

Weekly Weather & Crop Bulletin

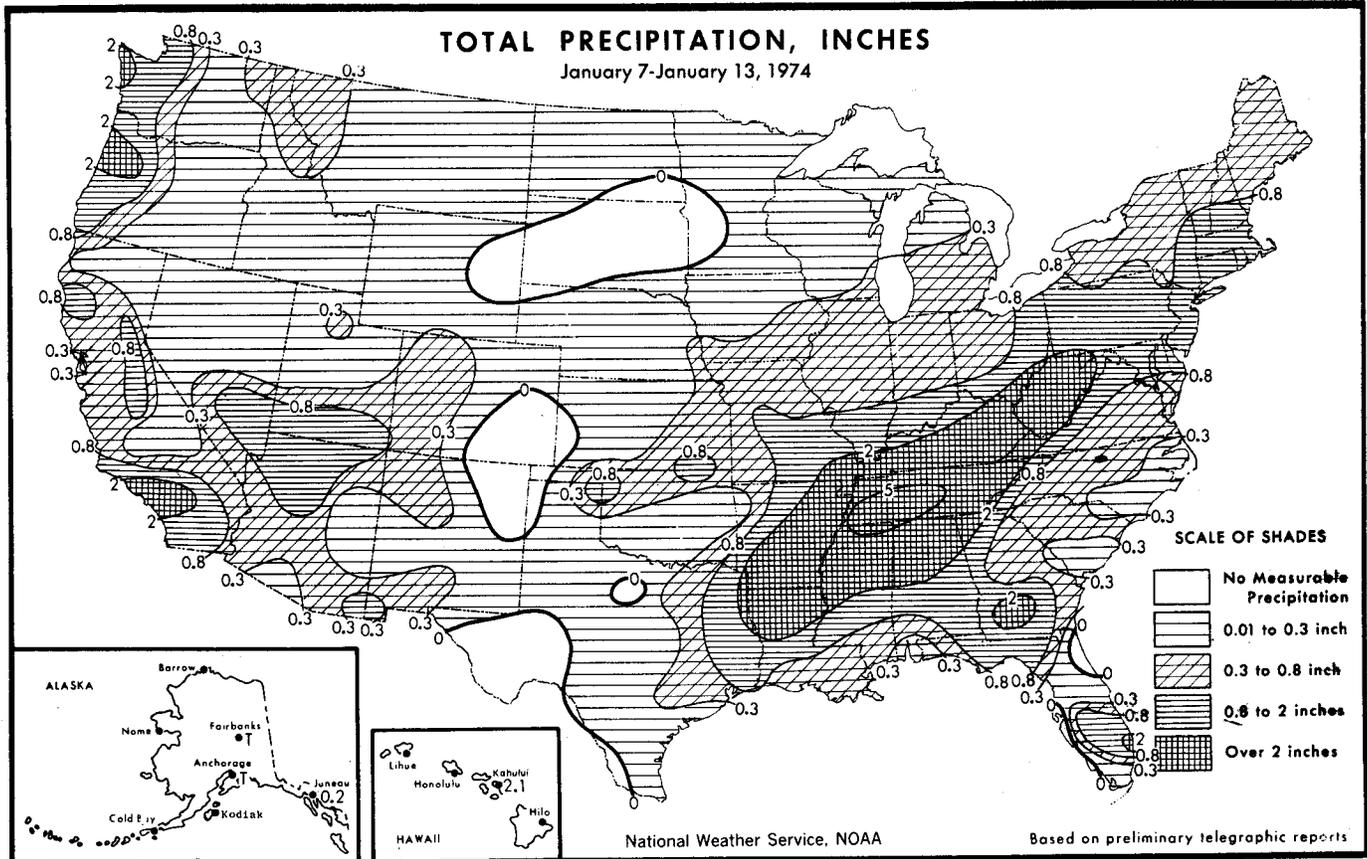
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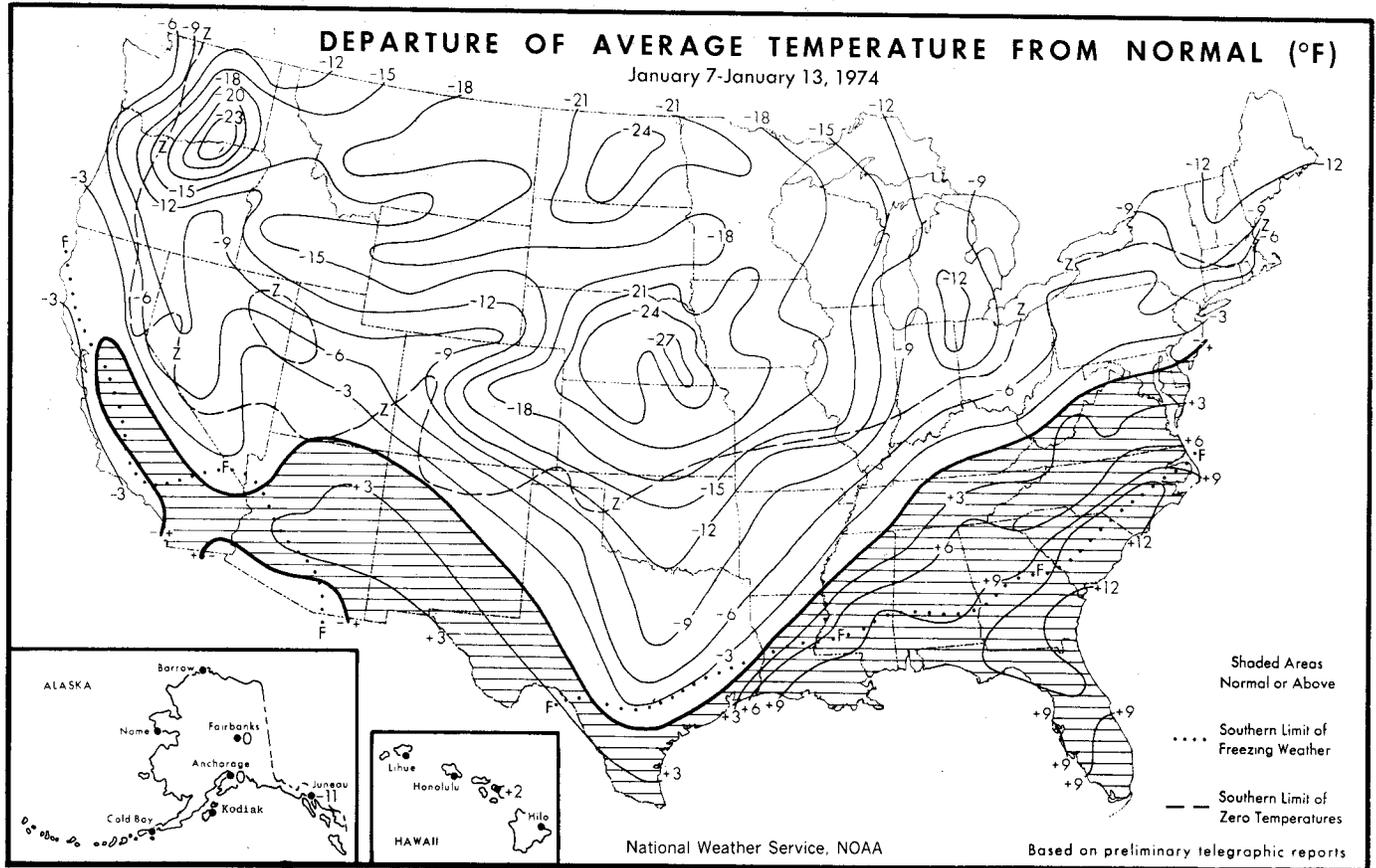
NATIONAL WEATHER SUMMARY

HIGHLIGHTS: Winter kept its tenacious grip on the Nation as nearly half the country shivered with below freezing temperatures for the entire week. On Saturday morning, Bismarck, N.D., reported a low of 42° below zero. Precipitation continued in the Southwest during the first half of the week and occurred throughout most of the week from Louisiana northeastward on both sides of the Appalachians.

PRECIPITATION: A Low off the coast of southern California at the beginning of the week caused heavy rains which gradually lessened by midweek. At the same time another Low moved from southern California eastward, carrying abnormal precipitation through the Southwest until it weakened and stalled in northeastern New Mexico. Heavy precipitation occurred throughout most of the week from Louisiana northeastward as a warm front extending eastward into the Gulf from a Low in southern Texas moved northward, causing a flow of warm moist air to override the cold polar air moving over the Nation from the north.

On Monday a Low off the coast of southern California dumped copious precipitation on the west side of the mountains as it moved eastward. By noon over 2 in. of rain had fallen in the Los Angeles area and less than 20 miles to the northeast, on top of Mt. Wilson, 8 in. of snow was added to the 36 in. base. Meanwhile, a warm front in the Gulf of Mexico had become stationary from below Texas to Louisiana while a cold front extended from there to a Low in North Carolina. Light rain fell on the Louisiana coast with showers occurring in the Southeast below the front.

Tuesday, the southern California storm moved inland spreading snow over much of the southern Plateau and the south half of the Rockies. However, it was much weaker than when it had caused flooding and mudslides in California and dumped an accumulated total of 6 ft. of snow atop Mt. Wilson. A weak Low remained stationary off southern California, causing some light rain to continue. The warm front in the Gulf began moving northward, triggering rain and thunderstorms. By late Tuesday, driv-



ing conditions were hazardous in the Ozarks and the lower portions of the Ohio and Tennessee Valleys, as freezing rains occurred in the cold air enveloping those areas.

On Wednesday a Low had moved to southern Lake Erie and a cold front extended southwest to northern Alabama, with a warm front to southern Arkansas and cold again to central Texas. This frontal system was the leading edge of a very cold mass of air which was pushing into and under the warm moist air flowing northward from the Gulf of Mexico. This situation caused considerable precipitation on both sides of the front, falling as heavy snow from Pennsylvania northward.

The frontal system moved very slowly east and south and, by Thursday morning, was centered in southwest Pennsylvania. Snow and ice covered much of the area from Texas to New England. As another push of cold air moved into Montana, blizzard conditions prevailed east of the Continental Divide.

The low center and frontal system continued their eastward movement on Friday and the rain, snow, and ice storms continued. Rain fell east of the front and south of the Low from Pennsylvania south and east of the Appalachians and snow fell in and west of the mountains and north of Pennsylvania.

By Saturday, the intense frontal system had moved out of the country, leaving cold weather over most of the Nation. Some snow was falling around the Great Lakes and in the central Rockies.

Precipitation was falling again in the Pacific Northwest on Sunday as a warming trend began.

TEMPERATURE: Extremely cold weather persisted over much of the Nation, although a warming trend seemed to be taking place as the week ended. About 80% of

the country reported average temperature for the week to be below normal. Only the southeastern and southwestern U. S. were normal or above.

Bismarck, N.D., seems to have been the coldest regular reporting station. The City started off the week with a low of 31° below zero and followed with 40° below as mercury froze in thermometers on Wednesday and again with 42° below on Saturday. The minimum was only 17° below on Sunday as a warming trend started, bringing temperatures up in the Central Plains and westward.

The extreme cold was ushered into the Nation on a mound of Arctic air which moved southward last week. On Monday it was centered in Missouri as the clockwise flow continued to bring in frigid Arctic air.

On Tuesday, Duluth, Minn., set a record low for the date with a minus 31°. Only Florida and the southern tip of Texas were warm on Tuesday. Key West had a low of 72° and Brownsville, Texas, recorded a low of 69°. Below freezing temperatures were reported on Wednesday into central Texas and into northern California.

Thursday the cold air moved even further south and the 10° maximum temperature line was down to southern Kansas and another cold High was poised in southern Canada just above North Dakota. The coldest temperature reported on Friday was 35° below zero at Havre, Mont., and the highest reported was a hot 91° at Kingsville, on the Texas Gulf Coast.

On Saturday, the 42° below zero reading at Bismarck was only 3° above the all-time record of minus 45° and was a record low for the date. All-time low records were reported at Lincoln, Nebr., with 33° below and at St. Joseph, Mo., with a minus 25°.

As the week ended on Sunday, the cold air moved eastward and the warming began over the Nation's midsection.

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Good snow cover protected the winter wheat crop from abnormal, subzero temperatures that prevailed for the second week in a row over much of the Nation, placing stress on livestock and increasing feeding requirements. Cold, wet weather in California slowed the citrus and vegetable harvests. The Texas cotton harvest neared completion.

SMALL GRAINS: Abnormal cold gripped most of the West and North Central United States for a second consecutive week, but a good cover of snow protected dormant winter wheat and other small grains from the subzero temperatures.

Wheat top growth in Kansas is short but little wind damage has occurred. The continued subnormal cold has restricted small grain growth in Oklahoma and ice and snow have hampered grazing. Soil moisture is critically short from the High Plains to the southern portion of Texas. Dryness coupled with the cold continued to depress Texas wheat and oat conditions.

Montana winter wheat remained in fair to good condition with only light wind damage. Crop reporters rated Washington fall seeded grain crops in good condition. Prospects for California small grains look good. In the South Central and South Atlantic States, winter grains are generally growing in good condition with adequate moisture.

COTTON: The Texas cotton harvest neared completion with 97% harvested, well ahead of the 83% harvested a year earlier. Shortages of trailers used to haul cotton to gins were reported in the northern Low Plains. While many farmers in north Texas continued to pick cotton last week, farmers in the opposite end of the State started irrigating seedbeds for the 1974 crop.

In southwest Oklahoma, some progress was made in harvesting cotton with some major producing counties now over 75% harvested. Rain thwarted Alabama growers' efforts to complete cotton picking. Continued cold, wet weather also delayed final harvest operations in California while most areas of Arizona and New Mexico are finished. Preplant preparations for the 1974 crop are underway in Yuma County, Ariz.

OTHER CROPS: Rain restricted harvest of the remaining soybean fields in Alabama and growers are pessimistic about getting the harvest completed. Corn and soybean harvesting neared completion in Georgia.

