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Climatological Data

NATIONAL SUMMARY

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL DATA SERVICE

JANUARY

1971

Volume 22

No. 1

Asheville, N.C.

1971

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NOTE: Delayed data 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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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 22 No. 1 JANUARY 1971

GENERAL SUMMARY OF WEATHER CONDITIONS

HIGHLIGHTS:

1. Bone-chilling cold prevailed during most of January from the northern Great Plains to New England.
2. Record warmth occurred at some points in the Southwest and in the Florida Peninsula.
3. Deep snow accumulated in the Cascades.

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 1971 was as two-faced as Janus.

Cold weather prevailed over the West and East early in the month but unusual warmth occurred over southern Texas where Cotulla registered 96° on January 3. This is only 2° cooler than the highest temperature of record for any spot in the Nation. Fort McIntosh, Tex., registered 98° on January 18, 1914, and Laredo, Tex., recorded 98° on January 17, 1936. Cold air plunged southward behind a storm centered over Lake Michigan. In about 18 hours, from the afternoon of January 3 to the following morning, the temperature at Cotulla plunged 60° from 96° to 36°. Flagstaff, Ariz., registered 22° below zero Monday morning, January 4. By Tuesday morning, January 5, arctic air covered the West from Canada to Mexico and on Wednesday morning subzero weather was common from the northern Rocky Mountains to southern New Mexico and northeastward to Lakes Superior and Michigan.

On January 5, the temperature at Rock Springs, Wyo., went no higher than 18° below zero and on the 7th, Fraser, Colo., registered 42° below zero and the mercury at Albuquerque plunged to 17° below zero. This is the coldest temperature of record for Albuquerque. Other cold temperature readings included 47° below zero at Antero Reservoir, Colo., and some unofficial readings of -50° or colder. The minimum temperatures at Moline, Ill., on January 6 and 7 were -13° and -17°, respectively.

Cold weather continued over most of the Nation for several days. New York and New England registered subzero temperatures on 1 or 2 mornings; -25° at Massena, N. Y., on the 9th. Some warming occurred in the central Great Plains. Missouri warmed to the 40's on the 9th which is about normal for early January. Mild weather continued in the Florida Peninsula.

Bone-chilling cold continued from Montana to New England at midmonth while near-record warmth occurred over portions of the South. On January 18, the temperature at Los Angeles, Calif., climbed to 95°. This is 5° warmer than the previous January record for Los Angeles and only 3° cooler than the January record for any spot in the United States. On the 19th, the temperature at Phoenix and Yuma, Ariz., reached 88° setting new January high-temperature records for those localities.

At the other extreme, cold arctic air plunged southward over the central and eastern portions of the Country. Bemidji, Minn., registered 31° below zero and Houlton, Maine, 35° below zero on the same date that Phoenix and Yuma recorded their record-high January readings. The bitter cold pushed far southward over the eastern part of the Nation with subfreezing temperatures occurring in the Florida Everglades January 20 and 21. Meanwhile, southerly winds warmed the Great Plains. On the afternoon of the 20th, Rapid City, S. Dak., and Valentine, Nebr., were as warm as Orlando, Fla. The maximum at each station was 47°. On the 21st, the temperature at Tallahassee, Fla., dropped to 32° which was 11° colder than Fargo, N. Dak. Pueblo, Colo., warmed to 78°, a new January record.

Arctic air poured into the north-central States in the last week of January. It then spread eastward and southward. As the end of the month approached, subzero weather plunged as far south as central Illinois while record-breaking warmth covered parts of Washington, Oregon and southern Texas.

PRECIPITATION.--A giant storm developed in the Southwest early January 2. It intensified as it moved into the southern Great Plains and spread heavy snow from the Rocky Mountains across the northern and central Great Plains to the Great Lakes. Mixtures of freezing rain and sleet fell east and south of the snow belt. Rain and scattered thunderstorms occurred farther south. In the snow belt, snow depths reached 12 to 17 inches from the Colorado Rockies across Nebraska and Iowa to northern Illinois. Moline, Ill., received 16.4 inches of snow on January 3. This is the greatest 24-hour snowfall of record for Moline. LaCrosse, Wis., set a 24-hour snowfall record when 16 inches fell there. Strong winds drifted the snow badly. Numerous roads became blocked. The care of livestock became extremely difficult.

Early in the 2d week of January, a storm developed over the Gulf of Mexico. It dumped several inches of snow over the northern portions of Mississippi and Alabama. Another storm brought wet and windy weather to the Pacific Northwest. Rain fell along the coast with snow in the mountains and eastward to the northern Great Plains. By the evening of January 9, 15 inches of new snow covered Lincoln, Mont., near the Continental Divide. Freezing rain slicked the highways in parts of Oregon and Idaho. Another storm brought freezing rain from northern Louisiana to Virginia and rain southward to the Gulf coast. The freezing rain made highway driving treacherous. Ice accumulated on trees, poles, and wires. Limbs and wires broke. Electric service in the Athens, Ga., vicinity was interrupted for 12 hours.

On January 13, a front extended from the north-central states to the Carolinas with miserable weather on both sides of it. Snow fell in the Northern States and sleet, freezing rain, or freezing drizzle with fog, occurred south of the snow belt. By the 14th, a large area from Illinois to the Northern and Middle Atlantic States had become coated with a layer of ice that made walking or driving risky. Shortly after midmonth, an intense storm off the Pacific coast brought heavy precipitation and strong winds to the Northwest. After gusting to 109 m.p.h. at Cape Blanco, Oreg., late on the 15th, the winds slackened some but by the 17th, another storm was pounding the Pacific coast with winds up to 70 m.p.h.

More storms occurred in the last week of January. Stampede Pass, Wash., received 75 inches of snow in 3 days, January 22 to 24. This is the most that ever fell at Stampede Pass in 3 days. Eighty-eight inches of

new snow fell at Paradise Ranger Station, Wash., on the south side of Mt. Rainier in the same 3 days bringing their snow depth to 232 inches. A massive storm spread miserable weather from the Great Plains to New England. Strong winds, accompanied by heavy snow and poor visibility made automobile travel impossible in some places and extremely hazardous in many others. Thunderstorms occurred along the Atlantic coast and dense fog covered parts of the Deep South.

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES

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	15+	Hamilton 3 S	5	21+	Guntersville	7.66	Fort Morgan	2.01
Alaska	Eklutna Project	52	5	Prospect Creek Camp	-80	23	Little Port Walter	17.60	6 Stations	.00
Arizona	Tucson Univ of Arizona	90	20+	Hawley Lake	-40	7	Hawley Lake	1.33	39 Stations	.00
Arkansas	2 Stations	79	14	Gilbert	1	7	Dumas	6.31	Marshall	.37
California	Indio U S Date Garden	97	19	Bridgeport	-24	3	Elk Valley	20.70	12 Stations	.00
Colorado	2 Stations	78	30+	Taylor Park	-49	6	Berthoud Pass	3.70	2 Stations	.00
Connecticut	Norwich Pub Util Plt	51	5	Falls Village	-23	19	Woodbury	3.31	Coventry	1.22
Delaware	2 Stations	64	6+	Georgetown 5 SW	2	28	Bridgeville 1 NW	3.54	Wilmington NCastle WSO	2.22
Florida	Devils Garden Tower	88	6	Tallahassee WSO	11	21	Cedar Key 1 WSW	5.04	Tavernier	T
Georgia	Folkston 9 SW	81	25	2 Stations	7	21+	Ellijay	9.34	Sapelo Island	1.65
Hawaii	4 Stations	87	28+	Mauna Loa Slope Obs,Hawaii	19	22	Pahoa 65, Hawaii	36.54	Kulani Mauka 76,Hawaii	5.55
Idaho	Glenns Ferry	66	19	Stanley	-43	4	Mullan FAA	13.99	Leadore No. 2	.42
Illinois	2 Stations	66	30+	Moline WSO	-19	7	Dixon Springs Agr C	4.23	La Salle 1 S	.35
Indiana	Evans Landing Dam 43	63	14	2 Stations	-11	31+	Princeton 1 W	D 3.44	Kentland	.07
Iowa	Glenwood 2 NNW	56	29	Decorah	-31	7	Emmetsburg	3.15	Inwood 2 SW	T
Kansas	2 Stations	77	30	Washington	-21	6	Thayer	3.30	Ulysses	.03
Kentucky	Pikeville	74	14	Falmouth 5 WNW	-1	31	Sterns 1 W	6.96	Louisville	1.94
Louisiana	Shreveport WSO	84	30	Monroe FAA AP	10	9	Diamond 4 NW	4.84	Kaplan 8 S	.00
Maine	2 Stations	45	25	2 Stations	-37	19	Bar Harbor	4.24	Harris Station	.98
Maryland	Salisbury	65	5	Oakland 1 SE	-4	8	McHenry 2 NW	5.57	Brighton Dam	1.90
Massachusetts	New Bedford	54	5	Chester 2	-32	20	Boylston	4.05	Adams	.86
Michigan	Willis 5 SSW	48	4	Stambaugh 1 S	-31	8	Ishpeming	5.28	Entrican 1 W	.19
Minnesota	2 Stations	40	29+	Angus 4 NNE	-41	15	Winona	3.72	Pipestone	.02
Mississippi	2 Stations	80	15+	University	8	20	Booneville	7.58	Wiggins 4 SE	1.37
Missouri	4 Stations	72	30+	Albany	-26	6	Bloomfield	5.02	Maryville 2 E	.04
Montana	Cascade 5 S	64	19	Babb 6 NE	-47	13	Summit	10.19	Norris 3 ENE	.05
Nebraska	2 Stations	70	30+	2 Stations	-26	7	Lincoln College View	2.49	Gavins Point Dam	T
Nevada	Lathrop Wells 16 SSE	82	18	Ruth	-28	6	Mount Rose-Sky Tavern	5.51	9 Stations	.00
New Hampshire	3 Stations	47	26+	2 Stations	-36	28+	Mount Washington	8.18	North Stratford	1.37
New Jersey	2 Stations	60	5	Sussex 1 SE	-14	19+	Long Valley	3.75	Boonton 1 SE	1.58
New Mexico	3 Stations	82	31+	Eagle Nest	-47	6	Sandia Crest	1.82	8 Stations	.00
New York	3 Stations	52	5	Old Forge	-40	17	Hooker 4 N	5.89	Plattsburgh	.39
North Carolina	New Bern 3 NW	78	5	Grandfather Mountain	-6	27	Nantahala	10.09	Rowan Research Station	1.47
North Dakota	4 Stations	44	20+	Edmore 1 N	-41	15	Sheyenne	1.35	Verona	.10
Ohio	4 Stations	60	14	2 Stations	-13	31	Fernbank	2.94	Sandusky	.38
Oklahoma	Erick 4 E	79	29	Hooker 1 N	-16	6	Sallisaw	3.71	Snyder	T
Oregon	Milton Freewater 4 NW	70	31	Seneca	-35	2	Tillamook 13 ENE	28.64	Paisley	.53
Pennsylvania	Waynesburg 1 E	59	15	2 Stations	-22	31	Ebensburg Sewage Pl	5.87	Wellsboro 3 S	.73
Puerto Rico	Dos Bocas, P R	92	22	Adjuntas Substation, P R	46	16	Pico Del Este, P R	16.67	Puerto Real, P R	.00
Rhode Island	Block Island WSO	53	5	North Scituate 4 W	-10	19	Block Island WSO	2.48	Providence WSO	2.01
South Carolina	3 Stations	77	5+	Caesars Head 1 NE	4	20	Caesars Head 1 NE	7.92	Branchville 6 S	2.64
South Dakota	2 Stations	61	30+	Usta 8 WNW	-31	15	Lead 6 SSW	D 2.83	5 Stations	T
Tennessee	Selmer	75	15	Centerville Water Pl	1	20	Monterey	7.45	Clarksville Sew Plt	.89
Texas	Zapata	97	30	Sunray 4 SW	-12	6	Deweyville 5 S	2.47	116 Stations	.00
Utah	La Verkin	74	21	Scofield Dam	-39	6	Pine View Dam	5.75	7 Stations	.00
Vermont	Readsboro 1 SSE	47	6	West Burke	-34	20	Mount Mansfield	4.67	South Hero	.64
Virginia	Grundy	70	15	Partlow 3 WNW	-5	18	McDowell	5.51	Galax Radio WBOB	1.06
Washington	2 Stations	71	31	Mazama	-18	2	Rainier Paradise RS	30.49	Kennewick	.46
West Virginia	2 Stations	68	15	Buckeye	-11	2	Pickens 1	7.56	New Cumberland	1.43
Wisconsin	7 Stations	41	25+	Minong 5 WSW	-37	27	Goodman	3.46	Westby 2 NE	.44
Wyoming	3 Stations	65	30+	Bondurant 3 NW	-48	4	Snake River	5.41	3 Stations	T

