

Weekly Weather & Crop Bulletin

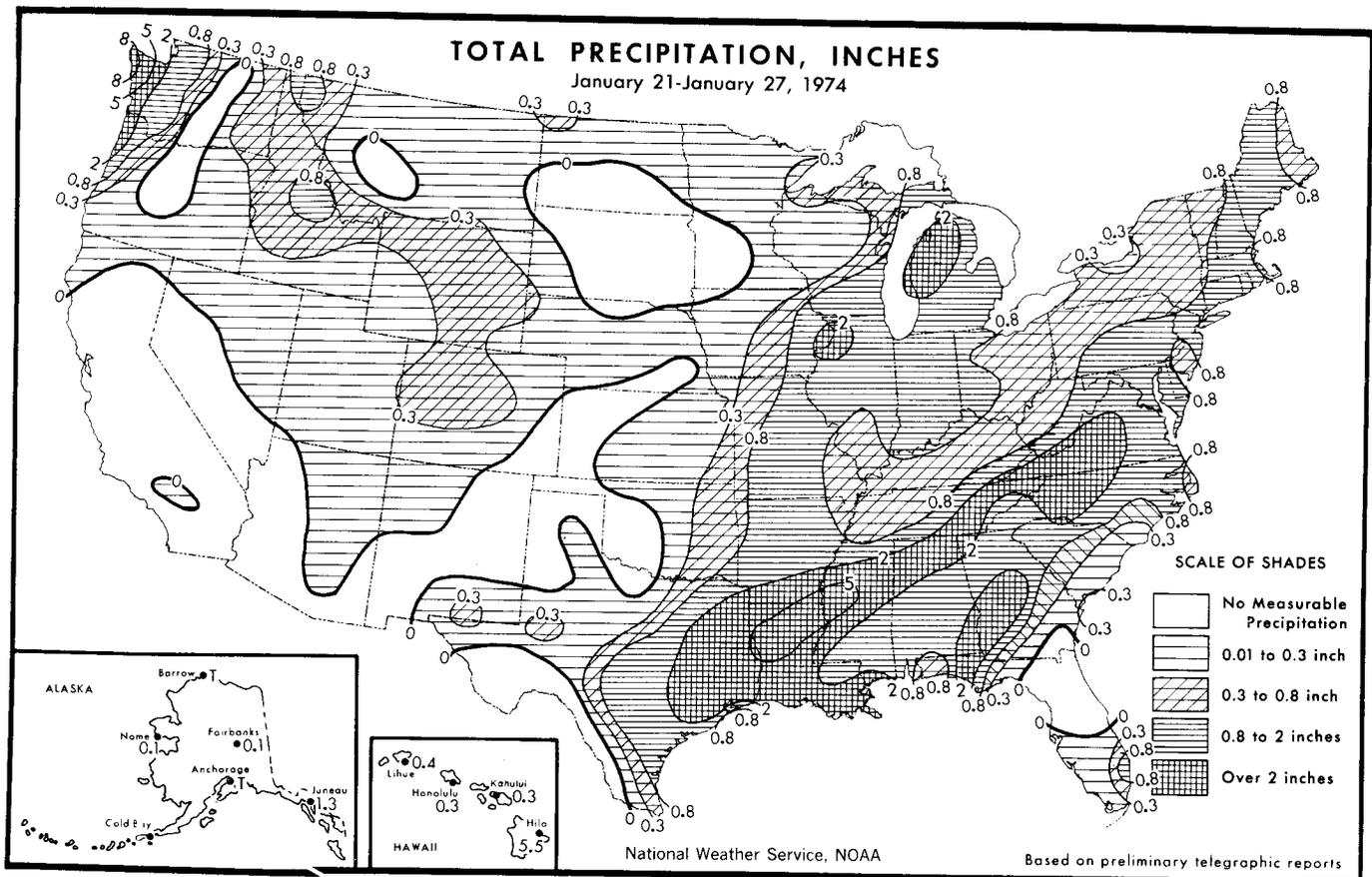
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NATIONAL WEATHER SUMMARY

HIGHLIGHTS: Above normal temperature was again the dominant feature of this week's weather. Most of the rain fell from southeastern Texas northeastward. Considerable severe weather and flooding occurred in Louisiana, Mississippi, and northeastward through Appalachia to western Virginia. From the Great Plains westward precipitation was light except for heavy amounts on the west coast of Washington.

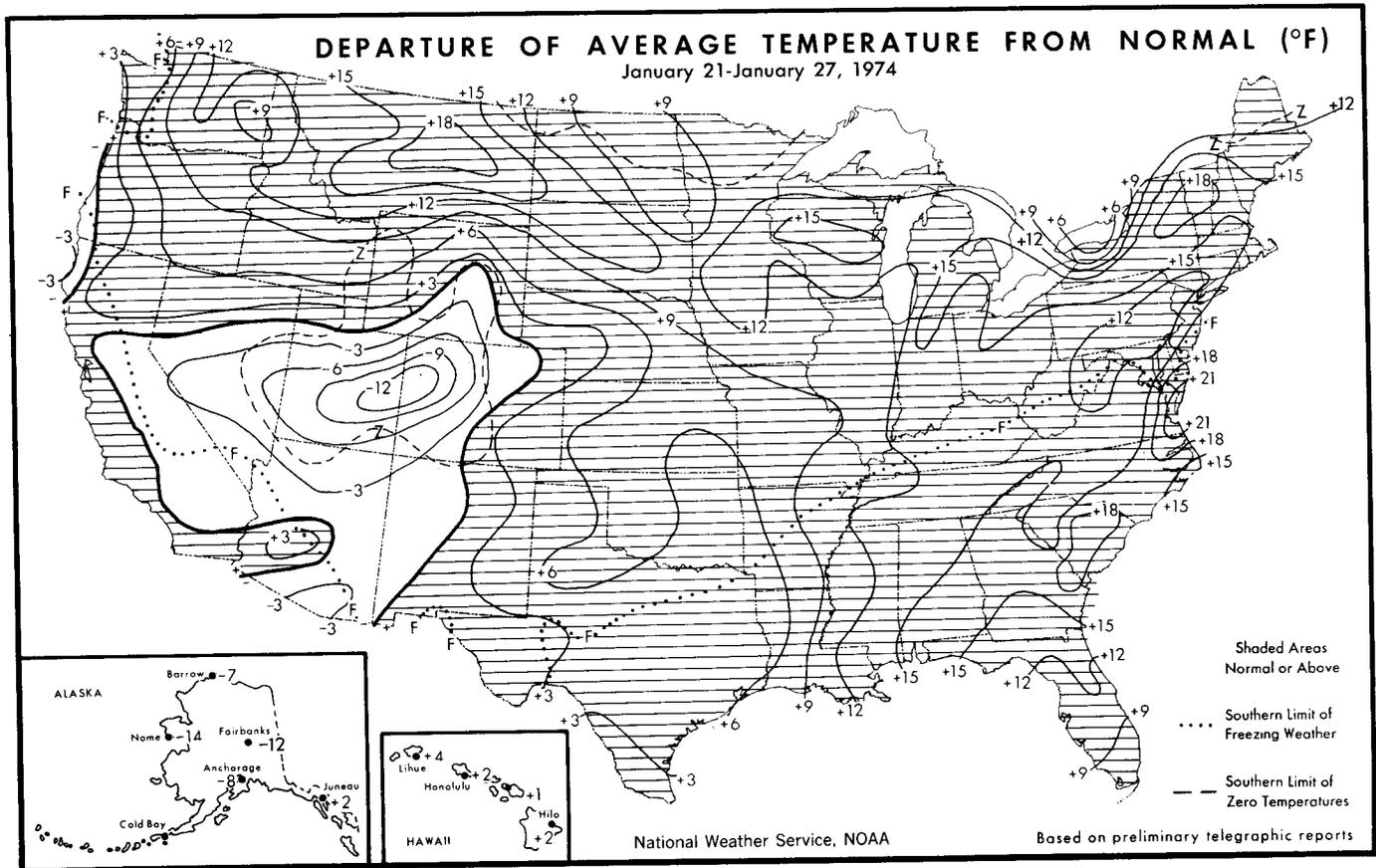
PRECIPITATION: A quasi-stationary front in the Southeast was established on Wednesday and started a procession of waves moving along the front, which continued until the entire system moved out of the country early Sunday. Warm moist tropical air moving north from the Gulf of Mexico was lifted at each wave as it moved along the front and spread heavy precipitation northward as the warm air moved over the cooler air to the north.

On Monday morning a frontal system moving through the Eastern U. S. produced rain, fog and, in

New York, freezing rain along and ahead of the front. By late Monday, this system had moved out of the country.

Elsewhere on Monday, snow was falling from northern Colorado northward through Montana and westward to Utah as the counter-clockwise flow around a Low in southern Colorado caused moist air to be lifted as it flowed westward up the mountains. By mid-morning Sheridan, Wyo., had received 5 in. of new snow in the previous 6 hours.

Tuesday was more uneventful as the Colorado Low moved to Indiana, spreading precipitation, mostly rain, to the north and west of the center as it moved. A cold front extended from the Low to eastern Texas and a warm front eastward through Maryland. As the Low moved, the snow persisted in Kansas and Nebraska. Snow accumulated to 9 in. in Chadron, Neb., before the storm moved through. As the precipitation changed form, freezing rain and drizzle fell in Iowa and then became rain in Illinois and Indiana.



The Low was in New York on Wednesday and the cold front had moved to the Appalachians and had become stationary in Louisiana with some indication of a wave forming there. Rain was falling along and about 100 mi. behind the front and ahead of it from Pennsylvania northward. Some severe weather had begun in northern Louisiana. The severe weather increased during the day as heavy showers and thunderstorms occurred from northeastern Texas through Tennessee. Flash flooding was reported in western Mississippi. Some freezing rain occurred in New York and snow fell behind the Low in Michigan.

Elsewhere in the Nation, a polar front pushed southward into North Dakota and a Low formed in northwest Minnesota. Snow was falling along the front and west of the Low. There was little indication that this front would move further south.

As Thursday progressed, the Low in New York moved into the Atlantic and the trailing front moved slowly southeast into the warm moist air from the Gulf. This overrunning moist air carried rain, heavy at times, all the way into west Texas and 200 mi. behind the front. In the East, rain fell as far north as Maryland as the front lingered from North Carolina to southern Louisiana.

On Friday a Low formed on the front in the western Gulf and by Saturday had moved to a position in northern Mississippi with a warm front eastward through South Carolina. Heavy rain and severe weather surrounded the Low as it moved north, then northeast. Rain continued as far north as Maryland. The polar front continued to linger along the north-

ern tier of States, causing some local snowfall.

By Sunday the Low had moved rapidly northeastward and, as the day progressed, the entire system moved out of the country. The weather cleared rapidly as the front passed but grim reminders were left in its wake in the form of flooding streams, tornado damage, and a generally soggy area east of the Appalachians.

TEMPERATURE: A second week of Indian Summer elapsed as most of the Nation basked in well above normal temperatures. The warmest area was in States east of the Appalachian mountains where warm tropical air predominated during most of the week. Many all-time high temperature records were broken. In the District of Columbia the maximum temperature of 75° on Sunday broke the previous all-time record of 72° set in 1954. The exception to the warm air was the plateau area of the Southwest where a large area of cold air was trapped. Grand Junction, Colo., finished the week with an average temperature of 14° below normal.

The reason for the warm week was a lack of cold arctic air moving southward which would normally be expected this time of year. Instead, the arctic air took on a west-east trajectory and barely touched some of the northern States. The movement of air masses was more typical of early fall with Pacific maritime air moving into the U. S. from the west and the tropical air from the Gulf of Mexico moving northward. It was the meeting of these two vastly different air masses that triggered the weather occurrences in the eastern U. S.