Tobacco plant bed preparation was active in Georgia and South Carolina. Dark-fired tobacco marketing continued in Virginia while final

burley sales were held in North Carolina and Kentucky.

Muddy fields hampered potato harvesting in southern California.

The Florida sugarcane harvest made rapid progress. Sugar beets in Arizona show good development.

FRUITS AND NUTS: Heavy rains in southern California delayed citrus harvesting. Picking continued where and when equipment could get into the groves. Naval oranges are in excellent condition but wet weather may cause water spots. Wet conditions also slowed the citrus harvest in Arizona.

In Florida, citrus harvesting for processing was very active. Trees remained in extremely good condition, although some new growth is vulnerable to cold weather and rain is needed.

The Texas citrus harvest gained momentum following the December freeze which left many trees defoliated and in varying conditions.

VEGETABLES: Cold, wet weather hindered vegetable harvesting in many areas of California. Broccoli, cauliflower, cabbage harvests were slowed. Lettuce harvesting continued in the Imperial Valley; some lettuce was damaged in the central coast area.

Wet weather also slowed lettuce and other vegetable harvesting in Arizona.

In Florida, the vegetable harvest for processing was very active and supplies of cabbage, celery, and sweet corn stepped up sharply. Tomatoes were in full volume, while peppers moved in good volume.

In the Lower Rio Grande Valley of Texas, lettuce which was immature during the December freeze shows little damage and is being harvested. Onions and carrots made good growth while cabbage harvesting continued. At Laredo, carrot and cabbage harvests continued. Spinach harvesting was back in full swing in the San Antonio-Winter Garden area and is underway in the Coastal Bend.

PASTURES AND LIVESTOCK: Stockmen in the West and North Central States were looking for a break in the two-week stretch of subzero temperatures that have pushed supplemental feeding rates up and weight gains down. The outlook brightened with a warming trend late Sunday. Feed supplies remained adequate and livestock held up in good condition although sickness and death losses have increased.

Most pastures in the mid-South were too wet to graze, but dryness limited wheat and oat grazing in northwest Texas. Snow cover protected most northern pastures.

Standard copy for the Weekly Weather and Crop Bulletin is prepared by: Richard E. Felch, Lyle M. Denny, Orus W. Byrd, National Weather Service, NOAA; Arlon M. Scott, Statistical Reporting Service, USDA.

Temperature and Precipitation Data for the Week Ending Midnight, l.s.t., Jan. 6, 1974

States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches	
	Average	Departure	Total	Departure		Average	Departure	Total	Departure		Average	Departure	Total	Departure
ALA.Birmingham . . .	50	+ 6	2.5	+1.4	La.Baton Rouge . . .	61	+10	.6	-.5	Youngstown . . .	18	- 8	.8	+.1
Mobile . . .	61	+10	.3	-.8	Lake Charles . . .	59	+ 7	.6	-.5	OKLA.Okla. City . . .	23	-13	.1	-.2
Montgomery . . .	55	+ 8	.8	-.1	New Orleans . . .	63	+10	.4	-.5	Tulsa . . .	21	-15	.2	-.2
ALASKA.Anchorage . . .	11	0	T	-.2	Shreveport . . .	42	- 5	2.2	+1.1	OREG.Astoria . . .	34	- 6	1.1	-1.6
Barrow . . .	---	---	---	---	MAINE.Caribou . . .	-3	-14	.4	-.1	Burns . . .	15	- 9	.2	-.2
Fairbanks . . .	-13	0	T	-.2	Portland . . .	12	-10	.7	-.3	Medford . . .	33	- 3	.7	0
Juneau . . .	12	-11	.2	-.7	MD.Baltimore . . .	31	- 2	1.2	+.4	Pendleton . . .	7	-24	.1	-.2
Kodiak . . .	---	---	---	---	MASS.Boston . . .	23	- 6	1.1	+.2	Portland . . .	26	-11	.9	-.4
Nome . . .	---	---	---	---	Chatham . . .	29	---	1.9	---	Salem . . .	27	-11	2.6	+1.0
ARIZ.Flagstaff . . .	28	+ 1	1.5	+1.0	MICH.Alpena . . .	9	- 9	.3	-.2	PA.Allentown . . .	24	- 4	1.6	+.9
Phoenix . . .	54	+ 3	.3	+.1	Detroit . . .	14	-11	.5	0	Erie . . .	21	- 4	.8	+.2
Tucson . . .	50	- 1	.6	+.4	Flint . . .	12	-10	.3	-.1	Harrisburg . . .	27	- 3	1.2	+.6
Winslow . . .	36	+ 4	1.1	0	Grand Rapids . . .	13	-10	.3	-.1	Philadelphia . . .	29	- 3	1.4	+.7
Yuma . . .	54	- 1	.4	+.3	Houghton Lake . . .	7	-11	.3	-.1	Pittsburgh . . .	23	- 5	1.3	+.6
ARK.Fort Smith . . .	30	- 8	.2	-.4	Lansing . . .	9	-14	.6	+.2	Scranton . . .	19	- 7	.8	+.3
Little Rock . . .	33	- 6	2.8	+1.6	Marquette . . .	4	-15	.1	-.3	R.I.Providence . . .	22	- 7	1.5	+.6
CALIF.Bakersfield . . .	50	+ 3	.2	-.1	Muskegon . . .	14	-10	.6	+.1	S.C.Charleston . . .	61	+13	.2	-.4
Eureka . . .	46	- 1	.3	-.8	S. Ste. Marie . . .	4	-10	.3	-.2	Columbia . . .	59	+14	.4	-.3
Fresno . . .	47	+ 2	.9	+.4	MINN.Duluth . . .	-11	-20	T	-.2	Greenville . . .	47	+ 5	.7	-.3
Los Angeles . . .	54	- 2	3.6	+3.0	Internatl Falls . . .	16	-18	T	-.2	S.D.Aberdeen . . .	-11	-20	T	-.1
Red Bluff . . .	42	- 2	.7	-.3	Minneapolis . . .	-7	-19	T	-.2	Huron . . .	-5	-17	T	-.1
San Diego . . .	56	+ 1	1.3	+.8	Rochester . . .	-7	-20	.1	-.1	Rapid City . . .	5	-17	T	-.1
San Francisco . . .	45	- 3	.3	-.6	St. Cloud . . .	-9	-18	T	-.2	Sioux Falls . . .	-6	-20	T	-.1
Stockton . . .	45	+ 1	.5	-.2	MISS.Jackson . . .	55	+ 8	1.8	+.7	TENN.Chattanooga . . .	46	+ 6	3.0	+1.7
COLO.Denver . . .	12	-18	.1	0	Meridian . . .	56	+ 9	1.7	+.7	Knoxville . . .	44	+ 4	3.1	+2.0
Grand Junction . . .	18	- 8	.4	+.2	MO.Columbia . . .	11	-18	.6	+.2	Memphis . . .	37	- 3	5.0	+3.6
Pueblo . . .	14	-15	T	-.1	Kansas City . . .	5	-22	.4	+.1	Nashville . . .	39	+ 1	4.6	+3.4
CONN.Bridgeport . . .	25	- 5	1.6	+.8	St. Louis . . .	15	-16	.9	+.4	TEX.Abiene . . .	36	- 7	T	-.2
Hartford . . .	19	- 6	1.6	+.8	Springfield . . .	22	-10	.7	+.3	Amarillo . . .	30	- 5	.1	0
D.C.Washington . . .	36	+ 1	1.0	+.4	MONT.Billings . . .	6	-15	.2	+.1	Austin . . .	42	- 7	.1	-.5
FLA.Apalachicola . . .	64	+11	.6	-.1	Glasgow . . .	-10	-19	.1	0	Beaumont . . .	56	+ 4	1.2	+.2
Daytona Beach . . .	70	+12	0	+.3	Great Falls . . .	3	-17	.5	+.3	Brownsville . . .	64	+ 4	.1	-.3
Ft. Myers . . .	73	+10	0	-.3	Havre . . .	-7	-18	.1	0	Corpus Christi . . .	57	+ 1	.1	-.3
Jacksonville . . .	65	+11	T	-.5	Helena . . .	-3	-20	.1	0	Dallas . . .	---	---	---	---
Key West . . .	77	+ 7	T	-.4	Kalispell . . .	4	-14	.4	+.1	Del Rio . . .	53	+ 3	T	-.2
Lakeland . . .	71	+10	1.0	+.5	Miles City . . .	-1	-16	T	-.1	El Paso . . .	46	+ 3	.3	+.1
Miami . . .	74	+ 7	T	-.5	Missoula . . .	4	-16	.3	+.1	Fort Worth . . .	35	- 9	.4	0
Orlando . . .	71	+11	.1	-.4	NEBR.Grand Island . . .	-1	-23	.1	0	Galveston . . .	55	+ 1	.1	-.8
Tallahassee . . .	65	+13	1.7	+1.0	Lincoln . . .	-5	-27	.2	0	Houston . . .	52	0	.6	-.3
Tampa . . .	70	+ 8	T	-.5	Norfolk . . .	-7	-26	T	-.2	Lubbock . . .	37	- 2	.1	0
W.Palm Beach . . .	74	+ 8	2.1	---	N.Platte . . .	-2	-25	T	-.1	Midland . . .	44	+ 1	T	-.2
GA.Atlanta . . .	50	+ 8	.6	-.3	Omaha . . .	-3	-23	.4	+.2	San Angelo . . .	44	- 2	T	-.2
Augusta . . .	56	+10	.1	-.6	Valentine . . .	0	-20	T	-.1	San Antonio . . .	47	- 3	.3	-.1
Macon . . .	57	+ 9	.7	-.1	NEV.Ely . . .	21	- 2	T	-.2	Victoria . . .	53	0	.1	-.5
Savannah . . .	60	+10	.4	-.2	Las Vegas . . .	41	- 3	.6	+.5	Waco . . .	38	- 9	.2	-.4
HAWAII.Hilo . . .	---	---	---	---	Reno . . .	24	- 7	T	-.3	Wichita Falls . . .	32	- 9	.1	-.1
Honolulu . . .	---	---	---	---	Winnemucca . . .	20	- 7	.1	-.1	UTAH.Blanding . . .	25	- 1	1.0	+.7
Kahului . . .	74	+ 2	2.1	+1.1	N.H.Concord . . .	11	-10	.8	0	Salt Lake City . . .	18	- 9	.4	+.1
Linue . . .	---	---	---	---	N.J.Atlantic City . . .	33	0	1.5	+.7	VT.Burlington . . .	6	-11	.4	0
IDAHO.Boise . . .	13	-15	.2	-.1	Trenton . . .	27	- 5	1.6	+1.0	VA.Lynchburg . . .	39	+ 3	.7	0
Lewiston . . .	14	-16	T	-.3	N.MEX.Albuquerque . . .	36	+ 1	.4	+.3	Norfolk . . .	45	+ 4	.7	0
Pocatello . . .	7	-15	.2	-.1	Roswell . . .	38	+ 1	.1	0	Richmond . . .	41	+ 4	.7	-.1
ILL.Cairo . . .	28	- 8	2.0	+1.1	N.Y.Albany . . .	13	- 9	.9	+.4	Roanoke . . .	40	+ 4	.8	+.1
Chicago . . .	12	-12	.7	+.3	Binghamton . . .	18	- 4	.9	+.3	WASH.Colville . . .	11	-11	.3	-.1
Moline . . .	3	-18	.5	+.1	Buffalo . . .	16	- 8	.6	0	Omak . . .	6	-15	.1	-.2
Peoria . . .	7	-17	.5	0	New York . . .	28	- 4	1.1	+.3	Quillayute . . .	34	- 4	3.2	-.4
Rockford . . .	6	-14	.4	0	Rochester . . .	16	- 8	.7	+.2	Seattle-Tacoma . . .	33	- 5	1.1	-.2
Springfield . . .	10	-16	.4	-.1	Syracuse . . .	16	- 8	.3	-.4	Spokane . . .	7	-17	.4	-.2
IND.Evansville . . .	25	- 7	1.1	+.3	N.C.Asheville . . .	43	+ 5	.5	-.2	Walla Walla . . .	9	-23	.2	-.3
Ft. Wayne . . .	13	-12	.7	+.1	Charlotte . . .	47	+ 5	.6	-.2	Yakima . . .	8	-18	.2	-.1
Indianapolis . . .	20	- 8	.8	+.1	Greensboro . . .	43	+ 4	.5	-.3	W.Va.Beckley . . .	34	+ 3	3.3	+2.3
South Bend . . .	16	- 8	.7	+.2	Hatteras . . .	54	+ 9	.2	-.8	Charleston . . .	32	- 2	2.5	+1.5
IOWA.Burlington . . .	5	-18	.4	+.1	Raleigh . . .	48	+ 8	.6	-.1	Huntington . . .	30	- 4	3.2	+2.4
Des Moines . . .	0	-19	.3	0	Wilmington . . .	58	+12	.3	-.3	Parkersburg . . .	28	- 5	2.6	+1.9
Dubuque . . .	1	-16	.3	-.1	N.DAK.Bismarck . . .	-16	-24	T	-.1	WIS.Green Bay . . .	0	-16	.2	-.1
Sioux City . . .	-2	-20	.1	-.1	Fargo . . .	-13	-19	T	-.1	La Crosse . . .	-2	-18	.1	-.2
KANS.Concordia . . .	3	-23	.2	+.1	Williston . . .	-12	-20	T	-.1	Madison . . .	1	-16	.2	-.2
Dodge City . . .	11	-19	T	-.1	OHIO.Akron-Canton . . .	19	- 7	1.0	+.3	Milwaukee . . .	8	-11	.6	+.2
Goodland . . .	8	-19	.1	0	Cincinnati . . .	25	- 6	1.0	+.3	WYO.Casper . . .	9	-14	0	-.1
Topeka . . .	4	-23	.5	+.2	Cleveland . . .	20	- 7	.8	+.2	Cheyenne . . .	17	- 9	.2	+.1
Wichita . . .	11	-20	.3	+.1	Columbus . . .	22	- 6	.7	0	Lander . . .	3	-16	.1	0
KY.Lexington . . .	31	- 2	3.5	+2.4	Dayton . . .	21	- 7	.6	-.1	Sheridan . . .	2	-18	T	-.2
Louisville . . .	29	- 4	1.8	+1.0	Toledo . . .	14	-11	.5	0	P.R.San Juan . . .	78	+ 2	.6	-.5

CONDENSED STATE SUMMARIES

The Bulletin capsulizes nationally important weather and crop conditions. Every Monday SRS publishes more detailed data in State Weekly Weather and Crop Bulletins in cooperation with the National Weather Service, NOAA. Voluntary weather observers, crop reporters, and county extension agents contribute weekly observations for these reports.

