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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Environmental Data Service

NUARY
1972
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No. 1
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1972

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NOTE: Late reports and corrections will be carried in the June and December issues of this publication. An explanatory page "Description of Charts" will be carried in the January and July issues.

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I certify that this is an official publication of the National Oceanic and Atmospheric Administration, and is compiled from records on file at the National Climatic Center, Asheville, North Carolina 28801.

William H. Haggard
Director, National Climatic Center

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 23 No. 1

Lucius W. Dye, Climatologist
Environmental Data Service
Washington, D. C.

JANUARY 1972

GENERAL SUMMARY OF WEATHER CONDITIONS

HIGHLIGHTS:

1. Bitter cold prevailed over the northern Great Plains and the Great Lakes Region.
2. Heavy snow fell in the northern Rocky Mountains and over the western edge of the northern Great Plains.
3. Parts of the Southwest received no rain--the first such occurrence in many years.
4. Heavy rains in the Deep South caused flash flooding along some streams.

TEMPERATURE -- January was named for the ancient Roman god, Janus, who had two faces. A happy face looked one direction; a sad face looked the opposite direction. Weatherwise, January 1972 was as two-faced as Janus. A massive outbreak of cold arctic air pushed into the northern Rocky Mountains and northern Great Plains about the middle of the first week of January and advanced steadily southward. By the morning of January 4, subzero weather had reached the Texas Panhandle. By the 6th, almost the entire nation was in the "deep freeze." The temperature at Brownsville, Tex., tumbled to 35° and New Orleans Moisant Airport registered 31°. Mild weather continued only in the Deep South and in Florida. Montgomery, Ala., recorded 78° and Ft. Myers, Fla., 85° on January 4. A brief mild spell came to the northern Great Plains during the second weekend of January. Maximum temperatures on Saturday, January 8, climbed to above freezing over most of North Dakota and Minnesota. At midmonth, moist southerly winds warmed the eastern, half of the nation. Southern Florida was especially balmy with nighttime temperatures in the seventies. Southerly winds continued to warm the Gulf States and Atlantic Coastal States. Meanwhile, a storm moved into the Pacific Northwest, across the Rocky Mountains, the adjoining Great Plains, and the Great Lakes Region. Subzero weather pushed far southward behind the storm. On the 13th, a large High extended from Alaska to the central Great Plains. This brought intense cold to the Rocky Mountains and the Great Plains. In contrast to the recordbreaking mild temperatures in advance of the storm, subzero weather pushed far southward behind the storm. Parts of Montana, Wyoming, North Dakota, South Dakota, and Minnesota remained below zero all day on the 13th, when Rochester, N. Y., and Pittsburgh, Pa., registered their warmest temperatures for the month on the 13th, 67° and 68°, respectively. Casper, Wyo., recorded 34° below zero on the morning of January 14 and, on the 15th, the mercury at Moose Lake, Minn., plunged to 53° below zero, the coldest temperature in the State in 35 years.

A few days after midmonth, two large polar Highs--one over the Great Basin, the other in the East--caused clear, sunny weather over much of the nation. Brisk southerly winds behind the eastern High warmed the central and southern Great Plains. Ardmore, Okla., registered 76° on the afternoon of January 18. Brisk northerly winds held the temperatures down over the northern Great Plains. Stations near the Canadian border from Cut Bank, Mont., to Duluth, Minn., remained below zero all day on the 19th. In contrast, Tampa, Fla., registered 78° on that date. A front stretched from the central Great Plains to Virginia. Northerly winds cooled the area north of the front. Southerly breezes warmed the Southland. Temperatures reached the eighties over much of Texas on January 23 when Cotulla, Tex., recorded 91°.

A bitter cold airmass plunged southward over mid-America in the last week of January. Most northern states from Montana to Wisconsin and south as far as Nebraska remained below zero all day on January 27.

Monthly mean temperatures were above normal from southeastern Washington to the Lower Rio Grande Valley and from the Lower Valley to New England and southeastward to the Gulf of Mexico and the Atlantic Ocean. Below-normal temperatures predominated in California, along the Canadian border from northern Washington to the Great Lakes, and over the Great Plains from the Dakotas to Waco, Tex. Most of the northern Great Plains averaged 6° to 10° colder than normal.

PRECIPITATION -- The weather was comparatively tranquil on New Year's Day but two storms got underway on January 2. One of these brought heavy snow to the Northwest, especially to southeastern Idaho, western Montana, and the Big Horn River Valley in Wyoming. The second storm spread wet weather over the eastern third of the country. Snow fell from northern Illinois to northern New England. Freezing rain iced an area south of the snow belt and thunderstorms dotted the land from the Ohio River Valley to the Gulf of Mexico. About the middle of the first week of January, snow fell in the central Rocky Mountains and spread across the nearby Great Plains. The storm intensified and spread southward to the southern Great Plains. By January 4, snow or sleet was falling over a belt extending from New Mexico to New York and Pennsylvania. Moist tropical air, overriding cold arctic air, released snow, sleet, and freezing rain along an arctic front which marked the advance of the cold air. Deep drifts, icy roads, and strong winds hampered automobile travel. At midmonth, moist southerly winds brought clouds and rain to a large area from the southern Great Plains to New England. A few tornadoes occurred in the South. Blizzards swept across the central Rocky Mountains. Fog, light rain, and drizzle blanketed the middle Atlantic coast and a large and powerful storm gained strength in the Pacific Northwest. High winds in the northern and central Rocky Mountains and along their eastern slopes, gusting in some places to hurricane speeds, damaged power and communication lines, isolating some communities.

Precipitation slackened briefly a day or so after midmonth but near the end of the third week of January, a new outbreak of cold air poured into Montana, bringing heavy snow accompanied by strong winds. The snow area spread eastward across the Great Plains to the Upper Mississippi River Valley. Southerly winds caused cloudy skies, showers, and thunderstorms from the Ohio River to the Gulf of Mexico. Snow, mixed with sleet and freezing rain, slicked the highways and made travel difficult over a narrow strip which separated the snow zone on the north from the showers and thunderstorms on the south. Heavy rains west of the Cascades completed the gloomy picture.

The last week of the month brought more snow to the Rocky Mountains and the nearby Great Plains. Ice

again coated wires, trees, pavement, and other outdoor objects south of the snow belt. Heavy rains soaked the Northwest. Blizzards occurred across the central Great Plains and Great Lakes Region and spread eastward to New York and New England. Generous rains fell in parts of the Deep South.

Monthly rainfall totals exceeded the January normals over the northern Rocky Mountains and much of the Deep South. A large area from California to the central Great Plains received less than half their normal January precipitation. Parts of this area received no rain--the first such occurrence in several decades.

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES

JANUARY 1972

STATE	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	2 Stations	82	13-	Florence	- 3	16	Marion 6 NE	16.43	Fort Morgan	2.22
Alaska	Port Alsworth	47	27+	Prospect Creek Camp	-70	7	Little Port Walter	15.44	Five Mile Camp	T
Arizona	2 Stations	82	25+	Sunrise Mountain	-26	4	Fairbank 1 S	.48	183 Stations	.00
Arkansas	Morobay Lock No 8	85	25	Huntsville	- 6	5	Hamburg	8.52	Mountain Home 1 NNW	.17
California	La Mesa	82	15	Bridgeport	-29	4	Gasquet Ranger Station	25.45	133 Stations	.00
Colorado	La Junta FAA Airport	75	23	Taylor Park	-46	4	Berthoud Pass	4.78	3 Stations	.00
Connecticut	Groton	59	14+	Coventry	- 8	6	Shepaug Dam	2.89	Round Pond	1.56
Delaware	2 Stations	67	14	Bridgeville 1 NW	0	16	Bridgeville 1 NW	3.71	Wilmington Newc WSO AP	2.50
Florida	La Belle	90	14	2 Stations	17	16	Madison	8.15	Archbold Biologic Sta	.25
Georgia	Thomasville 4 SE	86	10	2 Stations	- 2	17+	Atlanta Bolton	16.39	Savannah Beach	2.89
Hawaii	Wailuku 386, Maui	88	3	Mauna Loa Slope Obs,Hawaii	24	8	Pahoa 65, Hawaii	23.71	Kahului WSO 398 AP, Maui	.35
Idaho	Riggins Ranger Station	57	22	Island Park Dam	-43	4	Atlanta	11.19	Arco 3 SW	.11
Illinois	2 Stations	72	24	2 Stations	-24	16	Brookport Dam 52	3.29	Mount Olive 1 E	.37
Indiana	Vevay	75	25	Culver Experiment Farm	-26	17	Seymour 2 N	3.49	Lafayette 5 S	.71
Iowa	Keomauqua	60	18	Sanborn	-33	15	Tipton	2.10	Inwood 2 SW	.08
Kansas	Elkhart	.74	23	Syracuse 2 W	-21	15	2 Stations	.88	Tescott	.00
Kentucky	Golden Pond 8 N	80	25	2 Stations	-13	16	Baxter	10.35	Uniontown Dam 49	1.61
Louisiana	Saint Bernard	86	10	Converse	12	16	Covington 4 NNW	11.96	Logansport 4 ENE	5.24
Maine	Augusta FAA Airport	57	19	Squa Pan Dam	-40	2+	Jonesboro	4.73	Harris Station	.80
Maryland	3 Stations	69	13+	McHenry 2 NW	-18	17+	Annapolis USN Academy	5.33	Cumberland Police Brks	1.84
Massachusetts	4 Stations	60	14+	Chester 2	-17	1	Edgartown	3.60	Springfield	1.31
Michigan	Monroe Sewage Plant	54	22	Ironwood	-36	15	Houghton FAA Airport	5.37	Lake City Exp Farm	.45
Minnesota	2 Stations	45	18+	Moose Lake 1 SSE	-53	15	Gunflint Lake 8 WSW	D 2.42	Pipestone	.13
Mississippi	McComb FAA AP	86	27	3 Stations	4	16	Standard	15.32	Lafayette Springs	3.77
Missouri	Doniphan	76	24	2 Stations	-20	15	Caruthersville	3.99	2 Stations	T
Montana	Belfry 4 SSW	57	21	Loma 1 WNW	-54	14	Summit	13.43	Plentywood	.09
Nebraska	2 Stations	66	18+	Agate 3 E	-34	4	2 Stations	.73	6 Stations	.02
Nevada	Hawthorne Babbitt	70	22	Ruth	-30	4	Mountain City RS	2.90	20 Stations	.00
New Hampshire	5 Stations	55	14+	First Conn Lake	-34	1	Mount Washington	7.01	Jefferson 5 SSW	1.05
New Jersey	Plainfield	68	14	High Point Park	- 5	16	Belleplain St Forest	3.66	Bass River St Forest	1.04
New Mexico	3 Stations	83	24+	El Vado Dam	-24	5	Cloudcroft Lodge	3.75	24 Stations	.00
New York	Rochester WSO AP	67	13	4 Stations	-26	6	Boonville 2 SSW	6.17	New Kingston	.48
North Carolina	3 Stations	78	29+	Grandfather Mountain	-18	16	Andrews 2 E	11.28	Roxboro	1.48
North Dakota	Watford City	51	17	Linton	-42	15	Forbes 9 NNW	1.25	2 Stations	T
Ohio	Ironton	73	24+	Bellefontaine Sewage	-22	16	Gallipolis 5 W	4.24	Columbus Sullivant Ave	.68
Oklahoma	2 Stations	77	23+	Hooker 1 N	-17	15	Smithville 3 NNW	2.28	Marshall	.00
Oregon	Bandon 1 E-Bates Bog	65	15	Seneca	-29	29+	Nehalem 9 NE	34.44	Silver Lake Ranger Sta	D .29
Pennsylvania	West Chester 1 W	73	14	Philipsburg FAA AP	-19	16	Port Clinton	4.34	Lakeville 2 NNE	1.05
Puerto Rico	2 Stations	90	8+	Adjuntas Substation, P.R.	46	8	Pico Del Este, P.R.	15.63	Ponce City, P.R.	.89
Rhode Island	Providence WSO AP	58	14	North Scituate 4 W	- 3	17	Kingston	2.94	Providence WSO AP	1.85
South Carolina	4 Stations	81	28+	Caesars Head 1 NE	- 3	16	Clark Hill Dam	9.23	Fort Mill 4 NW	3.65
South Dakota	Rapid City WSO AP	66	16	Usta 8 WNW	-42	28	Mount Coolidge	1.82	Alexandria	.01
Tennessee	4 Stations	79	23+	Mountain City #2	-10	16	Monteagle	10.86	Samburg Wildlife Ref	2.37
Texas	2 Stations	96	23	Stratford	- 8	15	Orange	8.91	16 Stations	.00
Utah	2 Stations	65	23+	2 Stations	-31	4	Alta	8.31	28 Stations	.00
Vermont	Dorset 1 S	59	13	West Burke	-27	17	Dorset 1 S	4.24	Saint Albans Bay	D .67
Virginia	3 Stations	75	25+	Mt Lake Biological Sta	-23	16	Pennington Gap	10.64	Mount Weather	.78
Washington	Ice Harbor	63	21	Mazama	-28	28	Rainier Paradise RS	31.82	Connell 1 W	.04
West Virginia	Logan	76	25	2 Stations	-20	16	Pickens 1	8.40	Berkeley Springs	1.22
Wisconsin	Kenosha	49	10	Minong 5 WSW	-51	15	Bayfield 6 N	2.56	Charmany Univ Farm	.23
Wyoming	Newcastle	58	21	2 Stations	-46	4	South Pass City	7.62	Carpenter 3 E	.06

+ And also on an earlier date or dates.

Note: Dates in the above table apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch water equivalent to every 10 inches of snowfall.

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 90°F. or above	Temperature: No. of days: Min. 32°F. or below	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .01 inch or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile: Speed	Wind: Fastest mile: Direction	Wind: Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
ALABAMA																																
BIRMINGHAM	620	998.0	1020.8	58	37	47.2	0.7	77	24	7	16	0	13	37	70	9.30	4.27	3.16	16	4	T	T	0.3	16	32	W	13	7	6	18	6.7	44
HUNTSVILLE	624	997.0	1020.6	56	35	45.3	2.4	76	13	4	16	0	14	36	71	7.97	2.75	2.54	15	1	0.3	T	0.7	13	29	31	2	8	5	18	6.8	
MOBILE	211	1011.9	1019.7	69	48	58.4	5.4	78	10	21	16	0	6	50	77	5.94	1.30	1.45	15	4	0.0	0	1.2	8	29	34	25	6	6	19	7.1	
MONTGOMERY	183	1013.2	1020.8	64	41	52.6	4.5	79	24	13	16	0	9	43	75	6.35	2.29	1.74	13	6	0.0	0	0.7	1	26	N	25	6	7	18	6.6	47
ALASKA																																
ANCHORAGE	114	1009.5	1014.7	13	- 1	6.4	- 5.7	37	28	-28	11	B 0	31	1	74	0.56	- 0.24	0.21	9	0	9.6	14	3.1	1	35	35	B 16+	13	1	17	5.7	56
ANNETTE	110	1009.5	1013.7	31	22	26.7	- 7.7	43	15+	7	12	0	27	17	68	8.20	- 3.16	3.42	15	0	34.6	16	1.7	6	35	15	8	6	5	20	7.0	
BARROW	31	1021.7	1022.2	-10	-23	-16.2	0.0	17	19	-41	17	0	31			0.05	- 0.13	0.02	3	0	0.6	6	1.8	2	28	29	11	V	V	V		
BARTER ISLAND	39	1019.6	1021.6	-10	-23	-16.5	0.3	22	29	-40	5	0	31	-24	65	0.33	- 0.07	0.25	4	0	5.1	20	11.6	27	67	28	12	X	X	X		
BETHEL	125	1009.8	1015.7	7	- 3	2.3	- 1.3	37	26+	-30	10	0	31	- 2	81	0.78	- 0.34	0.27	6	0	3.8	6	3.6	7	40	19	30	13	7	11	4.7	
BETTLES	644			-18	-32	-24.8		29	28	-63	10	0	31			1.25		0.50	6	0	20.4	60			17	22	29+	15	6	10	4.5	
BIG DELTA	1268			- 9	-24	-16.5		25	29+	-53	10	0	31			0.24		0.16	6	0	4.4	12			29	11	13	11	6	14	5.6	
COLD BAY	96	1007.8	1011.7	32	22	27.2	- 0.6	44	24	4	23	0	29	23	82	4.08	1.76	1.85	16	0	15.6	5	2.9	17	46	17	30+	4	4	23	7.9	
FAIRBANKS	436	1003.4	1022.1	- 9	-24	-16.3	- 5.2	27	29	-49	17+	0	31	-25	66	0.73	- 0.16	0.26	9	0	12.6	29	0.5	34	25	22	29	10	4	17	6.1	
GULKANA	1572			- 9	-29	-18.6		31	28	-57	12+	0	31			0.80		0.43	10	0	10.9	42	3.7	36	26	2	18+	14	2	15	5.4	
HOMER	67	1010.8	1014.6	22	9	15.2		40	28	-18	10	0	30	8		0.76	- 1.29	0.20	10	0	15.8	17	2.7	2	29	4	16+	9	7	15	5.9	
JUNEAU	12	1012.9	1013.7	23	9	15.8	- 9.3	37	15+	-22	12	0	30	7	69	3.73	- 0.27	0.94	15	0	45.1	31	7.2	10	33	11	5	10	3	18	6.5	37
KING SALMON	49	1011.9	1013.8	13	0	6.7	- 6.7	39	25	-34	9	0	29	0	73	1.30	0.23	0.32	11	0	11.7	9	3.1	7	46	14	26	9	5	17	6.2	
KOTZEBUE	10	1018.3	1018.9	3	-12	- 4.4	1.3	33	27	-35	13	0	31	-11	74	0.51	0.12	0.12	9	0	13.4	36	9.1	10	46	11	25	14	2	15	5.5	
MC GRATH	344	1006.1	1019.9	- 6	-25	-15.6	- 6.6	38	28+	-59	10	0	30			1.21	- 0.05	0.32	12	0	14.0	38	0.8	24	17	19	26	13	3	15	5.5	
NOME	13	1015.6	1016.3	10	- 4	3.0	- 1.4	33	26+	-32	11+	0	31	- 5	68	0.53	- 0.49	0.20	12	0	10.6	20	7.1	10	44	10	30	13	2	16	5.7	44
ST. PAUL ISLAND	22	1008.5	1009.3	31	21	25.9	0.5	38	25+	9	15	0	31	23	87	1.45	- 0.36	0.26	19	0	12.9	10	6.6	11	44	26	30	3	6	22	8.3	
SHEMYA	122	997.3	1000.6	34	28	30.9	- 0.4	37	26+	22	29	0	27	23	73	2.99	0.49	0.84	20	0	16.0	6	4.6	27	85	25	3	0	7	24	8.6	
SUMMIT	2401	925.2	1021.9	- 1	-13	- 7.2		28	28	-36	17+	0	31			1.16		0.73	7	0	29.2	38	12.0	4	33	8	8	9	6	16	6.1	
TALKEETNA	345			12	-12	0.0	- 9.4	33	29+	-48	11+	0	31			1.72	- 0.04	0.90	8	0	27.5	42			38	4	15	12	3	16	5.6	
UNALAKLEET	15			6	- 4	1.0		38	26	-34	14	0	31			0.50		0.21	9	0	5.0	19			40	8	25+	12	4	15	5.5	
YAKUTAT	28	1009.1	1010.4	24	8	15.6	-11.7	37	5	-15	23	0	31	10	79	8.68	- 2.18	2.24	18	0	75.2	83	4.9	9	23	9	16+	10	5	16	6.1	
ARIZONA																																
FLAGSTAFF	7006	787.0	1020.8	43	14	28.4	1.1	55	22	0	5	0	31	8	49	0.00	- 1.83	0.00	0	0	0.0	T	1.9	22	25	5	4	18	5	8	3.5	
PHOENIX	1117	978.0	1017.5	67	36	51.4	1.7	75	15	26	5	0	7	23	38	0.00	- 0.73	0.00	0	0	0.0	0	1.9	11	28Y	ENE	15+	20	3	8	3.1	91
TUCSON	2584	927.5	1016.6	66	35	50.4	0.6	77	25	23	4	0	9	24	42	0.00	- 0.82	0.00	0	0	0.0	0	3.4	15	32	W	3	16	10	5	3.5	90
WINSLOW	4895	852.7	1020.9	51	20	35.4	4.4	70	23	10	31+	0	31	14	48	0.00	- 0.43	0.00	0	0	0.0	0	2.8	22	36	20	26	18	4	9	3.7	
YUMA	194	1010.5	1017.9	67	39	52.9	- 0.5	74	23	32	6	0	1	22	34	0.00	- 0.39	0.00	0	0	0.0	0	5.8	36	36	NW	4	20	5	6	3.0	91
ARKANSAS																																
FORT SMITH	447	1002.7	1019.7	51	27	38.9	- 0.9	75	19	8	5	0	21	28	71	0.68	- 1.98	0.31	5	0	0.3	T	1.3	1	31	W	24	11	6	14	5.8	58
LITTLE ROCK	257	1010.2	1019.8	54	33	43.6	3.0	79	24	13	16+	0	15	33	71	1.71	- 3.51	0.70	11	1	0.1	T	0.7	8	34	SW	24	9	7	15	6.1	48
CALIFORNIA																																
BAKERSFIELD	475	1004.4	1022.5	49	34	41.7	- 5.7	60	23+	24	9	0	10	37	87	T	- 1.17	T	0	0	0.0	0	0.6	2	29	12	4	4	9	18	7.2	
BISHOP	4108	876.1		54	21	37.7	0.9	61	22+	10	4	0	30			T	- 0.99	T	0		T	T						17	5	9	3.9	
BLUE CANYON	5280			43	30	36.2	- 0.9	57	14	16	26	0	18			6.38	- 5.32	2.80	9		21.4	53			33	3	3	10	6	15	5.7	
EUREKA U	43			50	39	44.6	- 2.8	58	19+	29	29	0	6			7.96	1.26	2.60	16		1.6	1			37	N	2	8	4	19	6.6	52
FRESNO	328	1010.8	1022.7	47	34	40.6	- 5.5	57	25+	24	5	0	9	37	90	0.37	- 1.66	0.18	5	0	T	0	1.3	10	23	SE	27	4	5	22	8.0	26
LONG BEACH	25	1017.6	1018.9	65	42	53.5	0.4	80	15	34	5	0	0	38	64	0.00	- 1.99	0.00	0	0	0.0	0	0.4	35	20	7	30	16	7	8	4.4	
LOS ANGELES	97	1014.6	1018.2	63	45	53.9	- 0.5	80	15	37	5	0	0	39	66	0.00	- 2.66	0.00	0	0	0.0	0	0.9	26	25Y	W	26	14	9	8	4.4	
LOS ANGELES U	270			66	45	55.5	- 0.3	81	15	39	9+	0	0			0.00	- 3.07	0.00	0		0.0	0			19	SW	26	16	11	4	3.2	
MT SHASTA R	3544	894.7	1022.0	40	23	31.6	- 1.7	52	16	4	26	0	25	23	73	2.44	- 3.92	0.95	10		18.8	18	1.6	34								
OAKLAND	6	1022.0	1022.3	53	40	46.4	- 1.6	62	14	34	31+	0	0	38	76	1.04	- 2.79	0.38	6	0	0.0	0	0.9	9	25	15	26+	13	6	12	4.9	
RED BLUFF	342	1008.8	1021.8	53	33	43.1	- 2.4	68	14	25	31	0	19	32	72	1.44	- 2.85	0.54	7	0	4.9	2	0.9	35	40	S	22	10	8	13	5.7	66
SACRAMENTO	17	1021.7	1022.4	49	34	41.0	- 4.2	58	22	25	30	0	13	35	82	0.81	- 2.37	0.58	6	0	0.0	0	1.5	17	37	NW	3	6	6	19	7.2	48
SANDBERG R	4517	864.2		47	32	39.8	- 0.1	58	18	14	4	0	15	18	46	T	- 2.55	T	0		0.0	32	7.8	2	47	35	23	20	2	9	3.6	
SAN DIEGO	13	1017.3	1018.3	64	46	54.9	- 0.1	76	15	37	5	0	0	39	60	0.07	- 1.94	0.07	1	0	0.0	0	2.4	31	19	W	28+	12	11	8	4.4	82
SAN FRANCISCO	8	1021.7	1022.2	53	38	45.6	- 3.0	59	21+	32	5+	0	2	38	79	1.09	- 2.92	0.56	7	1	T	0	0.6	18	26	27	25	13	6	12	5.2	
SAN FRANCISCO U	52			54	43	48.5	- 2.2	61	14	38	11	0	0			1.32	- 3.23	0.77	7		0.0	0			34	NE	3					68
SANTA MARIA	236			61	36	48.3	- 1.9	73	15	26	5	0	8			0.16	- 2.68	0.11	2		0.0	0						16	7	8	3.7	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No. of days: Max. 90°F. or above	No. of days: Min. 32°F. or below	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No. of days: .01 inch or more	No. of days: With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Fastest mile: Speed	Fastest mile: Direction	Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	Cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
CALIFORNIA																																
STOCKTON	22	1022.4	1023.3	48	34	40.6	- 4.1	58	21	25	5+	0	13	36	88	0.69	- 1.86	0.44	7	0	0.0	0	2.4	16	29	16	27	6	3	22	7.8	
COLORADO																																
ALAMOSA	7536	768.7		35	0	17.4	0.0	50	23	-32	4	0	31			0.24	- 0.02	0.22	3		6.9	6						13	13	5	4.2	
COLORADO SPRINGS	6145	806.3	1015.5	44	16	30.0	1.4	62	23	-11	4	0	27	9	48	0.27	- 0.02	0.15	4	0	5.2	3	1.8	35	39	30	21	12	10	9	5.0	
DENVER	5283	831.0	1013.0	46	15	30.5	2.0	63	23	-16	4	0	28	13	54	0.36	- 0.19	0.19	5	0	10.9	6	3.4	26	42	SW	11+	10	8	13	5.8	65
GRAND JUNCTION	4843	852.7	1020.4	42	18	30.0	4.0	58	26+	- 8	4	0	30	14	57	0.20	- 0.44	0.17	4	0	4.0	3	1.3	9	37	W	27	12	6	13	5.3	68
PUEBLO	4684	852.0	1015.4	48	12	29.8	- 0.2	72	23	-14	4	0	28	12	54	0.35	0.04	0.22	6	0	6.5	3	5.2	30	55	NW	11	10	12	9	5.3	79
CONNECTICUT																																
BRIDGEPORT	7	1019.0	1019.7	41	25	33.0	2.8	54	19	7	17+	0	21	22	65	2.23	- 1.46	0.72	13	0	2.3	1	7.4	29	55	26	25	7	10	14	6.5	
HARTFORD	169	1011.5	1018.3	37	19	27.9	1.9	57	13	- 1	6	0	30	18	67	2.02	- 1.56	0.45	14	0	2.9	2	3.6	28	49	NW	25	6	8	17	6.9	62
DELAWARE																																
WILMINGTON	74	1017.3	1020.2	44	28	36.1	2.7	65	13	5	16	0	20	25	68	2.50	- 0.90	0.69	14	0	2.1	2	2.6	29	37	32	14	5	8	18	6.9	
DIST. OF COLUMBIA																																
WASHINGTON DULLES	290	1008.1	1020.1	45	26	35.8		67	13	- 2	16	0	22	26	70	2.28		0.63	16	2	T	T	1.7	24	33	30	25	8	4	19	6.9	
WASHINGTON NATIONAL	10	1018.0	1020.3	46	31	38.5	1.6	65	19	3	16	0	17	27	66	2.45	- 0.58	0.76	17	2	0.3	T	2.2	28	30	NW	25	8	5	18	6.7	41
FLORIDA																																
APALACHICOLA U	13			65	52	58.6	3.5	74	30+	27	16	0	2			8.05	4.91	3.11	12	4	0.0	0			29	N	16	4	12	15	6.8	75
DAYTONA BEACH	31	1019.0	1020.5	75	56	65.5	6.3	83	14+	34	16	0	0	58	81	2.37	0.41	0.80	11	2	0.0	0	1.2	27	26	2	16	4	13	14	7.0	
FORT MYERS	15	1019.3	1019.7	81	61	70.9	7.4	85	24+	44	17	0	0	61	77	0.77	- 0.75	0.72	6	0	0.0	0	2.3	10	29	1	16	8	15	8	5.4	
JACKSONVILLE	26	1020.0	1021.0	71	51	61.4	5.5	83	11	29	17	0	2	54	82	5.77	3.32	2.35	9	5	0.0	0	1.0	34	32	NW	14	4	7	20	7.4	41
KEY WEST	4	1018.0	1018.5	79	71	75.0	5.4	83	3	61	17	0	0	66	76	2.75	1.22	1.40	9	2	0.0	0	7.6	10	40	N	15	14	8	9	5.0	88
LAKELAND U	214			77	58	67.4	5.7	83	25+	35	16	0	0			1.22	- 0.83	0.71	8		0.0	0						5	16	10	6.0	52
MIAMI	7	1019.0	1019.3	79	68	73.0	6.1	83	31	56	16	0	0	64	74	1.60	- 0.43	0.97	8	3	0.0	0	5.0	8	25	34	16+	9	11	11	5.7	
ORLANDO	108	1015.9	1020.3	79	59	68.9	8.5	86	14+	38	16	0	0	59	77	0.99	- 1.01	0.47	7	1	0.0	0	0.3	23	25	2	16	6	10	15	6.8	
PENSACOLA	112	1015.6	1019.9	67	50	58.7	5.2	78	4	21	16	0	5	49	75	3.65	- 0.57	0.97	12	3	0.0	0	1.4	8	23	2	16+	4	9	18	7.3	
TALLAHASSEE	55	1018.0	1020.4	70	48	59.0	5.1	82	10	24	7	0	6	51	79	6.52	3.10	1.63	12	4	0.0	0	0.8	12	21	1	16	5	7	19	7.2	
TAMPA	19	1019.6	1019.9	77	57	67.0	5.8	83	26	36	16	0	0	59	79	0.54	- 1.59	0.23	7	1	0.0	0	2.2	11	20	5	16	8	10	13	6.2	60
WEST PALM BEACH	15	1018.6	1019.2	80	64	71.8	4.9	85	31	54	16	0	0	64	76	2.47	- 0.01	1.25	8	5	0.0	0	4.2	11	28	4	16	7	13	11	6.2	
GEORGIA																																
ATHENS	802	990.9	1020.4	57	39	48.1	3.5	69	24	10	16	0	10	38	72	6.46	1.57	2.58	13	4	T	T	1.3	27	20	32	15	8	6	17	6.6	
ATLANTA	1010	982.7	1020.1	57	37	46.8	2.1	70	24	5	16	0	9	36	72	9.26	4.82	3.01	16	4	T	T	1.1	29	32	NW	15	8	4	19	6.9	44
AUGUSTA	136	1015.2	1020.5	63	41	51.8	4.2	75	10	15	17	0	8	43	75	6.08	3.09	2.30	11	3	0.0	0	0.8	27	22	30	2	6	4	21	7.1	
COLUMBUS	385	1006.1		63	43	52.9	5.1	78	10	14	16	0	9	44	74	6.10	2.04	1.39	15	2	0.0	0	1.7	1	25	35	25	7	4	20	7.0	
MACON	354	1008.1	1021.3	63	41	51.9	2.7	75	10	14	16	0	8	43	76	7.46	4.09	2.93	15	3	0.0	0	0.8	31	25	NW	25	4	8	19	7.4	41
ROME	637			57	33	44.9	2.8	75	13	4	16	0	15			7.32	1.81	2.34	18		T	0										
SAVANNAH	46	1019.0	1020.8	68	47	57.5	5.8	81	13+	19	17	0	5	48	76	3.99	1.21	1.26	13	6	0.0	0	0.8	26	26	W	28+	5	6	20	7.4	39
HAWAII																																
HILO	27	1013.2	1014.3	78	63	70.1	- 0.7	83	13	57	11+	0	0	63	84	10.96	- 0.86	4.32	22	1	0.0	0	1.2	15	19	SE	23	0	15	16	7.6	27
HONOLULU	7	1013.2	1013.8	78	63	70.4	- 2.1	82	21+	53	31	0	0	61	75	5.28	1.52	4.78	6	1	0.0	0	4.9	4	32	E	23	8	11	12	6.1	61
KAHULUI	48	1011.5	1013.7	80	59	69.5	- 2.6	84	15+	50	31+	0	0	61	76	0.35	- 2.79	0.21	6	1	0.0	0	5.5	5	29	E	7	11	11	9	5.2	67
LIHUE	103	1009.5	1014.7	77	64	70.4	- 0.5	80	14	56	31	0	0	63	79	6.44	0.93	5.94	10	1	0.0	0	3.0	5	24	NE	7	5	13	13	6.6	47
IDAHO																																
BOISE	2838	917.7	1020.7	38	24	30.9	1.8	49	19+	7	28	0	24	21	68	2.15	0.83	0.50	11	0	5.0	1	0.7	10	33	SW	23+	4	6	21	7.8	36
LEWISTON	1413			39	25	32.3	1.6	54	20	2	28	0	21			1.36	0.26	0.36	14		6.0	2			72Y		11	3	3	25	8.6	
POCATELLO	4454	862.2	1020.1	31	15	22.9	0.6	43	22+	-11	4+	0	27	14	67	1.45	0.24	0.46	13	0	10.6	4	10.0	23	54	W	10	4	12	15	7.3	37
ILLINOIS																																
CAIRO U	314			44	28	36.3	- 1.1	71	24	0	16	0	17			2.68	- 1.78	1.69	10		3.2	2			38	SW	24	9	3	19	6.5	41
CHICAGO O HARE	658	992.6	1018.2	28	11	19.6	- 4.6	47	18	-17	15	0	28	11	69	1.01	- 0.81	0.29	12	0	7.6	3	7.9	25	45	27	25	10	4	17	6.4	
CHICAGO MIDWAY	607	995.3	1018.8	30	15	22.5	- 3.5	50	18	-15	15	0	27	13	65	1.11	- 0.75	0.37	11	0	11.7	4	6.8	24	40	SW	24	10	4	17	6.4	55

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No. of days: Max. 90°F. or above	No. of days: Min. 32°F. or below	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No. of days: .01 inch or more	No. of days: With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Fastest mile: Speed	Fastest mile: Direction	Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days: Partly cloudy, 4-7	No. of days: Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
ILLINOIS																																
MOLINE	582	997.3	1020.0	27	10	18.6	- 4.0	55	18	-15	15	0	31	8	63	1.19	- 0.42	0.42	9	0	11.8	7	9.0	26	44	NW	24	9	5	17	6.3	54
PEORIA	652	994.6	1019.9	29	11	19.7	- 6.0	50	18	-18	15	0	31	12	72	0.81	- 1.07	0.25	10	0	10.2	4	3.2	25	37	W	24	11	3	17	6.1	52
ROCKFORD	724	990.2	1018.5	26	8	17.0	- 5.0	48	18	-19	15	0	31	9	69	0.66	- 1.32	0.19	8	0	5.5	3	5.2	27	40	27	24	8	7	16	6.5	
SPRINGFIELD	588	997.0	1020.0	33	16	24.4	- 4.0	56	24	-12	15	0	26	17	73	1.03	- 0.86	0.38	8	0	8.1	4	3.4	24	45	W	24	14	2	15	5.5	56
INDIANA																																
EVANSVILLE	381	1006.4	1021.0	42	23	32.5	- 1.7	71	24	- 7	16	0	22	23	68	1.68	- 2.30	0.69	11	0	2.0	2	0.6	25	47	W	24	9	4	18	6.6	53
FORT WAYNE	791	988.5	1019.9	33	15	24.0	- 3.0	57	24	-19	16	0	28	16	74	1.22	- 1.45	0.35	11	0	7.9	2	7.2	25	53	W	25	7	8	16	6.5	55
INDIANAPOLIS	792	989.8	1020.2	37	17	26.5	- 2.6	64	24	-20	16	0	25	18	73	1.57	- 1.48	0.49	13	1	7.9	4	3.2	24	36	W	24	8	6	17	6.5	56
SOUTH BEND	773	989.2	1018.4	31	17	23.9	- 1.7	48	24+	-19	16	0	27	17	74	1.82	- 0.38	0.34	17	0	19.2	9	7.5	22	37	25	25+	3	7	21	7.8	
IOWA																																
BURLINGTON	692			29	10	19.5	- 4.9	59	18	-17	15	0	31	11	67	0.71	- 0.93	0.27	9	0	9.4	5	3.6	28	32	30	24	10	5	16	6.0	
DES MOINES	938	983.4	1019.9	26	7	16.6	- 3.3	53	18	-18	15	0	31	9	70	0.44	- 0.86	0.30	5	0	5.8	5	4.0	27	41	NW	24	10	7	14	5.9	53
DUBUQUE	1056	977.7		22	5	13.4	- 5.8	49	18	-22	15	0	31			0.47	- 1.36	0.17	7		4.7	3						8	6	17	6.7	
SIOUX CITY	1095	977.7	1019.6	26	5	15.5	- 3.2	48	17	-18	15	0	31	5	60	0.37	- 0.41	0.29	6	0	5.7	5	2.9	30	42	NW	24	6	11	14	6.7	65
WATERLOO	868	985.8	1019.4	20	1	10.2	- 7.7	46	18	-23	15	0	31	4	73	0.26	- 0.89	0.11	5	0	2.9	5	5.1	29	38	31	24	10	4	17	6.3	
KANSAS																																
CONCORDIA	1470	963.8	1018.9	36	15	25.2	- 2.3	55	18	- 8	28	0	31	16	72	0.23	- 0.47	0.23	1	0	2.8	3	1.3	26	39	N	3	10	9	12	5.5	67
DODGE CITY	2582	923.8	1017.7	43	16	29.0	- 2.1	65	12	- 8	15	0	30	15	64	0.17	- 0.40	0.11	7	0	2.2	1	1.4	27	38	N	12+	13	5	13	5.3	77
GOODLAND	3654	885.5	1016.5	43	13	28.0	0.6	64	16	-10	14	0	31	14	63	0.32	- 0.07	0.21	6	0	5.5	2	4.0	25	33	31	24	9	12	10	5.5	
TOPEKA	877	986.8	1020.0	36	15	25.6	- 3.2	60	18	-10	15	0	30	16	69	0.47	- 0.55	0.23	5	0	3.0	1	0.9	29	35	NE	3	10	7	14	5.7	62
WICHITA	1321	969.2	1018.9	38	16	27.0	- 5.0	57	12	- 7	15	0	30	19	73	0.15	- 0.66	0.07	5	0	1.7	1	0.2	32	34	N	12	12	5	14	5.6	69
KENTUCKY																																
COVINGTON	869	987.1	1019.9	40	21	30.2	- 1.4	66	24	-13	16	0	23	20	68	1.96	- 1.60	0.52	15	0	1.6	1	3.7	23	31	28	25+	6	4	21	7.2	
LEXINGTON	966	984.1	1020.6	45	26	35.4	0.9	71	24	-11	16	0	21	27	74	4.10	- 0.84	1.13	15	2	1.4	1	3.6	21	27	29	24	7	6	18	6.9	
LOUISVILLE	477	1002.0	1020.4	45	26	35.2	0.2	70	24	- 7	16	0	21	25	70	2.87	- 1.23	0.81	13	0	1.6	1	2.3	25	45	SW	24	7	6	18	6.8	47
LOUISIANA																																
ALEXANDRIA	92	1015.6	1019.9	63	41	52.2	1.9	80	24	20	17+	0	8			6.82	1.50	1.59	11	7	0.0	0	0.6	6	24	4	15	8	4	19	6.8	
BATON ROUGE	64	1016.6	1019.4	67	46	56.6	3.7	81	13	22	16	0	7	48	75	8.25	3.47	1.98	10	5	T	T	2.0	10	23	1	15	7	4	20	7.1	
LAKE CHARLES	9	1018.0	1019.0	66	46	55.8	2.1	79	13	25	16	0	7	50	83	7.73	3.29	3.60	10	8	0.0	0	3.3	8	25	7	25+	7	5	19	7.1	
NEW ORLEANS	4	1018.6		69	49	58.6	4.0	82	13	24	16	0	4	51	79	6.98	3.14	2.50	14	3	0.0	0	1.7	7	24	36	15+	4	9	18	7.0	
SHREVEPORT	254	1009.5	1019.1	60	39	49.4	1.9	84	24	17	16	0	11	41	79	5.97	1.17	2.27	9	3	T	T	1.3	14	21	29	4	7	7	17	6.6	48
MAINE																																
CARIBOU	624	989.8		20	- 4	8.2	- 2.3	46	14	-32	1	0	31			1.32	- 0.79	0.53	17		15.7	22						7	7	17	7.0	
PORTLAND	43	1014.6	1016.8	33	12	22.2	0.4	52	19	- 8	6	0	31	14	69	2.09	- 2.28	0.56	13	0	7.0	6	5.3	29	42	NW	25	10	6	15	6.1	49
MARYLAND																																
BALTIMORE	148	1014.9	1020.8	45	30	37.6	2.8	66	13	5	16	0	19	27	67	2.82	- 0.61	0.70	16	2	1.1	1	3.1	28	38	SW	25	8	5	18	6.8	52
MASSACHUSETTS																																
BLUE HILL OBS R	629			37	20	28.6	1.6	55	19+	- 2	17	0	27			2.21	- 2.28	0.66	13		6.2	3			70	WNW	25					50
BOSTON	15	1016.6	1017.6	41	25	33.0	3.1	59	14	5	17+	0	22	21	64	2.05	- 1.89	0.50	14	0	7.8	3	7.5	28	49	W	25	7	10	14	6.4	55
WORCESTER	986	979.3	1017.7	35	18	26.4	2.4	57	14+	- 5	17	0	28	16	67	2.34	- 1.37	0.62	12	0	6.7	5	7.3	27	39	28	25	6	11	14	6.5	
MICHIGAN																																
ALPENA	689	987.8	1014.1	29	8	18.5	- 1.2	45	9	-11	15	0	31	11	71	0.47	- 1.48	0.10	9	0	8.6	11	6.3	24	34	E	24	0	14	17	7.9	43
DETROIT	619			32	19	25.5	- 1.4	50	22	- 8	16	0	29	15	66	1.12	- 0.93	0.23	16	0	10.8		8.2	24	33	27	25					
DETROIT METRO	633	992.6	1017.6	32	16	23.8	- 2.4	53	22	-14	16	0	30	16	72	1.28	- 0.65	0.28	14	0	7.9	3	7.0	25	41	W	25	3	8	20	7.6	44
FLINT	771	987.5	1016.6	30	14	21.8	- 2.7	45	22	-14	16	0	31	13	69	1.21	- 0.49	0.23	11	0	14.6	7	8.4	25	35	29	25	4	9	18	7.5	
GRAND RAPIDS	784	986.5	1017.0	29	13	20.8	- 3.2	44	10	-16	16	0	31	14	72	1.26	- 0.65	0.26	17	0	22.6	6	7.6	23	60	SW	24	1	5	25	8.6	31
HOUGHTON LAKE	1149	971.2	1015.0	26	7	16.3	- 2.9	44	10	-14	15	0	31	11	75	0.82	- 0.67	0.17	15	0	15.0	9	7.6	25	40	26	25+	1	7	23	8.3	
LANSING	841	984.1	1017.2	30	12	21.3	- 3.0	47	22	-17	15	0	31	15	75	1.51	- 0.45	0.27	18	0	16.9	6	7.9	24	43	W	25	2	10	19	7.6	31
MARQUETTE U	677			23	5	13.6	- 5.9	39	9+	-19	15	0	31			1.53	- 0.36	0.81	12		22.6	26			38	SW	16	5	7	19	7.4	48

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No. of days: Max. 90°F. or above	No. of days: Min. 32°F. or below	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No. of days: .01 inch or more	No. of days: With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Fastest mile: Speed	Fastest mile: Direction	Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
MICHIGAN																																
MUSKEGON	625	993.2	1017.1	29	15	21.8	- 4.2	43	10	-12	15	0	27	14	72	2.21	0.11	0.38	23	0	39.0	8	6.8	24	38	29	25	0	4	27	9.4	
SAULT STE MARIE	721	984.1	1012.0	23	5	13.8	- 2.0	36	18+	-23	16	0	31	9	83	4.08	2.01	1.22	26	0	53.2	27	3.9	25	39	W	19	0	5	26	9.2	30
MINNESOTA																																
DULUTH	1428	960.0	1015.0	10	-10	0.2	- 8.5	34	8	-39	15	0	31	- 7	70	2.28	1.13	0.95	15	0	30.9	26	8.1	27	57	NW	24	10	7	14	6.1	43
INTERNATIONAL FALLS	1179	968.8	1015.1	6	-17	- 5.7	- 8.8	36	17	-45	15	0	31	-11	73	0.76	- 0.08	0.26	12	0	13.9	19	5.7	26	28	30	6	10	5	16	6.3	
MINNEAPOLIS	834	985.8	1018.0	15	- 4	5.5	- 6.9	37	8	-29	15	0	31	- 3	64	0.84	0.14	0.39	10	0	12.2	16	5.3	26	39	S	12	9	9	13	6.1	61
ROCHESTER	1297	967.5	1018.0	16	- 3	6.5	- 7.1	37	18+	-30	15	0	31	1	74	0.71	- 0.20	0.32	10	0	11.0	9	8.0	27	43	30	24	10	7	14	5.9	
ST. CLOUD	1034	977.3	1018.0	13	- 6	3.5	- 6.6	36	8	-31	15	0	31			0.55	- 0.17	0.21	9		8.3	10						8	9	14	6.4	
MISSISSIPPI																																
JACKSON	310	1008.1	1020.0	63	40	51.5	3.6	82	24+	15	16	0	8	44	78	5.94	0.76	1.64	12	4	0.0	0	0.9	17	28	N	24+	8	8	15	6.4	57
MERIDIAN	290	1009.1	1020.5	63	40	51.6	3.5	80	24+	14	16	0	8	43	77	11.02	6.33	4.54	15	4	0.0	0	0.2	27	26	33	25	7	5	19	7.0	
MISSOURI																																
COLUMBIA REGIONAL	887	986.5	1020.1	37	19	28.4	- 0.9	62	18	-10	15	0	24	19	71	0.88	- 0.83	0.44	5	0	4.0	2	1.3	24	34	SW	18	12	2	17	5.7	60
KANSAS CITY	742	991.5	1019.5	37	18	27.3	- 4.4	63	18	- 9	15	0	27	18	69	0.56	- 0.85	0.23	5	0	3.0	1	1.1	29	31	S	17+	11	7	13	5.5	58
ST. JOSEPH	811			35	14	24.0	- 3.2	57	18	-15	15	0	31	14	67	0.38	- 0.82		5				1.0	27	32	30	24	14	7	10	5.0	
ST. LOUIS	535	999.3	1020.4	40	19	29.9	- 2.0	70	24	- 7	15	0	26	21	74	0.77	- 1.21	0.40	5	0	4.1	2	1.8	23	37	W	24	12	5	14	5.5	63
SPRINGFIELD	1268	972.6	1019.3	44	21	32.9	- 0.7	62	20+	- 3	15	0	23	23	69	0.45	- 1.51	0.22	8	0	0.2	T	2.4	17	30	N	13	10	6	15	6.0	53
MONTANA																																
BILLINGS	3567	887.2	1016.8	23	4	13.2	-10.0	45	17	-27	27+	0	31	2	63	2.35	1.81	1.41	10	0	27.6	18	7.8	27	49	NW	21	1	9	21	8.0	31
GLASGOW	2284	930.9	1018.4	15	- 6	4.3	- 5.5	44	16	-35	14	0	31	- 5	65	0.55	0.07	0.10	16	0	12.7	9	3.5	32	37	27	9	2	8	21	8.0	
GREAT FALLS	3662	883.8	1017.6	23	3	12.8	- 9.3	46	16	-32	27	0	30	2	65	1.47	0.86	0.40	15	0	18.6	6	11.8	24	47	SW	5	3	7	21	7.8	31
HAVRE	2594	920.8	1018.3	13	- 6	3.5	-10.4	43	15	-36	28+	0	31	- 3	69	0.86	0.37	0.24	12	0	15.0	10	6.1	25	45	SW	15	1	8	22	8.5	41
HELENA	3828	877.1	1018.8	24	1	12.4	- 6.2	46	20	-30	28	0	31	1	62	1.12	0.65	0.20	18	0	14.9	9	6.3	28	50	NW	11	3	6	22	8.1	24
KALISPELL	2965	908.2	1017.5	24	4	13.9	- 5.9	43	16	-26	14	0	30	8	75	1.58	0.21	0.36	18	0	24.5	15	0.3	1	44	1	25	0	6	25	9.1	
MILES CITY	2629	919.7	1017.7	19	0	9.1	- 7.4	42	16	-27	27+	0	30	2	73	1.48	1.04		19	0	14.8		5.7	29								
MISSOULA	3190	901.8	1017.9	29	13	20.6	1.4	48	16	-18	28	0	30	15	78	2.04	1.12	0.40	23	0	22.5	11	1.8	29	48	NW	11	3	1	27	8.7	23
NEBRASKA																																
GRAND ISLAND	1841	949.9	1018.9	33	11	21.8	- 0.8	60	17	-14	28	0	31	10	63	0.19	- 0.44	0.10	4	0	3.5	2	2.8	28	30	32	24	8	9	14	6.2	
LINCOLN U	1150			32	13	22.7	- 2.4	50	18+	-10	14	0	29			0.20	- 0.72	0.07	4		2.7	2			34	SW	11	11	7	13	5.6	61
NORFOLK	1544			28	6	17.1	- 2.3	53	17	-22	28	0	31			0.42	- 0.36	0.40	3		4.6	4						8	4	19	6.5	
NORTH PLATTE	2775	916.4	1018.4	35	6	20.7	- 3.3	61	17	-17	14	0	31	9	65	0.16	- 0.27	0.13	4	0	2.6	2	2.0	30	34	SW	11	8	6	17	6.7	53
OMAHA	977	982.4	1019.5	31	9	20.0	- 2.3	51	18	-15	15	0	31	10	66	0.38	- 0.44	0.29	5	0	1.9	1	1.9	33	47	NW	24	9	8	14	6.0	66
SCOTTSBLUFF	3957	875.7	1016.2	40	10	24.9	- 0.4	58	20+	-18	4	0	29	11	61	0.35	0.06	0.12	5	0	4.1	1	6.5	30	48	29	9	7	7	17	7.0	
VALENTINE	2587			31	2	16.5	- 3.5	60	17+	-23	14	0	31			0.41	0.01	0.32	6		5.7	5			64	NW	12	5	8	18	7.5	52
NEVADA																																
ELKO	5050	845.9	1022.5	33	14	23.4	0.8	49	22	-16	4	0	27	13	65	0.39	- 0.77	0.10	11	0	1.1	3	4.1	25	32	25	23	12	3	16	5.8	
ELY	6253	808.7	1021.1	40	9	24.1	1.3	51	22+	-19	4	0	31	11	65	0.17	- 0.61	0.13	5	0	3.3	2	5.2	21	30	S	25+	13	8	10	4.8	84
LAS VEGAS	2162	942.8	1021.1	55	30	42.3	- 0.8	62	13	18	5	0	23	15	36	0.00	- 0.53	0.00	0	0	0.0	0	3.0	27	38	N	23	22	3	6	3.1	92
RENO	4404	868.6	1023.6	37	14	25.5	- 4.9	60	22	- 8	4	0	26	15	67	0.37	- 0.82	0.35	3	0	5.7	7	1.0	23	30	W	23	10	6	15	5.9	92
WINNEMUCCA	4301	870.6	1022.0	40	15	27.6	0.4	58	22	-10	4	0	25	19	71	0.16	- 0.89	0.07	6	0	0.8	3	3.9	22	33	W	23	11	5	15	6.0	55
NEW HAMPSHIRE																																
CONCORD	342	1004.1	1017.3	35	9	22.0	0.8	54	13	-19	6	0	31	11	63	1.44	- 1.79	0.36	10	0	10.8	14	4.6	29	44	NW	19	11	6	14	5.8	54
MT WASHINGTON OBS	6262			14	- 3	5.7	- 0.6	37	13	-32	16	0	31			7.01	1.57	1.37	24	1	38.9	18			127Y	W	25	4	6	21	7.8	35
NEW JERSEY																																
ATLANTIC CITY	64	1017.3	1019.7	43	25	33.9	- 0.9	60	13	6	29+	0	22	25	71	2.93	- 0.63	1.07	13	0	2.9	3	4.3	28	37	29	25	6	6	19	7.1	41
ATLANTIC CITY U	11			44	33	38.6	2.6	60	19	11	16	0	13			3.25	- 0.50	1.31	12						46	WNW	25					
NEWARK	7	1018.3	1019.4	44	27	35.4	3.1	65	14	7	16	0	21	25	68	2.26	- 1.07	0.58	11	0	3.1	2	5.0	27	35	24	25	4	10	17	7.1	
TRENTON U	56			42	29	35.6	2.5	63	14+	5	16	0	18			2.26	- 0.84	0.55	14		3.5	3			40	NW	25	9	8	14	5.9	55

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 90°F. or above	Temperature: No. of days: Min. 32°F. or below	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .01 inch or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile: Speed	Wind: Fastest mile: Direction	Wind: Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
NEW MEXICO																																
ALBUQUERQUE	5311	837.5	1017.7	51	21	36.1	1.1	68	26+	3	5	0	31	14	45	0.12	- 0.29	0.12	1	0	1.2	1	1.6	34	45	E	3	15	10	6	3.6	90
CLAYTON	4969			52	17	34.4	1.2	70	23	- 3	4	0	28			0.06	- 0.29	0.05	2		1.5	1						15	5	11	4.5	
ROSWELL	3612			59	22	40.6	2.7	83	23	- 2	5	0	27			0.20	- 0.28	0.20	2		1.9	2			33	NW	24					86
NEW YORK																																
ALBANY	275	1007.8	1018.8	34	12	22.9	0.2	52	13	-14	6	0	30	14	69	1.21	- 1.26	0.41	15	0	8.5	6	3.7	26	40	NW	25	5	6	20	7.4	46
BINGHAMTON	1590	957.0	1018.0	32	17	24.7	0.9	54	13	- 4	16+	0	29	15	67	1.29	- 1.21	0.24	14	0	11.0	4	6.2	24	41	W	25	0	14	17	7.7	43
BUFFALO	705	990.5	1017.2	34	17	25.5	1.0	60	13	- 3	15	0	30	18	76	2.17	- 0.67	0.30	22	0	27.6	10	10.6	25	51	SW	17	2	5	24	8.5	35
NEW YORK U	132	1015.6	1018.9	42	28	35.1	1.9	62	14+	5	16	0	18	23	66	2.41	- 0.90	0.64	13	0	2.8	2	5.0	26	38	SW	25					50
NEW YORK KENNEDY	13	1018.6	1019.5	43	30	36.4	4.6	58	19	9	16	0	18	26	68	1.74	- 1.49	0.49	11	0	1.7	2	6.2	28	46	26	25	6	8	17	6.8	
NEW YORK LA GUARDIA	11	1018.0	1019.1	41	28	34.2	0.6	62	14	6	16	0	18	21	62	2.02	- 1.29	0.49	13	0	2.2	2	5.8	29	45	W	25	4	12	15	6.7	
ROCHESTER	547	996.3	1017.4	35	17	26.0	0.8	67	13	- 1	16+	0	30	17	69	1.50	- 0.90	0.44	15	0	18.1	8	8.3	24	50	SW	25	2	9	20	7.6	51
SYRACUSE	410	1002.0	1017.4	35	18	26.4	2.4	58	13	- 3	6	0	28	17	68	1.10	- 2.05	0.28	17	0	18.2	7	5.3	23	52	W	25	5	9	17	7.2	45
NORTH CAROLINA																																
ASHEVILLE	2140	942.8	1020.2	54	30	42.1	4.5	67	21	0	16	0	19	33	77	3.57	- 0.60	1.11	16	1	T	0	1.8	34	30	34	25	9	6	16	6.5	61
CAPE HATTERAS R	7	1020.0	1020.5	60	45	52.9	6.3	75	4	16	16	0	3	47	81	6.42	2.52	3.05	14	2	T	T	3.3	33	32	20	13+	7	6	18	7.1	31
CHARLOTTE	736	992.6	1020.5	54	35	44.6	1.9	68	19	6	16	0	13	34	71	4.47	0.94	1.77	13	1	0.0	0	1.0	25	21	NW	25	6	8	17	6.9	43
GREENSBORO	897	988.2	1020.5	53	32	42.3	2.6	67	13	- 1	16	0	15	32	71	2.60	- 0.80	0.60	13	1	T	T	1.9	24	33	NW	25	8	8	15	6.8	49
RALEIGH	434	1004.7	1021.1	55	34	44.7	3.1	71	24	4	16	0	15	33	67	1.97	- 1.25	0.85	11	1	0.0	0	1.3	24	22	34	16+	7	8	16	6.7	55
WILMINGTON	28	1019.6	1020.9	62	42	52.0	4.1	77	28+	15	17	0	5	44	80	4.27	1.42	0.96	15	1	0.0	0	1.6	31	32	NW	5	8	6	17	7.0	39
NORTH DAKOTA																																
BISMARCK	1647	953.9	1017.5	15	- 6	4.8	- 5.1	43	16	-35	15	0	31	- 3	65	0.68	0.24	0.15	11	0	13.3	9	6.3	30	37	W	9	4	7	20	7.6	42
FARGO	896	982.4	1017.4	13	- 8	2.7	- 4.6	38	16	-33	15	0	31	- 6	66	0.94	0.41	0.57	10	0	16.5	10	3.7	28	48	NW	24	3	10	18	7.1	54
WILLISTON	1899	944.8	1017.6	14	- 7	3.3	- 5.0	45	17	-32	26	0	31	- 2	77	0.43	- 0.12	0.09	11	0	6.5	7	6.9	29	42	N	8	3	9	19	7.5	45
OHIO																																
AKRON	1208	972.6	1018.9	35	17	25.7	- 2.6	60	24+	-15	16	0	29	18	73	1.33	- 1.53	0.30	11	0	7.5	2	6.1	23	25	28	25+	3	12	16	7.2	
CINCINNATI ABBE OB	761			40	22	31.2	- 2.5	68	24	-13	16	0	20			2.02	- 1.65	0.55	14		1.4	1			26	W	25					35
CLEVELAND	777	988.8	1019.0	36	19	27.3	- 1.1	58	24	-14	16	0	29	19	73	1.95	- 0.72	0.44	16	0	15.0	4	8.0	22	40	W	25	4	6	21	7.7	48
COLUMBUS	812	988.8	1020.1	37	19	28.2	- 1.7	61	13	-12	16	0	25	18	68	1.40	- 1.76	0.35	12	0	5.8	3	3.7	23	38	W	24	5	9	17	6.8	39
DAYTON	1002	982.4	1019.8	37	19	27.5	- 2.1	60	24	-16	16	0	22	19	71	1.47	- 1.71	0.38	13	1	6.6	3	4.9	23	36	W	24	9	8	14	6.3	53
MANSFIELD	1295			37	19	27.9	- 0.9	63	24	-15	16	0	26	20	74	0.95	- 2.27	0.21	11	1	7.1	3	8.3	22	35	26	25	4	10	17	7.2	
TOLEDO	669	992.2	1018.4	32	14	23.4	- 2.9	55	22	-17	16	0	30	14	68	1.42	- 0.91	0.26	12	1	10.1	3	6.6	24	47	W	24	4	10	17	7.5	43
YOUNGSTOWN	1178	974.6	1018.8	35	18	26.5	- 0.8	62	13	-11	16	0	31	18	73	1.35	- 1.81	0.24	15	0	9.0	2	6.3	23	42	25	25	4	7	20	7.6	
OKLAHOMA																																
OKLAHOMA CITY	1285	971.2	1019.1	46	24	34.9	- 2.1	68	19+	1	15	0	21	25	71	0.21	- 1.10	0.07	4	0	0.8	1	0.5	14	34	N	3	12	8	11	5.2	62
TULSA	650	994.2	1019.3	45	25	34.8	- 1.4	72	19	2	15	0	21	24	70	0.17	- 1.54	0.06	5	0	0.8	1	0.2	16	32	SW	18	7	11	13	6.1	50
OREGON																																
ASTORIA	8	1018.0	1018.9	45	35	40.0	- 0.7	53	20	19	29+	0	12	36	85	10.62	- 1.09	2.11	23	0	1.7	1	5.1	22	33	29	23	4	4	23	8.3	
BURNS U	4151	873.4	1020.7	33	13	23.4	- 1.4	47	19	-11	29	0	28	17	75	2.07	0.45	1.06	9		11.7	10	4.2	25				7	5	19	6.9	
EUGENE	359	1007.5	1021.4	44	31	37.9	- 1.2	54	19	15	29	0	18	33	84	12.48	6.15	4.26	18	1	1.2	1	5.3	19	35	22	23	3	5	23	8.0	
MEACHAM	4050	874.7	1019.1	31	18	24.2	- 1.8	44	20+	-11	27	0	29			3.68	- 0.52	0.63	20		28.8	44			44	25	11					
MEDFORD	1298	973.6	1022.6	43	30	36.0	0.6	56	20	19	3	0	22	29	80	3.55	0.41	1.89	12	0	0.3	T	0.6	31	20	23	23+	4	4	23	7.7	
PENDLETON	1482	963.8	1018.7	41	27	34.0	1.8	59	20+	- 6	27	0	15	24	68	0.96	- 0.46	0.33	11	0	3.6	2	6.7	25	46	26	11	2	3	26	8.7	
PORTLAND	21	1018.6	1019.9	45	34	39.2	0.8	58	18	18	29+	0	13	32	76	5.71	0.34	1.75	19	0	0.4	T	5.3	18	34	E	27+	4	2	25	8.1	24
SALEM	196	1013.2	1020.5	45	32	38.3	- 0.2	55	18	13	28	0	14	33	81	7.98	1.28	3.07	17	0	0.4	T	6.2	20	30	18	25	4	2	25	8.1	
SEXTON SUMMIT R	3836	885.5	1021.4	37	27	32.3	- 1.8	51	1	15	29	0	22			10.02	4.43	3.48	17		22.0	24			47	23	20					
PACIFIC AREA																																
GUAM TAGUAC R	361	997.6	1010.2	84	70	76.7	- 1.5	85	27+	61	14+	0	0	71	84	4.86	0.23	2.07	19	0	0.0	0	9.7	8	24	ESE	6					78
JOHNSTON	7	1010.5	1011.2	79	74	76.6	- 0.5	82	12	68	28	0+	0	69	78	3.29	- 0.60	2.00	9	0	0.0	0	12.6	9	46	NE	28	8	10	13	6.0	64
KOROR R	94	1004.4	1008.1	87	75	80.8	0.5	90	18	72	30+	1	0	75	86	10.78	- 0.95	1.72	25	1	0.0	0	2.8	8	23	SE	26	0	1	30	9.8	39
KWAJALEIN	8	1007.5	1008.2	85	77	80.8	0.7	86	30+	73	1	0	0	73	80	10.02	6.41	4.00	13	0	0.0	0	11.9	7	25	11	12	3	6	22	8.1	
MAJURO	10	1008.1	1008.4	84	76	80.2	0.0	85	31+	72	12+	0	0	73	79	9.58	2.60	3.18	18	0	0.0	0	9.8	7	27	E	28+	2	5	24	8.8	60