NATIONAL AGRICULTURAL SUMMARY

AGRICULTURAL HIGHLIGHTS: Another week of mild temperatures Nationwide continued to melt protective snowcover from winter wheat and encouraged some growth. The mild weather also boosted growth of winter pastures in the South.

SMALL GRAINS: For the second straight week, mild temperatures over most of the Nation melted away additional snow cover and stimulated some growth of winter wheat in the southern Great Plains and Pacific Northwest. Winter wheat in Kansas showed some growth; however, the combination of shorter-than-usual top growth and the lack of snow cover leaves many fields vulnerable to subzero temperatures and strong winds. On the bright side, surface and subsoil moisture is adequate.

The warm weather and sunshine caused Oklahoma wheat fields to turn green and prompted farmers in southern areas to plant spring oats and barley. The eastern third of Oklahoma remained too wet to permit livestock to graze small grain fields, while the western third remained too dry for wheat growth and pasturing. Dry soil continued to limit non-irrigated wheat and oats growth on the Texas High and Low Plains although last week's snow helped some in the High Plains.

Winter wheat has lost most of its snow cover in Nebraska, South Dakota, and across the Corn Belt. The soil has thawed and some greening is evident in many areas. In Montana, winter wheat condition is rated mostly fair to good and snow cover protection is poor to fair. Mild weather in Washington and Oregon has caused some wheat growth, leaving stands vulnerable to freezing weather later in the winter. Small grain growth improved in California and some planting continued there and in Arizona.

COTTON: Cotton is nearly harvested in Texas at 99% complete compared to 83% complete a year earlier. Ginning ricked cotton is underway on the Texas High Plains while seedbed preparation continued in South Texas.

The Oklahoma cotton harvest neared completion; some farmers cut stalks and plowed in preparation for the 1974 crop. Final picking of remaining fields, and shredding-discing operations continued in California and Arizona.

OTHER CROPS: Wet weather most of last week held fieldwork to a minimum in the South Atlantic and South Central States.

Georgia farmers managed to seed some tobacco beds and some tobacco bed preparation was accomplish-

ed northeastwards into Maryland. Tobacco striping in Maryland continued ahead of normal.

Wet fields continued to slow potato digging in California while potato planting continued in the San Antonio-Winter Garden area of Texas.

Sugarcane harvesting was active in Florida; however, sucrose content was lower than desired.

FRUITS AND NUTS: The Florida citrus harvest progressed rapidly. Trees held in excellent condition as new growth and bloom buds appeared. Rain is needed, but very little irrigation was done.

In Texas, citrus trees defoliated by the December freeze are showing new growth and are in partial bloom. Citrus harvesting for fresh market and processing continued.

Navel oranges were picked in the San Joaquin Valley and southern California while lemon harvesting increased as groves dried.

Arizona citrus groves are generally in excellent condition and harvest conditions were good.

Buds on early varieties of almonds in California started to show color while apricot and peach buds started to swell.

Fruit growers in Kentucky and West Virginia are concerned that too much abnormal warm weather could endanger their 1974 fruit crop.

VEGETABLES: Cabbage continued in heavy supply from Florida while tomatoes neared a seasonal low and celery volume was steady.

Cabbage and carrot harvesting remained active in the San Antonio-Winter Garden area of Texas where onions made good growth last week. In the Lower Rio Valley, lettuce and cabbage harvesting advanced; cantaloupe planting was active.

In California, carrot harvesting at Imperial held steady with good quality. Celery supplies near Orange were light, but of good quality.

The winter lettuce harvest at Yuma, Arizona was active under excellent harvest conditions.

PASTURES AND LIVESTOCK: Springlike temperatures prevailed for a second week over most of the Country easing cold weather stress on livestock, reducing supplemental feeding and permitting increased grazing. Livestock continue in good condition Nationwide.

Muddy fields restricted grazing of wheat pastures in Kansas and eastern Oklahoma. Pasture growth and grazing increased in the South, although the rainy weather has interrupted fertilizer applications and grazing in some areas.

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.st., Jan. 27, 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 . . .	57	+13	1.4	+ .3	La.Baton Rouge . . .	63	+12	1.8	+ .7	Youngstown	39	+14	.7	0
Mobile	67	+16	1.6	+ .6	Lake Charles . . .	59	+ 6	3.4	+2.4	OKLA.Okla. City . .	44	+ 7	T	- .3
Montgomery	64	+16	.9	0	New Orleans	65	+12	4.7	+3.8	Tulsa	42	+ 5	.5	+ .1
ALASKA.Anchorage . .	5	- 8	T	- .2	Shreveport	51	+ 4	5.0	+3.9	OREG.Astoria	43	+ 2	3.8	+1.1
Barrow	-22	- 7	T	0	MAINE.Caribou . . .	20	+10	.7	+ .2	Burns	34	+ 8	.1	- .3
Fairbanks	-23	-12	.1	- .1	Portland	36	+15	1.7	+ .7	Medford	39	+ 2	.1	- .6
Juneau	26	+ 2	1.3	+ .4	MD.Baltimore . . .	45	+11	1.0	+ .2	Pendleton	43	+11	.2	- .1
Kodiak	---	---	---	---	MASS.Boston	43	+14	.8	- .1	Portland	45	+ 7	.9	- .1
Nome	-7	-14	.1	- .1	Chatham	---	---	---	---	Salem	43	+ 4	.6	- .8
ARIZ.Flagstaff . . .	25	- 3	.1	- .3	MICH.Alpena	30	+13	1.7	+1.3	PA.Allentown	39	+11	1.0	+ .3
Phoenix	55	+ 4	T	- .1	Detroit	39	+15	1.2	+ .7	Erie	41	+16	.4	- .3
Tucson	48	- 3	.1	- .1	Flint	37	+15	1.1	+ .7	Harrisburg	41	+11	1.5	+ .8
Winslow	32	- 2	.1	0	Grand Rapids . . .	37	+14	1.5	+1.1	Philadelphia	44	+12	.7	- .1
Yuma	57	+ 1	0	- .1	Houghton Lake . . .	30	+13	2.1	+1.7	Pittsburgh	42	+13	.6	- .1
ARK.Fort Smith . . .	44	+ 5	.8	+ .2	Lansing	38	+16	1.0	+ .5	Scranton	38	+12	.7	+ .2
Little Rock	49	+ 9	1.7	+ .5	Marquette	28	+10	.6	+ .2	R.I. Providence . . .	44	+16	1.1	+ .2
CALIF.Bakersfield . .	50	+ 2	0	- .2	Markegon	34	+10	2.2	+1.7	S.C. Charleston . . .	66	+17	.2	- .3
Eureka	45	- 3	.2	-1.3	S. Ste. Marie . . .	24	+10	1.1	+ .7	Columbia	65	+19	.5	- .2
Fresno	45	- 1	0	- .5	MINN.Duluth	19	+11	.3	0	Greenville	57	+14	1.7	+ .8
Los Angeles	57	0	0	- .6	Internatl Falls . .	13	+11	.2	0	S.D. Aberdeen	18	+ 9	T	- .2
Red Bluff	50	+ 4	0	-1.0	Minneapolis	26	+14	T	- .2	Huron	26	+14	T	- .1
San Diego	57	+ 2	0	- .4	Rochester	25	+12	T	- .2	Rapid City	31	+ 9	.1	0
San Francisco	51	+ 2	0	- .9	St. Cloud	20	+11	T	- .1	Sioux Falls	25	+11	T	- .2
Stockton	45	0	0	- .6	MISS.Jackson	58	+11	3.6	+2.5	TENN.Chattanooga . .	54	+14	2.2	+ .9
COLO.Denver	28	- 2	.5	+ .3	Meridian	60	+13	1.9	+ .8	Knoxville	54	+13	1.6	+ .5
Grand Junction . . .	13	-14	.4	+ .2	MO.Columbia	37	+ 7	1.9	+1.5	Memphis	53	+12	.5	- .9
Pueblo	33	+ 3	.2	+ .1	Kansas City	36	+ 8	.4	0	Nashville	51	+12	.6	- .7
CONN.Bridgeport . . .	42	+12	1.5	+ .6	St. Louis	39	+ 8	.8	+ .4	TEX.Abilene	48	+ 4	T	- .1
Hartford	39	+14	1.4	+ .6	Springfield	41	+ 8	.9	+ .4	Amarillo	40	+ 4	T	- .1
D.C.Washington . . .	49	+13	1.0	+ .2	MONT.Billings	35	+13	T	- .1	Austin	53	+ 3	1.7	+1.2
FLA.Apalachicola . .	68	+14	.2	- .5	Glasgow	24	+15	T	- .1	Beaumont	58	+ 6	2.0	+1.1
Daytona Beach	70	+11	0	---	Great Falls	35	+14	.1	0	Brownsville	61	+ 1	.5	+ .2
Ft. Myers	74	+10	T	- .4	Havre	30	+17	T	- .1	Corpus Christi	60	+ 4	1.2	+ .9
Jacksonville	68	+13	T	- .6	Helena	35	+17	T	- .1	Dallas	---	---	---	---
Key West	77	+ 6	T	- .3	Kalispell	33	+14	.4	+ .1	Del Rio	55	+ 4	T	- .2
Lakeland	72	+11	T	- .5	Miles City	33	+18	T	- .1	El Paso	46	+ 2	T	- .1
Miami	75	+ 8	.4	- .1	Missoula	34	+13	.2	0	Fort Worth	49	+ 4	.6	+ .1
Orlando	73	+12	0	- .4	NEBR.Grand Island .	28	+ 6	.3	+ .2	Galveston	60	+ 6	.7	- .1
Tallahassee	67	+14	.1	- .7	Lincoln	30	+ 8	T	- .2	Houston	57	+ 5	2.8	+2.0
Tampa	71	+10	T	- .5	Norfolk	28	+ 9	.2	0	Lubbock	45	+ 6	T	- .1
W.Palm Beach	73	+ 8	1.7	---	N.Platte	26	+ 2	.2	+ .1	Midland	47	+ 3	.5	+ .3
GA.Atlanta	60	+17	1.8	+ .7	Omaha	29	+ 9	.1	- .1	San Angelo	50	+ 3	T	- .2
Augusta	61	+15	.7	0	Valentine	28	+ 7	T	- .1	San Antonio	54	+ 3	1.0	+ .6
Macon	64	+16	2.3	+1.5	NEV.Ely	19	- 5	.1	- .1	San Antonio	58	+ 4	1.8	+1.3
Savannah	68	+18	.4	- .2	Las Vegas	43	- 2	T	- .1	Victoria	50	+ 3	.9	+ .4
HAWAII.Hilo	73	+ 2	5.5	+3.0	Reno	33	0	0	- .3	Waco	48	+ 6	T	- .3
Honolulu	74	+ 2	.3	- .6	Winnemucca	33	+ 4	.1	- .1	Wichita Falls	22	- 6	T	- .2
Kahului	72	+ 1	.3	- .7	N.H.Concord	35	+15	1.2	+ .4	UTAH.Blanding	29	0	.2	- .1
Lihue	74	+ 4	.4	- .9	N.J.Atlantic City . .	49	+17	.8	- .1	Salt Lake City	29	0	.2	- .1
IDAHO.Boise	38	+ 8	.4	+ .1	Trenton	45	+13	.9	0	VT.Burlington	34	+18	.5	+ .1
Lewiston	41	+ 9	.3	0	N.MEX.Albuquerque . .	35	- 1	T	- .1	VA.Lynchburg	50	+13	2.6	+1.8
Pocatello	31	+ 7	.1	- .2	Roswell	43	+ 4	T	- .1	Norfolk	62	+22	1.5	+ .7
ILL.Cairo	47	+10	.7	- .5	N.Y.Albany	37	+16	.6	0	Richmond	52	+14	1.3	+ .5
Chicago	35	+11	1.4	+1.0	Binghamton	38	+16	.6	0	Roanoke	51	+14	2.1	+1.4
Moline	33	+11	2.2	+1.9	Buffalo	40	+ 7	.7	+ .1	WASH.Colville	33	+10	.3	- .1
Peoria	34	+10	1.4	+1.0	New York	45	+13	1.1	+ .3	Omak	33	+12	0	- .3
Rockford	31	+11	1.7	+1.2	Rochester	29	+ 5	.2	- .3	Quillayute	42	+ 3	8.4	+5.0
Springfield	38	+11	.9	+ .5	Syracuse	39	+16	.7	0	Seattle-Tacoma	43	+ 5	1.0	- .3
IND.Evansville	46	+13	1.1	+ .1	N.C.Asheville	54	+16	1.9	+1.2	Spokane	35	+ 9	.4	- .1
Ft. Wayne	39	+14	.8	+ .2	Charlotte	55	+13	2.8	+2.1	Walla Walla	44	+10	.8	+ .4
Indianapolis	41	+13	1.2	+ .4	Greensboro	50	+11	3.0	+2.2	Yakima	39	+11	T	- .3
South Bend	39	+15	.9	+ .4	Hatteras	58	+13	.4	- .5	W.Va.Beckley	46	+14	1.6	+ .7
IOWA.Burlington . . .	34	+11	1.7	+1.3	Raleigh	55	+14	1.7	+ .9	Charleston	48	+13	.6	- .4
Des Moines	31	+12	.4	+ .1	Wilmington	63	+16	.1	- .5	Huntington	49	+14	.6	- .3
Dubuque	28	+10	1.2	+ .8	N.DAK.Bismarck . . .	19	+11	T	- .1	Parkersburg	48	+15	.5	- .3
Sioux City	28	+10	.1	- .1	Fargo	13	+ 7	.1	0	WIS.Green Bay	30	+15	.7	+ .4
KANS.Concordia	34	+ 7	T	- .2	Williston	19	+11	.3	+ .1	La Crosse	30	+14	T	- .3
Dodge City	38	+ 7	.1	- .1	OHIO.Akron-Canton . .	40	+14	.5	- .2	Madison	31	+14	1.4	+1.1
Goodland	33	+ 5	T	- .1	Cincinnati	44	+13	1.4	+ .4	Milwaukee	31	+12	1.8	+1.4
Topeka	35	+ 7	.2	0	Cleveland	43	+16	.7	+ .1	WYO.Casper	21	- 2	.5	+ .4
Wichita	37	+ 6	.1	- .1	Columbus	43	+14	.8	0	Cheyenne	27	0	T	- .1
KY.Lexington	47	+14	.6	- .6	Dayton	42	+14	1.0	+ .2	Lander	25	+ 5	.3	+ .2
Louisville	47	+13	.8	- .2	Toledo	39	+14	.8	+ .3	Sheridan	27	+ 6	.4	+ .3
										P.R.San Juan	77	+ 2	.9	- .2

