedbed preparation to halt. Cotton harvest continued to lag behind schedule. Gins worked off backlogs, trailers available. Wheat mostly dormant stage High, Low Plains; grazing short. Most stands appear to have vigor to recover from freeze damage. Oats moderate to heavy freeze damage from recent cold, icy weather. Heaviest damage occurred central, south on tender, late planted stands. Warmer weather saw many fields showing signs of recovery but some stands lost.

Fresh movement of grapefruit and oranges underway again, as shipping holiday expired 18th. Most remaining oranges for fresh market will be Valencias as mid-season varieties go to processors. Harvest fallen fruit continued. Strong winds 19th and 20th increased fruit droppage among citrus. Carrot, cabbage, lettuce harvests active. Coastal Bend watermelon planting active.

Small grain pastures, ranges and permanent pastures,,continued decline from recent freezes. Lack of sufficient plant growth caused some cattle in north central and east to move from small grain fields to native pastures as supplemental feeding became necessity. Many winter pastures in southeast saturated and remaining forage deteriorating. Livestock fair to good condition although shrinkage continued. Livestock in south and Trans-Pecos in good to excellent condition.

UTAH: Recurring snow; accumulations light to moderate but locally heavy. Rising temperatures to average between 5° below to 5° above normal.

Activities included caring for livestock; grading and marketing potatoes, onions and apples; repairing farm equipment.

VIRGINIA: Temperatures 3° below normal. Extremes: 67 and 5°. Rainfall 1.50 to 2.00 in. occurring as rain and freezing rain over weekend. Ice caused considerable damage to trees central and west.

Topsoil moisture adequate to surplus. Fieldwork: 1.7 days available. Frozen ground limited outside work to lime application in east and some plowing for potato seeding on Eastern Shore. Winter grains and grazing in good condition with Tidewater growers checking small grain fields for weeds and insects. Feeding and care of livestock a major activity. Livestock marketing active in most areas. Calving, lambing continued. Burley, fire-cured, sun-cured tobacco grading and selling active. Pruning fruit trees.

WASHINGTON: West: Temperatures 1 to 4° below normal. Precipitation ranged from 0.50 to 2.80 in. below normal.

Pruning caneberries. Moving manure to fields, feeding livestock. Some damage to winter planted seed crops from earlier freeze expected but berry plants look unaffected. Equipment repair major activity.

East: Temperatures 6° below normal. Precipitation 0.20 to 0.40 in. below normal.

Snow continued to accumulate providing protective cover for winter grain. Freeze level down to 5 feet in some areas. Some pruning continued. Calving and lambing underway with some losses to weather. Hay adequate.

WEST VIRGINIA: Temperatures 1° below normal central, 4° below normal elsewhere. Precipitation well above normal.

Fieldwork: 1.3 days suitable. Soil moisture adequate to surplus. Hay supply adequate. Grain and other supplies adequate. Farmers busy with calving and lambing. Fall sown grains doing well. Cattle in good condition.

WISCONSIN: Temperatures below normal. Week began very cold but moderated to more seasonal readings by weekend when highs reached upper 20's. Coldest morning 15th well below zero. Extremes: 29 and -25°. Precipitation above normal in frequent snowfalls. Fluffy snow of 3 to 5 in. south 15th, 1 to 2 in. central. Light snow 16th to 18th becoming heavier again 19th with 1 to 4 in. except extreme north. Snow mixed with freezing rain south. Light snow and freezing drizzle weekend. Snow depths greatest south where more than 24 in. on ground.

WYOMING: Temperatures below normal. High temperatures mid-30's to mid-40's. Minimum temperatures -1 to -28°. Precipitation generally below normal; many stations reporting zero or only trace.

Livestock producers feeding heavy; cold weather and continued snow making it difficult to care for livestock. Feed supplies are being used faster than normal. Livestock showing stress from cold and snow. Winter wheat snow covered most areas, may have some winterkill in some areas.

World Weather and Crop Update

January 15 - 21

USSR. Only in the western two-thirds of the Ukraine and along the western Soviet border did precipitation exceed 5 mm. Amounts ranged up to 40 mm in the southern Ukraine and left adequate snowcover on wheatfields previously bared by warm temperatures. Some locations in the southeastern Ukraine still have only a light snowcover, but minimum temperatures remained above -15°C nearly everywhere throughout the week.