ALABAMA: Warmer temperatures with scattered showers through most of week. Temperatures 20° above normal Thursday and Friday. Rain increased Thursday and Friday, 1.00 to 2.00 in. north. Sharply colder and clearing Saturday and Sunday. Lows mid-20's north early Sunday, mostly 30's south.

Rain limited farm activities to care of livestock and routine chores. Harvest remaining cotton and soybeans made insignificant progress. Growers pessimistic about getting remaining production out of fields. Small grains and winter grazing crops remained good, but most fields too wet to graze. Wet ground delayed nitrogen application many localities. Livestock fair to good despite rainy weather.

ARIZONA: Stagnation of upper level low pressure along California coast provided moderate, heavy precipitation first half of week. Snow level about 3,000 ft. Moisture ranged from 0.10 in. lower Colorado River Valley to 2.33 in. White Mountains. New snowfall ranged to about 2 ft. parts of Mogollon Rim and White Mountains with snow cover up to 4 ft. Temperatures close to normal statewide, coldest Friday, Saturday dropping to 10° below zero in White Mountains and middle 30's in Salt River Valley. Warmest Sunday with 70's in southern valleys and 50's White Mountains.

Cotton harvest complete many areas, pre-plant preparations for 1974 underway, Yuma County. Sorghum harvest complete Graham County, good yields. Sugar beets Yuma County good development. Small grain, safflower growth normal. Alfalfa hay harvest continued at low rate. Lettuce harvest continued Yuma area as field conditions permitted. Harvest central areas virtually complete. Mixed vegetable harvest active central, west conditions permitting.

Muddy groves limited harvest lemons, grapefruit Yuma and Salt River Valley. Harvest Navel oranges, sweet oranges Salt River Valley almost complete; groves good condition. Minimal freeze damage reported. Ranges received rain, snow early in week. Most ranges remain dry, need additional precipitation for growth of spring feed. Stockwater adequate. Cattle, calves generally good to fair. Sheep, lambs fair. Docking, castrating, branding new-crop lambs active.

ARKANSAS: Temperatures 5° to 12° subnormal. Largest departures northcentral. Means from mid-20's north to near 40's south. Extremes: 65° El Dorado 8th and 9th, 7° Harrison 12th. Warmer early week, colder midweek and little warmer weekend. Precipitation in excess of 2.00 in. southeast half with largest total 4.91 in. at El Dorado. In northwest half amounts ranged from 0.12 in. at Harrison and Calico Rock up to almost 2.00 in. Most precipitation fell mid and late week.

Cold weather and frozen fields kept field activity to a minimum. Livestock good. Only limited grazing on fescue pastures. Most livestock on supplemental feed.

CALIFORNIA: Cold, Arctic air during first weekend in January produced near to record rainfall

over southern portion. Extremely cold air drove most second January week average temperatures from several to as much as 23° below normal some areas. Main exception San Joaquin Valley which was near normal. Heavy precipitation pushed season totals to nearly 200% of normal-- all areas except south-east interior and southern portion San Joaquin Valley.

Rain restricted activities. Small grain prospects good. Final harvest cotton delayed. Continued cold, wet weather last week slowed normal winter activities throughout State. Heavy rains south delayed citrus harvest. Dormant spraying, pruning deciduous fruit, nut, grape crops underway as weather permitted. Harvest Navel oranges continued where pickers, equipment could get into groves. Fruit excellent condition, but wet weather may cause water spots. Rains slowed lemon harvest San Joaquin, desert valleys. Santa Barbara, Santa Paula areas got heavy rain, some caused some damage to fruit. Harvesting grapefruit, tangerines continued as weather permitted.

Artichokes seasonal, broccoli light, due to rains. Cauliflower down, with some losses due to muddy fields. Cabbage slow, bad weather. Carrots, seasonal Kern County, down due to rains Riverside County. Celery strong south coast. Lettuce continued in Imperial Valley, some damage central coast. Potatoes hampered by muddy fields south.

Heavy rains, cold stopped range grass growth. Supplemental feeding heavy. Lambing progressing with a number of losses due to predators and cold. Water supplies adequate. Bees being moved to almond orchards.

COLORADO: Another week of extreme cold. Temperatures east of divide averaged from 15° to 27° subnormal, elsewhere subnormal but not as extreme. Almost continuous below zero minimums and maximums of zero to 15° above over eastern plains. Most snow fell over Colorado River Basin which includes mountains and west with average of almost 1.00 in. moisture. Light amounts snow fell elsewhere.

Farm activities generally limited feeding and care livestock. Moderate to heavy snow west slope brought welcome moisture dryland areas. Livestock generally good condition although extreme cold caused stress. Feed supplies adequate.

FLORIDA: Temperatures much above normal. Generally moderate precipitation amounts over panhandle but none to light amounts elsewhere. Soil moisture excessive extreme west, adequate in east and most central areas, short south and southwest. Harvest practically complete for all field crops. Sugarcane harvest making rapid progress, young plant and stubble cane in good condition. Small grains making normal growth. Pastures and livestock mostly good.

Citrus tree condition very good most areas-- some new growth vulnerable to cold--rain needed again--some irrigation. Harvest for processing very active. Tomatoes in full volume. Cabbage, celery, sweet corn up sharply. Peppers in good volume. Escarole, lettuce, other leafy crops in seasonal supply. Winter supplies radishes, egg-

plant, available. Potato, strawberry volume increased slightly.

GEORGIA: Cool northeast to warm entire State all week. Temperatures averaged 5° to 9° above normal north third, 11° to 14° above elsewhere. Rainfall heavy to excessive extreme north, none extreme south. Amounts 1.00 to 2.00 in. north-west and mountains, 0.50 to 1.00 in. central and north. Less than 0.50 to none far south and coast. Weekend clear with cold nights and cool days.

Soil moisture adequate to mostly excessive. Small grains fair to mostly good. Corn, cotton and soybean harvest neared completion. Tobacco bed preparation active. Pastures fair. Cattle good.

HAWAII: Strong winds on January 6 and intermittent winds thereafter caused extensive damage to banana orchards on Oahu. Damage to vegetable and orchard crops generally light on other islands. Accompanying rains drenched all areas of State. Excessive moisture caused spoilage losses to some crops. Wet fields limited farm operations. Banana supply to continue heavy until salvage harvest over. Papaya supply diminishing. Pastures good, ample forage. Cattle good. Wet soils slowed pineapple and sugar operations.

IDAHO: Cold Arctic air remained. Minimum temperatures below zero at most reporting stations. Highs ranged from 9° to mid-20's bringing temperatures from 16° to 27° below normal for the period. A drastic change in weather on weekend brought rising temperatures and snow, then rain to most of the State with danger of lowland flooding on some rivers in southwest and east.

Heavy feeding of livestock with subzero temperatures and snow covered fields present most of week. Lambing of farm flocks and early calving continued. Cold slowed movement of potatoes from farm storages.

ILLINOIS: Cold beginning and end of week, warming midweek. Temperatures 12° to 18° subnormal. Subzero readings north and central Monday, Tuesday, Saturday, Sunday. Precipitation light to moderate. Snowfall amounts 2 to 4 in. central and north Tuesday, Thursday. Main activities: Livestock care, routine farm chores.

INDIANA: Temperatures averaged 9° subnormal and ranged from 10° below zero at Fort Wayne on 13th to 40° southeast on 9th. Precipitation 0.50 to 1.00 in., heaviest Southeast. Snow cover ranges from ice cover South to 1 ft. North. Soils frozen few inches. Snow removal continued as major activity of farmers. Other work confined to caring for livestock and chores. Winter grains and pastures protected from extreme cold by heavy snow cover most areas.

IOWA: For second consecutive week, temperatures averaged 20° subnormal. Precipitation averaged subnormal north to near or slightly above south. Snow cover statewide averaged 7 in. Iowa experienced one of its coldest mornings in history on the 12th with 20° below zero or below statewide. Atlantic reported 37° below zero for coldest reading. Cold spell ended at week's end with sharp warming over State.

KANSAS: Intense cold with record low temperatures northeast and northcentral. Temperatures averaged from 5° subnormal northwest to 25° subnormal south-central and northeast. Intermittent snows, most significant east portion where 2 to 4 additional

inches accumulated with local amounts 5 to 7 in. Freezing precipitation southeast and extreme east.

Rough week for livestock. Intensive cold and snow caused heavy supplemental feeding, slowed rates of gain, increased death loss of newborn livestock and increased sickness in replacement cattle. Forage and grain supplies mostly adequate. Good snow cover protected wheat from extremely cold weather. Top growth short, but little blowing reported.

KENTUCKY: Another mostly cloudy week. Mixture of rain, freezing rain, and sleet on Tuesday, followed by heavy rain Thursday. Weekly Rainfall locally over 6.00 in. central, near 1.00 in. extreme north and extreme west, 2.00 to 4.00 in. most areas. Temperatures averaged near 5° above normal extreme southeast, 5° to 10° subnormal most of remainder.

Winter temperatures with little daytime variation limited agricultural activity. Tobacco markets beginning to close. Small grains dormant. Livestock being fed considerable supplemental feed. Much concern over fertilizer and fuel supplies. Planning also difficult with highly variable prices of both inputs and agricultural products.

LOUISIANA: Mild much of week south, mild early week north, but cool latter half. Temperature 4° to 6° above normal central and southwest, 9° to 11° above normal southeast, and 2° to 5° below normal north. Extremes: 82° at Bogalusa on Thursday, 27° at Monroe on Sunday. Precipitation light to moderate south, moderate to locally heavy central and north. Weekly totals mostly less than 0.50 in. and 1.00 to more than 3.00 in. several areas central and north. Greatest 1-day total reported, 2.62 in. Esler Field, Alexandria, Friday morning.

MARYLAND AND DELAWARE: Temperatures near normal except 3° to 4° subnormal in Delaware and parts northcentral Maryland. Highs ranged from low 40's to mid-60's and lows from 10° to upper 20's. Precipitation over two States ranged from less than 0.50 in. to over 3.00 in. with heaviest in western Maryland.

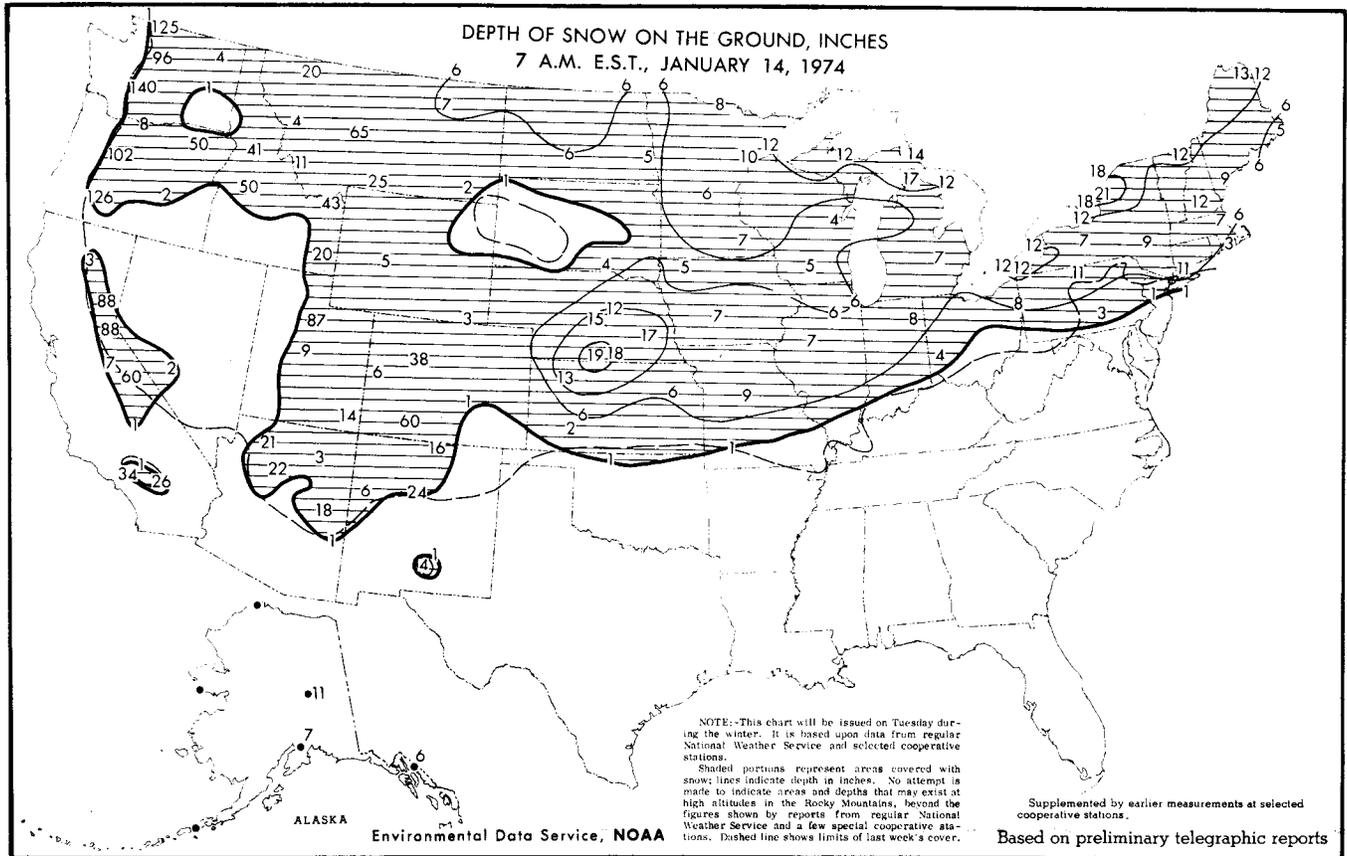
Fields saturated with spot flooding in low areas. Crop activity at standstill except for continued tobacco stripping. Livestock lots wet and muddy.