Based on 1941-70 normals.

THE DATE ON THIS TABLE IN VOL. 61, NO. 3, SHOULD HAVE READ 13 JAN 1974.

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: Cloudy, wet, unseasonably warm most of week. Record highs in upper 70's over parts south Wednesday. Heavy rains southeast sections Saturday, Dothan got 3.19 in. Sunny skies returned Sunday.

Spring plowing limited to driest fields few southern counties. Many fields so waterlogged it will take several weeks open weather before they will support machinery. Small grains excellent, few flooded lowland fields could be lost if rains prevail. Wet weather delayed application of fertilizer. Unusually mild winter, to date, has worried peach growers as trees have not had chilling hours necessary for a good crop. Producers hope for drop in temperature next few weeks. Livestock fair to good condition, stockmen continue feeding hay and supplements routinely.

ARIZONA: Monday, Tuesday temperatures dropped sharply toward normal following unseasonably warm weather previous week. Still, lower desert valleys averaged above normal while north, east portions ranged from a degree or two subnormal to much as 7° subnormal at Grand Canyon. Early week storm dropped temperatures, deposited very slight moisture north, none south. Vigorous storm Saturday, 1 to 5 in. snow through central mountains, northeast. This storm caused up to 0.20 in. rain some southeast valleys. Lower southern, western deserts received little or none. Small grains being planted some areas, near completion Pima, Pinal counties. Early plantings wheat, barley up to stand Yuma County. Safflower fields satisfactory Yuma County. Planting expected Cochise County about February 15. Cotton clean-up continued, prepared for 1974 crop. Sugar beet crop Yuma County good progress. Planting Cochise County will begin February. Harvest winter lettuce active Yuma. Market conditions weak, harvest conditions excellent. Lettuce harvest central areas complete. Mixed vegetable harvest continued central, west areas. Planting lettuce, other mixed vegetables for later harvest active. Lettuce spring harvest central areas good stands in early planted fields.

Picking sweets, mandarins active Salt River Valley, limited lemons, grapefruit. Lemon, grapefruit harvest continued Yuma area. Export markets good for oranges, fair others. Harvest conditions good, groves generally excellent. Range conditions fair, north mountain ranges snow covered. Southeastern ranges poor, precipitation very limited to date. Hauling stockwater, supplemental feeding more widespread. Cattle, calves fair, no unusual losses. Early calving underway. Sheep, lambs on desert pastures fair.

ARKANSAS: Abnormal warmth and humidity continued with only brief cooling trend noted midweek. Mean temperatures ranged from mid to upper 40's north half to mid 50's southwest. Extremes: 74° Camden on 27th; 21° Calico Rock and Fayetteville on 25th. Several periods of precipitation with largest amounts mainly weekend. Totals lightest northwest and northcentral and heaviest southeast. Extremes ranged from 0.55 in. at Mountain Home to 2.94 in. at Arkansas City.

Mild weather encouraged growth of cool season grasses and small grain pastures. Livestock con-

tinue to receive supplemental feeding. Most soils very wet.

CALIFORNIA: Precipitation ended over State early week. Season totals still well above normal. Generally fair skies remainder of week, except morning valley fog. Brisk north to northeast wind most of State with drier air. Weekly average temperatures generally above normal north and coast. However, nightly lows dropped to freezing or colder virtually all regions.

Wind and drier weather removing excess moisture north half State. Small grain growth improved, weed control active, some planting as fields dry. Picking, shredding, discing last cotton acreage as conditions allowed. Field preparation for planting increased. Buds on early variety almond trees starting to color. Apricot, peach buds starting to swell also. Picking Navel oranges San Joaquin Valley, south. Lemon harvest increased as groves dried. Fruit size increased after rains delayed harvest. Harvest nearly complete desert. Picking grapefruit, tangerines continued. Date harvest complete.

Artichoke low seasonal level. Asparagus increased slightly Imperial. Broccoli continued light Salinas. Cabbage Imperial moderate. Carrots Imperial steady, good quality. Cauliflower moderate, some damage at Fremont due to wet soil. Celery at Orange light, good quality. Potato digging slow, wet fields.

Dry, warmer weather past week boosted growth rangeland grasses, strengthened feed value. Outlook statewide excellent for spring grass. Plenty stockwater. Supplemental feeding most areas. Hay short supply main areas. Sheep on alfalfa fields San Joaquin Valley. Lambing continued, young making good progress. Muddy conditions lowered milk production San Joaquin Valley. Major egg producing areas production normal or slightly below normal. Beekeepers moved colonies to almond plantings, northern San Joaquin, southern Sacramento Valleys for pollination.

COLORADO: Light to moderate precipitation to much of State early week and scattered snows. Parts Arkansas River Basin and San Luis Valley received no precipitation, but amounts elsewhere generally between 0.10 and 0.75 in. Locally heavy snow fell in mountains. Weekly mean temperatures averaged about 5° above normal east and 5° to 10° subnormal west. Daily readings extremely variable ranging from 50's southeast several afternoons down to below zero in west on several nights. Two of the lowest below zero readings: Minus 34° Fraser and minus 31° at Gunnison.

Warm temperatures and light precipitation allowed further snow melting eastern plains. Snow continued to fall west slope and mountains. Livestock generally good. Heavy supplemental feeding required in mountains and west slope areas.

FLORIDA: Temperatures much above normal. Rainfall scattered and very light, most locations reported less than 0.10 in. Few totals over 1.00 in. southeast coast. Citrus tree condition excellent--new growth and bloom buds appearing--rain needed but very little irrigation--harvest progressing rapidly. Soil preparation for spring planting active. Rain

needed to improve soil moisture over most of State. Soil moisture adequate in panhandle. Small grains good. Sugarcane harvest active, sucrose content lower than desired, cool weather would be beneficial. Young cane good. Pastures fair. Cattle and calves fair to good.

Cabbage continued in heavy supply, while celery was steady. Tomatoes neared seasonal low. Potatoes gradually gained momentum.

GEORGIA: Temperatures 10° to 15° above normal. Warm beginning and end of period, only slight cooling midweek. Rainfall averaged 1.00 in. to 3.00 in. northwest and central, 0.25 to 0.75 in. south and eastcentral. Heaviest rainfall associated with lines of thunderstorms which moved through northwest central and central portions mostly Sunday and again late Wednesday.

Soil moisture adequate to mostly excessive. Small grains mostly good. Fuel, lime and nitrogen continues in short supply in some areas. Farmers seeding tobacco beds. Pastures fair to good. Cattle good.

HAWAII: Weather generally favorable most areas of State. Farm operations limited some areas but more active than recent weeks. Progress of crops fair to good, but heavy spraying required to control insects and diseases. Banana supply steady, papayas decreasing. Some vegetables in short supply. Adequate moisture in pastures, forage feed plentiful. Cattle condition good. Sugar and pineapple operations continued slack.

IDAHO: A series of weak storm fronts from northwest gave mostly cloudy skies with some light rain in valleys and snow in mountains at beginning and end of period. Temperatures remained above normal with highs generally in higher 40's and lows in 20's. Precipitation light with above normal amount southeast. Snow depths at reporting mountain stations increased 5 to 19 in. Flooding in north eased by cooler, dryer weather.

Ground bare and muddy in lower elevation farming areas. Soil erosion serious problem some northern localities. Weather favorable for early lambing and calving. Onion and potato marketing active. Livestock generally good, feed supplies adequate most areas.

ILLINOIS: Temperatures considerably above normal. Precipitation fell as light rain Monday and Tuesday, moderate to heavy rainfall Saturday. Main activities livestock care, routine farm chores.

INDIANA: Warm, wet week. Temperatures averaged 41°, 12° above normal and ranged from 22° at Terre Haute on 25th to 68° on 22nd at Evansville. Precipitation averaged 0.50 to 1.50 in. Scattered damage from winds night of 26th. Soils not frozen, very wet. Some streams out of banks. Fields remain muddy. Water standing in low spots. Extended mild period has resulted in much unseasonable greening up of overwintering grains and pastures permitting limited grazing. Equipment maintenance and chores main activities.

IOWA: Mild temperatures continued averaging 10° above normal. Precipitation confined to light snow Monday and rain over southeast half Saturday that changed to snow before ending Saturday night. Rainfall amounts 0.50 to 1.50 in. caused local flooding.

KANSAS: Temperatures averaged about 8° above normal central to near 6° above normal northeast. Precipitation light. Few significant amounts east, up to 0.67 in. Early week temperatures near 60° southwest. Wednesday through Friday temperature

50° or higher some places.