PEOPLE'S REPUBLIC OF CHINA. Precipitation in the southeast tapered off to near normal, further enhancing above-normal totals of the previous three weeks. The outlook for spring planting is much improved. Wheat growing areas continued to have nearly rainless weather, but reports indicated that the crop is in satisfactory condition. Some cold waves have advanced over the wheat belt, and temperatures as low as -15°C were recorded near Peking. No damage to the crop was anticipated.

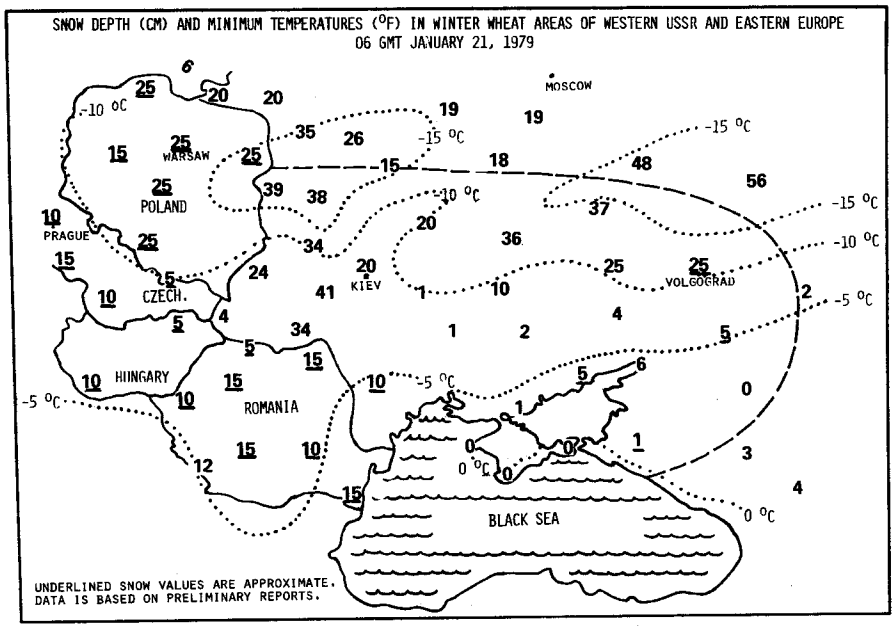
AUSTRALIA. Much-above-normal rain of 30 to 40 mm fell over crop areas in southeastern Australia ending a dry spell that had persisted since late November. Although beneficial to the wheat harvest, other crops---sorghum being the most important---lagged in development because of dryness; these rains will help immensely.

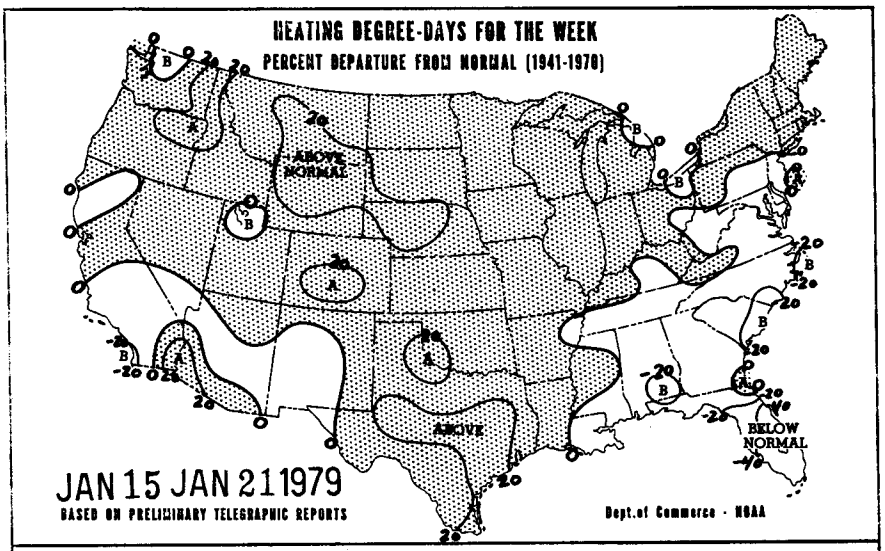
INDIA. A large portion of northern India received much-above-normal precipitation of 15 to 25 mm, with maximum values of 60 mm in two locations. These were very timely rains for the wheat crop in the plains. Reports from mountainous areas to the north were scarce, but indications pointed to substantial amounts of snow, improving the outlook for availability of water in the springtime.