+ 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

JANUARY 1971

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	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.							%
ALABAMA																																
BIRMINGHAM	620	997.0	1019.9	54	34	43.6	- 2.9	70	14	12	20	0	18	34	71	3.58	- 1.45	1.10	14	7	T	T	1.7	29	32	W	25	5	11	15	6.7	43
HUNTSVILLE	624	996.3	1020.0	51	33	41.9	- 1.0	69	14	14	20	0	18	34	74	5.25	0.03	1.56	17	4	0.5	T	1.6	32	29	27	14	7	3	21	7.3	
MOBILE	211	1011.5	1019.7	63	44	53.7	0.7	79	24	22	20	0	4	44	74	2.15	- 2.49	1.51	7	2	0.0	0	1.2	36	26	34	19	5	7	19	7.1	
MONTGOMERY	183	1012.5	1019.8	59	37	48.0	- 0.1	79	14	18	20	0	13	37	70	2.53	- 1.53	0.93	10	4	0.0	0	2.2	29	37	NW	15	7	7	17	6.5	44
ALASKA																																
ANCHORAGE	114	1010.2	1015.5	10	- 5	2.7	- 9.4	41	5	-22	24	0	30	- 8	61	0.24	- 0.56	0.21	3	0	1.2	6	3.5	1	61	3	15	20	4	7	3.1	77
ANNETTE	110	1007.8	1011.9	34	24	28.8	- 5.6	46	7	6	10	0	27	21	72	7.59	- 3.77	2.07	19	0	16.6	3	3.5	8	35	5	10	4	3	24	8.1	
BARROW	31	1026.4	1027.1	-13	-26	-19.5	- 3.3	18	10	-45	20	0	31	-24	78	0.18	0.00	0.09	5	0	1.8	9	3.9	11	29	11	17+	V	V	V		
BARTER ISLAND	30	1025.1	1027.2	-15	-31	-22.7	- 5.9	17	11	-43	27+	0	31			0.55	0.15	0.36	4	0	5.8	21	5.2	25	48	27	24+	X	X	X		
BETHEL	125	1014.2	1020.4	1	-13	- 6.3	- 9.9	30	10	-37	31	0	31	-11	80	0.15	- 0.97	0.09	6	0	6.3	12	11.0	3	41	5	2	14	4	13	5.2	
BETTLES	644			-25	-43	-34.1		20	4	-68	24	0	31			0.37		0.30	3	0	7.6	41			18	35	2	19	3	9	3.9	
BIG DELTA	1269			-14	-34	-24.4		27	5	-58	25+	0	31			0.29		0.12	5	0	5.2	10			39	12	3	16	8	7	3.9	
COLD BAY	96	1011.2	1014.9	27	18	22.1	- 5.7	38	9	0	31	0	27	19	84	1.34	- 0.98	0.43	18	0	19.9	11	5.6	33	44	34	25	5	7	19	7.5	
FAIRBANKS	436	1007.1	1026.2	-23	-41	-31.7	-20.6	27	5	-60	19+	0	31	-40	64	0.33	- 0.56	0.21	4	0	8.5	39	0.8	1	15	24	6	7	5	19	6.9	
GULKANA	1572	959.0	1024.4	- 9	-30	-19.5		40	5	-57	18	0	30	-33	53	0.06		0.04	3	0	0.7		3.7	36	52	4	15	20	4	7	3.2	
HOMER	67			17	3	9.7		43	4	-15	25	0	29			0.69	- 1.36	0.28	6	0	8.6	5			31	7	2	19	5	7	3.4	
JUNEAU	12	1013.5	1014.4	20	7	13.0	-12.1	40	6+	-14	25	0	29	8	80	5.56	1.56	1.20	19	0	51.0	23	5.9	9	28	10	15	7	3	21	7.4	37
KING SALMON	49	1013.2	1015.2	4	- 9	- 2.6	-16.0	40	3	-34	28	0	30	-13	61	0.45	- 0.62	0.21	5	0	4.3	3	5.0	1	46	9	2	16	2	13	4.6	
KOTZEBUE	10	1024.7	1025.1	- 7	-21	-13.7	- 8.0	13	13+	-42	2	0	31	-22	67	0.16	- 0.23	0.07	4	0	2.9	12	9.4	9	40	10	17+	6	6	19	6.8	
MC GRATH	344	1009.1	1023.5	-17	-38	-27.5	-18.5	18	3	-60	23+	0	31			0.46	- 0.80	0.22	6	0	11.4	23	0.8	36	16	36	2	17	3	11	4.5	
NOME	13	1022.4	1023.3	4	-15	- 5.7	-10.1	26	13+	-40	22	0	31	-14	63	0.05	- 0.97	0.02	5	0	2.9	16	6.5	6	43	4	2	11	6	14	5.9	39
ST. PAUL ISLAND	22	1018.3	1019.1	28	19	23.3	- 2.1	40	13	- 2	31	0	26	19	83	0.83	- 0.98	0.24	15	0	6.3	6	10.4	2	61	35	3	6	7	18	7.1	
SHEMYA	122	1012.5	1016.2	33	29	30.9	- 0.4	37	11+	19	1	0	26	22	70	1.36	- 1.14	0.72	11	0	5.6	8	6.2	11	67	25	8	1	3	27	9.0	
SUMMIT	2421	925.5	1024.0	- 6	-20	-13.2		30	5+	-45	18	0	31	-20	70	0.61		0.45	7	0	14.1	40	16.6	7	33	8	26+	18	5	8	3.5	
TALKEETNA	345			5	-20	- 7.5	-16.9	34	5	-46	24	0	31			1.17	- 0.59	1.02	4	0	7.7	31			24	4	15	20	3	8	3.1	
UNALAKLEET	15			- 4	-17	-10.1		24	11	-36	26	0	31			0.53		0.38	6	0	5.4	26			35	9	9	15	4	12	5.0	
YAKUTAT	28	1009.1	1010.3	23	8	15.5	-11.8	38	5	-17	17	0	30	7	70	11.59	0.73	3.66	19	0	67.7	44	8.4	9	29	12	26+	9	1	21	6.9	
ARIZONA																																
FLAGSTAFF	7006	787.3	1020.8	45	14	29.3	2.0	66	30	-22	4	0	30	14	57	0.08	- 1.75	0.08	2	0	0.8	7	0.8	21	22	23	2	20	5	6	3.3	
PHOENIX	1117	978.7	1018.2	68	36	52.2	2.5	88	19	19	7	0	7	25	40	0.22	- 0.51	0.22	1	0	0.0	0	1.7	11	28Y	W	2	22	3	6	2.8	91
TUCSON	2584	927.9	1017.1	66	35	50.5	0.7	85	19	17	6	0	11	21	38	0.04	- 0.78	0.04	1	0	T	T	2.6	15	28	SW	2	20	7	4	2.8	93
WINSLOW	4895	853.4	1022.7	51	15	32.8	1.8	75	20	-15	6	0	29	14	53	0.07	- 0.36	0.07	2	0	1.1	1	2.0	20	29	21	13+	18	8	5	3.3	
YUMA	194	1011.2	1018.6	68	41	54.8	1.4	88	19	24	8	0	5	25	36	0.04	- 0.35	0.04	1	0	0.0	0	4.7	36	27	NW	3	17	6	8	3.8	87
ARKANSAS																																
FORT SMITH	447	1002.4	1019.5	51	28	39.1	- 0.7	74	29	13	7	0	23	27	68	1.65	- 1.01	0.74	5	2	T	0	3.0	1	26	W	3	9	10	12	5.9	64
LITTLE ROCK	257	1009.8	1019.8	51	31	41.0	0.4	77	14	16	7	0	20	32	73	2.07	- 3.15	1.55	5	2	T	T	1.4	3	31	NW	4	7	10	14	6.3	55
CALIFORNIA																																
BAKERSFIELD	475	1004.4	1022.2	56	39	47.6	0.2	70	18+	27	6	0	5	39	75	0.53	- 0.64	0.32	5	0	0.0	0	0.8	5	26	32	2	8	6	17	6.7	
BISHOP	4108	876.7		59	25	41.5	4.7	76	18	14	4	0	26			0.01	- 0.98	0.01	1		0.1	T						14	8	9	4.5	
BLUE CANYON	5280			45	32	38.7	1.6	63	30+	13	3	0	15			8.11	- 3.59	1.79	9		54.1	129			34	6	2	12	8	11	5.1	
EUREKA U	43			51	41	45.7	- 1.7	67	17	31	3	0	2			5.41	- 1.29	1.18	12		T	T			33	SE	15	5	5	21	7.4	50
FRESNO	328	1010.5	1022.5	55	36	45.7	- 0.4	69	18	22	5	0	9	39	83	0.40	- 1.63	0.26	4	0	T	0	1.4	12	25	NW	2	9	7	15	6.2	56
LONG BEACH	34	1018.3	1019.7	66	43	54.4	1.3	89	18	31	7	0	3	40	65	0.58	- 1.41	0.33	3	0	0.0	0	1.1	30	30	29	2	9	9	13	5.7	
LOS ANGELES	97	1015.6	1019.2	64	47	55.5	1.1	86	28+	35	5	0	0	40	62	0.66	- 2.00	0.39	3	0	0.0	0	1.0	25	41Y	N	2	10	9	12	5.7	
LOS ANGELES U	270			69	49	58.8	3.0	95	18	35	5	4	0			0.43	- 2.64	0.18	3		0.0	0			29	NW	2	11	13	7	4.7	77
MT SHASTA R	3544	895.7	1022.6	44	27	35.4	2.1	58	30	10	13	0	26	27	76	4.53	- 1.83	2.40	11		26.9	20	0.8	35								
OAKLAND	6	1022.0	1022.3	54	42	48.0	0.0	64	18	33	7+	0	0	41	79	1.30	- 2.53	0.40	10	1	T	0	0.4	25	29	36	2	11	10	10	5.4	
RED BLUFF	342	1009.1	1022.0	54	37	45.9	0.4	71	27+	27	3	0	9	33	69	2.90	- 1.39	1.98	10	0	0.0	0	1.8	35	30	SE	15+	6	9	16	6.5	63
SACRAMENTO	17	1021.3	1022.3	52	39	45.3	0.1	64	20	26	6+	0	5	39	83	0.90	- 2.28	0.41	11	1	0.0	0	0.2	15	38	N	2	7	9	15	6.6	52
SANDBERG R	4517	864.9		50	35	42.6	2.7	68	19	14	4	0	12			0.24	- 2.31	0.20	2		2.3	6			30	33	22	15	7	9	4.3	
SAN DIEGO	13	1018.3	1019.2	62	47	54.3	- 0.7	81	28+	33	5	0	0	39	61	0.30	- 1.71	0.19	2	0	0.0	0	2.5	30	30	W	2	10	10	11	5.3	69
SAN FRANCISCO	8	1021.7	1022.3	55	42	48.3	- 0.3	67	18	31	5+	0	2	41	77	1.27	- 2.74	0.58	9	0	T	0	0.7	34	35	34	2	12	8	11	5.3	
SAN FRANCISCO U	52			56	46	50.8	0.1	68	17	39	4	0	0			2.04	- 2.51	0.55	8		0.0	0			26	W	12					67
SANTA MARIA	236			62	37	49.9	- 0.3	84	18	23	5	0	6			0.61	- 2.23	0.26	6		0.0	0						13	8	10	4.7	