Mild weather benefitted livestock. Supplemental feeding still necessary, but cattle began movement back to stalk and winter wheat fields. Grazing of winter wheat increased, but mud still limited increase. Grain and forage supplies adequate. Feedlots remained very muddy. Winter wheat responded favorably to warmer temperatures and some growth evident. Nearly all snow cover off. Top growth short. No serious damage to date, many fields vulnerable to sub-zero temperatures or blowing. Surface, sub-soil moisture adequate, except surface moisture short some southwest counties.

KENTUCKY: Rain over most of State Monday, again midweek, and on weekend averaging around 1.00 in. most areas except around 0.50 in. northeast. Temperatures remained above freezing during week except lows down into 20's Friday morning north. Temperatures averaged about 15° above normal.

Flooding and ponding could drown some wheat acreage on lowlands and river bottoms. Extremely warm temperatures could endanger fruit trees and 1974 fruit crop. Livestock obtaining considerable feed from winter pastures, and warmer temperatures eased supplemental feed demands. Only 3 burley tobacco markets remain open for final week sales.

LOUISIANA: Warm, wet weather continued. Temperatures averaged around 5° above normals north and 7° to 13° above central and south. Extremes: 80° at New Orleans and Houma on Wednesday and 36° at Homer and Ashland on Tuesday. Rainfall continued throughout week statewide. Totals ranged from less than 1.00 in. some sections lower delta and from 2.00 to more than 4.00 in. elsewhere. Greatest 1-day total 2.44 in. at Homer Thursday morning.

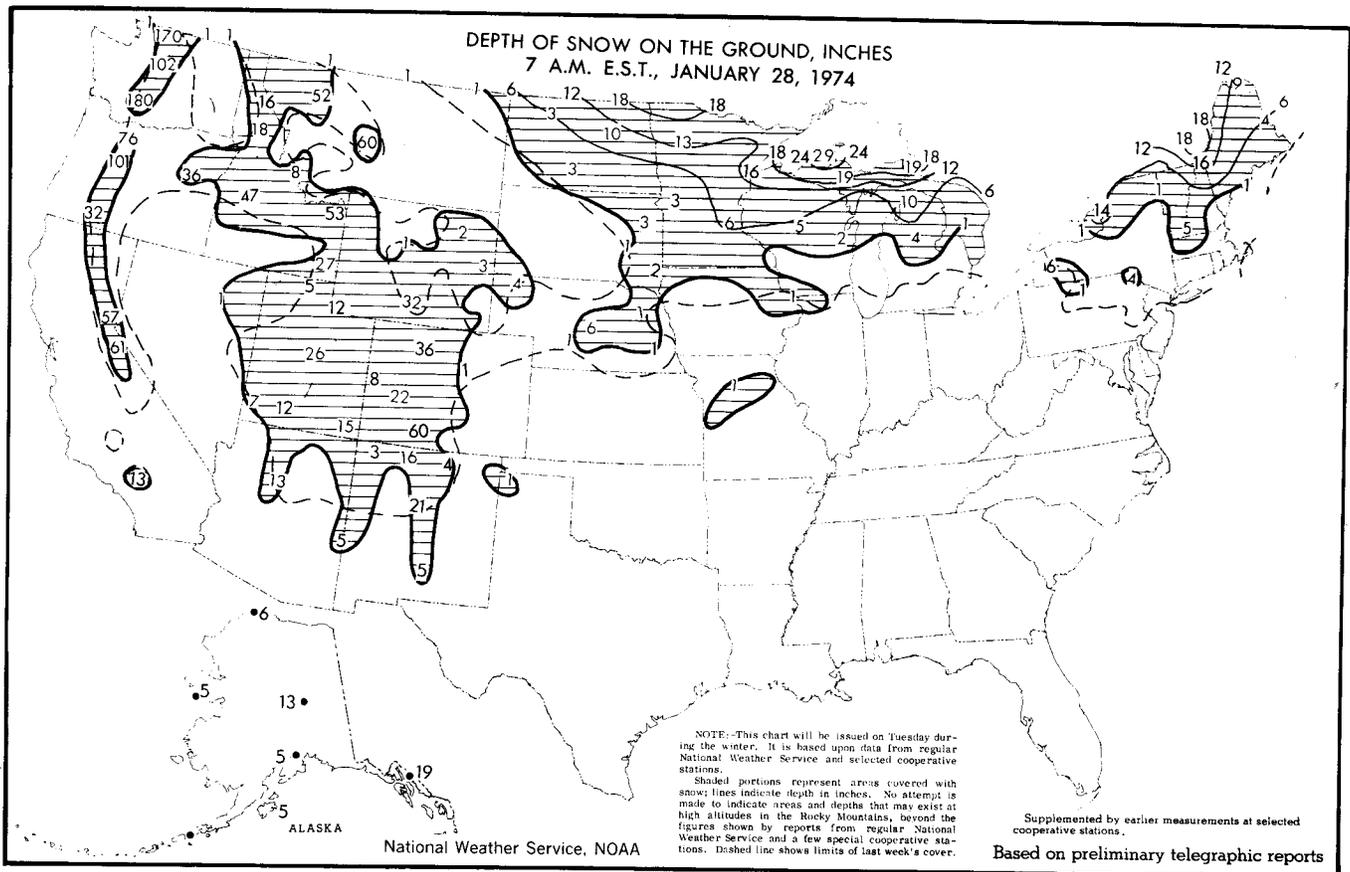
MARYLAND AND DELAWARE: Warm week, temperatures well above normal. Highs ranged from 50's to low 70's and lows from low 20's to upper 30's. Precipitation reported all areas, amounts from less than 0.25 to over 1.25 in. Heaviest northcentral Maryland. Weekend mild with some record high readings Sunday.

Field activity very limited, most fields too wet. Some tobacco seed bed preparation. Tobacco stripping ahead of normal with continuing humid weather. Orchard pruning and tree care about normal pace. Trees in good condition with little cold weather damage to date.

MICHIGAN: Storm center moved rapidly northeastward across lower peninsula Saturday night accompanied by heavy rain, high winds and a few thunderstorms over southern lower and 1 to 3 in. of snow northern lower. Precipitation generally totaled 1.00 to 2.00 in. over lower peninsula and 0.50 to 1.00 in. over most of upper peninsula except around 0.20 in. over extreme southwest upper. Most precipitation fell early in week and again Saturday night.

Temperatures averaged 11° to 15° above normal over lower and 9° to 11° above normal over upper peninsula. Above normal temperatures most days. Temperatures reached into 40's over much of lower peninsula Friday and Saturday afternoon.

MINNESOTA: Temperatures continued to average 7° to 14° above normal for second week in a row. This warm spell of lows in 10° to 20° range and highs in 20's and 30's has offset early month cold, so that average temperature through 27th near normal for January. Precipitation continued short, weekly totals less than 0.10 in. except parts northcentral and northeast where light snow on 23rd and again over weekend produced water content of near 0.33 in. Snow depths vary from patches southwest dis-



trict to 10 to 16 in. northeast and northcentral; elsewhere 3 to 7 in.

MISSISSIPPI: Unseasonably warm week with only brief breaks in the rainy spell most counties. Temperatures about 10° above normal. Extremes: 80°, 35°. Greatest 24-hour rainfall reported was 3.50 in. Mild temperatures with scattered showers and thunderstorms continued through weekend.

Heavy rains continue to keep soil moisture supplies surplus to flooding. Major farm activities: Feeding livestock, maintenance of farm machinery and making plans for 1974 crop year. Fieldwork averaged 0.1 day. Feed grain supplies short to adequate over entire State. Hay and other roughage supplies short to adequate. Livestock generally being maintained in fair condition.

MISSOURI: Temperatures ranged from 8° to 14° above normal statewide past week. Precipitation ranged from around 0.50 in. extreme west to 1.50 in. central and east.

MONTANA: Mild temperatures. Rain and snow showers, most frequent in west with strong southwest winds on east slopes. Temperatures averaged above normal with highest maximums in 40's except 50's southeast. Precipitation subnormal except west where heavier rain and snow fell as Pacific weather systems crossed State.

Mild weather lowered hay requirements for livestock. Calving and lambing just starting, about 2% complete statewide. Livestock shrinkage about normal. Hay supplies becoming short northwest and northcentral and parts central districts, mostly adequate elsewhere. Grain and concentrate short-

ages reported some counties all districts except northeast and southeast. Winter wheat mostly fair to good with best conditions reported in northeast, central, southcentral, and southeast. Snow protection on winter wheat poor northwest and northcentral districts, poor to fair elsewhere.

NEBRASKA: Temperatures early week averaged subnormal, but much above normal remainder of week. Snow fell in light amounts over much of State on 21st and 22nd with water equivalents of less than 0.50 in. Local snow accumulation northwest of near one foot with water equivalent of near 1.00 in.

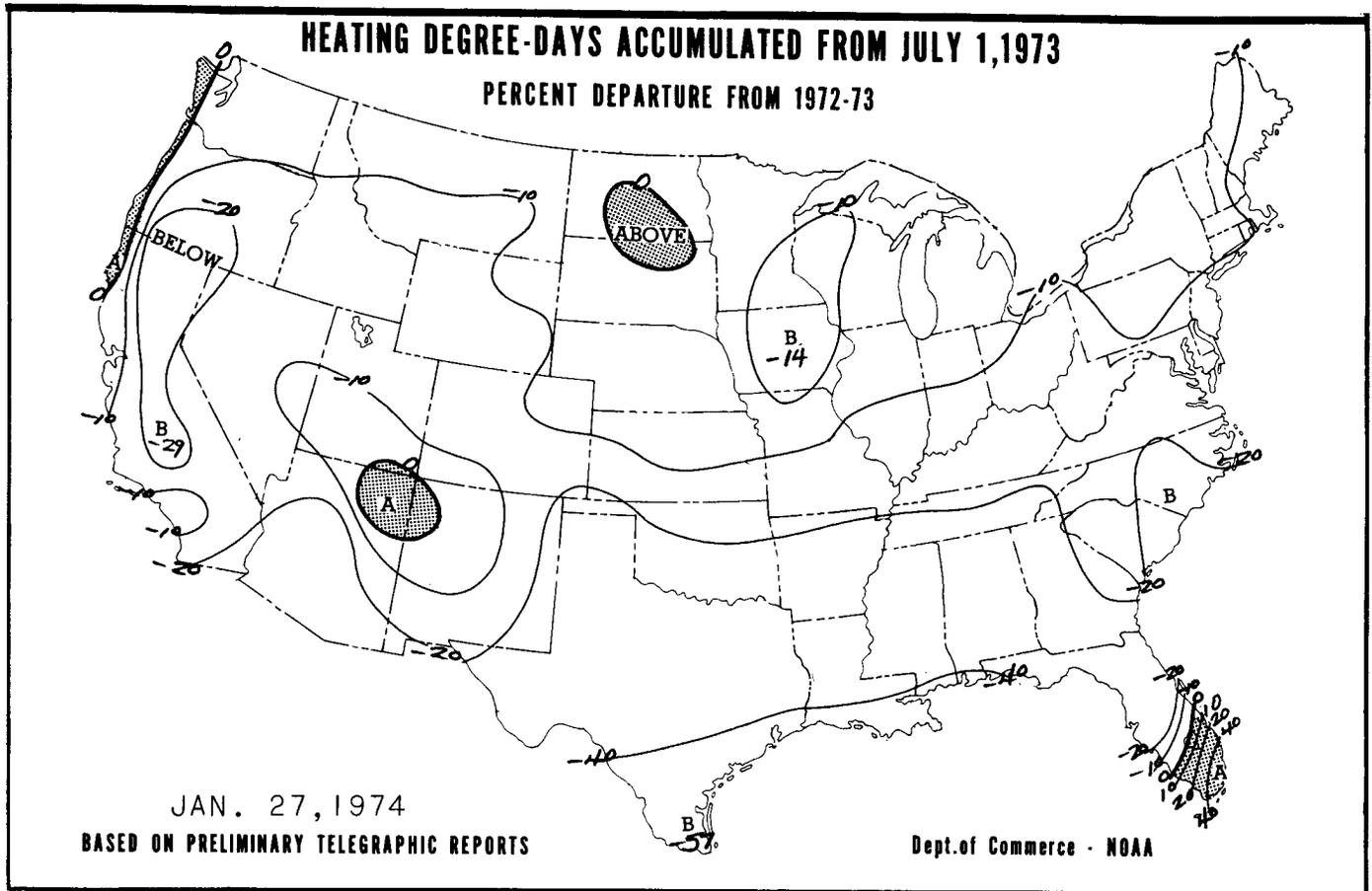
Winter wheat has lost most of the snow cover elsewhere in the State except in northwest. Supplemental feeding continued to keep livestock in good condition. Livestock again foraging on corn stalks.