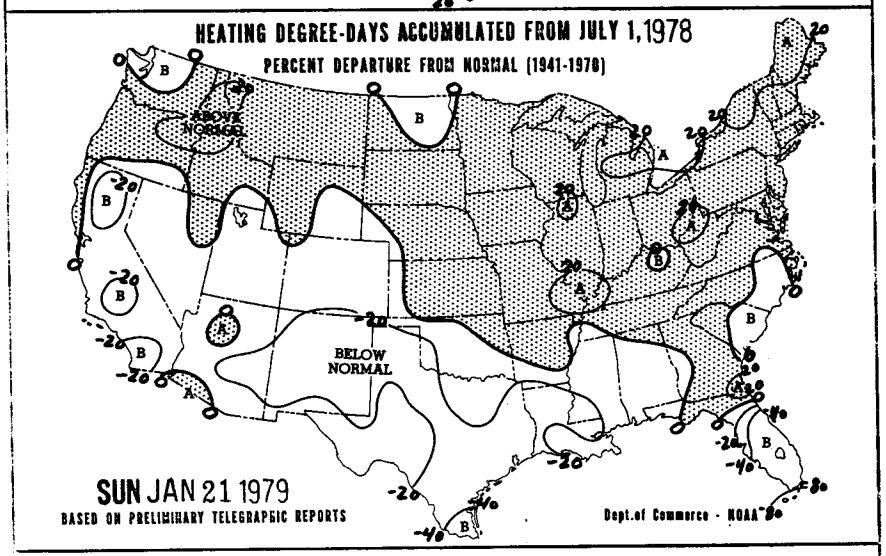
AFRICA. The Moroccan wheat crop got a boost from above-normal rains of 20 to 50 mm following three weeks of only light amounts. The outlook for the crop now is much more optimistic. Wheat areas to the east in Algeria and Tunisia continued to receive only light rainfall, but the crop should remain in good condition. South Africa's Maize Triangle saw abundant rainfall of 20 to 60 mm over nearly the entire region. This was the greatest quantity of widespread precipitation yet to fall during this growing season. In locations where conditions were marginal, the rains should substantially improve crop prospects. However, it was probably too late to save the crop in many southwestern areas. Unofficial South African estimates still predict a 40 percent drop from last year's production.

EUROPE. Precipitation ranged both above and below normal over Europe, but readings showed no extreme totals. A near-stationary storm dropped above-normal amounts of 10 to 15 mm across Czechoslovakia and southern Poland. Totals of 5 to 10 mm to the west and south dipped below normal from last week's abundant precipitation. Most of Spain experienced much-above-normal precipitation of 30 to 60 mm, and wheat there should be in a much-improved condition. Variable totals of 10 to 30 mm in the United Kingdom neared normal.

SOUTH AMERICA. All major Brazilian soybean areas remained virtually rainless---the third consecutive dry week in Rio Grande do Sul and the second in Parana. Official opinions differ on the impact to the crop. USDA weather analysts figure conditions are not yet critical, but some decrease in yields has probably occurred. No relief is in sight. Most crop areas in Argentina also saw continued dry weather. Soil moisture in western corn areas should be quite adequate, and even in the east, conditions are not so dry as to cause much concern yet.