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	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.							%
CALIFORNIA																																
STOCKTON	22	1022.0	1023.0	52	38	44.9	0.2	65	17	26	6+	0	9	37	76	0.95	- 1.60	0.39	7	0	0.0	0	0.6	16	32	33	2	6	6	19	7.1	
COLORADO																																
ALAMOSA	7536	769.7		39	- 1	19.1	1.7	62	20	-40	6	0	31			0.15	- 0.11	0.12	3		3.1	3						13	9	9	4.5	
COLORADO SPRINGS	6145	807.7	1017.4	42	18	29.8	1.2	67	20	-16	6+	0	29	12	53	0.34	0.05	0.28	3	0	8.7	7	3.4	1	49	31	25	10	9	17	5.6	
DENVER	5283	833.1	1014.7	46	18	32.1	3.6	69	20	-16	6	0	29	16	57	0.35	- 0.20	0.22	4	0	8.6	8	3.0	26	36	NW	30	7	8	16	6.7	62
GRAND JUNCTION	4843	854.4	1022.9	39	16	27.7	1.7	60	31	-15	7	0	31	15	63	0.19	- 0.45	0.10	6	0	3.2	2	2.0	12	25	W	13	7	5	19	6.8	58
PUEBLO	4684	853.4	1016.1	51	19	34.9	4.9	78	20	-17	7+	0	28	13	45	0.42	0.11	0.38	2	0	6.0	6	3.4	29	38	W	30+	10	7	14	6.0	67
CONNECTICUT																																
BRIDGEPORT	7	1013.9	1014.4	34	19	26.2	- 4.0	47	5	4	19	0	30	13	59	3.09	- 0.60	1.69	11	0	8.5	5	9.8	29	44	27	26	12	4	15	5.7	
HARTFORD	169	1006.4	1013.4	29	9	19.4	- 6.6	42	30+	-13	20	0	31	6	56	2.80	- 0.78	0.68	11	0	17.7	11	5.0	28	38	NW	27	8	14	9	5.7	59
DELAWARE																																
WILMINGTON	74	1013.2	1016.3	35	19	27.4	- 6.0	48	30+	8	31	0	31	17	66	2.22	- 1.18	1.18	12	1	5.8	6	6.6	30	37	29	26	7	5	19	6.9	
DIST. OF COLUMBIA																																
WASHINGTON DULLES	290	1005.1	1017.1	38	20	28.5		52	30	5	29	0	29	18	64	2.27		1.70	10	1	7.5	15	3.9	30	38	30	26	6	8	17	7.2	
WASHINGTON NATIONAL	10	1014.6	1017.1	39	24	31.3	- 5.6	53	30+	14	29+	0	29	19	63	1.86	- 1.17	0.99	9	1	4.8	9	4.7	29	47	NW	26	3	10	18	7.5	39
FLORIDA																																
APALACHICOLA U	13			61	47	53.8	- 1.3	75	31	26	20	0	2			2.12	- 1.02	1.25	8	1	0.0	0			26	NW	19+	8	10	13	5.9	66
DAYTONA BEACH	31	1018.6	1019.8	70	47	58.6	- 0.6	83	25	23	21	0	3	48	73	0.61	- 1.35	0.40	6	0	0.0	0	2.9	28	24	24	30	14	6	11	4.9	
FORT MYERS	15	1019.3	1019.6	77	54	65.3	1.8	87	4	32	21	0	1	54	72	0.85	- 0.67	0.65	3	0	0.0	0	0.6	5	23	33	19+	16	11	4	3.9	
JACKSONVILLE	24	1018.6	1019.6	66	43	54.0	- 1.9	82	25	19	21	0	8	44	74	2.01	- 0.44	0.89	7	0	0.0	0	3.3	29	41	NW	15	11	12	8	5.1	60
KEY WEST	4	1018.3	1018.9	76	65	70.6	1.0	82	7	46	21	0	0	61	72	0.41	- 1.12	0.25	4	0	0.0	0	4.8	5	27	NW	19	13	13	5	4.1	91
LAKELAND U	214			71	51	61.1	- 0.6	82	4	26	20	0	2			0.26	- 1.79	0.14	5		0.0	0						15	10	6	4.0	66
MIAMI	7	1018.6	1018.8	77	60	68.2	1.3	84	10	35	20	0	0	58	72	0.51	- 1.52	0.50	3	0	0.0	0	0.5	6	25	32	19+	14	15	2	4.3	
ORLANDO	108	1014.9	1019.3	74	50	62.0	1.6	86	24	28	20	0	2	49	68	0.45	- 1.55	0.30	6	0	0.0	0	2.3	30	21	30	19	15	6	10	4.6	
PENSACOLA	112	1015.9	1020.0	62	44	53.2	- 0.3	78	23+	23	20	0	6	45	75	1.61	- 2.61	0.55	10	0	0.0	0	2.2	1	25	36	19	7	6	18	6.7	
TALLAHASSEE	55	1017.6	1019.8	65	38	51.2	- 2.7	80	14	11	21	0	12	42	74	3.04	- 0.38	1.55	9	0	0.0	0	1.3	33	20	1	19+	8	10	13	6.0	
TAMPA	19	1019.3	1019.4	72	49	60.0	- 1.2	84	4	23	21	0	3	49	72	0.86	- 1.27	0.52	6	0	0.0	0	0.5	35	25	33	27+	13	11	7	4.7	62
WEST PALM BEACH	15	1018.3	1019.0	76	54	65.0	- 1.9	85	9	30	20	0	1	54	72	0.82	- 1.66	0.56	5	0	0.0	0	1.3	29	29	30	19	12	11	8	4.6	
GEORGIA																																
ATHENS	802	988.8	1018.4	52	33	42.8	- 1.8	68	14	14	20	0	15	33	71	4.06	- 0.83	0.83	12	3	T	T	4.2	27	23	31	26	9	4	18	6.6	
ATLANTA	1010	981.7	1019.2	52	34	42.9	- 1.8	67	14	15	20	0	17	33	72	4.40	- 0.04	1.17	14	5	T	T	3.4	29	33	NW	26	9	6	16	6.6	43
AUGUSTA	136	1013.2	1018.5	56	34	45.3	- 2.3	73	4	15	21+	0	12	35	72	4.62	1.63	1.30	10	4	T	T	3.7	26	25	27	26	8	3	20	7.0	
COLUMBUS	385	1005.1		58	38	48.2	0.4	74	14	18	20	0	11			5.33	1.27	1.97	12	4	0.0	0	2.4	30	29	32	15	10	2	19	6.6	
MACON	354	1006.1	1019.4	60	37	48.4	- 0.8	78	14	16	20	0	11	39	73	4.91	1.54	2.09	12	5	0.0	0	4.0	28	44	NW	15	9	4	18	6.6	47
ROME	637			51	30	40.5	- 1.6	67	14	12	20	0	20			4.49	- 1.02	1.45	13		0.1	T										
SAVANNAH	46	1017.3	1019.0	62	38	50.1	- 1.6	78	25+	17	21+	0	10	39	70	3.40	0.62	1.36	9	1	T	0	3.6	27	30	NW	15	7	5	19	6.8	46
HAWAII																																
HILO	27	1010.2	1011.3	80	62	71.3	0.5	87	27	58	8+	0	0	62	77	13.47	1.65	5.89	18	9	0.0	0	1.3	17	29	S	28	4	9	18	7.2	28
HONOLULU	7	1010.5	1010.9	79	65	71.7	- 0.8	82	29+	56	7	0	0	62	76	6.19	2.43	1.37	14	2	0.0	0	1.9	20	33	SW	15	6	6	19	7.3	49
KAHULUI	48	1008.5	1010.7	78	62	69.8	- 2.3	83	23	52	8	0	0	64		13.66	10.52	4.94	19	8	0.0	0	4.6	19	38	SW	15	8	7	16	6.7	56
LIHUE	103	1005.8	1011.0	77	63	69.7	- 1.2	81	15	53	7	0	0	62	76	11.94	6.43	3.55	20	5	0.0	0	3.2	23	36	SW	14	5	12	14	7.0	44
IDAHO																																
BOISE	2838	919.1	1022.1	40	28	33.9	4.8	55	26	6	5+	0	19	25	72	2.04	0.72	0.75	17	0	4.0	2	2.9	12	29	E	15	4	2	25	8.2	41
LEWISTON	1413			42	30	36.3	5.6	63	30	7	5	0	15			1.67	0.57	0.45	17		7.3	4						1	3	27	9.1	
POCATELLO	4454	864.2	1021.7	35	20	27.2	4.9	54	31	-13	5	0	27	20	73	1.47	0.26	0.32	15	0	13.1	6	8.1	22	40	SW	20	2	6	23	8.2	36
ILLINOIS																																
CAIRO U	314			41	26	33.5	- 3.9	63	13	14	19+	0	24			3.22	- 1.24	1.90	6		T	T			32	S	3	7	8	16	6.7	35
CHICAGO O HARE	658	992.2	1017.8	27	11	18.9	- 5.3	44	25	- 4	31+	0	31	9	65	0.93	- 0.89	0.49	9	0	10.0	5	6.7	25	47	28	29	11	5	15	6.0	
CHICAGO MIDWAY	607	993.9	1017.7	27	11	19.2	- 6.8	44	25	- 4	31+	0	31	8	62	1.11	- 0.75	0.82	8	0	12.8	7	6.8	25	39	W	29	11	5	15	6.0	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	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.							%
ILLINOIS																																
MOLINE	582	996.6	1019.3	24	5	14.8	- 7.8	43	25	-19	7	0	31	6	67	1.79	0.18	1.70	5	1	17.7	13	5.7	26	44	W	25	10	8	13	5.6	62
PEORIA	652	994.2	1019.3	28	10	19.2	- 6.5	50	25	- 5	6	0	31	11	72	0.59	- 1.29	0.53	6	0	5.4	4	5.2	26	42	W	25	8	8	15	6.1	54
ROCKFORD	724	989.5	1017.9	24	6	14.8	- 7.2	41	25	-11	6	0	31	7	71	1.11	- 0.87	0.87	7	0	10.0	7	5.7	28	40	30	29	12	4	15	5.7	
SPRINGFIELD	588	996.3	1019.5	33	14	23.7	- 4.7	54	29	- 4	31	0	30	13	66	1.24	- 0.65	0.98	6	0	4.2	2	4.5	26	42	NW	26	8	8	15	6.2	57
INDIANA																																
EVANSVILLE	381	1005.4	1020.0	39	21	29.8	- 4.4	60	14	7	7	0	26	20	71	2.88	- 1.10	1.55	7	1	0.6	1	2.2	30	30	NW	26	7	6	18	7.1	44
FORT WAYNE	791	986.8	1018.2	29	11	20.2	- 6.8	51	4	-11	19	0	31	13	75	1.11	- 1.56	0.48	11	0	5.4	2	7.0	26	48	W	26	4	10	17	7.2	47
INDIANAPOLIS	792	988.2	1018.7	32	15	23.4	- 5.7	54	4	- 3	27	0	31	14	71	1.98	- 1.07	1.60	9	0	1.5	1	4.7	26	42	W	26	7	5	19	7.0	54
SOUTH BEND	773	987.8	1017.0	28	12	20.0	- 5.6	44	4	- 4	19	0	31	14	78	1.55	- 0.65	0.50	14	0	22.5	11	7.3	25	32	31	26	5	4	22	7.7	
IOWA																																
BURLINGTON	692			26	8	17.0	- 7.4	45	25+	-12	6	0	31	7	62	1.04	- 0.60	1.03	2	0	9.0	6	5.0	29	29	32	26+	8	9	14	6.3	
DES MOINES	938	983.4	1020.1	24	8	15.7	- 4.2	50	29	-14	7	0	31	6	64	1.75	0.45	1.46	6	1	15.9	14	4.6	30	36	NW	4	9	10	12	5.8	59
DUBUQUE	1056	977.3		20	3	11.2	- 8.0	37	29+	-17	7+	0	31			1.98	0.15	1.71	7		14.6	14						10	8	13	5.5	
SIOUX CITY	1095	978.3	1020.4	22	6	13.8	- 4.9	49	29	-15	6	0	31	9	80	0.45	- 0.33	0.38	6	0	4.8	6	4.3	30	44	NW	25	10	7	14	6.1	62
WATERLOO	868	985.8	1019.6	17	- 1	7.7	-10.2	38	29	-25	7	0	31	- 1	67	1.76	0.61	1.64	3	0	16.7	17	5.9	31	36	33	4	10	8	13	5.6	
KANSAS																																
CONCORDIA	1470	964.4	1019.8	31	12	21.8	- 5.7	62	29	-11	6	0	31	14	73	0.76	0.06	0.73	4	1	9.1	9	1.7	31	42	NW	3	9	8	14	6.1	66
DODGE CITY	2582	924.8	1018.8	38	17	27.2	- 3.9	72	29	- 8	7+	0	30	17	71	1.10	0.53	1.08	3	1	9.9	10	1.4	30	46	NW	3	10	5	16	6.3	63
GOODLAND	3654	886.2	1016.8	44	16	29.8	2.4	71	20	-11	6	0	30	15	64	0.53	0.14	0.53	2	0	8.3	6	4.0	25	32	31	25+	9	6	16	6.2	
TOPEKA	877	987.5	1020.6	32	16	24.1	- 4.7	57	29	0	6	0	31	16	73	1.20	0.18	1.16	4	0	2.1	1	2.6	33	31	SW	20+	10	5	16	6.1	60
WICHITA	1321	969.0	1019.6	39	18	28.8	- 3.2	70	29	4	6	0	31	20	74	0.98	0.17	0.98	2	1	T	T	3.2	1	42	NW	4	10	7	14	5.9	69
KENTUCKY																																
COVINGTON	869	985.8	1018.5	37	19	28.3	- 3.3	58	14	2	31	0	29	18	67	2.47	- 1.09	1.12	7	2	3.2	1	5.3	26	40	27	26	5	10	16	7.2	
LEXINGTON	966	982.4	1019.2	38	21	29.7	- 4.8	60	14	5	31	0	27	21	72	3.29	- 1.65	1.43	9	2	4.0	2	4.2	25	30	28	26	5	9	17	7.2	
LOUISVILLE	477	1001.0	1019.3	39	23	30.9	- 4.1	63	14	7	31+	0	25	20	66	2.64	- 1.46	1.15	8	0	3.2	2	3.7	28	32	NW	29+	4	9	18	7.3	44
LOUISIANA																																
ALEXANDRIA	92	1015.2	1019.7	61	41	50.7	0.4	80	30	25	20	0	11			3.02	- 2.30	1.36	10	1	2.0	1	0.8	6	23	19	22+	4	6	21	7.5	
BATON ROUGE	64	1016.6	1019.4	63	43	52.8	- 0.1	78	30+	23	20	0	9	45	78	1.15	- 3.63	0.67	7	1	0.0	0	1.2	7	23	2	19+	6	7	18	7.0	
LAKE CHARLES	9	1018.0	1019.0	65	46	55.6	1.9	78	24	30	20+	0	3	47	80	0.78	- 3.66	0.27	5	0	T	T	2.6	11	25	36	4	6	7	18	7.1	
NEW ORLEANS	4	1018.6	1019.6	66	45	55.1	0.5	80	30+	26	20	0	3	47	76	1.13	- 2.71	0.39	5	0	0.0	0	1.3	2	21	23	30+	5	11	15	6.6	
SHREVEPORT	254	1009.1	1018.7	62	40	50.6	3.1	84	30	21	9	0	11	40	72	0.27	- 4.53	0.14	3	0	0.8	1	1.3	14	26	14	3+	5	9	17	6.9	47
MAINE																																
CARIBOU	624	985.1		16	- 4	5.8	- 4.7	41	27	-28	18	0	31			1.71	- 0.40	0.60	15		16.6	19						8	6	17	6.4	
PORTLAND	43	1009.1	1011.4	23	1	12.2	- 9.6	40	5	-26	19	0	31	4	66	2.25	- 2.12	0.56	10	0	17.2	27	6.0	28	38	W	30	16	6	9	4.5	64
MARYLAND																																
BALTIMORE	148	1011.2	1017.0	37	23	30.0	- 4.8	51	30+	13	29+	0	27	18	62	2.02	- 1.41	1.04	10	0	4.1	5	5.8	28	54	NW	26	6	7	18	7.0	44
MASSACHUSETTS																																
BLUE HILL OBS R	629			29	13	20.6	- 6.4	49	5	- 7	19	0	31			1.96	- 2.53	0.53	9		12.2	16			48	W	27					57
BOSTON	15	1011.5	1012.5	31	17	23.8	- 6.1	46	5	2	28+	0	31	12	62	1.88	- 2.06	0.44	12	0	12.0	8	11.1	28	36	NW	27	11	10	10	5.6	66
WORCESTER	986	974.3	1012.6	26	10	17.7	- 6.3	47	5	- 9	28+	0	31	8	66	1.97	- 1.74	0.61	11	0	16.6	24	8.9	28	32	28	27	10	11	10	5.6	
MICHIGAN																																
ALPENA	689	986.8	1013.3	25	5	15.1	- 4.6	41	4	-16	30	0	31	10	75	2.42	0.47	0.63	22	0	43.2	28	4.5	26	38	NW	27+	2	7	22	8.0	39
DETROIT	619			28	15	21.6	- 5.3	44	4	- 3	31	0	31	14	74	0.92	- 1.13	0.47	16	0	6.7		7.8	26	40	26	29					
DETROIT METRO	633	990.9	1015.8	28	13	20.7	- 5.5	47	4	- 5	31	0	31	13	74	1.03	- 0.90	0.46	11	0	8.7	4	7.3	26	50	W	30+	4	10	17	7.5	36
FLINT	771	985.8	1014.8	26	13	19.6	- 4.9	43	4	- 3	31	0	31	13	74	0.46	- 1.24	0.13	14	0	9.7	6	7.6	26	36	29	29+	2	9	20	8.0	
GRAND RAPIDS	794	985.1	1015.5	25	11	18.3	- 5.7	41	4	- 9	19	0	31	12	76	1.04	- 0.87	0.27	17	0	27.2	13	7.2	24	56	W	29	0	7	24	8.8	33
HOUGHTON LAKE	1149	969.9	1013.8	23	7	14.7	- 4.5	38	24+	-15	8	0	31	9	77	1.30	- 0.19	0.56	16	0	27.5	12	5.9	27	31	34	26	0	9	22	8.5	
LANSING	841	982.4	1015.5	26	12	19.1	- 5.2	43	4	- 5	19	0	31	12	72	0.68	- 1.28	0.26	12	0	8.9	7	7.9	25	54	W	30+	2	9	20	7.9	38
MARQUETTE U	677			20	9	14.4	- 5.1	35	1	- 9	31+	0	31			3.57	1.68	1.06	25		52.6	34			42	SW	20	2	6	23	8.1	39