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station ⌀	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No. of days: Max. 90°F. or above	No. of days: Min. 32°F. or below	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No. of days: .01 inch or more	No. of days: With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Fastest mile: Speed	Fastest mile: Direction	Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
PACIFIC AREA																																
PAGO PAGO	12	1007.8	1008.0	85	74	79.2		87	26+	69	29+	0	0	73	82	17.77		3.96	28	2	0.0	0	3.9	1	27	NW	20+	1	7	23	8.5	35
PONAPE R	123	1002.0	1007.1	86	75	80.6	0.1	88	26+	70	13	0	0	73	81	10.52	- 0.55	3.43	20	1	0.0	0	6.1	10	20	NE	1	0	5	26	9.0	46
TRUK MOEN ISLAND	5	1007.8	1008.0	85	77	80.9	0.2	88	20+	73	14+	0	0	73	78	9.83	1.43	3.86	16	2	0.0	0	9.6	6	23	NE	19	0	2	29	9.1	70
WAKE	11	1012.9	1013.1	79	70	74.5	- 2.9	82	9	68	31+	0	0	63	70	1.75	0.61	0.66	13	0	0.0	0	14.7	5	32	NE	25+	13	12	6	4.7	66
YAP R	44			86	74	80.2	- 0.3	88	14	71	11	0	0			6.03	- 1.84	1.97	17	1	0.0	0			23	SE	5	0	9	22	8.5	72
PENNSYLVANIA																																
ALLENTOWN	387	1005.1	1019.7	38	22	30.4	1.4	62	13	2	16	0	25	22	74	2.79	- 0.38	0.91	15	0	4.5	3	4.9	28	35	28	25	7	8	16	6.8	
ERIE	731	990.5	1018.3	34	20	26.9	1.5	60	13	- 2	15	0	31	19	74	1.94	- 0.73	0.46	21	0	27.3	6	8.4	23	35	26	25	1	9	21	8.2	
HARRISBURG	338	1006.8	1019.8	41	28	34.5	3.2	66	13	8	16	0	22			2.65	- 0.11	0.95	15	0	2.6	2	2.5	29	42	W	25	7	11	13	6.6	46
PHILADELPHIA	5	1019.0	1020.0	43	28	35.1	2.8	63	13	6	16	0	21	25	69	2.34	- 0.98	0.57	13	0	3.2	3	3.6	28	42	W	25	6	6	19	7.0	55
PITTSBURGH	1137	973.9	1019.3	39	20	29.6	0.7	68	13	-10	16	0	25			1.84	- 1.13	0.36	13	0	4.9	2	5.6	26	35	26	25	5	7	19	7.3	50
SCRANTON	930	983.1	1018.6	35	20	27.6	- 0.1	60	13	- 1	16	0	28	21	74	2.05	- 0.24	0.47	15	0	5.9	2	3.7	25	36	SW	25	1	10	20	7.9	52
WILLIAMSPORT	524	999.7	1019.3	36	21	28.6	- 0.2	55	13	0	16	0	28	20	69	2.49	- 0.18	0.53	16	0	6.0	2	1.8	29	38	27	25	3	6	22	7.8	
RHODE ISLAND																																
BLOCK ISLAND	110			40	27	33.7	1.6	54	25+	6	17+	0	19			2.18	- 1.66	0.93	11		2.2	1										
PROVIDENCE	51	1015.9	1018.4	41	21	30.8	1.6	58	14	0	17	0	27	21	68	1.85	- 1.96	0.66	11	0	2.2	1	5.3	30	40	29	25	10	4	17	6.5	51
SOUTH CAROLINA																																
CHARLESTON	40	1018.6	1020.7	65	45	54.8	5.0	79	28	17	17	0	5	48	81	4.13	1.59	2.21	13	3	0.0	0	1.2	31	37Y	NW	5	7	6	18	7.0	58
CHARLESTON U	9			63	48	55.5	4.0	77	28	20	17+	0	2			4.10	1.70	2.05	10		0.0	0			32	N	16					
COLUMBIA	213	1012.5	1020.7	62	40	50.9	4.0	73	28+	12	17	0	10	42	77	7.62	4.60	2.47	13	4	0.0	0	0.7	30	28	31	10	5	8	18	7.0	51
GRNVLLE-SPRTNBRG	957	985.1	1020.4	55	35	44.6	0.9	70	19	7	16	0	15	35	72	6.14	1.86	2.20	13	1	0.0	0	1.2	29	26	S	13+	8	5	18	6.6	40
SOUTH DAKOTA																																
ABERDEEN	1296	968.2	1018.0	17	- 5	6.3	- 4.5	42	16	-35	15	0	31	- 2	64	0.39	- 0.27	0.18	8	0	8.2	9	4.6	28	33	34	24	7	5	19	6.8	
HURON	1281	969.2	1018.3	21	- 2	9.6	- 2.9	41	16	-29	15	0	31	1	66	0.43	- 0.05	0.18	8	0	5.3	8	3.7	28	45	NW	12	4	7	20	7.4	78
RAPID CITY	3162	900.8	1016.4	30	4	17.3	- 4.7	66	16	-23	28+	0	31	4	60	0.22	- 0.14	0.07	11	0	2.6	1	5.0	33	45	NW	8	4	6	21	7.6	44
SIOUX FALLS	1418	965.1	1019.5	21	- 3	8.9	- 6.3	40	8	-32	15	0	31	2	72	0.18	- 0.44	0.14	3	0	1.8	7	5.2	28	37	32	24+	7	11	13	6.5	
TENNESSEE																																
BRISTOL	1507	964.8	1020.1	52	30	40.8	2.5	78	24	- 2	16	0	19	31	72	4.87	1.18	0.82	19	1	T	T	1.7	29	25	29	25	9	5	17	6.4	
CHATTANOOGA	655	995.3	1020.5	54	33	43.4	1.7	72	24	2	16	0	16	34	74	8.64	3.03	2.51	17	1	T	T	0.6	25	36	NW	25	9	3	19	6.7	43
KNOXVILLE	980	984.8	1020.7	52	33	42.5	1.1	72	24	1	16	0	15	32	71	7.35	2.47	1.58	17	1	0.4	T	2.6	31	35	W	13	6	7	18	6.9	31
MEMPHIS	258	1009.8	1020.4	52	33	42.3	0.8	78	24	6	16	0	17	31	66	4.73	- 1.34	1.04	11	4	0.3	T	1.0	15	31	33	24	10	4	17	6.5	53
NASHVILLE	590	998.0	1020.4	53	31	41.8	1.9	78	24	- 1	16	0	22	31	70	5.15	- 0.34	1.35	13	1	0.4	T	2.5	22	38	SW	24	7	9	15	6.6	48
OAK RIDGE R	905			51	31	40.6	0.7	71	24	- 2	16	0	18			7.32	1.38	1.77	17		0.4	T			31Y		25+	9	3	19	6.8	
TEXAS																																
ABILENE	1784	953.9	1018.1	57	31	43.7	- 0.9	82	23	8	15	0	17	27	60	0.29	- 0.59	0.20	5	0	1.0	1	2.9	21	34	S	17	14	7	10	4.8	64
AMARILLO	3604	889.3	1015.5	53	19	35.7	- 1.0	77	23	1	15+	0	28	14	50	0.21	- 0.44	0.11	4	0	1.6	1	4.3	24	40	W	12	17	6	8	4.4	70
AUSTIN	597	995.9	1018.4	62	40	51.0	0.6	88	23	18	5	0	7	41	73	1.48	- 0.87	1.02	9	1	T	T	2.0	3	30	N	24	12	3	16	5.9	52
BROWNSVILLE	19	1016.3	1017.0	75	57	66.0	4.6	87	22	35	6	0	0	57	77	1.30	- 0.05	0.76	8	0	0.0	0	2.4	16	34	S	9	4	7	20	7.8	36
CORPUS CHRISTI	41	1015.9	1017.5	73	51	61.6	4.2	90	23	29	5	1	4	54	82	1.23	- 0.40	0.71	6	1	0.0	0	3.8	8	38	N	25	5	9	17	7.2	45
DALLAS	481	1001.4	1018.9	57	36	46.3	0.4	83	20	15	15	0	11	33	65	1.13	- 1.19	0.49	6	0	0.5	T	0.9	15	31	S	12	12	6	13	5.4	54
DEL RIO	1026	981.0	1017.6	67	40	53.6	2.3	89	23	17	5	0	7	35	58	0.63	- 0.26	0.41	8	1	T	T	1.9	6	31	33	4	12	8	11	5.5	
EL PASO	3918	882.8	1016.7	60	31	45.2	2.3	75	26	10	5	0	16	21	44	0.44	- 0.02	0.22	4	1	2.5	T	2.2	26	36	W	27	15	9	7	4.1	88
FORT WORTH	537	998.3	1019.2	57	33	45.0	- 0.5	82	20	15	5	0	12	35	72	1.09	- 0.95	0.50	6	0	T	T	0.8	25	25	34	4	11	7	13	5.6	
GALVESTON U	7			65	53	59.0	4.1	74	24+	29	5	0	3			3.68	0.22	1.30	9		0.0	0			37	NE	15					44
HOUSTON INTERCON	96	1015.2	1018.9	67	46	56.5	5.2	83	27+	22	16+	0	8	47	76	3.30	- 0.63	1.80	10	4	T	T	1.1	11	24	6	25	7	6	18	7.0	44
LUBBOCK	3254	902.8	1015.9	58	24	41.3	2.1	83	23	3	5	0	24	18	47	0.16	- 0.52	0.10	3	0	2.2	1	3.6	25	36	27	12	13	9	9	4.6	
MIDLAND	2851	916.7	1016.4	60	28	44.2	0.2	80	23	3	5	0	18	22	50	0.37	- 0.43	0.25	3	0	2.4	1	3.3	22	30	24	12	18	2	11	4.0	
PORT ARTHUR	16	1018.3		65	46	55.3	1.7	77	27+	21	6	0	8	49	84	8.33	4.10	2.85	10	5	0.0	0	2.9	9	31	NE	25	6	6	19	7.1	45
SAN ANGELO	1903	949.9	1017.7	63	32	47.4	0.5	86	23	12	15	0	16	29	56	0.48	- 0.49	0.25	6	0	3.3	3	2.5	24	30	21	17	14	6	11	4.7	
SAN ANTONIO	788	989.8	1018.1	65	40	52.8	0.8	88	23	17	5	0	6	40	70	1.35	- 0.39	0.73	8	0	T	T	2.9	2	29	N	4	8	10	13	6.3	49
VICTORIA	104	1013.9	1018.1	69	47	57.9	2.5	85	22	24	5	0	5	49	77	1.74	- 0.60	1.45	7	1	0.0	0	1.8	6	39Y	N	4	5	10	16	7.0	
WACO	501	1000.3	1018.8	58	37	47.3	- 0.7	85	23	18	5	0	11	38	76	2.54	0.27	1.05	7	2	T	0	0.9	33	25	35	14	10	6	15	6.0	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No. of days: Max. 90°F. or above	No. of days: Min. 32°F. or below	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No. of days: .01 inch or more	No. of days: With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile: Speed	Wind: Fastest mile: Direction	Wind: Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
TEXAS																																
WICHITA FALLS	994	980.7	1018.3	52	27	39.4	- 3.4	78	12	7	15	0	22	30	75	0.17	- 0.95	0.08	5	0	0.4	T	0.5	3	35	35	4	13	6	12	5.0	
UTAH																																
MILFORD	5028	847.3		42	16	29.1	4.5	57	22	- 9	4	0	30			0.05	- 0.52	0.04	3		1.0	2						15	7	14	4.2	
SALT LAKE CITY	4220	873.0	1021.0	39	21	29.8	2.6	57	23	3	4	0	25	19	66	1.22	- 0.13	0.31	10	0	10.5	5	3.1	18	34	W	23	7	10	14	6.5	56
WENDOVER	4237	872.0	1020.8	39	20	29.2	2.2	60	22	2	4	0	26	18	63	0.21	- 0.11	0.12	4		2.8	2						14	5	12	5.2	
VERMONT																																
BURLINGTON	332	1003.7	1016.9	31	11	21.1	4.9	49	11	-13	6	0	29	9	59	0.93	- 1.02	0.22	14	0	14.3	9	4.0	22	49	SW	25	3	12	16	7.2	45
VIRGINIA																																
LYNCHBURG	916			49	29	39.1	1.5	70	24	- 4	16	0	17			3.25	- 0.04	0.86	15		T	T			28	W	25	8	5	18	6.5	48
NORFOLK	24	1019.3	1020.4	54	39	46.4	5.2	69	20	8	16	0	9	35	66	2.94	- 0.39	1.07	14	1	0.0	0	1.6	30	33	S	25+	7	8	16	6.8	55
RICHMOND	164	1014.2	1020.8	50	31	40.7	2.0	70	13	3	16	0	18	31	71	1.43	- 2.03	0.27	17	0	T	T	0.8	24	26	NW	25+	8	5	18	6.5	46
ROANOKE	1149	977.0	1019.9	50	29	39.6	1.5	71	24	- 4	16	0	18	27	65	2.49	- 0.63	0.63	13	0	T	0	2.2	29	32	30	7	8	8	15	6.2	
WALLOPS ISLAND	9			48	34	40.9		65	19	8	16	0	15			3.04		1.42	14		T	T			44Y	SE	4					
WASHINGTON																																
OLYMPIA	195	1010.5	1018.0	41	27	34.0	- 4.1	52	20	- 7	27	0	16	32	92	12.43	4.58	3.32	23	0	29.2	20	6.5	21	32	25	23+	3	4	24	8.3	
QUILLAYUTE	179	1009.1	1016.8	41	30	35.7	- 2.9	49	20	11	28	0	17	32	85	12.92	- 2.35	2.92	25	1	13.7	8	1.8	24	28	W	9	2	4	25	8.5	17
SEATTLE-TACOMA	400	1000.3	1017.0	42	32	37.0	- 1.3	53	20	12	27	0	13	29	74	7.24	1.51	2.02	19	0	14.0	11	5.4	19	36	SW	11	3	4	24	8.3	23
SPOKANE	2356	929.6	1016.1	29	16	22.6	- 2.7	47	20	-10	28+	0	29	15	71	1.74	- 0.70	0.59	14	0	17.2	9	7.2	22	59	SW	9	5	8	18	7.5	35
STAMPEDE PASS R	3958	874.7		27	18	22.4	- 1.1	38	15	- 4	27	0	31			27.18	15.15	3.97	25		230.1	201						3	2	26	8.9	
WALLA WALLA U	949			40	28	34.2	1.0	61	20	1	27	0	16			1.20	- 0.69	0.47	11		8.9	6			42	SW	11	1	4	26	8.9	16
YAKIMA	1052	978.3	1018.1	40	19	29.4	1.9	58	20	- 9	28	0	28	19	66	0.88	- 0.31	0.38	10	0	10.1	6	3.7	27	36	30	11	5	9	17	7.1	
WEST INDIES																																
SAN JUAN P.R.	13	1014.9	1017.7	82	73	77.7	3.3	84	31+	70	15+	0	0	64	65	2.76	- 1.94	0.67	22	1	0.0	0	10.4	9	29	E	12	6	23	2	4.8	71
WEST VIRGINIA																																
BECKLEY	2504	928.9	1020.2	45	25	35.3	1.7	67	24	-15	16	0	21	27	75	5.45	1.19	1.05	18	2	2.4	1	4.6	22	29	29	25	7	4	20	6.9	
CHARLESTON	939	984.8	1019.9	48	29	38.7	2.1	74	24	- 5	16	0	18	27	67	5.47	1.15	1.12	19	1	4.0	3	2.7	24	23	24	25	4	7	20	7.5	
ELKINS	1948	946.8		45	23	33.8	1.3	69	13	-12	16	0	23			5.46	1.84	1.03	16		4.1	3						5	8	18	7.3	
HUNTINGTON	827	989.2	1020.3	45	26	35.8	- 0.8	72	24+	- 9	16	0	20	26	71	4.79	1.14	0.89	18	1	6.0	3	2.1	23	23	18	24+	7	4	20	7.2	
PARKERSBURG U	615			44	25	34.4	- 0.2	70	25+	- 6	16	0	21			2.67	- 0.67	0.72	17		5.4	2			37	W	25					46
WISCONSIN																																
GREEN BAY	682	989.5	1016.5	20	1	10.2	- 6.6	40	9+	-28	15	0	31	1	65	0.65	- 0.50	0.21	8	0	8.2	7	9.5	25	42	W	25	9	7	15	6.2	58
LA CROSSE	651	993.2	1019.1	21	1	11.1	- 5.4	45	18	-24	15	0	31	2	66	0.62	- 0.57		8	0	10.2		2.7	26								
MADISON	858	984.4	1017.5	23	3	12.7	- 4.8	45	18	-24	15	0	31	6	71	0.40	- 1.00	0.13	8	0	3.6	5	6.8	25	33	W	24	8	8	17	6.6	47
MILWAUKEE	672	991.2	1017.8	24	8	15.9	- 4.7	45	18	-22	15	0	31	7	65	0.75	- 1.08	0.42	7	0	6.8	3	10.4	26	45	W	24	7	8	16	6.4	50
WYOMING																																
CASPER	5338	831.7	1015.6	29	7	17.7	- 5.7	45	19	-40	14+	0	28	10	70	0.99	0.43	0.53	7	0	19.2	11	14.1	22	51	27	11	6	8	17	6.6	
CHEYENNE	6126	805.6	1014.1	37	14	25.3	- 0.1	52	23	-19	4	0	26	7	48	0.36	- 0.16	0.19	4	0	7.4	4	13.9	28	61	W	11	8	8	15	6.4	58
LANDER	5563	822.9	1015.3	31	8	19.6	0.3	50	19	-21	4	0	29	6	58	1.08	0.62	0.74	6	0	18.7	11	4.0	27	72	SW	11	6	14	11	6.3	69
SHERIDAN	3964	873.7	1016.8	27	1	14.0	- 7.3	56	21	-30	4	0	31	3	61	1.79	1.15	1.01	14	0	25.1	19	5.2	30	43	NW	21	4	9	18	7.4	40

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

Precipitation data in column headed "Greatest in 24 hours" are computed on a 24-hour basis without regard to calendar day - data may include precipitation with a measurable amount from the last day of the previous month or the first day of the following month.

Wind directions under resultant direction are in tens of degrees.

Value entered in column "Fastest Mile" is the highest observed 1-minute wind speed when the direction is in tens of degrees. These stations are not equipped with a recording anemometer from which "Fastest Mile" data can be evaluated.

B Number of days maximum 70°F. or above for Alaskan Stations.
Y Peak Gust.
+ And also on an earlier date or dates.
Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.
V Sun below horizon January 1-23, inclusive.
X Sun below horizon January 1-17, inclusive.

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1977

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No. of days: Max. 32.2 °C or above	No. of days: Min. 0 °C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No. of days: .25 mm. or more	No. of days: With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	°C.	°C.	°C.	°C.	°C.		°C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
ALABAMA																																
BIRMINGHAM	189	998.0	1020.8	14.4	2.8	8.4	0.4	25.0	24	-13.9	16	0	13	2.8	70	236	108	80	16	4	T	T	0.1	16	14.3	W	13	7	6	18	6.7	44
HUNTSVILLE	190	997.0	1020.6	13.3	1.7	7.4	1.3	24.4	13	-15.6	16	0	14	2.2	71	202	70	65	15	1	8	T	0.3	13	13.0	31	2	8	5	18	6.8	
MOBILE	64	1011.9	1019.7	20.6	8.9	14.7	3.0	25.6	10	- 6.1	16	0	6	10.0	77	151	33	37	15	4	0	0	0.5	8	13.0	34	25	6	6	19	7.1	
MONTGOMERY	56	1013.2	1020.8	17.8	5.0	11.4	2.5	26.1	24	-10.6	16	0	9	6.1	75	161	58	44	13	6	0	0	0.3	1	11.6	N	25	6	7	18	6.6	47
ALASKA												B															B					
ANCHORAGE	35	1009.5	1014.7	-10.6	-18.3	-14.2	- 3.2	2.8	28	-33.3	11	0	31	-17.2	74	14	- 6	5	9	0	244	356	1.4	1	15.6	35	16+	13	1	17	5.7	56
ANNETTE	34	1009.5	1013.7	- 0.6	- 5.6	- 2.9	- 4.3	6.1	15+	-13.9	12	0	27	- 8.3	68	208	- 80	87	15	0	879	406	0.8	6	15.6	15	8	6	5	20	7.0	
BARROW	9	1021.7	1022.2	-23.3	-30.6	-26.8	0.0	- 8.3	19	-40.6	17	0	31			1	- 3	1	3	0	15	152	0.8	2	12.5	29	11	V	V	V		
BARTER ISLAND	12	1019.6	1021.6	-23.3	-30.6	-26.9	0.2	- 5.6	29	-40.0	5	0	31	-31.1	65	8	- 2	6	4	0	130	508	5.2	27	30.0	28	12	X	X	X		
BETHEL	38	1009.8	1015.7	-13.9	-19.4	-16.5	- 0.7	2.8	26+	-34.4	10	0	31	-18.9	81	20	- 9	7	6	0	97	152	1.6	7	17.9	15	30	13	7	11	4.7	
BETTLES	196			-27.8	-35.6	-31.6		- 1.7	28	-52.8	10	0	31			32		13	6	0	518	1524			7.6	22	29+	15	6	10	4.5	
BIG DELTA	386			-22.8	-31.1	-26.9		- 3.9	29+	-47.2	10	0	31			6		4	6	0	112	305			13.0	11	13	11	6	14	5.6	
COLD BAY	29	1007.8	1011.7	0.0	- 5.6	- 2.7	- 0.3	6.7	24	-15.6	23	0	29	- 5.0	82	104	45	47	16	0	396	127	1.3	17	20.6	17	30+	4	4	23	7.9	
FAIRBANKS	133	1003.4	1022.1	-22.8	-31.1	-26.8	- 2.9	- 2.8	29	-45.0	17+	0	31	-31.7	66	19	- 4	7	9	0	320	737	0.2	34	11.2	22	29	10	4	17	6.1	
GULKANA	479			-22.8	-33.9	-28.1		- 0.6	28	-49.4	12+	0	31			20		11	10	0	277	1067	1.7	36	11.6	2	18+	14	2	15	5.4	
HOMER	20	1010.8	1014.6	- 5.6	-12.8	- 9.3		4.4	28	-27.8	10	0	30	-13.3		19	- 33	5	10	0	401	432	1.2	2	13.0	4	16+	9	7	15	5.9	
JUNEAU	4	1012.9	1013.7	- 5.0	-12.8	- 9.0	- 5.2	2.8	15+	-30.0	12	0	30	-13.9	69	95	- 7	24	15	0	1146	787	3.2	10	14.8	11	5	10	3	18	6.5	37
KING SALMON	15	1011.9	1013.8	-10.6	-17.8	-14.1	- 3.7	3.9	25	-36.7	9	0	29	-17.8	73	33	6	8	11	0	297	229	1.4	7	20.6	14	26	9	5	17	6.2	
KOTZEBUE	3	1018.3	1018.9	-16.1	-24.4	-20.2	0.7	0.6	27	-37.2	13	0	31	-23.9	74	13	3	3	9	0	340	914	4.1	10	20.6	11	25	14	2	15	5.5	
MC GRATH	105	1006.1	1019.9	-21.1	-31.7	-26.4	- 3.7	3.3	28+	-50.6	10	0	30			31	- 1	8	12	0	356	965	0.4	24	7.6	19	26	13	3	15	5.5	
NOME	4	1015.6	1016.3	-12.2	-20.0	-16.1	- 0.8	0.6	26+	-35.6	11+	0	31	-20.6	68	13	- 12	5	12	0	269	508	3.2	10	19.7	10	30	13	2	16	5.7	44
ST. PAUL ISLAND	7	1008.5	1009.3	- 0.6	- 6.1	- 3.4	0.3	3.3	25+	-12.8	15	0	31	- 5.0	87	37	- 9	7	19	0	328	254	3.0	11	19.7	26	30	3	6	22	8.3	
SHEMYA	37	997.3	1000.6	1.1	- 2.2	- 0.6	- 0.2	2.8	26+	- 5.6	29	0	27	- 5.0	73	76	12	21	20	0	406	152	2.1	27	38.0	29	3	2	7	24	8.6	
SUMMIT	732	925.2	1021.9	-18.3	-25.0	-21.8		- 2.2	28	-37.8	12+	0	31			29		19	7	0	742	965	5.4	4	14.8	8	8	9	6	16	6.1	
TALKEETNA	105			-11.1	-24.4	-17.8	- 8.2	0.6	29+	-44.4	11+	0	31			44	- 1	23	8	0	699	1067			17.0	4	15	12	3	16	5.6	
UNALAKLEET	5			-14.4	-20.0	-17.2		3.3	26	-36.7	14	0	31			13		5	9	0	127	483			17.9	8	25+	12	4	15	5.5	
YAKUTAT	9	1009.1	1010.4	- 4.4	-13.3	- 9.1	- 6.5	2.8	5	-26.1	23	0	31	-12.2	79	220	- 55	57	18	0	1910	2108	2.2	9	10.3	9	16+	10	5	16	6.1	
ARIZONA																																
FLAGSTAFF	2135	787.0	1020.8	6.1	-10.0	- 2.0	0.6	12.8	22	-17.8	5	0	31	-13.3	49	0	- 46	0	0	0	0	T	0.8	22	11.2	5	4	18	5	8	3.5	
PHOENIX	340	978.0	1017.5	19.4	2.2	10.8	0.9	23.9	15	- 3.3	5	0	7	- 5.0	38	0	- 19	0	0	0	0	0	0.8	11	12.5Y	ENE	15+	20	3	8	3.1	91
TUCSON	788	927.5	1016.6	18.9	1.7	10.2	0.3	25.0	25	- 5.0	4	0	9	- 4.4	42	0	- 21	0	0	0	0	0	1.5	15	14.3	W	3	16	10	5	3.5	90
WINSLOW	1492	852.7	1020.9	10.6	- 6.7	1.9	2.4	21.1	23	-12.2	31+	0	31	-10.0	48	0	- 11	0	0	0	0	0	1.3	22	16.1	20	26	18	4	9	3.7	
YUMA	59	1010.5	1017.9	19.4	3.9	11.6	- 0.3	23.3	23	0.0	6	0	1	- 5.6	34	0	- 10	0	0	0	0	0	2.6	36	16.1	NW	4	20	5	6	3.0	91
ARKANSAS																																
FORT SMITH	136	1002.7	1019.7	10.6	- 2.8	3.8	- 0.5	23.9	19	-13.3	5	0	21	- 2.2	71	17	- 50	8	5	0	8	T	0.6	1	13.9	W	24	11	6	14	5.8	58
LITTLE ROCK	78	1010.2	1019.8	12.2	0.6	6.4	1.7	26.1	24	-10.6	16+	0	15	0.6	71	43	- 89	18	11	1	T	T	0.3	8	15.2	SW	24	9	7	15	6.1	48
CALIFORNIA																																
BAKERSFIELD	145	1004.4	1022.5	9.4	1.1	5.4	- 3.2	15.6	23+	- 4.4	9	0	10	2.8	87	T	- 30	T	0	0	0	0	0.3	2	13.0	12	4	4	9	18	7.2	
BISHOP	1252	876.1		12.2	- 6.1	3.2	0.5	16.1	22+	-12.2	4	0	30			T	- 25	T	0		T	T						17	5	9	3.9	
BLUE CANYON	1609			6.1	- 1.1	2.3	- 0.9	13.9	14	- 8.9	26	0	18			162	-135	71	9		544	1346			14.8	3	3	10	6	15	5.7	
EUREKA U	13			10.0	3.9	7.0	- 1.6	14.4	19+	- 1.7	29	0	6			202	32	66	16		41	25			16.5	N	2	8	4	19	6.6	52
FRESNO	100	1010.8	1022.7	8.3	1.1	4.8	- 3.1	13.9	25+	- 4.4	5	0	9	2.8	90	9	- 42	5	5	0	T	0	0.6	10	10.3	SE	27	4	5	22	8.0	26
LONG BEACH	8	1017.6	1018.9	18.3	5.6	11.9	0.2	26.7	15	1.1	5	0	0	3.3	64	0	- 51	0	0	0	0	0	0.2	35	8.9	7	30	16	7	8	4.4	
LOS ANGELES	30	1014.6	1018.2	17.2	7.2	12.2	- 0.3	26.7	15	2.8	5	0	0	3.9	66	0	- 68	0	0	0	0	0	0.4	26	11.2Y	W	26	14	9	8	4.4	
LOS ANGELES U	82			18.9	7.2	13.1	- 0.2	27.2	15	3.9	9+	0	0			0	- 78	0	0		0	0			8.5	SW	26	16	11	4	3.2	
MT SHASTA R	1080	894.7	1022.0	4.4	- 5.0	- 0.2	- 0.9	11.1	16	-15.6	26	0	25	- 5.0	73	62	-100	24	10		478	457	0.7	34								
OAKLAND	2	1022.0	1022.3	11.7	4.4	8.0	- 0.9	16.7	14	1.1	31+	0	0	3.3	76	26	- 71	10	6	0	0	0	0.4	9	11.2	15	26+	13	6	12	4.9	
RED BLUFF	104	1008.8	1021.8	11.7	0.6	6.2	- 1.3	20.0	14	- 3.9	31	0	19	0.0	72	37	- 72	14	7	0	124	51	0.4	35	17.9	S	22	10	8	13	5.7	66
SACRAMENTO	5	1021.7	1022.4	9.4	1.1	5.0	- 2.3	14.4	22	- 3.9	30	0	13	1.7	82	21	- 60	15	6	0	0	0	0.7	17	16.5	NW	3	6	6	19	7.2	48
SANDBERG R	1377	864.2		8.3	0.0	4.3	- 0.1	14.4	18	-10.0	4	0	15	- 7.8	46	T	- 65	T	0		0	813	3.5	2	21.0	35	23	20	2	9	3.6	
SAN DIEGO	4	1017.3	1018.3	17.8	7.8	12.7	- 0.1	24.4	15	2.8	5	0	0	3.9	60	2	- 49	2	1	0	0	0	1.1	31	8.5	W	28+	12	11	8	4.4	82
SAN FRANCISCO	2	1021.7	1022.2	11.7	3.3	7.6	- 1.7	15.0	21+	0.0	5+	0	2	3.3	79	28	- 74	14	7	1	T	0	0.3	18	11.6	27	25	13	6	12	5.2	
SAN FRANCISCO U	16			12.2	6.1	9.2	- 1.2	16.1	14	3.3	11	0	0			34	- 82	20	7		0	0			15.2	NE	3					68
SANTA MARIA	72			16.1	2.2	9.1	- 1.1	22.8	15	- 3.3	5	0	8			4	- 68	3	2		0	0						16	7	8	3.7	
STOCKTON	7	1022.4	1023.3	8.9	1.1	4.8	- 2.3	14.4	21	- 3.9	5+	0	13	2.2	88	18	- 47	11	7	0	0	0	1.1	16	13.0	16	27	6	3	22	7.8	
COLORADO																																
ALAMOSA	2297	768.7		1.7	-17.8	- 8.1	0.0	10.0	23	-35.6	4	0	31			6	- 1	6	3		175	152						13	13	5	4.2	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1972

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No. of days: Max. 32.2 °C or above	No. of days: Min. 0 °C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No. of days: .25 mm. or more	No. of days: With thunderstorms	Snow, ice pellets: Total	Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	°C.	°C.	°C.	°C.	°C.		°C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
COLORADO																																
COLORADO SPRINGS	1873	806.3	1015.5	6.7	- 8.9	- 1.1	0.8	16.7	23	-23.9	4	0	27	-12.8	48	7	- 1	4	4	0	132	76	0.8	35	17.4	30	21	12	10	9	5.0	
DENVER	1610	831.0	1013.0	7.8	- 9.4	- 0.8	1.1	17.2	23	-26.7	4	0	28	-10.6	54	9	- 5	5	5	0	277	152	1.5	26	18.8	SW	11+	10	8	13	5.8	65
GRAND JUNCTION	1476	852.7	1020.4	5.6	- 7.8	- 1.1	2.2	14.4	26+	-22.2	4	0	30	-10.0	57	5	- 11	4	4	0	102	76	0.6	9	16.5	W	27	12	6	13	5.3	68
PUEBLO	1428	852.0	1015.4	8.9	-11.1	- 1.2	- 0.1	22.2	23	-25.6	4	0	28	-11.1	54	9	1	6	6	0	165	76	2.3	30	24.6	NW	11	10	12	9	5.3	79
CONNECTICUT																																
BRIDGEPORT	2	1019.0	1019.7	5.0	- 3.9	0.6	1.6	12.2	19	-13.9	17+	0	21	- 5.6	65	57	- 37	18	13	0	58	25	3.3	29	24.6	26	25	7	10	14	6.5	
HARTFORD	52	1011.5	1018.3	2.8	- 7.2	- 2.3	1.1	13.9	13	-18.3	6	0	30	- 7.8	67	51	- 40	11	14	0	74	51	1.6	28	21.9	NW	25	6	8	17	6.9	62
DELAWARE																																
WILMINGTON	23	1017.3	1020.2	6.7	- 2.2	2.3	1.5	18.3	13	-15.0	16	0	20	- 3.9	68	64	- 23	18	14	0	53	51	1.2	29	16.5	32	14	5	8	18	6.9	
DIST. OF COLUMBIA																																
WASHINGTON DULLES	88	1008.1	1020.1	7.2	- 3.3	2.1		19.4	13	-18.9	16	0	22	- 3.3	70	58		16	16	2	T	T	0.8	24	14.8	30	25	8	4	19	6.9	
WASHINGTON NATIONAL	3	1018.0	1020.3	7.8	- 0.6	3.6	0.9	18.3	19	-16.1	16	0	17	- 2.8	66	62	- 15	19	17	2	8	T	1.0	28	13.4	NW	25	8	5	18	6.7	41
FLORIDA																																
APALACHICOLA U	4			18.3	11.1	14.8	1.9	23.3	30+	- 2.8	16	0	2			204	125	79	12	4	0	0			13.0	N	16	4	12	15	6.8	75
DAYTONA BEACH	9	1019.0	1020.5	23.9	13.3	18.6	3.5	28.3	14+	1.1	16	0	0	14.4	81	60	10	20	11	2	0	0	0.5	27	11.6	2	16	4	13	14	7.0	
FORT MYERS	5	1019.3	1019.7	27.2	16.1	21.6	4.1	29.4	24+	6.7	17	0	0	16.1	77	20	- 19	18	6	0	0	0	1.0	10	13.0	1	16	8	15	8	5.4	
JACKSONVILLE	8	1020.0	1021.0	21.7	10.6	16.3	3.1	28.3	11	- 1.7	17	0	2	12.2	82	147	84	60	9	5	0	0	0.4	34	14.3	NW	14	4	7	20	7.4	41
KEY WEST	1	1018.0	1018.5	26.1	23.7	23.9	3.0	28.3	3	16.1	17	0	0	18.9	76	70	31	36	9	2	0	0	3.4	10	17.9	N	15	14	8	9	5.0	88
LAKELAND U	68			25.0	14.4	19.7	3.2	28.3	25+	1.7	16	0	0			31	- 21	18	8		0	0						5	16	10	6.0	52
MIAMI	2	1019.0	1019.3	26.1	20.0	22.8	3.4	28.3	31	13.3	16	0	0	17.8	74	41	- 11	25	8	3	0	0	2.2	8	13.2	34	15+	9	11	11	5.7	
ORLANDO	33	1015.9	1020.3	26.1	15.0	20.5	4.7	30.0	14+	3.3	16	0	0	15.0	77	25	- 26	12	7	1	0	0	0.1	23	13.2	2	16	6	10	15	6.8	
PENSACOLA	34	1015.6	1019.9	19.4	10.0	14.8	2.0	29.6	4	- 6.1	16	0	5	9.4	75	93	- 14	25	12	3	0	0	0.6	8	10.3	2	16+	4	9	18	7.3	
TALLAHASSEE	17	1018.0	1020.6	21.1	8.9	15.0	2.8	27.8	10	- 4.4	7	0	6	10.8	79	166	79	41	12	4	0	0	0.4	12	9.4	1	16	5	7	19	7.2	
TAMPA	6	1019.6	1019.9	25.0	13.9	19.4	3.2	28.3	26	2.2	16	0	0	15.0	79	14	- 40	8	7	1	0	0	1.0	11	8.9	5	16	8	10	13	6.2	60
WEST PALM BEACH	5	1018.6	1019.2	26.7	17.8	22.1	2.7	29.4	31	12.2	16	0	0	17.8	76	63	T	32	8	5	0	0	1.9	11	12.5	4	16	7	13	11	6.2	
GEORGIA																																
ATHENS	244	990.5	1020.4	13.9	3.9	8.9	1.9	20.6	24	-12.2	16	0	10	3.3	72	164	40	66	13	4	T	T	0.6	27	8.9	32	15	8	6	17	6.6	
ATLANTA	308	982.7	1020.1	13.9	2.8	8.2	1.2	21.1	24	-15.0	16	0	9	2.2	72	235	122	76	16	4	T	T	0.5	29	14.3	NW	15	8	4	19	6.9	44
AUGUSTA	41	1015.2	1020.5	17.2	5.0	11.0	2.3	23.9	10	- 9.4	17	0	8	6.1	75	154	78	58	11	3	0	0	0.4	27	9.8	30	2	6	4	21	7.1	
COLUMBUS	117	1006.1		17.2	6.1	11.6	2.8	25.6	10	-10.0	16	0	9	6.7	74	155	52	35	15	2	0	0	0.8	1	11.2	35	25	7	4	20	7.0	
MACON	108	1008.1	1021.3	17.2	5.0	11.1	1.5	23.9	10	-10.0	16	0	8	6.1	76	189	104	74	15	3	0	0	0.4	31	11.2	NW	25	4	8	19	7.4	41
ROME	194			13.9	0.6	7.2	1.6	23.9	13	-15.6	16	0	15			186	46	59	18		T	0										
SAVANNAH	14	1019.0	1020.8	20.0	8.3	14.2	3.2	27.2	13+	- 7.2	17	0	5	8.9	76	101	31	32	13	6	0	0	0.4	26	11.6	W	28+	5	6	20	7.4	39
HAWAII																																
HILO	8	1013.2	1014.3	25.6	17.2	21.2	- 0.4	28.3	13	13.9	11+	0	0	17.2	84	278	- 22	110	22	1	0	0	0.5	15	8.5	SE	23	0	15	16	7.6	27
HONOLULU	2	1013.2	1013.8	25.6	17.2	21.3	- 1.2	27.8	21+	11.7	31	0	0	16.1	75	134	39	121	6	1	0	0	2.2	4	14.3	E	23	8	11	12	6.1	61
KAHULUI	15	1011.5	1013.7	26.7	15.0	20.8	- 1.4	28.9	15+	10.0	31+	0	0	16.1	76	9	- 71	5	6	1	0	0	2.5	5	13.0	E	7	11	11	9	5.2	67
LIHUE	31	1009.5	1014.7	25.0	17.8	21.3	- 0.3	26.7	14	13.3	31	0	0	17.7	79	164	24	151	10	1	0	0	1.3	5	10.7	NE	7	5	13	13	6.6	47
IDAHO																																
BOISE	865	917.7	1020.7	3.3	- 4.4	- 0.6	1.0	9.4	19+	-13.9	28	0	24	- 6.1	68	55	21	13	11	0	127	25	0.3	10	16.8	SW	23+	4	6	21	7.8	36
LEWISTON	431			3.9	- 3.9	0.2	0.9	12.2	20	-16.7	29	0	21			35	7	9	14		152	51			32.2Y		11	3	3	25	8.6	
POCATELLO	1358	862.2	1020.1	- 0.6	- 9.4	- 5.1	0.3	6.1	22+	-23.9	4+	0	27	-10.0	67	37	6	12	13	0	269	102	4.5	23	24.1	W	10	4	12	15	7.3	37
ILLINOIS																																
CAIRO U	96			6.7	- 2.2	2.4	- 0.6	21.7	24	-17.8	16	0	17			68	- 45	43	10		81	51			17.0	SW	24	9	3	19	6.5	41
CHICAGO O HARE	201	992.6	1018.2	- 2.2	-11.7	- 6.9	- 2.6	8.3	18	-27.2	15	0	28	-11.7	69	26	- 21	7	12	0	193	76	3.5	25	20.1	27	25	10	4	17	6.4	
CHICAGO MIDWAY	185	995.3	1018.8	- 1.1	- 9.4	- 5.3	- 1.9	10.0	18	-26.1	15	0	27	-10.6	64	28	- 19	9	11	0	297	102	3.0	24	17.9	SW	24	10	4	17	6.4	55
MOLINE	177	997.3	1020.0	- 2.8	-12.2	- 7.4	- 2.2	12.8	18	-26.1	16	0	31	-13.3	63	30	- 11	11	9	0	300	178	2.2	26	19.7	NW	24	9	5	17	6.3	44
PEORIA	199	994.6	1019.9	- 1.7	-11.7	- 6.8	- 3.9	10.0	18	-27.8	15	0	31	-11.1	72	21	- 27	6	10	0	259	102	1.4	25	16.5	W	24	11	3	17	6.1	52
ROCKFORD	221	990.2	1018.5	- 3.3	-13.3	- 8.3	- 2.8	8.9	18	-28.3	15	0	31	-12.8	69	17	- 34	5	8	0	140	76	2.3	27	17.9	27	24	8	7	16	6.5	
SPRINGFIELD	179	997.0	1020.0	0.6	- 8.9	- 4.2	- 2.2	13.3	24	-24.4	15	0	26	- 8.3	73	26	- 22	10	8	0	206	102	1.5	24	20.1	W	24	14	2	15	5.5	56
INDIANA																																
EVANSVILLE	116	1006.4	1021.0	5.6	- 5.0	0.3	- 0.9	21.7	24	-21.7	16	0	22	- 5.0	68	43	- 58	18	11	0	51	51	0.3	25	21.0	W	24	9	4	18	6.6	53

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1972

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No. of days: Max. 32.2 °C or above	No. of days: Min. 0 °C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No. of days: .25 mm. or more	No. of days: With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Fastest mile (1.6 kilometers): Speed	Fastest mile: Direction	Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	°C.	°C.	°C.	°C.	°C.		°C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
INDIANA																																
FORT WAYNE	241	988.5	1019.9	0.6	-9.4	-4.4	-1.7	13.9	24	-28.3	16	0	28	-8.9	74	31	-37	9	11	0	201	51	3.2	25	23.7	W	25	7	8	16	6.5	56
INDIANAPOLIS	241	989.8	1020.2	2.8	-8.3	-3.1	-1.4	17.8	24	-28.9	16	0	25	-7.8	73	40	-38	12	13	1	201	102	1.4	24	16.1	W	24	8	6	17	6.5	56
SOUTH BEND	236	989.2	1018.4	-0.6	-8.3	-4.5	-0.9	8.9	24+	-28.3	16	0	27	-8.3	74	46	-10	9	17	0	488	229	3.4	22	16.5	25	25+	3	7	21	7.8	
IOWA																																
BURLINGTON	211			-1.7	-12.2	-6.9	-2.7	15.0	18	-27.2	15	0	31	-11.7	67	18	-24	7	8	0	239	127	1.6	28	14.3	30	24	10	5	16	6.0	
DES MOINES	286	983.4	1019.9	-3.3	-13.9	-8.6	-1.8	11.7	18	-27.8	15	0	31	-12.8	70	11	-22	8	5	0	147	127	1.8	27	18.3	NW	24	10	7	14	5.9	53
DUBUQUE	322	977.7		-5.6	-15.0	-10.3	-3.2	9.4	18	-30.0	15	0	31			12	-35	4	7		119	76						8	6	17	6.7	
SIOUX CITY	334	977.7	1019.6	-3.3	-15.0	-9.2	-1.8	8.9	17	-27.8	15	0	31	-15.0	60	9	-10	7	6	0	145	127	1.3	30	18.8	NW	24	6	11	14	6.7	65
WATERLOO	265	985.8	1019.4	-6.7	-17.2	-12.1	-4.3	7.8	18	-30.6	15	0	31	-15.6	73	7	-23	3	5	0	74	127	2.3	29	17.0	31	24	10	4	17	6.3	
KANSAS																																
CONCORDIA	448	963.8	1018.9	2.2	-9.4	-3.8	-1.3	12.8	18	-22.2	28	0	31	-8.9	72	6	-12	6	1	0	71	76	0.6	26	17.4	N	3	10	9	12	5.5	67
DODGE CITY	787	923.8	1017.7	6.1	-8.9	-1.7	-1.2	18.3	12	-22.2	15	0	30	-9.4	64	4	-10	3	7	0	56	25	0.6	27	17.0	N	12+	13	5	13	5.3	77
GOODLAND	1114	885.5	1016.5	6.1	-10.6	-2.2	0.3	17.8	16	-23.3	14	0	31	-10.0	63	8	-2	5	6	0	140	51	1.8	25	14.8	31	24	9	12	10	5.5	
TOPEKA	267	986.8	1020.0	2.2	-9.4	-3.6	-1.8	15.6	18	-23.3	15	0	30	-8.9	69	12	-14	6	5	0	76	25	0.4	29	15.6	NE	3	10	7	14	5.7	62
WICHITA	403	969.2	1018.9	3.3	-8.9	-2.8	-2.8	13.9	12	-21.7	15	0	30	-7.2	73	4	-17	2	5	0	43	25	0.1	32	15.2	N	12	12	5	14	5.6	69
KENTUCKY																																
COVINGTON	265	987.1	1019.9	4.4	-6.1	-1.0	-0.8	18.9	24	-25.0	16	0	23	-6.7	68	50	-41	13	15	0	41	25	1.7	23	13.9	28	25+	6	4	21	7.2	
LEXINGTON	294	984.1	1020.6	7.2	-3.3	1.9	0.6	21.7	24	-23.9	16	0	21	-2.9	74	104	-21	29	15	2	36	25	1.6	21	12.1	29	24	7	6	18	6.9	
LOUISVILLE	145	1002.0	1020.4	7.2	-3.3	1.8	0.1	21.1	24	-21.7	16	0	21	-3.9	70	73	-31	21	13	0	41	25	1.0	25	20.1	SW	24	7	6	18	6.8	47
LOUISIANA																																
ALEXANDRIA	28	1015.6	1019.9	17.2	5.0	11.2	1.1	26.7	24	-6.7	17+	0	8			173	38	40	11	7	0	0	0.3	6	10.7	4	15	8	4	19	6.8	
BATON ROUGE	20	1016.6	1019.4	19.4	7.8	13.7	2.1	27.2	13	-5.6	16	0	7	8.9	75	210	88	50	10	5	T	T	0.9	10	10.3	1	15	7	4	20	7.1	
LAKE CHARLES	3	1018.0	1019.0	18.9	7.8	13.2	1.2	26.1	13	-3.9	16	0	7	10.0	83	196	84	91	10	8	0	0	1.5	8	11.2	7	25+	7	5	19	7.1	
NEW ORLEANS	1	1018.6		20.6	9.4	14.8	2.2	27.8	13	-4.4	16	0	4	10.6	79	177	80	64	14	3	0	0	0.8	7	10.7	36	15+	4	9	18	7.0	
SHREVEPORT	77	1009.5	1019.1	15.6	3.9	9.7	1.1	28.9	24	-8.3	16	0	11	5.0	79	152	30	58	9	3	T	T	0.6	14	9.4	29	4	7	7	17	6.6	48
MAINE																																
CARIBOU	190	989.8		-6.7	-20.0	-13.2	-1.3	7.8	14	-35.6	1	0	31			34	-20	13	17		399	559						7	7	17	7.0	
PORTLAND	13	1014.6	1016.8	0.6	-11.1	-5.4	0.2	11.1	19	-22.2	6	0	31	-10.0	69	53	-58	14	13	0	178	152	2.4	29	18.8	NW	25	10	6	15	6.1	49
MARYLAND																																
BALTIMORE	45	1014.9	1020.8	7.2	-1.1	3.1	1.6	18.9	13	-15.0	16	0	19	-2.8	67	72	-15	18	16	2	28	25	1.4	28	17.0	SW	25	8	5	18	6.8	52
MASSACHUSETTS																																
BLUE HILL OBS R	192			2.8	-6.7	-1.9	0.9	12.8	19+	-18.9	17	0	27			56	-58	17	13		157	76			31.3	WNW	25					50
BOSTON	5	1016.6	1017.6	5.0	-3.9	0.6	1.7	15.0	14	-15.0	17+	0	22	-6.1	64	52	-48	13	14	0	198	76	3.4	28	21.9	W	25	7	10	14	6.4	55
WORCESTER	301	979.3	1017.7	1.7	-7.8	-3.1	1.3	13.9	14+	-20.6	17	0	28	-8.9	67	59	-35	16	12	0	170	127	3.3	27	17.4	28	25	6	11	14	6.5	
MICHIGAN																																
ALPENA	210	987.8	1014.1	-1.7	-13.3	-7.5	-0.7	7.2	9	-23.9	15	0	31	-11.7	71	12	-38	3	9	0	218	279	2.8	24	15.2	E	24	0	14	17	7.9	43
DETROIT	189			0.0	-7.2	-3.6	-0.8	10.0	22	-22.2	16	0	29	-9.4	66	28	-24	6	16	0	274		3.7	24	14.8	27	25					
DETROIT METRO	193	992.6	1017.6	0.0	-8.9	-4.6	-1.3	11.7	22	-25.6	16	0	30	-8.9	72	33	-17	7	14	0	201	76	3.1	25	18.3	W	25	3	8	20	7.6	44
FLINT	235	987.5	1016.8	-1.1	-10.0	-5.7	-1.5	7.2	22	-25.6	16	0	31	-10.6	69	31	-12	6	11	0	371	178	3.8	25	15.6	29	25	4	9	18	7.5	
GRAND RAPIDS	239	986.5	1017.0	-1.7	-10.6	-6.2	-1.8	6.7	10	-26.7	16	0	31	-10.0	72	32	-17	7	17	0	574	152	3.4	23	26.8	SW	24	1	5	25	8.6	31
HOUGHTON LAKE	350	971.2	1015.0	-3.3	-13.9	-8.7	-1.6	6.7	10	-25.6	15	0	31	-11.7	75	21	-17	4	15	0	381	229	3.4	25	17.9	26	25+	1	7	23	8.3	
LANSING	256	984.1	1017.2	-1.1	-11.1	-5.9	-1.7	8.3	22	-27.2	15	0	31	-9.4	75	38	-11	7	18	0	429	152	3.5	24	19.2	W	25	2	10	19	7.6	31
MARQUETTE U	206			-5.0	-15.0	-10.2	-3.3	3.9	9+	-28.3	15	0	31			39	-9	21	12		574	660			17.0	SW	16	5	7	19	7.4	48
MUSKEGON	191	993.2	1017.1	-1.7	-9.4	-5.7	-2.3	6.1	10	-24.4	15	0	27	-10.0	72	56	3	10	23	0	991	203	3.0	24	17.0	29	25	0	4	27	9.4	
SAULT STE MARIE	220	984.1	1012.0	-5.0	-15.0	-10.1	-1.1	2.2	18+	-30.6	16	0	31	-12.8	83	104	51	31	26	0	1351	686	1.7	25	17.4	W	19	0	5	26	9.2	30
MINNESOTA																																
DULUTH	435	960.0	1015.0	-12.2	-23.3	-17.7	-4.7	1.1	9	-39.4	15	0	31	-21.7	70	58	29	24	15	0	785	660	3.6	27	25.5	NW	24	10	7	14	6.1	43
INTERNATIONAL FALLS	359	968.8	1015.1	-14.4	-27.2	-20.9	-4.9	2.2	17	-42.8	15	0	31	-23.9	73	19	-2	7	12	0	353	483	2.5	26	12.5	30	6	10	5	16	6.3	
MINNEAPOLIS	254	985.8	1018.0	-9.4	-20.0	-14.7	-3.8	2.8	8	-33.9	15	0	31	-19.4	64	21	4	10	10	0	310	406	2.4	26	17.4	S	12	9	9	13	6.1	61
ROCHESTER	395	967.5	1018.0	-8.9	-19.4	-14.2	-3.9	2.8	18+	-34.4	15	0	31	-17.2	74	18	-5	8	10	0	279	229	3.6	27	19.2	30	24	10	7	14	5.9	
ST CLOUD	315	977.3	1018.0	-10.6	-21.1	-15.8	-3.7	2.2	8	-36.0	15	0	31			14	-4	5	9		211	254						8	9	14	6.4	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No. of days: Max. 32.2 °C or above	No. of days: Min. 0 °C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No. of days: .25 mm. or more	No. of days: With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Fastest mile (1.6 kilometers): Speed	Fastest mile (1.6 kilometers): Direction	Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	°C.	°C.	°C.	°C.	°C.		°C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
MISSISSIPPI																																
JACKSON	94	1008.1	1020.0	17.2	4.4	10.8	2.0	27.8	24+	-9.4	16	0	8	6.7	78	151	19	42	12	4	0	0	0.4	17	12.5	N	24+	8	8	15	6.4	57
MERIDIAN	88	1009.1	1020.5	17.2	4.4	10.9	1.9	26.7	24+	-10.0	16	0	8	6.1	77	280	141	115	15	4	0	0	0.1	27	11.6	33	25	7	5	19	7.0	
MISSOURI																																
COLUMBIA REGIONAL	270	986.5	1020.1	2.8	-7.2	-2.0	-0.5	16.7	18	-23.3	15	0	24	-7.2	71	22	-21	11	5	0	102	51	0.6	24	15.2	SW	18	12	2	17	5.7	60
KANSAS CITY	226	991.5	1019.5	2.8	-7.8	-2.6	2.4	17.2	18	-22.8	15	0	27	-7.8	69	14	-22	6	5	0	76	25	0.5	29	13.9	S	17+	11	7	13	5.5	48
ST JOSEPH	247			1.7	-10.0	-4.4	1.8	13.9	18	-26.1	15	0	31	-10.0	67	10	-21		5				0.4	27	14.3	30	24	14	7	10	5.0	
ST LOUIS	163	999.3	1020.4	4.4	-7.2	-1.2	1.1	21.1	24	-21.7	15	0	26	-6.1	74	20	-31	10	5	0	104	51	0.8	23	16.5	W	24	12	5	14	5.5	61
SPRINGFIELD	386	972.6	1019.3	6.7	-6.1	0.5	0.4	16.7	20+	-19.4	15	0	23	-5.0	69	11	-38	6	8	0	5	T	1.1	17	13.4	N	19	10	6	15	6.0	53
MONTANA																																
BILLINGS	1087	887.2	1016.8	-5.0	-15.6	-10.4	-5.6	7.2	17	-32.8	27+	0	31	-16.7	63	60	46	36	10	0	701	457	3.5	27	21.9	NW	21	1	9	21	8.0	31
GLASGOW	696	930.9	1018.4	-9.4	-21.1	-15.4	-3.1	6.7	16	-37.2	14	0	31	-20.6	65	14	2	3	16	0	323	229	1.6	32	16.5	27	9	2	8	21	8.0	
GREAT FALLS	1116	883.8	1017.6	-5.0	-16.1	-10.7	-5.2	7.8	16	-35.6	27	0	30	-16.7	65	37	22	10	15	0	472	152	5.3	24	21.0	SW	5	3	7	21	7.8	31
HAVRE	788	920.8	1018.3	-10.6	-21.1	-15.8	-5.8	6.1	15	-37.8	28+	0	31	-19.4	69	22	9	6	12	0	381	254	2.7	25	20.1	SW	15	1	8	22	8.5	41
HELENA	1167	877.1	1018.8	-4.4	-17.2	-10.9	-5.4	7.8	20	-34.4	28	0	31	-17.2	62	28	17	5	18	0	378	229	2.8	28	22.4	NW	11	3	6	22	8.1	24
KALISPELL	904	908.2	1017.5	-4.4	-15.6	-10.1	-3.3	6.1	16	-32.2	14	0	30	-13.3	75	40	5	9	18	0	622	381	0.1	1	19.7	1	25	0	6	25	9.1	
MILES CITY	801	919.7	1017.7	-7.2	-17.8	-12.7	-4.1	5.6	16	-32.8	27+	0	30	-16.7	73	38	26		19	0	376		2.5	29								
MISSOULA	972	901.8	1017.9	-1.7	-10.6	-6.3	0.8	8.9	16	-27.8	28	0	30	-9.4	78	52	28	10	23	0	572	279	0.8	29	21.5	NW	11	3	1	27	8.7	23
NEBRASKA																																
GRAND ISLAND	561	949.9	1018.9	0.6	-11.7	-5.7	0.4	15.6	17	-25.6	28	0	31	-12.7	63	5	-11	3	4	0	89	51	1.3	28	13.4	32	24	8	9	14	6.2	
LINCOLN U	351			0.0	-10.6	-5.2	1.3	10.0	18+	-23.3	14	0	29			5	-18	2	4		69	51			15.2	SW	11	11	7	13	5.6	61
NORFOLK	471			-2.2	-14.4	-8.3	1.3	11.7	17	-30.0	28	0	31			11	-9	10	3		117	102						8	4	19	6.5	
NORTH PLATTE	846	916.4	1018.4	1.7	-14.4	-6.3	1.8	16.1	17	-27.2	14	0	31	-12.8	65	4	-7	3	4	0	66	51	0.9	30	15.2	SW	11	8	6	17	6.7	53
OMAHA	298	982.4	1019.5	-0.6	-12.8	-6.7	1.3	10.6	18	-26.1	15	0	31	-12.7	66	10	-11	7	5	0	48	25	0.8	33	21.0	NW	24	9	8	14	6.0	66
SCOTTSBLUFF	1206	875.7	1016.2	4.4	-12.2	-3.9	0.2	14.4	20+	-27.8	4	0	29	-11.7	61	9	2	3	5	0	104	25	2.9	30	21.5	29	9	7	7	17	7.0	
VALENTINE	789			-0.6	-16.7	-8.6	1.9	15.6	17+	-30.6	14	0	31			10	T	8	6		145	127			28.6	NW	12	5	8	18	7.5	52
NEVADA																																
ELKO	1539	845.9	1022.5	0.6	-10.0	-4.8	0.4	9.4	22	-26.7	4	0	27	-10.6	65	10	-20	3	11	0	28	76	1.8	25	14.3	25	23	12	3	16	5.8	
ELY	1906	808.7	1021.1	4.4	-12.8	-4.4	0.7	10.6	22+	-28.3	4	0	31	-11.7	65	4	-15	3	5	0	84	51	2.3	21	13.4	S	25+	13	8	10	4.8	84
LAS VEGAS	659	942.8	1021.1	12.8	-1.1	5.7	0.4	16.7	13	-7.8	5	0	23	-9.4	36	0	-15	0	0	0	0	0	1.3	27	17.0	N	23	22	3	6	3.1	92
RENO	1342	868.6	1023.6	2.8	-10.0	-3.6	2.7	15.6	22	-22.2	4	0	26	-9.4	67	9	-21	9	3	0	145	178	0.4	23	13.4	W	23	10	6	15	5.9	92
WINNEMUCCA	1311	870.6	1022.0	4.4	-9.4	-2.4	0.2	14.4	22	-23.3	4	0	25	-7.2	71	4	-23	2	6	0	20	76	1.7	22	14.8	W	23	11	5	15	6.0	55
NEW HAMPSHIRE																																
CONCORD	104	1004.1	1017.3	1.7	-12.8	-5.6	0.4	12.2	13	-28.3	6	0	31	-11.7	63	37	-45	9	10	0	274	356	2.1	29	19.7	NW	19	11	6	14	5.8	54
MT WASHINGTON OBS	1909			-10.0	-19.4	-14.6	0.3	2.8	13	-35.6	16	0	31			178	40	35	24	1	988	457			56.8Y	W	25	4	6	21	7.8	35
NEW JERSEY																																
ATLANTIC CITY	20	1017.3	1019.7	6.1	-3.9	1.1	0.5	15.6	13	-14.4	29+	0	22	-3.9	71	74	-16	27	13	0	74	76	1.9	28	16.5	29	25	6	6	19	7.1	41
ATLANTIC CITY U	3			6.7	0.6	3.7	1.4	15.6	19	-11.7	16	0	13			83	-13	33	12						20.6	WNW	25					
NEWARK	2	1018.3	1019.4	6.7	-2.8	1.9	1.7	18.3	14	-13.9	16	0	21	-3.9	68	57	-27	15	11	0	79	51	2.2	27	15.6	24	29	4	10	17	7.1	
TRENTON U	17			5.6	-1.7	2.0	1.4	17.2	14+	-15.0	16	0	18			57	-21	14	14		89	76			17.9	NW	25	9	8	14	5.9	55
NEW MEXICO																																
ALBUQUERQUE	1619	837.5	1017.7	10.6	-6.1	2.3	0.6	20.0	26+	-16.1	5	0	31	-10.0	45	3	-7	3	1	0	30	25	0.7	34	20.1	E	3	15	10	6	3.6	90
CLAYTON	1515			11.1	-8.3	1.3	0.7	21.1	23	-19.4	4	0	28			2	-7	1	2		38	25						15	5	11	4.5	
ROSWELL	1101			15.0	-5.6	4.8	1.5	28.3	23	-18.9	5	0	27			5	-7	5	2		48	51			14.8	NW	24					85
NEW YORK																																
ALBANY	84	1007.8	1018.8	1.1	-11.1	-5.1	0.1	11.1	13	-25.6	6	0	30	-10.0	69	31	-32	10	15	0	216	152	1.7	26	17.9	NW	25	5	6	20	7.4	46
BINGHAMTON	485	957.0	1018.0	0.0	-8.3	-4.1	0.5	12.2	13	-20.0	16+	0	29	-9.4	67	33	-31	6	14	0	279	102	2.8	24	18.3	W	25	0	14	17	7.7	43
BUFFALO	215	990.5	1017.2	1.1	-8.3	-3.6	0.6	15.6	13	-19.4	15	0	30	-7.8	76	55	-17	8	22	0	701	254	4.7	25	22.8	SW	17	2	5	24	8.5	35
NEW YORK U	40	1015.6	1018.9	5.6	-2.2	1.7	1.1	16.7	14+	-15.0	16	0	18	-5.0	66	61	-23	16	13	0	71	51	2.2	26	17.0	SW	25					50
NEW YORK KENNEDY	4	1018.6	1019.5	6.1	-1.1	2.4	2.6	14.4	19	-12.8	16	0	19	-3.3	68	44	-38	12	11	0	43	51	2.8	28	20.6	26	25	6	8	17	6.8	
NEW YORK LA GUARDIA	3	1018.0	1019.1	5.0	-2.2	1.2	0.3	16.7	14	-14.4	16	0	18	-6.1	62	51	-33	12	13	0	56	51	2.6	29	20.1	W	25	4	12	15	6.7	
ROCHESTER	167	996.3	1017.4	1.7	-8.3	-3.3	0.4	19.4	13	-18.3	16+	0	30	-8.3	69	38	-23	11	15	0	460	203	3.7	24	22.4	SW	25	2	9	20	7.6	51
SYRACUSE	125	1002.0	1017.4	1.7	-7.8	-3.1	1.3	14.4	13	-19.4	6	0	28	-8.3	68	28	-52	7	17	0	462	178	2.4	23	23.2	W	25	5	9	17	7.2	45