HEATING DEGREE-DAYS FOR THE WEEK
PERCENT DEPARTURE FROM NORMAL (1941-1978)
ABOVE NORMAL
ABOVE
BELOW NORMAL
JAN 15 JAN 21 1979
BASED ON PRELIMINARY TELEGRAPHIC REPORTS
Dept.of Commerce - NOAA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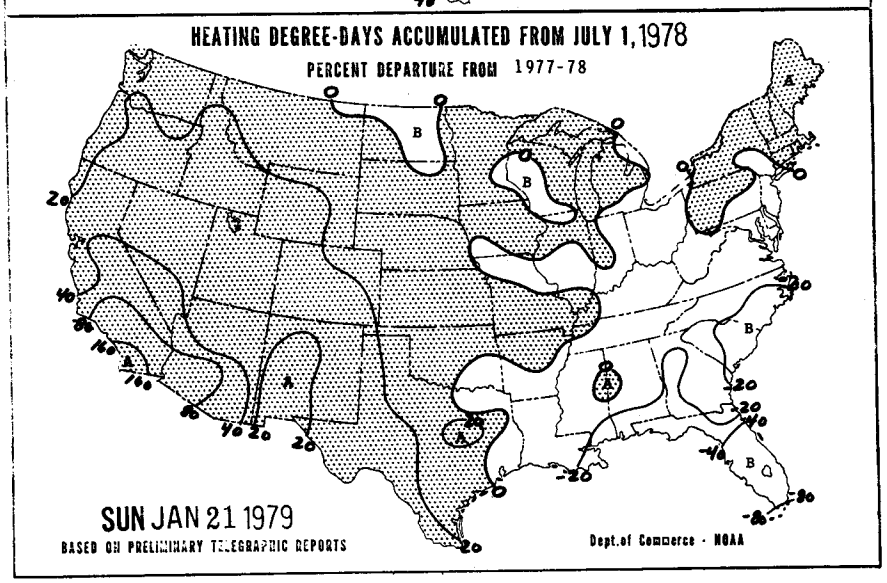
HEATING DEGREE-DAYS ACCUMULATED FROM JULY 1,1978
PERCENT DEPARTURE FROM 1977-78
SUN JAN 21 1979
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Dept.of Commerce - NOAA

HEATING DEGREE DAYS (BASE 65°) FOR WEEK ENDING JAN. 21, 1979.