MICHIGAN: Temperatures much below normal, ranged from 8° below normal extreme south lower to 22° below normal inland west upper. Temperatures averaged 8° below zero west central upper to 15° extreme south lower. Coldest week this winter.

Precipitation totaled 0.50 to 0.75 in. along lake shores to 0.25 in. or less elsewhere. Heavy snow of 6 to 12 in. fell each night of 11th and 12th in extreme southwest lower near Lake Michigan. Generally 3 to 5 in. snow accumulated during the week except some northeast lower communities along Lake Huron picked up around 1 foot this week in northeast flow off lake. Over 2 feet of snow accumulated in places along Keweenaw Peninsula upper Michigan.

MINNESOTA: Temperatures continued bitter cold, 18° to 21° subnormal, overnight lows ranged from 15° below zero to as much as 40° below zero. Coldest temperatures mornings of 9th and 12th. Temperatures began to moderate and approach seasonal normal statewide on 13th, breaking extended subzero spell which began December 29.

New snowfall areas limited to an inch or less with most districts reporting only flurries. Water content of new snowfall less than 0.05 in. Snow cover compacted during week and ranges from 4 to 7 in. Redriver Valley to 7 to 12 in. elsewhere.



Actual snowcover Northeast less than one half of normal for this time of year.

MISSISSIPPI: Torrential rains over much of central and north. Northeast sections reported 5.00 to 7.00 in., lesser amounts generally 2.00 to 5.00 in. in all but coastal area which remained relatively dry. Temperatures well below normal upper delta and north. Southcentral remained in warm air from Tuesday on, with average temperatures 6° to 10° above normal for week. Near record warm temperatures Thursday southeast and central. Tree, shrub, and plant damage continued extreme northern sections due to ice from previous weeks ice storm. Parts extreme north, central, and delta reported serious flooding starting on 8th and continuing through week. Some let up of rains began late Friday, then a dry Saturday, but rains returned late Sunday and early Monday to central.

Soil moisture surplus to flooding some areas. Farmers fear another spring like 1973. Major farming activities: Feeding livestock, tending to dairy herds, mending fences, and maintenance of farm machinery. Fieldwork averaged 0.1 day. Feed grain supplies mostly short to adequate over entire State. Hay and roughage supplies mostly adequate, except short northcentral and northeast.

MISSOURI: Temperatures continued very cold, averaging 20° to 25° subnormal north and 10° to 20° subnormal central and south. Bootheel little less than 10° subnormal. Lows near or below zero north half on four days.

Precipitation continued generally near or above normal. Snow cover varies from about 1 to 12 in. over all but extreme south. Warming trend began over weekend.

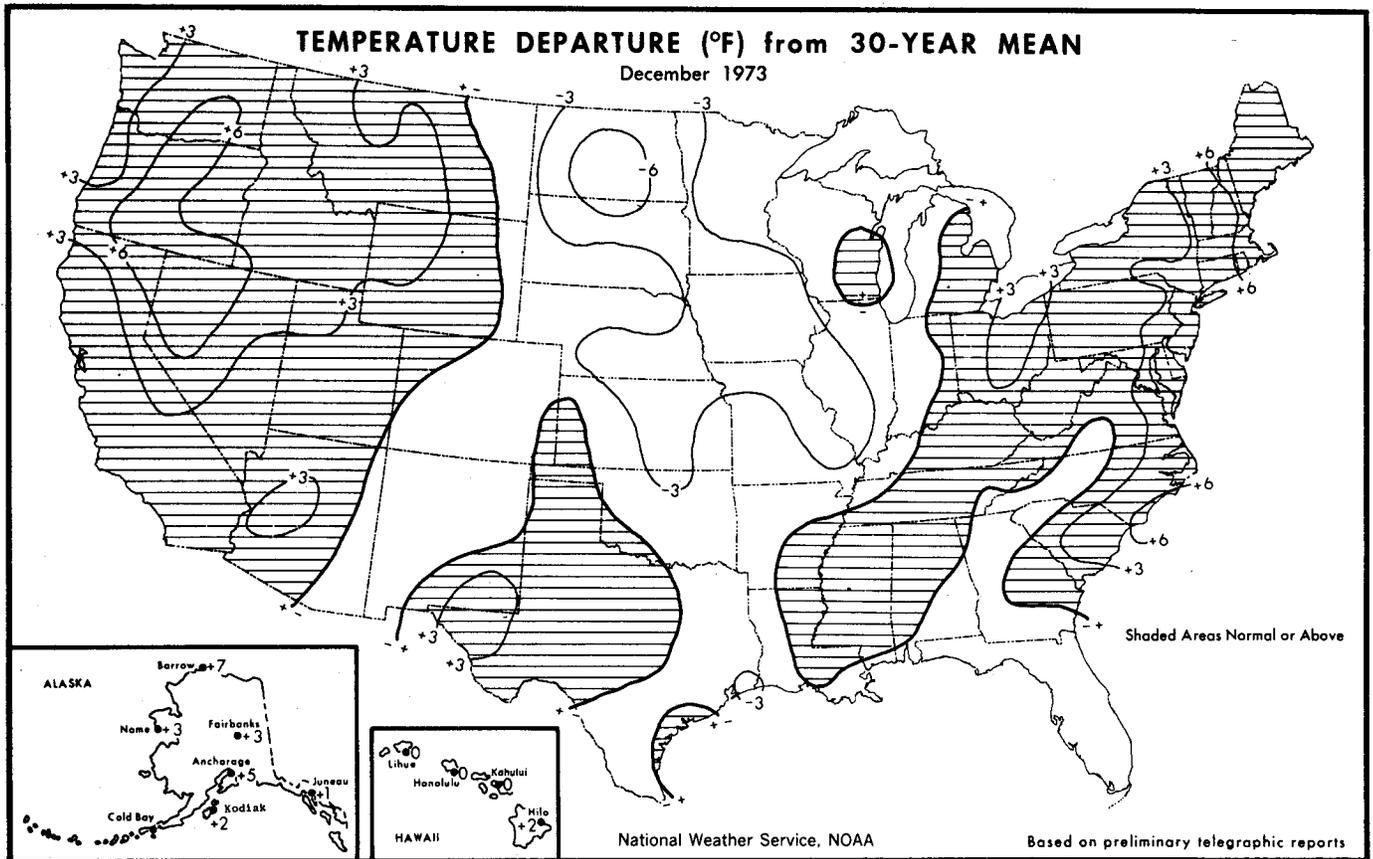
MONTANA: Very cold early week with some new snow all divisions. A strong chinook brought temperatures up to 30's and 40's over weekend. Snow changed to rain west of divide Sunday and weekly precipitation there above normal. Dry over plains late week.

Extreme cold most of week made care of livestock difficult. Supplemental feeding nearly all livestock. Consumption of hay and roughage increased to meet maintenance requirements of animals. Grazing mostly difficult to closed, open in only a few counties. Winter wheat continued fair to good, wind damage light. Snow protection on winter wheat mostly fair to good.

NEBRASKA: For second week in a row, temperatures averaged about 20° to 30° subnormal statewide. Coldest was a record-breaking 33° below zero in Lincoln. Snow fell mostly midweek, amounts from 0.10 in. to as much 0.50 in. Heavier amounts southeast. Snow depths ranged from 2 in. at Valentine to 20 in. southcentral. Winter wheat remained in good condition.

NEVADA: Temperatures ranged from much below normal first five days, then warmed to normal or above over weekend. Temperatures ranged from 55° Fallon to 15° below zero Owyhee. Light precipitation statewide. Heaviest amount Yucca Flat 1.80 in., Las Vegas registered 0.66 in. In north, amounts ranged from trace Hawthorne to 0.31 in. Reno. Livestock wintering well. Stockwater adequate most areas.

NEW ENGLAND: The first major snowfall of season Wednesday, 5 to 10 in. of snow fell south, lesser
(Continued on Page 13)



WEATHER - DECEMBER 1973

TEMPERATURE: The eastern and western third of the Nation averaged warmer than normal in December, while the central third was below normal, particularly over the northern Plains and western Corn Belt. It was one of the warmest winters on record in parts of New England, the Carolinas, and the Northwest. Portland, Me., averaged 34°, 8° above normal, which is the warmest December since 1923. Wilmington, N. C., averaged 55° (+7°) which is the 2d warmest on record, exceeded only by 57.1° in 1956.

The first decade was much warmer than usual in the East and Northwest. Temperatures averaged 6° or more above normal northeast of a line from Wilmington, N. C., to Chicago, Ill. Burlington, Vt., was 14° above normal during this period. Record highs were experienced in many eastern cities on several days during this period as a large High off the Atlantic Coast pushed warm air northward.

During the second decade the cold hand of winter took hold over much of the Nation except in the West and parts of New England where temperatures remained above normal. The freeze line dropped well into Texas and Florida during the period as two distinct cold waves affected the areas. Initially, two Lows over the Great Lakes and eastern Canada teamed up to push cold air to the Gulf. These storms were replaced by a massive High which extended from Canada into Mexico, bringing frigid Arctic air southward at the end of the decade. Early morning lows on the 20th included 27° at Mobile, Ala., 28° at Lake Charles, La. The next morning Corpus Christi, Texas, reached a record-breaking 18°, the coldest December temperature ever recorded there.

Temperatures warmed markedly during the final decade and the month ended much warmer than usual

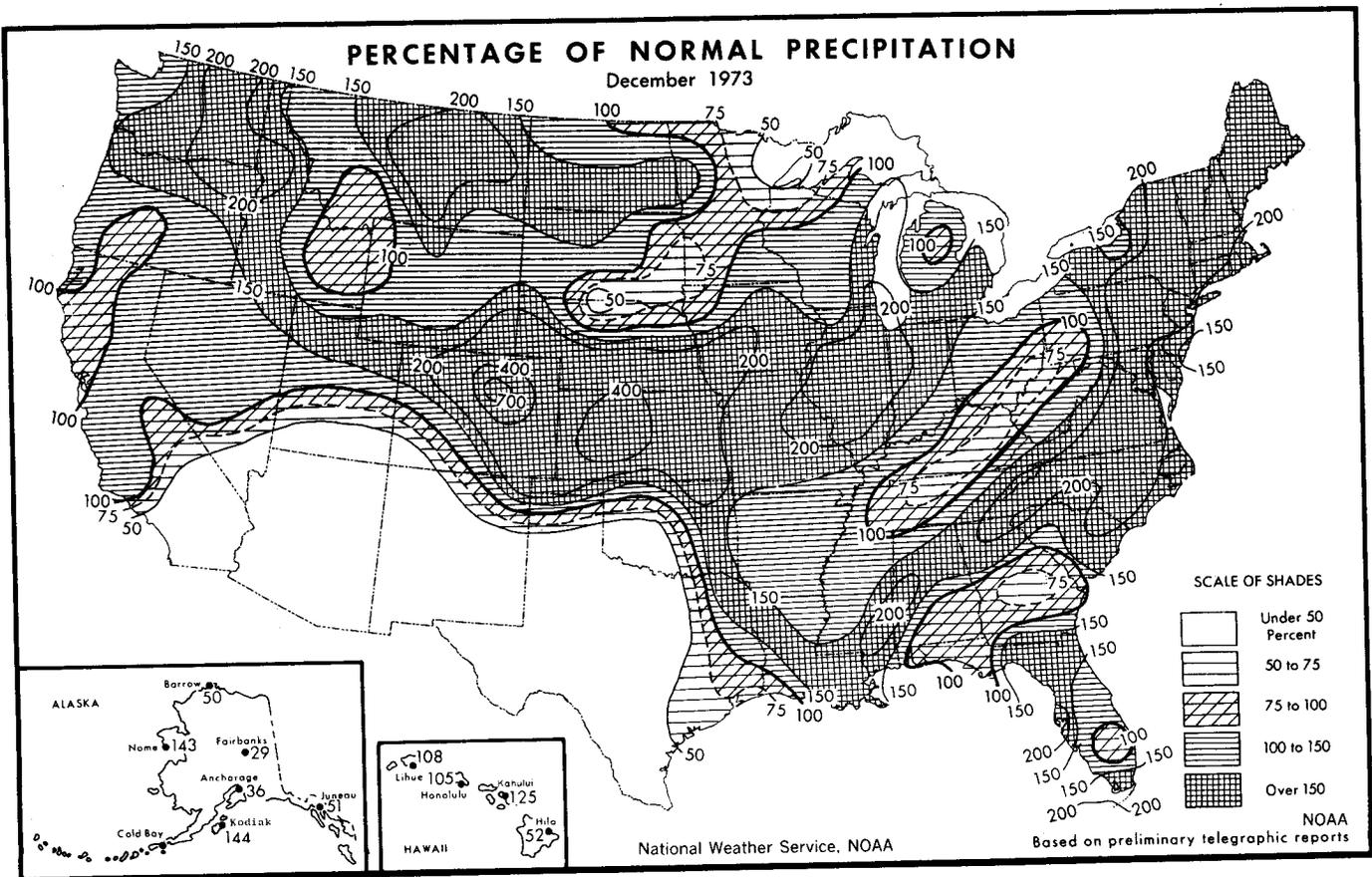
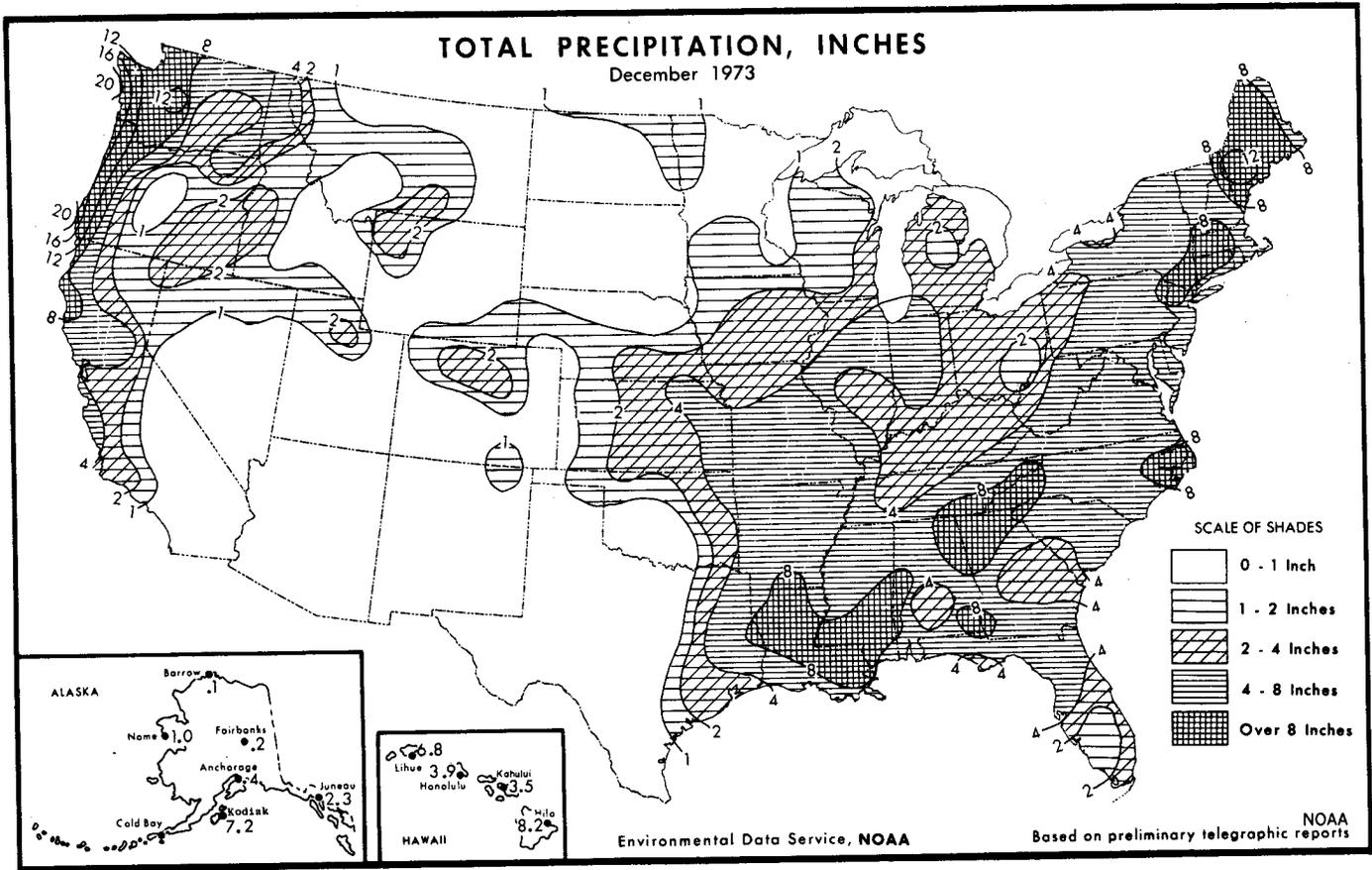
except over the central and northern Plains. Overall, December weather favored the heating fuel situation as the most heavily populated areas averaged much above normal most of the month.