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: 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.							%
MICHIGAN																																
MUSKEGON	625	991.9	1015.7	27	14	20.0	- 6.0	41	4	- 7	19	0	31	13	74	1.87	- 0.23	0.38	19	0	45.2	14	6.4	28	44	31	26	0	2	29	9.5	
SAULT STE MARIE	721	984.8	1012.6	18	2	9.5	- 6.3	31	22+	-16	27	0	31	4	75	3.50	1.43	0.58	22	0	50.4	33	2.1	32	31	NW	26	4	7	20	7.6	46
MINNESOTA																																
DULUTH	1428	962.8	1017.8	10	- 9	0.6	- 8.1	28	1	-24	27	0	31	- 7	70	1.56	0.41	0.63	16	0	31.8	25	7.9	30	37	W	30	9	5	17	6.4	46
INTERNATIONAL FALLS	1179	972.2	1018.9	4	-18	- 7.1	-10.2	24	1	-38	12	0	31	-14	68	0.52	- 0.32	0.25	10	0	9.5	16	4.6	28	23	28	30+	11	8	12	5.3	
MINNEAPOLIS	834	987.1	1019.4	15	- 2	5.5	- 5.9	35	22+	-18	27	0	31	- 3	63	1.22	0.52	0.24	13	0	19.9	13	4.8	31	37	NW	29	11	7	13	6.0	52
ROCHESTER	1297	967.8	1018.6	15	- 3	5.8	- 7.8	34	1	-17	27+	0	31	0	74	1.12	0.21	0.66	12	0	16.2	17	6.8	29	38	31	29	12	6	13	5.8	
ST CLOUD	1034	979.3	1020.1	12	- 7	2.9	- 7.2	32	1	-22	27	0	31			0.86	0.14	0.17	11		13.1	12						9	6	16	6.1	
MISSISSIPPI																																
JACKSON	310	1007.8	1020.0	60	38	48.7	0.8	78	30	14	20	0	15	40	75	3.02	- 2.16	1.53	11	3	T	T	0.6	19	28	SE	3	6	8	17	6.8	48
MERIDIAN	290	1008.8	1020.1	59	37	48.1	0.0	76	14	18	20	0	14	40	78	4.25	- 0.44	1.82	11	3	0.0	T	0.5	35	21	17	4+	6	8	17	6.9	
MISSOURI																																
COLUMBIA REGIONAL	887	986.1	1019.8	36	18	27.2	- 3.1	61	29	3	6	0	31	16	66	1.62	- 0.09	1.61	3	1	1.0	1	2.9	29	32	NW	26	8	7	16	6.6	57
KANSAS CITY	742	991.9	1020.1	36	19	27.7	- 4.0	62	29	5	6	0	28	18	70	1.48	0.07	1.47	3	1	1.3	1	2.8	32	34	SW	20	10	6	15	5.9	72
ST JOSEPH	811			34	14	24.3	- 2.9	55	29	-20	6	0	29	12	64	1.50	0.30		3				2.9	32	32	31	4+	10	5	16	5.6	
ST LOUIS	535	998.6	1019.9	38	17	27.4	- 4.5	64	29	2	6	0	30	17	70	0.66	- 1.32	0.55	5	1	0.4	T	3.7	27	38	NW	26	9	7	15	6.5	61
SPRINGFIELD	1268	972.6	1019.4	43	20	31.4	- 2.2	67	29	3	6	0	31	21	68	1.23	- 0.73	0.94	5	1	0.1	T	0.4	23	31	SE	3	10	8	13	5.8	60
MONTANA																																
BILLINGS	3567	888.9	1018.0	27	10	18.7	- 4.5	56	29+	-19	14	0	27	9	67	1.30	0.76	0.44	15	0	11.5	6	6.0	27	45	NW	20	2	2	27	8.9	24
GLASGOW	2284	933.6	1020.5	14	- 3	5.1	- 4.7	42	29	-23	14+	0	31	- 3	69	0.99	0.51	0.30	19	0	24.2	20	2.4	2	39	36	29	2	4	25	8.5	
GREAT FALLS	3662	885.9	1019.1	26	7	16.2	- 5.9	58	19	-30	14+	0	28	4	58	1.22	0.61	0.41	17	0	16.2	10	9.5	24	42	SW	29	3	4	24	8.2	38
HAVRE	2584	922.8	1019.9	16	- 4	6.3	- 7.6	48	19	-30	14	0	31	2	76	2.33	1.84	0.51	19	0	41.4	21	4.2	25	38	SW	21	1	5	25	8.6	37
HELENA	3828	878.8	1019.2	28	10	19.0	0.4	53	19	-30	13	0	30	9	62	1.38	0.91	0.57	10	0	16.2	14	5.5	27	42	SW	25+	2	4	25	8.3	24
KALISPELL	2955	909.2	1017.6	29	14	21.7	1.9	51	30	-16	5	0	25	15	73	1.81	0.44	0.38	19	0	25.7	18	2.1	16	35	2	10	1	3	27	9.2	
MILES CITY	2629	921.4	1019.2	21	1	11.2	- 5.3	43	29+	-24	11	0	31	5	76	1.78	1.34		17	0	17.2		5.2	31								
MISSOULA	3190	903.5	1018.9	33	19	26.3	7.1	52	29	- 7	13	0	25	22	83	1.81	0.89	0.29	23	0	9.9	6	0.7	27	34	NW	21	1	4	26	9.1	22
NEBRASKA																																
GRAND ISLAND	1841	950.6	1019.9	30	10	19.9	- 2.7	64	29	-16	6	0	31	8	63	0.82	0.19	0.69	6	0	10.3	8	4.0	30	35	34	4+	8	5	18	6.6	
LINCOLN U	1150			28	12	19.9	- 5.2	60	29	-10	7+	0	31			1.30	0.38	1.15	5		15.1	13			38	NE	3	9	7	15	6.1	61
NORFOLK	1544			25	7	16.0	- 3.4	56	29	-15	7	0	31			0.28	- 0.50	0.20	7		5.1	4						10	6	15	6.0	
NORTH PLATTE	2775	916.7	1018.5	35	10	22.1	- 1.9	64	29	-18	6	0	31	12	69	0.47	0.04	0.24	5	0	5.6	4	2.5	32	34	NW	25	6	8	17	6.9	57
OMAHA	977	983.1	1020.2	27	8	17.8	- 4.5	57	29	-16	6	0	31	9	67	0.95	0.13	0.76	6	0	13.1	10	3.6	33	39	NW	25	12	5	14	5.9	56
SCOTTSBLUFF	3957	877.1	1017.3	38	16	26.8	1.5	65	20	-14	7	0	27	12	58	0.23	- 0.06	0.19	4	0	2.2	2	6.1	31	40	28	25	3	8	20	7.8	
VALENTINE	2587			29	5	16.6	- 3.4	57	29	-17	6	0	31			0.49	0.09	0.37	6		9.3	8			37	NW	25	6	8	17	7.2	61
NEVADA																																
ELKO	5050	846.6	1022.0	39	21	30.3	7.7	58	31	-18	4	0	23			0.58	- 0.58	0.17	10	0	9.0	6	3.0	23	27	20	12	4	8	19	7.3	
ELY	6253	809.7	1022.5	39	10	24.2	1.4	57	18+	-26	5	0	31	14	69	0.63	- 0.15	0.54	4	0	8.8	10	5.5	20	39	N	2	11	5	15	6.0	69
LAS VEGAS	2162	943.4	1021.5	57	32	44.4	1.3	74	31+	12	6	0	15	18	37	T	- 0.53	T	0	0	T	0	3.1	27	37	SW	13	17	7	7	3.8	91
RENO	4404	869.3	1022.6	46	20	33.0	2.6	66	18	-11	3	0	27	23	71	0.75	- 0.44	0.35	5	0	11.4	6	1.4	21	42	W	13	10	9	12	5.4	67
WINNEMUCCA	4301	871.7	1022.4	47	21	33.7	6.5	68	18	- 9	4	0	24	24	70	0.19	- 0.86	0.08	5	0	1.8	1	3.5	22	29	SW	14	7	4	20	6.8	63
NEW HAMPSHIRE																																
CONCORD	342	999.3	1012.5	25	0	12.5	- 8.7	43	25	-29	19	0	31	5	67	1.63	- 1.60	0.51	9	0	15.6	24	5.5	29	35	NW	3	13	8	10	5.1	66
MT WASHINGTON OBS	6262			7	-11	- 2.1	- 8.4	36	5	-36	28+	0	31			8.18	2.74	1.40	21	0	57.2	24			125Y	W	7	5	4	22	8.0	32
NEW JERSEY																																
ATLANTIC CITY	64	1013.2	1015.6	38	20	28.8	- 6.0	54	5	3	19	0	28	16	60	2.67	- 0.89	1.23	13	1	7.2	3	7.1	29	47	29	26	4	10	17	6.9	43
ATLANTIC CITY U	11			38	25	31.5	- 4.5	51	5	15	20	0	25			2.89	- 0.86	1.37	13						36	W	27+					
NEWARK	7	1013.9	1015.0	34	21	27.3	- 5.0	46	30	7	19	0	28	18	70	2.74	- 0.59	1.05	12	0	13.2	7	7.6	27	33	27	27	8	8	15	6.5	
TRENTON U	56			34	22	28.1	- 5.0	49	5	8	19	0	28			2.61	- 0.49	1.07	11		11.0	6			38	NW	27	7	9	15	6.4	53