STATES AND STATIONS	WEEKLY TOTAL	WEEKLY DEPARTURE*	SEASONAL ACCUMULATION + TOTAL	SEASONAL ACCUMULATION + DEPARTURE*	SEASONAL ACCUMULATION + DEPARTURE FROM 1977-78
ALA. BIRMINGHAM	138	-9	1529	-65	-231
MOBILE	87	-18	806	-139	-351
MONTGOMERY	105	-21	1037	-252	-202
ARIZ. FLAGSTAFF	265	6	3667	1	817
PHOENIX	78	-20	818	-63	452
TUCSON	90	-8	987	31	389
WINSLOW	199	-29	2627	39	548
YUMA	70	0	738	140	404
ARK. FORT SMITH	202	20	2063	-208	-7
LITTLE ROCK	195	16	1903	-46	43
CALIF. BAKERSFIELD	91	-32	1037	-205	477
EUREKA	136	10	2539	155	392
FRESNO	125	-13	1422	-34	426
LOS ANGELES	71	-6	684	-111	352
RED BLUFF	106	-33	1303	-124	224
SAN DIEGO	51	-21	541	-135	379
SAN FRANCISCO	119	0	1635	133	391
STOCKTON	127	-17	1568	78	534
COLO. DENVER	223	-25	3442	401	576
GRAND JUNCTION	265	-7	3631	572	994
PUEBLO	240	-6	3445	596	616
CONN. BRIDGEPORT	274	29	2617	48	118
HARTFORD	319	34	3493	293	370
DEL. WILMINGTON	262	31	2451	-46	-231
D.C. WASHINGTON	217	14	1916	-275	-176
FLA. APALACHICOLA	86	2	611	-139	-329
DAYTONA BEACH	28	-28	219	-251	-332
FORT MYERS	14	-14	75	-165	-220
JACKSONVILLE	93	16	776	41	-123
KEY WEST	0	-6	8	-15	-71
LAKELAND	22	-20	196	-158	-258
MIAMI	5	-7	39	-63	-94
ORLANDO	24	-19	175	-197	-226
TALLAHASSEE	92	1	848	-41	-266
TAMPA	25	-24	207	-166	-284
WEST PALM BEACH	6	-14	41	-112	-146
GA. ATLANTA	165	6	1465	-236	-387
AUGUSTA	142	9	1303	-133	-167
MACON	122	1	1123	-154	-263
SAVANNAH	103	-6	878	-226	-257
IDAHO. BOISE	297	42	3546	456	828
LEWISTON	296	55	3549	605	691
POCATELLO	294	-1	4172	496	990
ILL. CAIRO	248	45	2382	302	127
CHICAGO	334	47	3516	409	89
MOLINE	362	54	3850	535	183
PEORIA	336	45	3535	361	-8
ROCKFORD	379	64	3910	384	-27
SPRINGFIELD	317	46	3153	244	-29
IND. EVANSVILLE	251	23	2596	118	-26
FORT WAYNE	308	28	3294	122	-105
INDIANAPOLIS	283	23	2964	58	-5
SOUTH BEND	309	22	3297	35	-58
IOWA. BURLINGTON	352	54	3734	533	210
DES MOINES	348	26	3737	263	125
DUBUQUE	394	58	4201	434	-42
SIOUX CITY	376	43	4296	654	413
KANS. CONCORDIA	307	34	3274	324	138
DODGE CITY	279	38	3060	399	412
GOODLAND	247	17	3521	356	295
TOPEKA	310	49	3239	447	228
WICHITA	269	31	2868	359	281
KY. LEXINGTON	223	-3	2555	-67	-62
LOUISVILLE	239	15	2383	-75	-162
LA. BATON ROUGE	83	-22	915	-38	-140
LAKE CHARLES	78	-20	920	-84	-83
NEW ORLEANS	73	-18	747	-72	-185
SHREVEPORT	98	-28	1347	-131	-147
MAINE. CARIBOU	466	84	5134	284	252
PORTLAND	366	59	3833	139	90
MD. BALTIMORE	239	19	2275	-158	-120
MASS. BOSTON	283	31	2855	134	247
MICH. ALPENA	361	28	4046	-129	-226
DETROIT	331	44	3465	-239	-61
FLINT	364	63	3645	136	106
GRAND RAPIDS	339	45	3807	418	220
HOUGHTON LAKE	384	48	4451	283	178
LANSING	356	57	3667	217	-12
MARQUETTE	385	56	4454	392	306
MUSKEGON	343	56	3789	419	167
S. STE. MARIE	423	66	4886	373	86
MINN. DULUTH	418	19	5350	398	86
INTERNATL FALLS	481	33	6140	655	179
MINNEAPOLIS	391	18	4432	230	-133
ROCHESTER	420	49	4907	684	312
ST. CLOUD	424	25	5083	509	128
MISS. JACKSON	115	-15	1312	-27	-204
MERIDIAN	128	-1	1368	-1	-1
MO. COLUMBIA	271	19	2845	169	-14
KANSAS CITY	298	34	3090	368	-6
ST. LOUIS	283	45	2805	292	-71
SPRINGFIELD	255	29	2718	283	115
MONT. BILLINGS	328	21	4669	959	431
GLASGOW	428	29	5408	782	-17
GREAT FALLS	324	7	4752	859	48
HAVRE	416	34	5130	603	124
HELENA	388	54	5005	711	577
KALISPELL	390	64	5268	730	555
MILES CITY	375	22	4826	719	104