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No. of days: Max. 32.2 °C or above	No. of days: Min. 0 °C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No. of days: .25 mm. or more	No. of days: With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Fastest mile (1.6 kilometers): Speed	Fastest mile: Direction	Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	°C.	°C.	°C.	°C.	°C.		°C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
NORTH CAROLINA																																
ASHEVILLE	652	942.8	1020.2	12.2	- 1.1	5.6	2.8	19.4	21	-17.8	16	0	19	0.6	77	91	- 15	28	16	1	T	0	0.8	34	13.4	34	25	9	8	16	6.5	61
CAPE HATTERAS R	2	1020.0	1020.5	15.6	7.2	11.6	3.5	23.9	4	- 8.9	16	0	3	8.3	81	163	64	77	14	2	T	T	1.5	33	14.3	20	13+	7	8	18	7.1	31
CHARLOTTE	224	992.6	1020.5	12.2	1.7	7.0	1.1	20.0	19	-14.4	16	0	13	1.1	71	114	24	45	13	1	0	0	0.4	25	9.4	NW	25	6	8	17	6.9	43
GREENSBORO	273	988.2	1020.5	11.7	0.0	5.7	1.4	19.4	13	-18.3	16	0	15	0.0	71	66	- 20	15	13	1	T	T	0.8	24	14.8	NW	25	8	8	15	6.8	49
RALEIGH	132	1004.7	1021.1	12.8	1.1	7.1	1.7	21.7	24	-15.6	16	0	15	0.6	67	50	- 32	22	11	1	0	0	0.6	24	9.8	34	16+	7	8	16	6.7	55
WILMINGTON	9	1019.6	1020.9	16.7	5.6	11.1	2.3	25.0	28+	- 9.4	17	0	5	6.7	80	108	36	24	15	1	0	0	0.7	31	14.3	NW	5	8	6	17	7.0	39
NORTH DAKOTA																																
BISMARCK	502	953.9	1017.5	- 9.4	-21.1	-15.1	- 2.8	6.1	16	-37.2	15	0	31	-19.4	65	17	6	4	11	0	338	229	2.8	30	16.5	W	9	4	7	20	7.6	42
FARGO	273	982.4	1017.4	-10.6	-22.2	-16.3	- 2.6	3.3	16	-36.1	15	0	31	-21.1	66	24	10	14	10	0	419	254	1.7	28	21.5	NW	24	3	10	18	7.1	54
WILLISTON	579	944.8	1017.6	-10.0	-21.7	-15.9	- 2.8	7.2	17	-35.6	26	0	31	-18.9	77	11	- 3	2	11	0	165	178	3.1	29	18.8	W	8	3	9	19	7.5	45
OHIO																																
AKRON	368	972.6	1018.9	1.7	- 8.3	- 3.5	- 1.4	15.6	24+	-26.1	16	0	29	- 7.8	73	34	- 39	8	11	0	191	51	2.7	23	11.2	28	25+	3	12	16	7.2	
CINCINNATI ABBE OB	232			4.4	- 5.6	- 0.4	- 1.4	20.0	24	-25.0	16	0	20			51	- 42	14	14		36	25			11.6	W	25					35
CLEVELAND	237	988.8	1019.0	2.2	- 7.2	- 2.6	- 0.6	14.4	24	-25.6	16	0	29	- 7.2	73	50	- 18	11	16	0	381	102	3.6	22	17.9	W	25	4	6	21	7.7	48
COLUMBUS	247	988.8	1020.1	2.8	- 7.2	- 2.1	- 0.9	16.1	13	-24.4	16	0	25	- 7.8	68	36	- 45	9	12	0	147	76	1.7	23	17.0	W	24	5	9	17	6.8	39
DAYTON	305	982.4	1019.8	2.8	- 7.2	- 2.5	- 1.2	15.6	24	-26.7	16	0	22	- 7.2	71	37	- 43	10	13	1	168	76	2.2	23	16.1	W	24	9	8	14	6.3	53
MANSFIELD	395			2.8	- 7.2	- 2.3	- 0.5	17.2	24	-26.1	16	0	26	- 6.7	74	24	- 56	5	11	1	180	76	3.7	22	15.6	26	25	4	10	17	7.2	
TOLEDO	204	992.2	1018.4	0.0	-10.0	- 4.8	- 1.5	12.8	22	-27.2	16	0	30	-10.0	68	36	- 23	7	12	1	257	76	3.0	24	21.0	W	24	4	10	17	7.5	43
YOUNGSTOWN	359	974.6	1018.8	1.7	- 7.8	- 3.1	- 0.4	16.7	13	-23.9	16	0	31	- 7.8	73	34	- 46	6	15	0	229	51	2.8	23	18.8	25	25	4	7	20	7.6	
OKLAHOMA																																
OKLAHOMA CITY	392	971.2	1019.1	7.8	- 4.4	1.6	- 1.2	20.0	19+	-17.2	15	0	21	- 3.9	71	5	- 28	2	4	0	20	25	0.2	14	15.2	N	3	12	8	11	5.2	62
TULSA	198	994.2	1019.3	7.2	- 3.9	1.6	- 0.8	22.2	19	-16.7	15	0	21	- 4.4	70	4	- 39	2	5	0	20	25	0.1	16	14.3	SW	18	7	11	13	6.1	50
OREGON																																
ASTORIA	2	1018.0	1018.9	7.2	1.7	4.4	- 0.4	11.7	20	- 7.2	29+	0	12	2.2	85	270	- 28	54	23	0	43	25	2.3	22	14.8	29	23	4	4	23	8.3	
BURNS U	1265	873.4	1020.7	0.6	-10.6	- 4.8	- 0.8	8.3	19	-23.9	29	0	28	- 8.3	75	53	11	27	9		297	254	1.9	25				7	5	19	6.9	
EUGENE	109	1007.5	1021.4	6.7	- 0.6	3.3	- 0.7	12.2	19	- 9.4	29	0	18	0.6	84	317	156	108	18	1	30	25	2.4	19	15.6	22	23	3	5	23	8.0	
MEACHAM	1234	874.7	1019.1	- 0.6	- 7.8	- 4.3	- 1.0	6.7	20+	-23.9	27	0	29			93	- 13	16	20		732	1118			19.7	25	11					
MEDFORD	396	973.6	1022.6	6.1	- 1.1	2.2	0.3	13.3	20	- 7.2	3	0	22	- 1.7	80	90	10	48	12	0	8	T	0.3	31	8.9	23	23+	4	4	23	7.7	
PENDLETON	452	963.8	1018.7	5.0	- 2.8	1.1	1.0	15.0	20+	-21.1	27	0	15	- 4.4	68	24	- 12	8	11	0	91	51	3.0	25	20.6	26	11	2	3	26	8.7	
PORTLAND	6	1018.6	1019.9	7.2	1.1	4.0	0.4	14.4	18	- 7.8	29+	0	13	0.0	76	145	9	44	19	0	10	T	2.4	18	15.2	E	27+	4	2	25	8.1	24
SALEM	60	1013.2	1020.5	7.2	0.0	3.5	- 0.1	12.8	18	-10.6	28	0	14	0.6	81	203	33	78	17	0	10	T	2.8	20	13.4	18	25	4	2	25	8.1	
SEXTON SUMMIT R	1169	885.5	1021.4	2.8	- 2.8	0.2	- 1.0	10.6	1	- 9.4	29	0	22			255	113	88	17		559	610			21.0	23	20					
PACIFIC AREA																																
GUAM TAGUAC R	110	997.6	1010.2	28.9	21.1	24.8	- 0.8	29.4	27+	16.1	14+	0	0	21.7	84	123	6	53	19	0	0	0	4.3	8	10.7	ESE	6					78
JOHNSTON	2	1010.5	1011.2	26.1	23.3	24.8	- 0.3	27.8	12	20.0	28	0	0	20.6	78	84	- 15	51	9	0	0	0	5.6	9	20.6	NE	28	8	10	13	6.0	64
KOROR R	29	1004.4	1008.1	30.6	23.9	27.1	0.3	32.2	18	22.2	30+	1	0	23.9	86	274	- 24	44	25	1	0	0	1.3	8	10.3	SE	26	0	1	30	9.8	39
KWAJALEIN	2	1007.5	1008.2	29.4	25.0	27.1	0.4	30.0	30+	22.8	1	0	0	22.8	80	255	163	102	13	0	0	0	5.3	7	11.2	11	12	3	6	22	8.1	
MAJURO	3	1008.1	1008.4	28.9	24.4	26.8	0.0	29.4	31+	22.2	12+	0	0	22.8	79	243	66	81	18	0	0	0	4.4	7	12.1	E	28+	2	5	24	8.8	60
PAGO PAGO	4	1007.8	1008.0	29.4	23.3	26.2		30.6	26+	20.6	29+	0	0	22.8	82	451		101	28	2	0	0	1.7	1	12.1	NW	20+	1	7	23	8.5	35
PONAPE R	37	1002.0	1007.1	30.0	23.9	27.0	0.1	31.1	26+	21.1	13	0	0	22.8	81	267	- 14	87	20	1	0	0	2.7	10	8.9	NE	1	0	5	26	9.0	46
TRUK MOEN ISLAND	2	1007.8	1008.0	29.4	25.0	27.2	0.1	31.1	20+	22.8	14+	0	0	22.8	78	250	36	98	16	2	0	0	4.3	6	10.3	NE	19	0	2	29	9.1	70
WAKE	3	1012.9	1013.1	26.1	21.1	23.6	- 1.6	27.8	9	20.0	31+	0	0	17.2	70	44	15	17	13	0	0	0	6.6	5	14.3	NE	25+	13	12	6	4.7	66
YAP R	13			30.0	23.3	26.8	- 0.2	31.1	14	21.7	11	0	0			153	- 47	50	17	1	0	0			10.3	SE	5	0	9	22	8.5	72
PENNSYLVANIA																																
ALLENTOWN	118	1005.1	1019.7	3.3	- 5.6	- 0.9	0.8	16.7	13	-16.7	16	0	25	- 5.6	74	71	- 10	23	15	0	114	76	2.2	28	15.6	28	25	7	8	16	6.8	
ERIE	223	990.5	1018.3	1.1	- 6.7	- 2.8	0.8	15.6	13	-18.9	15	0	31	- 7.2	74	49	- 19	12	21	0	693	152	3.8	23	15.6	26	25	1	9	21	8.2	
HARRISBURG	103	1006.8	1019.8	5.0	- 2.2	1.4	1.8	18.9	13	-13.3	16	0	22			67	- 3	24	15	0	66	51	1.1	29	18.8	W	25	7	11	13	6.6	46
PHILADELPHIA	2	1019.0	1020.0	6.1	- 2.2	1.7	1.6	17.2	13	-14.4	16	0	21	- 3.9	69	59	- 25	14	13	0	81	76	1.6	28	18.8	W	25	6	6	19	7.0	55
PITTSBURGH	347	973.9	1019.3	3.9	- 6.7	- 1.3	0.4	20.0	13	-23.3	16	0	25			47	- 29	9	13	0	124	51	2.5	26	15.6	26	25	5	7	19	7.3	50
SCRANTON	283	983.1	1018.6	1.7	- 6.7	- 2.4	- 0.1	15.6	13	-18.3	16	0	28	- 6.1	74	52	- 6	12	15	0	150	51	1.7	25	16.1	SW	25	1	10	20	7.9	52
WILLIAMSPORT	160	999.7	1019.3	2.2	- 6.1	- 1.9	- 0.1	12.8	13	-17.8	16	0	28	- 6.7	69	63	- 5	13	16	0	152	51	0.8	29	17.0	27	25	3	6	22	7.8	
RHODE ISLAND																																
BLOCK ISLAND	34			4.4	- 2.8	0.9	0.9	12.2	25+	-14.4	17+	0	19			55	- 42	24	11		56	25										
PROVIDENCE	16	1015.9	1018.4	5.0	- 6.1	- 0.7	0.9	14.4	14	-17.8	17	0	27	- 6.1	68	47	- 50	17	11	0	56	25	2.4	30	17.9	29	25	10	4	17	6.5	51

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1972

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	No. of days: Max. 32.2 °C or above	No. of days: Min. 0 °C or lower	Average dew point	Average relative humidity	Precipitation: Total	Departure from normal	Greatest in 24 hours	No. of days: .25 mm. or more	No. of days: With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Resultant direction	Fastest mile (1.6 kilometers): Speed	Direction	Date	No. of days (sunrise to sunset): Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	°C.	°C.	°C.	°C.	°C.		°C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
SOUTH CAROLINA																																
CHARLESTON	12	1018.6	1020.7	18.3	7.2	12.7	2.8	26.1	28	- 8.3	17	0	5	8.9	81	105	40	56	13	3	0	0	0.5	31	16.5Y	NW	5	7	6	18	7.0	58
CHARLESTON U	3			17.2	8.9	13.1	2.2	25.0	28	- 6.7	17+	0	2			104	43	52	10		0	0			14.3	N	16					
COLUMBIA	65	1012.5	1020.7	16.7	4.4	10.5	2.2	22.8	28+	-11.1	17	0	10	5.6	77	194	117	63	13	4	0	0	0.3	30	12.5	31	10	5	8	18	7.0	51
GRNVLLE-SPRTNBRG	292	985.1	1020.4	17.8	1.7	7.0	0.5	21.1	19	-13.9	16	0	15	1.7	72	156	47	56	13	1	0	0	0.5	29	11.6	S	13+	8	5	18	6.6	40
SOUTH DAKOTA																																
ABERDEEN	395	968.2	1018.0	- 8.3	-20.6	-14.3	- 2.5	5.6	16	-37.2	15	0	31	-18.9	64	10	- 7	5	8	0	208	229	2.1	28	14.8	34	24	7	5	19	6.8	
HURON	390	969.2	1018.3	- 6.1	-18.9	-12.4	- 1.6	5.0	16	-33.9	15	0	31	-17.2	66	11	- 1	5	8	0	135	203	1.7	28	20.1	NW	12	4	7	20	7.4	28
RAPID CITY	964	900.8	1016.4	- 1.1	-15.6	- 8.2	- 2.6	18.9	16	-30.6	28+	0	31	-15.6	60	6	- 4	2	11	0	66	25	2.2	33	20.1	NW	8	4	6	21	7.6	44
SIOUX FALLS	432	965.1	1019.5	- 6.1	-19.4	-12.8	- 3.5	4.4	8	-35.6	15	0	31	-16.7	72	5	- 11	4	3	0	46	178	2.3	28	16.5	32	24+	7	11	13	6.5	
TENNESSEE																																
BRISTOL	459	964.8	1020.1	11.1	- 1.1	4.9	1.4	25.6	24	-18.9	16	0	19	- 0.6	72	124	30	21	19	1	T	T	0.8	29	11.2	29	25	9	5	17	6.4	
CHATTANOOGA	203	995.3	1020.5	12.2	0.6	6.3	0.9	22.2	24	-16.7	16	0	16	1.1	74	219	77	64	17	1	T	T	0.3	25	16.1	NW	25	9	3	19	6.7	43
KNOXVILLE	299	984.8	1020.7	11.1	0.6	5.8	0.6	22.2	24	-17.2	16	0	15	0.0	71	187	63	40	17	1	10	T	1.2	31	15.6	W	13	6	7	18	6.9	31
MEMPHIS	79	1009.2	1020.4	11.1	0.6	5.7	0.4	25.6	24	-14.4	16	0	17	- 0.6	66	120	- 34	26	11	4	8	T	0.4	15	13.9	33	24	10	4	17	6.5	53
NASHVILLE	180	998.0	1020.4	11.7	- 0.6	5.4	1.1	25.6	24	-18.3	16	0	22	- 0.6	70	131	- 9	34	13	1	10	T	1.1	22	17.0	SW	24	7	9	15	6.6	48
OAK RIDGE R	276			10.6	- 0.6	4.8	0.4	21.7	24	-18.9	16	0	18			186	35	45	17		10	T			13.9Y		25+	9	3	19	6.8	
TEXAS																																
ABILENE	544	953.9	1018.1	13.9	- 0.6	6.5	- 0.5	27.8	23	-13.3	15	0	17	- 2.8	60	7	- 15	5	5	0	25	25	1.3	21	15.2	S	17	14	7	10	4.8	64
AMARILLO	1098	889.3	1015.5	11.7	- 7.2	2.1	- 0.6	25.0	23	-17.2	15+	0	28	-10.0	50	5	- 11	3	4	0	41	25	1.9	24	17.9	W	12	17	6	8	4.4	70
AUSTIN	182	995.9	1018.4	16.7	4.4	10.6	0.3	31.1	23	- 7.8	5	0	7	5.0	73	38	- 22	26	9	1	T	T	0.9	3	13.4	N	24	12	3	16	5.9	52
BROWNSVILLE	6	1016.3	1017.0	23.9	13.9	18.9	2.6	30.6	22	1.7	6	0	0	13.9	77	33	- 1	19	8	0	0	0	1.1	16	15.2	S	9	4	7	20	7.8	36
CORPUS CHRISTI	12	1015.9	1017.5	22.8	10.6	16.4	2.3	32.2	23	- 1.7	5	1	4	12.2	82	31	- 10	18	6	1	0	0	1.7	8	17.0	N	25	5	9	17	7.2	45
DALLAS	147	1001.4	1018.9	13.9	2.2	7.9	0.2	28.3	20	- 9.4	15	0	11	0.6	65	29	- 30	12	6	0	13	T	0.4	15	13.9	S	12	12	6	13	5.4	54
DEL RIO	313	981.0	1017.6	19.4	4.4	12.0	1.3	31.7	23	- 8.3	5	0	7	1.7	58	16	- 7	10	8	1	T	T	0.8	6	13.9	33	4	12	8	11	5.5	
EL PASO	1194	882.8	1016.7	15.6	- 0.6	7.3	1.3	23.9	26	-12.2	5	0	16	- 6.1	44	11	- 1	6	4	1	64	T	1.0	26	16.1	W	27	15	9	7	4.1	88
FORT WORTH	164	998.3	1019.2	13.9	0.6	7.2	- 0.3	27.8	20	- 9.4	5	0	12	1.7	72	28	- 24	13	6	0	T	T	0.4	25	11.2	34	4	11	7	13	5.6	
GALVESTON U	2			18.3	11.7	15.0	2.3	23.3	24+	- 1.7	5	0	3			93	6	33	9		0	0			16.5	NE	15					44
HOUSTON INTERCON	29	1015.2	1018.9	19.4	7.8	13.6	2.9	28.3	27+	- 5.6	16+	0	8	8.3	76	84	- 16	46	10	4	T	T	0.5	11	10.7	6	25	7	6	18	7.0	44
LUBBOCK	992	902.8	1015.9	14.4	- 4.4	5.2	1.2	28.3	23	-16.1	5	0	24	- 7.8	47	4	- 13	3	3	0	56	25	1.6	25	16.1	27	12	13	9	9	4.6	
MIDLAND	869	916.7	1016.4	15.6	- 2.2	6.8	0.1	26.7	23	-16.1	5	0	18	- 5.6	50	9	- 11	6	3	0	61	25	1.5	22	13.4	24	12	18	2	11	4.0	
PORT ARTHUR	5	1018.3		18.3	7.8	12.9	0.9	24.0	27+	- 6.1	6	0	8	9.4	84	212	104	72	10	5	0	0	1.3	9	13.9	NE	25	6	6	19	7.1	45
SAN ANGELO	580	949.9	1017.7	17.2	0.0	8.6	0.3	30.0	23	-11.1	15	0	16	- 1.7	56	12	- 12	6	6	0	84	76	1.1	24	13.4	21	17	14	6	11	4.7	
SAN ANTONIO	240	989.8	1018.1	18.3	4.4	11.6	0.4	31.1	23	- 8.3	5	0	6	4.4	70	34	- 10	19	8	0	T	T	1.3	2	13.0	N	4	8	10	13	6.3	49
VICTORIA	32	1013.9	1018.1	20.6	8.3	14.4	1.4	29.4	22	- 4.4	5	0	5	9.4	77	44	- 15	37	7	1	0	0	0.8	6	17.4Y	N	4	5	10	16	7.0	
WACO	153	1000.3	1018.8	14.4	2.8	8.5	- 0.4	29.4	23	- 7.8	5	0	11	3.3	76	65	7	27	7	2	T	0	0.4	33	11.2	35	14	10	6	15	6.0	
WICHITA FALLS	303	980.7	1018.3	11.1	- 2.8	4.1	- 1.9	25.6	12	-13.9	15	0	22	- 1.1	75	4	- 24	2	5	0	10	T	0.2	3	15.6	35	4	13	6	12	5.0	
UTAH																																
MILFORD	1533	847.3		5.6	- 8.9	- 1.6	2.5	13.9	22	-22.8	4	0	30			1	- 13	1	3		25	51						15	2	14	5.2	
SALT LAKE CITY	1286	873.0	1021.0	3.9	- 6.1	- 1.2	1.4	13.9	23	-16.1	4	0	25	- 7.2	66	31	- 3	8	10	0	267	127	1.4	18	15.2	W	23	7	10	14	6.5	56
WENDOVER	1291	872.0	1020.8	3.9	- 6.7	- 1.6	1.2	15.6	22	-16.7	4	0	26	- 7.8	63	5	- 3	3	4		71	51						14	5	12	4.2	
VERMONT																																
BURLINGTON	101	1003.7	1016.9	- 0.6	-11.7	- 6.1	2.7	9.4	11	-25.0	6	0	29	-12.8	59	24	- 26	6	14	0	363	229	1.8	22	21.9	SW	25	3	12	16	7.2	45
VIRGINIA																																
LYNCHBURG	279			9.4	- 1.7	3.9	0.8	21.1	24	-20.0	16	0	17			83	- 1	22	15		T	T			12.5	W	25	8	5	18	6.5	48
NORFOLK	7	1019.3	1020.4	12.2	3.9	8.0	2.9	20.6	20	-13.3	16	0	9	1.7	66	75	- 10	27	14	1	0	0	0.7	30	14.8	S	25+	7	8	16	6.8	55
RICHMOND	50	1014.2	1020.8	10.0	- 0.6	4.8	1.1	21.1	13	-16.1	16	0	18	- 0.6	71	36	- 52	7	17	0	T	T	0.4	24	11.6	NW	25+	8	5	18	6.5	46
ROANOKE	350	977.0	1019.9	10.0	- 1.7	4.2	0.8	21.7	24	-20.0	16	0	18	- 2.8	65	63	- 16	16	13	0	T	0	1.0	29	14.3	30	7	8	8	15	6.2	
WALLOPS ISLAND	3			8.9	1.1	4.9		18.3	19	-13.3	16	0	15			77		36	14		T	T			19.7Y	SE	4					
WASHINGTON																																
OLYMPIA	59	1010.5	1018.0	5.0	- 2.8	1.1	- 2.3	11.1	20	-21.7	27	0	16	0.0	92	316	116	84	23	0	742	508	2.0	21	14.3	25	23+	3	4	24	8.3	
QUILLAYUTE	55	1009.1	1016.8	5.0	- 1.1	2.1	- 1.6	9.4	20	-11.7	28	0	17	0.0	85	328	- 60	74	25	1	348	203	0.8	24	12.5	W	9	2	4	25	8.5	17
SEATTLE-TACOMA	122	1000.3	1017.0	5.6	0.0	2.8	- 0.7	11.7	20	-11.1	27	0	13	- 1.7	74	184	38	51	19	0	356	279	2.4	19	16.1	SW	11	3	4	24	8.3	23
SPOKANE	718	929.6	1016.1	- 1.7	- 8.9	- 5.2	- 1.5	8.3	20	-23.3	28+	0	29	- 9.4	71	44	- 18	15	14	0	437	229	3.2	22	26.4	SW	9	5	8	18	7.5	35
STAMPEDE PASS R	1206	874.7		- 2.8	- 7.8	- 5.3	- 0.6	3.3	15	-20.0	27	0	31			690	385	101	25		5845	5105						3	2	26	8.9	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1972

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No. of days: Max. 32.2 °C or above	No. of days: Min. 0 °C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No. of days: .25 mm. or more	No. of days: With thunderstorms	Snow, Ice pellets: Total	Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile: Direction	Wind: Fastest mile: Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days: Partly cloudy, 4-7	No. of days: Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	°C.	°C.	°C.	°C.	°C.		°C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
WASHINGTON																																
WALLA WALLA U	289			4.4	- 2.2	1.2	0.6	16.1	20	-17.2	27	0	16			30	- 18	12	11		226	152			18.8	SW	11	1	4	26	8.9	16
YAKIMA	321	978.3	1018.1	4.4	- 7.2	- 1.4	1.1	14.4	20	-22.8	28	0	28	- 7.2	66	22	- 8	10	10	0	257	152	1.7	27	16.1	30	11	5	9	17	7.1	
WEST INDIES																																
SAN JUAN P.R.	4	1014.9	1017.7	27.8	22.8	25.4	1.8	28.9	31+	21.1	15+	0	0	17.8	65	70	- 49	17	22	1	0	0	4.6	9	13.0	E	12	6	23	2	4.8	71
WEST VIRGINIA																																
BECKLEY	763	928.9	1020.2	7.2	- 3.9	1.8	0.9	19.4	24	-26.1	16	0	21	- 2.8	75	138	30	27	18	2	61	25	2.1	22	13.0	29	25	7	4	20	6.9	
CHARLESTON	286	984.8	1019.9	8.9	- 1.7	3.7	1.2	23.3	24	-20.6	16	0	18	- 2.8	67	139	29	28	19	1	102	76	1.2	24	10.3	24	25	4	7	20	7.5	
ELKINS	594	946.8		7.2	- 5.0	1.0	0.7	20.6	13	-24.4	16	0	23			139	47	26	16		104	76						5	8	18	7.3	
HUNTINGTON	252	989.2	1020.3	7.2	- 3.3	2.1	- 0.4	22.2	24+	-22.8	16	0	20	- 3.3	71	122	29	23	18	1	152	76	0.9	23	10.3	18	24+	7	4	20	7.2	
PARKERSBURG U	187			6.7	- 3.9	1.3	- 0.1	21.1	25+	-21.1	16	0	21			68	- 17	18	17		137	51			16.5	W	25					46
WISCONSIN																																
GREEN BAY	208	989.5	1016.5	- 6.7	-17.2	-12.1	- 3.7	4.4	9+	-33.3	15	0	31	-17.2	69	17	- 13	5	8	0	208	178	4.2	25	18.8	W	25	9	7	15	6.2	58
LA CROSSE	198	993.2	1019.1	- 6.1	-17.2	-11.6	- 3.0	7.2	18	-31.1	15	0	31	-16.7	66	16	- 14		8	0	259		1.2	26								
MADISON	262	984.4	1017.5	- 5.0	-16.1	-10.7	- 2.7	7.2	18	-31.1	15	0	31	-14.4	71	10	- 25	3	8	0	91	127	3.0	25	14.8	W	24	8	6	17	6.6	47
MILWAUKEE	205	991.2	1017.8	- 4.4	-13.3	- 8.9	- 2.6	7.2	18	-30.0	15	0	31	-13.9	65	19	- 27	11	7	0	173	76	4.6	26	20.1	W	24	7	8	16	6.4	50
WYOMING																																
CASPER	1627	831.7	1015.6	- 1.7	-13.9	- 7.9	- 3.2	7.2	19	-40.0	14+	0	28	-12.2	70	25	11	13	7	0	488	279	6.3	22	22.8	27	11	6	8	17	6.6	
CHEYENNE	1867	805.6	1014.1	2.8	-10.0	- 3.7	- 0.1	11.1	23	-28.3	4	0	26	-13.9	48	9	- 4	5	4	0	188	102	6.2	28	27.3	W	11	8	8	15	6.4	58
LANDER	1696	822.9	1015.3	- 0.6	-13.3	- 6.9	0.2	10.0	19	-29.4	4	0	29	-14.4	58	27	16	19	6	0	475	279	1.8	27	32.2	SW	11	6	14	11	6.3	69
SHERIDAN	1208	873.7	1016.8	- 2.8	-17.2	-10.0	- 4.1	13.3	21	-34.4	4	0	31	-16.1	61	45	29	26	14	0	638	483	2.3	30	19.2	NW	21	4	9	18	7.4	40

Data from airport unless otherwise specified. U indicates Urban, R indicates Rural, sites.

Precipitation data in column headed "Greatest in 24 hours" are computed on a 24-hour basis without regard to calendar day - data may include precipitation with a measurable amount from the last day of the previous month or the first day of the following month.

Wind directions under resultant direction are in tens of degrees.

Value entered in column "Fastest Mile" is the highest observed 1-minute wind speed when the direction is in tens of degrees. These stations are not equipped with a recording anemometer from which "Fastest Mile" data can be evaluated.

B Number of days maximum 21.1°C. or above for Alaskan Stations.
Y Peak Gust.
\+ And also on an earlier date or dates.
Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

Data in this table are obtained by conversion from data in the English Units table.

V Sun below horizon January 1-23, inclusive.
X Sun below horizon January 1-17, inclusive.

HEATING DEGREE DAYS

(Base 65°F.)

State and station	Current season: This month	Current season: Period July through this month	Normals: July through this month
ALABAMA			
BIRMINGHAM	548	1333	1602
HUNTSVILLE	606	1559	1922
MOBILE	244	592	1007
MONTGOMERY	391	994	1468
ALASKA			
ANCHORAGE	1814	6880	6429
ANNETTE	1181	4371	3930
BARROW	2523	11144	11028
BARTER ISLAND	2529	11121	10796
BETHEL	1947	7901	7570
BETTLES	2785	10096	
BIG DELTA	2530	9066	
COLD BAY	1165	5590	5389
FAIRBANKS	2524	8799	8794
GULKANA	2596	9342	
HOMER	1938	6204	
JUNEAU	1519	5712	5140
KING SALMON	1806	6654	6552
KOTZEBUE	2154	8735	8846
MC GRATH	2400	8699	8680
NOME	1923	7935	7918
ST. PAUL ISLAND	1205	6109	6006
SHEMYA	1052	5398	5300
SUMMIT	2240	9046	
TALKEETNA	2013	7690	6925
UNALAKLEET	1985	7921	
YAKUTAT	1527	6008	5124
ARIZONA			
FLAGSTAFF	1126	4599	3982
PHOENIX	414	1133	1145
TUCSON	444	1361	1135
WINSLOW	911	3003	3024
YUMA	372	1018	830
ARKANSAS			
FORT SMITH	804	1865	2074
LITTLE ROCK	659	1577	2073
CALIFORNIA			
BAKERSFIELD	717	1822	1367
BISHOP	841	2952	2537
BLUE CANYON	889	3439	2761
EUREKA U	624	2834	2573
FRESNO	750	2080	1561
LONG BEACH	354	934	871
LOS ANGELES	339	985	906
LOS ANGELES U	288	904	708
MT SHASTA R	1031	3694	3169
OAKLAND	566	1854	1592
RED BLUFF	672	1974	1531
SACRAMENTO	731	1991	1647
SANDBERG R	773	2799	2181
SAN DIEGO	310	874	745
SAN FRANCISCO	594	1975	1638
SAN FRANCISCO U	506	1930	1648
SANTA MARIA	510	2036	1554
STOCKTON	751	2001	1658
COLORADO			
ALAMOSA	1467	5269	5043
COLORADO SPRINGS	1080	3757	3607
DENVER	1063	3629	3546
GRAND JUNCTION	1076	3595	3451
PUEBLO	1081	3326	3201
CONNECTICUT			
BRIDGEPORT	983	2620	3053
HARTFORD	1140	3170	3516
DELAWARE			
WILMINGTON	889	2294	2816
DIST. OF COLUMBIA			
WASHINGTON DULLES	931	2408	
WASHINGTON NATIONAL	815	2003	2474
FLORIDA			
APALACHICOLA U	215	447	835
DAYTONA BEACH	85	175	534
FORT MYERS	19	25	279
JACKSONVILLE	159	401	798
KEY WEST	0	0	68
LAKELAND U	71	123	416
MIAMI	2	2	139
ORLANDO	51	86	490
PENSACOLA	234	548	967
TALLAHASSEE	219	587	961
TAMPA	62	116	433
WEST PALM BEACH	4	4	138
GEORGIA			
ATHENS	519	1348	1806
ATLANTA	559	1421	1824
AUGUSTA	406	1080	1512
COLUMBUS	371	947	1315
MACON	403	1021	1375
ROME	616	1585	2070
SAVANNAH	256	689	1167
IDAHO			
BOISE	1047	3587	3469
LEWISTON	1007	3434	3278
POCATELLO	1300	4663	4055
ILLINOIS			
CAIRO U	881	1951	2360
CHICAGO O HARE	1405	3274	3748
CHICAGO MIDWAY	1311	3074	3482
MOLINE	1434	3409	3712
PEORIA	1402	3368	3509
ROCKFORD	1483	3608	3920
SPRINGFIELD	1253	2911	3217
INDIANA			
EVANSVILLE	1000	2380	2743
FORT WAYNE	1269	3165	3588
INDIANAPOLIS	1186	2829	3293
SOUTH BEND	1269	3183	3612
IOWA			
BURLINGTON	1403	3401	3877
DES MOINES	1495	3675	3937
DUBUQUE	1594	4008	4262
SIOUX CITY	1530	4011	4028
WATERLOO	1694	4414	4262
KANSAS			
CONCORDIA	1229	3209	3224
DODGE CITY	1111	3029	2940
GOODLAND	1138	3484	3517
TOPEKA	1216	2939	3101
WICHITA	1171	2942	2808
KENTUCKY			
COVINGTON	1073	2612	3053
LEXINGTON	909	2113	2750
LOUISVILLE	914	2139	2731
LOUISIANA			
ALEXANDRIA	411	995	1231
BATON ROUGE	284	679	1025
LAKE CHARLES	297	650	951
NEW ORLEANS	245	600	896
SHREVEPORT	499	1096	1373
MAINE			
CARIBOU	1759	5556	5480
PORTLAND	1322	3915	4129
MARYLAND			
BALTIMORE	841	2184	2738
MASSACHUSETTS			
BLUE HILL OBS R	1122	3246	3464
BOSTON	985	2726	3059
WORCESTER	1189	3488	3854
MICHIGAN			
ALPENA	1433	4219	4610
DETROIT	1219	3021	3454
DETROIT METRO	1272	3341	3620
FLINT	1328	3528	3806
GRAND RAPIDS	1365	3547	3885
HOUGHTON LAKE	1502	4286	4574
LANSING	1348	3593	3835
MARQUETTE U	1586	4446	4522
MUSKEGON	1333	3584	3619
SAULT STE MARIE	1582	4934	4903
MINNESOTA			
DULUTH	2012	5712	5599
INTERNATIONAL FALLS	2195	6285	6126
MINNEAPOLIS	1844	4859	4846
ROCHESTER	1810	4705	4755
ST CLOUD	1907	5231	5116
MISSISSIPPI			
JACKSON	431	1013	1398
MERIDIAN	418	1038	1481
MISSOURI			
COLUMBIA REGIONAL	1129	2676	2999
KANSAS CITY	1163	2712	2808
ST JOSEPH	1263	3218	3270
ST LOUIS	1081	2550	2900
SPRINGFIELD	988	2413	2718
MONTANA			
BILLINGS	1601	4863	4022
GLASGOW	1883	5461	5237
GREAT FALLS	1616	4918	4321
HAVRE	1906	5665	4998
HELENA	1628	5362	4690
KALISPELL	1581	5353	4785
MILES CITY	1732	5150	4460
MISSOULA	1371	4830	4806
NEBRASKA			
GRAND ISLAND	1335	3582	3815
LINCOLN U	1306	3357	3411
NORFOLK	1481	4052	4038
NORTH PLATTE	1368	4048	3891
OMAHA	1392	3541	3670
SCOTTSBLUFF	1237	3933	3832
VALENTINE	1500	4344	4253
NEVADA			
ELKO	1284	4660	4264
ELY	1257	4813	4328
LAS VEGAS	697	2049	1770
RENO	1216	4093	3724
WINNEMUCCA	1151	4208	3919
NEW HAMPSHIRE			
CONCORD	1327	4118	4158
MT WASHINGTON OBS	1838	7404	7709
NEW JERSEY			
ATLANTIC CITY	958	2523	2695
ATLANTIC CITY U	812	2174	2502
NEWARK	909	2310	2856
TRENTON U	907	2349	2810
NEW MEXICO			
ALBUQUERQUE	889	2940	2681
CLAYTON	946	3089	2966
ROSWELL	750	2253	2439
NEW YORK			
ALBANY	1298	3701	3879
BINGHAMTON	1243	3735	4030
BUFFALO	1218	3289	3826
NEW YORK U	920	2379	2691
NEW YORK KENNEDY	881	2192	2810
NEW YORK LA GUARDIA	945	2451	2638
ROCHESTER	1200	3358	3687
SYRACUSE	1189	3425	3749
NORTH CAROLINA			
ASHEVILLE	704	1945	2670
CAPE HATTERAS R	379	952	1452
CHARLOTTE	625	1635	1950
GREENSBORO	696	1830	2300
RALEIGH	623	1639	2076
WILMINGTON	404	1009	1432
NORTH DAKOTA			
BISMARCK	1868	5534	5115
FARGO	1931	5482	5323
WILLISTON	1913	5693	5329
OHIO			
AKRON	1214	3187	3420
CINCINNATI ABBE OB	1044	2484	2805
CLEVELAND	1160	2945	3397
COLUMBUS	1133	2922	3276
DAYTON	1155	2769	3232
MANSFIELD	1143	2944	3283
TOLEDO	1283	3367	3669
YOUNGSTOWN	1186	3211	3601
OKLAHOMA			
OKLAHOMA CITY	923	2247	2311
TULSA	932	2144	2378
OREGON			
ASTORIA	768	2916	2854
BURNS U	1287	4581	4000
EUGENE	834	3009	2670
MEACHAM	1258	4832	4294
MEDFORD	891	3038	2917
PENDLETON	955	3086	3073
PORTLAND	793	2676	2659
SALEM	821	2900	2662
SEXTON SUMMIT R	1008	3878	3274
PENNSYLVANIA			
ALLENTOWN	1064	2911	3297
ERIE	1172	3256	3733
HARRISBURG	940	2531	3046
PHILADELPHIA	920	2311	2950
PITTSBURGH	1093	2861	3397
SCRANTON	1152	3266	3607
WILLIAMSPORT	1122	3066	3407
RHODE ISLAND			
BLOCK ISLAND	962	2591	2917
PROVIDENCE	1054	2942	3277
SOUTH CAROLINA			
CHARLESTON	317	811	1299
CHARLESTON U	290	711	1112
COLUMBIA	429	1088	1576
GRNVLLE-SPRTNBRG	675	1842	1878
SOUTH DAKOTA			
ABERDEEN	1821	5190	4941
HURON	1714	4875	4768
RAPID CITY	1473	4556	4082
SIOUX FALLS	1737	4779	4551
TENNESSEE			
BRISTOL	743	1927	2516
CHATTANOOGA	861	1680	2049
KNOXVILLE	692	1591	2147
MEMPHIS	698	1587	2022
NASHVILLE	713	1697	2193
OAK RIDGE R	748	1899	2312
TEXAS			
ABILENE	691	1543	1693
AMARILLO	900	2584	2467
AUSTIN	434	892	1112
BROWNSVILLE	112	195	420
CORPUS CHRISTI	168	351	631
DALLAS	577	1239	1508
DEL RIO	350	763	1081
EL PASO	607	1755	1831
FORT WORTH	615	1293	1539
GALVESTON U	210	432	758
HOUSTON INTERCON	315	712	1075
LUBBOCK	728	2012	2249
MIDLAND	639	1639	1711
PORT ARTHUR	317	730	942
SAN ANGELO	539	1334	1489
SAN ANTONIO	382	778	1026
VICTORIA	270	520	770
WACO	563	1144	1305
WICHITA FALLS	787	1791	1810
UTAH			
MILFORD	1107	4071	3802
SALT LAKE CITY	1085	3814	3603
WENDOVER	1103	3859	3511
VERMONT			
BURLINGTON	1357	4085	4592
VIRGINIA			
LYNCHBURG	796	2078	2484
NORFOLK	572	1383	1982
RICHMOND	748	1866	2344
ROANOKE	780	2107	2488
WALLOPS ISLAND	741	1756	
WASHINGTON			
OLYMPIA	954	3432	2982
QUILLAYUTE	903	3521	3158
SEATTLE-TACOMA	863	3018	2882
SPOKANE	1308	4419	3887
STAMPEDE PASS R	1313	5310	5131
WALLA WALLA U	949	2957	2907
YAKIMA	1096	3936	3636
WEST VIRGINIA			
BECKLEY	916	2596	3131
CHARLESTON	809	2022	2653
ELKINS	961	2753	3298
HUNTINGTON	899	2199	2641
PARKERSBURG U	941	2338	2777
WISCONSIN			
GREEN BAY	1694	4450	4487
LA CROSSE	1668	4240	4388
MADISON	1616	4153	4446
MILWAUKEE	1518	3923	4239
WYOMING			
CASPER	1461	4824	4139
CHEYENNE	1226	4256	4056
LANDER	1404	4996	4520
SHERIDAN	1577	5116	4317

Data from airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.

COOLING DEGREE DAYS

(Base 65°F.)

JANUARY 1972

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
ALABAMA			
BIRMINGHAM	4	4	
HUNTSVILLE	0	0	
MOBILE	47	47	
MONTGOMERY	11	11	
ALASKA			
ANCHORAGE	0	0	
ANNETTE	0	0	
BARROW	0	0	
BARTER ISLAND	0	0	
BETHEL	0	0	
BETTLES	0	0	
BIG DELTA	0	0	
COLD BAY	0	0	
FAIRBANKS	0	0	
GULKANA	0	0	
HOMER	0	0	
JUNEAU	0	0	
KING SALMON	0	0	
KOTZEBUE	0	0	
MC GRATH	0	0	
NOME	0	0	
ST. PAUL ISLAND	0	0	
SHEMYA	0	0	
SUMMIT	0	0	
TALKEETNA	0	0	
UNALAKLEET	0	0	
YAKUTAT	0	0	
ARIZONA			
FLAGSTAFF	0	0	
PHOENIX	0	0	
TUCSON	0	0	
WINSLOW	0	0	
YUMA	0	0	
ARKANSAS			
FORT SMITH	0	0	
LITTLE ROCK	2	2	
CALIFORNIA			
BAKERSFIELD	0	0	
BISHOP	0	0	
BLUE CANYON	0	0	
EUREKA U	0	0	
FRESNO	0	0	
LONG BEACH	0	0	
LOS ANGELES	0	0	
LOS ANGELES U	0	0	
MT SHASTA R	0	0	
OAKLAND	0	0	
RED BLUFF	0	0	
SACRAMENTO	0	0	
SANDBERG R	0	0	
SAN DIEGO	0	0	
SAN FRANCISCO	0	0	
SAN FRANCISCO U	0	0	
SANTA MARIA	0	0	
STOCKTON	0	0	
COLORADO			
ALAMOSA	0	0	
COLORADO SPRINGS	0	0	
DENVER	0	0	
GRAND JUNCTION	0	0	
PUEBLO	0	0	
CONNECTICUT			
BRIDGEPORT	0	0	
HARTFORD	0	0	
DELAWARE			
WILMINGTON	0	0	
DIST. OF COLUMBIA			
WASHINGTON DULLES	0	0	
WASHINGTON NATIONAL	0	0	
FLORIDA			
APALACHICOLA U	24	24	
DAYTONA BEACH	107	107	
FORT MYERS	210	210	
JACKSONVILLE	54	54	
KEY WEST	314	314	
LAKELAND U	151	151	
MIAMI	262	262	
ORLANDO	181	181	
PENSACOLA	43	43	
TALLAHASSEE	40	40	
TAMPA	131	131	
WEST PALM BEACH	223	223	
GEORGIA			
ATHENS	0	0	
ATLANTA	0	0	
AUGUSTA	3	3	
COLUMBUS	6	6	
MACON	2	2	
ROME	0	0	
SAVANNAH	28	28	

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
HAWAII			
HILO	163	163	
HONOLULU	178	178	
KAHULUI	149	149	
LIHUE	174	174	
IDAHO			
BOISE	0	0	
LEWISTON	0	0	
POCATELLO	0	0	
ILLINOIS			
CAIRO U	0	0	
CHICAGO O HARE	0	0	
CHICAGO MIDWAY	0	0	
MOLINE	0	0	
PEORIA	0	0	
ROCKFORD	0	0	
SPRINGFIELD	0	0	
INDIANA			
EVANSVILLE	0	0	
FORT WAYNE	0	0	
INDIANAPOLIS	0	0	
SOUTH BEND	0	0	
IOWA			
BURLINGTON	0	0	
DES MOINES	0	0	
DUBUQUE	0	0	
SIOUX CITY	0	0	
WATERLOO	0	0	
KANSAS			
CONCORDIA	0	0	
DODGE CITY	0	0	
GOODLAND	0	0	
TOPEKA	0	0	
WICHITA	0	0	
KENTUCKY			
COVINGTON	0	0	
LEXINGTON	0	0	
LOUISVILLE	0	0	
LOUISIANA			
ALEXANDRIA	21	21	
BATON ROUGE	31	31	
LAKE CHARLES	20	20	
NEW ORLEANS	50	50	
SHREVEPORT	22	22	
MAINE			
CARIBOU	0	0	
PORTLAND	0	0	
MARYLAND			
BALTIMORE	0	0	
MASSACHUSETTS			
BLUE HILL OBS R	0	0	
BOSTON	0	0	
WORCESTER	0	0	
MICHIGAN			
ALPENA	0	0	
DETROIT	0	0	
DETROIT METRO	0	0	
FLINT	0	0	
GRAND RAPIDS	0	0	
HOUGHTON LAKE	0	0	
LANSING	0	0	
MARQUETTE U	0	0	
MUSKEGON	0	0	
SAULT STE MARIE	0	0	
MINNESOTA			
DULUTH	0	0	
INTERNATIONAL FALLS	0	0	
MINNEAPOLIS	0	0	
ROCHESTER	0	0	
ST CLOUD	0	0	
MISSISSIPPI			
JACKSON	20	20	
MERIDIAN	8	8	
MISSOURI			
COLUMBIA REGIONAL	0	0	
KANSAS CITY	0	0	
ST JOSEPH	0	0	
ST LOUIS	0	0	
SPRINGFIELD	0	0	
MONTANA			
BILLINGS	0	0	
GLASGOW	0	0	
GREAT FALLS	0	0	
HAVRE	0	0	
HELENA	0	0	
KALISPELL	0	0	
MILES CITY	0	0	
MISSOULA	0	0	
NEBRASKA			
GRAND ISLAND	0	0	
LINCOLN U	0	0	
NORFOLK	0	0	

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
NEBRASKA			
NORTH PLATTE	0	0	
OMAHA	0	0	
SCOTTSBLUFF	0	0	
VALENTINE	0	0	
NEVADA			
ELKO	0	0	
ELY	0	0	
LAS VEGAS	0	0	
RENO	0	0	
WINNEMUCCA	0	0	
NEW HAMPSHIRE			
CONCORD	0	0	
MT WASHINGTON OBS	0	0	
NEW JERSEY			
ATLANTIC CITY	0	0	
ATLANTIC CITY U	0	0	
NEWARK	0	0	
TRENTON U	0	0	
NEW MEXICO			
ALBUQUERQUE	0	0	
CLAYTON	0	0	
ROSWELL	0	0	
NEW YORK			
ALBANY	0	0	
BINGHAMTON	0	0	
BUFFALO	0	0	
NEW YORK U	0	0	
NEW YORK KENNEDY	0	0	
NEW YORK LA GUARDIA	0	0	
ROCHESTER	0	0	
SYRACUSE	0	0	
NORTH CAROLINA			
ASHEVILLE	0	0	
CAPE HATTERAS R	7	7	
CHARLOTTE	0	0	
GREENSBORO	0	0	
RALEIGH	0	0	
WILMINGTON	5	5	
NORTH DAKOTA			
BISMARCK	0	0	
FARGO	0	0	
WILLISTON	0	0	
OHIO			
AKRON	0	0	
CINCINNATI ABBE OB	0	0	
CLEVELAND	0	0	
COLUMBUS	0	0	
DAYTON	0	0	
MANSFIELD	0	0	
TOLEDO	0	0	
YOUNGSTOWN	0	0	
OKLAHOMA			
OKLAHOMA CITY	0	0	
TULSA	0	0	
OREGON			
ASTORIA	0	0	
BURNS U	0	0	
EUGENE	0	0	
MEACHAM	0	0	
MEDFORD	0	0	
PENDLETON	0	0	
PORTLAND	0	0	
SALEM	0	0	
SEXTON SUMMIT R	0	0	
PACIFIC AREA			
GUAM TAGUAC R	370	370	
JOHNSTON	366	366	
KOROR R	499	499	
KWAJALEIN	497	497	
MAJURO	480	480	
PAGO PAGO	446	446	
PONAPE R	492	492	
TRUK MOEN ISLAND	500	500	
WAKE	302	302	
YAP R	478	478	
PENNSYLVANIA			
ALLENTOWN	0	0	
ERIE	0	0	
HARRISBURG	0	0	
PHILADELPHIA	0	0	
PITTSBURGH	0	0	
SCRANTON	0	0	
WILLIAMSPORT	0	0	
RHODE ISLAND			
BLOCK ISLAND	0	0	
PROVIDENCE	0	0	
SOUTH CAROLINA			
CHARLESTON	7	7	
CHARLESTON U	8	8	
COLUMBIA	1	1	
GRNVLLE-SPRTNBRG	0	0	

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
SOUTH DAKOTA			
ABERDEEN	0	0	
HURON	0	0	
RAPID CITY	0	0	
SIOUX FALLS	0	0	
TENNESSEE			
BRISTOL	0	0	
CHATTANOOGA	0	0	
KNOXVILLE	0	0	
MEMPHIS	0	0	
NASHVILLE	0	0	
OAK RIDGE R	0	0	
TEXAS			
ABILENE	0	0	
AMARILLO	0	0	
AUSTIN	6	6	
BROWNSVILLE	148	148	
CORPUS CHRISTI	93	93	
DALLAS	6	6	
DEL RIO	3	3	
EL PASO	0	0	
FORT WORTH	2	2	
GALVESTON U	30	30	
HOUSTON INTERCON	58	58	
LUBBOCK	0	0	
MIDLAND	0	0	
PORT ARTHUR	21	21	
SAN ANGELO	0	0	
SAN ANTONIO	11	11	
VICTORIA	58	58	
WACO	3	3	
WICHITA FALLS	0	0	
UTAH			
MILFORD	0	0	
SALT LAKE CITY	0	0	
WENDOVER	0	0	
VERMONT			
BURLINGTON	0	0	
VIRGINIA			
LYNCHBURG	0	0	
NORFOLK	0	0	
RICHMOND	0	0	
ROANOKE	0	0	
WALLOPS ISLAND	0	0	
WASHINGTON			
OLYMPIA	0	0	
QUILLAYUTE	0	0	
SEATTLE-TACOMA	0	0	
SPOKANE	0	0	
STAMPEDE PASS R	0	0	
WALLA WALLA U	0	0	
YAKIMA	0	0	
WEST INDIES			
SAN JUAN P.R.	400	400	
WEST VIRGINIA			
BECKLEY	0	0	
CHARLESTON	0	0	
ELKINS	0	0	
HUNTINGTON	0	0	
PARKERSBURG U	0	0	
WISCONSIN			
GREEN BAY	0	0	
LA CROSSE	0	0	
MADISON	0	0	
MILWAUKEE	0	0	
WYOMING			
CASPER	0	0	
CHEYENNE	0	0	
LANDER	0	0	
SHERIDAN	0	0	

Data from airport unless otherwise specified.
U indicates Urban, R indicates Rural, sites.

STORM SUMMARY

JANUARY 1972

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				‡ HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				ø ALL OTHER			
								† DAMAGE				† DAMAGE				† DAMAGE				† DAMAGE				† DAMAGE				† DAMAGE	
	NUMBER	DAYS	DEATHS	INJURIES	† DAMAGE	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS	DEATHS	INJURIES	PROPERTY	CROPS
Alabama	4	3	4	90	6							4																4	
Alaska												5								4									
Arizona*																													
Arkansas*																													
California												4	6																
Colorado										1	25+	6																	
Connecticut										1	7	5																	
Delaware												3																	
Florida	3	3		5	4																								
Georgia	15	4	1	35	6			?	?			4				3												5	4
Hawaii*																													
Idaho											5	6								4						2	2	4	
Illinois																							?	4					
Indiana																							?	4					
Iowa												5														2			
Kansas*																													
Kentucky												4				4						?	?	?					
Louisiana											1	4																	
Maine											3	5				2													
Maryland												3														1	1		
Massachusetts											11	5																	
Michigan											3	5											1						
Minnesota																		1	1	4									
Mississippi	7	2		14	6											4												?	
Missouri*																													
Montana												6																	
Nebraska*																													
Nevada*																													
New Hampshire												5				2													
New Jersey										1	1	4																	
New Mexico												3																	
New York										3	?	6																	
North Carolina								2		3	3	5				4								4				5	5
North Dakota																				?									
Ohio											?	4																	
Oklahoma																										1		?	
Oregon											4	5	4													6	2	7	7
Pacific Area																											?	4	?
Pennsylvania											7	5																	
Puerto Rico*																													
Rhode Island												5																	
South Carolina	3	2		3	6																					1			
South Dakota*																													
Tennessee								?																					
Texas	1	1			4																								
Utah												4								?									
Vermont												5																	
U. S. Virgin Is.*																													
Virginia*																													
Washington										2	6	6	4							6	5							6	4
West Virginia												3																	
Wisconsin*																													
Wyoming												6																	

* Includes crop damage.
C Crop damage.
* No occurrence of storms or unusual weather phenomena reported.
‡ Includes heavy sleet storm.
\# Freezing drizzle and freezing rain, commonly known as glaze.
ø For breakdown of "All Others", and for detailed listing of other storms, see the Environmental Data Service, NOAA, monthly publication STORM DATA.
† Storm damages are placed in categories varying from 1 to 9 as follows:
1 Less than $50
2 $50 to $500
3 $500 to $5,000
4 $5,000 to $50,000
5 $50,000 to $500,000
6 $500,000 to $5 Million
7 $5 Million to $50 Million
8 $50 Million to $500 Million
9 $500 Million to $5 Billion.