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.							%
NEW MEXICO																																
ALBUQUERQUE	5311	838.8	1019.9	48	19	33.6	- 1.4	69	31	-17	7	0	26	16	55	0.27	- 0.14	0.26	2	0	3.0	3	2.7	2	34	E	3	18	5	8	3.8	87
CLAYTON	4969			50	19	34.2	1.0	76	30	- 9	7+	0	30			0.13	- 0.22	0.13	2		2.3	2						12	6	13	5.1	
ROSWELL	3612			58	24	41.3	3.4	78	30+	- 4	5	0	23			0.18	- 0.30	0.16	2		2.0	1			35	NW	30					75
NEW YORK																																
ALBANY	275	1003.4	1014.4	26	2	13.9	- 8.8	43	25	-28	19	0	31	8	73	1.78	- 0.69	0.46	11	1	15.2	16	5.0	27	39	W	27	9	10	12	5.6	59
BINGHAMTON	1590	952.9	1014.1	22	9	15.6	- 8.2	42	5	- 9	19	0	31	10	77	1.68	- 0.82	0.48	16	0	17.2	17	6.8	26	56	SW	26	0	11	20	7.8	47
BUFFALO	705	987.5	1014.1	27	15	20.9	- 3.6	49	4	- 1	19+	0	30	13	73	1.46	- 1.38	0.45	21	0	17.2	6	9.7	27	47	SW	26	1	7	23	8.5	36
NEW YORK U	132	1011.2	1014.4	33	21	27.0	- 6.2	46	23+	4	19	0	29	15	63	2.67	- 0.64	1.14	9	0	11.4	6	6.1	28	35	W	27					57
NEW YORK KENNEDY	13	1014.2	1015.0	34	22	27.9	- 3.9	48	5	7	19	0	29	16	63	2.31	- 0.92	0.91	10	0	11.6	6	9.6	29	40	27	26	8	9	14	6.4	
NEW YORK LA GUARDIA	11	1014.2	1015.3	34	23	28.8	- 4.8	48	30	7	19	0	27	14	55	2.27	- 1.04	0.92	10	0	10.4	6	9.1	30	44	W	26	5	11	15	6.7	
ROCHESTER	547	993.2	1014.3	27	12	19.5	- 5.7	44	4	- 5	19+	0	31	12	73	2.66	0.26	0.78	18	0	34.1	14	10.4	25	47	SW	26	2	8	21	7.8	45
SYRACUSE	410	998.3	1013.7	27	10	18.5	- 5.5	44	4	- 8	19+	0	31	10	68	1.90	- 1.25	0.40	21	1	30.3	15	6.3	24	47	W	30	6	3	22	7.6	32
NORTH CAROLINA																																
ASHEVILLE	2140	939.4	1017.2	47	26	36.5	- 1.1	65	11	12	21	0	24	28	75	2.53	- 1.64	1.04	10	0	0.1	4	5.8	34	40	32	26	6	10	15	6.7	50
CAPE HATTERAS R	7	1016.9	1017.3	50	35	42.5	- 4.1	68	5	22	20	0	13	35	75	4.53	0.63	1.75	12	2	T	T	5.7	32	34	NW	27	3	7	21	7.8	43
CHARLOTTE	736	989.5	1017.6	48	31	39.9	- 2.8	67	5+	13	20	0	16	27	66	3.40	- 0.13	0.79	12	1	0.1	1	2.1	29	29	SW	26	5	5	21	7.6	37
GREENSBORO	897	985.1	1017.6	45	26	35.2	- 4.5	63	5	11	29+	0	24	25	68	1.80	- 1.60	0.45	13	1	0.4	2	3.5	27	43	NW	26	4	8	19	7.4	48
RALEIGH	434	1001.4	1017.6	46	28	37.0	- 4.6	67	5	10	29+	0	21	25	64	3.28	0.06	1.60	9	1	T	T	3.3	29	41	27	26	6	6	19	7.4	38
WILMINGTON	28	1016.6	1018.1	54	36	44.8	- 3.1	73	5	21	20	0	12	34	70	4.97	2.12	1.61	14	2	T	T	3.0	29	32	W	27	7	3	21	7.3	48
NORTH DAKOTA																																
BISMARCK	1647	957.0	1020.8	11	- 8	1.5	- 8.4	34	20+	-36	15	0	31	- 4	72	0.78	0.34	0.24	11	0	12.7	8	3.8	32	36	N	29	6	7	18	7.2	65
FARGO	896	985.8	1021.0	9	-11	- 0.7	- 8.0	32	20	-30	15	0	31	- 7	72	0.81	0.28	0.39	11	0	15.1	10	3.5	33	45	NW	29	10	5	16	6.0	50
WILLISTON	1899	947.5	1020.6	10	- 7	1.6	- 6.7	36	20	-31	15	0	31	- 3	77	0.79	0.24	0.21	13	0	10.5	10	4.5	32	33	N	29	5	5	21	7.9	60
OHIO																																
AKRON	1208	969.9	1016.2	32	14	22.6	- 5.7	55	4	- 4	31	0	30	14	72	1.75	- 1.11	0.52	16	0	9.0	4	6.6	25	39	26	26	4	3	24	8.1	
CINCINNATI ABBE OB	761			36	19	27.7	- 6.0	57	14+	3	31+	0	28			2.27	- 1.40	1.14	7		2.1	1			35	NW	26					40
CLEVELAND	777	986.5	1016.8	29	14	21.4	- 7.0	54	4	- 5	31	0	31	13	71	1.35	- 1.32	0.43	16	0	8.6	4	8.0	24	42	W	29+	3	3	25	8.3	42
COLUMBUS	812	986.8	1018.0	33	16	24.3	- 5.6	53	4	- 4	18	0	31	15	69	1.57	- 1.59	0.98	12	0	6.5	3	5.5	26	46	W	29	4	6	21	7.6	30
DAYTON	1002	980.4	1018.1	33	15	23.9	- 5.7	56	4	- 2	19	0	31	14	67	1.64	- 1.54	1.10	10	1	4.6	1	6.0	26	56	W	26	6	7	18	7.1	44
MANSFIELD	1295			31	14	22.4	- 4.9	54	4	- 5	31+	0	31	15	77	1.40	- 1.82	0.74	9	0	7.2	3	8.9	24	46	24	29	4	6	21	7.6	
TOLEDO	669	990.5	1016.6	29	12	20.3	- 6.0	51	4	- 5	31	0	31	12	70	0.82	- 1.51	0.44	13	0	8.5	3	7.5	26	47	W	29	4	9	18	7.5	36
YOUNGSTOWN	1178	971.9	1016.2	28	13	20.7	- 6.6	53	4	- 6	31	0	31	13	74	2.08	- 1.08	0.60	17	1	16.0	7	7.7	26	40	27	26	3	4	24	8.3	
OKLAHOMA																																
OKLAHOMA CITY	1285	971.2	1019.0	48	26	36.9	- 0.1	72	29	11	6	0	25	24	65	0.75	- 0.56	0.73	3	1	T	T	2.4	3	34	SW	21	13	6	12	5.1	73
TULSA	650	994.6	1019.5	47	26	36.5	0.3	74	29	10	6	0	26	24	64	1.37	- 0.34	1.26	3	1	T	T	0.9	1	29	S	20+	14	3	14	5.3	67
OREGON																																
ASTORIA	8	1019.3	1019.9	45	36	40.7	0.0	58	18	21	12	0	9	39	92	16.69	4.98	2.99	24	1	16.1	12	6.1	19	55	17	15+	0	4	27	9.5	
BURNS U	4151	874.7	1021.6	39	21	29.9	5.1	58	31	-11	4	0	25	23	76	1.77	0.15	0.82	11		5.3	8	3.6	28				3	8	20	7.6	
EUGENE	359	1008.8	1022.5	46	35	40.1	1.0	65	30	18	13	0	11	36	87	10.83	4.50	1.84	18	0	18.9	11	5.5	17	33	18	15	0	5	26	9.2	
MEACHAM	4050	876.7	1020.2	36	25	30.5	4.5	57	31	4	4+	0	22			6.33	2.13	2.06	21		31.5	17			31	25	21	1	5	25	8.7	
MEDFORD	1298	974.9	1023.8	42	30	36.1	0.7	53	18	17	3	0	21	31	86	3.68	0.54	1.61	12	0	10.5	7	0.4	31	23	14	14	3	4	24	8.5	
PENDLETON	1452	964.8	1019.7	47	33	40.0	7.8	65	31+	12	4+	0	15	28	64	0.84	- 0.58	0.21	11	0	4.0	2	6.1	24	40	27	21+	5	3	23	7.9	
PORTLAND	21	1020.3	1021.4	45	36	40.4	2.0	60	19+	20	5	0	9	36	85	7.09	1.72	1.21	20	0	6.9	4	6.4	18	42	S	15	1	1	29	9.5	8
SALEM	196	1014.2	1021.7	45	33	39.1	0.6	64	30	16	5	0	14	34	83	6.49	- 0.21	1.04	22	0	11.1	9	8.1	19	32	18	15	0	3	28	9.3	
SEXTON SUMMIT R	3836	886.6	1022.1	41	30	35.6	1.5	65	31	13	2	0	19			9.44	3.85	2.81	13		29.0	34			48	21	15	8	3	20	7.1	
PACIFIC AREA																																
GUAM TAGUAC R	361	996.3	1008.9	84	73	78.1	- 0.1	86	1	65	14	0	0	73	86	5.25	0.62	1.51	24	1	0.0	0	8.0	8	21	S	11+	0	6	25	8.7	34
JOHNSTON	7	1010.2	1010.9	80	71	75.8	- 1.3	83	12	68	9	0	0	66	72	1.47	- 2.42	0.51	13	0	0.0	0	4.6	5	26	W	27+	13	13	5	4.5	67
KOROR R	94	1004.4	1007.9	88	75	81.3	1.0	90	27+	73	17+	3	0	75	84	13.54	1.81	4.43	22	0	0.0	0	5.0	3	28	N	8	0	3	28	9.0	59
KWAJALEIN	8	1007.8	1008.4	86	77	81.6	1.5	90	18	73	25+	1	0	73	76	5.35	1.74	1.90	10	0	0.0	0	13.4	7	30	9	7	4	5	22	8.0	
MAJURO	10	1008.5	1008.6	85	77	80.6	0.4	87	17+	74	30+	0	0	73	77	8.21	1.23	2.77	16	1	0.0	0	10.5	6	29	E	23+	4	13	14	6.9	63