PRECIPITATION: Total precipitation for the month was highly variable, ranging from over 20.00 in. along the Washington-Oregon coast to no precipitation in much of Arizona, New Mexico and Texas. Many new precipitation records were established: Caribou, Me., 7.97 in.; Pendleton, Ore., 4.68 in.; Glasgow, Mont., .78 in.

Precipitation during the first decade was light to moderate in most areas except from Iowa to the Gulf and along the Atlantic Seaboard where 2.00 in. or more fell. A large Low developed on the 3d, bringing severe winter weather to most of the Nation's midsection. Snow and sleet, driven by high winds blanketed the Central Plains. To the east, 84 mph winds were clocked at Carbondale, Ill. Most of the heavy rain along the coast was associated with a large storm which moved northward as the decade ended. Heavy rain fell from the Carolinas to New England, with snow over the Appalachians.

The period from the 10-15 was fairly dry, but two major storms developed during the following 5 days bringing heavy precipitation, much of it as snow, to the eastern half of the Nation. On the 15-16th a low pressure storm system moved up the Atlantic Coast bringing heavy rains to much of New England. The eastern megalopolis received 10 in. or more of snow. A second storm paralyzed traffic in the Central States.

The month ended relatively dry except in the southeast and parts of California. From 1.00 to 4.00 in. fell from Louisiana to Tennessee and Georgia.



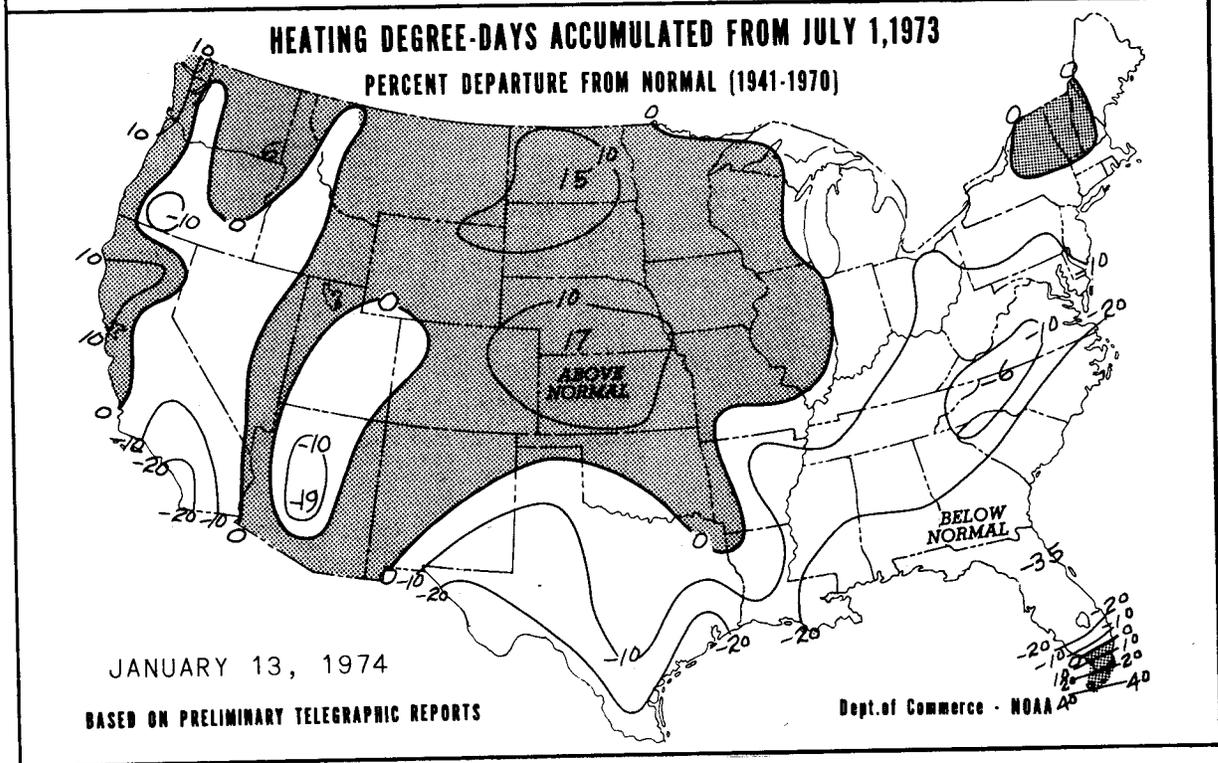
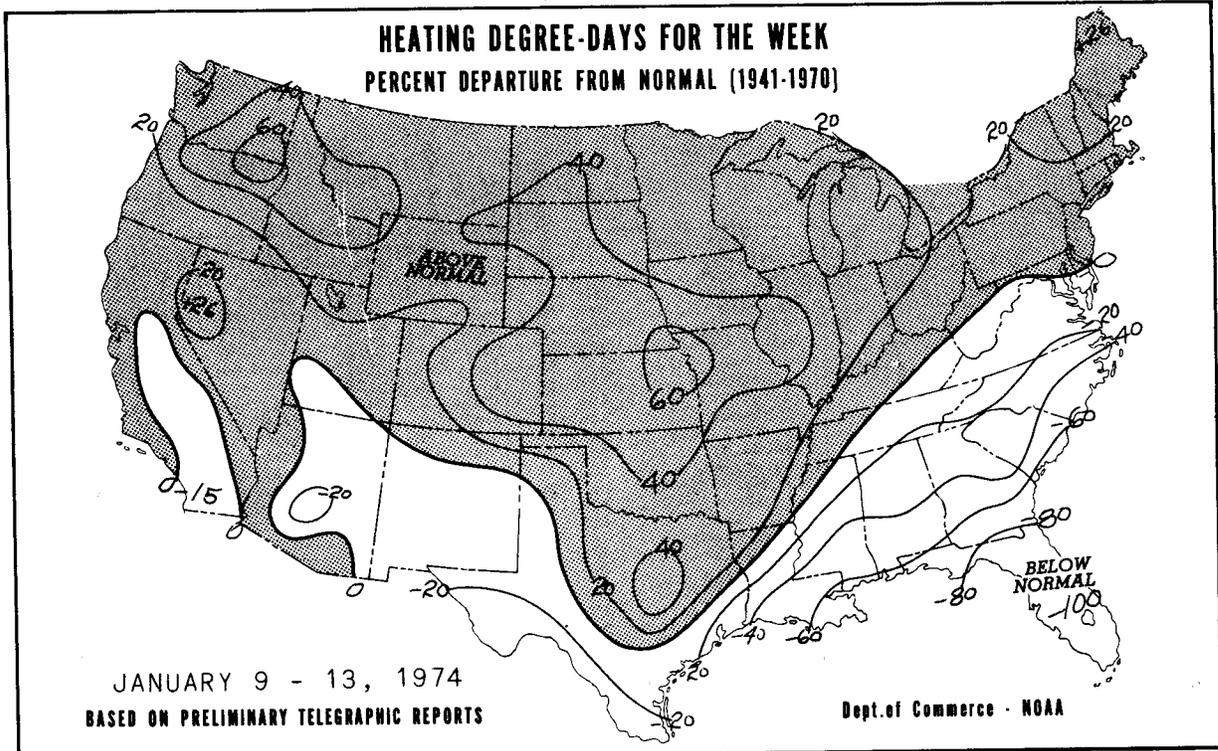
Temperature and Precipitation Data for December 1973