NEVADA: Temperatures varied from 57° Las Vegas, Fallon and Yerington to 8° below zero Ely. Precipitation recorded all stations except Reno. Heaviest 0.47 in. Yucca Flat. Owyhee and Austin had measurable snow on ground.

Livestock good. Feed and water supplies adequate. Usual losses of sheep, lambs to coyotes. Radish plantings in Moapa Valley.

NEW ENGLAND: Early week mild and record breaking high readings reported Sunday for many locations including Burlington, Concord, Providence and Boston. Also winds of 50 mph common the same day and reached nearly 70 mph in New Hampshire. Several periods of precipitation during week, most as rain,

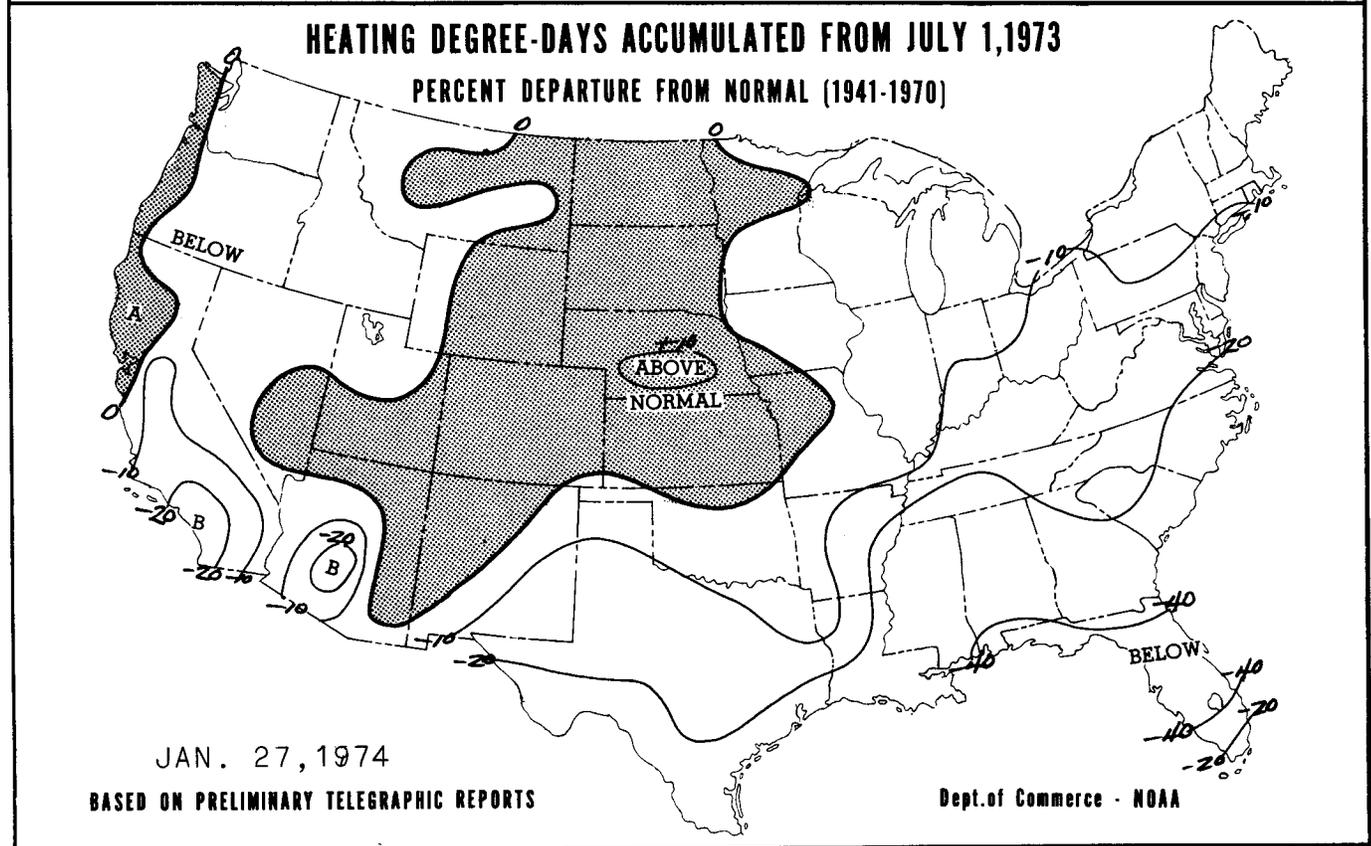
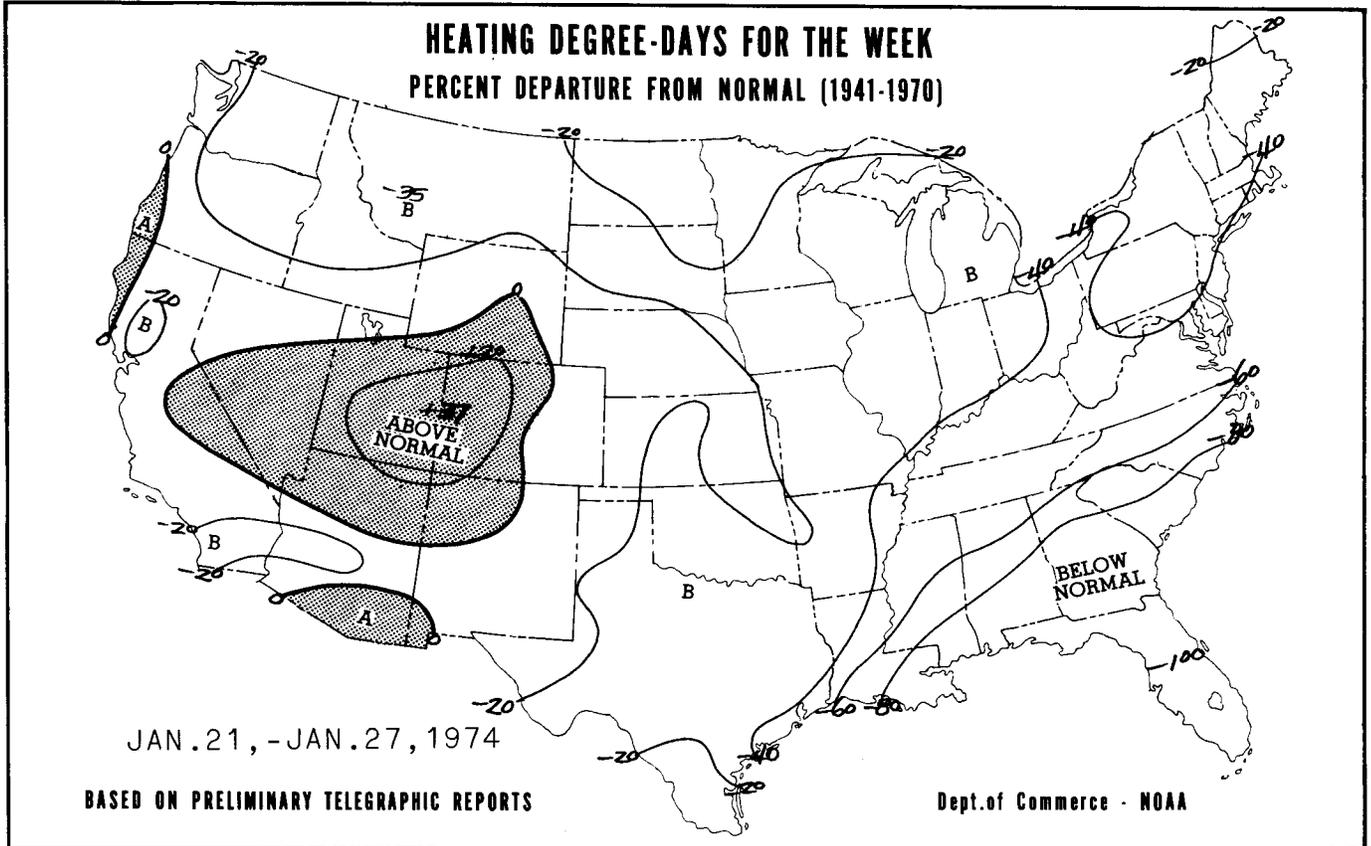
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HEATING DEGREE DAYS
-A Welcome Deficit-

The second consecutive week of much above normal temperatures over most of the Nation has continued to increase the seasonal deficit in heating degree day accumulations. However, this is one deficit that no one is complaining about, particularly those who are concerned with heating fuel supplies for the winter. The entire Nation was warmer than normal this past week except for parts of the Southwest. Much of the East was 12° to 18° above normal, resulting in a 20 to 60 percent reduction in heating degree days from normal. The demand for fuel would be expected to be down proportionally.

Over the heating season to date, most of the Nation has been warmer than normal, indicated by the below normal degree day accumulations. The major exception has been through the northern and central Plains and the southern Rockies. Most of these areas are not densely populated so that the effect on national fuel consumption has been small compared to the effects of the abnormally warm winter in the East. Comparing this year to last year, the entire Nation has been warmer this year except in isolated pockets.