GENERAL SUMMARY OF RIVER AND FLOOD CONDITIONS

JANUARY 1972

Elmer R. Nelson, Office of Hydrology

The most significant flooding during January occurred in Oregon in the Willamette and Coastal Basins. Maximum record crests were observed in the Oregon Coastal Basins on the Nehalem River. Near record stages were reached on the Trask, Nestucca, Siletz, Alsea, and Siuslaw Rivers. Major flood crests were reached on the uncontrolled tributaries of the Willamette River. Crest stages on some of the streams were greater than those likely to occur on the average of once in 50 years. The total flood losses were estimated at nearly $17 million. At least 6 persons lost their lives.

Record flooding occurred in the Chehalis-Skookumchuck Basin in Washington. The crest at Centralia, Wash., was 1.5 feet higher than the major flood of January 1971. The total damage was estimated at $3.5 million.

HUDSON BAY DRAINAGE

Red River of the North Basin -- Precipitation amounts during January averaged near or a little above normal over the Red River of the North Basin, ranging from 0.15 inch to near 1.50 inches. Above normal amounts occurred in the upper basin and along the Minnesota tributaries of the lower basin. Snow cover at the close of the month ranged from 9 to 19 inches over the upper basin, 10 to 15 inches on the Minnesota side of the lower basin, and 2 to 5 inches on the North Dakota side of the lower basin.

Precipitation was near normal over the Souris Basin. However, above normal amounts were reported along the lower Des Lacs River in the Turtle Mountains. Snow cover at the close of the month ranged from 1 to 17 inches with most measurements in the 3- to 5-inch range. The Turtle Mountain area reported 17 inches. Water content of the snow averaged around 0.50 inch, except in the Turtle Mountains where up to 4 inches was reported.

Although the streams were ice covered, near or slightly above normal flow continued through January.

ST. LAWRENCE DRAINAGE

Lake Erie and Lake Ontario -- High winds on the 25th caused huge waves on the Niagara River and Lake Erie which poured into lakefront roads and homes. A storm surge of 9.2 feet was measured by the U. S. Engineers at 7:45 a.m. on the 25th. This surge produced a rare occurrence of minor flooding from the Niagara River in Cayuga Island area of Niagara Falls, New York.

ATLANTIC SLOPE DRAINAGE

Precipitation continued below normal for January in the Delaware River Basin and over New Jersey. Average precipitation for the Delaware River Valley above Trenton was 2.23 inches or about 70 percent of normal. In the Delaware Valley below Trenton, N. J., January precipitation averaged 2.82 inches or about 88 percent of normal. In New Jersey, except along the coastal section, precipitation during January averaged about 2.5 inches or 73 percent of normal. Lightest precipitation amounts occurred in the extreme upper portion of the Delaware River Basin where quite a few stations reported January precipitation totals of less than 2 inches.

Snow cover in the Delaware River Valley and New Jersey was the lowest for January for many years. Snow depths were around 1 inch or less from the 1st through the 27th. Snow on the ground at the end of January ranged from 1 inch or less in most of north, southeast, and east-central Pennsylvania, to 1 to 3 inches in northeastern Pennsylvania and lower New York State.

The 13 principal water supply reservoirs in New Jersey averaged 95 percent of capacity at the end of January. Storage in New York City's three reservoirs on the upper Delaware increased storage by 27 billion gallons to 77 percent of capacity during January.

Minor overflows occurred on the lower Neuse and lower Cape Fear Rivers in eastern North Carolina between the 14th and 21st. This flooding was due to rain that moved eastward across the State from the 9th to the 14th. Rainfall amounts ranged from 1 inch to 1.5 inches in eastern North Carolina to 3 to 4 inches in the mountains. No damage was reported from the light overflows.

Heavy rain of 3 to 5 inches from the 10th to the 14th caused minor to moderate flooding on streams in the Santee and Pee Dee River Basins in South Carolina. Spillage from Lake Greenwood caused minor flooding downstream on the Saluda River. Inflow of flood waters from the Saluda and Broad Rivers was the main cause of the flooding on the Congaree River. Moderate lowland flooding occurred below Columbia, S. C., from the 11th to the 15th. The Pee Dee River at Cheraw, S. C., rose almost 9 feet in 6 hours during the morning of the 11th to a crest of 2.6 feet above flood stage, or almost 15 feet in 24 hours.

Moderate lowland flooding occurred from Blewett Lake, N. C., downstream to below Pee Dee, S. C. The Lumber River at Lumberton, N. C., crested 3.3 feet above flood stage on the 18th-19th. A rise of another 0.3 of a foot would have made evacuation of some families from the lowest areas necessary. Losses were due mainly to lowland flooding along the lower Broad River, Congaree River, and the Pee Dee River from Blewett Lake, N. C., to below Peedee, S. C. A preliminary estimate of total loss is $5,000.

Heavy rain during the month caused light to moderate flooding in Georgia on portions of the Savannah River, most of the Ogeechee, the Ocmulgee, Oconee, and the Altamaha Rivers. Controlled release of water on the Savannah by the Hartwell and Clark Hill Dams prevented flooding in the Augusta, Ga., area and lowered crests downstream. Gradual reduction of pool levels partially contributed to prolonged high stages on the middle and lower Savannah into February. Damage, if any, was estimated to be light.

EAST GULF OF MEXICO DRAINAGE

Heavy rain from the 9th to the 13th caused flooding on streams in the Apalachicola Basin in Florida and Georgia. Several stations in the upper Chattahoochee Basin reported precipitation amounts of 6 to 7 inches during this period. Peachtree Creek at Atlanta, Ga., rose 3.2 feet above flood stage on the 10th. Crests on the Chattahoochee River ranged from 3 to 4 feet above flood stage. The Flint River at Albany, Ga., was above flood level from the 15th to the 19th. The Apalachicola River at Blountstown, Fla., was out of its banks from the 12th to the 24th and again on the 27th-28th. The higher crest (6.4 feet above flood stage) occurred on the 17th. The Corps of Engineers estimated the flood damages at $468,000.

Moderate flooding occurred on streams in the Alabama Basin due to heavy rain on the 3d-4th and 9th-10th.

Rainfall ranged from 2 to 4 inches on the Etowah, Oostanaula, Coosa, and Cahaba Basins during the first period. Rainfall was more widespread and even heavier on the 9th-10th. Minor flooding began in the headwaters as early as January 5. The Alabama River exceeded flood stage throughout its course. Below Millers Ferry Lock and Dam, the river crested 11.4 feet above flood stage on the 16th. It remained above flood stage at Claiborne, Ala., from the 12th to the 25th. Damages were moderate, averaging about $750,000. Of this amount about 90 percent occurred to pastures and other farmlands.

Heavy rains on the 1st, 3d, and 9th caused moderate flooding on the upper Warrior and upper Tombigbee Rivers in Mississippi. More intensive flooding occurred on the middle and lower Tombigbee. Crests along the upper Tombigbee averaged around 5.5 feet above flood stage and along the lower portion in Alabama, about 12.5 feet above flood stage. The Corps of Engineers estimated the damages at nearly $2 million. Of the total damages, 80 percent of it resulted to agriculture as considerable land used for farming was inundated.

Heavy rain during the first week of January produced heavy lowland flooding along the Pearl River from Edinburg, Miss., downstream. The overflow continued for almost 3 weeks. A crest of 32.6 feet was reached at Jackson, Miss., on the 16th, which was 14.5 feet above flood stage. Low areas in and around the city adjacent to the river were inundated. Nine families in the Town Creek area of the city were evacuated by Civil Defense Units when rising water flooded their homes. Minor overflow occurred on the Chickasawhay River at Enterprise, Miss., and Shubuta, Miss. Flash flooding occurred in northeast Gulfport, Miss., during heavy rains on the 4th and 5th. About 20 people were evacuated from the threatened area by local Civil Defense Units.

MISSISSIPPI SYSTEM

Upper Mississippi Basin -- Precipitation in the Upper Mississippi Basin above Guttenberg, Iowa, during January ranged from much below normal over southeastern Wisconsin to near normal over central and northeastern Minnesota. The greatest amounts occurred along the north shore of Lake Superior with 2.28 inches recorded at Duluth, Minn.

By the end of the month snow depths ranged from near 4 inches in the southern portion of Minnesota and Wisconsin to as much as 26 inches in the north-central portion. The greatest depths were from 20 to 26 inches over the upper St. Croix, much of Chippewa, the northern part of the Black, and over the middle and upper Mississippi River Basins. Water content of the snow on the ground, as reported at first order stations, ranged from about 0.1 inch in the extreme southeast portion of Wisconsin to 2 to 3 inches over the area with the heavier snow cover.

Ice jams on the Wisconsin River at Portage, Wis., gradually eroded and receded from flood stage (17 feet) on January 1 to 13.4 feet by the end of the month.

Missouri Basin -- High water, due to ice jams, occurred on the Missouri River from Craig, Mont., to near Cascade, Mont., during the last weekend of January. Some of the homes and trailers on the Seibold tract near Cascade were threatened by the high water. No noticeable damage resulted as the high water receded by the 30th. Some water backed up on Highway I-15 on the 29th but receded by the 30th.

Precipitation in South Dakota was light during January, with most of the reporting points receiving less than one-half of normal. However, precipitation in the northern portion varied from one-half to near normal. At the end of January, snow depths were 2 to 6 inches in northwest Iowa, about 6 inches in southwest Minnesota, 3 to 6 inches in northeast Nebraska, trace to 5 inches across southern South Dakota, and 8 to 15 inches in northern South Dakota. Snow depth was up to 2 feet in the higher elevations of the Black Hills and in northeastern Wyoming.

There was considerable ice action on the Missouri River during January. At Sioux City, Iowa, the river fluctuated about 4 feet between the 14th and 18th. Several ice jams occurred from Decatur, Nebr., to just south of Nebraska City, Nebr., between the 17th and 22d. The highest stage reached was 12.6 feet at Nebraska City (flood stage, 18 feet) during the evening of the 19th. Rises to about one-half bankfull stage occurred downstream to south of St. Joseph, Mo., after the ice jam broke loose. Low readings prevailed downstream before the ice jam broke, with Kansas City, Mo., reporting a stage of minus 1.16 feet at noon on the 19th.

Later in the month, on the 27th, a heavy flow of ice moved into the reach from Decatur, Nebr., to Glasgow, Mo. As it reached the area from St. Joseph, Mo., to below Kansas City, Mo., the Missouri was nearly full of ice and moving very slowly. Ice jams formed between St. Joseph and Kansas City, Mo., on the 29th and 30th causing rapidly fluctuating stages.

Another ice jam developed in the reach from 4 miles south of St. Joseph to around Atchison, Kans., during the day of the 30th. By evening, the stage at St. Joseph, Mo., was around 15 feet, 2 feet below flood stage. The ice jam held until the evening of the 31st, reaching a stage of 15.8 feet around 6 p.m. During the afternoon of the 31st, another ice jam formed in the vicinity of Waverly. Mo., where it reached a stage of 17.7 feet (flood stage, 18 feet) at 4:30 p.m. on February 1 before it broke loose.

Ohio Basin -- Minor flooding occurred on the Tug Fork of the Big Sandy River at Williamson and Matewan, W. Va., on the 21st. Some flooding occurred in lower Chattaroy, W. Va., a few miles downstream from Williamson, W. Va., as back water from the Tug Fork forced Buffalo Creek over its banks near its junction with the river. A slight overflow of the Levisa Fork at Grundy, Va., occurred during the night of the 20th-21st. This flooding was due to precipitation that ranged from 2.03 inches at Gary, W. Va., in the extreme headwater area to 1.13 inches at Williamson, W. Va. In the Levisa Fork, the precipitation ranged from about 2 inches in the extreme headwaters to about 0.74 inch at Paintsville, Ky. Damages were minor. Secondary roads were blocked in several places. A few businesses in the low lying areas of Matewan were flooded.

Heavy rain on the 27th and 28th over the Green Basin above Calhoun, Ky., caused a rapid rise to above bankfull stage in the upper reaches. The flooding was confined mostly to farmland.

The upper Cumberland River, in southeastern Kentucky, exceeded flood stage by over 1 foot at Barbourville, Ky., on the 21st-22d and 0.5 foot on the 29th. Both overflows were due to rainfall averaging about 2 inches each, on the 20th and 27th. Damage, if any, was very light.

Light flooding occurred on South Chickamauga Creek near Chickamauga, Tenn., on the 4th-8th and on the 10th-12th. The Duck River near Shelbyville, Tenn., rose slightly above flood stage on the 2d. The Tennessee River at Florence, Ala., was slightly out of its banks on the 9th-12th. No damages were reported from the

light overflows.

White Basin -- Minor flooding occurred on the Cache River at Patterson, Ark., on the 9th-14th. The minor overflow was due to heavy rain on the 4th. No damage resulted from the minor overflow.

Red Basin -- A minor overflow occurred on the Sulphur River at Texarkana, Tex., on the 4th. No damage was reported.

Lower Mississippi Basin -- Heavy rainfall during the first week of January caused widespread lowland flooding on the Big Black River in Mississippi. Farms and woodlands adjacent to the river were flooded from the 4th to the 24th. Farming and logging operations were at a standstill most of the month.

WEST GULF OF MEXICO DRAINAGE

Heavy rain during the first week of the month caused minor flooding on the Calcasieu River at Hineston, La., beginning on the 5th. Subsequent periods of heavy rains, spaced at 5- to 10-day intervals, caused the river to remain above flood stage through the 28th except for 2 days (19th-20th). Rainfall in the Calcasieu Basin during January was about twice normal.

Major flooding continued on the upper Sabine River in northeast Texas due to 2 to 4 inches of additional rain during the first week of January. The lower Sabine exceeded flood stage at Bon Wier, Tex., on the 5th-6th and at Logansport, La., on the 8th-11th. At Deweyville, Tex., it rose above flood stage on the 6th and continued above flood stage through the 29th. There was very little additional damage during January as the flooding was more or less continuous since early in December.

Minor flooding occurred along the lowlands of the upper Trinity River from Rosser to Long Lake, Tex., during the early part of January. There were brief periods of overflow along Richland and Chambers Creek. Overflow persisted along the East Fork of the Trinity near Crandall, Tex., into the fourth week of the month. The crest on the 4th was approximately 2 feet above flood stage. Below Trinity, Tex., the river continued above flood stage at Moss Bluff, Tex., from November 25 into February. Flood damage was mostly minor except moderate at Liberty, Tex., and below.

Moderate to heavy rainfall during the first part of the month caused flooding on the Navasota River at Easterly, Tex., on the 6th and 7th and near Bryan, Tex., during the first 2 weeks. Flood damage, if any, was minor.

Rainfall of 2 to 3 inches on the 30th caused minor flooding on the lower Lavaca and Navidad Rivers on the 31st. Flooding was restricted to the lowlands. No damage was reported.

Minor flooding occurred on the Nueces River below Wesley Seale Dam to Nueces Bay on the 29th-30th. The overflow was due to strong northerly winds that blew the water over the dam.

PACIFIC SLOPE DRAINAGE

Central Coastal Basins -- The highest flooding since December 1964 occurred along the Smith River in Del Norte County, Calif., on the 21st and 22d. There were two rises to above flood stage at Ft. Dick River, Calif. The higher crest occurred on the 22d and was 4.1 feet above flood stage. The crest near Crescent City, Calif., was 8.4 feet above flood stage. This flooding was due to record or near record precipitation during the nights of the 20th-21st and 21st-22d. An average of 12.5 inches of rain occurred during those periods in the upper Smith Basin. The heavy rainfall caused many small streams to overflow their banks. Traffic was interrupted up to 48 hours in some areas. Considerable road damage and extensive agricultural damage resulted from the high water. There were numerous slides.

Heavy rain from the 18th to the 25th in southwestern Oregon caused flooding along the Rogue, Coquille, and Umpqua Rivers. One day rainfall totals ranged from 1 to 7 inches and averaged 3 to 4 inches over a 3-day period. Port Orford measured more than 15 inches of rain in 3 days. Satellite photos showed a surge of subtropical moisture as it moved into the central Pacific and then was carried eastward by the jetstream into southwestern Oregon. Major rivers began reaching flood stage on the 20th and by the 22d, most were either above flood stage or bankfull. The Umpqua River receded within its banks on the 22d, the Rogue on the 23d, and the Coquille on the 24th. One life was lost in the Grants Pass, Oreg., area when a boy fell into a swollen creek and drowned. Only a limited number of evacuations were necessary. Erosion and landslides caused considerable public road damage. The total damages were estimated at $3.7 million. Of this total $2.3 million occurred in the Rogue Basin.

Columbia Basin -- There were two periods of flooding in the Columbia Basin during January.

The first overflows were due to heavy rain during the night of the 10th and the morning of the 11th. Nearly 10 inches of rain occurred in about 18 hours at Nehalem and Tillamook, Oreg. Freezing levels, during this heavy rainfall, were about 4,000 to 5,000 feet, subjecting most of the Coast Range snowpack to melting conditions. Runoff from this rain produced near maximum record flows on the coastal Nehalem and Wilson Rivers, and new maxima of record peaks on the Nestucca and Trask Rivers in Oregon. Main damages in all north Oregon coastal basins were in the lower tidal reaches, although there was considerable slide damage in the upper reaches. As this storm moved southeastward across the Willamette Basin, rainfall amounts were generally 2 inches at valley locations and 4 inches in the foothills of the Cascade Range. Of the Coast Range Willamette tributaries, the Marys River near Philomath, Oreg., crested just slightly above flood stage while the Luckiamite, South Yamhill, and upper reaches of the Tualatin experienced major crests. All the Cascade Range Willamette tributaries exceeded bankfull stage except the Santiam River at Jefferson, Oreg., which crested 0.5 foot below flood stage. The main stem of the Willamette River crested generally around bankfull stage.

The second period of flooding was more severe and covered a large area.

Freezing levels rose to 8,000-10,000 feet at midmonth and remained near 7,000 feet during the second January storm. Coast Range and Cascade Range snowpacks were well saturated to produce heavy runoff with the additional heavy rains that followed.

The heaviest rainfall was again centered over the north Oregon coastal areas with Nehalem 9 NE reporting a 4-day (January 18-21) precipitation total of near 14 inches; Tillamook 13 ENE, near 10 inches; and at numerous other coastal stations, 6 to 8 inches. At Willamette Valley locations total storm precipitation for the 18th-21st was about 5 to 6 inches and from 6 to 8 inches at most Cascade Range foothill locations. In the upper Willamette Basin, several stations in the McKenzie and Middle Fork Willamette drainages received 12-inch totals during the 5-day period, January 18-22.

Maxima record peaks were observed in the Oregon Coastal Basins on the Nehalem River near Foss, Oreg.,

and on the Wilson River near Tillamook, Oreg. Near record stages were reached on the Trask, Nestucca, Siletz, Alsea, and Siuslaw Rivers. More serious flooding occurred during the second rise than during the earlier flood as the crests occurred during the higher tide of the day. Major flood crests were observed on the uncontrolled tributaries, namely, the Luckiamute, South Yamhill, Tualatin, Pudding, Molalla, Clackamas, and Johnson Creeks. The Willamette River crests were generally 1 to 2 feet above flood stage at all points. Even on the McKenzie and Santiam Rivers, where runoff was controlled, crest stages reached major flood magnitude on the 21st. Crest stages on some of the streams were greater than those likely to occur on the average of once in 50 years. The following listing shows the recurrence interval for the observed crest at various locations.

MAGNITUDE OF FLOODS IN WILLAMETTE BASIN

January 1972

Stream & Station (Oregon)	Flood Stage (feet)	Crest (feet)	Date (January)	Recurrence Interval (years)
McKenzie:				
Coburg (regulated)	11	13.1	21	15
Marys:				
Philomath	20	20.6	21	10
Santiam:				
Jefferson (regulated)	15	20.4	21	10
Luckiamute:				
Suver	27	32.7	21	25
South Yamhill:				
Whiteson	38	44.7	21	20
Pudding:				
Aurora	20	28.3	21	30
Molalla:				
Canby	13	15.4	21	50
Tualatin:				
West Linn	12	14.2	23	5
Clackamas:				
Clackamas	13	20.9	21	20
Willamette:				
Albany (regulated)	25	26.7	22	5
Salem (regulated)	28	30.1	22	10

Some flooding occurred on the smaller tributary streams of the Coeur d'Alene and St. Joe Rivers in northeast Washington following a 10-day January thaw. During this period of above normal temperatures, heavy rains occurred in the Coeur d'Alene mountains. The flooding ended with the return to sub-freezing temperatures on the 24th. Damage consisted mainly of road washouts and downed powerlines.

In central and southern Idaho, rising temperatures and rains from the 17th to the 22d dislodged the ice on the Weiser River. Ice jams caused the stream to overflow wherever restrictions occurred. High water lasted for about 48 hours cresting slightly over 1 foot above flood stage near Weiser, Idaho, around noon on the 21st. The ice jams disintegrated during the afternoon. The river receded to within its banks during the night. In the Magic Valley, flooding occurred over some farmland and residential areas where ice and debris plugged natural drains. Many schools were closed as roads were impassable due to standing water and some washouts.

The total preliminary flood damages in the Columbia Basin during January were estimated at nearly $17 million. Of this total $10.1 million occurred in the Willamette Basin and $6.1 million in the Oregon Coastal Basins. At least 6 persons drowned during the high water.

Northern Coastal Basins--Major flooding occurred in the Chehalis-Skookumchuck River Basin in Washington on January 20-24. The flood crest of 71.65 feet on the Chehalis River at Centralia, Wash., on the 21st, was the highest on record and 1.5 feet higher than the major flood of January 1971. According to the Geological Survey the gaging station at Grand Mount, Wash., (6 miles downstream) had the highest peak flow on record (50,300 c.f.s.) during this flood since it was established in 1928. This high water was due to a combination of snowmelt and heavy rain. The precipitation during the 3 days ranged from 2.9 inches at Hoquiam to 8.2 inches at Frances, Wash.

Minor flooding occurred in the Snoqualmie, Snohomish, and Cedar Basins on 1 or 2 days between the 20th and 24th. The minor overflows were due to snowmelt and precipitation that ranged from 3.1 inches at Seattle to 5.9 inches at Snoqualmie Falls, Wash. The maximum temperatures during this period averaged 52°, except 36° at Stampede Pass, Wash.

The total flood losses were estimated at $3.5 million by the Corps of Engineers. Of this total, $3.3 million occurred in the Chehalis Basin.

FLOOD STAGE DATA

(All dates in January unless otherwise specified)

River and station	Flood stage	Above flood stages -dates From--	To--	Crest* Stage	Date
	Ft			Ft	
ATLANTIC SLOPE DRAINAGE					
Neuse: Goldsboro, N. C.	14	14	20	16.0	16
Kinston, N. C.	14	17	21	14.6	19
Cape Fear: Wm. O. Huske L&D Tarheel (nr), N. C.	42	15	15	42.3	15
Elizabethtown, N. C.	20	14	16	21.2	16
Rocky: Norwood, N. C.	15	11	11	#19.6	11
Lynches: Effingham, S. C.	14	19	19	14.2	19
Lumber: Lumberton, N. C.	9	13	1/	12.3 12.0 10 5	18-19 Feb. 9 Feb.20-22
Little Pee Dee:					
Galivants Ferry, S. C.	9	20	27	9.3	20-24
Pee Dee: Cheraw, S. C.	30	12	12	32.6	12
Peedee, S. C.	19	13	24	#22.2	18
Saluda: Chappells, S. C.	14	11	15	#15.0 #17.7	12 14
Broad: Blair, S. C.	14	10	16	#21.9 #19.2	12 14
Congaree: Columbia, S. C.	19	12	12	19.2	12
Wateree: Lake Wateree, S. C.	100	12	15	101.2	14
North Fork Edisto:					
Orangeburg, S. C.	8	14	20	9.4	16
Edisto: Givhans Ferry State Park, S. C.	10	17	Feb. 26	13.2	Feb. 7
Broad: Carlton Bridge, Ga.	15	10	12	#20.6	12
Stevens Creek:					
Modoc, S. C.	18	10	12	#28.0	12
Savannah: Millhaven-Wade 2 SE, Ga.	15	16	Feb. 23	#17.8 #16.7	23-24 Feb. 4
Clyo, Ga.	11	15	1/	#16.3 #15.6	26-27 Feb. 7-8
Ogeechee: Midville, Ga.	6	15	19	# 7.1	16
Scarborp, Ga.	8	15	28	#10.5	18
Dover, Ga.	7	15	25	# 9.2	21-22
Eden, Ga.	9	17	1/	#12.1 #11.1	23 Feb.9-10
Ocmulgee: Macon, Ga.	18	11	15	23.4	12
Hawkinsville, Ga.	25	15	19	27.0	16
Lumber City, Ga.	15	21	25	17.1	23
Oconee: Milledgeville, Ga.	20	12	15	31.8	14
Dublin, Ga.	21	16	20	26.4	17
Mount Vernon, Ga.	16	17	23	20.15	19
Altamaha: Charlotte, Ga.	15	18	29	20.95	22
EAST GULF OF MEXICO DRAINAGE					
Peachtree Creek:					
Atlanta, Ga.	13	10	11	#16.2	10
Chattahoochee:					
Atlanta, Ga.	14	11	11	#17.7	11
West Point, Ga.	19	12	13	#20.8	12
Fort Gaines Dam Tailwater, Ga.	134	14	14	#138.1	14
Flint: Albany, Ga.	20	15	19	#22.1	17
Apalachicola:					
Blountstown, Fla.	15	12 27	24 28	#21.4 #15.2	17 27-28
Jim Woodruff Dam Tailwater, Fla.	66	15	16	#67.0	15-16
Oostanaula:					
Resaca, Ga.	22	7 13	7 14	22.4 34.0	7 13
Etowah: Canton, Ga.	17	5 11	5 11	18.3 20.2	5 11
Cahaba: Centreville, Ala.	23	5 11	5 12	28.6 29.2	5 11

River and station	Flood stage	Above flood stages -dates From--	To--	Crest* Stage	Date
	Ft			Ft	
EAST GULF OF MEXICO DRAINAGE-(Continued)					
Cahaba (Continued):					
Marion Junction, Ala.	36	13	14	37.9	13
Alabama:					
Montgomery, Ala.	35	11	15	42.6	12
Selma, Ala.	45	12	16	47.7	13
Millers Ferry L&D (tailwater) Ala.	66	11	19	77.4	16
Claiborne, Ala.	40	12	25	47.2	18
Old Town Creek:					
Tupelo, Miss.	21	5	5	21.7	5
East Tombigbee:					
Fulton, Miss.	16	3	7	17.4	5
Tibbee: Tibbie, Miss.	23	4	8	27.65	5
Noxubee: Macon, Miss.	26	8	15	28.4	12
Tombigbee:					
Amory, Miss.	20	3	9	26.0	5
Aberdeen, Miss.	34	5	7	39.4	7
Columbus, Miss.	29	6	10	32.4	8
Gainesville, Ala.	36	6	20	48.6	13
Demopolis, L&D, Ala.	48	6	21	60.9	15
Coffeeville, L&D, Ala.	43	6	26	55.1	19
Chickasawhay:					
Enterprise, Miss.	20	11	14	26.25	12
Shubuta, Miss.	30	15	16	30.8	15
Pearl: Edinburg, Miss.	20	7	18	25.9	13
Jackson, Miss.	18	4	25	32.6	16
Monticello, Miss.	19	5	27	25.1	14
Columbia, Miss.	17	12	28	19.8	24
Bogalusa, La.	15	Dec. 4 5	2 Feb. 28	19.9 19.8	Dec. 13 26
Pearl River, La.	12	Dec. 10	Feb. 26	15.75 14.4	Dec. 16 Feb. 7
MISSISSIPPI SYSTEM					
Ohio Basin					
Tug Fork: Williamson, W. Va.	27	21	21	#27.9	21
Matewan, W. Va.	U	21	21	32.5	21
Green: Munfordville, Ky.	28	29	30	30.0	29
Lock 4, Woodbury, Ky.	33	28	Feb. 1	37.2	30
Cumberland:					
Barbourville, Ky.	27	21 29	22 29	28.1 27.5	22 29
South Chickamauga Creek:					
Chickamauga (nr.), Tenn.	10	4 10	8 12	12.5 11.3	4 10
Duck: Shelbyville, (nr.) Tenn.	23	2	2	23.0	2
Tennessee:					
Florence, Ala.	419	9	12	419.4	11
White Basin					
Cache: Patterson, Ark.	7	9	14	7.3	12
Red Basin					
Sulphur: Texarkana, Tex.	25	4	4	25.1	4
Lower Mississippi					
Big Black: West, Miss.	12	4	19	22.7	5
Bovina, Miss.	28	5	24	38.9	14
WEST GULF OF MEXICO					
Calcasieu: Hineston, La.	12	5 21	18 28	16.3 15.7	7 23
Sabine: Emory, Tex.	12	2	7	12.5	5
Mineola, Tex.	14	Dec. 6	12	17.6	4

FLOOD STAGE DATA

(All dates in January unless otherwise specified)

River and station	Flood stage	Above flood stages -dates From—	To—	Crest * Stage	Date
	Ft.			Ft.	
WEST GULF OF MEXICO (Continued)					
Sabine (Continued):					
Gladewater, Tex.	26	Dec. 12	3	38.8	Dec. 15
		5	17	30.0	10-12
Longview, Tex.	25	Dec. 15	19	35.8	Dec. 18
				26.9	1,15
Logansport, La.	28	8	11	28.3	10
Bon Wier, Tex.	17	5	6	17.2	6
Deweyville, Tex.	14	6	29	14.8	9
Trinity: Romser, Tex.	26	2	2	26.1	2
		3	6	28.6	4
Trinidad, Tex.	28	1	14	37.9	7
Long Lake, Tex.	35	4	16	41.85	9
Liberty, Tex.	24	Dec. 15	4	#27.4	Dec. 31
		6	18	25.4	7
		20	25	24.45	22
Moss Bluff, Tex.	4	Nov. 25	Feb. 12	8.05	Dec.29-1
				6.7	Feb. 3
Navasota: Easterly, Tex.	14	6	7	15.2	7
Bryan 17 NE, Tex.	12	7	12	13.2	9
Navidad: Ganado, Tex.	21	31	Feb. 2	26.5	Feb. 1
Lavaca: Edna, Tex.	21	31	Feb. 1	22.1	Feb. 1
PACIFIC SLOPE DRAINAGE					
Central Coastal Basins					
Smith: Crescent City 7 ENE, Cal.	35	21	22	43.4	22
Ft. Dick River, Calif.	33	21	21	33.25	22
		21	22	37.1	22
Rogue: Eagle Point 4 NW, Oreg.	10	22	23	11.3	22
Raygold, Oreg.	12	22	23	16.15	22
Grants Pass, Oreg.	19	22	23	23.2	22
South Fork Coquille:					
Myrtle Point, Oreg.	35	20	24	42.0	22
Coquille:					
Coquille, Oreg.	21	21	24	23.85	22
South Umpqua:					
Roseburg, Oreg.	22	22	22	22.4	22
Umpqua: Tiller, Oreg.	15	21	21	16.15	21
		22	22	18.5	22
Elkton 4 S, Oreg.	33	22	22	34.3	22

River and station	Flood stage	Above flood stages -dates From—	To—	Crest* Stage	Date
	Ft.			Ft.	
PACIFIC SLOPE DRAINAGE (Continued)					
Columbia Basin					
Weiser: Cambridge (nr), Idaho	9	21	21	9.3	21
Weiser (nr), Idaho	8	20	21	9.1	21
McKenzie: Coburg, Oreg.	11	21	21	13.1	21
Marys: Philomath, Oreg.	20	11	12	20.2	11
		20	22	20.6	21
Santiam: Jefferson, Oreg.	15	20	22	20.4	21
Lukiamute:					
Suver, Oreg.	27	11	13	29.8	12
		20	22	32.7	21
South Yamhill:					
Whiteson, Oreg.	38	11	14	44.0	12
		20	23	44.7	21
Pudding: Aurora, Oreg.	20	12	16	22.5	13
		20	28	28.3	21
Molalla: Canby, Oreg.	13	20	21	15.4	21
Tualatin: Farmington, Oreg.	29	21	28	34.0	22
West Linn, Oreg.	12	22	26	14.2	23
Clackamas:					
Clackamas, Oreg.	13	20	21	20.9	21
Johnson Creek:					
Sycamore, Oreg.	8	11	11	9.2	11
		20	21	12.7	21
Willamette:					
Harrisburg, Oreg.	12	21	23	14.7	21
Corvallis, Oreg.	20	22	23	20.9	22
Albany, Oreg.	25	21	23	26.7	22
Salem, Oreg.	28	21	23	30.1	22
Wilsonville, Oreg.	25	21	26	30.3	23
Oregon City (upr), Oreg	14	21	25	15.3	23
Oregon City (lwr), Oreg.	27	20	25	32.4	23
Portland, Oreg.	18	21	22	18.3	22
North Coastal Basins					
Skookumchuck:					
Centralia, Wash.	85	21	22	86.6	21
Chehalis: Centralia, Wash.	63	20	24	71.65	21
Snoqualmie:					
Carnation, Wash.	54	21	22	55.8	21
Snohomish:					
Snohomish, Wash.	25	20	21	26.8	21

* Provisional

\# Highest Stage Observed

1/ Continued at the end of month

__ Record Crest

M Missing

U Unknown

RAWINSONDE DATA

Average monthly values

JANUARY 1972

Standard pressure surface (mb.)	ALBANY, N. Y. 1008 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	86	-6.0	-9.9	24	1.5
1000						
950	31	552	-5.4	-9.5	26	6.0
900	31	979	-6.8	-11.3	27	9.2
850	31	1,420	-7.9	-14.7	27	12.6
800	31	1,891	-9.5	-17.7	27	15.8
750	31	2,389	-10.2	-20.1	27	18.8
700	31	2,919	-12.1	-22.4	27	22.6
650	31	3,484	-14.2	-26.8	27	25.6
600	31	4,089	-16.7	-27.4	26	29.2
550	31	4,738	-20.3	-31.8	26	33.4
500	31	5,438	-24.6	-35.2	26	36.5
450	31	6,198	-29.4	-40.4	26	38.5
400	31	7,030	-34.8	-44.7	26	42.4
350	31	7,954	-40.4	-46.7	26	46.5
300	31	8,980	-47.4		26	42.3
250	31	10,173	-54.4		26	39.2
200	31	11,588	-57.3		26	34.7
175	31	12,432	-58.0		26	36.5
150	31	13,403	-58.3		26	33.6
125	31	14,549	-59.1		26	34.3
100	31	15,945	-59.9		26	25.6
80	31	17,338	-60.7		27	26.1
70	30	18,169	-60.3		27	29.5
60	28	19,134	-60.2		27	21.8
50	28	20,271	-60.1		27	21.5
40	28	21,669	-58.8		27	22.3
30	27	23,487	-58.5		27	23.4
25	27	24,635	-58.1		27	23.9
20	24	26,029	-58.2		28	23.9
15	22	27,841	-56.8		28	26.3
10	17	30,381	-55.5		28	31.4
7	6	32,646	-50.6			

Standard pressure surface (mb.)	ALBUQUERQUE, N. MEX. 838 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	1,619	-2.2	-10.5	04	.8
1000						
950						
900						
850	31	1,991	1.2	-16.0	31	2.7
800	31	2,508	-.3	-18.5	30	8.9
750	31	3,057	-3.0	-19.9	29	10.7
700	31	3,641	-6.0	-22.8	28	13.8
650	31	4,263	-9.5	-27.3	28	16.3
600	31	4,929	-14.0	-31.1	28	18.3
550	31	5,647	-18.4	-35.2	28	21.0
500	31	6,423	-23.6	-39.3	27	23.0
450	31	7,276	-29.9	-45.0	27	22.8
400	31	8,216	-37.2	-51.4	27	22.5
350	31	9,259	-45.6		27	23.9
300	31	10,447	-54.5		27	26.2
250	30	11,853	-60.1		27	30.6
200	30	12,687	-59.7		27	28.7
175	30	13,648	-60.2		27	28.1
150	29	14,777	-63.5		27	24.2
125	29	16,140	-65.6		27	24.1
100	29	17,497	-64.6		28	17.8
80	27	18,316	-63.7		28	12.9
70	26	19,264	-62.3		28	8.0
60	23	20,396	-60.2		29	7.0
50	23	21,796	-58.0		32	3.6
40	23	23,621	-55.1		01	2.8
30	27	24,789	-54.3		01	4.4
25	27	26,222	-53.3		01	4.8
20	24	27,841	-51.3		02	4.5
15	22	29,859	-50.4			
10	11	30,805	-45.5			

Standard pressure surface (mb.)	AMARILLO, TEXAS 890 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	1,095	-2.4	-10.1	28	2.3
1000						
950						
900						
850	31	1,462	3.7	-11.2	27	5.1
800	31	1,955	3.7	-12.7	28	5.8
750	31	2,477	2.1	-15.4	27	9.4
700	31	3,031	-.5	-17.9	27	13.4
650	31	3,620	-3.8	-21.0	27	15.7
600	31	4,247	-7.7	-24.0	27	18.0
550	31	4,918	-12.5	-28.3	27	19.7
500	31	5,638	-17.9	-33.2	27	20.2
450	31	6,418	-23.6	-37.7	27	22.6
400	31	7,267	-30.1	-43.8	27	24.3
350	31	8,206	-37.6	-48.5	27	25.8
300	31	9,247	-46.3		27	25.5
250	30	10,434	-55.5		26	30.5
200	31	11,836	-60.8		27	32.2
175	31	12,667	-60.3		26	33.1
150	30	13,625	-61.1		26	29.2
125	29	14,753	-63.0		27	28.0
100	29	16,119	-65.0		27	24.1
80	27	17,479	-65.4		26	18.6
70	26	18,290	-64.9		26	16.9
60	24	19,233	-62.9		27	15.6
50	23	20,343	-60.1		28	8.6
40	23	21,703	-58.0		29	3.5
30	23	23,386	-55.7		34	3.5
25	23	24,752	-54.1		36	4.7
20	22	26,193	-53.0		02	5.3
15	19	28,059	-51.3		02	4.7
10	11	30,792	-47.2			

Standard pressure surface (mb.)	* ANCHORAGE, ALASKA 1009 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	45	-14.1	-18.9	02	2.2
1000						
950	31	510	-10.7	-19.2	02	3.6
900	31	925	-11.1	-19.8	02	2.8
850	31	1,362	-13.3	-21.1	02	1.4
800	31	1,822	-15.4	-22.7	33	1.0
750	31	2,307	-17.6	-26.3	31	2.3
700	31	2,821	-20.1	-29.9	31	3.0
650	31	3,368	-23.1	-32.8	30	3.8
600	31	3,950	-26.1	-36.3	28	5.1
550	31	4,576	-29.7	-39.6	28	6.3
500	31	5,249	-33.8	-41.6	27	8.0
450	31	5,981	-38.3	-42.7	27	10.4
400	31	6,783	-43.3	-43.9	27	12.3
350	31	7,674	-48.7		26	15.7
300	31	8,679	-52.7		26	18.2
250	31	9,848	-54.1		26	22.1
200	31	11,261	-53.4		27	22.9
175	31	12,142	-52.6		27	21.9
150	31	13,140	-52.1		27	21.9
125	31	14,329	-52.1		27	22.6
100	30	15,774	-52.2		28	23.0
80	30	17,217	-52.5		28	24.9
70	29	18,078	-51.5		28	25.1
60	29	19,081	-50.8		28	24.6
50	28	20,267	-51.0		28	23.6
40	25	21,736	-50.2		28	26.8
30	26	23,601	-49.6		29	24.9
25	26	24,800	-49.8		29	26.7
20	26	26,262	-49.2		29	29.5
15	25	28,171	-48.1		28	27.5
10	14	30,860	-46.6			
7	10	33,237	-45.5			

Standard pressure surface (mb.)	* ANNETTE, ALASKA 1010 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	37	-9.1	-8.2	06	.8
1000						
950	31	516	-6.2	-11.0	16	1.6
900	31	937	-8.9	-18.5	23	2.3
850	31	1,377	-10.9	-15.5	23	3.8
800	31	1,843	-12.5	-16.3	27	5.7
750	31	2,333	-15.0	-21.8	28	6.7
700	31	2,852	-17.7	-25.3	28	8.2
650	31	3,403	-21.2	-28.2	28	9.4
600	31	3,990	-24.9	-32.1	29	11.2
550	31	4,618	-28.4	-36.0	29	14.7
500	31	5,296	-32.2	-39.0	29	18.0
450	31	6,034	-36.1	-39.1	29	20.7
400	31	6,844	-40.6	-41.7	30	21.9
350	30	7,747	-45.4		30	25.6
300	30	8,795	-49.7		30	25.9
250	30	9,939	-53.1		29	23.7
200	30	11,371	-54.8		29	23.7
175	29	12,224	-53.1		30	24.0
150	29	13,218	-53.5		29	20.3
125	28	14,391	-53.8		28	19.7
100	27	15,832	-54.0		30	21.4
80	27	17,266	-53.5		30	19.9
70	27	18,125	-53.9		30	20.7
60	26	19,114	-53.5		30	18.9
50	25	20,291	-52.5		30	17.5
40	25	21,736	-51.9		31	18.3
30	25	23,368	-51.3		31	20.7
25	24	24,778	-51.3		32	21.3
20	18	26,220	-50.0		32	21.6
15	15	28,076	-49.6			
10	10	30,769	-47.4			
7	6	33,177	-44.0			

Standard pressure surface (mb.)	ATHENS, GEORGIA 991 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	246	5.8	1.4	32	.8
1000						
950	31	590	7.3	1.1	26	2.0
900	31	1,035	7.0	-.5	25	6.5
850	31	1,505	6.0	-4.3	25	10.8
800	31	2,001	4.6	-6.6	23	13.4
750	31	2,525	2.3	-10.7	25	16.4
700	31	3,079	-.8	-12.8	25	18.9
650	31	3,668	-3.2	-17.6	29	20.9
600	31	4,297	-7.0	-21.9	29	21.1
550	31	4,971	-11.0	-25.6	26	23.4
500	31	5,696	-15.9	-29.9	26	24.7
450	31	6,482	-21.4	-33.2	26	26.2
400	31	7,340	-27.7	-39.5	26	27.1
350	31	8,288	-35.1	-45.7	26	28.9
300	30	9,339	-43.7		26	30.8
250	30	10,540	-52.6		26	33.3
200	30	11,951	-60.7		26	37.9
175	30	12,780	-62.0		26	37.6
150	29	13,733	-62.9		26	36.4
125	29	14,849	-65.3		26	32.7
100	29	16,197	-68.1		26	27.3
80	27	17,534	-69.2		26	22.3
70	26	18,336	-67.8		25	17.8
60	24	19,268	-65.1		26	14.3
50	22	20,386	-62.9		27	9.5
40	22	21,770	-60.2		27	7.9
30	22	23,576	-57.6		28	6.5
25	22	24,730	-56.6		29	5.9
20	21	26,149	-54.1		29	6.8
15	20	28,004	-52.1		28	9.7
10	13	30,649	-47.8			

Standard pressure surface (mb.)	* BARROW, ALASKA 1021 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	8	-26.5	-34.3	02	.9
1000	31	161	-22.7	-27.0	35	1.0
950	31	540	-19.9	-23.3	34	1.9
900	31	942	-19.2	-23.1	33	2.9
850	31	1,367	-19.5	-25.2	33	3.6
800	31	1,810	-21.0	-27.2	31	4.6
750	31	2,291	-23.1	-29.7	32	4.9
700	31	2,794	-25.9	-32.4	32	5.1
650	31	3,329	-28.6	-35.0	32	5.6
600	31	3,897	-31.6	-37.7	31	6.2
550	31	4,508	-35.6	-39.6	32	6.7
500	31	5,165	-39.8	-42.1	31	7.7
450	31	5,878	-44.6	-42.5	31	8.9
400	31	6,657	-49.9		31	9.6
350	30	7,517	-55.3		31	10.2
300	30	8,488	-60.4		30	11.0
250	30	9,617	-61.6		29	12.5
200	30	11,000	-59.5		28	14.2
175	30	11,842	-59.3		28	16.0
150	30	12,808	-59.4		28	18.9
125	30	13,948	-59.9		28	22.2
100	29	15,342	-60.0		28	25.9
80	29	16,740	-59.9		28	30.1
70	28	17,579	-59.7		28	33.2
60	28	18,571	-59.2		28	37.3
50	28	19,719	-58.7		28	41.5
40	21	21,121	-57.7		28	43.8
30	8	23,001	-57.5			

Standard pressure surface (mb.)	BARTER IS., ALASKA 1020 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	29	15	-26.8	-30.7	27	3.9
1000	29	159	-23.0	-28.0	26	5.4
950	29	537	-21.0	-24.8	28	7.1
900	29	937	-20.7	-24.5	28	8.1
850	29	1,359	-21.1	-26.0	29	8.0
800	29	1,806	-22.5	-27.3	30	7.8
750	29	2,278	-24.2	-29.1	31	7.7
700	29	2,779	-26.6	-31.5	31	8.1
650	29	3,311	-29.3	-34.7	31	8.6
600	29	3,879	-32.6	-37.5	31	9.8
550	29	4,488	-36.0	-40.5	31	10.4
500	29	5,144	-39.9	-42.0	31	11.6
450	29	5,858	-44.1	-42.0	31	12.7
400	29	6,640	-48.9		31	13.8
350	29	7,510	-53.8		31	14.8
300	29	8,488	-58.2		30	16.5
250	29	9,631	-59.4		30	16.8
200	29	11,033	-57.8		29	17.9
175	29	11,876	-57.5		29	19.5
150	29	12,850	-57.4		29	20.9
125	29	14,001	-57.9		29	23.9
100	29	15,407	-58.3		29	27.6
80	28	16,810	-58.5		29	33.7
70	28	17,649	-59.1		29	36.9
60	28	18,617	-58.7		29	39.1
50	28	19,763	-57.8		29	43.0
40	26	21,188	-57.0		29	47.3
30	23	22,996	-56.3		29	52.3
25	23	24,156	-55.6		29	53.6
20	21	25,558	-53.8		29	61.0
15	21	27,361	-49.2			
10						

Standard pressure surface (mb.)	BETHEL, ALASKA 1011 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	39	-16.8	-19.2	08	1.1
1000						
950	31	513	-10.1	-16.6	14	2.8
900	31	930	-11.0	-18.4	18	2.2
850	31	1,367	-12.8	-21.1	22	1.2
800	31	1,828	-14.7	-22.5	23	1.1
750	31	2,314	-17.5	-23.5	24	1.9
700	31	2,827	-20.5	-29.1	29	2.2
650	31	3,372	-23.7	-33.8	27	3.1
600	31	3,953	-27.2	-37.8	26	4.7
550	31	4,575	-30.9	-40.6	26	6.7
500	31	5,260	-34.6	-43.0	25	10.0
450	31	5,990	-38.6	-44.5	25	11.3
400	31	6,792	-43.3	-46.3	25	12.9
350	31	7,685	-47.7		25	15.4
300	31	8,691	-51.6		25	18.5
250	31	9,867	-54.1		25	20.2
200	31	11,302	-52.4		25	20.7
175	31	12,166	-51.7		25	21.9
150	31	13,162	-50.7		26	21.5
125	31	14,350	-50.9		26	24.7
100	31	15,808	-50.7		26	23.9
80	27	17,257	-50.7		26	24.4
70	27	18,126	-50.4		26	26.4
60	26	19,129	-49.5		27	28.3
50	25	20,324	-49.4		27	28.1
40	25	21,746	-48.6		27	28.4
30	24	23,680	-48.4		28	27.3
25	24	24,882	-48.2		28	28.0
20	20	26,343	-48.3		28	28.3
15	13	28,214	-47.2			

Standard pressure surface (mb.)	* BISMARCK, N. DAK. 953 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	503	-16.1	-20.8	31	2.7
1000						
950	31	935	-14.8	-19.7	31	8.4
900	31	1,369	-13.2	-17.9	31	11.0
850	31	1,832	-13.1	-19.0	30	13.7
800	31	2,322	-15.0	-20.9	30	15.7
750	31	2,842	-17.1	-22.2	30	17.2
700	31	3,395	-19.7	-24.1	29	19.7
650	31	3,985	-23.4	-28.2	29	21.1
600	31	4,617	-27.3	-33.1	29	22.6
550	31	5,297	-31.8	-37.4	29	24.2
500	31	6,034	-36.9	-39.7	29	25.7
450	31	6,839	-42.6	-41.6	29	28.5
400	31	7,734	-47.3		29	32.2
350	31	8,742	-50.9		29	34.9
300	31	9,922	-53.5		28	35.3
250	31	11,357	-53.3		29	33.2
200	31	12,218	-53.0		28	31.7
175	31	13,210	-53.6		28	30.4
150	30	14,380	-54.2		28	29.5
125	30	15,808	-55.2		28	26.6
100	29	17,228	-55.6		28	25.0
80	29	18,078	-56.1		28	23.5
70	29	19,059	-55.9		29	22.6
60	29	20,218	-55.9		29	22.2
50	27	21,648	-55.9		29	21.3
40	26	23,483	-55.2		30	21.2
30	24	24,663	-53.8		31	20.7
25	24	26,090	-53.7		30	23.1
20	12	27,930	-52.1		31	23.9

Standard pressure surface (mb.)	BOISE, IDAHO 916 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	30	871	-1.6	-5.8	02	.4
1000						
950						
900	30	1,023	-1.7	-6.6	31	1.0
850	30	1,477	-3.0	-8.4	27	4.5
800	30	1,956	-5.4	-10.2	28	9.0
750	30	2,461	-7.5	-13.5	28	12.5
700	30	2,993	-10.3	-15.9	29	14.3
650	30	3,564	-13.5	-16.3	29	16.2
600	30	4,170	-16.4	-22.9	29	19.2
550	30	4,819	-20.2	-26.4	29	22.0
500	30	5,520	-24.5	-32.2	29	24.6
450	30	6,280	-28.9	-35.6	30	27.0
400	30	7,111	-35.1	-40.9	29	29.1
350	29	8,041	-41.7	-45.0	30	31.1
300	29	9,067	-48.6		30	34.2
250	29	10,247	-56.2		30	34.2
200	29	11,651	-59.3		30	33.7
175	29	12,485	-57.6		29	28.6
150	26	13,497	-57.5		29	25.1
125	24	14,605	-58.3		29	23.9
100	24	16,004	-59.2		29	20.6
80	24	17,402	-58.7		30	16.2
70	21	18,242	-58.6		30	12.6
60	20	19,211	-57.7		31	10.6
50	19	20,368	-56.8		32	8.1
40	18	21,793	-55.2		33	7.2
30	15	23,660	-53.9		35	5.7
25	15	24,831	-53.7		36	5.7
20	13	26,269	-53.5		36	7.1
15	7	28,139	-51.9			
10						

Standard pressure surface (mb.)	BOOTHVILLE, LA. 1019 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	1	14.3	12.7	03	1.3
1000	31	156	15.3	13.2	11	1.3
950	31	591	13.8	9.5	19	3.7
900	31	1,047	12.7	3.1	22	4.6
850	31	1,526	11.1	2.1	24	6.6
800	31	2,030	8.8	-.8	25	8.3
750	31	2,562	6.2	-8.3	25	9.9
700	31	3,125	3.1	-10.5	25	10.9
650	31	3,721	-.4	-13.8	26	12.0
600	31	4,357	-4.3	-19.7	26	13.0
550	31	5,037	-8.5	-23.8	25	14.8
500	31	5,769	-13.6	-27.6	26	16.8
450	31	6,562	-19.3	-32.3	25	18.1
400	31	7,427	-25.6	-38.3	25	20.2
350	31	8,384	-32.7	-44.7	25	23.7
300	31	9,448	-41.4	-51.0	26	27.0
250	29	10,660	-51.0		26	29.8
200	29	12,080	-60.0		26	30.7
175	29	12,906	-62.5		26	30.1
150	28	13,860	-63.2		26	28.8
125	24	14,972	-67.4		26	29.4
100	24	16,303	-71.2		26	19.9
80	20	17,621	-72.2		26	14.0
70	19	18,407	-71.9		26	11.4
60	17	19,330	-68.5		26	8.2
50	17	20,436	-64.2		26	5.5
40	17	21,812	-61.0		24	3.5
30	16	23,618	-57.5		27	3.3
25	15	24,779	-55.4		27	4.1
20	13	26,206	-54.1		27	5.0
15	11	28,077	-50.6		27	7.1
10						

Standard pressure surface (mb.)	* BROWNSVILLE, TEXAS 1015 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	27	7	17.0	14.3	17	1.3
1000	27	131	16.0	16.3	16	3.6
950	27	571	17.3	12.1	17	8.6
900	27	1,033	16.0	6.6	18	9.2
850	27	1,517	13.7	2.7	19	7.4
800	27	2,026	11.7	-.9	21	6.7
750	27	2,564	9.2	-5.6	23	6.3
700	27	3,132	5.6	-9.8	24	6.5
650	27	3,733	1.5	-13.3	25	7.6
600	27	4,373	-2.7	-16.7	25	9.4
550	27	5,056	-7.5	-20.5	25	11.3
500	27	5,792	-12.1	-27.0	25	12.9
450	27	6,589	-18.0	-33.1	24	15.1
400	27	7,458	-24.6	-37.8	25	17.0
350	27	8,419	-31.7	-43.5	29	20.6
300	27	9,487	-40.3	-50.4	29	23.1
250	26	10,704	-50.5		29	25.8
200	26	12,125	-60.2		26	28.2
175	26	12,956	-62.2		26	28.7
150	26	13,903	-64.3		25	25.6
125	26	15,011	-68.1		25	24.6
100	26	16,337	-71.8		25	18.4
80	27	17,640	-73.1		25	12.1
70	27	18,424	-71.6		25	9.1
60	27	19,340	-68.7		26	5.3
50	27	20,442	-65.4		26	4.0
40	27	21,815	-60.8		26	2.2
30	27	23,625	-56.4		29	1.0
25	27	24,728	-54.8		26	2.7
20	14	26,224	-52.4		33	1.7
15	13	28,088	-50.0		27	3.9
10	9	30,784	-44.2			

Standard pressure surface (mb.)	BUFFALO, N. Y. 991 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	30	218	-4.5	-8.3	25	4.6
1000						
950	30	569	-6.1	-9.2	26	8.8
900	30	971	-8.3	-12.2	23	12.3
850	30	1,413	-9.6	-15.9	26	14.7
800	30	1,881	-10.0	-19.2	26	17.3
750	30	2,377	-11.7	-22.3	26	19.4
700	30	2,904	-13.4	-24.5	26	22.1
650	30	3,468	-15.3	-27.2	27	24.8
600	30	4,068	-18.6	-30.3	27	27.7
550	30	4,712	-22.4	-33.3	27	31.2
500	30	5,406	-26.4	-36.4	26	35.4
450	30	6,161	-31.1	-40.2	26	38.3
400	30	6,983	-36.4	-44.5	26	44.1
350	29	7,900	-42.0		26	48.7
300	29	8,925	-48.1		26	47.1

RAWINSONDE DATA

Average monthly values

Standard pressure surfaces (mb.)	CARIBOU, MAINE 991 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	191	-15.4	-18.5	26	1.8
1000						
950	31	307	-12.5	-16.4	24	5.1
900	31	920	-12.9	-16.9	25	8.2
850	31	1,534	-13.6	-18.7	26	12.1
800	31	1,816	-14.7	-20.6	26	14.5
750	31	2,304	-15.7	-22.6	26	17.1
700	31	2,823	-17.0	-24.0	26	20.0
650	31	3,376	-19.9	-26.3	26	22.0
600	31	3,966	-22.7	-28.8	26	24.7
550	31	4,601	-26.0	-31.8	26	27.7
500	31	5,285	-30.1	-35.3	26	31.0
450	31	6,028	-34.5	-39.0	26	35.0
400	31	6,843	-39.2	-43.7	26	39.4
350	31	7,751	-44.3		26	43.7
300	31	8,770	-49.4		26	48.1
250	31	9,954	-53.2		26	49.5
200	31	11,383	-55.6		26	44.3
175	31	12,234	-55.5		26	42.6
150	31	13,217	-55.3		26	40.2
125	31	14,380	-55.7		26	37.0
100	31	15,797	-57.0		26	34.0
90	31	17,205	-58.1		26	30.7
70	31	18,045	-58.4		26	30.2
60	29	19,010	-58.4		26	27.6
50	28	20,157	-58.3		26	27.5
40	28	21,582	-58.7		26	27.3
30	26	23,368	-59.1		27	27.3
25	24	24,521	-58.5		27	28.2
20	23	25,918	-58.2		27	31.5
15	21	27,726	-57.5		26	35.9
10	16	30,299	-55.8		26	39.2
7	9	32,385	-52.0			
5						
4						
3						

Standard pressure surfaces (mb.)	CHARLESTON, S. C. 1019 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	13	10.1	7.6	33	1.4
1000	31	165	11.0	6.2	32	.8
950	31	594	11.3	6.1	23	4.6
900	31	1,046	9.9	2.9	24	8.6
850	31	1,519	8.0	-1.5	25	11.5
800	31	2,018	5.6	-4.6	25	12.2
750	31	2,544	3.8	-10.8	23	13.8
700	31	3,102	.8	-15.1	25	15.0
650	31	3,694	-2.3	-19.4	25	17.1
600	31	4,326	-5.7	-22.0	23	19.6
550	31	5,002	-10.1	-27.4	26	21.4
500	31	5,731	-14.8	-31.8	26	23.4
450	30	6,517	-20.6	-34.4	23	25.6
400	30	7,377	-27.1	-40.3	25	27.7
350	30	8,329	-34.2	-46.0	25	30.2
300	30	9,386	-42.5	-49.4	25	31.7
250	30	10,593	-51.9		26	34.3
200	30	12,009	-60.3		26	37.9
175	30	12,838	-62.1		26	38.4
150	31	13,790	-63.1		26	39.6
125	31	14,904	-66.0		26	39.1
100	29	16,255	-69.2		26	27.9
90	31	17,383	-70.2		26	21.4
70	31	18,382	-68.9		26	15.4
60	29	19,310	-65.8		26	12.2
50	28	20,425	-62.1		27	8.4
40	28	21,802	-60.5		27	8.0
30	26	23,613	-57.1		27	8.5
25	24	24,721	-55.3		27	7.0
20	23	25,907	-53.9		27	6.8
15	21	27,070	-51.2		27	10.6
10	16	30,717	-48.1		26	14.3
7						
5						
4						
3						

Standard pressure surfaces (mb.)	CHATHAM, MASS. 1016 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	30	16	.2	-3.3	26	2.2
1000	30	145	.2	-4.6	26	4.1
950	30	556	-1.2	-8.0	27	8.0
900	30	986	-2.6	-10.3	26	10.2
850	30	1,439	-3.5	-14.3	26	12.9
800	30	1,917	-5.5	-16.9	26	15.9
750	30	2,423	-6.7	-18.1	26	19.4
700	30	2,960	-8.4	-19.9	26	23.7
650	30	3,532	-10.7	-22.9	26	26.4
600	30	4,145	-13.9	-27.3	26	29.3
550	30	4,801	-17.8	-30.8	26	31.8
500	30	5,508	-22.3	-36.0	26	35.1
450	30	6,275	-27.0	-39.1	26	40.0
400	30	7,115	-32.4	-43.5	26	44.7
350	30	8,047	-38.9	-45.2	26	48.7
300	30	9,084	-46.8		26	51.9
250	30	10,273	-54.4		26	52.8
200	30	11,682	-59.2		26	51.8
175	29	12,516	-58.2		27	47.3
150	27	13,483	-57.7		26	42.5
125	27	14,628	-59.9		26	38.7
100	26	16,017	-61.0		26	32.5
90	25	17,400	-60.7		26	25.2
70	24	18,235	-60.5		26	21.8
60	24	19,195	-60.3		26	20.8
50	23	20,338	-59.4		27	18.1
40	22	21,734	-58.3		27	17.1
30	22	23,551	-57.7		26	16.5
25	22	24,704	-56.6		26	17.3
20	21	26,124	-55.7		26	19.1
15	19	27,962	-54.5		26	23.1
10	17	30,578	-50.6		26	27.0
7	8	32,906	-46.9			
5						
4						
3						