States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches		States and Stations	Temperature °F		Precipitation Inches	
	Average	Departure	Total	Departure		Average	Departure	Total	Departure		Average	Departure	Total	Departure
ALA.Birmingham . . .	45	0	7.8	+2.6	La.Baton Rouge . . .	55	+2	8.3	+3.3	Youngstown . . .	31	+2	3.0	+ .4
Mobile . . .	53	0	4.6	-1.3	Lake Charles . . .	52	-2	4.8	- .9	OKLA.Okla. City . . .	39	-1	.5	- .8
Montgomery . . .	48	-1	3.7	-1.2	New Orleans . . .	54	-1	8.3	+3.2	Tulsa . . .	38	-2	3.4	+1.8
ALASKA.Anchorage . . .	18	+5	.4	- .7	Shreveport . . .	47	-2	6.4	+2.2	OREG.Astoria . . .	45	+2	15.8	+5.2
Barrow . . .	-5	+7	.1	- .1	MAINE.Caribou . . .	24	+8	8.0	+5.4	Burns . . .	33	+5	2.4	+ .7
Fairbanks . . .	-7	+3	.2	- .5	Portland . . .	34	+8	9.6	+5.5	Medford . . .	44	+6	3.0	- .7
Juneau . . .	28	+1	2.3	-2.2	MD.Baltimore . . .	37	+2	6.4	+3.1	Pendleton . . .	42	+6	4.7	+3.2
Kodiak . . .	32	+2	7.2	+2.2	MASS.Boston . . .	40	+7	7.2	+3.0	Portland . . .	45	+4	9.9	+3.9
Nome . . .	7	+3	1.0	+ .3	Chatham . . .	40	-1	5.2	---	Salem . . .	43	+2	11.1	+4.2
ARJZ.Flagstaff . . .	33	+3	.1	-2.1	MICH.Alpena . . .	23	0	2.2	+0.3	PA.Allentown . . .	35	+4	7.9	+4.3
Phoenix . . .	55	+2	0	- .8	Detroit . . .	29	0	3.5	+1.2	Erie . . .	32	+3	3.5	+ .7
Tucson . . .	52	0	0	- .9	Flint . . .	28	+1	2.8	+1.1	Harrisburg . . .	36	+3	6.5	+3.4
Winslow . . .	35	+1	.1	- .5	Grand Rapids . . .	26	-1	3.3	+1.1	Philadelphia . . .	39	+4	6.3	+3.0
Yuma . . .	58	+2	0	- .3	Houghton Lake . . .	23	0	1.8	0	Pittsburgh . . .	33	+2	2.2	- .3
ARK.Fort Smith . . .	40	-2	3.8	+ .9	Lansing . . .	27	0	3.1	+1.1	Scranton . . .	31	+1	6.1	+3.6
Little Rock . . .	43	+1	5.2	+1.1	Marquette . . .	23	-1	2.4	+ .4	R.I.Providence . . .	38	+6	7.6	+3.5
CALIF.Bakersfield . . .	50	+2	.8	+ .1	Muskegon . . .	27	-2	2.9	+ .5	S.C.Charleston . . .	51	+2	4.7	+1.6
Eureka . . .	51	+2	7.0	+ .4	S. Ste. Marie . . .	19	-1	2.5	+ .1	Columbia . . .	50	+4	6.7	+3.3
Fresno . . .	47	+1	1.7	0	MINN.Duluth . . .	12	-2	.7	- .7	Greenville . . .	42	-1	7.6	+3.5
Los Angeles . . .	60	+2	.7	-1.5	Internatl Falls . . .	9	0	.6	- .4	S.D.Aberdeen . . .	12	-5	.4	- .1
Red Bluff . . .	47	+1	3.8	- .1	Minneapolis . . .	17	-1	1.1	+ .2	Huron . . .	17	-2	.6	+ .1
San Diego . . .	58	+1	.2	-1.5	Rochester . . .	15	-4	1.0	+ .2	Rapid City . . .	25	-2	.5	+ .1
San Francisco . . .	50	0	3.6	- .4	St. Cloud . . .	14	-2	.7	- .2	Sioux Falls . . .	17	-3	.5	- .2
Stockton . . .	48	+2	3.9	+1.2	MISS.Jackson . . .	49	0	6.7	+1.7	TENN.Chattanooga . . .	42	+1	8.3	+3.0
COLO.Denver . . .	32	-1	2.8	+2.4	Meridian . . .	50	+2	14.8	+9.2	Knoxville . . .	41	-1	7.4	+2.9
Grand Junction . . .	30	0	.6	0	MO.Columbia . . .	31	-2	4.6	+2.6	Memphis . . .	43	0	5.4	+ .7
Pueblo . . .	32	-1	.8	+ .5	Kansas City . . .	30	-2	2.6	+1.1	Nashville . . .	41	+1	3.2	-1.3
CONN.Bridgeport . . .	38	+4	6.3	+2.9	St. Louis . . .	30	-5	4.4	+2.4	TEX.Abilene . . .	47	+1	T	-1.0
Hartford . . .	33	+5	8.3	+4.2	Springfield . . .	35	-1	4.6	+2.1	Amarillo . . .	39	0	.2	- .5
D.C.Washington . . .	42	+5	6.0	+3.0	MONT.Billings . . .	31	+4	2.0	+1.3	Austin . . .	52	0	.8	-1.4
FLA.Apalachicola . . .	54	-1	3.0	- .3	Glasgow . . .	16	-1	.8	+ .5	Beaumont . . .	52	-3	2.9	-2.0
Daytona Beach . . .	58	-2	2.5	+ .5	Great Falls . . .	29	+2	1.4	+ .7	Brownsville . . .	63	0	.5	- .7
Ft. Myers . . .	63	-2	1.7	+0.4	Havre . . .	21	+3	.7	+ .3	Corpus Christi . . .	60	+1	.1	-1.4
Jacksonville . . .	54	-1	4.3	+1.7	Helena . . .	28	+5	.6	0	Dallas . . .	---	---	---	---
Key West . . .	70	-2	3.2	+1.7	Kalispell . . .	29	+5	1.9	+ .4	Del Rio . . .	53	0	T	- .5
Lakeland . . .	50	-2	2.2	+0.1	Miles City . . .	23	+1	.8	+ .3	El Paso . . .	46	+2	T	- .5
Miami . . .	67	-1	2.5	+ .9	Missoula . . .	30	+5	1.6	+ .5	Fort Worth . . .	48	0	.8	-1.0
Orlando . . .	60	-2	2.6	+ .7	NEBR.Grand Island . . .	23	-4	2.1	+1.5	Galveston . . .	57	0	2.6	-1.1
Tallahassee . . .	52	-1	7.5	+3.3	Lincoln . . .	22	-5	2.2	+1.6	Houston . . .	54	-1	2.5	-1.5
Tampa . . .	60	-2	5.5	+3.3	Norfolk . . .	22	-2	.8	+ .2	Lubbock . . .	42	+1	T	- .6
W.Palm Beach . . .	66	-1	2.2	0	N.Platte . . .	23	-4	1.1	+ .7	Midland . . .	47	+1	0	- .5
GA.Atlanta . . .	44	0	8.1	+3.9	Omaha . . .	22	-4	1.7	+ .9	San Angelo . . .	49	+1	T	- .7
Augusta . . .	47	+1	2.7	- .7	Valentine . . .	24	0	.1	- .2	San Antonio . . .	52	-1	.2	-1.3
Macon . . .	49	+1	2.8	-1.5	NEV.Ely . . .	27	+1	.8	+ .1	Victoria . . .	57	+1	1.1	- .9
Savannah . . .	51	+1	3.3	0	Las Vegas . . .	46	+1	T	- .4	Waco . . .	50	0	.8	-1.2
HAWAII.Hilo . . .	74	+2	8.2	-7.6	Reno . . .	38	+5	1.3	+ .2	Wichita Falls . . .	45	+1	.1	-1.2
Honolulu . . .	74	0	3.9	+ .2	Winnemucca . . .	36	+6	1.2	+ .3	UTAH.Milford . . .	30	+1	.4	- .3
Kahului . . .	73	0	3.5	+ .7	N.H.Concord . . .	29	+4	7.5	+4.2	Salt Lake City . . .	33	+3	2.3	+ .9
Lihue . . .	73	0	6.8	+ .5	N.J.Atlantic City . . .	40	+5	5.5	+1.5	VT.Burlington . . .	27	+4	6.0	+3.8
IDAHO.Boise . . .	38	+5	2.2	+ .8	Trenton . . .	39	+4	7.0	+3.7	VA.Lynchburg . . .	37	-1	7.2	+4.0
Lewiston . . .	39	+4	3.0	+1.7	N.MEX.Albuquerque . . .	34	-2	T	- .5	Norfolk . . .	46	+4	5.8	+2.7
Pocatello . . .	30	+3	.8	- .2	Roswell . . .	42	+3	T	- .5	Richmond . . .	41	+2	7.1	+3.9
ILL.Cairo . . .	37	-2	5.8	+1.9	N.Y.Albany . . .	28	+2	6.7	+3.8	Roanoke . . .	38	+1	5.6	+2.5
Chicago . . .	28	-1	4.3	+2.2	Binghamton . . .	29	+4	5.8	+3.0	WASH.Colville . . .	32	+5	4.5	+2.3
Moline . . .	24	-3	3.7	+1.9	Buffalo . . .	29	+1	4.9	+1.9	Omak . . .	32	+5	4.0	+2.4
Peoria . . .	25	-3	4.1	+2.2	New York . . .	39	+3	7.7	+4.1	Quillayute . . .	42	+1	19.9	+4.3
Rockford . . .	24	-1	3.3	+1.6	Rochester . . .	31	+2	3.6	+1.2	Seattle-Tacoma . . .	44	+3	8.3	+2.4
Springfield . . .	28	-3	3.9	+2.0	Syracuse . . .	30	+2	4.4	+1.3	Spokane . . .	33	+4	3.8	+1.4
IND.Evansville . . .	34	-1	3.8	+ .5	N.C.Asheville . . .	40	+1	8.5	+4.9	Walla Walla . . .	42	+5	4.2	+2.2
Ft. Wayne . . .	27	-2	3.9	+1.7	Charlotte . . .	42	-1	5.3	+1.9	Yakima . . .	36	+5	2.2	+1.0
Indianapolis . . .	31	0	4.3	+1.6	Greensboro . . .	38	-2	6.4	+3.2	W.Va.Beckley . . .	34	+1	4.6	+1.3
South Bend . . .	29	+1	4.3	+1.8	Hatteras . . .	53	+5	8.5	+4.0	Charleston . . .	38	+2	3.7	+ .5
IOWA.Burlington . . .	24	-4	2.8	+1.2	Raleigh . . .	43	+2	6.4	+3.3	Huntington . . .	38	+2	2.2	- .8
Des Moines . . .	22	-3	2.6	+1.5	Wilmington . . .	55	+7	5.6	+2.2	Parkersburg . . .	37	+2	1.9	+ .9
Dubuque . . .	20	-3	2.4	+ .5	N.DAK.Bismarck . . .	10	-6	.8	+ .3	WIS.Green Bay . . .	21	0	2.4	+1.1
Sioux City . . .	22	-2	.7	- .1	Fargo . . .	10	-3	1.0	+ .4	La Crosse . . .	19	-3	1.4	+ .4
KANS.Concordia . . .	27	-3	3.1	+2.3	Williston . . .	13	-2	.6	+ .1	Madison . . .	22	0	2.0	+ .5
Dodge City . . .	32	-1	2.0	+1.5	OHIO.Akron-Canton . . .	33	+4	2.4	0	Milwaukee . . .	26	+2	3.8	+2.0
Goodland . . .	30	0	.9	+ .5	Cincinnati . . .	34	0	2.7	- .2	WYO.Casper . . .	27	+1	.6	+ .1
Topeka . . .	30	-2	4.3	+2.8	Cleveland . . .	34	+4	3.5	+1.1	Cheyenne . . .	29	0	1.1	+ .7
Wichita . . .	32	-3	2.8	+1.7	Columbus . . .	34	+3	2.7	+ .3	Lander . . .	26	+3	.6	+ .1
KY.Lexington . . .	36	0	3.4	- .2	Dayton . . .	31	0	3.1	+ .8	Sheridan . . .	27	+1	.8	+ .1
Louisville . . .	37	+1	2.6	- .7	Toledo . . .	28	0	3.1	+ .9	P.R.San Juan . . .	---	---	---	---

Based on 1941-70 normals.