Heating Degree Days (Base 65°) For Week Ending Jan. 27, 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	55	-92	1315	-405	-481	Portland	202	-106	3692	-266	-437	Tulsa	159	-37	2159	-15	-482
Mobile	4	-96	594	-436	-401	MD. Baltimore	134	-83	2381	-238	-205	OREG. Astoria	148	-20	2972	173	182
Montgomery	14	-112	954	-443	-369	MASS. Boston	150	-102	2680	-257	-306	Burns	218	-57	3857	-125	-446
ARIZ. Flagstaff	276	17	3569	-319	-886	MICH. Alpena	246	90	4181	-282	-292	Medford	183	-11	2337	-408	-619
Phoenix	71	-25	734	-229	-282	Detroit	185	-101	3277	-194	-299	Pendleton	150	-78	2870	-146	-469
Tucson	117	19	1017	3	-412	Flint	195	-106	3464	-303	-225	Portland	140	-46	2445	-201	-139
Winslow	232	12	2779	3	8	Grand Rapids	197	-97	3490	-151	-341	Salem	152	-28	2682	46	-262
Yuma	59	9	601	-55	-220	Houghton Lake	242	-94	4159	-297	-358	PA. Allentown	180	-81	2830	-350	-327
ARK. Fort Smith	145	-35	1930	-79	-559	Lansing	190	-111	3571	-137	-391	Erie	167	-114	3126	-430	-396
Little Rock	113	-62	1637	-370	-455	Marquette	258	-71	4213	-131	-475	Harrisburg	163	-82	2546	-383	-252
CALIF. Bakersfield	105	11	1106	-235	-452	Muskegon	219	-71	3509	-110	-164	Philadelphia	142	-89	2358	-299	-258
Eureka	136	15	2526	39	52	S. Ste. Marie	286	-74	4744	-78	-143	Pittsburgh	160	-96	2803	-474	-347
Fresno	135	3	1453	-116	-374	MINN. Duluth	316	-83	5394	100	-514	Scranton	190	-83	3301	-129	-265
Los Angeles	65	-11	678	-182	6	Internatl Falls	364	-78	5652	-211	-232	R.I. Providence	147	-112	2862	-268	-283
Red Bluff	105	-27	1584	44	-405	Minneapolis	271	-103	4404	-209	-484	S.C. Charleston	7	-110	750	-539	-235
San Diego	91	-19	546	-190	-110	Rochester	275	-90	4449	-86	-561	Columbia	14	-119	923	-651	-461
San Francisco	53	-21	1652	53	86	St. Cloud	311	-84	4837	-75	-546	Greenville	57	-99	1609	-266	-192
Stockton	137	-1	1434	-174	-352	MISS. Jackson	51	-75	1018	-375	-462	S. DAK. Aberdeen	325	-65	5063	255	152
COLO. Denver	257	12	3457	206	-334	Meridian	33	-93	919	-556	-512	Huron	273	-96	4545	53	-95
Grand Junction	361	97	3394	109	-533	MO. Columbia	191	-57	2929	41	-296	Rapid City	238	-63	4063	118	-396
Pueblo	222	-20	3146	90	-534	Kansas City	202	-56	3030	87	-290	Sioux Falls	276	-80	4382	-1	-321
CONN. Bridgeport	157	-88	2447	-332	-535	St. Louis	178	-57	2815	101	-223	TENN. Chattanooga	78	-95	1878	-407	-584
Hartford	183	-97	3085	-355	-256	Springfield	165	-58	2459	-167	-469	Knoxville	73	-95	1681	-367	-432
DEL. Wilmington	144	-87	2319	-376	-135	MONT. Billings	211	-88	3941	-25	-660	Memphis	81	-87	1528	-400	-705
D.C. Washington	107	-96	1840	-525	-370	Glasgow	284	-108	5059	98	-126	Nashville	99	-85	1708	-467	-399
FLA. Apalachicola	1	-83	458	-364	-200	Great Falls	208	-103	4270	111	-293	TEX. Abilene	109	-38	1405	-177	-783
Daytona Beach	0	-56	264	-254	-109	Havre	241	-130	4826	-106	-81	Amarillo	173	-29	2155	-241	-868
Ft. Myers	0	-28	159	-105	-15	Helena	212	-114	4634	61	-653	Austin	79	-28	899	-167	-551
Jacksonville	2	-75	494	-307	-173	Kalispell	222	-97	4517	-294	-471	Brownsville	48	-1	275	-109	-372
Key West	0	0	24	-5	6	Miles City	232	-116	4286	-119	-483	Corpus Christi	53	-17	483	-92	-367
Lakeland	0	-42	225	-165	-109	Missoula	218	-88	4282	-208	-463	Del Rio	68	-30	732	-277	-468
Miami	0	-14	94	-20	35	NEBR. Grand Island	259	-39	3932	322	-89	El Paso	122	-23	1420	-296	-292
Orlando	0	-47	212	-188	-66	Lincoln	247	-51	3887	365	-30	Fort Worth	110	-30	1238	-189	-560
Tallahassee	6	-85	588	-379	-252	Norfolk	259	-63	4005	99	-240	Galveston	41	-43	471	-227	-429
Tampa	0	-49	230	-185	-91	North Platte	270	-20	4210	438	-272	Houston	60	-32	755	-122	-498
W. Palm Beach	0	-21	106	-65	31	Omaha	249	-65	3843	145	-181	Lubbock	139	-43	1734	-359	-848
GA. Atlanta	31	-123	1347	-486	-380	Valentine	259	-52	4060	39	-513	Midland	119	-28	1401	-211	-705
Augusta	24	-109	1189	-361	-166	NEV. Ely	317	30	4252	57	-377	Beaumont	53	-40	681	-248	-566
Macon	17	-102	905	-474	-264	Las Vegas	149	8	1620	6	-322	San Angelo	96	-31	1129	-267	-644
Savannah	5	-100	736	-458	-169	Reno	222	-4	3077	-255	-742	San Antonio	76	-23	831	-149	-466
IDAHO. Boise	188	-60	3015	-287	-538	Winnemucca	223	-29	3327	-344	-722	Victoria	48	-36	551	-196	-513
Lewiston	167	-66	3060	-83	-269	N.H. Concord	210	-105	3989	4	-478	Waco	99	-27	1091	-162	-679
Pocatello	237	-53	3899	-25	-466	N.J. Atlantic City	111	-118	2319	-344	-192	Wichita Falls	113	-48	1550	-197	-740
ILL. Cairo	124	-75	2082	-168	-393	Trenton	137	-94	2394	-279	-213	UTAH. Salt Lake C	259	4	3253	-118	-488
Chicago	206	-81	3257	-96	-332	N.MEX. Albuquerque	207	3	2707	162	-100	VT. Burlington	212	-131	4063	-151	-356
Moline	220	-84	3565	-10	-158	Roswell	155	-29	1941	-344	-433	VA. Lynchburg	101	-95	2080	-338	-280
Peoria	214	-73	3394	-26	-319	N.Y. Albany	198	-110	3702	-39	-74	Norfolk	75	-99	1479	-437	-258
Rockford	236	-79	3608	-188	-270	Binghamton	190	-111	3524	-358	-460	Richmond	92	-97	1876	-379	-247
Springfield	185	-81	3034	-103	-341	Buffalo	176	-118	3394	-223	-230	Roanoke	97	-99	2046	-401	-331
IND. Evansville	130	-94	2348	-322	-552	New York	135	-96	2302	-282	-365	WASH. Quillayute	160	-22	3424	249	86
Fort Wayne	181	-99	3228	-184	-218	Rochester	168	-119	3239	-297	-167	Seattle-Tacoma	150	-36	2666	-164	-250
Indianapolis	166	-93	2762	-366	-382	Syracuse	183	-111	3432	-84	-100	Spokane	210	-64	3865	-11	-73
South Bend	178	-109	3035	-473	-458	N.C. Asheville	79	-110	1910	-517	-312	Walla Walla	146	-74	2760	-67	-328
IOWA. Burlington	215	-79	3396	-57	-336	Hatteras	52	-88	941	-479	-204	Yakima	177	-81	3457	-75	-232
Des Moines	236	-84	3601	-147	-577	Charlotte	69	-89	1623	-279	-290	W.VA. Beckley	131	-100	2580	-556	-417
Dubuque	258	-72	3931	-118	-419	Greensboro	100	-82	1983	-249	-305	Charleston	115	-95	2185	-435	-373
Sioux City	261	-67	3855	-68	-237	Raleigh	71	-97	1573	-477	-430	Huntington	111	-101	2175	-452	-502
KANS. Concordia	213	-56	3373	193	-196	Wilmington	19	-114	926	-498	-336	Parkersburg	118	-106	2361	-347	-291
Dodge City	187	-49	3009	146	-391	N. Dak. Bismarck	320	-79	5462	442	169	WIS. Green Bay	244	-106	4156	-233	-253
Goodland	219	-40	3596	209	-385	Fargo	359	-56	5404	265	-101	LaCrosse	237	-106	3978	-141	-463
Topeka	210	-46	3158	147	-184	Williston	322	-76	5373	264	-105	Madison	238	-99	4024	-223	-330
Wichita	197	-38	2915	205	-350	OHIO. Akron-Canton	175	-98	2852	-517	-320	Milwaukee	235	-86	3663	-322	-299
KY. Lexington	130	-94	2232	-448	-299	Cleveland	152	-114	2791	-494	-443	WYO. Casper	304	12	4262	199	-486
Louisville	123	-97	2160	-486	-376	Columbus	154	-98	2711	-468	-380	Cheyenne	265	-1	4022	180	-531
LA. Baton Rouge	20	-80	656	-382	-358	Cincinnati	146	-92	2600	-239	-338	Lander	290	-25	4421	69	-808
Lake Charles	38	-54	698	-216	-481	Dayton	164	-95	2804	-325	-354	Sheridan	266	-40	4351	148	-372
New Orleans	9	-82	562	-335	-450	Toledo	181	-99	3346	-145	-246						
Shreveport	94	-30	1250	-72	-403	Youngstown	177	-101	3126	-331	-499						
MAINE. Caribou	314	-71	5128	-52	-582	OKLA. Okla City	144	-51	2134	-41	-560						

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

(Continued from Page 7)

although some freezing rain again first day or two of week. Totals for week about 1.00 to 2.50 in.

NEW JERSEY: Mild week, averaged 10° to 15° above normal. Record breaking high temperatures on 27th. Highest reported 72° at Atlantic City airport. Weekly precipitation ranged from 0.50 to 0.90 in. with a trace of snow and ice pellets on 24th.

NEW MEXICO: Weather clear, pleasant most areas. Light to moderate snows north Monday and over most of State late Saturday and Sunday. Snows southern Guadalupe Mountains and showers lower elevations in Eddy County Wednesday and Thursday. Weekly moisture totals near 0.50 in. Sacramento Mountains and also northern mountain sections. Warm most areas Monday, cooling midweek and then slight warming till weekend. Temperatures for week averaged near normal.

Soil moisture short, range fair, livestock fair to good. Wheat, barley fair, greenbug damage to wheat Eddy, Roosevelt Counties. Farmers prepared for spring plantings and pruned orchards on a limited basis.

NEW YORK: Moderating temperature trend continued with temperatures averaging well above normal. Precipitation amounts averaged near to above normal, falling mostly as rain. Mildest temperatures during weekend. Many 50° plus readings Saturday. On Sunday, strong and gusty southwest winds brought unseasonably high temperatures with following stations reporting temperatures above 60°: Rochester 62°, Albany 62°, Poughkeepsie 63°, and New York 66°.

Rapid snow melt caused sharp rises in many streams. Snow depth by the week's end ranged from 5 to 15 in northeast; elsewhere, amounts had decreased to a few inches or less.

NORTH CAROLINA: Unseasonably warm during week with considerable cloudiness and frequent periods of rain as series of weak fronts moved across State. Soil moisture adequate to surplus. Minimum of fieldwork, 1.8 suitable workdays. Small grains good. Pastures fair to good. Hay, grain adequate, spotty shortages in mountains. Farming activities: Tobacco plant bed preparation, income tax work, pruning fruit trees, topdressing and liming and clearing ditches.

NORTH DAKOTA: Temperatures early week cool, then warmed up and by weekend became cool again. Highs ranged from 52° at Dickinson on 19th to 4° at Devils Lake on 24th. Lows ranged from 29° at Dickinson on 20th to 10° below zero at Bisbee on 19th. Precipitation scattered during week, heaviest toward end of week. Amounts traces most locations to 0.31 in. at Bisbee and Rugby. Rugby also had greatest amount for 24-hour period with 0.25 in. on 25th. Snow covers most of State, deeper northeast. Bisbee had 15 in. on ground the 25th. Weekend weather cool with highs in teens to 30's, lows 5° below zero to 10° above, precipitation scattered.

Weather generally favorable for farm chores, marketing grain and livestock, laying in supplies for 1974. No severe storms. Livestock fair to good. Farmers working cattle, dehorning and delousing, preparing hog farrowing pens, overhauling machinery and doing tax work.

OHIO: Mild temperatures, cloudy skies, precipitation daily. Heaviest amount Wednesday 0.25 to 0.50 in. Sunshine predominant on Friday only. Thunder-

storms moved across State Saturday night causing high, gusty winds, some damage. Highest gust reported was 67 mph at Youngstown. Temperatures near or above normal most of week. Daytime highs 40's and 50's, early morning lows 20's and 30's.

Continued damp weather curtailed farm activities to care and feeding of livestock, machinery maintenance, filling out income tax reports. Livestock good.