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	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	1008.5	1008.5	86	75	80.0		88	27+	71	4+	0	0	74	82	11.48		2.63	24	2	0.0	0	2.3	6	24	NW	22	2	10	19	7.6	50
PONAPE R	123	1002.7	1008.0	88	74	80.5	0.0	90	17+	69	15+	6	0	74	82	16.64	5.57	3.85	22	1	0.0	0	6.1	7	19	NE	2	2	10	19	7.7	52
TRUK MOEN ISLAND	5	1007.5	1007.9	86	77	81.5	0.8	88	29+	72	13	0	0	74	80	8.25	- 0.15	2.33	15	1	0.0	0	8.0	7	22	NE	2	1	5	25	8.5	71
WAKE	11	1011.5	1011.6	82	73	77.5	0.1	84	30+	70	26+	0	0	68	74	1.79	0.65	0.56	11	0	0.0	0	6.9	7	35	NE	1	14	12	5	4.3	78
YAP R	44			86	75	80.3	- 0.2	88	27+	70	17+	0	0			10.42	2.55	2.32	24	1	0.0	0			23	NW	11+	5	11	20	8.1	86
PENNSYLVANIA																																
ALLENTOWN	387	1001.0	1015.7	29	15	22.0	- 7.0	40	5	2	19	0	31	15	75	2.73	- 0.44	1.41	9	0	11.2	8	6.9	28	39	27	30	6	11	14	6.5	
ERIE	731	988.2	1015.8	29	15	22.0	- 5.3	49	4	- 5	31	0	31	12	68	1.63	- 1.04	0.36	21	0	26.8	5	9.5	24	40	25	29	0	5	26	9.0	
HARRISBURG	338	1003.1	1016.3	33	19	26.4	- 4.9	45	11	10	31	0	31	14	61	2.70	- 0.06	1.06	11	1	11.6	11	6.6	29	46	W	26	5	9	17	7.1	49
PHILADELPHIA	5	1014.9	1015.9	35	21	27.8	- 4.5	53	5	10	19	0	30	18	69	2.13	- 1.19	1.05	10	0	7.7	5	6.7	27	42	W	26	7	7	17	6.9	51
PITTSBURGH	1137	970.9	1016.4	31	16	23.7	- 5.2	55	4	- 3	31	0	28	16	73	2.29	- 0.68	0.99	20	1	12.1	4	7.6	27	48	27	30	4	3	24	8.2	26
SCRANTON	930	980.0	1015.6	27	12	19.5	- 8.2	44	5	- 3	19	0	31	12	71	1.54	- 0.75	0.54	13	1	15.2	10	5.6	25	34	W	30+	7	6	18	6.9	60
WILLIAMSPORT	524	995.9	1015.8	31	15	23.0	- 5.8	43	12	- 5	31	0	30	14	67	2.54	- 0.13	0.73	12	1	14.2	5	4.6	28	35	30	27	7	7	17	6.7	
RHODE ISLAND																																
BLOCK ISLAND	110			33	20	26.8	- 5.3	53	5	3	20	0	30			2.48	- 1.36	1.21	10		3.5	1						10	7	14	5.7	
PROVIDENCE	51	1011.2	1013.4	32	14	22.9	- 6.3	50	5	- 5	20	0	30	12	62	2.01	- 1.80	0.62	10	0	11.0	9	8.1	30	35	23	30	14	4	13	5.2	62
SOUTH CAROLINA																																
CHARLESTON	40	1016.9	1019.0	60	40	49.9	0.1	77	4	22	20	0	7	37	64	5.45	2.91	1.60	9	4	T	0	2.8	27	45Y	NW	26	9	3	19	6.5	58
CHARLESTON U	9			57	42	49.3	- 2.2	72	4	23	20	0	5			4.67	2.27	1.33	9		T	0			31	NW	15					
COLUMBIA	213	1010.2	1018.4	57	34	45.4	- 1.5	75	4	14	20	0	12	35	69	4.55	1.53	1.33	10	3	T	T	3.5	27	35	32	31+	8	2	21	7.1	42
GREENVILLE SPRTNBRG	957	982.7	1018.2	55	30	39.5	- 4.2	67	5	13	28	0	17	29	70	3.33	- 0.95	0.80	11	1	T	2	2.5	29	29	SW	23	7	5	19	7.1	38
SOUTH DAKOTA																																
ABERDEEN	1296	970.9	1020.8	15	- 5	5.4	- 5.4	38	1	-29	15	0	31	- 3	67	0.35	- 0.31	0.11	7	0	10.2	5	4.1	33	31	36	29	9	6	16	6.6	
HURON	1281	970.9	1020.4	17	- 2	7.6	- 4.9	41	29	-27	15	0	31	1	71	0.18	- 0.30	0.05	8	0	4.6	5	4.1	31	38	NW	29	6	5	20	7.4	57
RAPID CITY	3162	902.8	1018.7	27	8	17.5	- 4.5	56	29	-10	15	0	31	8	67	1.18	0.82	0.73	10	0	13.2	9	4.6	34	54	NW	25	3	4	24	8.3	49
SIOUX FALLS	1418	965.1	1019.7	17	- 1	8.3	- 6.9	40	29	-21	7+	0	31	2	73	0.13	- 0.49	0.07	6	0	1.9	6	4.6	30	32	33	29	8	5	17	6.4	
TENNESSEE																																
BRISTOL	1507	962.8	1018.2	45	27	35.6	- 2.7	66	4	10	31	0	24	25	68	3.83	0.14	1.25	14	1	4.5	3	3.4	28	31	28	26	4	5	21	7.5	
CHATTANOOGA	655	993.6	1018.9	48	30	38.8	- 2.9	65	30	13	20	0	21	30	72	5.19	- 0.42	1.70	11	3	0.6	1	2.1	32	26	NW	26	6	5	20	7.6	32
KNOXVILLE	990	982.7	1018.7	48	30	38.5	- 2.9	65	13	14	31	0	21	28	68	5.03	0.15	1.62	13	0	1.3	3	3.9	30	33	SW	30	5	5	21	7.5	40
MEMPHIS	258	1009.5	1020.1	49	31	39.6	- 1.9	72	14	13	20	0	18	29	66	2.15	- 3.92	0.99	12	2	T	T	0.9	34	30	SE	3	7	8	16	6.8	50
NASHVILLE	590	997.0	1019.5	45	27	35.6	- 4.3	70	14	7	20	0	23	29	76	2.66	- 2.83	1.24	12	1	1.2	1	2.5	29	29	SE	3	4	8	19	7.5	31
OAK RIDGE R	905			45	28	36.8	- 3.1	62	14	15	27+	0	21			4.88	- 1.06	2.12	10		1.7	3			40Y		26					
TEXAS																																
ABILENE	1762	955.3	1018.0	62	31	46.4	1.8	78	29+	9	5	0	14	23	45	0.01	- 0.87	0.01	1	0	0.0	0	1.4	26	37	SW	22	15	8	8	4.3	84
AMARILLO	3604	890.3	1016.1	53	23	37.8	1.1	76	20	- 4	5	0	24	16	49	0.10	- 0.55	0.10	2	0	0.8	1	3.0	27	34	W	13	14	4	13	5.0	74
AUSTIN	597	995.6	1017.9	67	42	54.6	4.2	90	30	23	5	1	7	38	59	0.04	- 2.31	0.02	2	0	0.0	0	1.4	3	30	N	3	8	11	12	5.6	58
BROWNSVILLE	19	1016.6	1017.1	76	57	66.5	5.1	93	31	35	7+	2	0	56	73	0.22	- 1.13	0.14	5	0	0.0	0	3.6	16	34	N	4	5	11	15	7.0	43
CORPUS CHRISTI	41	1015.9	1017.4	72	52	62.3	4.9	91	30	34	7+	1	0	52	75	0.03	- 1.60	0.02	2	0	0.0	0	4.5	12	34	S	21+	5	11	15	5.6	52
DALLAS	481	1000.7	1018.5	60	37	48.5	2.6	78	11	17	5	0	9	31	55	0.16	- 2.16	0.13	2	0	0.0	0	0.5	5	28	NW	3	12	8	11	4.8	76
DEL RIO	1026	980.7	1017.1	71	42	56.1	4.8	89	30	21	6	0	6	35	52	T	- 0.89	T	0	0	0.0	0	2.1	6	25	34	3	14	7	10	4.8	
EL PASO	3918	883.2	1017.3	61	28	44.6	1.7	75	31+	3	8	0	20	18	40	0.17	- 0.29	0.07	4	0	3.8	1	1.8	27	45	W	3	14	9	8	4.0	86
FORT WORTH	537	998.0	1019.0	60	33	46.7	1.2	77	11	17	8+	0	14	32	64	0.19	- 1.85	0.19	1	0	0.0	0	1.2	32	26	20	3	14	5	12	4.9	
GALVESTON U	7			62	52	57.0	2.1	73	25	29	7	0	2			0.18	- 3.28	0.07	4		T	0			27	N	7					46
HOUSTON INTERCON	96	1014.9	1018.8	68	45	56.7	5.4	82	30+	28	8+	0	7	47	76	0.36	- 3.57	0.25	3	0	T	T	1.3	13	22	20	21+	5	13	13	6.7	55
LUBBOCK	3254	903.5	1016.6	58	25	41.4	2.2	75	30+	- 4	5	0	25	18	45	T	- 0.68	T	0	0	T	T	2.4	28	31	28	8	15	3	13	4.9	
MIDLAND	2851	917.0	1016.5	64	31	47.4	3.4	80	30	2	5	0	12	17	35	T	- 0.80	T	0	0	T	T	2.3	25	29	4	21	13	13	5	4.0	
PORT ARTHUR	16	1018.3		66	49	57.5	3.9	78	23	30	20+	0	4	50	80	0.60	- 3.63	0.27	7	0	0.0	T	1.9	14	29	SW	21	6	11	14	6.9	42
SAN ANGELO	1903	949.9	1017.3	67	33	50.2	3.3	85	22	13	8+	0	10	25	44	T	- 0.97	T	0	0	0.0	0	2.3	23	28	18	3	14	12	5	4.1	
SAN ANTONIO	788	989.5	1017.9	71	42	56.0	4.0	89	30	26	5	0	8	38	57	0.04	- 1.70	0.03	2	0	0.0	0	1.8	1	32	N	3	8	12	11	5.6	63
VICTORIA	104	1013.9	1017.8	71	48	59.7	4.3	88	30	29	5	0	4	49	74	0.02	- 2.32	0.01	2	0	0.0	0	2.1	14	45Y	N	3	5	11	15	7.1	
WACO	501	1000.0	1018.2	65	38	51.7	3.7	88	30	21	5	0	9	35	57	0.03	- 2.24	0.03	1	0	T	T	0.9	26	27	33	4	13	9	9	4.6	

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.							%
TEXAS																																
WICHITA FALLS	994	981.0	1018.5	55	26	40.6	- 2.2	73	29	10	5	0	28	26	65	0.54	- 0.58	0.42	3	2	0.0	0	1.4	36	32	32	3	12	8	11	4.8	
UTAH																																
MILFORD	5028	848.3		43	16	29.8	5.2	64	18	-25	6+	0	29			0.25	- 0.32	0.25	1		4.7	5						11	9	11	5.3	
SALT LAKE CITY	4220	874.0	1021.9	41	24	32.4	5.2	61	31+	- 6	6	0	22	23	70	1.06	- 0.29	0.60	9	0	13.6	7	3.7	16	40	S	10	3	5	23	8.1	40
WENDOVER	4237	873.4	1022.2	40	22	31.2	4.2	56	30	- 8	6	0	28			0.23	- 0.09	0.17	3		3.2	2						7	8	16	6.6	
VERMONT																																
BURLINGTON	332	999.7	1012.9	20	0	9.7	- 6.5	40	25	-20	18	0	31	1	64	1.24	- 0.71	0.60	16	0	17.1	21	2.2	22	30	S	22	2	10	19	7.5	57
VIRGINIA																																
LYNCHBURG	916			42	25	33.5	- 4.1	57	14	8	20	0	25			1.73	- 1.56	0.89	15		1.7	8			45	W	26	6	11	14	6.4	49
NORFOLK	22	1015.9	1016.8	46	32	38.6	- 2.6	68	5	14	29	0	15	27	67	4.03	0.70	1.76	12	1	T	T	4.4	29	45	SW	26	3	5	23	8.1	33
RICHMOND	164	1010.8	1017.4	43	25	33.8	- 4.9	66	5	8	29	0	26	23	69	1.84	- 1.62	1.01	14	0	3.3	3	2.3	29	43	NW	26	3	11	17	7.7	34
ROANOKE	1149	973.6	1016.9	43	24	33.9	- 4.2	68	14	11	27	0	26	19	57	1.21	- 1.91	0.95	9	0	1.1	9	6.2	30	52	30	26	5	13	13	6.4	
WALLOPS ISLAND	9			41	26	33.0		60	26	14	29+	0	25			2.14		0.47	13		8.0	5			58Y	WNW	26					
WASHINGTON																																
OLYMPIA	195	1011.5	1019.0	44	34	38.6	0.5	56	18	14	5	0	12	37	92	11.15	3.30	2.43	22	0	15.4	10	7.9	20	38	20	16	0	2	29	9.5	
QUILLAYUTE	179	1010.2	1017.5	44	35	39.5	0.9	52	18	18	3	0	11	37	91	23.34	8.07	6.63	28	1	26.4	18	3.2	20	32	SW	15	1	1	29	9.4	17
SEATTLE TACOMA	400	1001.7	1018.4	44	36	39.7	1.4	55	18	24	5+	0	11	34	81	5.32	- 0.41	1.22	21	0	9.1	5	8.6	19	45	SW	16	2	1	28	9.3	15
SPOKANE	2356	930.9	1016.6	37	27	31.8	6.5	59	30	9	5+	0	18	26	80	2.11	- 0.33	0.82	15	0	6.1	5	9.7	21	43	SW	21	3	3	25	8.5	19
STAMPEDE PASS R	3958	876.7		30	24	27.1	3.6	45	31+	9	13	0	27			23.29	11.26	3.61	24		143.1	215						2	3	26	9.1	
WALLA WALLA U	949			49	36	42.2	9.0	68	31	16	5	0	11			1.59	- 0.30	0.54	15		5.7	3			33	W	21	2	5	24	8.6	23
YAKIMA	1052	978.7	1018.1	44	26	34.8	7.3	68	30	7	4+	0	24	25	70	1.48	0.29	0.69	6	0	10.8	10	4.5	27	39	30	23+	4	4	23	7.8	
WEST INDIES																																
SAN JUAN P.R.	13	1014.6	1016.9	83	72	77.6	3.2	88	19+	68	24+	0	0	67	72	2.18	- 2.52	0.51	18	0	0.0	0	7.3	9	27	E	23+	8	16	7	5.1	57
WEST VIRGINIA																																
BECKLEY	2504	926.2	1018.3	36	19	27.7	- 5.9	61	14	0	31	0	26	21	77	3.74	- 0.52	1.03	21	1	14.0	10	5.7	26	37	28	26	2	10	19	7.8	
CHARLESTON	939	982.7	1018.0	38	21	29.4	- 7.2	63	14	5	31	0	26	22	75	2.35	- 1.97	0.70	15	2	11.6	11	3.8	26	37	31	26	2	5	24	8.2	
ELKINS	1948	943.1		35	14	24.2	- 8.3	59	14	- 9	2	0	28			4.33	0.71	1.85	20		25.2	20						3	5	23	8.4	
HUNTINGTON	827	987.1	1018.2	38	22	29.6	- 7.0	61	14	5	31	0	26	22	75	2.57	- 1.08	0.96	15	2	7.1	5	4.2	25	38	27	26	3	8	20	7.9	
PARKERSBURG U	615			37	20	28.8	- 5.8	58	14	4	31	0	27			2.43	- 0.91	0.95	9		6.8	2			49	W	26					32
WISCONSIN																																
GREEN BAY	682	988.8	1016.0	17	- 3	6.9	- 9.9	33	1	-21	8	0	31	2	76	1.60	0.45	0.75	11	1	20.8	19	6.3	28	33	NW	26	13	4	14	5.8	51
LA CROSSE	651	992.9	1019.1	18	- 3	7.4	- 9.1	36	1	-23	8	0	31	1	73	1.52	0.33		12	0	26.5		3.0	27								
MADISON	858	984.1	1017.2	21	- 1	9.6	- 7.9	37	25+	-26	18	0	31	3	73	1.48	0.08	0.96	9	2	21.9	21	5.2	27	39	NW	29	11	6	14	5.5	54
MILWAUKEE	672	990.5	1017.0	21	4	12.7	- 7.9	37	25	-12	31	0	31	5	70	1.37	- 0.46	0.96	10	0	15.8	12	8.6	26	36	NW	29	10	8	13	5.8	54
WYOMING																																
CASPER	5338	833.4	1016.0	36	15	25.4	2.0	60	30	-13	4	0	28	15	67	0.19	- 0.37	0.08	5	0	3.7	4	12.5	24	38	30	25+	3	5	23	8.0	
CHEYENNE	6126	808.0	1015.7	39	21	29.7	4.3	60	20	-15	6	0	25	11	49	0.51	- 0.01	0.31	3	0	8.6	8	15.5	29	54	W	30	6	6	19	7.0	69
LANDER	5563	825.3	1016.1	37	16	26.5	7.2	63	31	-14	5	0	29	12	57	0.36	- 0.10	0.25	4	0	6.9	6	3.8	26	56	SW	25	4	8	19	7.7	60
SHERIDAN	3964	875.7	1018.0	30	9	19.5	- 1.8	60	19	-13	14+	0	30	7	59	1.43	0.79	0.37	15	0	15.6	8	4.7	31	38	NW	21+	1	2	28	9.0	34

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 November 19 - 30, inclusive.
X Sun below horizon November 24 - 30, inclusive.