MISSOULA	352	38	4991	763	802
NEBR. GRAND ISLAND	344	43	3986	631	479
LINCOLN	345	42	3724	457	87
NORFOLK	356	29	4112	482	225
NORTH PLATTE	338	44	4399	875	563
OMAHA	320	19	3468	297	13
VALENTINE	352	37	4507	752	342
NEV. ELY	291	-1	4242	293	799
LAS VEGAS	142	-5	1448	-46	463
RENO	214	-19	3403	264	761
WINNEMUCCA	232	-27	3585	129	799
N.H. CONCORD	354	41	4072	357	84
N.J. ATLANTIC CITY	257	33	2585	119	170
TRENTON	252	21	2404	-71	-171
N. MEX. ALBUQUERQUE	169	-41	2251	-120	174
ROSWELL	137	-52	2128	0	566
N.Y. ALBANY	360	53	3736	259	309
BINGHAMTON	343	42	3706	-82	-25
BUFFALO	343	55	3481	116	131
NEW YORK	269	38	2468	-82	-69
ROCHESTER	336	49	3367	77	94
SYRACUSE	348	58	3463	199	141
N.C. ASHEVILLE	196	7	2062	-203	-354
CHARLOTTE	175	14	1637	-130	-189
GREENSBORO	201	19	1965	-111	-321
HATTERAS	148	8	1042	-258	-218
RALEIGH	170	0	1677	-229	-393
WILMINGTON	127	-6	1067	-243	-303
N.DAK. BISMARCK	407	2	5206	528	3
FARGO	425	5	5335	551	72
WILLISTON	407	4	5375	607	-2
OHIO. AKRON-CANTON	308	35	3213	78	-36
CINCINNATI	269	31	2786	-151	-276
CLEVELAND	294	29	2980	-77	-102
COLUMBUS	284	27	2961	-2	-97
DAYTON	280	21	2981	74	-123
TOLEDO	325	41	3457	206	-74
YOUNGSTOWN	308	35	3262	44	8
OKLA. OKLAHOMA CITY	188	-11	2203	195	94
TULSA	214	13	2211	205	26
OREG. ASTORIA	180	6	2873	218	312
BURNS	304	24	4269	522	728
MEDFORD	202	1	2727	148	481
PENDLETON	291	56	3689	868	547
PORTLAND	204	14	2894	407	509
SALEM	195	9	2863	381	462
PA. ALLENTOWN	293	34	2908	-48	-31
ERIE	336	56	3321	6	-28
HARRISBURG	272	27	2507	-212	-283
PHILADELPHIA	252	21	2378	-81	-283
PITTSBURGH	298	39	3191	133	135
SCRANTON	324	51	3399	203	163
R.I. PROVIDENCE	297	38	3064	156	160
S.C. CHARLESTON	117	-2	945	-244	-229
COLUMBIA	129	-9	1196	-264	-454
GREENVILLE	180	19	1678	-64	-107
S.DAK. ABERDEEN	394	2	4943	-469	-57
HURON	386	15	4681	505	120
RAPID CITY	339	33	4345	658	209
SIOUX FALLS	390	30	4563	483	34
TENN. CHATTANOOGA	191	16	1782	-155	-278
KNOXVILLE	199	31	1878	-26	-228
MEMPHIS	171	-2	1700	-84	-35
NASHVILLE	206	17	2015	-3	-232
TEXAS. ABILENE	115	-36	1639	183	131
AMARILLO	155	-48	2624	401	437
AUSTIN	77	-35	1178	203	185
BEAUMONT	71	-27	868	-18	-30
BROWNSVILLE	26	-29	420	78	81
CORPUS CHRISTI	43	-27	616	101	73
DEL RIO	89	-14	1035	110	228
EL PASO	142	-9	1482	-110	195
FORT WORTH	116	-27	1474	-167	-9
GALVESTON	61	-23	700	-74	-15
HOUSTON	68	-30	957	-158	-95
LUBBOCK	145	-37	2120	-183	372
MIDLAND	134	-18	1858	372	482
SAN ANGELO	128	-5	1635	347	403
SAN ANTONIO	69	-36	1040	144	84
VICTORIA	54	-30	876	-201	-107
WACO	106	-20	1452	-307	-294
WICHITA FALLS	153	-14	1923	-314	-137
UTAH. SALT LAKE CITY	240	-19	3129	-24	704
VT. BURLINGTON	408	69	4197	277	215
VA. LYNCHBURG	226	30	2204	-46	-211
NORFOLK	181	13	1608	-158	-102
RICHMOND	204	13	1928	-165	-166
ROANOKE	223	22	2328	-49	-189
WASH. QUILLAYUTE	181	-5	3171	152	134
SEATTLE-TACOMA	164	-25	2665	-6	298
SPOKANE	331	51	4544	902	697
WALLA WALLA	246	18	3171	532	459
YAKIMA	281	15	3824	512	534
W. VA. BECKLEY	250	14	2680	-258	-318
CHARLESTON	230	18	2403	-37	-212
HUNTINGTON	242	25	2512	-66	-52
PARKERSBURG	276	52	2477	-39	-249
WIS. GREEN BAY	402	52	4525	436	223
LACROSSE	383	49	3965	140	-336
MADISON	390	47	4317	358	54
MILWAUKEE	344	22	3861	151	63
WYO. CASPER	282	-12	4683	870	799
CHEYENNE	233	-39	4054	440	403
LANDER	347	25	5202	1119	1313
SHERIDAN	358	46	4949	1008	527