OKLAHOMA: Temperatures near normal to considerably above normal. Precipitation averaged traces to 0.50 in. Weekend generally mild with scattered showers except cold and snow in panhandle on Sunday.

Warm weather, sunshine allowed greening up of some wheat fields. East third remained too wet to pasture most small grain fields, while west third wheat fields need moisture and provided little pasture. Cotton harvest nearing completion, some farmers cutting stalks, plowing. Topdressing small grains many areas where fertilizer available. Spring oats and barley being planted southern counties. Seedbed preparation central. Pecan gathering on clean up basis.

Ranges continued decline west third from short moisture. Fair supply range grasses remain east third, quality low. Cattle mostly good. Supplemental feeding continued statewide. Hay supplies adequate to good.

OREGON: Temperatures averaged normal to 5° above west, and 5° to 11° above normal east. Highs ranged from upper 40's to lower 60's early week. Lows midweek ranged from upper 20's to lower 30's west, teens and 20's east of Cascades. Precipitation mostly early, late week all areas except daily, north coast. Amounts along coast ranged 3.58 in. Cloverdale to 0.59 in. Brookings. Willamette Valley, Salem had 0.65 in. for least, Eugene 1.53 in. greatest. Amounts east 0.20 to 0.30 in. except northeast 0.50 in.

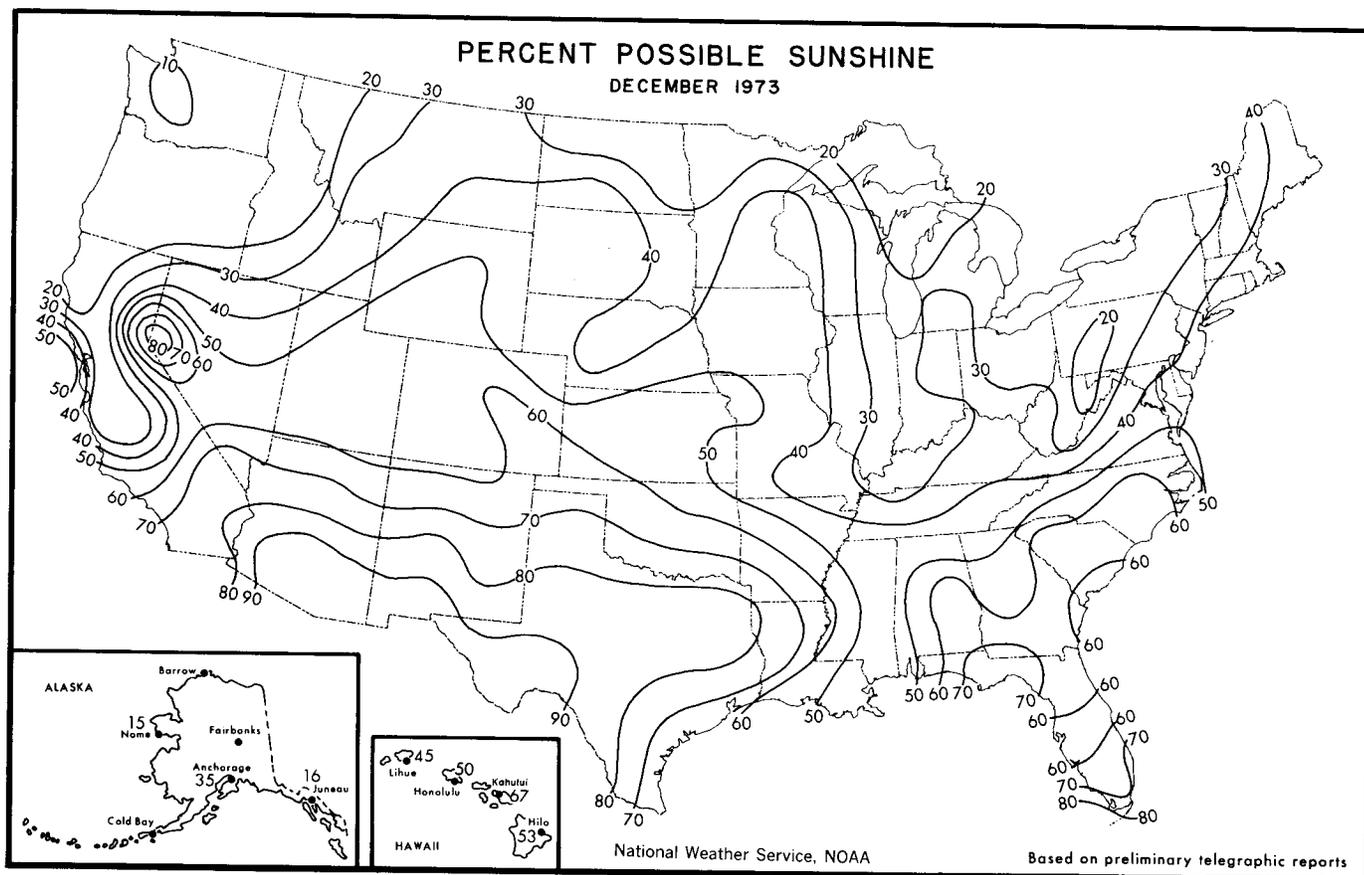
Farmers pruning orchards, training berries. Potatoes moving from storage. Feeding livestock at normal to heavy rates. Feed supplies remain adequate. Calving season underway. Lambing continued. Feedlots extremely muddy.

PENNSYLVANIA: Mildest week since early December, temperatures averaged 10° to 12° above normal. Sunshine, record breaking heat Sunday near 70° southeast following moderate cold Friday and Saturday when extreme lows in teens. Daily highs mostly in 40's and lows in 30's. Precipitation on 5 of 7 days, almost entirely as rain, totaled 0.50 to 0.75 in. generally with up to 1.00 in. southeast. Snow cover end of period confined to few northern tier counties where traces to 4 in.

PUERTO RICO: Above normal rains islandwide for first time in 1974. Island rainfall averaged 1.34 in. or 0.59 in. above normal. Rainfall heaviest north coast. Some heavy showers southwest tip. South coast still short of rainfall. Highest weekly total 3.55 in. at Cidra. Temperatures averaged 75° coast, and 69° interior. Extremes 88°, 49° at Adjuntas.

Sugarcane harvest continued under favorable weather. Much fieldwork in coffee cultivation and maintenance. Recent rains favorable for fertilizing and applying pesticide, but interrupted tobacco cultivation and harvest. Rain favorable for tobacco development. South and west pastures sparse due lack of rain but good elsewhere. Pumpkins and corn harvested in Coamo.

SOUTH CAROLINA: Week much warmer than usual. Daytime temperatures mostly in 60's upstate to mid,



upper 70's coast. Overnight lows well above freezing statewide. Readings 8° to 12° above normal, several record breaking highs reported, 84° at Columbia Thursday broke all time record of 82° for January. Rainfall total for week varied 2.00 to 3.00 in. west to 0.50 in. or less most coastal areas.

Farmers transplanted cabbage, seeded tomato plantbeds along coast, pruned peach trees, and prepared land for spring planting.

SOUTH DAKOTA: Second consecutive week of above normal temperatures which averaged 8° to 16° above normal. Extremes: 58° at Armour the 28th, 2° below zero at Oral the 23rd. Precipitation continued scarce. Rain and snow limited to Black Hills area in west. Little or no moisture received elsewhere since heavy snow fell last week of December. Snow cover on winter wheat generally depleted across State.

TENNESSEE: Rain widespread during week as three frontal systems moved across State. Rainfall amounts ranged from 0.75 to over 2.00 in., greatest amounts southeast. Temperatures continued unseasonably warm averaging from 10° to 15° above normal.

Extremely wet soil and barnyard conditions reduced farm work to a minimum. Supplementary feeding increased.

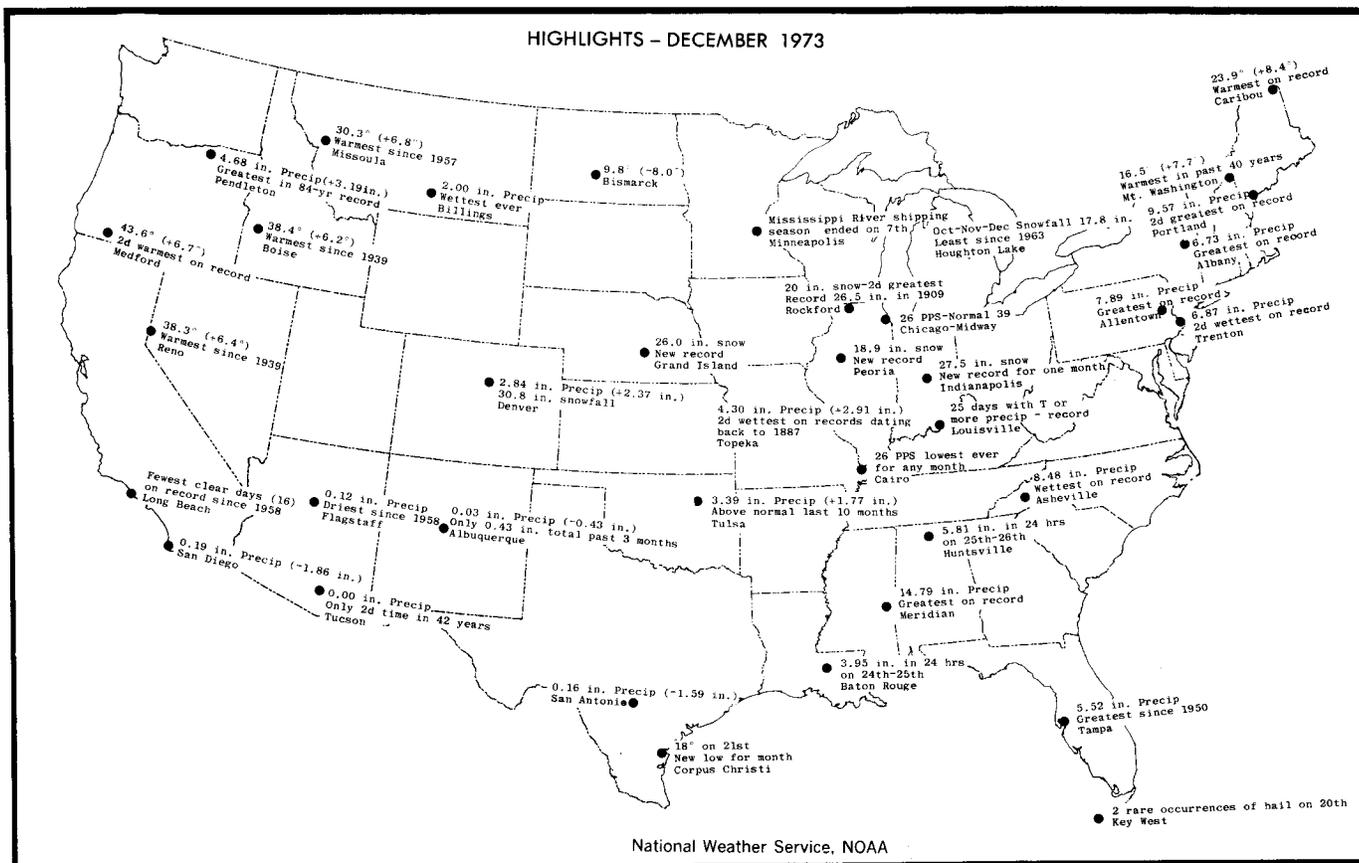
TEXAS: Record-setting warm temperatures followed by heavy snows over upper Pecos Valley, while heavy rains caused widespread flooding over much of southeast Texas. Week began unseasonably warm. Record snows totaled as much as 7 in. Midland-

Odessa area while most of Texas returned to cold, damp weather by midweek. Heavy rains from the middle coastal plains to northeast averaged 2.00 to 4.00 in., near normal amounts fell elsewhere. Temperatures averaged 2° to 5° above normal most of Texas.