Standard pressure surfaces (mb.)	CHIHUAHUA, MEXICO 857 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	1,428	4.2	-2.9	24	.5
1000						
950						
900						
850	30	1,500	7.4	-2.2	25	.8
800	31	1,989	6.9	-2.4	24	3.3
750	31	2,531	6.7	-5.6	25	5.0
700	31	3,095	3.5	-10.7	25	7.4
650	31	3,692	-.3	-18.8	25	7.7
600	31	4,328	-4.4	-18.3	25	8.1
550	31	5,007	-9.3	-22.4	24	9.7
500	31	5,736	-14.4	-27.0	25	12.0
450	31	6,526	-20.2	-31.6	25	12.9
400	31	7,388	-27.0	-36.7	25	15.4
350	31	8,339	-34.3	-43.5	26	18.1
300	31	9,396	-42.6		26	21.3
250	31	10,404	-51.4		26	22.2
200	31	12,028	-58.7		26	21.7
175	31	12,803	-60.0		26	20.5
150	31	13,820	-62.1		26	18.5
125	31	14,939	-65.6		26	16.2
100	30	16,284	-68.6		26	14.8
90	31	17,618	-70.1		26	11.6
70	29	18,415	-69.0		27	9.0
60	28	19,344	-66.3		27	6.0
50	28	20,436	-63.8		27	4.8
40	28	21,841	-59.8		27	2.6
30	25	23,636	-55.7		27	1.1
25	24	24,820	-53.6		27	2.2
20	19	26,254	-52.6		28	2.7
15	17	28,131	-50.0		28	4.1
10	9	30,807	-46.2			
7						
5						
4						
3						

Standard pressure surfaces (mb.)	COLD BAY, ALASKA 1009 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	30	30	-2.6	-5.5	19	2.1
1000						
950	30	508	-4.8	-8.0	17	4.0
900	30	931	-7.3	-10.2	19	3.3
850	30	1,374	-9.7	-13.3	20	3.0
800	30	1,841	-13.3	-16.6	21	3.4
750	30	2,335	-13.1	-21.6	24	5.1
700	30	2,859	-15.0	-24.5	24	7.5
650	30	3,417	-17.6	-26.9	24	9.2
600	30	4,012	-21.2	-29.9	24	11.0
550	30	4,649	-25.1	-33.4	24	13.4
500	30	5,336	-29.0	-36.0	24	15.3
450	30	6,082	-33.8	-39.4	24	17.4
400	30	6,900	-38.9	-43.2	24	20.3
350	30	7,807	-44.8		25	21.5
300	30	8,822	-51.0		24	24.2
250	30	9,994	-55.6		23	23.5
200	30	11,423	-53.3		24	18.2
175	29	12,279	-51.1		23	13.4
150	29	13,282	-51.4		24	14.8
125	29	14,464	-51.2		24	14.3
100	28	15,915	-51.2		24	13.3
90	27	17,366	-51.0		25	12.1
70	27	18,237	-50.2		25	11.4
60	26	19,241	-49.7		25	12.2
50	25	20,435	-49.1		25	11.6
40	25	21,901	-49.0		26	10.7
30	25	23,793	-48.3		26	9.7
25	25	24,994	-48.1		27	10.3
20	25	26,446	-48.1		27	10.8
15	24	28,368	-47.0		28	11.3
10	20	31,059	-46.0		28	13.9
7	14	33,431	-44.3			
5	7	35,683	-42.3			
4	5	37,189	-40.6			
3	5	39,152	-39.7			

Standard pressure surfaces (mb.)	DAYTON, OHIO 984 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	299	-4.7	-9.2	23	1.8
1000						
950	31	571	-4.9	-9.5	24	5.2
900	31	996	-4.3	-13.9	26	8.7
850	31	1,467	-4.0	-14.2	27	12.2
800	31	1,925	-3.2	-15.5	27	14.7
750	31	2,431	-7.0	-17.6	26	17.5
700	31	2,969	-9.3	-20.5	26	20.3
650	31	3,537	-12.0	-24.3	26	23.7
600	31	4,146	-15.2	-26.7	26	26.0
550	31	4,799	-18.8	-30.1	26	29.6
500	31	5,503	-22.8	-34.5	26	33.8
450	31	6,269	-27.3	-39.0	26	38.0
400	31	7,108	-32.6	-42.8	26	42.7
350	31	8,040	-38.8	-47.2	26	47.3
300	31	9,079	-46.3		26	50.4
250	31	10,267	-54.6		26	52.0
200	31	11,681	-58.0		26	49.3
175	30	12,519	-57.5		26	45.8
150	30	13,491	-58.2		26	41.2
125	30	14,636	-59.6		26	36.1
100	30	16,025	-61.6		26	28.7
80	29	17,403	-62.5		26	25.1
70	29	18,230	-61.8		26	22.5
60	29	19,188	-60.4		26	18.5
50	28	20,326	-59.7		27	14.9
40	28	21,725	-58.5		27	12.5
30	28	23,540	-57.1		28	11.5
25	28	24,696	-56.2		28	12.3
20	26	26,116	-55.4		28	14.2
15	22	27,941	-53.6		29	19.1
10	11	30,500	-53.1			

Standard pressure surfaces (mb.)	DEL RIO, TEXAS 981 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	314	7.5	2.6	06	.7
1000						
950	31	578	10.1	1.2	19	1.5
900	31	1,029	10.1	-1.1	21	3.4
850	31	1,504	10.0	-3.1	22	5.1
800	31	2,007	8.9	-6.6	24	5.8
750	31	2,539	6.6	-10.3	25	8.7
700	31	3,102	3.1	-13.6	26	8.3
650	31	3,699	-.5	-15.3	26	10.4
600	31	4,336	-4.8	-19.1	26	12.0
550	31	5,012	-9.7	-23.5	25	13.9
500	31	5,740	-15.3	-28.8	25	15.3
450	31	6,528	-20.6	-32.8	25	17.5
400	30	7,387	-27.2	-39.1	25	20.4
350	30	8,338	-34.6	-45.4	26	23.2
300	30	9,393	-42.9		25	26.2
250	30	10,598	-52.4		26	29.8
200	30	12,015	-59.8		26	32.3
175	30	12,845	-61.9		26	30.9
150	30	13,798	-62.7		26	29.1
125	29	14,915	-65.7		26	26.2
100	29	16,260	-69.3		26	21.8
80	28	17,383	-70.9		26	15.4
70	28	18,377	-69.4		26	13.3
60	28	19,301	-67.9		26	9.3
50	28	20,407	-64.1		26	6.0
40	28	21,788	-60.1		27	2.8
30	28	23,604	-56.5		27	1.1
25	28	24,764	-55.1		31	1.6
20	26	26,174	-52.8		31	2.0
15	24	28,073	-50.8		34	2.6
10	19	30,774	-45.4		32	2.5

Standard pressure surfaces (mb.)	DENVER, COLO. 833 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	1,611	-4.4	-12.2	22	1.8
1000						
950						
900						
850	31	1,927	-.7	-16.4	26	5.0
800	31	2,441	-2.2	-18.5	28	9.7
750	31	2,988	-5.9	-20.7	29	13.3
700	31	3,562	-9.6	-23.0	29	15.9
650	31	4,174	-14.0	-26.1	29	17.7
600	31	4,830	-17.9	-30.0	29	18.7
550	31	5,536	-22.6	-35.0	29	22.0
500	31	6,302	-27.9	-39.9	29	24.2
450	31	7,138	-33.9	-45.3	29	26.9
400	31	8,063	-40.5	-48.5	28	30.3
350	31	9,093	-47.6		28	32.1
300	31	10,278	-55.2		28	31.0
250	31	11,685	-59.3		28	30.8
200	31	12,521	-59.2		28	30.1
175	31	13,489	-59.2		28	30.1
150	30	14,633	-60.3		28	23.6
125	30	16,022	-60.7		28	18.6
100	30	17,407	-61.6		27	12.8
80	30	18,234	-60.6		28	11.0
70	30	19,199	-59.2		29	10.0
60	30	20,346	-58.2		29	6.3
50	29	21,757	-56.9		30	3.9
40	27	23,593	-55.5		33	6.1
30	24	24,748	-54.9		33	7.0
25	24	26,178	-53.9		34	8.0
20	22	28,037	-52.2		34	6.8
15	19	30,752	-48.8			
10						
7						
5						
4						
3						

Standard pressure surfaces (mb.)	DODGE CITY, KANS. 924 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	791	-6.4	-10.5	33	1.5
1000						
950	31	994	-2.1	-10.2	32	2.4
900	31	1,451	1.3	-13.6	31	4.9
850	31	1,939	.8	-15.3	30	6.3
800	31	2,455	-1.5	-16.6	29	9.2
750	31	3,002	-4.6	-19.4	28	11.6
700	31	3,581	-8.1	-22.1	29	14.0
650	31	4,198	-11.8	-25.8	28	16.6
600	31	4,860	-15.2	-30.2	28	20.6
550	31	5,574	-20.1	-34.0	28	22.8
500	31	6,347	-25.4	-38.5	27	25.5
450	31	7,190	-31.8	-43.1	27	27.6
400	31	8,123	-38.9	-47.2	27	30.5
350	31	9,160	-47.0		27	32.2
300	30	10,348	-55.7		27	33.2
250	30	11,731	-60.3		27	34.5
200	30	12,585	-59.7		27	31.7
175	30	13,552	-59.1		27	30.1
150	28	14,688	-61.7		27	27.7
125	27	16,064	-62.6		27	21.4
100	27	17,425	-63.4		27	16.4
80	27	18,252	-62.3		27	13.2
70	23	19,204	-60.9		27	11.8
60	21	20,351	-59.1		28	7.9
50	20	21,753	-57.7		30	9.9
40	18	23,567	-55.2		31	5.9
30	18	24,785	-54.2		32	6.3
25	17	26,175	-54.2		32	6.9
20	15	28,024	-51.7		32	8.5
15	9	30,674	-47.4			
10						
7						
5						
4						
3						

Standard pressure surfaces (mb.)	EL PASO, TEXAS 883 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	1,193	2.8	-7.4	27	.6
1000						
950	31	1,502	7.2	-7.1	29	2.4
900	31	1,999	5.7	-9.1	27	6.4
850	31	2,525	3.8	-11.1	27	9.5
800	31	3,083	1.0	-13.4	27	9.7
750	31	3,675	-2.5	-18.0	26	11.2
700	31	4,305	-6.6	-21.8	26	11.1
650	31	4,978	-11.3	-26.3	26	12.0
600	31	5,702	-16.5	-30.3	27	14.5
550	31	6,486	-22.3	-33.4	26	14.9
500	31	7,340	-29.1	-40.9	26	16.7
450	31	8,283	-36.5	-46.6	26	18.1
400	31	9,329	-45.0		26	19.9
350	31	10,525	-53.3		26	23.8
300	31	11,938	-59.4		26	28.8
250	31	12,771	-61.1		26	27.8
200	31	13,727	-62.1		26	25.4
175	27	14,846	-64.1		27	24.0
150	27	16,203	-67.6		27	20.5
125	27	17,538	-68.9		27	16.9
100	24	18,342	-67.5		27	13.3
80	24	19,276	-65.0		27	9.0
70	23	20,397	-62.8		27	9.7
60	18	21,802	-59.1		34	1.6
50	18	23,619	-56.0		05	2.9
40	17	24,775	-54.8		04	3.6
30	17	26,215	-53.4		05	4.1
25	15	28,033	-50.5		06	4.3
20	7	30,794	-44.5			
15						
10						
7						
5						
4						
3						

Standard pressure surfaces (mb.)	ELY, NEV. 809 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	1,908	-9.7	-13.6	20	3.8
1000						
950						
900						
850						
800	30	1,999	-4.6	-10.0	21	2.8
750	31	2,506	-4.1	-12.6	27	3.4
700	31	3,048	-6.3	-15.4	29	7.7
650	31	3,624	-9.1	-18.9	30	11.0
600	31	4,240	-12.5	-22.3	30	14.0
550	31	4,899	-16.5	-27.4	30	16.8
500	31	5,610	-20.9	-32.0	30	19.0
450	31	6,381	-25.8	-37.3	29	19.4
400	31	7,224	-31.9	-42.5	30	20.3
350	31	8,157	-38.8	-47.2	30	22.8
300	30	9,200	-46.6		30	25.1
250	30	10,387	-54.6		30	25.1
200	30	11,792	-61.0		29	23.4
175	30	12,623	-60.6		29	20.3
150	29	13,583	-59.6		29	24.6
125	29	14,723	-60.6		29	22.9
100	28	16,107	-61.3		29	18.6
80	28	17,485	-62.2		29	11.1
70	27	18,319	-61.1		31	9.8
60	28	19,278	-59.7		32	7.1
50	28	20,422	-58.2		33	5.7
40	29	21,835	-56.4		33	4.4
30	28	23,672	-54.4		01	9.0
25	25	24,841	-54.2		01	9.5
20	22	26,277	-52.8		01	7.2
15	21	28,134	-50.2		02	8.2
10	13	30,828	-48.2		05	7.3

Standard pressure surfaces (mb.)	EMPALME, MEXICO 1014 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	30	12	11.4	4.4	33	2.2
1000	30	127	15.1	2.1	34	2.5
950	30	563	17.3	-1.3	35	2.8
900	30	1,023	15.0	-3.3	34	.8
850	30	1,504	12.2	-6.0	21	1.4
800	30	2,009	9.7	-9.1	22	2.5
750	30	2,542	6.8	-13.7	23	4.0
700	30	3,104	3.0	-17.5	23	4.9
650	30	3,701	-.2	-20.5	24	5.2
600	30	4,335	-4.6	-23.3	25	7.1
550	30	5,014	-9.5	-26.8	26	8.4
500	30	5,743	-14.7	-30.7	26	10.0
450	30	6,533	-20.3	-34.8	24	11.5
400	30	7,392	-27.4	-40.0	26	13.6
350	30	8,343	-34.5	-47.5	26	16.9
300	30	9,398	-43.0		26	21.3
250	30	10,604	-51.8		28	24.4
200	30	12,027	-58.7		28	25.6
175	30	12,841	-61.0		26	23.8
150	30	13,817	-62.2		26	21.3
125	29	14,931	-65.4		26	19.2
100	28	16,275	-68.4		26	17.2
80	26	17,609	-69.5		26	12.6
70	25	18,406	-68.6		27	10.2
60	25	19,334	-67.0		27	7.6
50	24	20,443	-64.3		28	4.7
40	21	21,824	-60.3		35	1.3
30	19	23,632	-56.2		03	1.9
25	18	24,800	-54.4		04	2.2
20	16	26,237	-52.7		03	1.9
15	12	28,104	-50.2		02	3.2
10	9	30,795	-46.2			

Standard pressure surfaces (mb.)	FAIRBANKS, ALASKA 1004 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	135	-27.2	-28.5	02	.5
1000						
950	31	540	-19.7	-22.7	12	1.0
900	31	943	-18.0	-22.5	18	1.7
850	31	1,370	-17.9	-23.1	24	1.9
800	31	1,823	-19.2	-23.9	27	1.9
750	31	2,301	-21.2	-25.7	29	3.1
700	31	2,808	-23.6	-29.1	29	4.0
650	31	3,347	-26.1	-31.2	29	5.2
600	31	3,923	-29.3	-34.1	29	5.8
550	31	4,539	-33.2	-37.3	29	6.1
500	31	5,203	-37.6	-41.0	29	7.3
450	31	5,924	-41.9	-39.9	29	8.7
400	31	6,713	-47.0		29	11.3
350	31	7,591	-51.8		29	15.3
300	31	8,578	-55.5		29	19.4
250	31	9,737	-56.3		28	18.1
200	31	11,157	-55.6		28	20.6
175	31	12,010	-54.8		28	22.1
150	31	12,996	-54.6		28	24.4
125	31	14,166	-54.2		28	26.3
100	30	15,588	-54.1		28	28.2
80	30	17,020	-54.1		28	31.3
70	29	17,876	-54.1		28	34.3
60	29	18,866	-53.8		29	37.0
50	28	20,032	-53.2		29	39.7
40	21	21,475	-52.0		29	42.3
30	17	23,335	-50.9		29	45.7
25	16	24,315	-50.6		29	44.2
20	20	25,960	-50.7		29	52.8
15	17	27,819	-48.0		30	59.8
10	9	30,530	-47.6			

| Standard pressure surfaces (mb.) | FLINT, MICH. 988 MB No. of observations | Dynamic height | Temperature | Dew Point † | Resultant Wind Direction | Resultant Wind Spe

RAWINSONDE DATA

Average monthly values

JANUARY 1972

Standard pressure surface (mb.)	GLASGOW, MONT. 932 MB No. of observations	Dynamic height	Temperature	Dew Point ↑	Resultant Wind Direction	Speed M.p.s.
SURFACE	31	696	-16.3	-21.2	32	1.5
1000						
950						
900	31	937	-15.0	-19.6	31	5.7
850	31	1,391	-13.8	-19.6	31	10.3
800	31	1,852	-14.2	-20.1	30	13.3
750	31	2,341	-15.1	-20.6	30	15.7
700	31	2,860	-17.2	-22.0	30	16.8
650	31	3,413	-20.0	-25.1	30	18.4
600	31	4,003	-23.7	-28.8	30	20.3
550	31	4,633	-28.0	-32.5	30	22.9
500	31	5,311	-32.9	-37.3	30	23.3
450	31	6,045	-37.8	-40.7	30	26.6
400	31	6,848	-43.2	-42.6	30	29.8
350	31	7,740	-48.2		30	32.4
300	31	8,743	-52.2		30	34.6
250	31	9,917	-54.1		29	35.3
200	31	11,348	-54.6		30	31.1
175	31	12,202	-53.8		29	29.6
150	31	13,193	-53.3		29	27.4
125	31	14,385	-54.4		30	25.4
100	31	15,796	-54.8		30	23.4
80	31	17,217	-55.8		30	24.1
70	31	18,067	-55.6		30	21.9
60	31	19,050	-55.6		30	21.6
50	31	20,211	-55.8		30	21.4
40	30	21,630	-55.2		30	19.5
30	29	23,479	-54.4		31	19.6
25	29	24,649	-54.0		31	21.0
20	25	26,089	-54.5		31	19.7
15	20	27,938	-54.6		32	20.9
10	8	30,670	-50.9			
7						

Standard pressure surface (mb.)	GRAND JUNCTION, COLO. 853 MB No. of observations	Dynamic height	Temperature	Dew Point ↑	Resultant Wind Direction	Speed M.p.s.
SURFACE	31	1,472	-4.7	-11.0	13	1.7
1000						
950						
900	31	1,978	-2.9	-14.4	20	2.1
850	31	2,488	-4.9	-16.4	25	4.5
800	31	3,028	-7.4	-17.6	26	8.7
750	31	3,602	-10.5	-20.2	28	11.9
700	31	4,214	-13.8	-23.8	28	15.4
650	31	4,871	-17.5	-27.4	29	17.5
600	31	5,578	-22.1	-33.9	29	19.9
550	31	6,346	-26.9	-38.3	29	23.0
500	31	7,185	-32.7	-43.7	29	26.6
450	31	8,115	-39.7	-47.8	29	28.7
400	31	9,149	-47.5		29	29.4
350	31	10,334	-54.9		29	32.1
300	31	11,744	-58.9		29	29.9
250	31	12,581	-58.7		28	29.3
200	31	13,352	-57.8		28	27.1
175	31	14,699	-59.0		28	21.6
150	31	16,088	-62.2		28	17.4
125	31	17,404	-62.6		28	14.6
100	31	18,291	-61.3		29	13.2
80	30	19,251	-59.3		30	10.6
70	29	20,395	-57.6		30	7.0
60	28	21,805	-57.0		32	5.1
50	26	23,638	-54.9		33	5.5
40	26	24,807	-53.6		33	5.7
30	24	26,243	-53.0		34	6.8
25	21	28,122	-50.0		34	6.6
20	17	30,776	-46.3			
15						
10						
7						

Standard pressure surface (mb.)	* GREAT FALLS, MONT. 884 MB No. of observations	Dynamic height	Temperature	Dew Point ↑	Resultant Wind Direction	Speed M.p.s.
SURFACE	30	1,118	-12.0	-17.3	24	4.9
1000						
950						
900	30	1,417	-12.0	-19.0	25	8.6
850	30	1,881	-12.3	-18.2	27	11.1
800	30	2,374	-12.8	-17.8	28	13.5
750	30	2,900	-14.2	-19.4	28	16.5
700	30	3,458	-17.7	-23.1	29	19.7
650	30	4,053	-21.4	-27.3	29	21.1
600	30	4,689	-25.7	-31.6	29	22.8
550	30	5,374	-29.9	-35.6	29	26.1
500	30	6,118	-34.8	-39.0	29	28.2
450	30	6,930	-40.4	-42.7	29	32.6
400	30	7,831	-46.2		30	34.5
350	30	8,843	-50.9		29	36.9
300	30	10,018	-54.8		30	33.7
250	30	11,442	-55.1		30	29.5
200	30	12,296	-54.5		30	27.4
175	28	13,281	-54.4		29	24.0
150	28	14,449	-54.8		29	25.2
125	26	15,885	-56.1		29	20.5
100	25	17,309	-55.5		30	16.9
80	25	18,163	-55.1		30	16.2
70	25	19,148	-55.1		30	15.1
60	25	20,312	-54.7		31	13.0
50	22	21,749	-53.8		31	13.2
40	21	23,396	-52.9		33	13.7
30	19	24,786	-52.6		33	13.9
25	16	26,208	-51.9		33	13.6
20	9	28,085	-51.1			
15	6	30,786	-47.5			
10						
7						

Standard pressure surface (mb.)	GREEN BAY, WIS. 990 MB No. of observations	Dynamic height	Temperature	Dew Point ↑	Resultant Wind Direction	Speed M.p.s.
SURFACE	31	210	-13.4	-17.8	25	4.0
1000						
950	31	322	-12.8	-16.5	27	6.5
900	31	935	-12.1	-15.6	27	9.3
850	31	1,373	-11.6	-21.5	27	11.4
800	31	1,837	-12.4	-23.5	27	13.4
750	31	2,329	-14.2	-25.5	27	15.7
700	31	2,850	-16.4	-27.7	27	17.9
650	31	3,406	-18.7	-28.0	27	20.3
600	31	4,005	-21.1	-30.4	27	23.7
550	31	4,642	-25.1	-33.6	27	25.9
500	30	5,328	-29.9	-36.7	27	28.8
450	30	6,071	-34.7	-39.1	27	32.1
400	30	6,885	-40.1	-42.0	27	36.3
350	30	7,789	-45.0		27	39.9
300	30	8,805	-49.8		26	44.3
250	30	9,987	-53.4		27	43.6
200	30	11,419	-54.3		26	40.2
175	30	12,276	-53.8		27	37.8
150	30	13,266	-53.5		27	34.7
125	30	14,435	-55.4		27	32.2
100	30	15,851	-57.0		27	28.9
80	28	17,257	-57.9		27	26.9
70	28	18,099	-58.1		27	24.3
60	28	19,072	-57.4		28	22.5
50	28	20,225	-57.3		27	21.7
40	28	21,631	-57.2		28	20.6
30	28	23,454	-56.8		28	20.3
25	28	24,608	-57.4		28	19.9
20	29	26,020	-57.3		29	22.8
15	23	27,868	-55.8		28	26.1
10	13	30,469	-55.0		28	29.7
7						

Standard pressure surface (mb.)	GREENSBORO, N. C. 988 MB No. of observations	Dynamic height	Temperature	Dew Point ↑	Resultant Wind Direction	Speed M.p.s.
SURFACE	31	279	2.9	-.4	27	1.1
1000						
950						
900	31	588	4.9	-2.3	27	3.6
850	31	1,030	4.9	-3.9	27	7.3
800	31	1,495	3.9	-7.4	27	10.1
750	31	1,987	2.4	-7.8	27	12.4
700	31	2,507	.4	-10.8	26	15.5
650	31	3,058	-2.3	-14.5	26	19.3
600	31	3,644	-4.7	-18.7	26	22.1
550	30	4,269	-8.0	-23.3	26	24.5
500	30	4,940	-12.1	-28.2	26	27.2
450	30	5,683	-16.9	-30.5	26	29.4
400	30	6,446	-22.2	-33.4	26	30.4
350	30	7,301	-23.4	-39.3	26	32.4
300	30	8,267	-35.6	-43.7	26	33.9
250	30	9,299	-43.8		26	35.6
200	30	10,499	-53.0		26	39.6
175	29	11,913	-60.4		26	37.8
150	29	12,743	-61.3		26	34.8
125	29	13,699	-61.8		27	33.5
100	27	14,822	-64.1		27	32.9
80	29	16,180	-66.3		27	26.5
70	27	17,328	-65.7		27	18.7
60	27	18,337	-65.8		27	16.6
50	27	19,278	-63.9		27	11.4
40	27	20,403	-61.8		27	10.8
30	26	21,790	-59.9		28	9.6
25	28	23,399	-57.6		28	9.0
20	28	24,755	-55.9		28	8.9
15	28	26,182	-54.1		28	9.2
10	24	28,029	-52.5		28	12.4
7	19	30,675	-49.2		27	18.9

Standard pressure surface (mb.)	GUADALUPE IS., MEXICO 1015 MB No. of observations	Dynamic height	Temperature	Dew Point ↑	Resultant Wind Direction	Speed M.p.s.
SURFACE	29	23	12.7	10.1	34	4.3
1000	29	131	12.5	7.6	33	4.8
950	29	530	11.2	-1.2	32	3.2
900	29	1,031	11.0	-8.0	33	1.9
850	29	1,507	11.1	-14.0	36	1.3
800	29	2,011	9.5	-15.7	33	1.5
750	29	2,543	6.4	-17.9	30	2.1
700	29	3,105	3.2	-21.0	27	2.7
650	29	3,701	-.4	-23.8	26	3.5
600	29	4,336	-4.9	-27.0	26	3.7
550	29	5,014	-9.4	-29.9	26	4.1
500	29	5,743	-14.3	-33.1	24	5.4
450	29	6,533	-20.2	-37.0	27	6.0
400	29	7,395	-26.7	-42.3	26	8.0
350	29	8,347	-34.2	-47.8	24	5.4
300	29	9,404	-42.7		26	8.2
250	29	10,610	-51.6		27	8.4
200	28	12,042	-57.0		28	11.0
175	28	12,883	-59.0			
150	27	13,838	-61.1			
125	27	14,964	-63.8			
100	27	16,321	-66.7			
80	27	17,668	-67.3			
70	25	18,475	-65.9			
60	25	19,413	-64.9			
50	23	20,535	-61.9			
40	23	21,923	-59.2			
30	21	23,749	-56.7			
25	21	24,919	-53.3			
20	20	26,381	-51.3			
15	15	28,244	-49.1			
10	8	30,936	-45.8			
7						

Standard pressure surface (mb.)	* GUAM, MARIANA IS. 998 MB No. of observations	Dynamic height	Temperature	Dew Point ↑	Resultant Wind Direction	Speed M.p.s.
SURFACE	31	111	23.9	21.3	08	4.2
1000						
950						
900	31	546	21.8	18.6	08	10.5
850	31	1,014	19.0	15.1	08	9.5
800	31	1,504	16.8	10.9	08	7.8
750	31	2,020	15.1	3.6	08	6.5
700	31	2,565	13.1	-3.1	08	6.0
650	31	3,142	10.4	-6.0	07	5.9
600	31	3,755	6.8	-9.2	07	5.6
550	31	4,408	3.0	-13.4	08	5.3
500	31	5,107	-1.0	-18.1	09	4.7
450	31	5,861	-5.7	-23.6	09	4.1
400	30	6,680	-10.6	-28.1	09	3.5
350	30	7,576	-16.4	-32.8	08	3.4
300	30	8,570	-23.3	-39.9	08	2.9
250	30	9,676	-31.8	-47.4	08	1.2
200	30	10,937	-42.2		17	.3
175	30	12,408	-54.4		20	2.0
150	30	13,291	-61.0		19	2.8
125	30	14,191	-68.8		17	4.2
100	28	15,262	-76.6		14	4.6
80	27	16,522	-83.4		11	7.4
70	24	17,767	-80.8		10	9.4
60	20	18,529	-76.5		08	4.9
50	20	19,430	-71.2		06	1.5
40	19	20,524	-65.8		26	.9
30	19	21,891	-61.8		24	1.8
25	19	23,692	-57.3		33	.8
20	19	24,854	-54.2		04	2.1
15	18	26,296	-50.9		07	3.9
10	17	28,181	-48.2		08	11.5
7	13	30,875	-44.1		08	14.5
	9	33,274	-41.2			

Standard pressure surface (mb.)	HILO, HAWAII 1013 MB No. of observations	Dynamic height	Temperature	Dew Point ↑	Resultant Wind Direction	Speed M.p.s.
SURFACE	31	10	19.0	16.0	23	1.7
1000	31	125	20.0	16.1	22	1.0
950	31	566	16.4	14.0	11	1.9
900	31	1,026	13.7	11.6	11	2.1
850	31	1,506	10.7	9.3	13	1.6
800	31	2,010	8.5	1.2	17	1.9
750	31	2,543	7.1	-6.6	19	1.2
700	31	3,108	4.6	-11.1	25	1.3
650	31	3,708	1.3	-15.5	27	2.7
600	31	4,349	-2.2	-20.1	27	4.2
550	31	5,034	-6.1	-24.1	27	4.6
500	30	5,775	-10.5	-29.2	27	6.5
450	30	6,578	-15.7	-31.9	27	9.2
400	30	7,456	-21.7	-36.7	27	11.4
350	28	8,425	-28.7	-42.5	28	14.1
300	28	9,507	-37.0	-49.7	28	18.1
250	28	10,744	-46.1		28	25.1
200	28	12,198	-54.8		28	23.8
175	27	13,045	-55.9		29	25.8
150	27	13,995	-55.7		29	23.2
125	27	15,089	-71.2		30	17.4
100	27	16,990	-78.2		29	11.8
80	26	17,670	-76.1		29	6.5
70	26	18,447	-73.6		33	1.7
60	26	19,358	-69.2		08	2.5
50	26	20,458	-65.8		09	2.7
40	25	21,830	-61.8		07	2.3
30	24	23,636	-56.7		07	2.9
25	24	24,797	-54.8		05	2.0
20	24	26,233	-52.2		06	2.1
15	21	28,104	-49.6		08	2.6
10	21	30,778	-45.9		18	1.0
7	15	33,183	-41.7			

Standard pressure surface (mb.)	HUNTINGTON W. VA. 991 MB No. of observations	Dynamic height	Temperature	Dew Point ↑	Resultant Wind Direction	Speed M.p.s.
SURFACE	31	246	-.6	-4.8	24	.6
1000						
950	31	580	-.6	-4.7	24	4.8
900	31	1,012	-1.2	-7.2	25	8.0
850	31	1,469	-1.4	-9.7	26	11.4
800	31	1,951	-2.5	-12.6	27	14.3
750	31	2,462	-4.2	-14.7	27	17.6
700	31	3,004	-6.5	-17.1	26	20.3
650	31	3,580	-9.2	-21.0	26	23.4
600	31	4,196	-12.0	-24.8	26	27.1
550	31	4,857	-15.5	-28.2	26	29.9
500	31	5,571	-19.6	-31.4	26	33.8
450	31	6,347	-24.3	-36.0	26	37.3
400	31	7,195	-30.2	-41.1	26	39.9
350	31	8,135	-37.2	-46.8	25	41.7
300	31	9,180	-45.2		26	45.0
250	31	10,373	-52.6		26	47.9
200	31	11,788	-59.6		26	45.4
175	30	12,624	-59.2		26	44.3
150	29	13,587	-59.6		26	41.9
125	26	14,725	-61.6		26	35.4
100	25	16,101	-62.9		26	28.9
80	25	17,468	-64.3		27	23.1
70	24	18,284	-62.7		27	19.6
60	23	19,252	-61.6		27	16.6
50	22	20,365	-60.3		27	14.0
40	22	21,765	-58.2		28	10.7
30	21	23,377	-57.0		28	9.7
25	21	24,737	-55.5		29	11.1
20	20	26,163	-53.8		29	13.5
15	18	28,019	-50.0		29	16.1
10	12	30,654	-47.3			
7						

Standard pressure surface (mb.)	* INTERNATIONAL FALLS, MINN. 969 MB No. of observations	Dynamic height	Temperature	Dew Point ↑	Resultant Wind Direction	Speed M.p.s.
SURFACE	31	359	-21.5	-23.3	26	2.6
1000						
950	29	510	-21.3	-25.1	28	3.9
900	31	899	-19.7	-22.8	28	6.1
850	31	1,325	-17.8	-20.6	28	9.0
800	31	1,779	-17.3	-20.8	29	10.3
750	31	2,262	-18.2	-22.1	29	12.2
700	31	2,775	-20.4	-25.4	29	14.1
650	31	3,322	-23.2	-29.0	28	15.2
600	31	3,904	-26.7	-32.4	28	16.6
550	31	4,527	-30.3	-34.5	28	19.9
500	31	5,199	-34.7	-38.1	29	21.1
450	31	5,927	-39.7	-39.1	28	23.4
400	31	6,724	-45.0	-43.9	29	24.7
350	31	7,609	-49.9		28	26.7
300	31	8,607	-52.9		28	30.7
250	31	9,780	-53.9		28	30.3
200	31	11,216	-53.2		28	30.8
175	31	12,077	-53.1		28	30.7
150	30	13,063	-53.3		28	30.1
125	30	14,235	-54.2		28	28.7
100	28	15,669	-55.3		28	27.2
80	26	17,089	-55.6		28	28.2
70	26	17,939	-55.9		28	25.4
60	23	18,928	-56.6		28	23.4
50	21	20,078	-57.0		28	27.6
40	18	21,488	-58.8		28	27.4
30	13	23,352	-56.7		29	26.2
25	13	24,540	-53.5		29	26.4
20	10	25,962	-55.4			
15						
10						
7						

Standard pressure surface (mb.)	JACKSON, MISS. 1008 MB No. of observations	Dynamic height	Temperature	Dew Point ↑	Resultant Wind Direction	Speed M.p.s.
SURFACE	31	100	7.7	4.6	04	.7
1000						
950	31	589	8.5	1.9	22	3.2
900	31	1,037	8.6	-.6	25	5.7
850	31	1,509	7.8	-4.2	26	8.7
800	31	2,008	6.2	-6.5	25	11.7
750	31	2,535	3.7	-9.2	25	12.9
700	31	3,093	1.2	-14.5	26	14.5
650	31	3,686	-2.0	-19.6	26	16.7
600	31	4,317	-5.6	-24.3	26	17.9
550	31	4,994	-10.0	-28.4	26	20.0
500	31	5,722	-15.2	-32.7	25	21.6
450	31	6,509	-20.7	-36.9	25	23.4
400	31	7,369	-27.3	-41.8	25	25.3
350	31	8,320	-34.6	-48.2	25	28.2
300	31	9,374	-43.4	-49.6	25	31.1
250	31	10,579	-52.0		25	35.8
200	31	11,997	-59.5		25	37.8
175	31	12,829	-61.4		26	37.9
150	29	13,779	-62.1		26	34.5
125	27	14,903	-64.9		26	30.7
100	27	16,252	-68.1		26	26.7
80	24	17,359	-69.0		26	18.9
70	23	18,397	-68.4		26	14.0
60	23	19,328	-66.1		26	11.9
50	23	20,441	-63.1		26	6.5
40	23	21,822	-60.8		27	4.5
30	23	23,626	-57.8		30	2.3
25	22	24,779	-56.5		29	3.9
20	22	26,201	-54.8		29	5.2
15	18	28,044	-52.6		29	7.6
10	11	30,653	-51.1			
7						

Standard pressure surface (mb.)	JOHN F. KENNEDY INT. AP NY 1019 MB No. of observations	Dynamic height	Temperature	Dew Point ↑	Resultant Wind Direction	Speed M.p.s.
SURFACE	31	5	1.0	-5.1	30	2.9
1000	31	154	-.5	-6.2	29	3.8
950	31	563	-2.0	-7.4	28	6.5
900	31	992	-3.3	-10.2	28	10.3
850	31	1,444	-4.0	-13.5	27	14.6
800	31	1,923	-3.8	-16.8	27	17.8
750	31	2,432	-5.1	-19.2	26	20.6
700	31	2,971	-7.3	-22.7	26	24.8
650	31	3,546	-9.9	-25.3	26	28.6
600	31	4,160	-13.2	-27.2	26	31.3
550	31	4,817	-17.1	-29.4	26	35.9
500	31	5,527	-21.3	-33.2	26	39.8
450	31	6,297	-26.0	-37.1	26	45.0
400	31	7,140	-31.8	-42.3	26	46.7
350	31	8,074	-38.3	-45.2	26	50.4
300	31	9,115	-45.8		26	49.0
250	31	10,318	-54.5		26	50.7
200	31	11,723	-60.4		27	49.5
175	31	12,537	-59.6		27	43.5
150	29	13,525	-58.8		27	37.9
125	27	14,666	-60.4		27	34.1
100	26	16,049	-62.2		27	32.9
80	26	17,425	-61.8		27	22.1
70	26	18,297	-61.0		28	21.3
60	26	19,229	-60.4		28	17.0
50	26	20,304	-59.7		28	16.5
40	24	21,761	-58.8		27	14.1
30	22	23,577	-56.6		28	15.6
25	22	24,735	-56.0		27	15.0
20	22	26,153	-55.7		27	15.5
15	18	28,004	-53.3		28	15.1
10	14	30,645	-50.7			
7						

Standard pressure surface (mb.)	JOHNSTON IS., PACIFIC AREA 1011 MB No. of observations	Dynamic height	Temperature	Dew Point ↑	Resultant Wind Direction	Speed M.p.s.
SURFACE	31	3	24.2	20.3	09	5.8
1000	31	100	23.2	19.3	09	5.7
950	31	547	19.7	17.3	10	6.5
900	31	1,012	17.1	13.0	10	5.8
850	31	1,498	14.4	9.6	09	4.2
800	31	2,009	12.0	4.7	09	2.7
750	31	2,547	9.4	-.1	13	1.5
700	31	3,117	6.4	-8.7	20	.8
650	31	3,721	3.3	-11.8	23	2.2
600	31	4,366	-.4	-17.2	25	3.7
550	31	5,057	-3.9	-21.8	25	5.9
500	31	5,803	-8.6	-26.0	26	7.4
450	31	6,612	-13.7	-29.7	26	9.9
400	31	7,498	-19.3	-36.2	27	12.9
350	31	8,481	-26.1	-41.9	27	16.0
300	31	9,576	-33.8	-48.3	27	19.8
250	31	10,829	-43.5		27	24.0
200	31	12,296	-54.0		27	26.5
175	31	13,141	-60.0		28	25.3
150	30	14,089	-66.6		28	20.1
125	30	15,176	-73.2		28	15.2
100	30	16,463	-78.9		30	8.0
80	26	17,730	-78.8		02	1.5
70	26	18,496	-75.9		07	2.6
60	22	19,399	-70.7		10	3.3
50	22	20,497	-65.1		12	.5
40	21	21,809	-61.5		29	1.0
30	20	23,674	-57.1		03	1.3
25	19	24,837	-54.3		06	2.0
20	19	26,275	-51.8		09	3.1
15	17	28,159	-48.6		06	2.6
10	14	30,840	-44.7		12	4.6
7	9	33,236	-40.5			

Standard pressure surface (mb.)	KEY WEST, FLA. 1014 MB No. of observations	Dynamic height	Temperature	Dew Point ↑	Resultant Wind Direction	Speed M.p.s.
SURFACE	30	3	22.2	19.7	08	3.1
1000	30	155	21.8	18.4	09	4.1
950	30	599	18.8	15.4	10	4.6
900	30	1,062	16.0	11.2	12	5.0
850	30	1,546	13.4	5.2	13	4.0
800	30	2,055	11.3	-2.4	14	2.6
750	30	2,592	8.9	-8.6	13	1.4
700	30	3,159	5.5	-11.8	14	1.0

RAWINSONDE DATA

Average monthly values

JANUARY 1972

Standard pressure surface (mb.)	KORDR, CAROLINE IS. 1006 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Speed M.p.h.
SURFACE	31	30	27.1	24.3	09	1.4
1000	31	80	26.7	22.7	09	1.8
950	31	533	23.7	19.3	09	3.0
900	31	1,004	20.9	15.9	09	2.7
850	31	1,497	18.0	12.3	09	2.4
800	31	2,015	15.4	8.7	09	2.4
750	31	2,562	13.2	4.0	10	2.5
700	31	3,139	10.0	.5	10	3.2
650	31	3,752	6.6	-3.9	09	4.6
600	31	4,405	2.7	-7.6	09	5.6
550	31	5,104	-1.4	-14.0	09	6.2
500	31	5,858	-5.4	-20.5	10	7.9
450	31	6,677	-10.4	-26.4	09	8.4
400	31	7,574	-16.1	-32.5	10	8.7
350	31	8,570	-22.8	-38.5	10	9.1
300	31	9,679	-31.1	-45.9	10	9.0
250	31	10,945	-41.3		11	9.9
200	30	12,419	-53.9		11	11.5
175	30	13,263	-60.8		11	12.2
150	30	14,205	-68.4		11	13.7
125	30	15,277	-76.3		11	14.5
100	30	16,538	-83.4		10	15.8
80	30	17,792	-78.1		09	9.5
70	30	18,567	-72.1		80	1.9
60	30	19,484	-68.5		28	6.2
50	30	20,590	-64.3		28	7.8
40	30	21,969	-60.2		27	7.9
30	29	23,776	-57.1		26	9.0
25	27	24,937	-55.0		22	1.0
20	27	26,374	-51.4		10	5.2
15	27	28,250	-50.0		09	14.8
10	21	30,941	-43.1		09	23.5
7	14	33,352	-39.6		09	25.3
5	5	35,897	-34.2			

Standard pressure surface (mb.)	KOTZEBUE, ALASKA 1020 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Speed M.p.h.
SURFACE	27	5	-22.2	-26.5	09	3.7
1000	25	182	-18.3	-24.7	11	4.4
950	30	535	-15.5	-22.3	10	3.6
900	31	944	-13.6	-23.1	11	2.3
850	31	1,374	-16.8	-25.1	12	1.3
800	31	1,828	-18.8	-26.8	10	.9
750	31	2,307	-21.2	-29.2	07	.4
700	31	2,813	-23.8	-31.9	33	.9
650	31	3,351	-26.7	-34.3	32	1.7
600	31	3,925	-30.1	-37.6	32	3.1
550	31	4,540	-34.1	-40.9	30	3.9
500	31	5,201	-38.5	-42.1	30	4.3
450	31	5,918	-43.4	-41.9	29	5.8
400	31	6,701	-48.6		29	8.0
350	31	7,572	-54.0		28	9.5
300	31	8,548	-58.4		27	11.3
250	31	9,693	-59.1		27	13.2
200	31	11,098	-57.1		27	15.9
175	30	11,946	-55.9		27	18.2
150	30	12,928	-55.7		27	19.9
125	30	14,089	-55.6		27	24.6
100	30	15,514	-54.8		27	28.9
80	30	16,947	-54.3		27	33.2
70	30	17,804	-53.8		27	36.1
60	30	18,810	-53.5		27	39.1
50	30	20,000	-53.0		27	42.8
40	30	21,425	-51.6		27	47.9
30	29	23,300	-48.8		28	48.3
25	27	24,481	-47.4		28	51.3
20	26	25,938	-47.9			
15	8	27,826	-45.7			

Standard pressure surface (mb.)	KWAJALEIN, MARSHALL IS. 1009 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Speed M.p.h.
SURFACE	31	4	26.2	22.8	07	5.0
1000	31	80	25.6	22.4	07	6.1
950	31	531	21.9	19.9	07	8.3
900	31	1,000	18.9	16.3	09	8.1
850	31	1,490	16.5	12.4	08	6.4
800	31	2,005	14.0	8.7	08	5.2
750	31	2,548	11.8	2.6	07	3.9
700	31	3,124	9.1	-3.5	07	3.5
650	31	3,735	6.0	-9.2	07	3.9
600	31	4,387	2.7	-12.8	07	5.9
550	31	5,086	-1.1	-16.8	06	5.2
500	31	5,840	-5.8	-23.7	06	5.9
450	31	6,657	-11.1	-27.9	06	6.7
400	31	7,552	-16.8	-33.8	05	6.1
350	31	8,541	-23.7	-40.0	04	3.1
300	31	9,649	-31.9	-46.7	31	2.1
250	31	10,910	-42.0	-54.2	26	2.1
200	31	12,381	-54.2	-64.6	23	4.9
175	31	13,223	-61.3		22	4.9
150	31	14,163	-68.8		21	4.6
125	31	15,230	-77.3		17	1.1
100	27	16,482	-84.3		07	4.9
80	27	17,720	-81.0		08	4.8
70	24	18,480	-76.1		01	1.5
60	24	19,383	-70.8		28	5.6
50	22	20,476	-66.6		26	8.6
40	22	21,846	-61.7		26	7.7
30	21	23,643	-58.2		28	9.6
25	21	24,797	-55.9		06	.8
20	21	26,226	-52.9		10	6.7
15	21	28,096	-49.4		09	15.1
10	21	30,780	-45.1		09	21.9
7	17	33,196	-41.8		09	24.4
5	12	35,504	-38.9			

Standard pressure surface (mb.)	LAKE CHARLES, LA. 1018 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Speed M.p.h.
SURFACE	31	5	10.6	8.7	06	2.1
1000	31	154	11.3	8.3	10	1.8
950	31	583	11.7	5.8	21	3.6
900	31	1,036	11.7	1.6	23	5.3
850	31	1,514	10.1	-.8	24	7.0
800	31	2,016	7.9	-3.6	25	9.1
750	31	2,547	5.7	-9.6	25	10.7
700	31	3,108	2.5	-12.7	25	11.8
650	31	3,704	-.6	-17.8	25	13.0
600	31	4,338	-4.7	-22.1	25	13.8
550	31	5,017	-9.3	-25.2	25	15.8
500	31	5,747	-14.7	-29.0	25	17.4
450	31	6,536	-20.4	-34.4	25	20.1
400	31	7,397	-26.7	-39.6	25	22.2
350	31	8,350	-33.9	-46.6	26	24.7
300	31	9,409	-42.1	-45.1	26	28.3
250	31	10,618	-51.6		26	32.7
200	31	12,036	-59.9		26	34.8
175	30	12,884	-60.7		26	33.7
150	30	13,820	-62.5		26	31.8
125	30	14,933	-65.6		25	29.9
100	27	16,278	-69.2		26	24.6
80	27	17,607	-70.2		26	14.4
70	27	18,402	-69.6		26	14.4
60	27	19,328	-66.3		26	10.9
50	27	20,442	-62.7		26	8.9
40	26	21,826	-59.7		26	5.8
30	24	23,637	-57.0		26	2.6
25	23	24,797	-54.9		29	2.8
20	23	26,234	-53.0		30	3.1
15	21	28,100	-50.2		32	3.6
10	16	30,790	-45.8		03	2.9
7	6	33,246	-41.0			

Standard pressure surface (mb.)	LANDER, WYO. 823 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Speed M.p.h.
SURFACE	31	1,897	-8.9	-13.6	27	2.3
1000	31	1,917	-5.4	-15.0	26	2.6
950	31	2,422	-6.4	-18.0	28	6.2
900	31	2,940	-8.6	-20.7	29	11.8
850	31	3,530	-12.3	-23.3	29	16.3
800	31	4,137	-16.5	-27.3	29	19.6
750	31	4,786	-20.6	-31.2	29	21.9
700	31	5,484	-25.6	-35.1	29	23.2
650	31	6,240	-30.9	-39.6	29	24.7
600	31	7,065	-37.2	-42.8	30	27.3
550	31	7,979	-43.3	-47.1	30	30.7
500	31	8,989	-49.8		30	32.7
450	31	10,176	-55.9		30	34.0
400	30	11,588	-58.6		29	33.6
350	30	12,428	-58.0		29	30.9
300	30	13,401	-57.3		29	26.8
250	30	14,555	-57.6		29	23.8
200	28	15,964	-59.3		29	20.4
175	28	17,363	-59.3		29	17.2
150	27	18,200	-58.9		29	12.1
125	26	19,167	-58.1		30	11.7
100	26	20,317	-57.5		30	10.9
80	24	21,729	-56.3		31	9.6
70	23	22,566	-54.5		32	10.0
60	23	23,740	-54.7		33	10.5
50	23	24,162	-53.5		33	9.5
40	20	25,041	-52.1		35	7.3
30	5	30,676	-51.0			

Standard pressure surface (mb.)	LIHUE KAUAI, HAWAII 1011 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Speed M.p.h.
SURFACE	31	36	19.8	16.6	34	.6
1000	31	128	20.4	15.8	04	1.1
950	31	570	17.3	14.1	07	2.9
900	31	1,030	14.1	11.4	07	2.9
850	31	1,511	11.2	6.7	09	1.9
800	31	2,016	9.5	-1.3	10	1.0
750	31	2,550	7.5	-8.6	31	.5
700	31	3,115	4.9	-11.5	29	1.7
650	31	3,716	1.7	-15.2	28	3.0
600	31	4,357	-1.9	-19.5	28	4.3
550	31	5,044	-5.9	-21.7	27	4.6
500	31	5,783	-10.8	-24.8	29	6.2
450	31	6,596	-16.0	-28.6	28	8.7
400	31	7,482	-22.1	-34.2	25	11.8
350	31	8,433	-29.2	-40.3	25	15.7
300	31	9,514	-37.3	-46.6	28	21.1
250	31	10,749	-46.1		28	27.0
200	31	12,204	-54.4		28	28.7
175	31	13,031	-59.1		28	28.1
150	31	14,006	-64.1		29	25.8
125	30	15,105	-69.8		29	18.2
100	30	16,416	-74.8		29	10.3
80	27	17,711	-74.0		32	3.8
70	27	18,495	-71.8		03	2.1
60	26	19,426	-69.5		06	4.2
50	26	20,524	-65.7		09	5.3
40	17	21,898	-60.8		08	4.7
30	17	23,708	-55.8		07	6.8
25	17	24,875	-53.6		08	6.5
20	17	26,318	-51.4		08	7.9
15	16	28,200	-48.4		10	6.2
10	15	30,891	-44.6		13	3.6
7	8	33,312	-41.0			
5						

Standard pressure surface (mb.)	LITTLE ROCK, ARK. 1010 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Speed M.p.h.
SURFACE	31	79	3.8	.7	33	.7
1000						
950	31	575	3.7	-3.5	25	2.5
900	31	1,015	4.7	-5.2	29	6.2
850	31	1,481	4.7	-8.4	26	9.9
800	31	1,974	3.4	-12.5	26	10.6
750	31	2,495	1.2	-13.7	26	12.9
700	31	3,048	-1.2	-18.3	26	16.0
650	31	3,635	-4.5	-21.3	26	18.8
600	31	4,261	-8.0	-24.4	26	22.0
550	31	4,932	-12.3	-28.0	26	24.6
500	31	5,653	-17.2	-33.0	25	27.9
450	31	6,435	-22.7	-37.3	26	29.0
400	31	7,288	-28.9	-42.5	26	32.6
350	31	8,232	-36.0	-48.2	26	36.5
300	31	9,281	-44.5		26	37.6
250	31	10,478	-53.5		26	39.6
200	31	11,888	-59.9		26	42.0
175	31	12,722	-60.2		26	40.1
150	31	13,683	-60.9		26	38.3
125	30	14,811	-63.0		26	33.4
100	30	16,175	-65.2		26	29.4
80	26	17,528	-66.5		26	23.2
70	26	18,338	-65.6		26	18.6
60	26	19,260	-63.9		26	14.6
50	26	20,404	-61.2		27	9.8
40	26	21,793	-59.5		27	7.0
30	26	23,608	-56.3		28	4.9
25	26	24,771	-54.9		30	5.4
20	26	26,200	-54.0		30	6.1
15	26	28,057	-52.0		29	6.1
10	26	30,713	-47.9			
7						
5						

Standard pressure surface (mb.)	MCGRATH, ALASKA 1010 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Speed M.p.h.
SURFACE	25	108	-27.3	-19.0	21	1.0
1000	22	190	-22.0	-23.1	19	.4
950	24	553	-15.5	-18.4	11	1.0
900	24	965	-14.0	-19.3	12	1.6
850	24	1,398	-14.8	-20.3	06	1.4
800	24	1,856	-16.7	-21.9	34	1.3
750	24	2,339	-19.1	-24.4	33	1.9
700	24	2,850	-21.7	-28.5	32	2.2
650	24	3,393	-24.6	-32.2	29	3.0
600	24	3,972	-27.8	-35.3	29	3.9
550	24	4,592	-31.7	-38.3	27	5.2
500	24	5,260	-35.8	-41.0	27	7.2
450	24	5,986	-40.0	-42.7	27	10.2
400	24	6,783	-44.6		28	11.7
350	24	7,670	-49.3		28	14.9
300	24	8,669	-53.2		28	16.0
250	24	9,836	-55.6		28	19.0
200	24	11,204	-53.7		27	20.5
175	24	12,126	-52.5		27	22.1
150	23	13,116	-52.5		27	22.1
125	22	14,312	-52.5		27	24.4
100	22	15,752	-52.8		27	25.9
80	22	17,194	-52.2		27	25.7
70	22	18,059	-51.6		27	29.0
60	22	19,060	-51.2		28	29.5
50	22	20,249	-50.0		28	30.6
40	21	21,706	-50.6		28	29.2
30	19	23,578	-50.4		28	30.8
25	18	24,776	-50.4		28	33.2
20	13	26,232	-49.8			
15	6	28,142	-47.6			
10						
7						
5						

Standard pressure surface (mb.)	MAJURO, MARSHALL IS. 1009 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Speed M.p.h.
SURFACE	31	3	27.9	23.5	07	4.7
1000	31	85	26.7	18.8	07	5.5
950	31	536	22.9	16.9	07	7.1
900	31	1,006	20.0	13.4	07	7.0
850	31	1,497	17.5	8.7	08	5.9
800	31	2,014	15.0	5.2	08	3.9
750	31	2,558	12.6	.8	10	2.9
700	31	3,135	10.0	-3.5	09	2.3
650	31	3,748	7.0	-8.8	07	2.7
600	31	4,402	3.4	-13.1	07	3.3
550	31	5,103	-.6	-18.5	06	3.7
500	31	5,858	-4.9	-22.4	06	4.0
450	31	6,680	-9.5	-27.9	06	5.4
400	31	7,579	-15.4	-32.6	09	5.4
350	31	8,578	-22.2	-39.1	03	1.9
300	31	9,690	-30.5	-46.0	28	1.9
250	31	10,959	-40.4	-53.7	23	3.1
200	30	12,438	-53.1		22	7.7
175	30	13,286	-59.8		22	6.5
150	30	14,231	-67.6		22	4.0
125	30	15,308	-75.3		28	.6
100	30	16,574	-82.0		05	7.2
80	30	17,826	-78.3		07	4.0
70	30	18,602	-71.8		28	3.1
60	30	19,522	-67.3		27	8.7
50	30	20,635	-62.6		27	10.6
40	30	22,019	-60.3		27	9.3
30	29	23,833	-56.1		26	5.3
25	28	24,998	-53.9		27	1.5
20	27	26,440	-50.8		09	7.3
15	26	28,229	-47.9		09	17.1
10	25	31,037	-41.4		09	23.5
7	15	33,477	-36.1		08	24.1
5	7	35,816	-33.8			

Standard pressure surface (mb.)	MEDFORD, OREG. 974 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Speed M.p.h.
SURFACE	31	401	.1	-2.3	23	.5
1000						
950	31	804	1.0	-2.4	21	.8
900	31	1,040	1.4	-4.3	21	2.6
850	31	1,499	.0	-7.8	24	4.8
800	31	1,983	-2.1	-10.4	27	7.3
750	31	2,494	-3.9	-11.6	29	10.1
700	31	3,037	-6.3	-14.0	29	13.5
650	31	3,614	-9.4	-17.6	29	15.7
600	31	4,228	-13.0	-21.2	30	16.8
550	31	4,887	-17.0	-27.2	29	18.0
500	31	5,595	-21.9	-32.1	29	18.8
450	31	6,361	-27.6	-36.4	29	19.9
400	31	7,198	-33.8	-42.2	29	21.8
350	31	8,126	-39.7	-45.9	29	23.7
300	30	9,177	-46.9		29	25.5
250	30	10,363	-54.9		29	25.5
200	30	11,759	-60.7		29	24.4
175	30	12,602	-59.8		29	23.0
150	30	13,567	-58.8		29	23.2
125	27	14,709	-60.1		29	21.2
100	26	16,098	-60.9		29	18.8
80	26	17,487	-60.2		30	13.6
70	26	18,323	-59.1		31	10.3
60	23	19,287	-58.9		32	9.5
50	23	20,435	-56.7		34	7.3
40	22	21,855	-53.9		36	7.0
30	23	23,692	-53.8		01	8.1
25	16	24,871	-52.3		02	8.5
20	15	26,318	-51.7		02	10.7
15	10	28,179	-51.1			
10	8	30,831	-47.8			
7						
5						

Standard pressure surface (mb.)	MERIDA, MEXICO 1014 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Speed M.p.h.
SURFACE	31	11	20.0	19.4	08	1.0
1000	31	134	22.1	20.3	10	4.7
950	31	580	20.5	17.1	12	7.0
900	31	1,046	17.9	12.9	12	6.6
850	31	1,534	15.1	8.4	11	5.0
800	31	2,046	12.6	2.4	11	4.3
750	31	2,585	9.7	-2.7	12	3.6
700	31	3,153	6.4	-8.0	13	2.2
650	31	3,759	3.1	-12.3	15	1.4
600	31	4,404	-.1	-17.8	20	2.2
550	31	5,095	-4.0	-24.7	23	2.2
500	31	5,840	-9.0	-28.8	23	3.9
450	31	6,646	-14.8	-32.9	24	4.7
400	31	7,525	-21.3	-38.1	25	6.0
350	31	8,500	-28.5	-44.7	25	9.3
300	31	9,583	-37.2	-52.3	25	10.6
250	31	10,816	-47.4		25	12.7
200	30	12,258	-57.3		25	17.5
175	30	13,092	-61.2		25	18.6
150	30	14,062	-64.4		25	19.4
125	29	15,144	-68.6		25	16.9
100	29	16,463	-74.1		24	12.4
80	29	17,756	-75.2		24	7.0
70	28	18,535	-73.1		23	3.6
60	27	19,447	-69.7		23	2.8
50	27	20,545	-65.3		24	2.8
40	26	21,917	-61.4		24	2.0
30	24	23,724	-56.0		34	1.5
25	23	24,892	-53.4		02	3.3
20	23	26,339	-50.1		04	2.1
15	21	28,234	-46.1		27	1.9
10	17	30,946	-43.0		19	2.9
7	9	33,345	-40.9			