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1971

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.							%
ALABAMA																																
BIRMINGHAM	189	997.0	1019.9	12.2	1.1	6.4	- 1.6	21.1	14	-11.1	20	0	18	1.1	71	91	- 37	28	14	7	T	T	0.8	29	14.3	W	25	5	11	15	6.7	43
HUNTSVILLE	190	996.3	1020.0	10.6	0.6	5.5	- 0.6	20.6	14	-10.0	20	0	18	1.1	74	133	1	40	17	4	13	T	0.7	32	13.0	27	14	7	3	21	7.3	
MOBILE	64	1011.5	1019.7	17.2	6.7	12.1	0.4	26.1	24	- 5.6	20	0	4	6.7	74	55	- 63	38	7	2	0	0	0.5	36	11.6	34	19	5	7	19	7.1	
MONTGOMERY	56	1012.5	1019.8	15.0	2.8	8.9	- 0.1	26.1	14	- 7.8	20	0	13	2.8	70	64	- 39	24	10	4	0	0	1.0	29	16.5	NW	15	7	7	17	6.5	44
ALASKA												8															8					
ANCHORAGE	35	1010.2	1015.5	-12.2	-20.6	-16.3	- 5.2	5.0	5	-30.0	24	0	30	-22.2	61	6	- 14	5	3	0	30	152	1.6	1	27.3	3	15	20	4	7	3.1	77
ANNETTE	34	1007.8	1011.9	1.1	- 4.4	- 1.8	- 3.1	7.8	7	-14.4	10	0	27	- 6.1	72	193	- 96	53	19	0	422	76	1.6	8	15.6	5	10	4	3	24	8.1	
BARROW	9	1026.4	1027.1	-25.0	-32.2	-28.6	- 1.8	- 7.8	10	-42.8	20	0	31	-31.1	78	5	0	2	5	0	46	229	1.7	11	13.0	11	17+	V	V	V		
BARTER ISLAND	12	1025.1	1027.2	-26.1	-35.0	-30.4	- 3.3	- 8.3	11	-41.7	27+	0	31			14	4	9	4	0	147	533	2.3	25	21.5	27	24+	X	X	X		
BETHEL	38	1014.2	1020.4	-17.2	-25.0	-21.3	- 5.5	- 1.1	10	-38.3	31	0	31	-23.9	80	4	- 25	2	6	0	160	305	4.9	3	18.3	5	2	14	4	13	5.2	
BETTLES	196			-31.7	-41.7	-36.7		- 6.7	4	-55.6	24	0	31			9		8	3	0	193	1041			8.0	35	2	19	3	9	3.9	
BIG DELTA	386			-25.6	-36.7	-31.3		- 2.8	5	-50.0	25+	0	31			7		3	5	0	132	254			17.4	12	3	16	8	7	3.9	
COLD BAY	29	1011.2	1014.8	- 2.8	- 7.8	- 5.5	- 3.2	3.3	9	-17.8	31	0	27	- 7.2	84	34	- 25	11	18	0	505	279	2.5	33	19.7	34	25	5	7	19	7.5	
FAIRBANKS	133	1007.1	1026.2	-30.6	-40.6	-35.4	-11.6	- 2.8	5	-51.1	19+	0	31	-40.0	64	8	- 14	5	4	0	216	991	0.4	1	6.7	24	6	7	5	19	6.9	
GULKANA	479	959.0	1024.4	-22.8	-34.4	-28.6		4.4	5	-49.4	18	0	30	-36.1	53	2		1	3	0	18		1.7	36	23.2	4	15	20	4	7	3.2	
HOMER	20			- 8.3	-16.1	-12.4		6.1	4	-26.1	25	0	29			18	- 35	7	6	0	218	127			13.9	7	2	19	5	7	3.4	
JUNEAU	4	1013.5	1014.4	- 6.7	-13.9	-10.6	- 6.7	4.4	6+	-25.6	25	0	29	-13.3	80	141	40	30	19	0	1295	584	2.6	9	12.5	10	15	7	3	21	7.4	37
KING SALMON	15	1013.2	1015.2	-15.6	-22.8	-19.2	- 8.9	4.4	3	-36.7	28	0	30	-25.0	61	11	- 16	5	5	0	109	76	2.2	1	20.6	9	2	16	2	13	4.6	
KOTZEBUE	3	1024.7	1025.1	-21.7	-29.4	-25.4	- 4.4	-10.6	13+	-41.1	2	0	31	-30.0	67	4	- 6	2	4	0	74	305	4.2	9	17.9	10	17+	6	6	19	6.8	
MC GRATH	105	1009.1	1023.5	-27.2	-38.9	-33.1	-10.3	- 7.8	3	-51.1	23+	0	31			12	- 20	6	6	0	290	584	0.4	36	7.2	36	2	17	3	11	4.5	
NOME	4	1022.4	1023.3	-15.6	-26.1	-20.9	- 5.6	- 3.3	13+	-40.0	22	0	31	-25.6	63	1	- 25	1	5	0	74	406	2.9	6	19.2	4	2	11	6	14	5.9	39
ST. PAUL ISLAND	7	1018.3	1019.1	- 2.2	- 7.2	- 4.8	- 1.2	4.4	13	-18.9	31	0	26	- 7.2	83	21	- 25	6	15	0	160	152	4.6	2	27.3	35	3	6	7	18	7.1	
SHEMYA	37	1012.5	1016.2	0.6	- 1.7	- 0.6	- 0.2	2.8	11+	- 7.2	1	0	26	- 5.6	70	35	- 29	18	11	0	142	203	2.8	11	30.0	25	8	1	3	27	9.0	
SUMMIT	732	925.5	1024.0	-21.1	-28.9	-25.1		- 1.1	5+	-42.8	18	0	31	-28.9	70	15		12	7	0	358	1016	7.4	7	14.8	8	26+	18	5	8	3.5	
TALKEETNA	105			-15.0	-28.9	-21.9	- 9.4	1.1	5	-43.3	24	0	31			30	- 15	26	4	0	196	787			10.7	4	15	20	3	8	3.1	
UNALAKLEET	5			-20.0	-27.2	-23.4		- 4.4	11	-37.8	26	0	31			13		10	6	0	137	660			15.6	9	9	15	4	12	5.0	
YAKUTAT	9	1009.1	1010.3	- 5.0	-13.3	- 9.2	- 6.6	3.3	5	-27.2	17	0	30	-13.9	70	294	19	93	19	0	1720	1118	3.8	9	13.0	12	26+	9	1	21	6.9	
ARIZONA																																
FLAGSTAFF	2135	787.3	1020.8	7.2	-10.0	- 1.5	1.1	18.9	30	-30.0	4	0	30	-10.0	57	2	- 44	2	2	0	20	178	0.4	21	9.8	23	2	20	5	6	3.3	
PHOENIX	340	978.7	1018.2	20.0	2.2	11.2	1.4	31.1	19	- 7.2	7	0	7	- 3.9	40	6	- 13	6	1	0	0	0	0.8	11	12.5Y	W	2	22	3	6	2.8	91
TUCSON	788	927.9	1017.1	18.9	1.7	10.3	0.4	29.4	19	- 8.3	6	0	11	- 6.1	38	1	- 20	1	1	0	T	T	1.2	15	12.5	SW	2	20	7	4	2.8	93
WINSLOW	1492	853.4	1022.7	10.6	- 9.4	0.4	1.0	23.9	20	-26.1	6	0	29	-10.0	53	2	- 9	2	2	0	28	25	0.9	20	13.0	21	13+	18	8	5	3.3	
YUMA	59	1011.2	1018.6	20.0	5.0	12.7	0.8	31.1	19	- 4.4	8	0	5	- 3.9	36	1	- 9	1	1	0	0	0	2.1	36	12.1	NW	3	17	6	8	3.8	87
ARKANSAS																																
FORT SMITH	136	1002.4	1019.5	10.6	- 2.2	3.9	- 0.4	23.3	29	-10.6	7	0	23	- 2.8	68	42	- 26	19	5	2	T	0	1.3	1	11.6	W	3	9	10	12	5.9	64
LITTLE ROCK	78	1009.8	1019.8	10.6	- 0.6	5.0	0.2	25.0	14	- 8.9	7	0	20	0.0	73	53	- 80	39	5	2	T	T	0.6	3	13.9	NW	4	7	10	14	6.3	55
CALIFORNIA																																
BAKERSFIELD	145	1004.4	1022.2	13.3	3.9	8.7	0.1	21.1	18+	- 2.8	6	0	5	3.9	75	13	- 16	8	5	0	0	0	0.4	5	11.6	32	2	8	6	17	6.7	
BISHOP	1252	876.7		15.0	- 3.9	5.3	2.6	24.4	18	-10.0	4	0	26			T	- 25	T	1		T	T						14	8	9	4.5	
BLUE CANYON	1609			7.2	0.0	3.7	0.9	17.2	30+	-10.6	3	0	15			206	- 91	45	9		1374	3277			15.2	6	2	12	8	11	5.1	
EUREKA U	13			10.6	5.0	7.6	- 0.9	19.4	17	- 0.6	3	0	2			137	- 33	30	12		T	T			14.8	SE	15	5	5	21	7.4	50
FRESNO	100	1010.5	1022.5	12.8	2.2	7.6	- 0.2	20.6	18	- 5.6	5	0	9	3.9	83	10	- 41	7	4	0	T	0	0.6	12	11.2	NW	2	9	7	15	6.2	56
LONG BEACH	10	1018.3	1019.7	18.9	6.1	12.4	0.7	31.7	18	- 0.6	7	0	3	4.4	65	15	- 36	8	3	0	0	0	0.5	30	13.4	29	2	9	9	13	5.7	
LOS ANGELES	30	1015.6	1019.2	17.8	8.3	13.1	0.6	30.0	28+	1.7	5	0	0	4.4	62	17	- 51	10	3	0	0	0	0.4	25	18.3Y	N	2	10	9	12	5.7	
LOS ANGELES U	82			20.6	9.4	14.9	1.7	35.0	18	1.7	5	4	0			11	- 67	5	3		0	0			13.0	NW	2	11	13	7	4.7	77
MT SHASTA R	1080	895.7	1022.6	6.7	- 2.8	1.9	1.2	14.4	30	-12.2	13	0	26	- 2.8	76	115	- 46	61	11		683	508	0.4	35								
OAKLAND	2	1022.0	1022.3	12.2	5.6	8.9	0.0	17.8	18	0.6	7+	0	0	5.0	79	33	- 64	10	10	1	T	0	0.2	25	13.0	36	2	11	10	10	5.4	
RED BLUFF	104	1009.1	1022.0	12.2	2.8	7.7	0.2	21.7	27+	- 2.8	3	0	9	0.6	69	74	- 35	50	10	0	0	0	0.8	35	13.4	SE	15+	6	9	16	6.5	63
SACRAMENTO	5	1021.3	1022.3	11.1	3.9	7.4	0.1	17.8	20	- 3.3	6+	0	5	3.9	83	23	- 58	10	11	1	0	0	0.1	15	17.0	N	2	7	9	15	6.6	52
SANDBERG R	1377	864.9		10.0	1.7	5.9	1.5	20.0	19	-10.0	4	0	12			6	- 59	5	2		58	152			13.4	33	22	15	7	9	4.3	
SAN DIEGO	4	1018.3	1019.2	16.7	8.3	12.4	- 0.4	27.2	28+	0.6	5	0	0	3.9	61	8	- 43	5	2	0	0	0	1.1	30	13.4	W	2	10	10	11	5.3	69
SAN FRANCISCO	2	1021.7	1022.3	12.8	5.6	9.1	- 0.2	19.4	18	- 0.6	5+	0	2	5.0	77	32	- 70	15	9	0	T	0	0.3	34	15.6	34	2	12	8	11	5.3	
SAN FRANCISCO U	16			13.3	7.8	10.4	0.1	20.0	17	3.9	4	0	0			52	- 64	14	8		0	0			11.6	W	12					67
SANTA MARIA	72			16.7	2.8	9.9	- 0.2	28.9	18	- 5.0	5	0	6			15	- 57	7	6		0	0						13	8	10	4.7	
STOCKTON	7	1022.0	1023.0	11.1	3.3	7.2	0.1	18.3	17	- 3.3	6+	0	9	2.8	76	24	- 41	10	7	0	0	0	0.3	16	14.3	33	2	6	6	19	7.1	
COLORADO																																
ALAMOSA	2297	769.7		3.9	-18.3	- 7.2	0.9	16.7	20	-40.0	6	0	31			4	- 3	3	3		79	76						13	9	9	4.5	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1971