Wheat and oats furnishing limited grazing across State. Grazing extremely short high and low plains except irrigated fields. Recent snow improved moisture slightly on high plains. Moisture adequate to surplus east Texas but grazing restricted because fields muddy. Cotton harvest nearly complete, but still active several areas. Cotton 99% harvested versus 83% a year ago. Ginning ricked cotton underway on high plains. Seedbeds received needed moisture in coastal bend, but south and southcentral areas still short of moisture.

Lower Rio Grande Valley: Lettuce and cabbage harvest continued. Cantaloupe planting still active. Carrot volume remains light. Coastal Bend: Fertilizer applied to watermelon acreage, some fields expected to be seeded next week. Spinach harvest continued. San Antonio-Winter Garden: Onions continued good growth. Cabbage and carrot harvest continued. Potato seeding continued in Frio County. Spinach cutting remained active. Trans-Pecos: Lettuce and onions for spring harvest continued good growth.

Citrus harvest for fresh market and processing continued, trees defoliated by the freeze showing new growth and are in partial bloom. Livestock fair to good. Cold, wet weather caused some loss of weight from east Texas to the Gulf Coast. Calving active.



UTAH: Recurring periods of snow throughout week. Moisture totals generally moderate but locally heavy along mountain slopes. Average temperatures ranged from near normal west to 2° to 5° subnormal east.

Rigors of winter continue to harass Utah farmers and ranchers. Care and feeding of livestock and poultry major activities. Some early farm flock lambing should start next week. Turkey poults for 1974 flocks being placed in all producing areas. Sugar beet processing continued. Marketing potatoes, dry onions, and apples from storage continued. Potatoes going mostly for processing.

VIRGINIA: Variable weather. Temperatures averaged 11° above normal. Extremes: 76° and 28°. Precipitation almost daily, and above normal averaged 1.25 in.

Topsoil moisture supply 71% surplus, 29% adequate. Fieldwork averaged 1.7 days. Winter grains and grazing good to excellent. About 25% of beef cattle and 33% of sheep forage requirements were secured from grazing, both above average. Limited fieldwork consisted of liming, fertilizing, soil testing, preparing tobacco beds, and potato land preparation. Pruning of orchards, and marketing of dark-fired tobacco continued. Livestock feeding active seasonally, feed supply adequate.

WASHINGTON: West: Temperatures averaged about 4° above normal. Precipitation 1.00 to 7.00 in. Flooding in low lying fields. Previous freezing weather damaged cabbage seed fields some

areas. Harvest forced rhubarb active. Pruning caneberrys continued. Logging operations stopped or slowed due to road damage. Livestock good. Feed supplies mostly adequate with shortages some localities. East: Temperatures averaged about 8° above normal, removing remaining snow cover. Precipitation zero to 1.00 in. Roads muddy, complicating clean-up of flood areas. Minor soil erosion in some areas. Pruning, removal old trees active. Mild weather causing some wheat growth, leaving stands vulnerable to late season freezing temperatures. Old fields of bluegrass apparently killed by last summer's drought. Livestock good, early calving active.

WEST VIRGINIA: Unseasonably warm week. Temperatures averaged 15° to 20° above normal. Highs rising into 70's Tuesday, cooling to more normal 30's and 40's Thursday, back up to 60's and 70's Sunday. Lows early week in 40's and 50's down to 30's Thursday and Friday. Rain fell in some part of State each day except Tuesday.

Swelling buds and sprouting spring bulbs in January are creating considerable concern. Fruit trees probably not affected in eastern panhandle. Winter grasses still green. Warm weather has slowed use of feed supplies.

WISCONSIN: Mild weather continued over State. Average temperatures generally 10° to 15° above normal. Precipitation light northwest half and above normal southeast. Precipitation occurred mostly as rain Saturday, with amounts ranging up to 2.00 in. extreme southeast. Mild temperatures and rain reduced snow cover south.

WYOMING: Unseasonably warm temperatures. Largest departures in northwest. Extremes: 55° at Sheridan and Kaycee, 20° below zero at Big Piney. Precipitation widespread and spotty with above average amounts northeast and southwest corners. Midwest got the most, 1.04 in.

Livestock good, most receiving some supplemental feed. Some areas still snow covered requiring heavier feeding. Winter wheat some areas has good snow cover. Potato growers grading, marketing potatoes. Care and feeding livestock major activities.

NATIONAL FLOOD SUMMARY
JANUARY 28, 1974
NATIONAL WEATHER SERVICE

Rainfall since Friday has increased and extended overflow along the Mississippi River and a number of other streams in the Mississippi Valley States as well as the Gulf Coastal Drainage streams from east Texas thru Mississippi to western Alabama. Ice conditions continue to influence stages on several rivers, especially in Iowa, Illinois, and Wisconsin.

The Mississippi River is above flood level at a number of stations at and below Gregory Landing, Mo. Present indications are that flood stage will be exceeded at all but two or three stations from Burlington, Iowa, to New Orleans, La. The river was less than a foot below flood stage this morning at New Orleans, La.

The Ohio River dropped slightly at Cairo, Ill. after cresting at 51.1 feet on January 25. Flood stage is 40 feet. Substantial flooding continues along the Wabash River in Indiana, with stages up to 7 feet or so above flood level reported.

The Atchafalaya River has been above the 7 foot flood stage at Morgan City, La. For several days and is presently a foot above flood. A flood crest on the Missouri River was in the vicinity of Hermann, Mo. this morning where the river was more than 5 feet over flood stage. Most rivers in Mississippi continue at high levels. The Yazoo River was more than 4 feet over flood stage at Yazoo City, Miss. this morning with backwater flooding to continue as the Mississippi continues to rise. Seven to 10 foot overflow is in progress on the Big Black River. General overflow is in progress along the Pearl with 3 to as much as 15 foot overflow expected. General overflow along the Tombigbee River in Mississippi and Alabama is causing as much as 8 foot overflow.

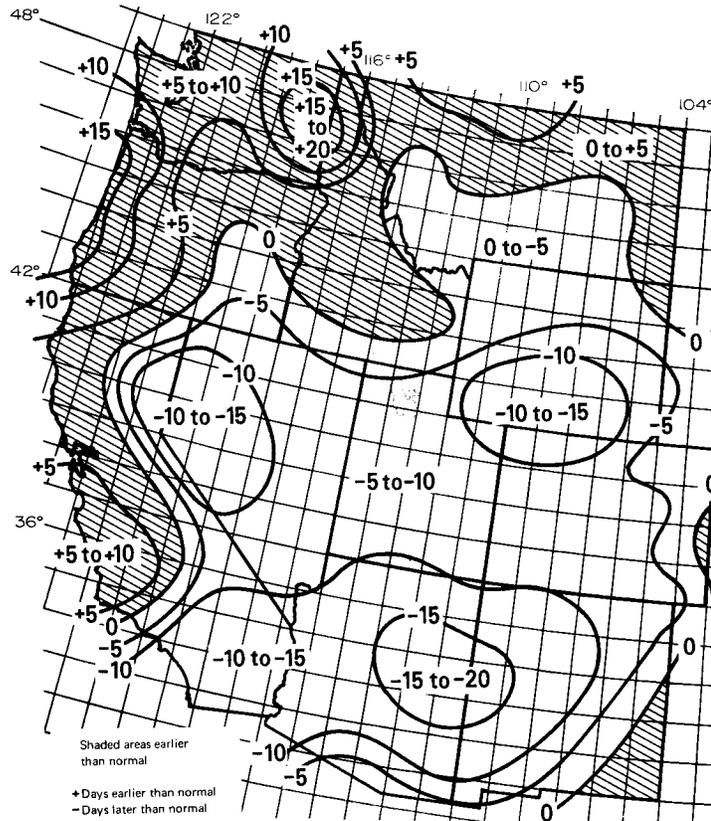


Figure 1. Departure of Begin Lilac Bloom Date from Normal, Spring 1973

Departure of Lilac Bloom Dates in 1973 from the 10-year Normal (1957-66) throughout the Western Region of the United States

Joseph M. Caprio
 Montana Agricultural Experiment Station
 Bozeman, Montana
 Sept. 25, 1973

The normal dates when flowers on common purple lilac panicles begin to bloom have been determined from phenological data collected in the western United States during the 10-year period 1957-66. The dates of begin bloom in the spring of 1973 were compared with the 10-year normal. These departures from the normal time of bloom were plotted on a map and analyzed.

The map showing lines of departure of begin lilac bloom date from normal are shown in Figure 1. Shaded areas on the map indicate those places where lilacs began to bloom earlier than normal in the spring of 1973. Areas not shaded were later than normal.

Last year the very early development of lilacs and other plants (in many cases about 3 weeks earlier than normal) was linked to fruit crop failures caused by subfreezing temperatures coming at a time when the crops were at advanced stages of development. Unlike the spring of 1972, lilacs began to bloom later than normal over the greater portion of the Western Region. Several areas with anomalies greater than 10 days later than normal are indicated in central and southern parts of the Region.

Anomalies of 15 to 20 days later than normal are indicated for parts of eastern Arizona and western New Mexico.

The earlier than normal zone includes all or portions of those states which border on the Pacific Ocean on the west and Canada on the north including all of Washington and large parts of California, Oregon, Idaho and Montana. Bloom was reported to have occurred from 15 to 20 days earlier than normal along the Oregon coast as well as in parts of eastern Washington and northern Idaho.

The later than normal occurrence of bloom over much of the West appears to be related to the lower than normal April temperatures that prevailed throughout the area, except in the Pacific coastal states and southern Arizona where temperatures in April averaged warmer than normal. Temperature anomalies in April of more than 6 degrees cooler than normal were reported over extensive areas.

May and June were generally warmer than normal except in southern and eastern parts of the Region which appears to relate to the earlier than normal bloom at northern locations. Both February and March averaged warmer than normal in northern areas.



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WATER SUPPLY OUTLOOK FOR THE WESTERN UNITED STATES Issued as of January 1, 1974

The table below shows the runoff forecast in percent of the 15-year (1958-72) average. The forecasts are for the remainder of the water year (October thru September), except for the full water year for the Sacramento and San Joaquin Basins; April 1 to September 30, 1974, for the Missouri, Yellowstone, and North Platte Basins; November 1, 1973 to June 30, 1974 for the Little Colorado Basins; and January 1 to June 30, 1974, for the Gila Basin. The publication "Water Supply Outlook for the Western United States," issued as of January 1, 1974, contains the complete water supply forecasts for about 375 stations in the Western United States.

River	Station	Forecast 1,000 Acre feet	Percent 15-year average ^{1/}
Columbia	Grand Coulee, Wash.	81,100	105
Columbia	The Dalles, Oreg.	140,000	113
Snake	Lower Granite, Wash.	40,100	126
Sacramento	Red Bluff, Calif.	11,500	129
San Joaquin	Big Creek, Calif.	1,550	119
Weber	Gateway, Utah	425	113
Jordan	Utah Lake, Utah	520	120
Truckee	Lake Tahoe to Farad	350	100
Colorado	Lake Powell, inflow	10,500	115
Green	Green River, Utah	4,440	122
San Juan	Bluff, Utah	1,310	107
Little Colo.	Woodruff, Ariz.	5.8	67
Gila	Solomon, Ariz.	95	59
Rio Grande	San Marcial, N.Mex.	510	103
Arkansas	Pueblo, Colo.	431	107
Missouri	Ft. Peck, Mont.	4,940	104
Yellowstone	Sidney, Mont.	7,590	109
North Platte	Glendo, Wyo.	893	108

^{1/} Period, 1958-72

Office of Hydrology
National Weather Service