Standard pressure surface (mb.)	MIAMI, FLA. 1018 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Speed M.p.h.
SURFACE	31	4	20.5	17.2	07	1.6
1000	31	163	21.4	17.6	11	3.0
950	31	607	18.3	15.3	12	5.1
900	31	1,069	15.4	11.5	13	4.0
850	31	1,552	13.0	6.4	13	2.4
800	31	2,060	10.8	.8	17	1.8
750	31	2,597	8.4	-3.2	22	2.0
700	31	3,163	5.3	-9.7	23	2.7
650	31	3,765	2.2	-14.9	23	4.0
600	31	4,407	-1.4	-19.6	24	4.7
550	31	5,095	-5.8	-23.9	24	5.6
500	31	5,834	-11.2	-28.5	25	6.6
450	31	6,634	-17.1	-33.0	25	8.2
400	31	7,506	-23.6	-37.5	25	9.1
350	31	8,471	-30.7	-43.2	25	10.0
300	31	9,543	-39.2	-50.2	27	11.4
250	31	10,768	-49.1		27	14.1
200	30	12,198	-58.2		26	19.9
175	30	13,033	-61.2		26	22.2
150	30	13,983	-64.5		26	20.5
125	29	15,088	-68.6		26	17.2
100	29	16,408	-73.3		26	14.2
80	29	17,709	-74.3		25	8.9
70	28	18,490	-72.8		26	6.7
60	27	19,401	-69.5		26	4.8
50	27	20,504	-64.3		26	2.9
40	26	21,881	-60.8		29	2.2
30	24	23,693	-55.7		03	2.0
25	23	24,863	-53.1		05	1.6
20	23	26,307	-50.4		02	1.0
15	21	28,196	-47.2		27	3.7
10	17	30,894	-43.4			
7						
5						

Standard pressure surface (mb.)	MIDLAND, TEXAS 916 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Speed M.p.h.
SURFACE	31	874	.8	-6.6	26	.9
1000						
950	31	1,019	6.0	-5.5	25	2.3
900	31	1,490	8.2	-9.6	27	6.3
850	31	1,989	7.1	-11.7	27	8.1
800	31	2,518	5.5	-13.9	27	9.8
750	31	3,079	2.3	-17.7	26	10.5
700	31	3,673	-1.4	-19.2	26	12.5
650	31	4,306	-5.8	-22.3	26	14.0
600	31	4,981	-10.3	-27.4	26	14.8
550	31	5,707	-15.9	-31.6	26	16.2
500	31	6,493	-21.8	-36.0	26	16.1
450	31	7,348	-28.6	-41.0	26	19.6
400	31	8,293	-36.1	-46.8	25	21.7
350	31	9,341	-44.6		26	24.8
300	31	10,538	-52.9		26	29.2
250	31	11,954	-59.8		26	30.4
200	30	12,789	-60.5		26	31.1
175	30	13,746	-62.1		26	28.5
150	30	14,867	-64.3		26	26.7
125	28	16,221	-67.1		26	23.3
100	28	17,592	-68.8		26	18.6
80	27	18,381	-67.6		27	15.5
70	26	19,293	-65.7		26	10.7
60	26	20,409	-62.4		27	7.4
50	25	21,795	-59.4		29	3.9
40	24	23,613	-55.8		01	2.0
30	23	24,752	-54.4		35	2.1
25	21	26,213	-53.1		01	3.0
20	20	28,074	-51.3		36	3.2
15	8	30,755	-48.0			
10						
7						
5						

| Standard pressure surface (mb.) | MONTERREY, MEXICO 968 MB No. of observations | Dynamic height |

RAWINSONDE DATA

Average monthly values

JANUARY 1972

Standard pressure surface (mb.)	MONTGOMERY, ALA. 1014 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.	NASHVILLE, TENN. 999 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.	* NOME, ALASKA 1016 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.	NORTH PLATTE, NEBR. 916 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.	OAKLAND, CALIF. 1021 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	57	7.8	4.9	36	.7	30	180	2.2	-2.4	29	.5	31	5	-16.6	-21.4	10	2.8	31	847	-10.3	-14.3	31	1.4	31	6	5.6	2.1	08	.9
1000	31	188	8.7	4.5	03	.2																			31	179	7.2	-.3	04	1.3
950	31	594	8.9	3.1	22	2.7	30	582	1.8	-3.5	23	3.0	31	516	-12.8	-18.0	13	4.1							31	601	7.1	-3.2	34	3.1
900	31	1,042	9.1	.1	27	5.3	30	1,019	2.2	-5.7	25	6.0	31	929	-13.3	-19.2	15	5.0	30	989	-8.2	-14.9	31	3.4	31	1,049	6.8	-7.1	34	4.0
850	31	1,516	7.8	-.7	26	8.9	30	1,481	1.9	-7.2	26	10.4	31	1,363	-14.8	-21.3	14	2.5	31	1,432	-3.6	-14.1	30	9.2	31	1,513	5.4	-10.5	31	4.0
800	31	2,015	6.3	-4.0	26	10.3	30	1,989	.5	-11.2	26	12.8	31	1,820	-16.9	-23.3	14	1.4	31	1,910	-5.0	-16.0	30	11.5	31	2,007	3.9	-13.3	31	5.5
750	31	2,542	3.9	-6.9	26	12.3	30	2,483	-1.4	-14.7	26	16.0	31	2,302	-19.1	-26.2	17	.9	31	2,416	-6.7	-16.7	29	14.3	31	2,529	1.1	-17.4	31	4.4
700	31	3,100	1.1	-11.2	26	14.3	30	3,032	-4.1	-18.4	26	18.8	31	2,813	-21.9	-29.1	21	1.0	31	2,952	-9.7	-18.3	29	17.0	31	3,080	-1.7	-20.4	30	7.2
650	31	3,693	-2.1	-15.5	26	15.5	30	3,614	-6.7	-21.1	26	22.5	30	3,355	-25.0	-32.1	23	1.1	31	3,521	-12.7	-21.6	29	18.6	31	3,686	-5.0	-23.8	30	8.9
600	31	4,328	-5.5	-19.6	26	18.4	30	4,238	-9.7	-24.7	26	25.8	30	3,932	-28.6	-35.4	24	1.9	31	4,129	-16.0	-26.3	28	20.2	31	4,291	-9.1	-27.6	30	10.9
550	31	5,002	-9.9	-23.9	26	19.7	30	4,902	-13.7	-28.1	26	28.2	30	4,551	-32.3	-38.8	26	3.5	31	4,779	-20.2	-30.3	28	22.1	31	4,957	-14.0	-31.0	30	12.0
500	31	5,731	-14.7	-28.5	26	21.2	30	5,621	-18.2	-32.1	26	31.3	30	5,217	-36.7	-41.2	27	4.8	31	5,479	-24.9	-35.0	29	25.7	31	5,674	-18.8	-35.0	30	13.5
450	31	6,520	-20.4	-33.6	26	22.9	30	6,400	-23.3	-36.3	26	34.0	30	5,939	-41.5	-43.7	26	5.6	31	6,237	-29.8	-39.5	28	28.3	31	6,430	-24.6	-39.1	29	14.9
400	31	7,381	-27.0	-38.3	26	26.3	30	7,231	-29.6	-42.5	26	37.0	30	6,729	-46.7		26	7.3	31	7,067	-35.6	-44.8	28	31.0	31	7,297	-30.8	-44.8	29	17.7
350	31	8,332	-34.2	-44.9	25	28.5	30	8,193	-36.6	-49.1	26	40.0	30	7,608	-51.5		27	7.9	31	7,988	-41.5	-47.9	28	34.2	31	8,234	-38.0	-50.3	29	19.2
300	30	9,389	-42.7	-48.2	26	31.3	30	9,239	-45.1		26	41.8	30	8,597	-55.0		26	10.4	31	9,015	-48.2		28	37.3	31	9,274	-46.2		29	20.3
250	30	10,596	-51.7		25	35.7	30	10,432	-54.1		25	44.4	30	9,756	-58.8		26	14.2	31	10,199	-54.9		28	38.5	31	10,463	-54.8		29	20.6
200	30	12,015	-59.9		26	37.9	30	11,843	-59.5		26	44.3	30	11,178	-54.3		25	16.2	31	11,612	-57.3		27	37.0	31	11,866	-61.2		29	21.2
175	30	12,846	-61.5		26	36.9	30	12,675	-60.2		26	42.1	30	12,036	-53.3		26	17.8	31	12,439	-56.9		27	35.0	31	12,696	-60.2		29	20.9
150	30	13,800	-62.3		26	35.0	30	13,633	-61.7		26	38.1	30	13,030	-53.0		26	20.3	31	13,435	-56.5		28	33.5	30	13,655	-59.5		29	20.0
125	30	14,918	-63.5		26	32.0	27	14,749	-63.5		26	35.8	29	14,205	-52.7		26	23.1	31	14,590	-57.6		28	28.0	29	14,795	-61.1		29	17.3
100	30	16,264	-68.8		26	26.8	23	16,114	-65.9		26	30.4	28	15,642	-52.3		26	26.5	31	15,996	-59.0		28	21.4	29	16,174	-63.2		29	14.0
80	28	17,592	-70.0		26	20.4	21	17,468	-66.2		26	25.5	28	17,086	-51.8		27	30.3	31	17,392	-60.2		28	16.9	26	17,544	-63.1		31	10.9
70	27	18,387	-68.2		26	16.3	21	18,281	-64.7		26	19.9	27	17,946	-51.8		27	32.6	31	18,229	-58.3		28	14.5	24	18,361	-62.4		31	8.7
60	27	19,318	-65.2		26	12.5	21	19,225	-63.5		26	16.5	27	18,946	-51.4		27	34.7	31	19,200	-58.1		28	12.2	24	19,313	-61.5		33	7.8
50	27	20,439	-62.0		26	7.9	21	20,351	-61.3		26	13.4	26	20,129	-50.9		27	38.4	30	20,349	-57.2		29	11.1	23	20,431	-59.4		35	5.8
40	27	21,829	-59.0		26	6.3	20	21,742	-59.6		27	9.3	26	21,587	-49.4		27	40.0	29	21,757	-57.0		30	11.0	23	21,838	-57.2		02	6.1
30	26	23,644	-54.0		28	5.2	18	23,555	-57.0		28	7.3	25	23,476	-49.0		27	39.3	27	23,585	-55.3		31	10.7	22	23,684	-54.7		04	7.6
25	25	24,808	-54.4		29	5.2	17	24,709	-55.6		28	7.6	22	24,667	-49.0		27	37.7	27	24,749	-54.9		32	12.0	20	24,857	-53.4		05	8.4
20	23	26,247	-52.6		29	5.5	14	26,132	-54.1		28	8.6	21	26,120	-48.3		27	44.0	24	26,183	-53.8		32	12.2	20	26,300	-51.6		05	10.8
15	21	28,124	-49.5		29	5.0	13	27,989	-52.0		28	8.8	15	28,012	-45.4				18	28,046	-52.3		31	12.2	14	28,186	-48.3		08	14.3
10	14	30,791	-46.3		27	10.8	8	30,704	-46.9				10	30,753	-40.9				5	30,720	-46.3				8	30,874	-46.8			

Standard pressure surface (mb.)	OMAHA, NEBR. 968 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.	* PAGO PAGO, AMERICAN SAMOA 1008 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.	* PEORIA, ILL. 995 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.	* PITTSBURGH, PA. 976 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.	* PONAPE, CAROLINE IS. 1003 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	403	-9.6	-12.0	28	1.4	31	5	28.1	23.5	03	2.3	31	200	-8.4	-12.1	23	.8	31	359	-3.5	-8.0	24	2.7	31	39	27.7	23.8	08	3.1
1000							31	75	27.0	21.0	03	2.6													30	48	26.6	21.3	07	3.6
950	30	555	-9.1	-12.3	30	3.4	31	527	23.5	18.2	02	4.4	31	555	-7.1	-12.6	26	4.9	31	566	-4.0	-8.7	25	4.9	31	519	23.1	18.3	07	7.1
900	31	970	-5.6	-14.9	28	6.5	31	998	20.3	15.4	01	4.2	31	978	-5.2	-13.5	26	8.3	31	992	-3.8	-10.8	26	9.1	31	989	19.8	15.1	07	7.6
850	31	1,419	-4.4	-15.9	28	11.2	31	1,490	17.3	11.4	36	3.5	31	1,428	-3.1	-15.5	27	11.3	31	1,440	-5.8	-15.2	27	12.8	31	1,481	17.2	9.8	08	7.4
800	31	1,896	-3.9	-17.1	28	13.9	31	2,007	14.8	8.6	36	2.5	31	1,903	-4.2	-17.5	27	13.6	31	1,914	-6.5	-17.1	27	15.6	31	1,997	15.3	6.8	09	5.3
750	31	2,400	-8.1	-18.3	28	16.0	31	2,551	12.1	4.9	36	2.4	31	2,407	-7.8	-20.5	27	16.2	31	2,417	-8.0	-19.2	27	18.7	31	2,542	12.9	-.5	09	4.6
700	31	2,933	-10.8	-21.4	28	18.8	31	3,127	8.8	.0	35	1.8	31	2,941	-10.6	-22.6	27	18.5	31	2,952	-10.0	-20.7	27	21.5	31	3,119	10.1	-5.6	09	4.9
650	31	3,500	-13.8	-23.9	28	20.7	31	3,737	5.8	-3.5	35	2.2	31	3,508	-13.6	-24.1	27	20.5	31	3,521	-12.5	-23.3	27	24.9	31	3,712	6.9	-10.7	09	5.3
600	31	4,104	-17.2	-28.3	28	24.1	31	4,389	2.4	-8.2	33	2.1	31	4,113	-16.8	-26.2	27	24.1	31	4,129	-15.8	-26.0	27	28.3	31	4,385	3.1	-16.0	08	5.9
550	31	4,751	-21.4	-32.1	28	28.9	31	5,087	-1.5	-12.6	34	1.8	31	4,742	-20.6	-30.7	27	27.7	31	4,781	-19.1	-30.3	26	32.3	30	5,087	-.7	-19.5	08	6.8
500	31	5,448	-26.1	-36.1	28	29.1	31	5,841	-5.6	-18.1	32	.4	31	5,461	-24.9	-33.4	27	30.7	31	5,485	-23.1	-33.8	26	36.3	30	5,842	-5.1	-24.0	08	7.7
450	31	6,203	-31.0	-40.5	28	32.5	30	6,661	-10.3	-22.6	25	.3	31	6,220	-29.5	-37.6	27	34.7	31	6,250	-27.4	-37.3	26	40.5	30	6,662	-8.9	-28.8	08	8.7
400	31	7,029	-36.3	-46.1	28	37.2	30	7,539	-15.7	-28.1	25	.8	31	7,052	-34.8	-42.0	26	38.5	31	7,089	-32.3	-42.0	26	44.7	30	7,561	-15.2	-34.4	07	9.0
350	31	7,947	-41.8	-47.6	27	41.5	30	8,556	-22.3	-35.3	22	1.8	31	7,973	-41.0	-46.7	26	41.4	31	8,020	-39.0	-47.9	26	48.6	30	8,560	-21.9	-40.0	07	9.0
300	31	8,975	-48.2		27	45.8	30	9,667	-30.7	-44.9	21	3.9	31	9,005	-47.8		26	44.6	31	9,058	-46.5		26	50.9	30	9,673	-30.4	-44.8	08	6.5
250	31	10,139	-54.3		27	45.1	30	10,934	-41.1	-52.0	21	5.7	31	10,191	-54.3		26	47.1	31	10,247	-54.6		26	53.8	30	10,942	-40.6	-54.4	10	4.8
200	31	11,578	-58.3		27	44.1	30	12,610	-53.3		20	7.5	31	11,608	-57.5		26	45.1	31	11,661	-58.0		26	47.8	30	12,422	-53.0		10	4.4
175	30	12,423	-55.7		27	41.4	28	13,259	-60.8		20	9.0	31	12,452	-57.3		26	43.0	28	12,506	-58.0		26	45.3	29	13,266	-59.9		11	4.5
150	30	13,405	-55.9		27	34.8	28	14,202	-68.1		19	10.6	30	13,423	-57.2		26	37.9	28	13,481	-58.5		26	42.0	29	14,212	-67.7		11	5.8
125	29	14,355	-57.3		27	30.5	28	15,277	-75.1		18	8.0	29	14,571	-58.7		26	33.3	25	14,623	-60.5		26	38.1	29	15,287	-75.8		10	7.5
100	27	15,994	-58.1		27	25.1	28	16,533	-79.8		15	5.5	29	15,986	-60.2		26	26.5	24	16,011	-62.2		26	33.0	29	16,551	-82.8		08	10.9
80	27	17,353	-59.5		28	18.6	27	17,819	-77.3		10	4.0	28	17,352	-60.7		26	21.6	24	17,390	-62.0		26	26.5	29	17,798	-78.9		08	8.6
70	27	18,191	-58.9		28	16.3	27	18,594	-72.9		09	8.1	28	18,184	-60.5		26	21.1	24	18,218	-60.9		26	22.1	29	18,572	-71.9		28	1.2
60	27	19,[illegible]1	-58.3		28	13.5	27	19,506	-69.5		09	7.8	27	19,145	-59.5		27	18.4	23	19,181	-60.2		27	18.6	28	19,491	-68.1		27	7.5
50	27	20,309	-57.9		29	12.9	27	20,608	-64.0		09	8.4	27	20,286	-59.3		28	15.9	21	20,321	-60.2		26	15.4	28	20,597	-64.3		27	10.3
40	25	21,710	-57.2		30	9.9	26	21,987	-60.6		08	9.8	25	21,691	-58.5		29	13.7	21	21,714	-59.2		27	14.1	28	21,973	-60.8		27	9.2
30	23	23,544	-55.7		31	9.5	25	23,799	-55.9		09	12.4	23	23,498	-57.5		29	14.5	20	23,530	-57.5		28	13.4	28	23,781	-58.6		27	4.5
25	22	24,714	-55.7		30	10.1	24	24,987	-53.0		09	14.9	21	24,654	-56.8		29	14.0	19	24,691	-57.3		28	14.3	25	24,942	-54.8		28	1.9
20	20	26,148	-53.9		32	10.8	22	26,416	-49.9		08	20.1	17	26,094	-55.5		30	13.5	17	26,088	-56.2		28	17.5	26	26,377	-52.4		10	3.2
15	14	28,020	-52.4		32	12.9	19	28,319	-46.1		09	23.7	13	27,903	-54.4		29	19.7	12	27,923	-54.7		28	18.5	23	25,252	-49.0		09	14.7
10	5	30,731	-48.1				12	31,030	-41.0				11	30,545	-48.3		30	21.8	11	30,579	-49.6		29	18.1	16	30,939	-44.3		09	22.7
7													7	33,039	-43.4				5	32,926	-47.8				7	33,370	-38.5			

Standard pressure surface (mb.)	PORTLAND, MAINE 1015 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.	* QUILLAYUTE, WASH. 1010 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.	RAPID CITY, S. DAK. 901 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.	ST CLOUD, MINN. 977 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.	* ST PAUL IS., ALASKA 1008 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	20	-7.0	-11.8	30	2.3	31	99	1.8	-.2	23	.8	31	966	-10.3	-16.9	33	3.1	31	316	-16.9	-21.8	26	2.1	28	10	-3.0	-4.8	13	3.0
1000	31	135	-4.9	-10.5	26	2.8													31	523	-16.1	-19.9	28	4.5	28	476	-6.0	-7.5	14	5.3
950	31	338	-6.0	-11.7	26	4.9	31	548	.0	-2.1	25	6.0							31	932	-14.0	-18.8	28	7.7	28	897	-8.6	-11.2	16	5.2
900	31	961	-7.5	-14.3	26	7.9	31	980	-2.4	-5.0	26	8.3							31	1,308	-12.6	-18.3	28	10.8	28	1,339	-10.2	-15.8	17	5.6
850	31	1,405	-8.4	-16.6	27	12.1	31	1,432	-4.3	-9.7	26	9.8	31	1,412	-7.8	-16.6	30	8.0	31	1,631	-12.5	-19.0	28	12.7	28	1,804	-12.5	-19.6	16	5.8
800	31	1,875	-9.2	-19.2	26	15.9	31	1,908	-4.2	-13.1	27	11.1	31	1,884	-8.1	-17.3	30	10.6	31	2,323	-14.2	-21.1	29	14.3	28	2,295	-15.1	-24.3	18	5.5
750	31	2,373	-10.7	-20.4	26	18.5	31	2,411	-8.4	-15.9	27	14.0	31	2,384	-10.3	-19.8	30	14.0	31	2,844	-16.5	-23.7	28	16.9	28	2,814	-17.8	-27.0	19	6.4
700	31	2,902	-13.1	-22.8	26	21.3	31	2,944	-11.1	-18.5	28	16.2	31	2,913	-12.5	-21.9	30	17.1	31	3,399	-19.4	-26.9	28	19.2	28	3,363	-21.2	-29.9	21	7.2
650	31	3,464	-15.3	-25.6	26	24.1	31	3,510	-13.8	-22.2	28	18.8	31	3,476	-15.9	-24.7	30	19.0	31	3,990	-22.9	-29.6	28	21.6	28	3,951	-24.8	-34.0	21	8.5
600	31	4,066	-18.1	-28.9	26	28.0	31	4,115	-16.9	-25.0	28	21.0	31	4,075	-19.6	-28.1	29	21.4	31	4,623	-26.8	-33.6	28	23.9	28	4,579	-28.8	-37.5	22	9.9
550	31	4,712	-21.5	-32.4	26	30.9	30	4,760	-20.7	-28.7	29	23.4	31	4,716	-23.7	-31.8	29	23.3	31	5,304	-31.5	-36.6	28	26.3	28	5,255	-33.0	-40.3	22	11.0
500	31	5,409	-25.6	-37.4	26	36.0	30	5,459	-23.4	-33.9	29	23.7	31	5,405	-28.2	-35.7	29	26.4	31	6,042	-36.6	-39.9	28	27.5	28	5,989	-37.5	-43.0	22	15.3
450	31	6,169	-30.5	-40.7	26	39.2	30	6,215	-30.8	-37.6	29	25.1	31	6,154	-33.5	-39.9	29	29.4	31	6,849	-41.9	-44.0	28	30.2	28	6,794	-42.2	-44.5	22	16.5
400	31	6,993	-35.9	-45.1	26	42.7	30	7,042	-36.3	-42.1	29	25.3	31	6,970	-39.4	-44.0	29	31.5	31	7,746	-46.9		27	33.4	28	7,691	-46.8		23	19.5
350	31	7,913	-41.3	-47.6	26	46.3	30	7,960	-42.3	-47.1	29	24.2	31	7,875	-45.1	-48.7	29	33.3	31	8,755	-51.2		27	37.2	28	8,701	-51.0		22	22.8
300	31	8,943	-47.6		26	44.0	30	8,988	-48.4		29	26.1	31	8,890	-50.5		29	35.9	31	9,933	-53.7		27	35.8	28	9,880	-53.3		23	21.5
250	31	10,191	-54.1		27	37.8	30	10,170	-54.2		29	27.3	31	10,066	-54.9		29	36.5	31	11,363	-53.8		27	36.0	28	11,324	-50.7		23	18.5
200	31	11,348	-57.7				29	11,578	-57.4		30	23.7	30	11,483	-56.3		28	32.4	31	12,224	-53.4		28	33.9	28	12,196	-50.0		23	17.7
175	31	12,392	-57.3				28	12,626	-57.1		30	22.1	29	12,334	-56.0		28	31.6	31	13,215	-53.7		27	30.3	28	13,204	-49.3		23	19.6
150	31	13,368	-56.9				29	13,401	-55.8		29	20.6	28	13,318	-55.3		28	29.6	31	14,384	-54.5		27	29.1	28	14,399	-49.8		24	17.9
125	29	14,326	-56.0				25	14,573	-55.4		29	18.9	28	14,479	-56.4		28	27.8	30	15,807	-56.0		26	27.4	28	15,859	-49.5		26	15.0
100	29	15,927	-56.3				24	15,995	-55.8		29	16.1	26	15,899	-57.5		28	24.6	30	17,222	-56.9		26	25.5	28	17,324	-48.8		24	18.2
80	28	17,528	-59.2				24	17,415	-54.0		30	14.8	25	17,308	-57.7		28	18.9	30	18,067	-57.5		28	24.6	28	18,202	-48.7		24	18.3
70	28	18,163	-59.7				24	18,265	-55.6		30	12.0	23	18,158	-59.0		29	17.6	30	19,042	-56.5		26	24.0	28	19,214	-48.3		23	18.2
60	27	19,130	-59.1				22	19,241	-53.7		30	10.8	23	19,128	-57.8		29	16.3	28	20,200	-56.5		28	22.3	27	20,416	-47.8		23	18.7
50	27	20,274	-58.7	27	20.7		22	20,403	-53.3		31	10.4	23	20,279	-57.2		30	15.6	27	21,617	-56.2		29	21.7	27	21,893	-47.1		23	16.9
40	26	21,676	-58.6	27	22.3		21	21,832	-55.0		32	10.6	21	21,701	-59.7		31	12.1	24	23,475	-55.8		29	18.5	26	23,799	-46.0		26	18.1
30	23	23,448	-56.7	27	20.1		18	23,680	-53.1		34	8.9	19	23,547	-54.8		31	13.0	23	26,633	-56.8		30	17.9	26	25,010	-46.7		26	17.0
25	25	24,634	-56.9	27	21.1		18	24,855	-53.3		35	7.8	17	24,706	-54.2		32	16.5	20	26,087	-55.2		30	18.3	26	26,488	-46.6		26	17.7
20	24	26,070	-56.1	27	21.6		14	26,322	-51.9		35	6.4	15	26,141	-54.0				17	27,938	-54.8		31	20.6	22	25,603	-44.9		27	19.7
15	19	27,888	-56.9	27	22.5		11	28,223	-50.8		01	8.9	9	28,022	-52.3				6	30,476	-53.1				10	31,123	-44.0			
10	13	30,503	-52.7				7	30,865	-49.1																7	33,617	-40.0			
7																														

See reference note at end of table

RAWINSONDE DATA

Average monthly values

JANUARY 1972

Standard pressure surface (mb.)	SALEM, ILL. 898 MB No. of observations	Dynamic height	Temperature	Dew Point t	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	174	-4.1	-7.4	17	.2
1000						
950	31	365	-2.8	-11.0	24	3.6
900	31	995	-1.5	-13.1	26	6.4
850	31	1,451	-1.4	-16.7	26	9.4
800	31	1,933	-2.9	-18.5	26	12.7
750	31	2,443	-4.7	-20.8	26	15.6
700	31	2,983	-7.5	-24.9	26	19.0
650	31	3,557	-10.5	-26.3	27	21.4
600	31	4,170	-13.8	-29.4	27	24.6
550	31	4,827	-17.2	-30.5	27	26.9
500	31	5,534	-21.6	-34.6	26	31.9
450	31	6,304	-26.0	-38.5	26	34.7
400	31	7,165	-32.3	-44.2	26	38.2
350	31	8,078	-38.7	-47.9	26	39.1
300	31	9,117	-46.2		26	37.7
250	31	10,307	-54.2		26	39.9
200	30	11,728	-58.3		26	38.6
175	30	12,564	-58.1		26	34.7
150	30	13,534	-58.7		26	38.0
125	30	14,673	-61.0		26	28.9
100	30	16,053	-62.3		26	21.5
80	30	17,428	-62.5		26	17.5
70	30	18,253	-62.4		27	14.2
60	30	19,208	-60.8		27	12.8
50	29	20,340	-60.1		28	12.0
40	29	21,737	-59.0		29	10.1
30	28	23,554	-57.0		31	7.0
25	28	24,709	-56.6		30	8.4
20	27	26,131	-55.4		31	11.0
15	24	27,981	-53.3		31	9.0
10	17	30,640	-50.3		31	11.1
7	8	32,986	-48.8			

Standard pressure surface (mb.)	SALEM, OREG. 1013 MB No. of observations	Dynamic height	Temperature	Dew Point t	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	61	2.6	.1	19	3.4
1000	29	173	2.7	.1	20	3.5
950	31	581	2.1	-1.8	22	6.7
900	31	1,016	.5	-5.1	24	8.6
850	31	1,473	-1.7	-7.9	25	9.7
800	31	1,954	-4.1	-10.3	26	11.3
750	31	2,461	-6.3	-13.5	27	13.6
700	31	2,999	-8.9	-15.2	28	15.4
650	31	3,569	-11.8	-22.8	29	16.8
600	31	4,178	-15.2	-25.8	29	19.5
550	31	4,831	-19.5	-30.1	29	20.9
500	31	5,533	-23.9	-30.8	29	22.5
450	31	6,294	-29.0	-39.6	29	24.0
400	31	7,126	-34.9	-44.1	29	23.3
350	31	8,048	-41.3	-48.7	29	24.4
300	31	9,077	-48.1		30	22.3
250	31	10,261	-54.7		29	22.7
200	30	11,672	-58.9		30	19.3
175	30	12,503	-58.2		29	20.8
150	30	13,480	-57.3		29	20.1
125	30	14,630	-56.9		29	19.8
100	30	16,053	-59.4		29	14.9
80	30	17,442	-57.0		30	11.6
70	30	18,283	-57.9		31	9.5
60	30	19,290	-58.3		31	9.3
50	29	20,401	-56.8		32	9.0
40	29	21,820	-55.3		34	7.6
30	28	23,554	-55.2		34	9.8
25	28	24,816	-54.4		34	10.6
20	27	26,235	-53.4		35	9.1
15	24	28,114	-52.4		35	11.4
10	17	30,822	-50.2			
7	9	32,822	-47.5			

Standard pressure surface (mb.)	SALT LAKE CITY, UTAH 872 MB No. of observations	Dynamic height	Temperature	Dew Point t	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	1,280	-3.2	-8.2	19	2.4
1000						
950						
900						
850	31	1,500	-1.4	-10.3	19	2.7
800	31	1,982	-2.8	-12.5	24	4.0
750	31	2,491	-6.2	-14.1	26	6.5
700	31	3,028	-9.1	-16.7	28	10.3
650	31	3,599	-12.0	-19.4	29	12.7
600	31	4,208	-15.3	-23.1	29	14.8
550	31	4,861	-18.1	-27.1	29	17.1
500	31	5,564	-23.5	-32.5	29	20.6
450	31	6,327	-28.5	-37.2	29	23.7
400	31	7,162	-34.0	-42.6	30	26.5
350	31	8,087	-40.2	-47.0	30	28.6
300	31	9,120	-47.8		30	30.1
250	31	10,302	-55.5		29	31.6
200	31	11,709	-59.0		29	29.9
175	31	12,547	-58.5		29	28.3
150	31	13,517	-58.4		29	26.0
125	31	14,662	-59.4		29	22.7
100	31	16,055	-60.7		29	19.4
80	30	17,437	-61.8		29	15.2
70	30	18,268	-60.1		30	13.2
60	30	19,233	-58.6		30	9.9
50	30	20,382	-57.5		31	8.6
40	30	21,794	-56.5		32	6.1
30	30	23,626	-55.1		34	6.5
25	30	24,792	-54.4		34	7.5
20	29	26,226	-53.7		34	9.0
15	22	28,099	-51.9		36	8.6
10	9	30,822	-47.5			
7						
5						

Standard pressure surface (mb.)	SAN DIEGO, CALIF. 1003 MB No. of observations	Dynamic height	Temperature	Dew Point t	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	124	6.4	3.5	04	1.6
1000	29	153	9.0	-.2	04	1.4
950	31	574	11.1	-2.9	02	1.1
900	31	1,028	11.6	-9.3	01	1.3
850	31	1,504	9.6	-11.6	34	1.3
800	31	2,004	7.3	-14.6	30	1.8
750	31	2,533	4.9	-16.8	28	3.2
700	31	3,092	1.6	-19.2	30	4.8
650	31	3,684	-2.1	-22.4	29	6.0
600	31	4,315	-6.4	-25.9	29	6.5
550	31	4,989	-11.2	-28.8	29	7.3
500	30	5,713	-16.4	-32.8	29	7.2
450	30	6,496	-22.4	-37.9	29	8.3
400	30	7,350	-29.1	-42.9	29	9.2
350	30	8,292	-36.6	-49.1	29	10.0
300	30	9,338	-43.2		29	12.5
250	30	10,531	-54.1		29	15.4
200	30	11,942	-59.7		28	18.6
175	30	12,777	-59.6		27	19.1
150	30	13,738	-61.1		27	19.4
125	30	14,863	-63.7		27	18.6
100	30	16,224	-66.1		28	14.3
80	30	17,574	-66.7		28	10.4
70	30	18,383	-66.2		30	8.6
60	30	19,321	-64.4		31	6.5
50	30	20,444	-61.8		34	4.3
40	30	21,835	-59.0		02	4.2
30	30	23,653	-55.6		05	5.7
25	30	24,819	-54.0		05	5.3
20	30	26,255	-52.0		04	6.5
15	30	28,125	-50.0		05	7.2
10	20	30,785	-47.5		02	5.5
7	5	33,210	-42.3			

Standard pressure surface (mb.)	SAN JUAN, P. R. 1017 MB No. of observations	Dynamic height	Temperature	Dew Point t	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	8	23.3	17.5	11	3.4
1000	31	150	22.8	18.3	09	6.5
950	31	596	19.4	15.8	09	9.3
900	31	1,059	16.1	11.9	09	9.7
850	31	1,544	12.5	7.8	09	9.3
800	31	2,051	10.7	1.5	09	8.5
750	31	2,588	8.7	-5.6	09	7.8
700	31	3,156	6.4	-12.9	08	7.1
650	31	3,760	3.3	-16.7	08	6.6
600	31	4,405	-.2	-20.4	08	5.4
550	31	5,096	-4.4	-25.6	07	5.1
500	31	5,839	-9.4	-29.9	04	3.8
450	31	6,645	-14.7	-34.9	01	4.1
400	31	7,526	-21.3	-40.2	34	6.0
350	31	8,500	-28.0	-45.9	31	7.1
300	31	9,586	-36.0	-52.2	30	13.3
250	31	10,828	-45.4		26	17.7
200	31	12,282	-55.8		28	21.1
175	31	13,122	-61.1		28	19.8
150	31	14,067	-66.3		28	17.1
125	29	15,159	-71.4		29	11.5
100	29	16,459	-76.6		31	6.5
80	29	17,739	-77.0		01	3.2
70	29	18,511	-74.8		04	2.3
60	29	19,417	-70.6		04	1.7
50	29	20,313	-65.6		02	2.1
40	29	21,878	-60.5		03	.9
30	29	23,693	-54.4		04	2.2
25	29	24,869	-51.5		06	2.3
20	29	26,326	-48.8		09	1.8
15	29	28,215	-44.4		16	2.6
10	10	30,948	-43.3			

Standard pressure surface (mb.)	SAN NICOLAS, CALIF. 994 MB No. of observations	Dynamic height	Temperature	Dew Point t	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE						
1000						
950	INSUFFICIENT OBSERVATIONS					
900						
850						
800						
750						
700						
650						
600						
550						
500						
450						
400						
350						
300						
250						
200						
175						
150						
125						
100						
80						
70						
60						
50						
40						
30						
25						
20						
15						
10						
7						
5						

Standard pressure surface (mb.)	* SAULT STE MARIE, MICH. 985 MB No. of observations	Dynamic height	Temperature	Dew Point t	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	221	-12.0	-15.1	27	2.5
1000						
950						
900	31	494	-11.1	-14.7	27	8.8
850	31	908	-12.9	-15.2	28	10.0
800	31	1,342	-14.3	-17.5	28	11.9
750	31	1,801	-15.4	-20.8	27	14.0
700	31	2,287	-16.9	-24.8	28	15.3
650	31	2,803	-19.0	-27.0	27	17.8
600	31	3,352	-21.4	-29.2	27	19.7
550	31	3,939	-24.4	-32.3	27	21.6
500	31	4,569	-27.9	-35.7	27	24.2
450	31	5,248	-32.0	-39.5	27	27.1
400	31	5,985	-37.0	-41.5	27	29.8
350	31	6,790	-42.1	-43.6	27	33.2
300	31	7,687	-46.6		27	36.9
250	31	8,699	-50.5		27	39.7
200	31	9,881	-53.1		27	40.3
175	31	11,318	-53.3		27	38.6
150	31	12,178	-53.1		27	37.9
125	31	13,171	-53.6		27	34.9
100	31	14,339	-55.0		27	34.2
80	31	15,762	-53.9		27	32.6
70	29	17,202	-56.8		27	27.3
60	28	18,044	-57.2		27	25.3
50	27	19,021	-57.9		27	24.7
40	26	20,163	-58.3		27	24.4
30	24	21,589	-57.0		27	23.1
25	22	23,435	-56.7		28	21.2
20	19	24,617	-56.5		29	21.6
15	19	26,032	-56.4		29	22.0
10	17	27,863	-55.3		29	24.0
7	19	30,469	-52.5		29	23.1
5	10	32,769	-48.4			

Standard pressure surface (mb.)	* SHEMYA, ALASKA 997 MB No. of observations	Dynamic height	Temperature	Dew Point t	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	30	38	-.7	-5.1	32	.9
1000						
950	30	419	-3.9	-7.4	07	.5
900	30	843	-7.3	-9.1	16	1.2
850	30	1,285	-10.5	-12.1	20	1.5
800	30	1,750	-13.4	-17.6	21	1.9
750	30	2,238	-16.1	-21.9	19	2.2
700	30	2,755	-19.1	-25.1	20	3.0
650	30	3,303	-22.2	-28.1	21	3.7
600	30	3,867	-25.8	-32.0	22	4.5
550	30	4,513	-29.8	-36.6	23	5.7
500	30	5,186	-34.0	-39.1	23	7.4
450	30	5,917	-38.5	-40.3	23	9.5
400	30	6,717	-43.3	-42.8	23	12.4
350	30	7,608	-48.5		23	13.6
300	30	8,611	-51.6		23	15.1
250	30	9,793	-52.0		23	15.5
200	30	11,246	-49.3		23	17.0
175	30	12,123	-48.6		23	16.7
150	30	13,137	-48.6		23	16.4
125	30	14,337	-48.3		23	16.6
100	30	15,806	-48.3		23	16.3
80	30	17,275	-48.5		23	15.2
70	30	18,154	-48.1		23	14.6
60	30	19,171	-48.2		23	13.9
50	29	20,377	-47.6		23	13.2
40	29	21,854	-46.8		23	11.9
30	28	23,761	-46.6		22	10.7
25	24	24,976	-46.0		22	10.3
20	26	26,466	-45.7		22	10.2
15	25	28,393	-45.1		22	9.9
10	21	31,124	-44.2		22	8.3
7	14	33,481	-43.0			
5	6	35,737	-43.0			

Standard pressure surface (mb.)	* SHREVEPORT, LA. 1010 MB No. of observations	Dynamic height	Temperature	Dew Point t	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	79	6.0	4.0	14	.5
1000						
950	31	576	7.3	2.2	21	4.9
900	31	1,023	8.4	-1.1	24	7.1
850	31	1,495	7.5	-6.5	26	8.8
800	31	1,993	5.9	-9.6	26	10.4
750	31	2,520	3.7	-12.0	26	12.1
700	31	3,077	.8	-14.6	26	13.7
650	31	3,668	-2.6	-18.8	26	16.1
600	31	4,299	-6.4	-22.6	26	17.8
550	31	4,973	-11.0	-27.8	26	19.9
500	31	5,698	-15.9	-32.0	26	21.8
450	31	6,484	-21.6	-36.2	26	23.6
400	31	7,341	-28.1	-40.7	25	25.0
350	31	8,288	-35.4	-46.2	25	27.2
300	31	9,329	-44.0		26	28.4
250	31	10,537	-53.3		26	33.1
200	31	11,948	-60.4		26	35.4
175	31	12,778	-61.3		26	36.0
150	31	13,734	-61.8		26	33.5
125	31	14,854	-65.2		26	30.1
100	30	16,203	-67.9		26	25.0
80	30	17,536	-69.3		26	20.5
70	26	18,339	-68.5		26	16.8
60	26	19,270	-65.5		26	11.2
50	25	20,385	-62.9		26	9.4
40	22	21,763	-60.2		27	4.8
30	19	23,575	-57.4		27	4.7
25	22	24,731	-55.7		30	3.6
20	22	26,158	-54.1		29	5.6
15	22	28,010	-52.5		30	4.3
10	13	30,653	-49.2		28	10.5
7	10	33,052	-44.4			
5						

Standard pressure surface (mb.)	SPOKANE, WASH. 930 MB No. of observations	Dynamic height	Temperature	Dew Point t	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	30	720	-5.9	-9.7	21	2.8
1000						
950						
900	30	977	-4.9	-8.4	22	6.3
850	30	1,426	-5.9	-10.6	24	9.1
800	30	1,900	-7.5	-12.2	26	11.4
750	30	2,401	-10.0	-14.1	27	12.8
700	30	2,930	-13.1	-17.9	29	14.6
650	30	3,491	-16.0	-23.1	28	17.2
600	30	4,091	-19.3	-26.4	28	19.7
550	30	4,733	-23.2	-30.4	28	22.2
500	30	5,425	-27.4	-34.3	29	23.1
450	30	6,176	-31.9	-36.5	29	29.1
400	30	6,999	-37.2	-41.8	29	30.9
350	30	7,911	-44.0	-47.1	29	34.2
300	30	8,930	-49.9		30	37.4
250	30	10,109	-54.8		30	38.8
200	30	11,529	-58.7		30	35.0
175	30	12,378	-55.5		30	31.4
150	30	13,368	-54.4		30	28.1
125	30	14,537	-54.8		30	24.0
100	28	15,960	-55.9		30	22.0
80	26	17,334	-55.4		30	19.0
70	26	18,239	-54.5		30	15.2
60	26	19,225	-55.3		30	14.4
50	26	20,389	-55.2		31	13.7
40	26	21,817	-54.6		31	13.9
30	23	23,646	-52.8		33	13.3
25	22	24,836	-53.8		33	13.2
20	19	26,309	-52.4		34	13.4
15	13	28,181	-51.6		33	12.5
10	3	30,898	-50.1			
7						
5						

Standard pressure surface (mb.)	* SWAN ISLAND, N. I. 1013 MB No. of observations	Dynamic height	Temperature	Dew Point t	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	30	10	25.1	21.9	08	5.3
1000	30	122	24.7	20.8	08	6.4
950	30	571	21.0	18.8	09	8.0
900	30	1,038	17.9	14.5	09	8.4
850	30	1,525	14.9	9.3	10	8.3
800	30	2,037	12.2	3.2	10	7.9
750	30	2,575	9.8	-.7	10	7.8
700	30	3,146	7.1	-6.4	09	7.0
650	30	3,752	4.1	-11.9	10	6.6
600	30	4,399	.9	-18.4	10	4.8
550	30	5,093	-3.0	-21.2	10	2.8
500	30	5,841	-7.8	-25.6	12	1.7
450	30	6,652	-13.6	-30.5	21	1.6
400	30	7,536	-20.2	-36.1	26	3.3
350	30	8,514	-27.7	-42.5	29	6.3
300	30	9,600	-36.3	-50.1	29	9.9
250	30	10,839	-46.1		29	14.2
200	29	12,285	-57.0		24	18.1
175	28	13,121	-62.4		24	18.2
150	28	14,064	-65.6		25	15.6
125	26	15,162	-70.5		26	12.4
100	23	16,464	-76.8		25	8.3
80	23	17,744	-77.5		23	1.8
70	23	18,514	-75.4		15	.7
60	23	19,421	-70.1		11	.6
50	22	20,521	-65.1		21	.8
40	22	21,894	-61.5		32	1.0
30	19	23,703	-55.4		03	1.7
25	18	24,872	-52.1		08	2.6
20	18	26,326	-49.4		01	.8
15	13	28,220	-45.4		08	2.8
10						
7						
5						

Standard pressure surface (mb.)	TAMPA, FLA. 1019 MB No. of observations	Dynamic height	Temperature	Dew Point t	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	8	16.0	14.6	11	1.5
1000	31	165	17.2	14.7	14	2.6
950	31	604	17.0	10.4	18	4.4
900	31	1,065	14.6	7.3	20	4.6
850	31	1,546	11.9	3.3	22	4.9
800	31	2,052	9.8	-2.5	24	5.4
750	31	2,586	7.4	-10.0	25	6.3
700	31	3,150	4.3	-14.7	25	7.1
650	31	3,749	.9	-17.2	25	7.8
600	31	4,388	-2.7	-22.0	25	9.1
550	31	5,072	-7.1	-25.9	25	10.6
500	31	5,808	-12.1	-30.0	26	12.9
450	31	6,604	-18.1	-34.7	25	14.4
400	31	7,473	-24.4	-39.1	25	16.0
350	31	8,435	-31.8	-45.5	25	18.2
300	31	9,503	-40.3	-54.9	26	20.8
250	30	10,720	-50.8		26	23.7
200	31	12,146	-59.2		26	26.2
175	30	12,977	-62.1		26	27.2
150	31	13,927	-63.7		25	26.0
125	30	15,035	-67.7		26	23.7
100	30	16,352	-72.0		25	19.5
80	29	17,670	-73.2		26	14.8
70	29	18,454	-72.2		26	10.6
60	31	19,368	-69.5		25	7.7
50	29	20,469	-64.7		29	5.4
40	31	21,844	-61.1		27	3.6
30	31	23,630	-56.7		32	1.4
25	32	24,813	-54.2		32	2.0
20	32	26,254	-52.2		32	1.4
15	28	28,127	-49.1		28	4.9
10	25	30,820	-48.9		25	10.7
7	9	33,224	-42.0			

Standard pressure surface (mb.)	TOPEKA, KANS. 997 MB No. of observations	Dynamic height	Temperature	Dew Point t	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	268	-6.2	-10.0	33	.8
1000						
950	31	562	-5.1	-10.3	26	2.8
900	31	988	-2.3	-9.4	27	6.2
850	31	1,443	-1.6	-11.2	27	9.6
800	31	1,925	-2.9	-14.6	28	11.2
750	31	2,435	-5.0	-17.4	28	14.3
700	31	2,974	-7.7	-20.7	28	16.9
650	31	3,548	-10.6	-23.3	27	19.8
600	31	4,159	-14.1	-26.6	27	22.1
550	31	4,819	-18.1	-30.6	27	25.1
500	31	5,521	-22.0	-34.1	27	28.4
450	31	6,286	-27.5	-38.2	27	32.1
400	31	7,123	-33.3	-42.8	27	35.4
350	31	8,051	-40.0	-46.9	27	38.9
300	31	9,083	-47.8		29	38.2
250	31	10,258	-56.9		27	41.2
200	31	11,680	-57.9		27	38.6
175	30	12,530	-57.5		27	31.6
150	30	13,503	-58.0		27	29.4
125	30	14,647	-60.0		27	27.8
100	30	16,034	-61.2		27	23.0
80	30	17,415	-62.0		27	19.5
70	30	18,243	-60.4		27	16.7
60	29	19,206	-60.2		28	13.0
50	29	20,347	-58.8		29	10.9
40	29	21,753	-57.6		29	11.0
30	29	23,575	-56.0		31	7.7
25	27	24,737	-55.6		31	7.6
20	26	26,156	-55.2		33	9.4
15	19	28,038	-52.0		33	9.6
10	7	30,734	-47.6			
7						
5						

Standard pressure surface (mb.)	TRUK, CAROLINE IS. 1009 MB No. of observations	Dynamic height	Temperature	Dew Point t	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	2	28.1	23.1	08	3.9
1000	31	85	27.4	20.0	06	4.5
950	31	538	23.6	17.5	07	7.4
900	31	1,008	20.3	13.7	07	7.1
850	31	1,500	17.7	8.1	08	6.0
800	31	2,017	15.5	3.7	08	5.8
750	31	2,563	13.5	-3.1	07	5.3
700	31	3,141	10.6	-8.6	09	5.2
650	31	3,754	7.2	-12.3	08	6.1
600	31	4,408	3.1	-14.5	09	6.4
550	31	5,108	-.7	-18.9	09	7.1
500	31	5,863	-4.8	-24.0	09	8.8
450	31	6,684	-9.8	-28.9	09	9.3
400	31	7,583	-15.4	-33.3	08	8.4
350	31	8,581	-22.1	-38.7	08	8.7
300	31	9,693	-30.3	-47.1	08	8.0
250	31

RAWINSONDE DATA

Average monthly values

* VANDENBERG AFB, CALIF. 1008 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	29	100	7.1	3.3	05	1.8
1000	27	169	9.0	3.1	03	2.1
950	29	589	10.3	-2.6	01	3.1
900	29	1,039	10.3	-7.6	36	3.4
850	29	1,512	8.3	-11.5	35	4.0
800	29	2,011	6.1	-13.5	34	4.6
750	29	2,537	3.3	-16.9	33	5.1
700	29	3,092	-.1	-19.5	33	6.0
650	29	3,682	-3.6	-23.4	32	6.5
600	29	4,310	-7.5	-26.1	30	7.4
550	29	4,981	-12.3	-29.1	30	8.0
500	29	5,702	-17.4	-33.1	29	8.8
450	29	6,483	-23.0	-37.6	29	10.1
400	29	7,335	-29.8	-43.4	29	10.6
350	29	8,275	-37.2	-49.4	29	11.9
300	29	9,318	-45.8		29	13.0
250	29	10,508	-54.6		29	14.2
200	29	11,914	-59.7		29	16.4
175	29	12,750	-59.0		29	17.5
150	29	13,716	-60.0		29	17.2
125	29	14,849	-62.1		29	15.4
100	29	16,219	-64.1		29	12.8
80	29	17,583	-65.0		30	9.4
70	29	18,399	-64.1		31	7.6
60	29	19,345	-62.0		32	6.1
50	29	20,475	-60.1		35	5.2
40	29	21,873	-58.0		03	5.1
30	29	23,700	-55.2		05	6.2
25	29	24,870	-53.1		06	6.3
20	29	26,331	-52.2		06	7.5
15	27	28,178	-50.1		05	9.0
10	25	30,852	-46.6		06	8.1
7	14	33,264	-43.1			

VICTORIA, TEXAS 1014 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	33	10.6	8.3	02	1.2
1000	31	145	11.3	8.2	07	1.0
950	31	576	12.7	5.6	18	3.2
900	31	1,031	12.0	1.2	20	4.5
850	31	1,509	11.2	-2.9	23	4.8
800	31	2,014	9.8	-6.7	25	5.9
750	31	2,547	6.6	-10.8	25	6.8
700	31	3,110	3.8	-15.1	25	8.5
650	31	3,709	.3	-17.4	25	10.5
600	31	4,345	-3.9	-21.1	26	12.1
550	31	5,026	-8.8	-24.0	25	13.9
500	31	5,756	-14.1	-30.0	25	15.9
450	31	6,548	-19.5	-33.3	25	19.3
400	31	7,412	-25.8	-39.6	25	21.7
350	31	8,365	-33.5	-45.3	26	23.9
300	31	9,425	-41.8	-46.9	26	27.8
250	30	10,635	-51.5		26	32.1
200	30	12,053	-59.8		25	34.6
175	30	12,884	-61.6		26	32.8
150	30	13,837	-62.5		26	29.0
125	30	14,992	-66.3		26	26.9
100	29	16,290	-69.4		26	21.9
80	29	17,617	-70.7		28	16.4
70	29	18,409	-70.0		28	12.9
60	29	19,331	-67.7		28	9.4
50	29	20,439	-63.8		27	6.3
40	29	21,818	-60.3		26	3.6
30	29	23,626	-56.6		27	2.5
25	29	24,787	-55.2		28	2.5
20	29	26,218	-53.2		27	4.1
15	27	28,084	-50.6		30	3.4
10	25	30,795	-45.1			
7	12	33,264	-43.1			

* WAKE IS., PACIFIC AREA 1014 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	5	23.5	18.7	05	6.8
1000	31	123	22.5	16.8	06	7.2
950	31	567	18.6	15.5	06	7.7
900	31	1,030	15.2	12.9	06	7.4
850	31	1,512	12.0	8.7	06	5.5
800	31	2,019	10.9	-1.4	05	3.0
750	31	2,557	9.5	-8.4	01	2.0
700	31	3,127	7.6	-13.1	33	3.1
650	31	3,735	5.0	-17.6	31	4.2
600	31	4,383	1.8	-20.4	31	5.4
550	31	5,080	-2.5	-23.9	31	7.1
500	31	5,829	-7.2	-27.6	30	9.0
450	31	6,643	-12.1	-32.1	30	11.1
400	31	7,533	-18.2	-37.3	30	13.1
350	31	8,519	-25.7	-43.7	30	16.1
300	31	9,615	-33.5	-50.6	30	18.1
250	31	10,871	-42.5		30	19.6
200	31	12,343	-53.6		29	18.7
175	31	13,190	-59.8		28	16.7
150	31	14,137	-67.0		28	15.3
125	31	15,218	-74.4		28	13.5
100	31	16,488	-80.3		29	7.1
80	31	17,740	-79.7		31	1.6
70	31	18,503	-75.9		34	.5
60	31	19,409	-71.2		14	.8
50	31	20,503	-65.5		04	.2
40	31	21,874	-61.4		08	1.5
30	31	23,682	-56.0		08	2.0
25	31	24,853	-52.3		06	2.9
20	31	26,306	-50.5			
15	31	28,177	-48.1			
10	31	30,854	-42.9			

* WALLOPS IS., VA. NASA 1020 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	4	3.7	-.2	32	1.7
1000	31	160	4.1	-.2	29	2.5
950	31	578	3.6	-1.6	27	6.6
900	31	1,017	2.6	-3.6	26	9.2
850	31	1,479	1.5	-7.0	26	11.8
800	31	1,966	-.1	-9.2	26	14.2
750	31	2,482	-1.5	-11.6	25	17.2
700	31	3,029	-3.9	-15.6	25	19.8
650	31	3,611	-6.9	-18.7	25	23.7
600	31	4,232	-10.1	-21.9	25	27.2
550	31	4,898	-13.8	-25.2	25	29.3
500	31	5,616	-18.3	-29.9	25	33.1
450	31	6,395	-23.4	-33.2	25	38.0
400	31	7,246	-29.6	-38.4	25	37.8
350	31	8,188	-36.5	-44.1	25	37.4
300	31	9,235	-44.8		25	39.6
250	31	10,429	-54.1		26	40.0
200	31	11,834	-61.1		26	37.9
175	31	12,664	-60.9		26	37.3
150	31	13,621	-61.3		26	33.4
125	31	14,747	-63.6		26	31.4
100	31	16,110	-65.6		26	25.9
80	31	17,471	-65.5		26	20.6
70	31	18,290	-64.6		27	15.8
60	31	19,236	-62.9		27	13.7
50	31	20,364	-61.2		27	11.6
40	31	21,758	-59.4		27	9.2
30	31	23,570	-57.1		27	8.6
25	31	24,727	-56.1		28	8.1
20	31	26,148	-54.3		28	12.5
15	31	27,998	-52.8		27	14.4
10	31	30,644	-49.5			
7	11	33,021	-45.8			

WASHINGTON DULLES INT. AP 1010 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	85	-.8	-6.5	31	1.5
1000	29	170	.0	-6.9	30	2.5
950	28	572	.8	-6.6	28	6.0
900	31	1,005	-.3	-8.6	28	9.4
850	31	1,463	-.6	-11.7	28	12.3
800	31	1,946	-1.7	-13.2	27	14.8
750	31	2,459	-3.4	-13.5	27	17.2
700	31	3,002	-5.6	-18.8	26	20.1
650	31	3,580	-8.6	-21.4	26	22.9
600	31	4,198	-11.7	-24.3	26	26.6
550	31	4,860	-15.2	-26.9	26	30.6
500	31	5,574	-19.6	-31.4	26	33.9
450	31	6,349	-24.8	-35.6	26	37.0
400	31	7,196	-30.7	-41.9	26	39.8
350	31	8,135	-37.1	-46.8	26	43.4
300	31	9,160	-45.2		26	46.9
250	30	10,375	-53.7		26	49.7
200	31	11,765	-60.2		26	49.2
175	31	12,617	-60.2		26	48.2
150	31	13,580	-59.8		26	43.9
125	31	14,715	-61.9		26	39.1
100	31	16,089	-63.6		28	32.4
80	31	17,458	-63.5		26	26.4
70	31	18,280	-62.4		26	21.7
60	31	19,235	-61.5		26	17.5
50	31	20,369	-60.4		26	14.6
40	31	21,763	-58.8		27	14.6
30	29	23,578	-55.7		27	13.1
25	28	24,726	-53.6		27	12.4
20	28	26,163	-54.3		27	13.0
15	28	28,013	-52.6		27	13.7
10	22	30,645	-50.0		27	21.7
7	11	33,014	-44.3			

WAYCROSS, GA. 1014 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	44	10.9	9.5	26	.3
1000	31	142	12.0	8.2	22	.8
950	31	593	12.7	6.5	22	4.6
900	31	1,047	11.6	2.2	23	7.7
850	31	1,524	9.8	-.1	24	8.9
800	31	2,025	7.6	-5.0	25	9.6
750	31	2,555	5.2	-8.3	25	11.4
700	31	3,116	2.3	-12.2	25	13.5
650	31	3,711	-.9	-15.5	25	15.4
600	31	4,346	-4.3	-23.1	25	16.6
550	31	5,026	-8.9	-26.4	25	18.8
500	31	5,756	-14.1	-30.8	25	20.1
450	31	6,548	-19.7	-34.8	25	22.3
400	31	7,411	-26.1	-39.8	25	23.6
350	31	8,367	-33.1	-47.2	25	26.6
300	31	9,429	-41.6	-51.4	25	28.0
250	31	10,639	-51.2		26	32.3
200	30	12,058	-59.9		26	35.6
175	30	12,888	-62.1		26	34.4
150	29	13,840	-62.9		26	35.0
125	29	14,934	-66.8		26	31.3
100	29	16,292	-70.0		26	23.8
80	29	17,613	-71.3		26	19.7
70	29	18,405	-70.3		26	16.1
60	28	19,331	-67.2		26	10.6
50	28	20,443	-63.3		26	7.3
40	28	21,822	-61.0		26	5.9
30	28	23,628	-56.9		27	4.5
25	28	24,787	-55.4		28	5.0
20	27	26,218	-53.4		27	6.9
15	26	28,084	-50.8		27	8.9
10	23	30,795	-46.9		27	13.5
7	8	33,147	-43.2			
5						

WINNEMUCCA, NEV. 872 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	1,312	-5.9	-9.2	20	1.5
1000						
950						
900						
850	31	1,516	-2.1	-8.5	21	3.0
800	31	1,997	-2.9	-10.2	25	5.9
750	31	2,507	-5.0	-13.7	27	8.2
700	31	3,047	-7.4	-16.6	28	9.8
650	31	3,622	-10.0	-20.6	29	12.9
600	31	4,235	-13.5	-23.1	29	15.1
550	31	4,892	-17.2	-27.0	30	17.1
500	31	5,601	-21.8	-33.3	30	17.9
450	31	6,389	-27.0	-37.8	30	20.2
400	31	7,207	-33.3	-44.0	29	18.5
350	31	8,135	-39.9	-48.0	29	20.6
300	31	9,166	-47.7		28	21.9
250	31	10,330	-55.4		29	21.8
200	30	11,752	-60.3		29	19.4
175	29	12,585	-59.3		29	19.7
150	28	13,547	-58.2		29	18.2
125	28	14,692	-59.4		29	16.7
100	26	16,080	-60.6		29	14.0
80	27	17,467	-61.4		30	10.4
70	26	18,297	-60.0		31	8.4
60	26	19,262	-59.3		31	6.9
50	25	20,408	-57.8		32	6.0
40	25	21,817	-56.5		34	6.3
30	24	23,632	-54.4		01	5.5
25	24	24,828	-53.0		01	5.6
20	21	26,264	-52.2		01	5.4
15	19	28,137	-50.7		01	6.7
10						
7						
5						

WINSLOW, ARIZ. 853 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	1,487	-4.4	-10.5	21	.8
1000						
950						
900						
850	31	2,000	1.5	-12.6	28	3.8
800	31	2,519	.1	-15.8	27	5.3
750	31	3,069	-2.4	-18.7	28	8.1
700	30	3,654	-5.4	-22.3	28	10.2
650	30	4,277	-9.3	-25.6	29	12.4
600	30	4,944	-13.6	-29.1	29	13.9
550	30	5,662	-18.2	-33.2	29	15.3
500	30	6,441	-23.8	-38.1	29	15.6
450	30	7,290	-30.4	-43.6	29	16.5
400	30	8,227	-37.8	-48.8	28	19.1
350	30	9,268	-46.4		28	20.2
300	30	10,434	-55.6		29	21.0
250	29	11,861	-60.7		28	24.0
200	29	12,692	-60.7		28	23.2
175	28	13,655	-60.9		28	21.9
150	28	14,781	-63.8		28	20.6
125	27	16,141	-66.3		28	17.6
100	26	17,490	-66.3		28	14.0
80	25	18,303	-64.7		29	11.0
70	25	19,249	-62.7		30	7.6
60	25	20,377	-61.0		31	4.9
50	24	21,775	-58.1		35	3.1
40	22	23,609	-54.6		03	5.1
30	21	26,783	-54.1		05	5.9
25	21	26,220	-52.9		04	6.9
20	16	28,078	-51.7		04	6.5
15	9	30,737	-48.0			
10						
7						
5						

YAKUTAT, ALASKA 1009 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	12	-9.5	-13.8	09	2.4
1000						
950	31	483	-5.9	-12.8	08	2.6
900	31	905	-8.4	-14.5	09	1.7
850	31	1,346	-11.0	-17.5	11	.9
800	31	1,810	-13.3	-20.1	26	.7
750	31	2,299	-16.0	-22.8	26	1.6
700	31	2,816	-18.9	-27.4	27	2.8
650	31	3,365	-22.1	-31.0	27	4.2
600	31	3,949	-25.5	-33.9	28	5.9
550	31	4,570	-29.4	-37.1	28	7.6
500	31	5,250	-33.8	-39.7	29	9.1
450	31	5,981	-38.8	-38.7	29	10.2
400	31	6,782	-43.1	-42.2	29	13.8
350	31	7,675	-47.3		29	18.9
300	31	8,683	-50.5		29	23.4
250	31	9,869	-52.0		29	24.5
200	31	11,310	-52.6		29	22.6
175	31	12,173	-52.4		29	22.7
150	31	13,171	-52.3		29	22.1
125	31	14,353	-52.4		29	23.2
100	28	15,798	-52.3		29	23.9
80	28	17,242	-52.0		29	25.2
70	28	18,107	-52.3		29	25.3
60	28	19,105	-51.8		29	27.5
50	28	20,289	-50.9		29	26.4
40	27	21,740	-51.1		30	27.2
30	27	23,614	-50.5		30	30.4
25	26	24,800	-49.7		30	29.8
20	25	26,274	-49.9		31	30.4
15	23	28,162	-49.9		31	33.8
10	15	30,840	-48.0			
7						
5						

YAP, CAROLINE IS. 1008 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	14	27.5	23.8	08	2.9
1000	31	81	26.3	21.2	08	3.8
950	31	332	23.2	18.1	07	6.8
900	31	1,003	20.3	14.4	08	5.9
850	31	1,495	17.5	10.9	09	5.5
800	31	2,012	15.5	6.4	09	5.2
750	31	2,557	12.8	2.2	09	5.6
700	31	3,136	9.7	-2.5	09	6.0
650	31	3,746	6.4	-7.3	09	6.5
600	31	4,398	2.6	-11.6	09	6.9
550	31	5,097	-1.1	-16.7	09	7.5
500	31	5,851	-5.4	-22.5	10	7.6
450	31	6,670	-10.4	-26.0	10	7.9
400	31	7,557	-16.3	-32.9	10	8.4
350	31	8,562	-23.0	-39.7	10	8.5
300	31	9,669	-31.5	-47.3	10	8.0
250	31	10,933	-41.9		10	7.7
200	31	12,404	-54.1		12	7.7
175	31	13,249	-60.8		12	8.5
150	31	14,190	-68.5		12	10.3
125	31	15,261	-76.4		11	13.2
100	31	16,522	-83.1		10	13.7
80	31	17,769	-79.1		10	7.1
70	31	18,540	-73.6		08	.9
60	31	19,434	-68.9		29	3.8
50	31	20,336	-64.8		28	6.2
40	31	21,931	-60.9		28	4.6
30	31	23,738	-57.1		22	1.2
25	31	24,898	-54.5		12	2.4
20	30	26,336	-51.6		10	5.6
15	29	28,211	-49.3		09	12.4
10	27	30,899	-44.4		09	20.4
7	19	33,315	-39.8		09	22.6
5	5	35,663	-34.6			

YUCCA FLAT, NEV. 884 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	1,198	-3.2	-7.2	32	1.3
1000						
950						
900						
850	31	1,513	2.3	-9.1	35	2.8
800	31	2,002	1.5	-11.4	31	2.0
750	31	2,521	.0	-14.2	30	4.7
700	31	3,071	-2.0	-16.8	31	6.6
650	31	3,657	-5.4	-19.9	30	9.0
600	31	4,280	-9.3	-23.5	30	10.9
550	31	4,947	-13.7	-27.5	30	13.3
500	31	5,665	-18.5	-31.6	29	15.1
450	31	6,443	-24.0	-36.5	29	16.6
400	31	7,291	-30.4	-42.6	30	17.8
350	31	8,228	-38.0	-47.7	30	18.5
300	31	9,269	-46.8		29	19.4
250	31	10,457	-55.1		30	17.9
200	31	11,880	-60.9		30	20.5
175	31	12,692	-60.0		30	23.7
150	31	13,656	-59.8		29	20.6
125	30	14,790	-62.0		29	19.2
100	29	16,165	-63.5		29	16.7
80	28	17,529	-63.5		30	13.2
70	28	18,351	-62.8		31	9.5
60	28	19,303	-61.2		31	7.7
50	28	20,443	-58.9		33	5.5
40	28	21,830	-57.3		35	4.5
30	27	23,680	-54.7		03	3.5
25	27	24,849	-53.6		03	6.2
20	27	26,290	-52.2		03	6.2
15	23	28,161	-50.1		09	10.3
10	7	30,525	-47.2			
7						
5						

Note: All observations scheduled at 1200, G.C.T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Dew Point averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon.