FAX CHART 136

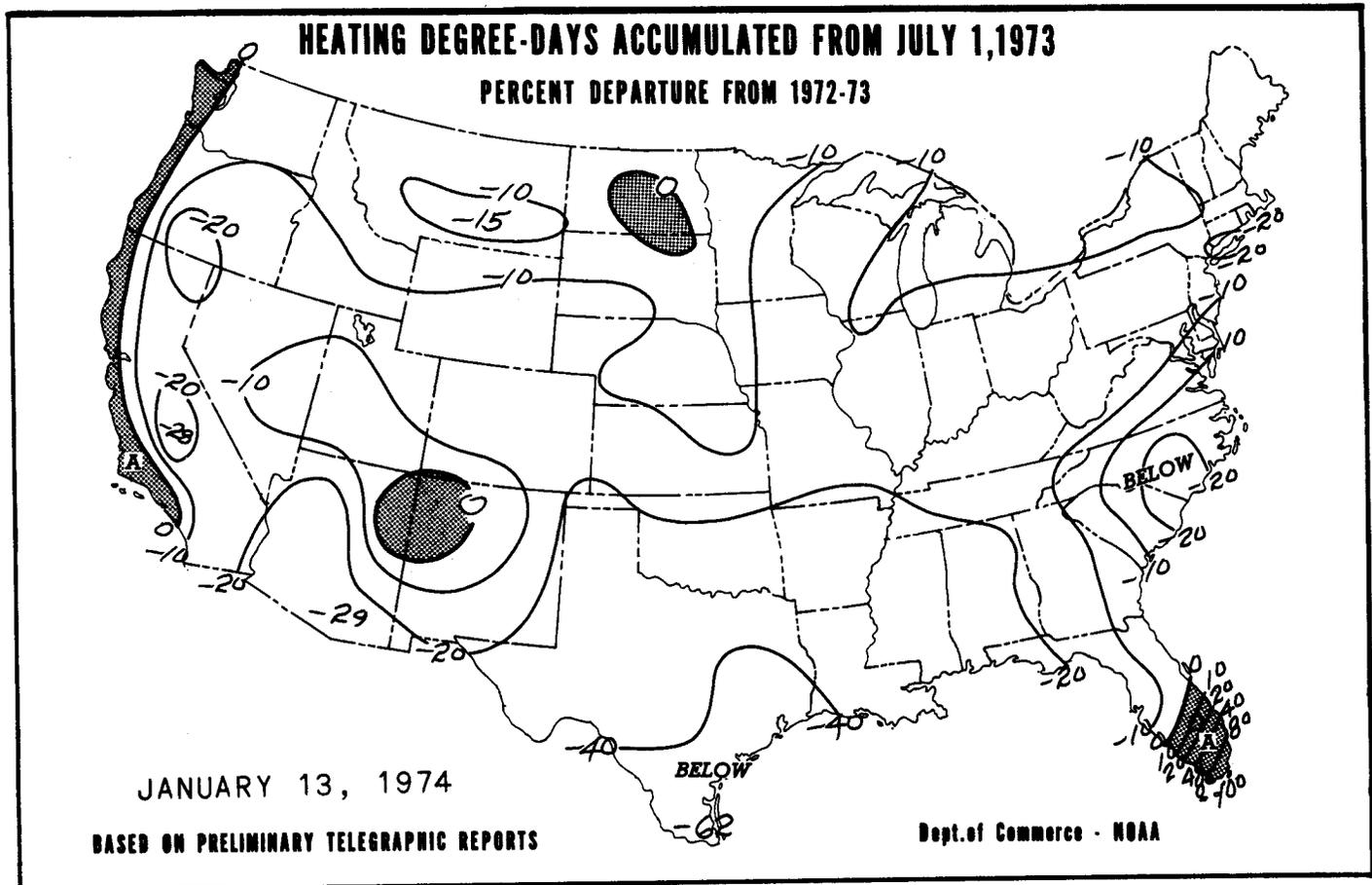
OCT 73



Heating Degree Days (Base 65°) For Week Ending January 13, 1974

States and Stations	Weekly		Seasonal + Accumulation			States and Stations	Weekly		Seasonal + Accumulation			States and Stations	Weekly		Seasonal + Accumulation		
	TOTAL	Departure*	TOTAL	Departure*	Departure From 1972-73		TOTAL	Departure*	TOTAL	Departure*	Departure From 1972-73		TOTAL	Departure*	TOTAL	Departure*	Departure From 1972-73
ALA. Birmingham	105	-45	1215	-211	-318	Portland	366	65	3125	-219	-528	Tulsa	303	100	1861	85	-505
Mobile	46	-59	586	-239	-276	MD. Baltimore	234	10	2052	-129	-188	OREG. Astoria	224	49	2694	238	216
Montgomery	73	-53	902	-243	-223	MASS. Boston	294	42	2231	-202	-402	Burns	346	59	3451	25	-345
ARIZ. Flagstaff	255	-9	3081	-288	-807	MICH. Alpena	393	65	3653	-142	-359	Medford	220	17	2050	-299	-527
Phoenix	76	-22	622	-147	-208	Detroit	354	74	2869	-30	-311	Pendleton	402	164	2614	62	-380
Tucson	104	-3	840	22	-348	Flint	381	83	3035	-130	-271	Portland	273	80	2180	-89	-88
Winslow	201	32	2334	7	9	Grand Rapids	361	67	3060	7	-359	Salem	265	76	2402	133	-212
Yuma	72	1	525	7	-152	Houghton Lake	406	74	3641	-143	-419	PA. Allentown	283	24	2381	-279	-397
ARK. Fort Smith	244	55	1671	24	-533	Lansing	388	94	3153	44	-412	Erie	311	33	2739	-256	-406
Little Rock	223	41	1461	-191	-407	Marquette	424	99	3674	-12	-547	Harrisburg	253	8	2159	-280	-287
CALIF. Bakersfield	104	-22	965	-136	-367	Muskegon	354	68	3048	6	-211	Philadelphia	253	25	1987	-208	-280
Eureka	132	6	2313	73	87	S. Ste. Marie	424	70	4114	9	-257	Pittsburgh	296	37	2485	-277	-282
Fresno	128	-14	1243	-55	-321	MINN. Duluth	534	139	4740	244	-596	Scranton	320	47	2832	-52	-330
Los Angeles	82	5	574	-133	30	Internatl Falls	570	128	4914	-59	-363	R.I. Providence	304	51	2431	-181	-300
Red Bluff	159	15	1404	136	-301	Minneapolis	512	140	3880	19	-499	S.C. Charleston	40	-79	695	-358	-167
San Diego	60	-11	470	-123	-58	Rochester	498	134	3926	127	-570	Columbia	51	-89	843	-459	-318
San Francisco	139	20	1495	129	5	St. Cloud	519	127	4217	99	-589	Greenville	126	-35	1465	-93	-72
Stockton	139	-8	1237	-88	-285	MISS. Jackson	81	-51	951	-185	-335	S.DAK. Aberdeen	532	141	4412	386	16
COLO. Denver	360	113	3032	275	-362	Meridian	79	-54	877	-342	-357	Huron	493	123	4010	258	-130
Grand Junction	325	52	2746	-2	-478	MO. Columbia	379	127	2557	169	-345	Rapid City	423	119	3677	340	-411
Pueblo	355	106	2791	224	-520	Kansas City	424	159	2622	202	-350	Sioux Falls	498	141	3847	178	-362
CONN. Bridgeport	280	35	2030	-259	-547	St. Louis	350	112	2493	252	-234	TENN. Chattanooga	133	-42	1524	-213	-404
Hartford	320	40	2598	-276	-365	Springfield	302	73	2163	-13	-482	Knoxville	143	-31	1535	-177	-277
DEL. Wilmington	249	18	1952	-281	-166	MONT. Billings	411	104	3577	218	-611	Memphis	197	22	1400	-186	-583
D.C. Washington	200	-9	1576	-383	-322	Glasgow	525	132	4517	347	-191	Nashville	182	-7	1554	-246	-287
FLA. Apalachicola	17	-67	437	-217	-110	Great Falls	432	116	3872	342	-300	TEX. Abilene	201	47	1222	-61	-701
Daytona Beach	0	-55	264	-142	-25	Havre	503	128	4349	166	-159	Amarillo	235	28	1857	-133	-843
Ft. Myers	0	-28	159	-49	12	Helena	475	140	4251	339	-546	Austin	159	47	770	-77	-523
Jacksonville	15	-66	485	-162	-51	Kalispell	429	103	4100	-65	-391	Brownsville	37	-13	220	-59	-355
Key West	0	-1	24	7	12	Miles City	461	111	3862	159	-465	Corpus Christi	60	-10	342	-93	-406
Lakeland	0	-42	225	-81	-63	Missoula	426	111	3878	9	-390	Del Rio	77	-28	634	-173	-402
Miami	0	-8	94	-5	47	NEBR. Grand Island	464	162	3467	457	-146	El Paso	128	-26	1196	-223	-257
Orlando	0	-42	212	-99	-25	Lincoln	493	190	3403	483	-105	Fort Worth	203	57	1062	-81	-543
Tallahassee	18	-75	576	-209	-90	Norfolk	481	156	3520	264	-275	Galveston	65	-19	421	-109	-379
Tampa	0	-42	230	-88	-36	North Platte	464	170	3715	527	-315	Houston	76	-21	502	-185	-594
W. Palm Beach	0	-14	106	-25	44	Omaha	459	144	3369	303	-235	Lubbock	180	-2	1513	-216	-760
GA. Atlanta	104	-57	1230	-289	-246	Valentine	457	142	3639	244	-477	Midland	139	-15	1214	-98	-608
Augusta	102	-37	1084	-200	-51	NEV. Ely	303	9	3734	119	-289	Beaumont	61	-37	620	-118	-477
Macon	61	-65	832	-306	-138	Las Vegas	166	17	1344	18	-306	San Angelo	147	14	984	-152	-549
Savannah	40	-72	689	-290	-65	Reno	299	61	2725	-147	-628	San Antonio	117	12	715	-61	-427
IDAHO. Boise	362	103	2685	-113	-440	Winnemucca	315	49	2968	-191	-572	Victoria	81	-3	494	-85	-458
Lewiston	357	113	2744	76	-211	N.H. Concord	379	71	3408	50	-578	Waco	183	54	917	-83	-646
Pocatello	406	107	3495	157	-330	N.J. Atlantic City	225	1	2013	-197	-176	Wichita Falls	222	54	1298	-120	-741
ILL. Cairo	260	57	1856	8	-330	Trenton	264	33	2018	-193	-263	UTAH. Salt Lake C	332	66	2814	-42	-356
Chicago	371	84	2846	67	-369	N.MEX. Albuquerque	202	-10	2342	211	-38	VT. Burlington	414	79	3434	-99	-510
Moline	431	124	3126	163	-209	Roswell	185	-8	1689	-223	-405	VA. Lynchburg	184	-18	1855	-171	-189
Peoria	408	118	2971	130	-350	N.Y. Albany	364	63	3141	14	-226	Norfolk	138	-30	1285	-289	-173
Rockford	415	100	3157	-9	-321	Binghamton	327	26	3053	-227	-507	Richmond	167	-29	1654	-220	-172
Springfield	386	116	2665	66	-345	Buffalo	338	51	2948	-88	-275	Roanoke	173	-30	1838	-211	-242
IND. Evansville	276	45	2121	-96	-426	New York	259	28	1923	-199	-432	WASH. Quillayute	216	27	3107	301	93
Fort Wayne	366	86	2827	-25	-238	Rochester	340	53	2787	-175	-229	Seattle-Tacoma	222	30	2381	-74	-219
Indianapolis	317	57	2451	-157	-325	Syracuse	339	52	2935	2	-203	Spokane	407	123	3478	157	-23
South Bend	341	54	2652	-282	-475	N.C. Asheville	153	-36	1726	-323	-173	Walla Walla	385	154	2514	136	-262
IOWA. Burlington	418	122	2967	107	-374	Hatteras	74	-63	814	-326	-108	Yakima	395	124	3109	102	-120
Des Moines	453	131	3141	35	-596	Charlotte	121	-40	1444	-139	-183	W. VA. Beckley	216	-22	2330	-338	-309
Dubuque	447	114	3435	52	-488	Greensboro	151	-34	1749	-119	-226	Charleston	205	-12	1997	-200	-249
Sioux City	467	135	3356	95	-286	Raleigh	120	-55	1381	-330	-348	Huntington	231	14	1986	-212	-386
KANS. Concordia	432	159	2952	314	-276	Wilmington	57	-76	846	-312	-213	Parkersburg	257	31	2135	-124	-173
Dodge City	373	128	2660	275	-398	N. Dak. Bismarck	567	168	4866	650	100	WIS. Green Bay	454	108	3660	-29	-300
Goodland	395	129	3205	342	-388	Fargo	548	135	4677	373	-222	LaCrosse	477	134	3512	79	-471
Topeka	423	158	2725	232	-265	Williston	542	143	4773	466	-210	Madison	451	115	3560	-7	-370
Wichita	379	141	2503	266	-412	OHIO. Akron-Canton	312	42	2489	-334	-307	Milwaukee	399	78	3202	-140	-446
KY. Lexington	234	10	2025	-204	-195	Cleveland	315	49	2459	-294	-412	WYO. Casper	392	98	3756	279	-488
Louisville	250	26	1953	-249	-262	Columbus	301	42	2380	-289	-348	Cheyenne	332	60	3599	296	-493
LA. Baton Rouge	47	-58	633	-200	-247	Cincinnati	281	43	2330	-33	-251	Lander	434	112	3945	230	-653
Lake Charles	56	-39	653	-71	-392	Dayton	307	48	2488	-123	-317	Sheridan	438	126	3928	344	-345
New Orleans	31	-60	553	-162	-328	Toledo	357	76	2940	14	-260						
Shreveport	157	31	1105	33	-361	Youngstown	326	53	2757	-149	-456						
MAINE. Caribou	477	99	4317	-97	-771	OKLA. Okla City	290	87	1836	56	-568						

* Based on 1941-70 Normals. † Accumulated from July 1, 1973.



(Continued from Page 7)

amounts north. Light snow fell on most of New England Tuesday, rain over Cape Cod. Tuesday's snow added 2 to 5 in. to that already on the ground. Third consecutive day of stormy weather on Friday saw freezing rain south and central, substantial amounts farther north. Fair and cold on the week-end. Saturday night coldest of the season south, lows near or slightly below zero inland.

NEW JERSEY: Cold snowy week, averaged 7° sub-normal. Rain, freezing rain, and snow fell Wednesday through Friday bringing 8 to 12 in. to north counties. Total precipitation for period averaged 1.00 to 2.00 in. First sub zero temperatures this season reported on 13th and 14th. Low of 6° below zero reported at Newton on 14th.

NEW MEXICO: Substantial snows and rains statewide except eastern plains Tuesday and Wednesday. Moisture totals ranged to above 1.00 in. at Chama, Silver City, Ruidoso and included 0.71 in. at Deming and 0.63 in. at Rodeo. Cloudy, damp weather held temperatures most sections to about 10° warmer than previous week, ranged within a few degrees of normal. Warming statewide Saturday and Sunday. Snowfall north, warmer south. Ranges fair. Livestock fair to good. Moisture short but improving. Wheat, barley fair to good, some wheat poor due to aphids. Cotton, pecan harvest nearly complete.

NEW YORK: Temperatures consistently cold again this week, averaged well below normal. Extremes: 39° at New York City on Monday, 27° below zero at Saranac Lake on Wednesday. Precipitation mostly

as snow near to above normal most areas. Snowfall persistent in mountains and to lee of Great Lakes. More general precipitation Wednesday through Friday began as snow but changed to freezing rain and sleet on Friday. Average 6 to 12 in. new snow fell over State this week. Snow depth averages 5 to 12 in. west and 8 to 16 in. east except small amounts coast southeast. Boonville in Lake Ontario snow-belt has 21 in. on ground.