BASED ON 1941-70 NORMALS. + ACCUMULATION FROM JULY 1, 1978.

Agricultural Weather Facility
USDA South Bldg., Room 1248
Washington, DC 20250

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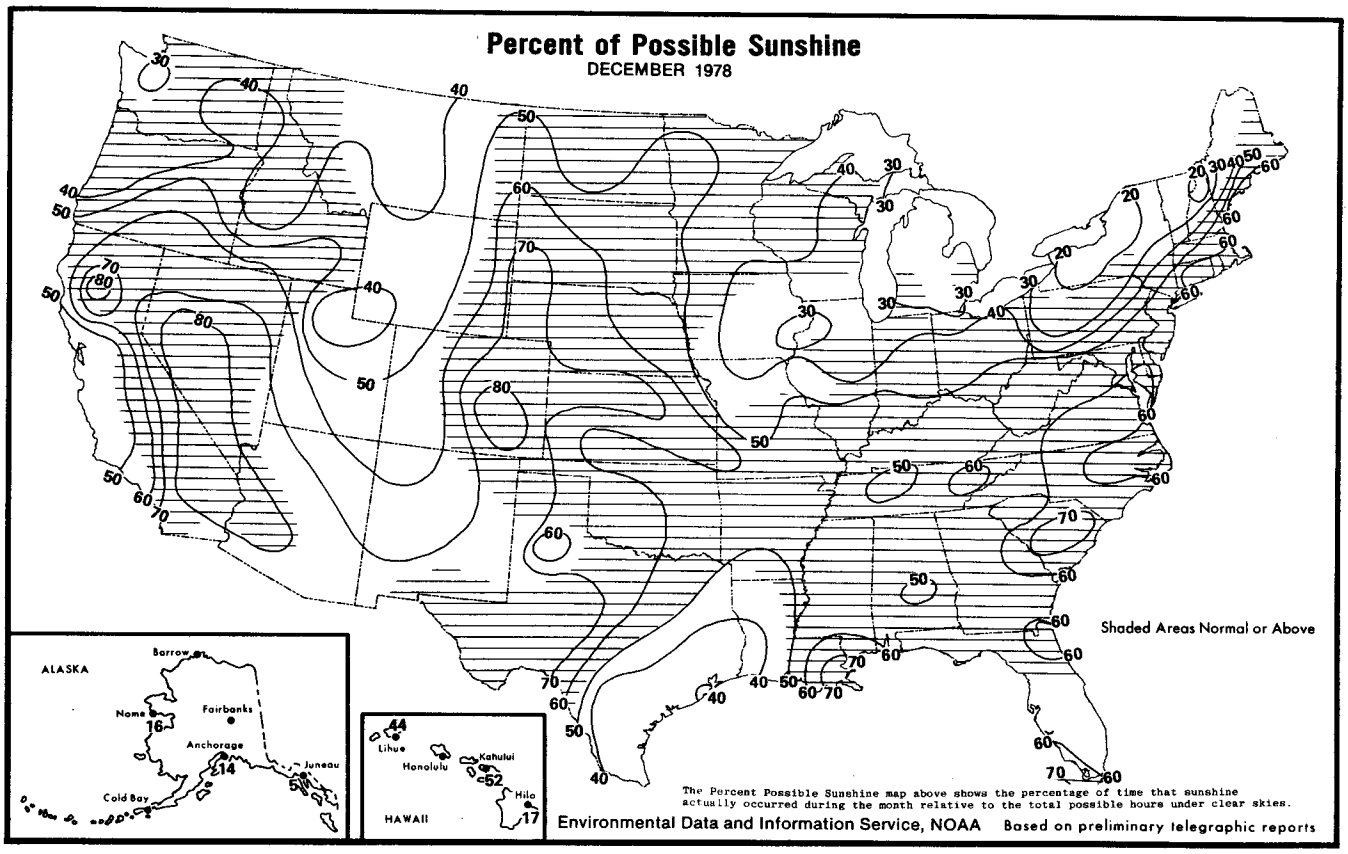
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