The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Dew Point data are not published for standard pressure surfaces for which less than 5 observations are available. Dew Point data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from carbon hygristors.

These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature and dew point in degrees Celsius, and resultant winds in tens of degrees and meters per second.

* Rawinsondes at this station were equipped with hypsometers to permit more accurate evaluations of pressure, and consequently height, at pressures lower than 50 mb. These rawinsondes were carried aloft by special high altitude balloons, in an effort to consistently reach higher altitudes.

\+ Observations for these stations are scheduled at 0000 G.C.T.

† Dew Point temperatures are based on a minimum of 5 observations. Therefore, due to the lesser number of Dew Point observations at the higher levels comparison with dry-bulb temperatures should be made with care. Dew Point temperatures replaced Relative Humidity January 1967.

SOLAR RADIATION INTENSITIES

Tabulated in langleys per minute on a surface normal to the direction of the sun. JANUARY 1972

ALBUQUERQUE, N. MEX.

Date	Sun's zenith distance: A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass: 4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
Jan.									
1	----	----	----	1.39	1.40	1.37	1.24	1.12	1.01
2	1.05	1.16	1.26	1.39	1.40	1.38	1.22	1.11	1.01
3	1.07	1.16	1.26	1.38	----	----	----	----	----
4	1.00	1.11	----	1.41	1.42	1.39	1.26	1.15	1.05
5	1.06	1.16	1.22	1.36	1.36	1.33	1.18	1.06	.97
6	----	----	----	1.35	1.37	1.34	1.19	1.06	.97
7	1.03	1.12	----	----	----	----	----	----	----
8	1.01	1.11	----	----	----	----	1.18	1.06	.98
9	1.00	1.11	1.25	1.37	1.34	1.33	1.15	1.04	.92
10	.96	1.07	1.21	1.38	1.38	1.34	1.18	1.03	.89
11	----	----	----	----	----	----	----	----	.92
12	1.03	1.13	1.21	----	----	----	----	----	----
14	.99	1.05	1.21	----	----	----	----	----	----
15	1.08	1.18	1.29	1.42	1.42	1.39	1.25	1.13	1.04
16	1.08	1.18	1.27	1.40	1.42	1.37	1.21	1.08	.98
17	.99	1.09	1.20	1.35	1.38	1.33	1.17	1.04	.97
19	.95	1.09	1.22	1.35	1.37	1.30	(1.15)	(1.02)	----
20	(.98)	(1.09)	(1.12)	(1.25)	----	----	(1.02)	----	----
21	1.01	1.11	1.21	1.34	(1.34)	(1.28)	----	----	----
22	(.99)	(1.09)	(1.22)	----	(1.38)	(1.28)	(1.15)	(1.01)	(.85)
23	(1.02)	(1.09)	1.29	1.42	----	----	----	----	(1.00)
24	.85	.98	1.19	1.37	1.47	1.43	1.30	1.18	1.09
26	----	----	----	----	----	(1.30)	(1.07)	----	----
27	----	----	----	----	----	(1.38)	(1.20)	1.09	1.01
28	1.07	1.15	1.25	1.37	1.41	(1.21)	(1.15)	(1.04)	(.95)
29	(.95)	(.95)	(1.15)	1.35	1.38	----	1.18	1.07	.95
30	.95	1.06	1.17	1.34	1.37	1.32	1.15	1.05	.95
31	.92	1.01	1.16	1.31	1.36	1.28	1.13	1.00	.82
Averages	1.01	1.11	1.23	1.37	1.39	1.35	1.20	1.02	0.98

TUCSON, ARIZ.

Date	Sun's zenith distance: A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass: 4.56	3.65	2.74	1.83	*	1.83	2.74	3.65	4.56
Jan.									
1	0.95	----	----	1.33	----	1.34	1.16	1.06	0.96
2	1.04	1.14	1.25	1.41	1.45	1.40	----	----	----
3	----	.98	1.13	1.29	1.39	----	----	----	----
4	1.07	1.18	1.29	1.43	1.48	1.41	1.28	1.15	1.03
5	1.13	1.22	1.34	1.48	1.49	1.44	1.28	1.13	1.01
6	.98	1.08	1.21	1.37	1.43	1.41	1.22	1.09	.95
7	1.06	1.15	1.25	1.40	----	----	----	----	----
8	----	----	----	1.37	----	----	----	----	----
9	.91	1.01	1.16	1.34	1.36	1.34	1.17	1.03	.89
10	.79	.90	1.07	1.27	1.36	1.30	1.06	.90	.77
11	.78	.92	1.07	1.26	1.32	1.23	1.05	.95	.84
12	.96	1.08	1.20	1.39	1.43	1.36	1.21	1.10	.99
13	----	----	----	1.30	1.41	1.32	1.18	1.06	.98
14	.96	1.07	1.16	1.33	1.40	1.32	1.08	.91	.79
15	1.04	1.14	1.25	1.39	1.44	1.33	1.15	1.03	.92
16	----	----	----	1.37	1.43	1.33	1.16	1.03	.91
17	.90	.99	1.14	----	----	----	----	----	----
18	.99	1.04	1.16	1.35	1.42	1.33	1.17	1.01	.91
19	.88	.99	1.14	1.32	1.36	1.29	1.12	.95	.84
20	.85	.95	1.09	1.27	----	----	----	----	----
21	.93	1.02	1.15	1.32	1.37	----	----	----	----
22	.98	1.08	1.21	----	----	----	----	----	----
23	1.07	1.15	1.28	1.42	1.49	1.39	1.22	1.10	1.00
24	.93	1.04	1.14	1.32	1.40	1.26	1.14	1.01	.91
25	.98	1.10	1.22	1.39	1.47	1.37	1.26	1.16	1.05
26	----	----	1.18	1.31	----	----	----	----	----
27	----	----	H .97	H 1.20	H 1.30	1.35	1.14	1.02	.91
28	----	----	----	1.31	1.41	1.33	----	----	----
29	.95	1.06	1.18	1.35	1.46	1.36	----	----	----
31	.80	.93	1.09	1.30	1.33	1.32	1.19	1.06	.96
Averages	0.95	1.05	1.17	1.34	1.41	1.34	1.17	1.04	0.93

OMAHA, NEBR.

Date	Sun's zenith distance: A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass: 4.78	3.82	2.87	1.91	*	1.01	2.87	3.82	4.78
4	----	----	----	----	----	----	HS1.16	HS0.98	HS0.88
6	----	----	----	----	1.20	----	----	----	----
7	0.94	1.03	1.10	----	----	----	----	----	----
9	.94	----	1.16	----	1.28	----	----	----	----
10	----	HS1.08	HS1.18	----	----	----	----	----	----
11	----	----	----	----	----	----	1.12	----	----
13	HS1.00	HS1.16	HS1.22	----	HS1.30	----	----	----	----
15	1.02	----	----	----	----	----	----	----	----
17	----	1.05	1.18	----	1.33	----	1.12	.97	.84
25	.83	.97	1.09	----	----	----	----	----	----
28	.95	1.03	1.17	1.26	----	----	----	.70	----
29	1.00	1.10	1.19	1.34	1.32	1.24	----	.86	.66
30	.93	1.05	1.17	1.34	1.34	1.32	----	.50	.35
31	.97	1.06	1.18	1.33	1.34	1.30	.52	.35	----
Averages	0.95	1.05	1.16	1.32	1.30	1.29	0.98	0.73	0.68

MADISON, WIS.

Date	Sun's zenith distance: A.M. 78.7°	75.7°	70.7°	60.0°	*	P.M. 60.0°	70.7°	75.7°	78.7°
	Air mass: 4.69	3.75	2.81	1.88	*	1.88	2.81	3.75	4.69
7	----	S 0.97	S 1.07	----	S 1.14	----	S 1.05	S 0.91	S 0.82
9	----	----	S 1.17	----	S 1.20	----	----	----	----
14	----	----	----	----	S 1.29	----	S 1.17	S 1.03	----
15	S 0.92	S 1.00	S 1.16	----	S 1.27	----	S 1.16	S 1.04	S .94
23	----	----	----	----	----	----	S 1.08	S .96	S .86
25	S 1.00	S 1.16	S 1.21	----	----	----	----	----	----
28	----	----	----	----	----	----	S 1.14	S 1.00	S .85
29	M .84	M .92	M 1.08	----	S 1.21	----	M 1.04	M .92	M .80
30	S .96	S 1.07	S 1.19	----	S 1.33	----	----	----	----
Averages	0.93	1.02	1.15	----	1.24	----	1.11	0.98	0.85

( ) Clouds Present
* Values corresponding to true solar noon
BD Blowing Dust
BN Blowing Sand
D Dust
DI Intense Dust
DM Moderate Dust
DS Slight Dust
F Fog
GF Ground Fog
H Haze
HI Intense Haze
HM Moderate Haze
HS Slight
I Intense Haze-indeterminable
K Smoke
KI Intense Smoke
KM Moderate Smoke
KS Slight Smoke
M Moderate Haze-indeterminable
N Sand
S Slight Haze-indeterminable

Langley is the unit used to denote one gram calorie per square centimeter. An Explanation of the formula used in computing the air mass values for each station listed above appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

SOLAR RADIATION TOTALS

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

JANUARY 1972

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
ALBUQUERQUE N.M.	280	294	208	317	308	303	274	271	305	305	292	258	293	279	315	314	308	201	309	294	307	314	272	347	307	275	287	342	332	354	354	297
AMES IOWA	---	---	---	---	---	230	244	173	---	---	241	---	274	---	---	---	---	---	---	131	129	96	164	117	242	145	92	352	334	356	327	0
ANNETTE ALASKA	74	77	12	12	36	47	52	27	63	20	68	63	17	9	39	31	40	50	76	48	95	74	116	122	123	129	110	33	39	83	140	62
APALACHICOLA FLORIDA	230	84	132	204	186	153	352	347	247	218	124	230	287	11	138	368	280	331	271	168	61	113	321	370	112	242	187	307	354	325	351	229
ARGONNE NAT. LAB.	140	207	35	76	239	196	210	178	171	182	65	111	156	238	252	136	221	40	97	61	63	34	72	27	260	80	54	297	287	310	263	153
ASTORIA OREGON	21	---	144	31	19	28	---	17	---	25	1	30	113	57	133	28	26	14	0	---	18	99	63	13	133	134	137	201	202	209	55	72
ATLANTA GEORGIA	84	80	72	24	203	275	293	294	49	28	119	289	55	175	300	310	316	273	163	91	129	97	126	155	331	335	254	63	45	60	348	175
BARROW ALASKA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	---	---	---	---	---	---	---	---	---
BETHEL ALASKA	15	22	13	16	30	24	67	62	64	69	73	41	---	79	81	70	85	94	107	104	112	112	86	31	20	16	29	51	43	48	87	58
BISMARCK N.DAK.	179	177	191	198	182	201	141	162	111	207	135	---	124	196	123	184	152	199	142	139	74	132	152	216	189	283	112	280	276	166	224	175
BLUE HILL MASS.	157	31	199	30	44	166	169	215	86	192	61	215	68	108	93	206	105	195	186	154	202	83	144	190	93	239	242	90	253	162	264	150
BOISE IDAHO	150	182	227	156	131	118	81	180	175	99	22	121	218	232	257	247	45	28	84	53	24	43	194	145	94	75	189	---	242	---	147	136
BROOKINGS S. D.	205	179	155	236	210	208	180	207	184	188	219	132	137	235	224	173	237	157	112	191	119	155	226	159	186	217	159	256	248	229	242	192
BROWNSVILLE TEXAS	295	140	181	49	244	392	262	329	364	214	353	266	---	104	125	399	134	157	173	217	303	442	437	387	94	228	396	---	248	56	54	242
BURLINGTON VERMONT	105	32	120	53	183	212	105	205	65	219	165	157	151	272	69	182	105	245	136	125	---	90	212	213	163	266	230	175	231	200	275	164
CAPE HATTERAS N.C.	263	99	272	185	70	87	293	294	62	131	122	133	45	10	15	182	313	322	301	285	78	52	132	158	182	346	306	211	131	54	314	176
CARIBOU MAINE	103	61	133	91	147	173	89	157	85	143	40	123	43	167	110	168	80	126	99	176	209	193	62	133	36	166	199	137	223	151	205	130
CHARLESTON S.C.	248	118	204	116	119	171	310	311	192	260	61	63	149	44	131	354	328	234	296	264	153	98	302	299	190	349	232	305	74	201	244	207
CLEVELAND OHIO	166	57	171	20	140	213	133	204	13	206	193	129	22	241	232	262	228	37	196	28	88	41	89	92	194	112	135	141	237	164	222	142
COLUMBIA MISSOURI	50	237	13	91	295	267	259	137	262	254	267	209	196	266	306	280	279	170	170	51	29	82	80	98	315	285	17	342	312	334*	331	203
DAVIS CALIFORNIA	139	145	241	266	262	250	208	269	206	84	70	58	176	276	211	148	89	69	104	104	74	144	238	209	218	251	206	234	346	347	105	185
DODGE CITY KANSAS	225	304	48	351	331	303	316	302	332	327	---	165	254	145	---	351	346	299	346	235	138	322	336	338	345	200	180	---	372	407	403	286
EL CENTRO CALIF. NPF	300	313	268	325	334	321	178	313	318	317	315	298	304	315	324	329	331	325	317	319	265	284	338	348	286	178	360	328	345	374	382	311
EL PASO TEXAS	259	283	193	318	---	341	352	259	310	348	344	358	354	347	366	341	326	369	367	369	370	354	388	388	377	315	205	383	298	255	166	323
ELY NEVADA	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	243	229	272	299	163	318	287	330	332	318	---
EPPLEY NEWPORT R.I.	148	17	198	18	16	182	177	220	80	117	41	207	47	56	61	212	147	204	189	150	139	51	81	211	72	240	218	42	251	141	262	135
FAIRBANKS ALASKA	4	4	2	2	3	13	5	5	8	8	5	11	6	8	4	10	3	16	22	31	24	---	49	53	54	13	14	10	15	25	11	15
FLAMING GORGE UTAH	292	180	175	125	69	238	241	181	269	228	115	102	250	294	300	301	283	231	191	190	142	175	271	323	---	159	240	332	229	362	357	236
FORT WORTH TEXAS	---	293	55*	78	328	300	306*	24	---	109	316	307	305*	294	308	339	120	227*	292	311	78	250	331	275	345	65	44	201	112	318	206	225
FRESNO CALIFORNIA	72	67	51	272	266	254	216	73	86	44	48	69	51	97	212	112	158	181	102	85	135	153	241	317	208	253	92	266	79	131	154	147
GENEVA NEW YORK	173	50	145	46	130	175	114	196	33	203	174	92	177	220	158	150	204	40	137	35	185	63	98	47	112	177	180	183	220	112	256	138
GLASGOW MONTANA	145	131	149	83	149	74	78	165	100	99	71	---	156	188	120	95	133	164	127	126	92	125	135	210	122	197	178	222	193	228	137	140
GLOUCESTER POINT VA	198	80	275	47	37	211	272	270	161	58	38	200	74	55	105	307	296	293	230	218	67	55	196	251	214	312	206	59	298	64	328	177
GRAND JUNCTION COLO.	273	274	186	---	185	288	241	174	292	239	240	197	274	300	270	270	313	234	133	255	154	229	278	337	98	108	299	191	355	366	365	249
GREAT FALLS MONTANA	95	111	172	86	143	97	114	108	179	110	53	101	205	182	111	141	187	118	126	183	212	161	114	203	133	176	227	168	211	228	109	147
GREENSBORO N.C.	156	45	279	52	168	214	297	280	137	35	66	250	74	115	227	322	290	288	247	145	220	27	173	73	307	320	193	87	208	46	340	183
INDIANAPOLIS INDIANA	158	213	227	27	270	236	261	205	25	180	210	200	59	290	271	230	276	23	148	44	124	54	59	48	304	238	46	301	326	319	333	184
ITHACA NEW YORK	174	20	170	35	123	216	144	192	55	218	160	99	221	218	139	139	225	92	129	60	185	31	169	107	192	203	198	190	256	194	236	155
LAKE CHARLES LA.	178	203	140	66	222	351	349	245	177	128	254	319	263	352	358	370	343	138	200	40	108	163	282	199	260	189	198	136	73	41	283	214
LAKELAND FLORIDA	288	246	298	274	278	137	349	359	314	287	265	274	262	215	110	346	368	268	339	319	183	145	345	379	339	325	301	361	345	369	130	285
LANDER WYOMING	180	86	182	207	205	194	227	217	209	149	185	122	254	249	215	264	200	219	234	215	187	176	147	268	192	203	265	288	206	289	300	211
LARAMIE WYOMING	218	114	131	263	187	164	242	217	173	106	113	46	209	270	263	271	266	208	161	225	94	117	240	291	168	213	251	237	227	313	320	204
LAS VEGAS NEVADA	262	238	269	276	---	---	226	282	278	278	283	277	310	294	319	301	303	310	---	276	173	197	295	313	176	220	330	264	339	350	349	278
LITTLE ROCK ARKANSAS	18	281	34	25	303	301	293	179	159	145	288	295	181	304	298	315	228	156	56	150	41	184	273	265	357	335	72	119	64	204	374	203
LOS ANGELES CALIF.	292	287	264	277	304	295	193	209	268	254	288	205	217	258	299	311	270	195	167	217	144	242	190	320	223	310	285	310	275	339	347	260
LOS ANGELES CALIF.U	303	299	270	297	299	298	189	215	287	273	289	229	241	274	311	321	276	211	166	235	178	186	134	316	216	322	274	324	301	355	361	266
MADISON WISCONSIN	157	209	141	150	174	184	217	157	209	180	93	130	224	245	251	110	221	33	88	141	123	79	164	39	232	150	83	298	285	302	267	172
MANHATTAN KANSAS	78	228	26	269	271	263	262	207	287	269	279	182	285	173	252	282	285	253	74	53	75	163	63	272	316	220	60	359	295	348	336	219
MATANUSKA ALASKA	24	9	20	11	13	14	15	15	39	26	---	32	20	18	26	22	44	57	47	48	51	55	45	78	35	17	11	15	52	41	20	31
MEDFORD OREGON	28	56	237	173	212	177	68	86	121	157	97	54	177	108	107	90	61	45	157	78	27	25	140	216	136	195	156	293	284	294	201	138
MIAMI FLORIDA	135	234	249	338	342	334	309	263	268	347	343	274	319	349	314	272	149	271	194	278	323	146	224	319	351	337	319	398	396	400	321	294
MIDLAND TEXAS	309	323	51	210	---	358	357	176	265	353	350	350	273	354	374	366	312	365	337	365	362	---	375	356	381	---	---	---	159	---	---	312
NASHVILLE TENNESSEE	102	120	259	28	95	259	257	209	22	126	169	271	135	205	299	276	279	225	79	34	93	147	113	180	315	312	29	25	59	144	326	167
NEW YORK CENTRAL PRK	185	10	220	14	41	205	165	249	50	86	73	231	49	179	110	218	209	139	185	79	47	39	153	267	205	280	228	85	241	228	297	154
NORTH OMAHA NEBRASKA	120	153	79	255	203	235	235	167	246	247	242	149	234	267	194	211	257	259	120	71	128	126	127	226	293	167	84	329	321	326	323	206

SOLAR RADIATION TOTALS Continued

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys.

JANUARY 1972

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
OAK RIDGE TENNESSEE	70	76	227	18	193	277	263	252	15	94	172	275	122	159	298	299	291	260	99	61	167	90	82	207	322	310	75	62	101	173	339	176
OKLAHOMA CITY OKLA.	32	314	136	274	316	285	282	137	271	303*	246*	239	266	85	316	357	388	291	388	54	56	269	285	280	329	56	67	311	332	422	409	251
PALMER AAES ALASKA	21	6	12	8	12	11	14	11	32	29	27	20	17	16	22	35	37	43	38	39	40	50	46	54	33	16	11	11	36	39	19	26
PHOENIX ARIZONA	280	286	276	306	291	278	200	282	287	286	290	287	284	285	307	300	302	302	296	288	264	264	321	326	312	112	331	311	326	314	348	288
PORTLAND MAINE	149	29	---	57	94	199	155	206	83	175	26	172	37	154	66	205	47	170	151	127	207	83	165	85*	---	236	242	99	228	187	257	141
RAPID CITY S.DAK.	162	77	183	221	177	113	211	159	180	127	136	100	132	278	187	230	197	95	140	140	72	134	81	140	140	169	227	216	229	254	217	165
RENO NEVADA	118	133	172	242	189	203	79	232	207	202	183	147	162	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
RICHLAND 25 NW WASH.	166	84	186	65	56	142	187	110	106	144	98	131	185	176	155	68	119	62	81	50	174	209	79	104	103	118	178	226	249	211	136	134
RIVERSIDE CALIFORNIA	342	335	311	341	350	340	203	266	332	330	348	295	320	352	359	364	350	322	141	195	294	276	96	385	330	270	384	368	345	422	414	316
RUSTON LOUISIANA	---	143	54	24	200	314	---	---	---	---	301	302	233	321	331	325	323	135	138	---	80	148	291	304	356	---	---	51	35	121	---	206
SAINT CLOUD MINN.	181	176	167	228	125	109	186	73	172	149	173	71	143	178	215	147	197	131	95	152	93	201	169	78	224	237	122	253	252	245	233	167
SALT LAKE CITY	185	93	235	241	73	207	195	180	223	50	47	23	231	244	245	250	214	96	55	143	44	46	141	265	159	137	247	297	257	311	324	176
SAN ANTONIO TEXAS	43	282	31	56	380	368	360	64	57	216	350	346	361	350	391	289	50	114	267	306	369	361	389	118	397	64	271	115	65	138	123	229
SANTA MARIA CALIF.	290	291	293	290	298	293	231	281	287	292	299	276	305	298	305	312	275	161	101	290	291	297	266	334	206	304	279	274	281	340	350	280
SAULT STE MARIE MICH	122	139	147	125	114	126	92	73	154	80	168	58	92	71	117	102	65	20	146	66	119	---	---	---	---	---	---	---	---	---	---	---
SEATTLE TACOMA WASH.	26	116	152	54	30	66	66	25	135	30	53	145	101	37	126	14	49	28	27	13	92	100	15	69	94	172	219	173	170	251	---	96
SEATTLE WASH. UNIV.	39	180	164	63	41	52	115	55	138	75	44	90	89	30	111	40	73	54	57	36	114	148	62	56	103	195	219	185	148	220	95	99
SPOKANE WASHINGTON	118	167	178	51	96	94	107	120	176	149	80	---	143	70	155	80	194	64	109	40	191	139	76	101	105	195	222	175	196	216	117	131
STERLING VIRGINIA	---	---	---	---	---	---	---	244	47	48	91	259	---	208	205	299	283	283	187	43	56	30	120	200	288	257	---	95	165	184	335	178
SWAN ISLAND W.I.	376	---	---	---	---	218	372	217	273	373	333	201	373	386	334	282	---	---	279	322	371	392	287	382	---	457	453	455	401	396	469	350
TAMPA FLORIDA	335	197	285	312	270	120	349	356	321	321	319	275	295	124	63	365	376	349	349	362	181	151	360	354	301	285	350	391	376	393	---	296
TUCSON ARIZONA	---	---	---	356	---	325	253	285	324	324	328	337	321	331	341	325	307	342	340	319	342	304	362	357	342	172	355	367	358	280	382	325
UPPER MARBORO MD.	229	28	245	31	38	---	261	224	61	72	90	249	47	---	---	---	---	---	---	---	67	---	---	---	---	---	---	---	---	---	---	0
WAKE ISLAND PACIFIC	445	431	434	442	393	444	410	420	471	343	466	468	411	470	437	436	360	457	377	330	470	451	344	423	472	404	390	451	492	503	365	426

Note.--Langley is the unit used to denote one gram calorie per square centimeter. Values with an asterisk are interpolated.

U Indicates Urban sites

The solar radiation data in this table form the basis for the analyses in Charts VII. A. and B. of this publication. The analyses include adjustments required to bring station records to approximately the same level of calibration.

NET RADIATION

Net radiation in langleys per day (8 a.m. to 8 a.m.) at Palmer, Alaska. JANUARY 1972

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys	-125	-50	-61	-44	-55	-48	-75	-65	-123	-99	-120	-61	-50	-43	-153	-216	-152	-203	-171	-168	-126	-160	-129	-88	2	-22	-1	-56	-107	-28	-9	-91

The measurement is made with a CSIRO PUNK net exchange radiometer over a plot of sod. The value represents the total incoming minus the total outgoing radiation of all wave lengths.

These date are of an experimental nature and are published as received from the Palmer Exp. Station. The instrument with which they were measured has not been checked by NOAA, National Weather Service.

SOLAR ULTRA-VIOLET RADIATION DATA

Daily totals and monthly average (<3900 Å) at Ames, Iowa

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys	3.55	5.08	4.87	6.60	6.09	6.50	6.19	4.57	5.48	5.28	5.68	4.26	5.89	6.60	6.40	5.79	6.40	6.09	4.06	4.57	4.57	3.55	7.51	4.57	8.22	5.89	4.16	10.05	9.95	10.26	9.85	6.08

These data are from an U - V Eppley total ultra violet sensor and Speedomax H (Leeds Northrup) Recorder. It is at the same location (Agronomy Building, Iowa State University, Ames) as the published total solar radiation instrumentation. This instrument has not been checked by the NOAA, National Weather Service.

TOTAL OZONE DATA

These provisional ozone data are obtained from measurements made with a Dobson ozone spectrophotometer, and are applicable approximately to local apparent noon. The data are presented in the code λs ρ ρ ρ defined in the August 1962 WMO circular entitled "PUBLICATION OF DATA FOR METEOROLOGICAL RESEARCH, WORLD OZONE DATA."

Units: Milli-atmo-cms.

Station	Day of month																															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Mean O_3

Data not received in time for publication.

The spectrophotometer measures the total amount of ozone in the atmosphere, i. e., the amount contained in a vertical column of air extending from ground level to the top of the atmosphere in the vicinity of the station. The amount of ozone in this column (coded ρ ρ ρ) is expressed in terms of a thickness of a layer it would occupy at standard temperature and pressure, e.g., 350 milli-atmo-cm ozone implies an ozone layer 0.350 centimeter thick. The code λs designates the type of measurement made.

DESCRIPTION OF CHARTS

CHART I. A. NORMAL DAILY AVERAGE TEMPERATURE (°F. 1931-60) FOR MONTH. B. TEMPERATURE DEPARTURE FROM 30-YEAR MEAN (°F. 1931-60) FOR MONTH. Chart I-A is reproduced from Environmental Data Service Publication "Climatic Maps of the United States." Chart I-B is a reproduction of monthly chart appearing in "Weekly Weather and Crop Bulletin," a publication of Environmental Data Service.

CHART II. TOTAL PRECIPITATION. Chart II is a reproduction of monthly chart appearing in "Weekly Weather and Crop Bulletin."

CHART III. PERCENTAGE OF NORMAL PRECIPITATION. Chart III is a reproduction of monthly chart appearing in "Weekly Weather and Crop Bulletin."

CHART IV. TOTAL SNOWFALL. CHART V. A. PERCENTAGE OF MEAN MONTHLY SNOWFALL. B. DEPTH OF SNOW ON GROUND. Chart IV gives the total depth in inches of unmelted snowfall as reported during the month by the National Weather Service and selected cooperative stations. This is converted in Chart V-A into a percentage of the mean monthly total amount computed for each National Weather Service station having at least 10 years of record. The depth of snow on ground is that reported by both the National Weather Service and selected cooperative stations as of 7:00 a.m., e.s.t., on the Monday nearest the end of the month. This is reported only for the months December through March. The snowfall charts are presented each month November through April.

Isolines for Charts I, II, III, IV, and V are drawn through points of approximately equal value. Caution should be used in interpolating on these charts, particularly in mountainous areas.

CHART VI. A. PERCENTAGE OF POSSIBLE SUNSHINE. B. PERCENTAGE OF MEAN MONTHLY SUNSHINE. Chart VI-A shows the amount of sunshine received in terms of percentage of the total hours of sunshine possible during the month. In Chart VI-B this is shown as a percentage of the mean number of hours of sunshine received. Means are computed for the National Weather Service stations having at least 10 years of record.

CHART VII. A. AVERAGE DAILY VALUES OF SOLAR RADIATION LANGLEYS. B. PERCENTAGE OF MEAN DAILY SOLAR RADIATION. Shown on Chart VII-A are the monthly averages of daily total solar radiation, both direct and diffuse, in langleys (gm.cal.cm.-2) for all National Weather Service and selected cooperative stations which record this element. The analyses include adjustments required to bring station records to approximately the same level of calibration. Adjusted numbers are in parentheses. Chart VII-B shows the percentages of the mean based on at least 5 years of record during the period 1950-1960, and corrected to the International Pyrheliometer Scale of 1956.

CHART VIII. TRACKS OF CENTERS OF ANTICYCLONES AT SEA LEVEL.

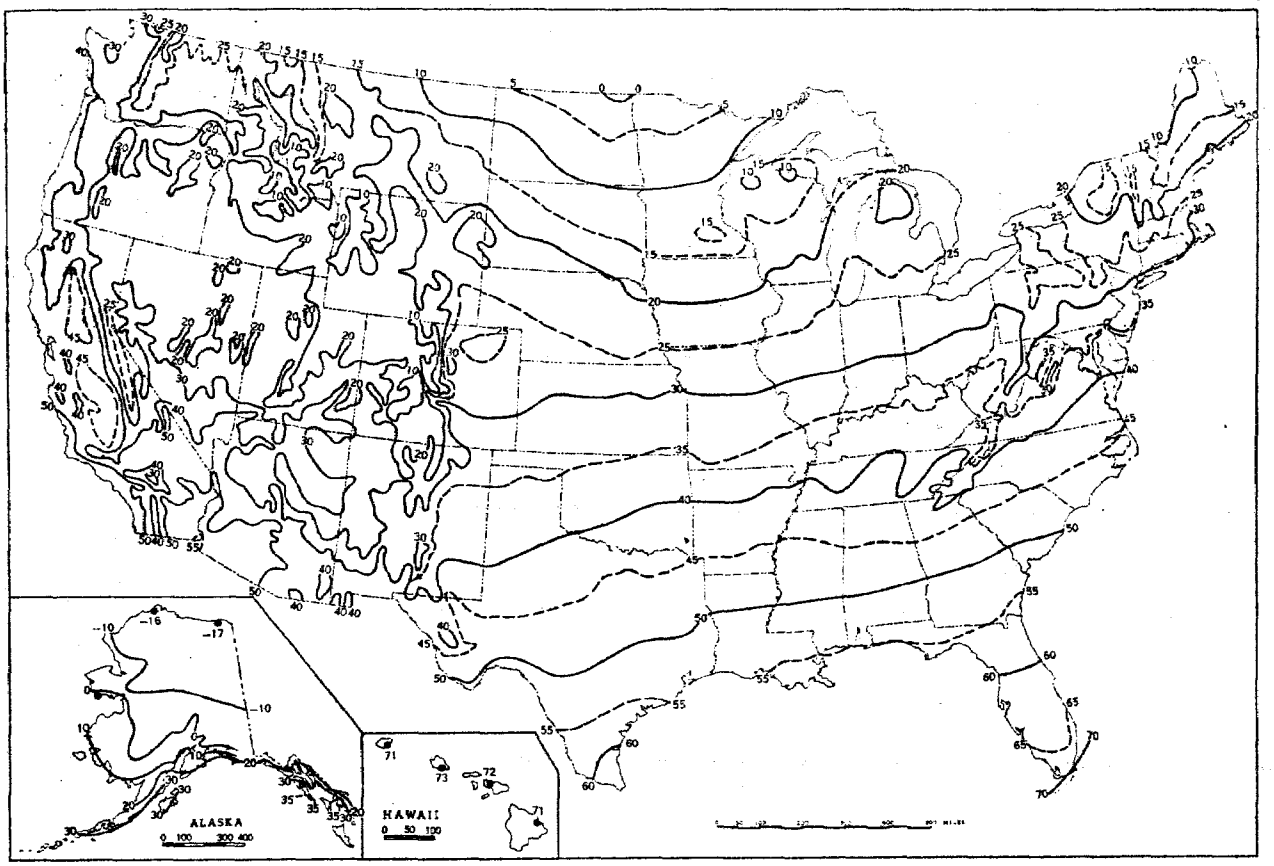
CHART IX. TRACKS OF CENTERS OF CYCLONES AT SEA LEVEL. Centers which can be identified for 24 hours or more are tracked in these charts. Semi-permanent features such as the Great Basin and Pacific Highs and Colorado and Mexico Lows are not shown. The 7:00 a.m., e.s.t., positions are shown by open circles, with the intermediate positions at 6-hour intervals shown by solid dots. The date is given above the circle and the central pressure to whole millibars below. A dashed track indicates a regeneration rather than actual movement to the next position. Solid squares indicate position of stationary center for period shown beside it.

CHART X. AVERAGE SEA LEVEL PRESSURE (mb.) AND RESULTANT SURFACE WIND. The average monthly sea level pressures are obtained from eight daily 3-hourly observations reported at National Weather Service stations. Resultant surface wind directions (to 36 points of the compass) for the month are shown by arrows. Resultant speeds are in miles per hour and are indicated by the length of arrow shafts. Constancy ratios (resultant surface wind divided by average surface wind for month) are shown to two decimal places. The inset shows the departure of the average pressure based on 30-year normals for first-order National Weather Service stations, other stations having at least 10 years of record, and for each 10° intersection in a diamond grid over the oceans.

CHARTS XI-XVI. AVERAGE HEIGHT, TEMPERATURE, AND RESULTANT WINDS, 850, 700, 500, 300, 200, and 100 mbs. Height is given in geopotential meters and temperature in degrees Celsius. These are the averages of the 1200 G.m.t. radiosonde reports. Wind speeds are given in meters per second; flag represents 25 m.p.s., full feather 5 m.p.s., and half feather 2-1/2 m.p.s. Directions are shown to 360° of the compass. Winds are based on rawins at the indicated pressure surface and at 1200 G.m.t.

CHART XVII. A. 50-MB. RESULTANT WINDS. B. 30-MB. RESULTANT WINDS. Wind speed (isotachs) in meters per second. Arrows show resultant wind direction. Winds are based on rawins at the indicated pressure surface and at 1200 G.m.t.

Chart 1. A. Normal Daily Average Temperature (°F. 1931-60), January



B. Temperature Departure from 30 - Year Mean (°F 1931-60), January 1972.

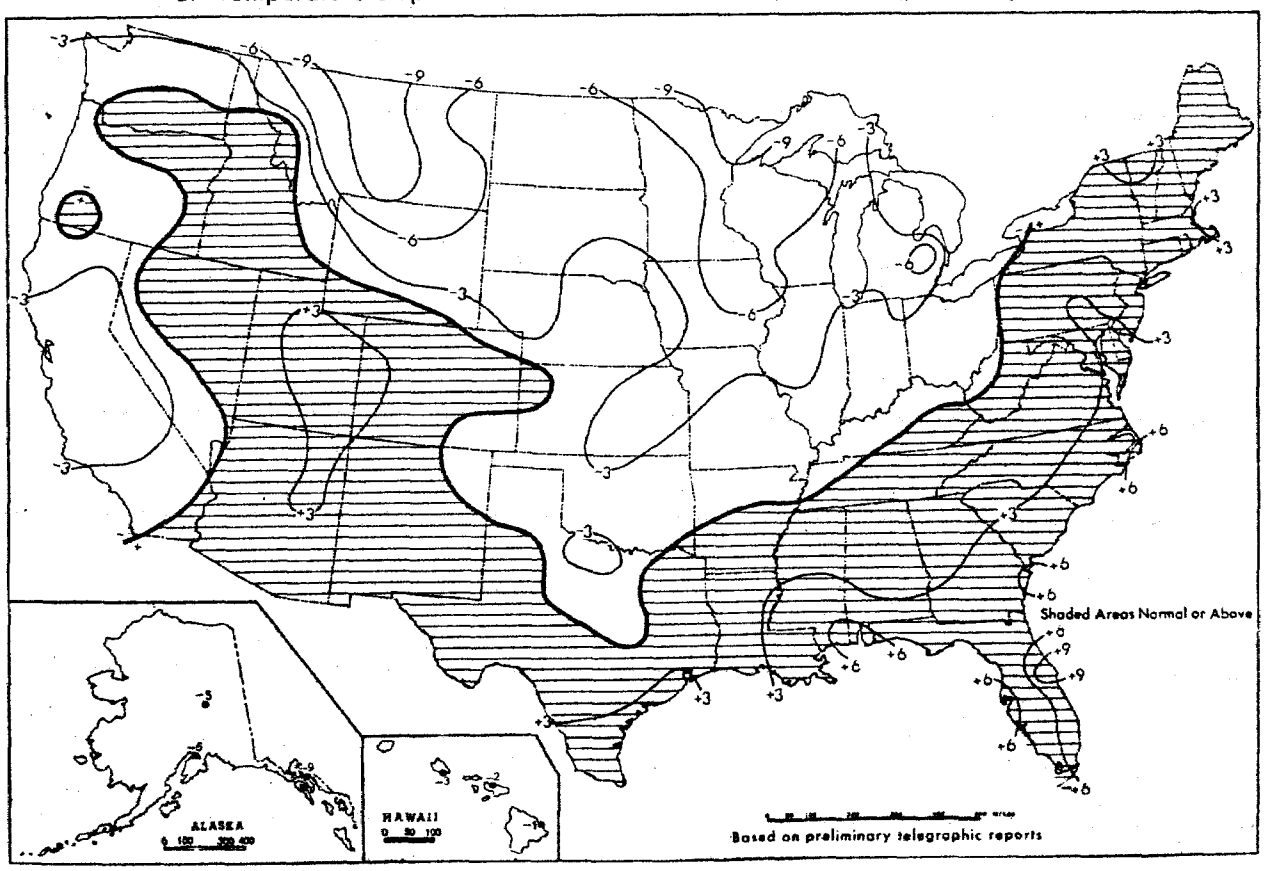


Chart II. Total Precipitation (Inches), January 1972.

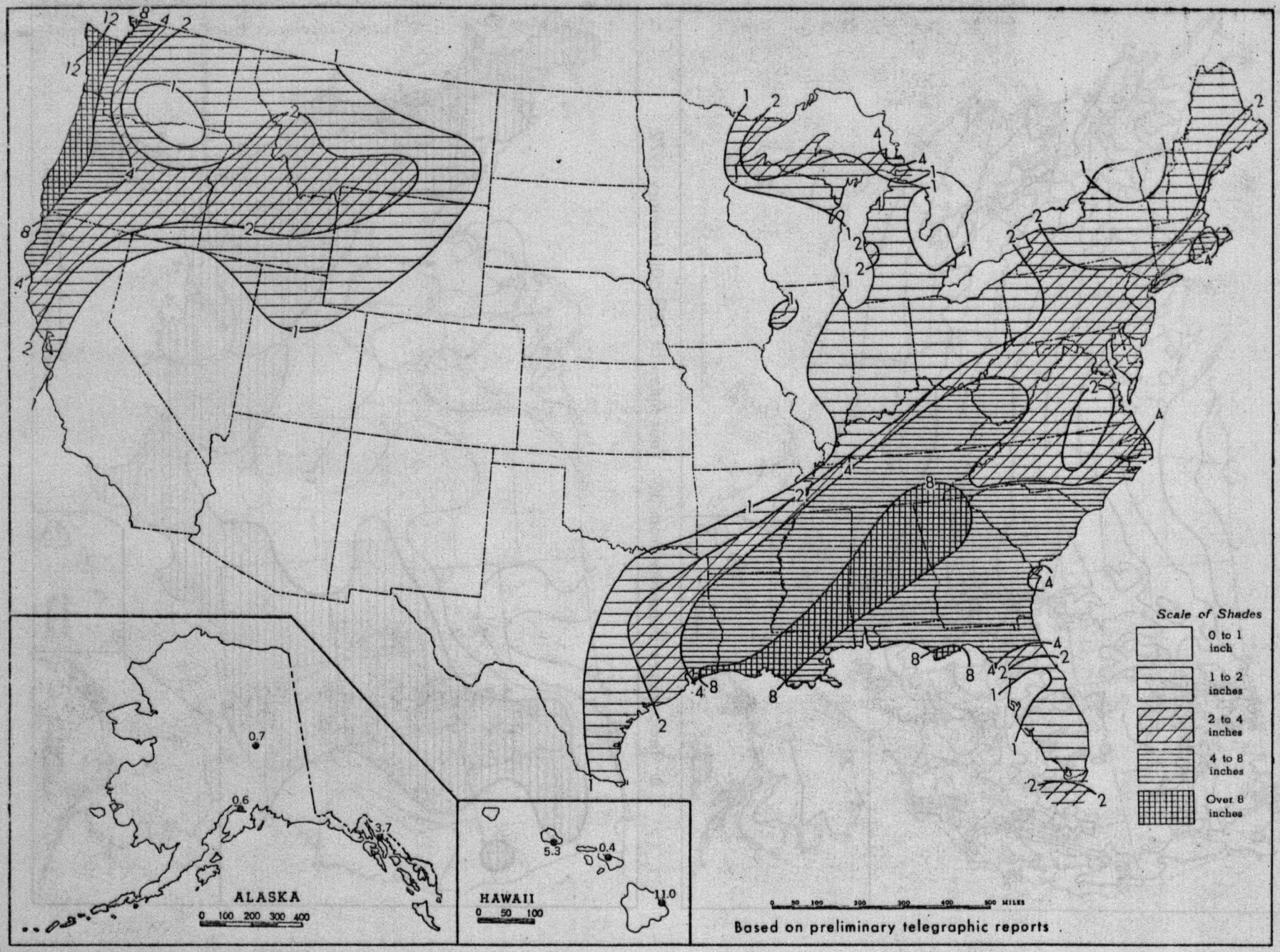


Chart III. Percentage of Normal Precipitation, January 1972.

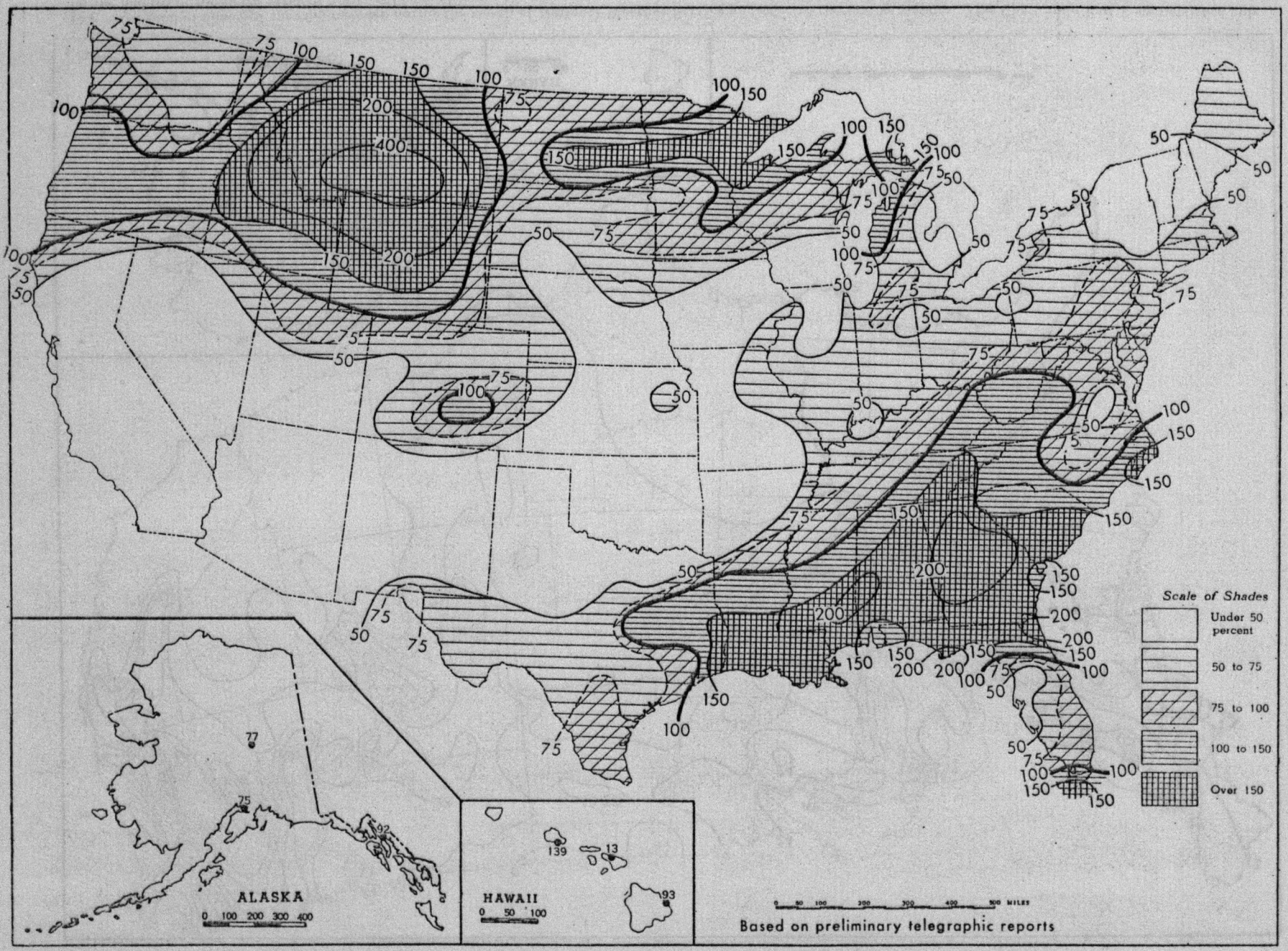
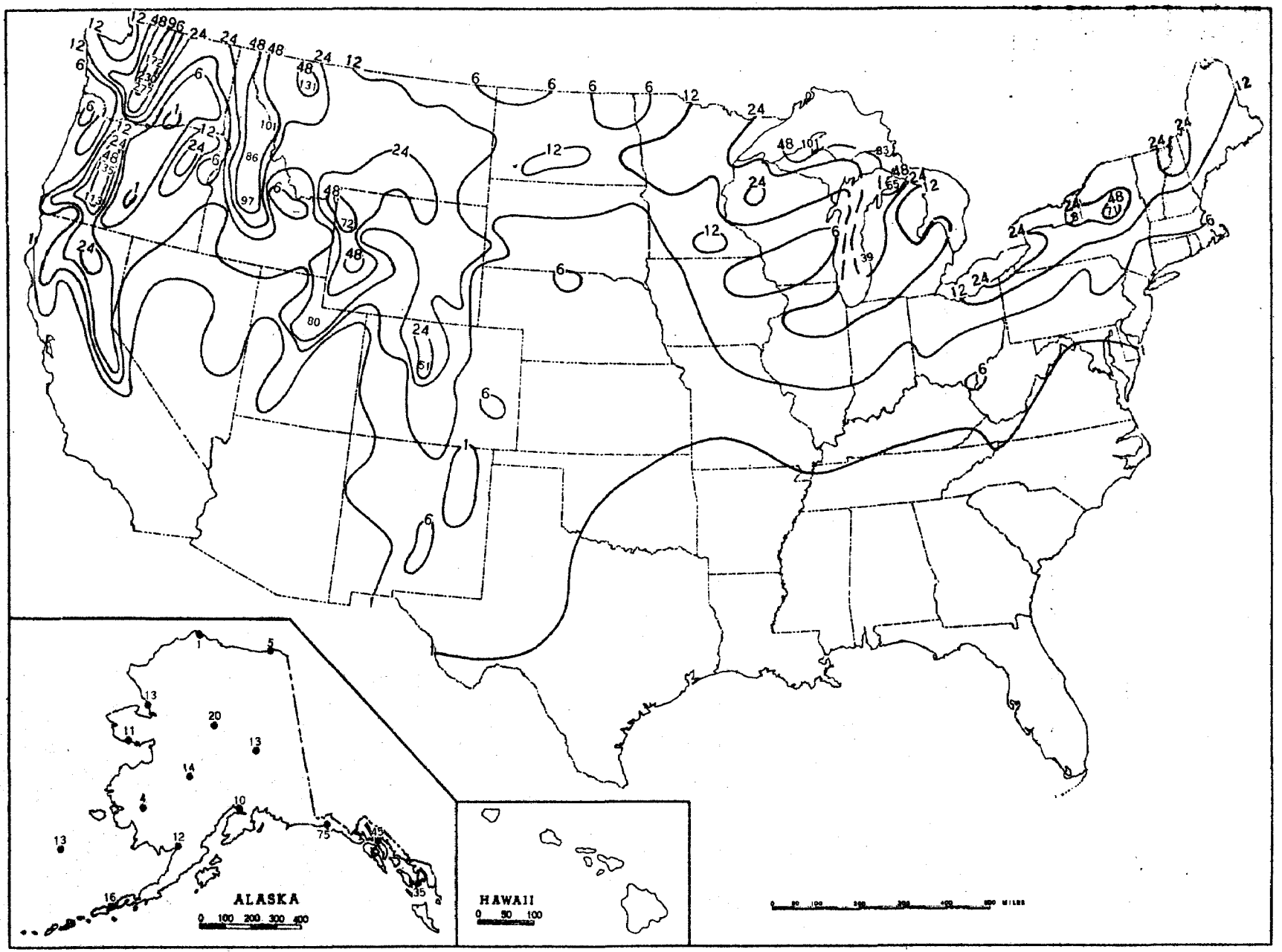
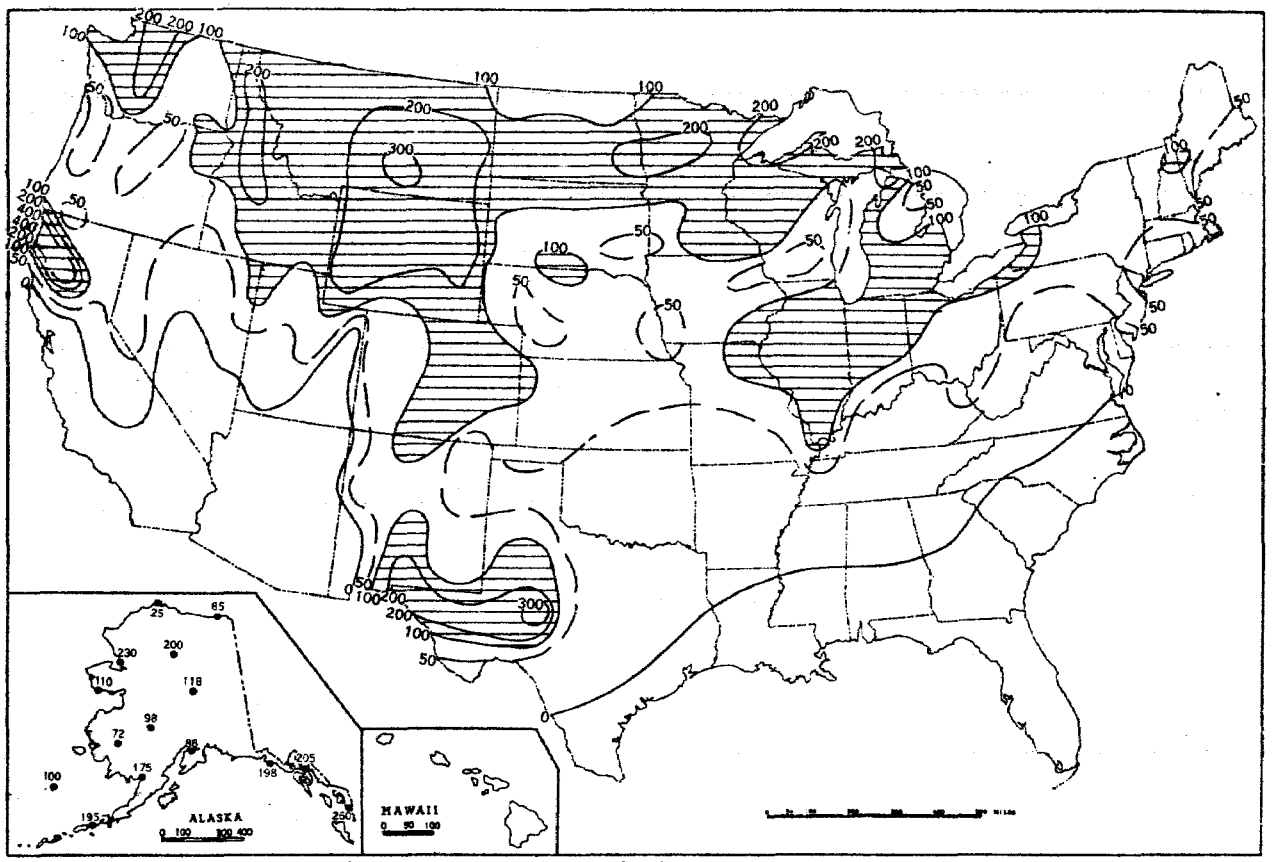


Chart IV. Total Snowfall (Inches), January 1972.