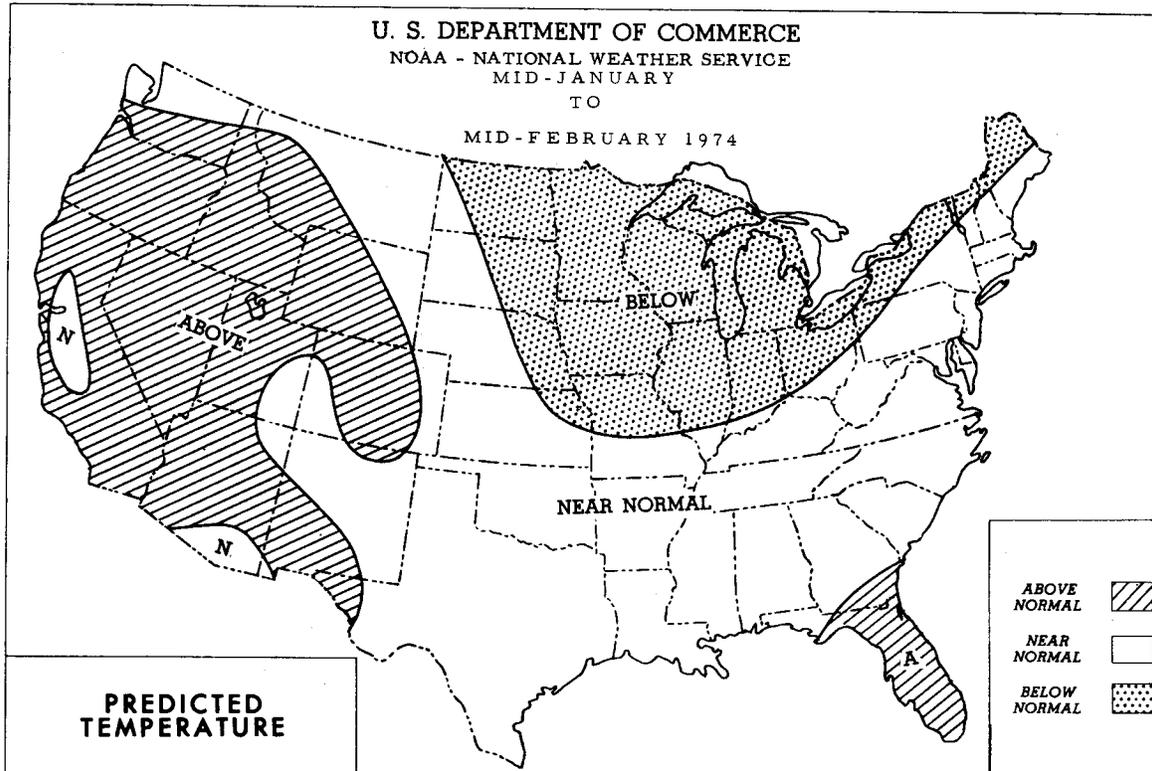
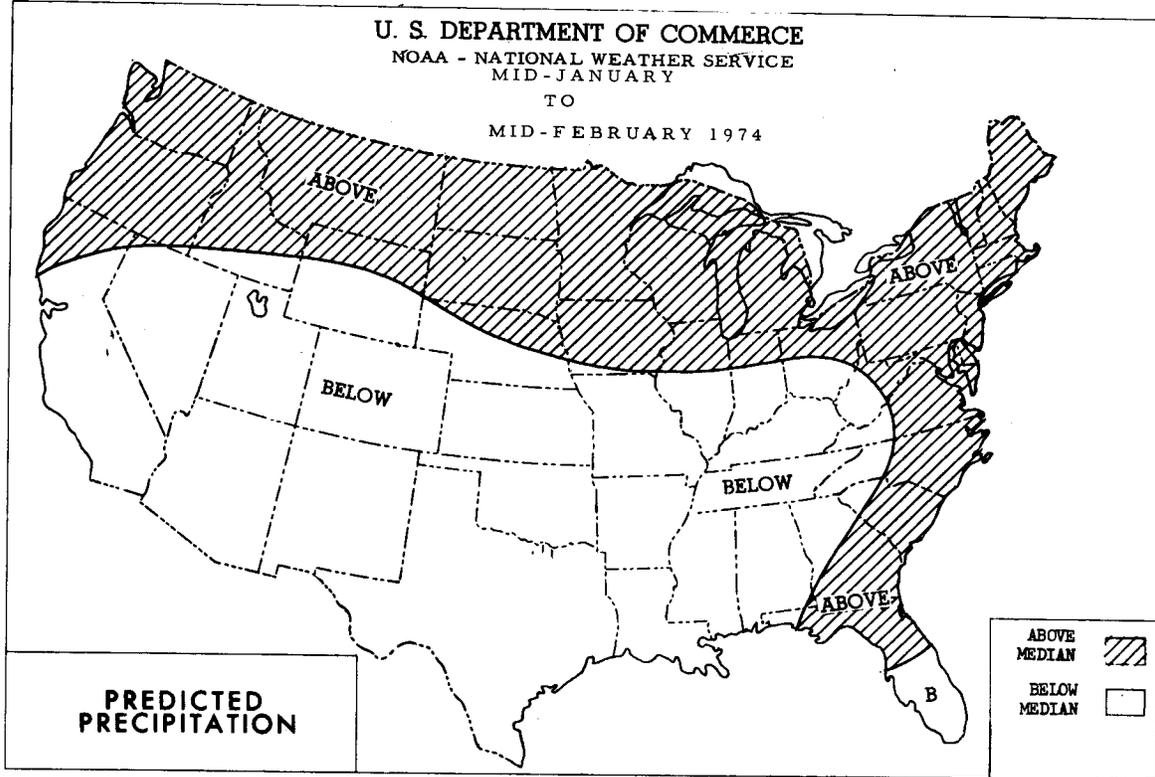
NORTH CAROLINA: Cool weather, heavy fog and drizzle dominated first part of week. Unseasonably warm temperatures and scattered showers persisted Wednesday through Friday as warm front moved across State.

Soil moisture surplus, except southeastern counties only adequate. Small grains 60% good condition, 40% fair. Pastures mostly fair condition, not fully recovered from dry fall weather. Feed grains and roughages adequate; supplemental feeding heavy. Final burley tobacco sales held. Main farm activities: Planning for 1974, feeding livestock repairing equipment and buildings.

NORTH DAKOTA: Bitter cold. On 3 days Bismarck was coldest in Nation, Low was 42° below zero at Bismarck January 12. Precipitation throughout week scarce, only trace amounts fell most sections. Measurable amounts recorded Tuesday with Dunn Center receiving 0.04 in. Snow still covers most of State with 10 in. at Bisbee on January 11 greatest amount reported. Weather over weekend improved, some stations reported above zero temperatures. Dickinson reported high on Sunday of 40°.

Marketing of crops and livestock moving along smoothly with exception of some transportation shortages. No major weather problems. Livestock

AVERAGE MONTHLY WEATHER OUTLOOK



These prognostic charts show the expected categories of average temperature and total precipitation for the period indicated. They are taken from the Weather Service's publication Average Monthly Weather Outlook which contains additional information necessary for complete interpretation.

good to fair with some culling of cows due to shortage of roughage in localized areas. Very little grazing due to snow cover.

OHIO: Temperatures subnormal statewide. Storm center moved out of State early in week, snow flurries diminished and sunny skies prevailed until Wednesday when freezing rain, snow and sleet north and rain south. Two in. snow fell north. Thursday brought band of 3 to 6 in. snow Mansfield to northeast and 2.00 in. rain southeast with only minor local flooding.

Friday cloudy, windy and cold, temperatures in 20's and 30's north and middle 40's south. Night-time cloud cover Sunday moderated temperatures. Snow cover 5 to 10 in. remained from Dayton north and northeast, only an inch of ice and snow at Columbus and just traces further south. Cold weather and ice conditions limited farm activities to care and feeding of livestock.

OKLAHOMA: Temperatures averaged from 9° to 20° subnormal. Precipitation averaged from 0.01 in. panhandle to 0.62 in. northcentral. Few scattered, very light showers over weekend south half.

Cold weather preventing growth of small grains. Ice and snow cover hampered grazing but surface soil moisture still lacking in northwest and west-central sections. Some progress in cotton harvest southwest, some major counties now over 75% harvested. Sorghum mostly harvested. Weather hindered soybean and pecan harvest eastern parts. Range conditions declined some from last week, mostly fair. Supplemental feeding necessary. Cattle still mostly good but losses increased. Hay and water supplies good.

OREGON: Unseasonably cold. Temperatures east averaged 15° to 30° subnormal, west 10° to 15° subnormal. Most stations east below zero during week. Enterprise coldest with 23° below zero. Precipitation heavy west, little or none east.

Cold weather froze ground, firmed up muddy feedlot conditions. Livestock feeding major activity, rate of feed heavy. Milk and egg production dropped during cold. Lambing underway, no problems. Some orchard pruning done. Onions moving from storage rapidly, mostly export.

PENNSYLVANIA: Cold, cloudy and wet as wave-type lows moved from Western Gulf of Mexico through Atlantic States bringing mixture of precipitation daily through Friday. Clearing and very cold weekend. Temperatures 4° to 6° subnormal for coldest week since mid-February 1973. Daily highs mostly in 20's and 30's and lows in teens and 20's. Extremes: 50° and 13° below zero. Rain, snow and freezing rain totaled 0.50 to 1.00 in. north and 1.20 to 1.70 in. south except extreme southwest where up to 3.50 in. Snowfall 2 to 6 in. south to 11 in. extreme northwest.

PUERTO RICO: Rainfall averaged 0.67 in. or about 0.10 in. subnormal. Moderate to heavy shower activity north, east. Light scattered showers central, west with little or no rain southcentral. Highest weekly total 2.14 in. eastern mountains. Crop moisture conditions too wet some northern zones and too dry most southern and interior zones. Temperatures averaged 75° coast and 70° interior. Extremes: 90°, 47°.

Sugarcane harvesting operations about to begin in favorable weather. Cool weather in coffee zones and frequent showers favored application of pesticides and fertilizers. Tobacco zones active cultivation and fertilizing in favorable weather with harvesting underway some plantations.

Too much rain pasture zones north, shorter days have slowed crop development. Lack of rain retarding growth in south and parts of central. Minor crop zones report good abundance of plantains, bananas and vegetables northcentral but dryness south and southcentral has retarded yields.

SOUTH CAROLINA: Week much warmer than usual. Temperatures around 8° above normal mountains, upper northwest zone; 10° to 15° above normal elsewhere. Warming trend began Monday. Rain along coast early week and inland daily except last few days. Rainfall generally less than 0.05 in. along coast, 0.50 to 0.25 in. inland. Clear, cooler weather returned Saturday.

Rain limited farm activities. Peach tree pruning in Piedmont. Tobacco bed preparation in Pee Dee area. Harvesting mixed greens along coast when weather permitted.

SOUTH DAKOTA: Extreme cold continued most of past week. Temperatures 15° to 25° subnormal. Lows east part 20° to 30° below zero, 15° to 25° subzero west. Extremes: 33° below zero at Flandreau for second consecutive week, 49° at Philip Sunday. Late week warmer air improved conditions quite rapidly. Some very light snows, 0.10 in. or less. Snow cover continued to average 1 to 3 in. west and 4 to 7 in. east.

Lack of wind helped make it more bearable for livestock. Some pneumonia in calves. Feed supplies generally adequate but may become marginal if severe weather continues. Some additional moving of wheat due to higher prices. Increased movement of calves and feeders since first of year. No fuel shortage reported but prices escalating.

TENNESSEE: Cold front across State early week replaced by high pressure and cooler temperatures midweek. Heavy precipitation recorded statewide, amounts ranged from 6.00 in. west to 3.00 in. east. Temperatures ranged from 9° subnormal northwest to 7° normal southeast.

Cold weather, ice storms, excessive rainfall and flooding restricted livestock grazing. Supplementary feeding increased. Hay and feed supplies adequate. Farm work limited to caring for livestock.

TEXAS: Warm, cloudy weather moved northward from coast early week, but was pushed back by a cold front that moved into panhandle Tuesday. By early Thursday cold air behind front spread occasional freezing rain and snow flurries over all of northern Texas. Moderate icing most of area, temperatures held at or below freezing. Cold front touched off thunderstorms with rainfall amounts to 3.00 in. northeast Thursday and moderate to occasionally heavy rains southeast Friday. Warming trend began west late Friday and spread over State by Early Sunday.

Wheat, oats continued decline across State. Moisture critically short from high plains to south Texas. Moisture adequate for satisfactory growth east, Blacklands, southcentral, and upper Gulf Coast. Cotton harvest nearing completion for State at 97% complete, 83% last year. Trailer shortages still occurring northern low plains. Seedbed and preplant irrigation for 1974 crop underway Lower Rio Grande Valley. Freezing weather damaged or destroyed 40% of flax stands in some localities.

Lower Rio Grande Valley: Cabbage harvest continued, immature lettuce at time of freeze showing little damage, being harvested. Onions and carrots made good growth. Laredo: Carrot



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and cabbage harvest continued. Onions showing fair growth but need warmer weather. San Antonio-Winter Garden: Most onions planted and showing good growth. Spinach harvest back in full swing. Carrot digging progressing slow due to adverse weather. Cabbage harvest remains active. Coastal Bend: Spinach harvest underway. Citrus harvest gained momentum again following the freeze -- many trees are defoliated -- tree condition varies widely.

Livestock fair to good most areas, but cold weather caused shrinkage. Most ranchers supplemental or full-feeding livestock. Hay stocks short on high and low plains. No confirmed screwworm cases in State past three weeks.

UTAH: Rain or snow in valleys and snow in mountains most of period. Moisture generally light to moderate but heavy in a few localities. Average temperatures much below normal. Moderating temperatures gave farmers and ranchers a break from bitter cold of past two weeks, enabling them to catch up on machinery repairs and other chores. However, melting snow made feedlots and barnyards muddy. Care and feeding of livestock leading activities. Placing of poults for 1974 turkey crops started. Sugar processing continues in full force. Sorting, grading and marketing of potatoes, dry onions, and apples from storage continued.

VIRGINIA: Temperatures averaged 4° above normal. Record highs some sections on 11th. Colder at end of week. Extremes: 75° at Norfolk, 12° at Bluefield. Rainfall throughout week averaged around 1.00 in. Heavy rains caused flooding, blocking roads southwest. Soil moisture surplus statewide. Less than one day suitable for field-work. Winter grains and grazing in good condition. Dark-fire tobacco marketing continued. Routine livestock chores, some fence mending in flooded areas.

WASHINGTON: West: Average temperatures subnormal. Highs in 30's, lows in 20's. Precipitation heavy. Some plant damage possible by cold but extent not assessed at this time. Feeding livestock, other necessary chores. Harvest forced rhubarb started King-Pierce County areas. East: Temp-

eratures 12° to 23° subnormal. Few scattered snow showers. Cold damaged peach, nectarine buds lower Yakima Valley. Pruning orchards continued. Potatoes, sugar beets moving to processing plants. Winter seeded crops good condition. Feeding livestock, routine chores.

WEST VIRGINIA: Rain of 2.00 to 3.00 in. brought flooding to many parts of State. Flash flood watches and warnings issued for all of State except northern panhandle. Southwest especially hard hit. Watches canceled as rivers began to level off or recede. Precipitation ended Saturday with welcome sunshine. Temperatures normal except 4° to 7° below north. Warm front divided State Thursday and Friday; highs north in 30's, 40's south. Cold returned Saturday with high in 20's. Too wet for outdoor work. Activity restricted to repair work. Routine chores and care of livestock.

WISCONSIN: Bitter cold week. Temperatures averages 15° to 20° subnormal. Temperatures well below zero each morning west and north, and on a few days even afternoon highs remained below zero. Coldest mornings Tuesday at Superior 31° below zero and on Saturday when even southeast well below zero.

Precipitation averaged slightly over 0.50 in. northwest. Nearly 4 in. snow fell southeast Tuesday and about 1 in. elsewhere. On Thursday some parts southeast received more than 4 in. snow and up to 8 in. near Racine. Lesser amounts fell in other areas.

WYOMING: Very cold week with scattered light snows except moderate to heavy northwest mountains. Moran reported most moisture with 0.53 in. Temperatures averaged 10° to 22° subnormal. Highs 15° to 30°, lows mostly 15° to 35° below zero. Extremes: 34° at Carpenter and 33° below zero at Big Piney.

Supplemental feeding livestock continued. Feed supplies remained adequate most areas despite heavier feeding. Livestock good but ranchers looking for break in weather. Most winter wheat reported in good condition with adequate soil moisture and moderate snow cover.