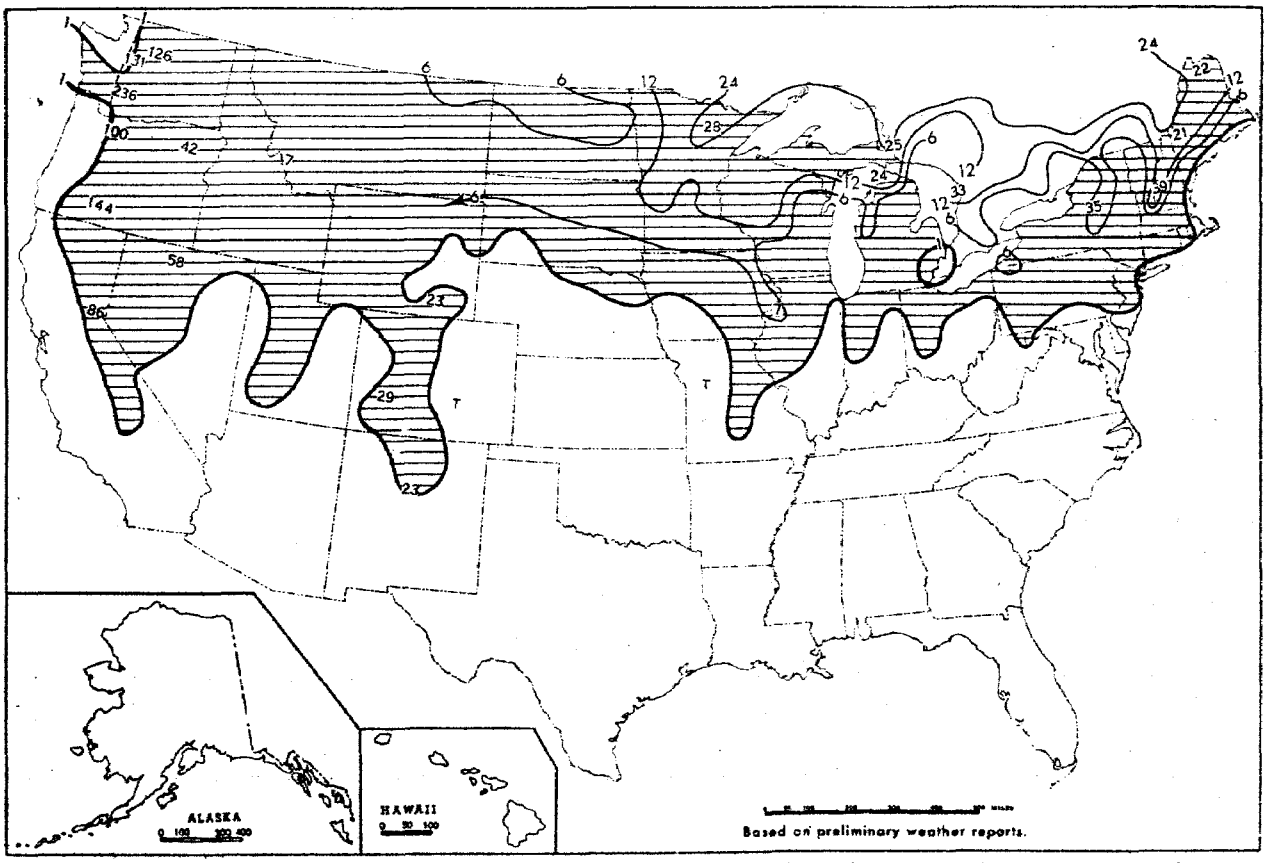


This is the total of unmelted snowfall recorded during the month at National Weather Service and selected cooperative stations. This Chart and Chart V are published only for the months of November through April, although of course there is some snow at higher elevations, particularly in the Far West, earlier and later in the year.

Chart V. A. Percentage of Mean Monthly Snowfall, January 1972.

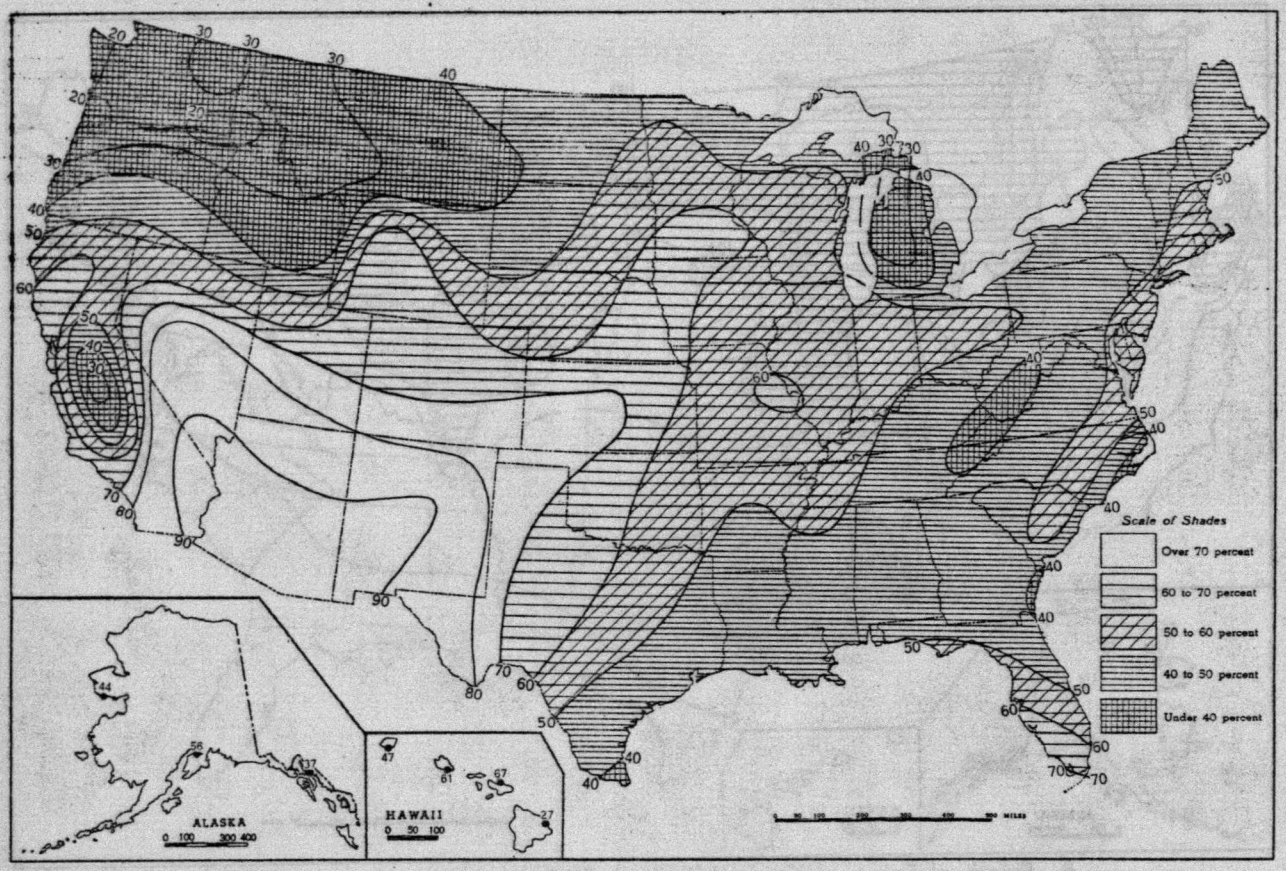


B. Depth of Snow on Ground (Inches), 7:00 a.m. e.s.t., January 31,1972.

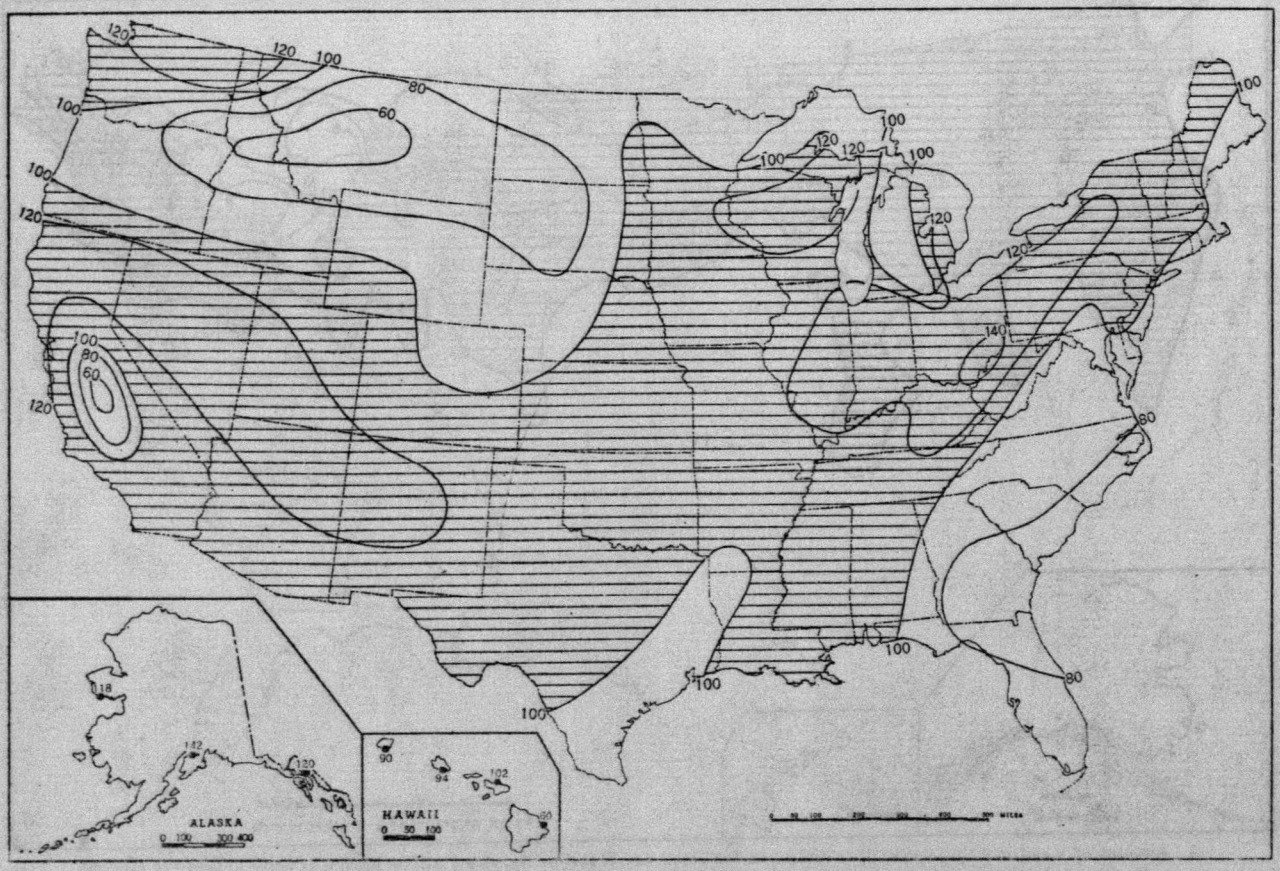


A. Amount of mean monthly snowfall is computed for National Weather Service stations having at least 10 years of record.
B. Shows depth currently on ground at 7:00 a.m. e.s.t., of the Monday nearest the end of the month.
It is based on reports from National Weather Service and selected cooperative stations.

Chart VI. A. Percentage of Possible Sunshine, January 1972.

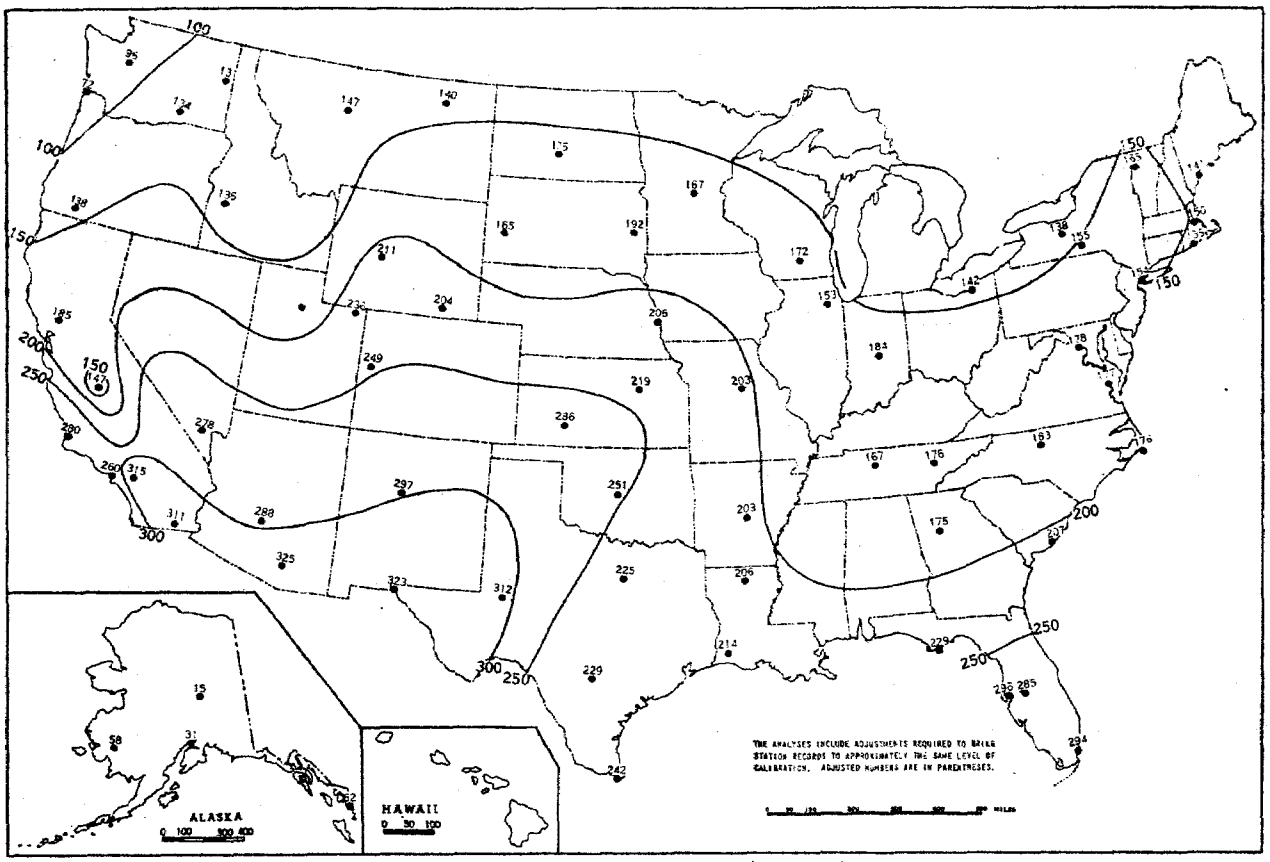


B. Percentage of Mean Monthly Sunshine, January 1972.

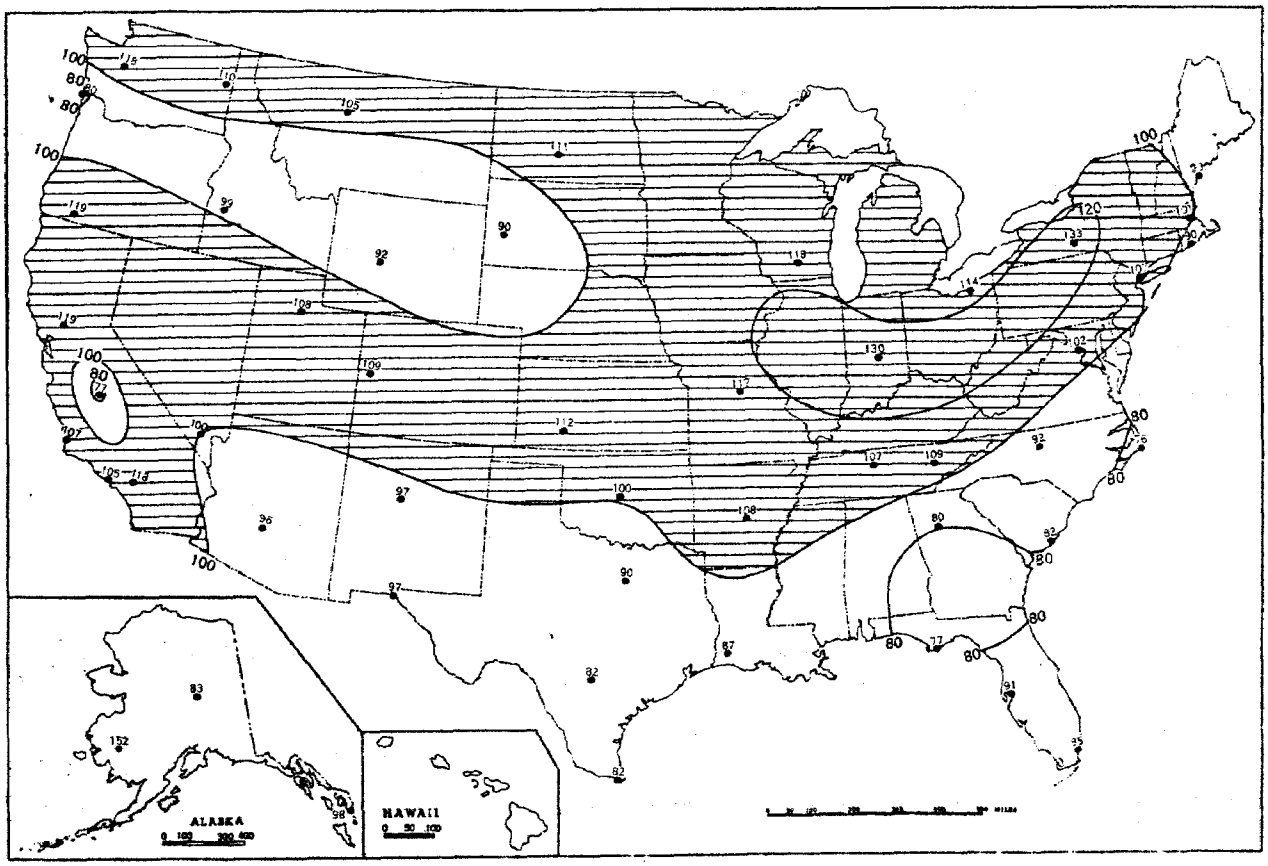


A. Computed from total number of hours of observed sunshine in relation to total number of possible hours of sunshine during month. B. Means are computed for stations having at least 10 years of record.

Chart VII. A. Average Daily Values of Solar Radiation, Langleys, January 1972.

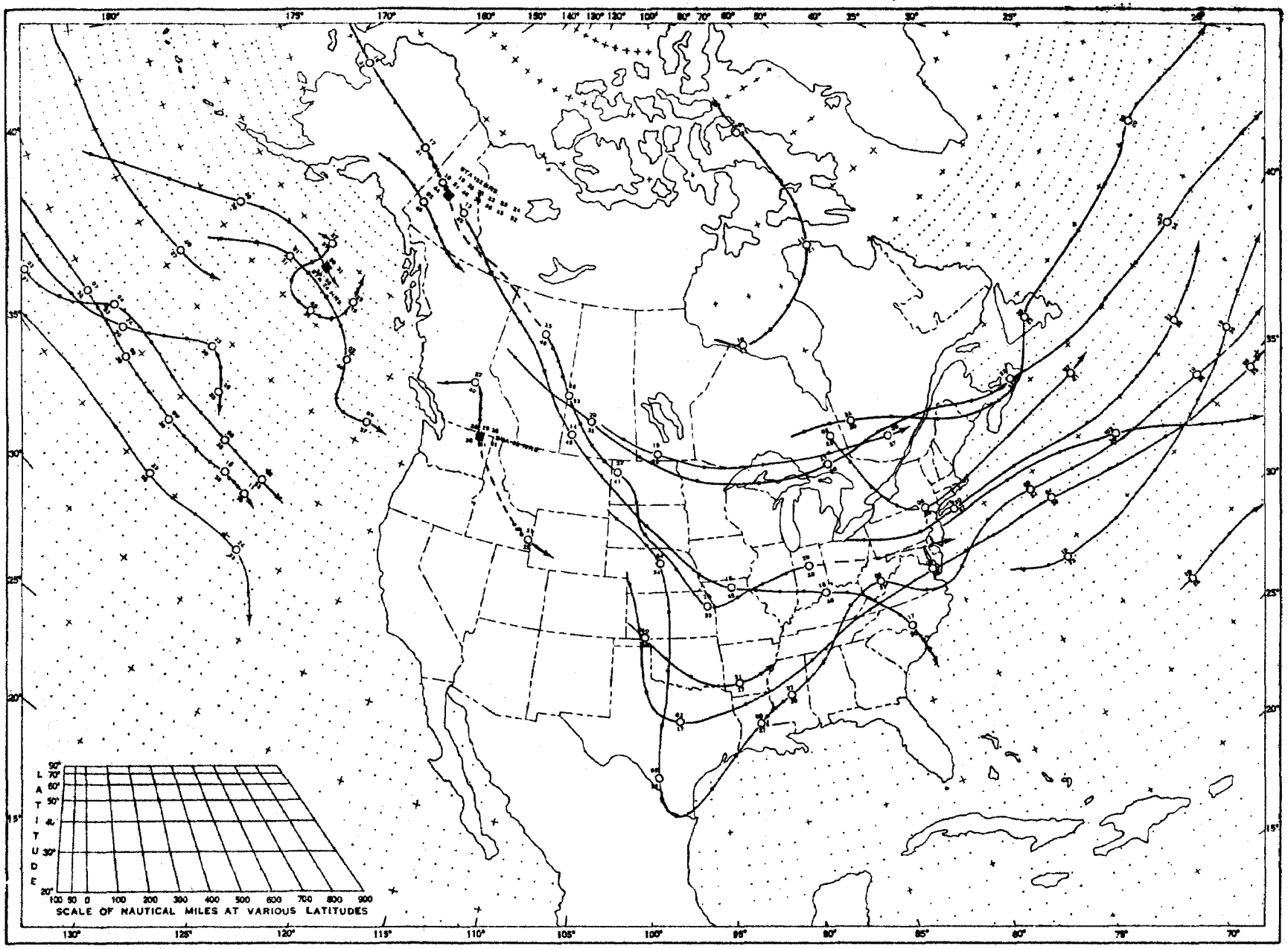


B. Percentage of Mean Daily Solar Radiation, January 1972.



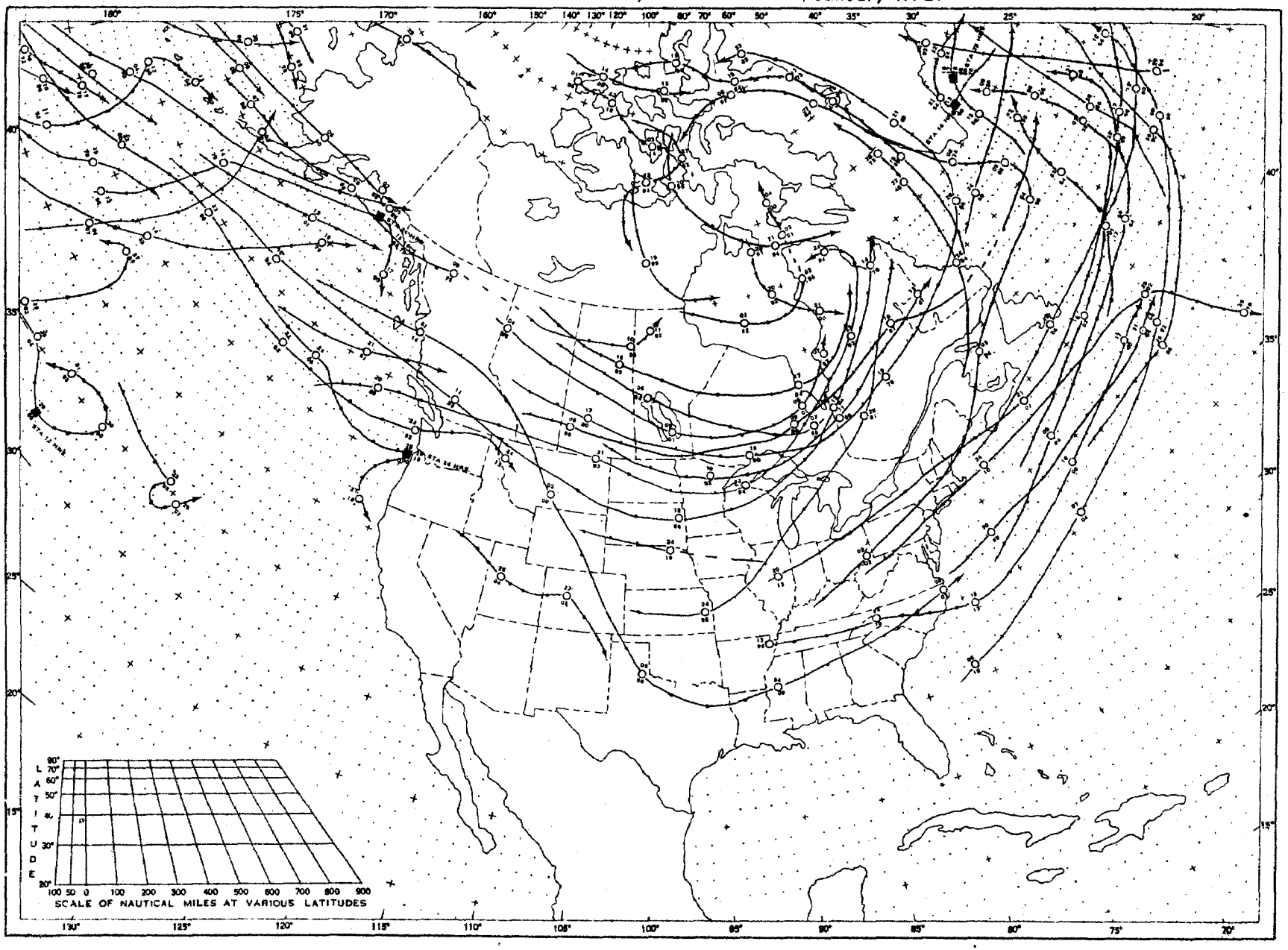
A. Mean daily solar radiation, direct + diffuse, received on a horizontal surface in langleys (1 langley = 1 gm. cal. cm. $^{-2}$) and recorded in International Pyrheliometer Scale of 1956. B. Percentage of the mean based on at least 5 years of record during the period 1950-60, and corrected to the International Pyrheliometer Scale of 1956.

Chart VIII. Tracks of Centers of Anticyclones at Sea Level, January 1972.



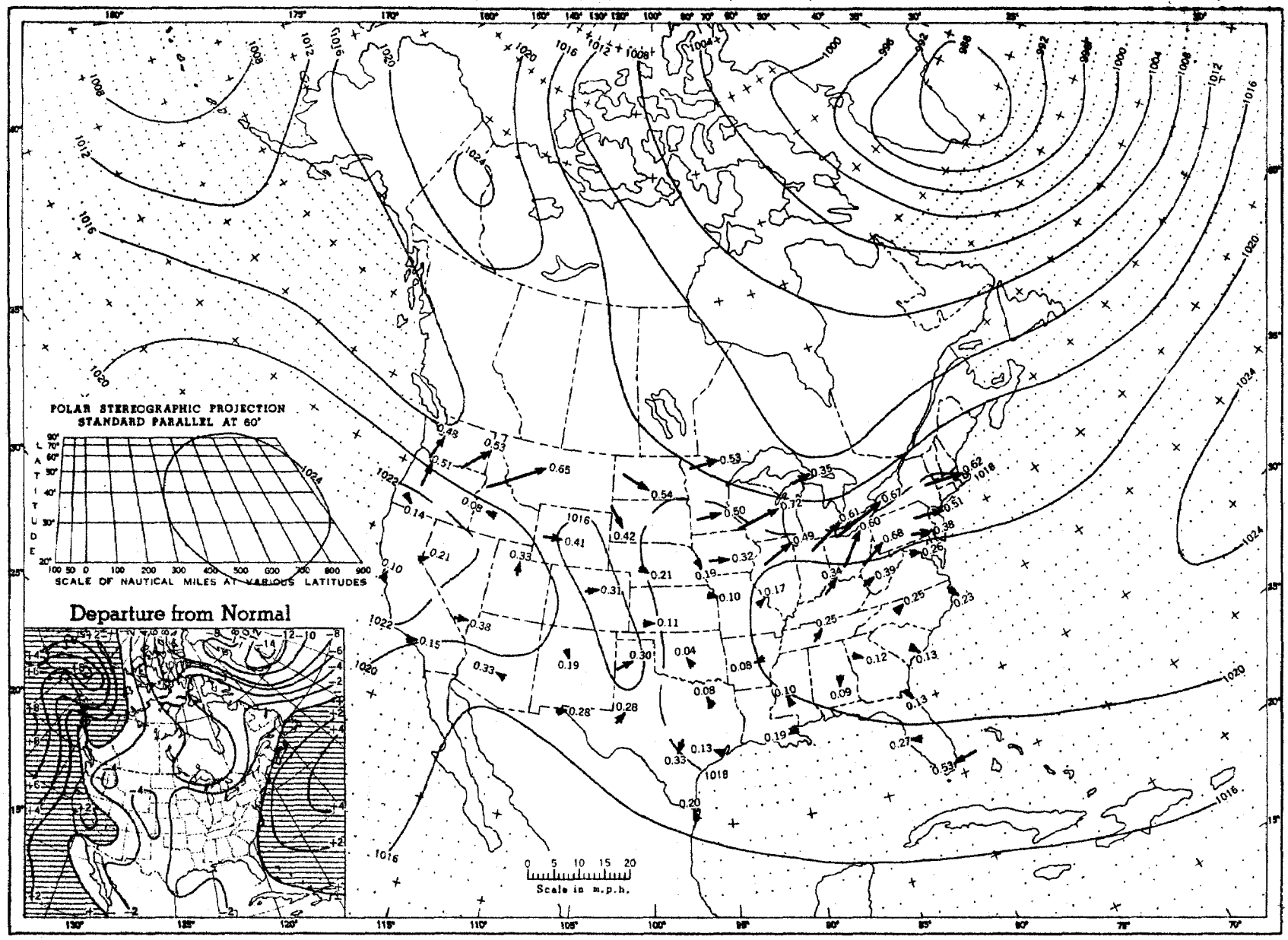
Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart IX. Tracks of Centers of Cyclones at Sea Level, January 1972.



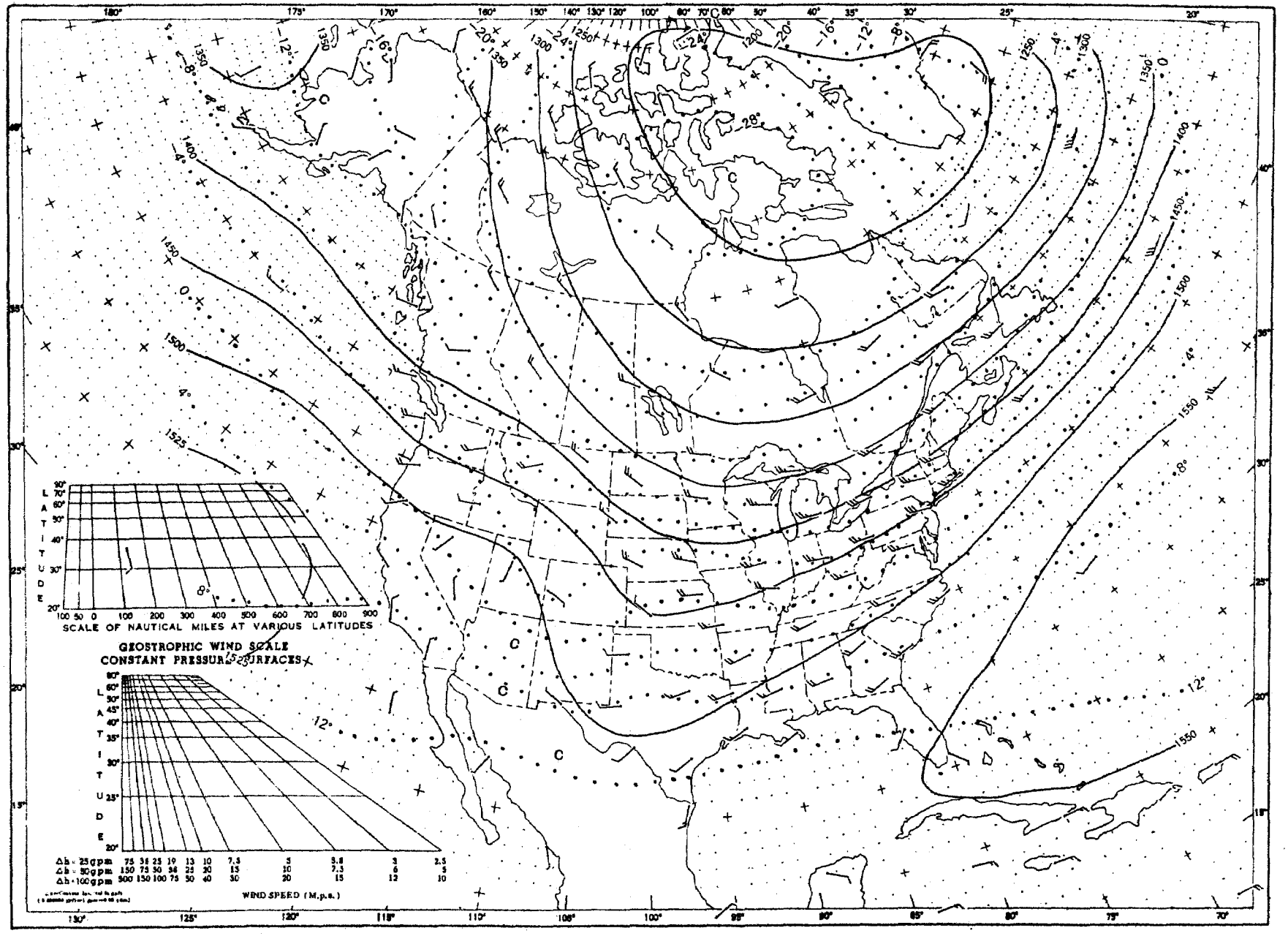
Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. Only those centers which could be identified for 24 hours or more are included.

Chart X. Average Sea Level Pressure (mb) and Resultant Surface Wind, January 1972. Inset: Departure of Average Pressure (mb) from Normal, January 1972.



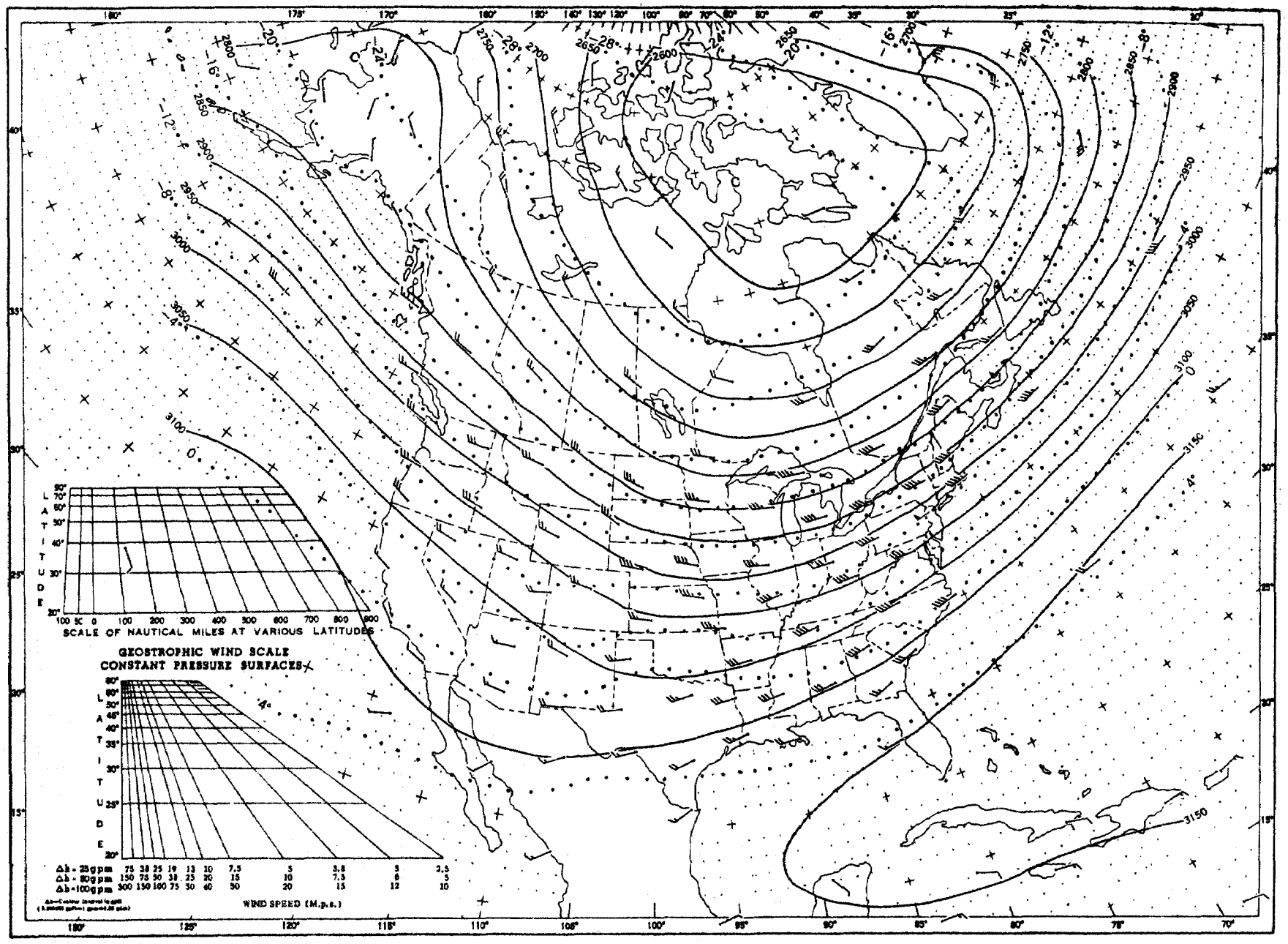
Average sea level pressures are obtained from eight daily 3-hourly observations. Resultant wind directions and speeds are shown by arrows. Constancy ratios (resultant speed÷average speed) are shown to two decimal places. Pressure normals are computed for stations having at least 10 years of record and for 10° intersections in a diamond grid over the oceans.

Chart XI. 850-mb Surface, 1200 G.m.t., January 1972. Average Height and Temperature, and Resultant Winds.



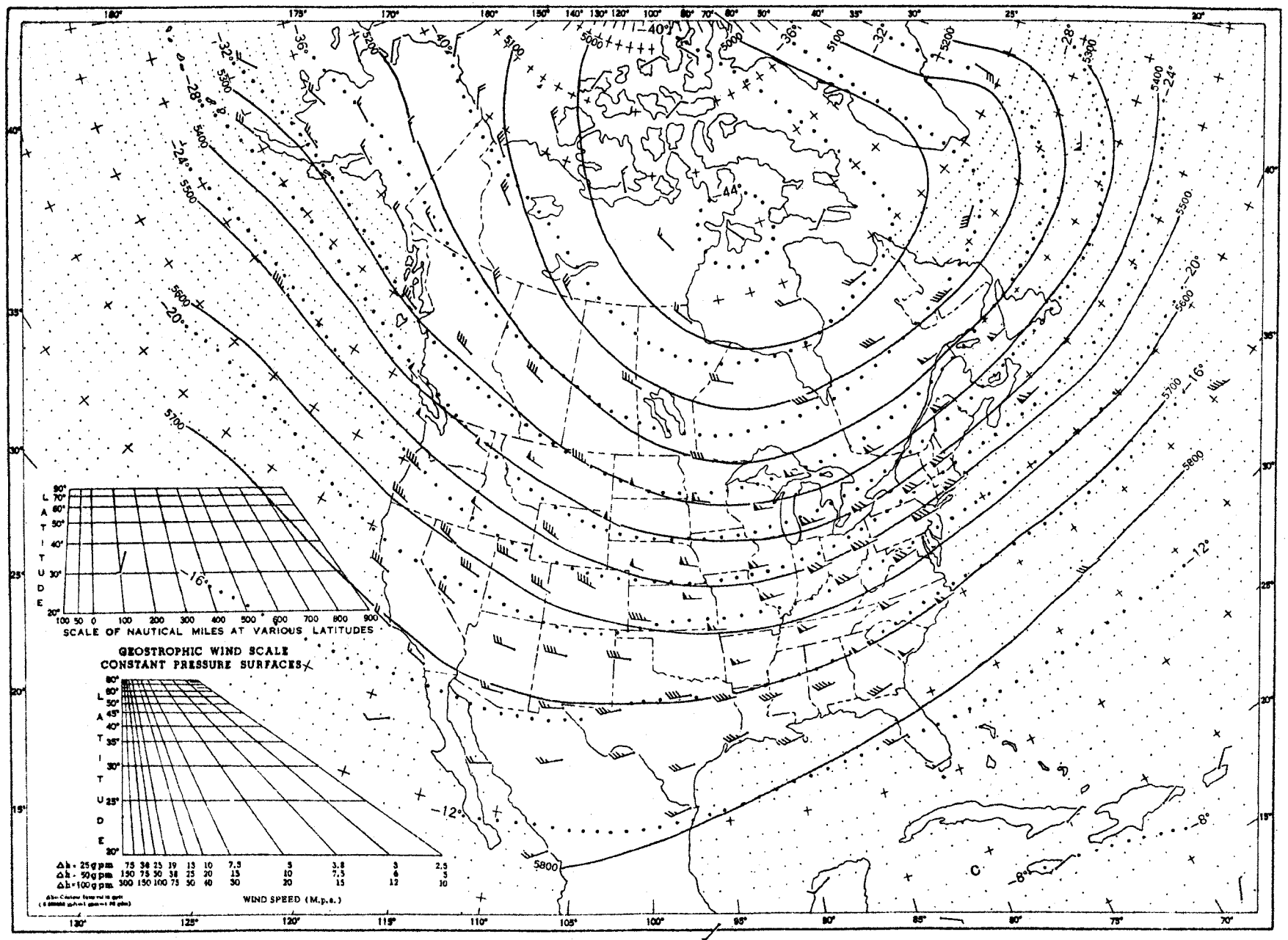
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XII. 700-mb. Surface, 1200 G.m.t., January 1972. Average Height and Temperature, and Resultant Winds.



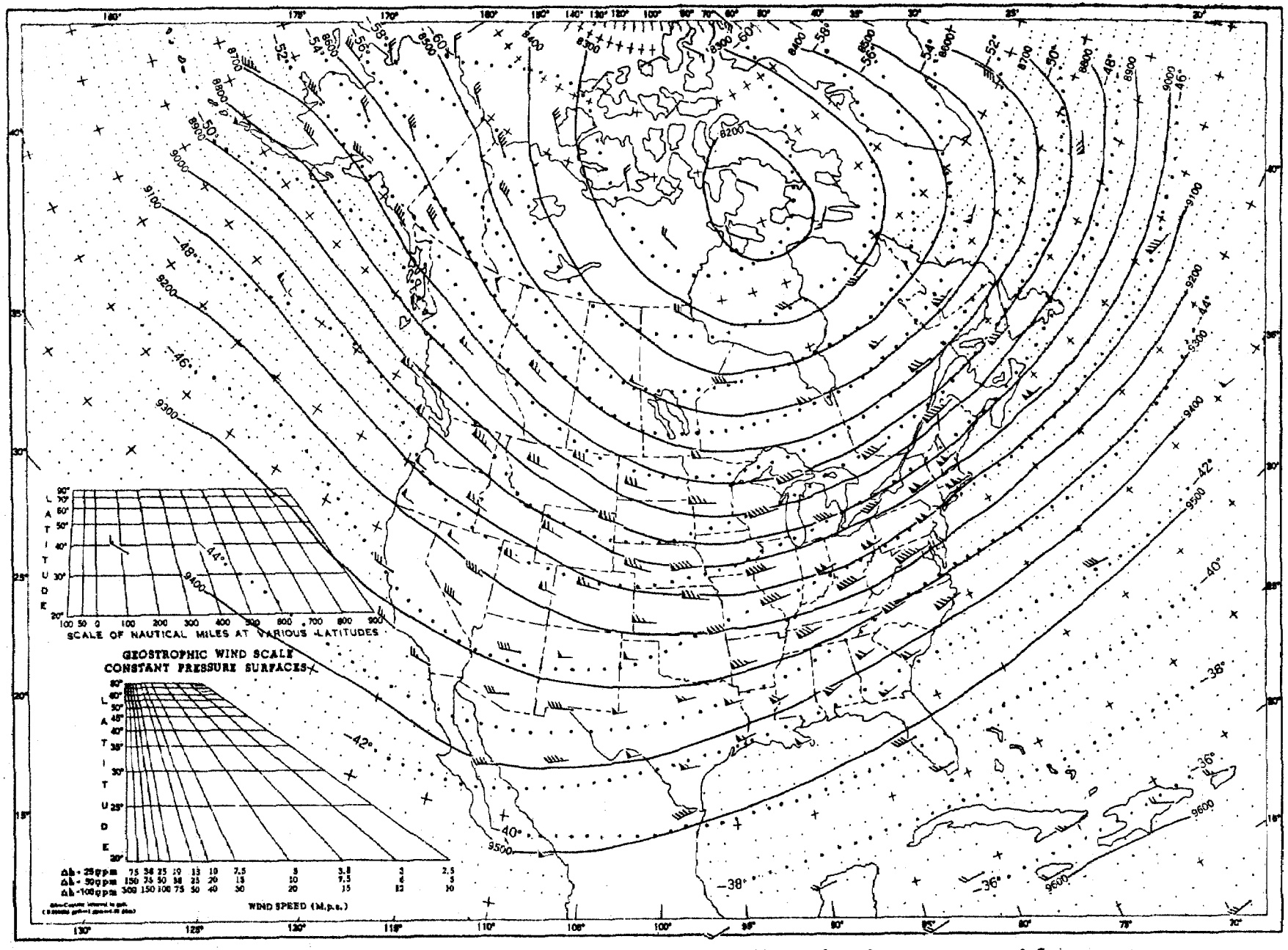
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XIII. 500-mb. Surface, 1200 G.m.t., January 1972. Average Height and Temperature, and Resultant Winds.



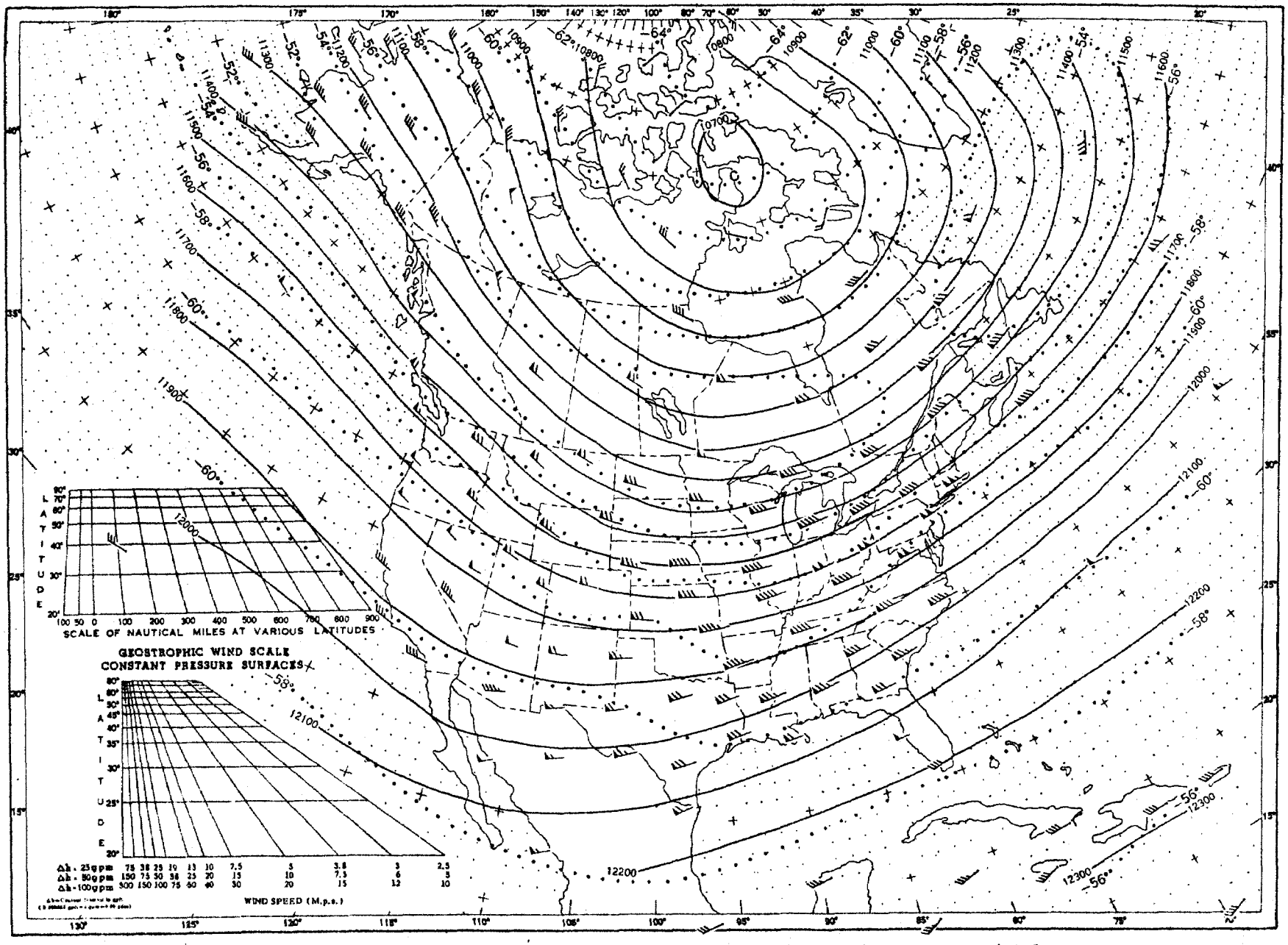
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XIV. 300-mb. Surface, 1200 G.m.t., January 1972. Average Height and Temperature, and Resultant Winds.



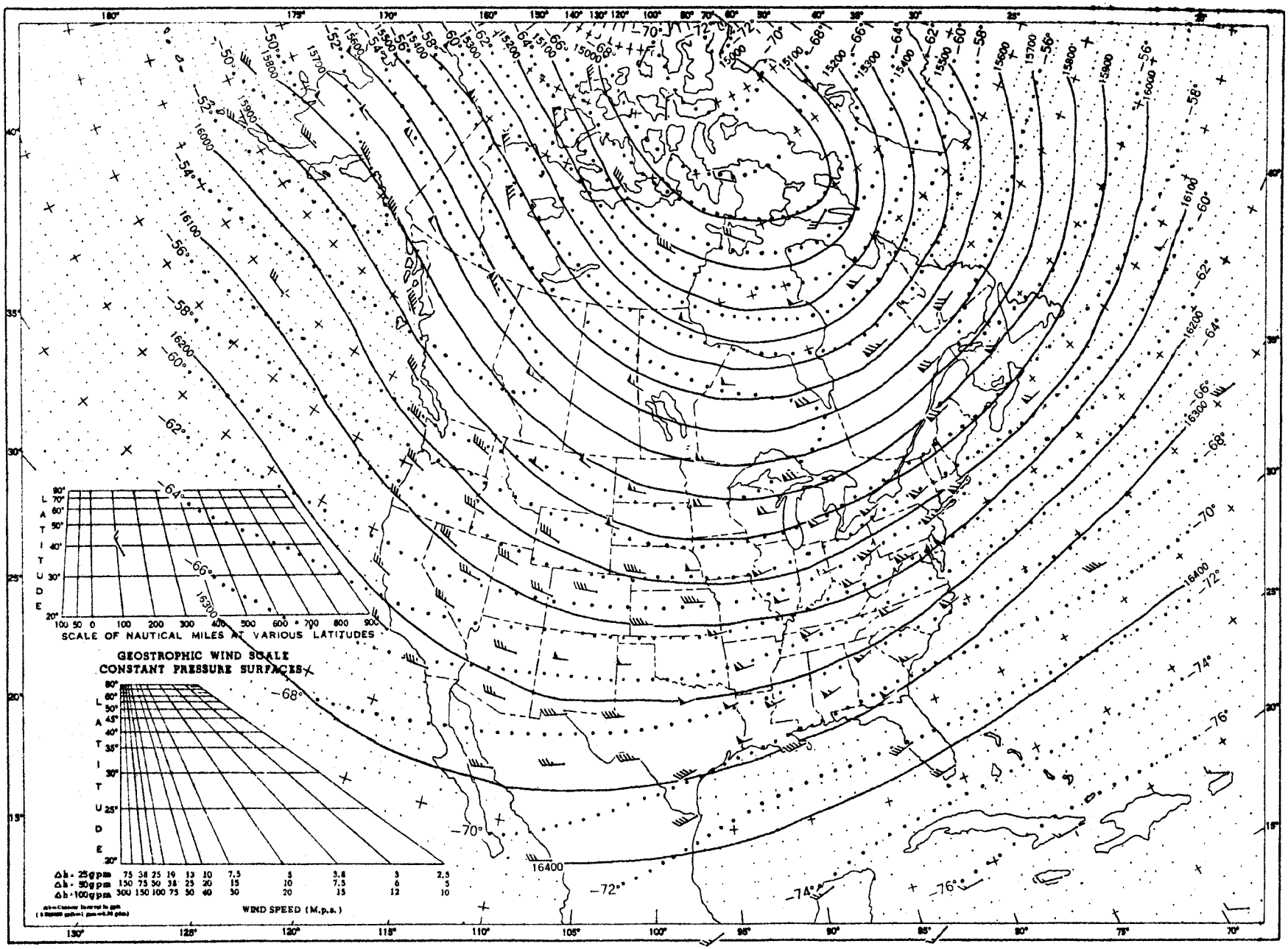
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XV. 200-mb. Surface, 1200 G.m.t., January 1972. Average Height and Temperature, and Resultant Winds.



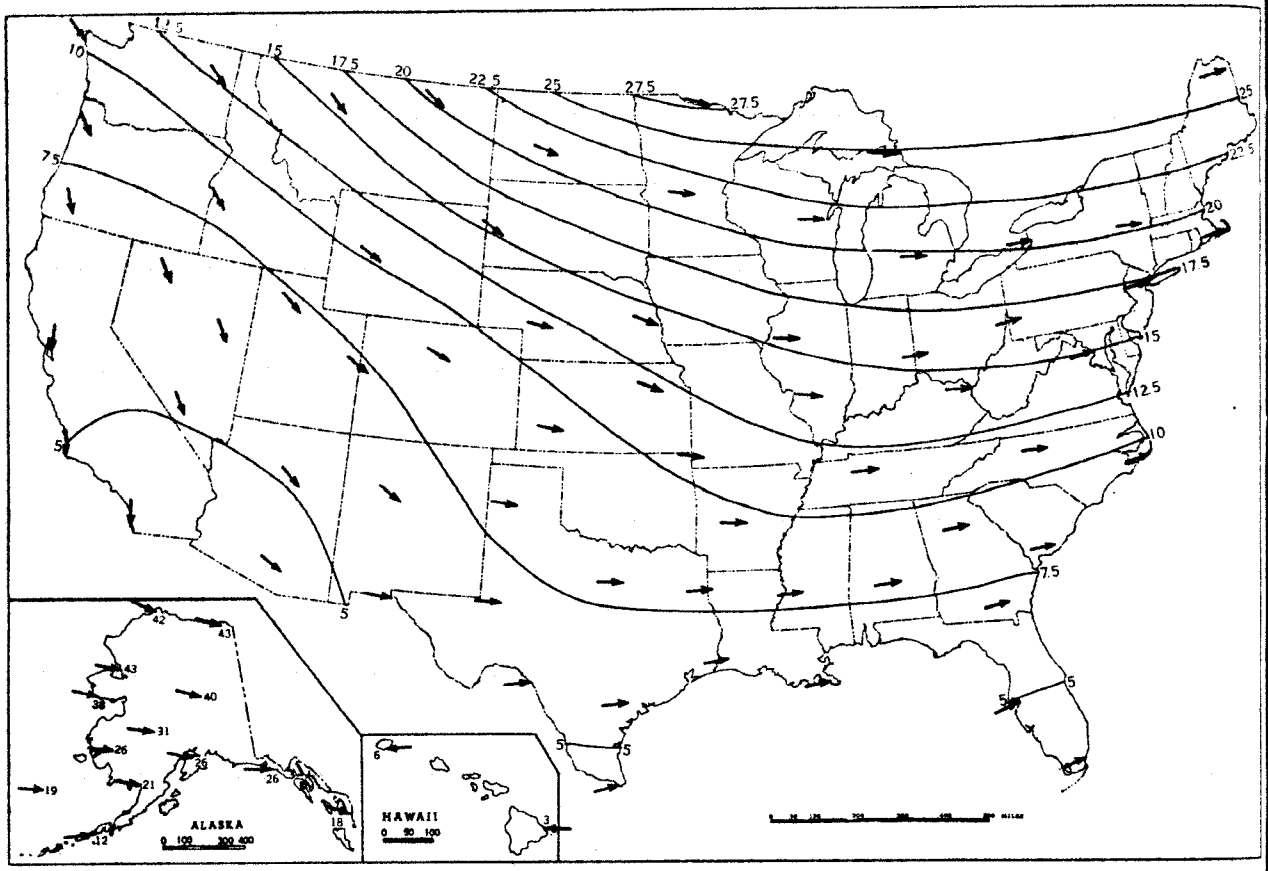
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XVI. 100-mb. Surface, 1200 G.m.t., January 1972. Average Height and Temperature, and Resultant Winds.

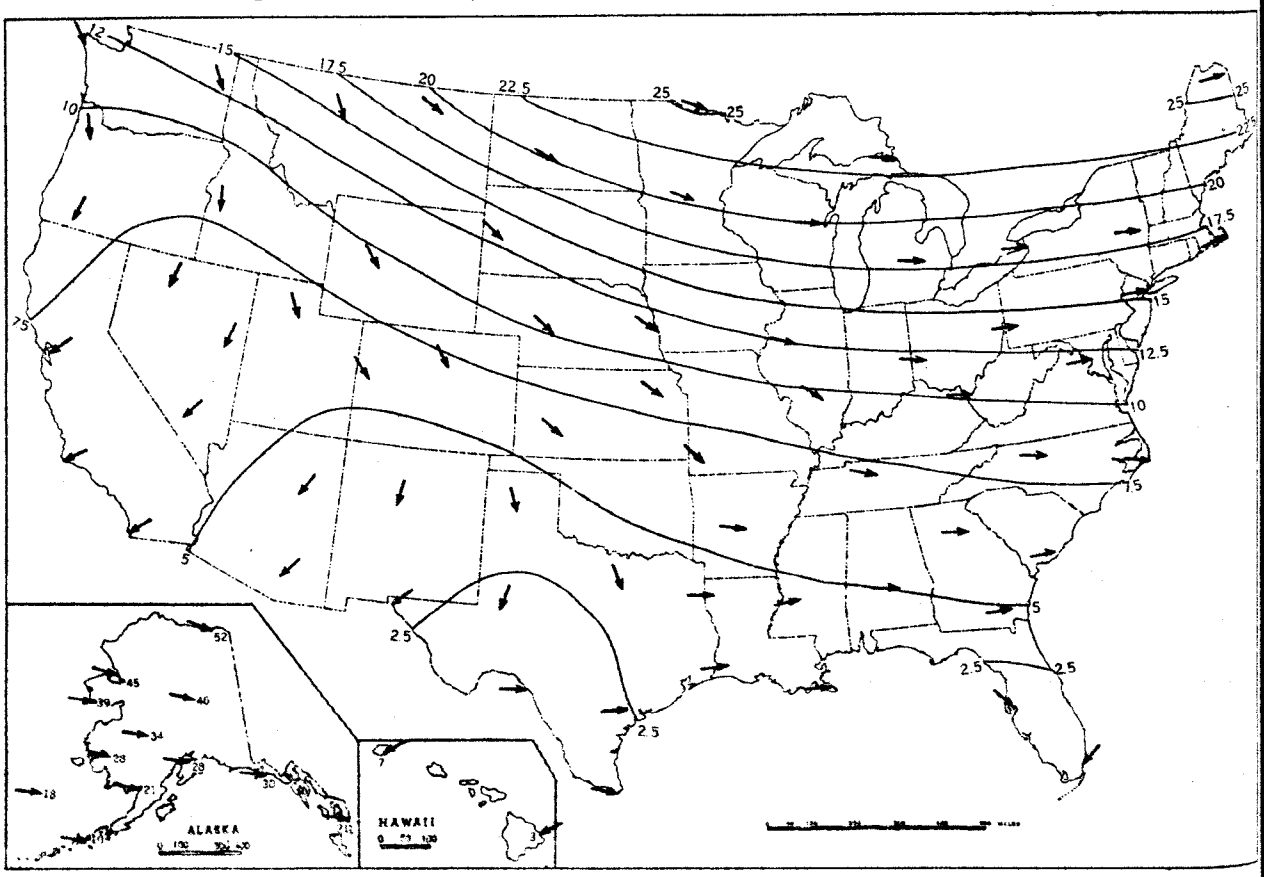


Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XVII. A. 50-mb. Surface, 1200 G.m.t., January 1972. Resultant Winds.



B. 30-mb. Surface, 1200 G.m.t., January 1972. Resultant Winds.



Wind speed (isotachs) in meters per second. Arrows show resultant wind direction. All wind data are based on rawin observations.

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