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.							%
COLORADO																																
COLORADO SPRINGS	1873	807.7	1017.4	5.6	- 7.8	- 1.2	0.7	19.4	20	-26.7	6+	0	29	-11.1	53	9	1	7	3	0	221	178	1.5	1	21.9	31	25	10	9	12	5.6	
DENVER	1610	833.1	1014.7	7.8	- 7.8	0.1	2.0	20.6	20	-26.7	6	0	29	- 8.9	57	9	- 5	6	4	0	218	203	1.3	26	16.1	NW	30	7	8	16	6.7	62
GRAND JUNCTION	1476	854.4	1022.9	3.9	- 8.9	- 2.4	0.9	15.6	31	-26.1	7	0	31	- 9.4	63	5	- 11	3	6	0	81	51	0.9	12	11.2	W	13	7	5	19	6.8	58
PUEBLO	1428	853.4	1016.1	10.6	- 7.2	1.6	2.7	25.6	20	-27.2	7+	0	28	-10.6	45	11	3	10	2	0	152	152	1.5	29	17.0	W	30+	10	7	14	6.0	67
CONNECTICUT																																
BRIDGEPORT	2	1013.9	1014.4	1.1	- 7.2	- 3.2	- 2.2	8.3	5	-15.6	19	0	30	-10.6	59	78	- 15	43	11	0	216	127	4.4	29	19.7	27	26	12	4	15	5.7	
HARTFORD	52	1006.4	1013.4	- 1.7	-12.8	- 7.0	- 3.7	5.6	30+	-25.0	20	0	31	-14.4	56	71	- 20	17	11	0	450	279	2.2	28	17.0	NW	27	8	14	9	5.7	59
DELAWARE																																
WILMINGTON	23	1013.2	1016.3	1.7	- 7.2	- 2.6	- 3.3	8.9	30+	-13.3	31	0	31	- 8.3	66	56	- 30	30	12	1	147	152	3.0	30	16.5	29	26	7	5	19	6.9	
DIST. OF COLUMBIA																																
WASHINGTON DULLES	88	1005.1	1017.1	3.3	- 6.7	- 1.9		11.1	30	-15.0	29	0	29	- 7.8	64	58		43	10	1	191	381	1.7	30	17.0	30	26	6	8	17	7.2	
WASHINGTON NATIONAL	3	1014.6	1017.1	3.9	- 4.4	- 0.4	- 3.1	11.7	30+	-10.0	29+	0	29	- 7.2	63	47	- 30	25	9	1	122	229	2.1	29	21.0	NW	26	3	10	18	7.5	39
FLORIDA																																
APALACHICOLA U	4			16.1	8.3	12.1	- 0.7	23.9	31	- 3.3	20	0	2			54	- 26	32	8	1	0	0			11.6	NW	19+	8	10	13	5.9	66
DAYTONA BEACH	9	1018.6	1019.8	21.1	8.3	14.8	- 0.3	28.3	25	- 5.0	21	0	3	8.9	73	15	- 34	10	6	0	0	0	1.3	28	10.7	24	30	14	6	11	4.9	
FORT MYERS	5	1019.3	1019.6	25.0	12.2	18.5	1.0	30.6	4	0.0	21	0	1	12.2	72	22	- 17	17	3	0	0	0	0.3	5	10.3	33	19+	16	11	4	3.9	
JACKSONVILLE	7	1018.6	1019.6	18.9	6.1	12.2	- 1.1	27.8	25	- 7.2	21	0	8	6.7	74	51	- 11	23	7	0	0	0	1.5	29	18.3	NW	15	11	12	8	5.1	60
KEY WEST	1	1018.3	1018.9	24.4	18.3	21.4	0.6	27.8	7	7.8	21	0	0	16.1	72	10	- 28	6	4	0	0	0	2.1	5	12.1	NW	19	13	13	5	4.1	91
LAKELAND U	65			21.7	10.6	16.2	- 0.3	27.8	4	- 3.3	20	0	2			7	- 45	4	5		0	0						15	10	6	4.0	66
MIAMI	2	1018.6	1018.8	25.0	15.6	20.1	0.7	28.9	10	1.7	20	0	0	14.4	72	13	- 39	13	3	0	0	0	0.2	6	11.2	32	19+	14	15	2	4.3	
ORLANDO	33	1014.9	1019.3	23.3	10.0	16.7	0.9	30.0	24	- 2.2	20	0	2	9.4	68	11	- 39	8	6	0	0	0	1.0	30	9.4	30	19	15	6	10	4.6	
PENSACOLA	34	1015.9	1020.0	16.7	6.7	11.8	- 0.2	25.6	23+	- 5.0	20	0	6	7.2	75	41	- 66	14	10	0	0	0	1.0	1	11.2	36	19	7	6	18	6.7	
TALLAHASSEE	17	1017.6	1019.8	18.3	3.3	10.7	- 1.5	26.7	14	-11.7	21	0	12	5.6	74	77	- 10	39	9	0	0	0	0.6	33	8.9	1	19+	8	10	13	6.0	
TAMPA	6	1019.3	1019.4	22.2	9.4	15.6	- 0.7	28.9	4	- 5.0	21	0	3	9.4	72	22	- 32	13	6	0	0	0	0.2	35	11.2	33	27+	13	11	7	4.7	62
WEST PALM BEACH	5	1018.3	1019.0	24.4	12.2	18.3	- 1.1	29.4	9	- 1.1	20	0	1	12.2	72	21	- 42	14	5	0	0	0	0.6	29	13.0	30	19	12	11	8	4.6	
GEORGIA																																
ATHENS	244	988.8	1018.4	11.1	0.6	6.0	- 1.0	20.0	14	-10.0	20	0	15	0.6	71	103	- 21	21	12	3	T	T	1.9	27	10.3	31	26	9	4	18	6.6	
ATLANTA	308	981.7	1019.2	11.1	1.1	6.1	- 1.0	19.4	14	- 9.4	20	0	17	0.6	72	112	- 1	30	14	5	T	T	1.5	29	14.8	NW	26	9	6	16	6.6	43
AUGUSTA	41	1013.2	1018.5	13.3	1.1	7.4	- 1.3	22.8	4	- 9.4	21+	0	12	1.7	72	117	41	33	10	4	T	T	1.7	26	11.2	27	26	8	3	20	7.0	
COLUMBUS	117	1005.1		14.4	3.3	9.0	0.2	23.3	14	- 7.8	20	0	11			135	32	50	12	4	0	0	1.1	30	13.0	32	15	10	2	19	6.6	
MACON	108	1006.1	1019.4	15.6	2.8	9.1	- 0.4	25.6	14	- 8.9	20	0	11	3.9	73	125	39	53	12	5	0	0	1.8	28	19.7	NW	15	9	4	18	6.6	47
ROME	194			10.6	- 1.1	4.7	- 0.9	19.4	14	-11.1	20	0	20			114	- 26	37	13		T	T										
SAVANNAH	14	1017.3	1019.0	16.7	3.3	10.1	- 0.9	25.6	25+	- 8.3	21+	0	10	3.9	70	86	16	35	9	1	T	0	1.6	27	13.4	NW	15	7	5	19	6.8	46
HAWAII																																
HILO	8	1010.2	1011.3	26.7	16.7	21.8	0.3	30.6	27	14.4	8+	0	0	16.7	77	342	42	150	18	9	0	0	0.6	17	13.0	S	28	4	9	18	7.2	28
HONOLULU	2	1010.5	1010.9	26.1	18.3	22.1	- 0.4	27.8	29+	13.3	7	0	0	16.7	76	157	62	35	14	2	0	0	0.8	20	14.8	SW	15	6	6	19	7.3	49
KAHULUI	15	1008.5	1010.7	25.6	16.7	21.0	- 1.3	28.3	23	11.1	8	0	0	17.8		347	267	125	19	8	0	0	2.1	19	17.0	SW	15	8	7	16	6.7	56
LIHUE	31	1005.8	1011.0	25.0	17.2	20.9	- 0.7	27.2	15	11.7	7	0	0	16.7	76	303	163	90	20	5	0	0	1.4	23	16.1	SW	14	5	12	14	7.0	44
IDAHO																																
BOISE	865	919.1	1022.1	4.4	- 2.2	1.1	2.7	12.8	26	-14.4	5+	0	19	- 3.9	72	52	18	19	17	0	102	51	1.3	12	13.0	E	15	4	2	25	8.2	41
LEWISTON	431			5.6	- 1.1	2.4	3.1	17.2	30	-13.9	5	0	15			42	14	11	17		185	102						1	3	27	9.1	
POCATELLO	1358	864.2	1021.7	1.7	- 6.7	- 2.7	2.7	12.2	31	-25.0	5	0	27	- 5.7	73	37	7	8	15	0	333	152	3.6	22	17.9	SW	20	2	6	23	8.2	36
ILLINOIS																																
CAIRO U	96			5.0	- 3.3	0.8	- 2.2	17.2	13	-10.0	19+	0	24			82	- 31	48	6		T	T			14.3	S	3	7	8	16	6.7	35
CHICAGO O HARE	201	992.2	1017.8	- 2.8	-11.7	- 7.3	- 2.9	6.7	25	-20.0	31+	0	31	-12.8	65	24	- 23	12	9	0	254	127	3.0	25	21.0	28	29	11	5	15	6.0	
CHICAGO MIDWAY	185	993.9	1017.7	- 2.8	-11.7	- 7.1	- 3.8	6.7	25	-20.0	31+	0	31	-13.3	62	28	- 19	21	8	0	325	178	3.0	25	17.4	W	29	11	5	15	6.0	55
MOLINE	177	996.6	1019.3	- 4.4	-15.0	- 9.6	- 4.3	6.1	25	-28.3	7	0	31	-14.4	67	45	5	43	5	1	450	330	2.5	26	19.7	W	25	10	8	13	5.6	62
PEORIA	199	994.2	1019.3	- 2.2	-12.2	- 7.1	- 3.6	10.0	25	-20.6	6	0	31	-11.7	72	15	- 33	13	6	0	137	102	2.3	26	18.8	W	25	8	8	15	6.1	54
ROCKFORD	221	989.5	1017.9	- 4.4	-14.4	- 9.6	- 4.0	5.0	25	-23.9	6	0	31	-13.9	71	28	- 22	22	7	0	254	178	2.5	28	17.9	30	29	12	4	15	5.7	
SPRINGFIELD	179	996.3	1019.5	0.6	-10.0	- 4.6	- 2.6	12.2	29	-20.0	31	0	30	-10.6	66	31	- 17	25	6	0	107	51	2.0	26	18.8	NW	26	8	8	15	6.2	57
INDIANA																																
EVANSVILLE	116	1005.4	1020.0	3.9	- 6.1	- 1.2	- 2.4	15.6	14	-13.9	7	0	26	- 6.7	71	73	- 28	39	7	1	15	25	1.0	30	13.4	NW	26	7	6	18	7.1	44

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1971

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	986.8	1018.2	- 1.7	-11.7	- 6.6	- 3.8	10.6	4	-23.9	19	0	31	-10.6	75	28	- 40	12	11	0	137	51	3.1	26	21.5	W	26	4	10	17	7.2	47
INDIANAPOLIS	241	988.2	1018.7	0.0	- 9.4	- 4.8	- 3.2	12.2	4	-19.4	27	0	31	-10.0	71	50	- 27	41	9	0	38	25	2.1	26	18.8	W	26	7	5	19	7.0	54
SOUTH BEND	236	987.8	1017.0	- 2.2	-11.1	- 6.7	- 3.1	6.7	4	-20.0	19	0	31	-10.0	78	39	- 17	13	14	0	572	279	3.3	25	14.3	31	26	5	4	22	7.7	
IOWA																																
BURLINGTON	211			- 3.3	-13.3	- 8.3	- 4.1	7.2	25+	-24.4	6	0	31	-13.9	62	26	- 15	26	2	0	229	152	2.2	29	13.0	32	26+	8	9	14	6.3	
DES MOINES	286	983.4	1020.1	- 4.4	-13.3	- 9.1	- 2.3	10.0	29	-25.6	7	0	31	-14.4	64	44	11	37	6	1	404	356	2.1	30	16.1	NW	4	9	10	12	5.8	59
DUBUQUE	322	977.3		- 6.7	-16.1	-11.6	- 4.4	2.8	29+	-27.2	7+	0	31			50	4	43	7		371	356						10	8	13	5.5	
SIOUX CITY	334	978.3	1020.4	- 5.6	-14.4	-10.1	- 2.7	9.4	29	-26.1	6	0	31	-12.8	80	11	- 8	10	6	0	122	152	1.9	30	19.7	NW	25	10	7	14	6.1	62
WATERLOO	265	985.8	1019.6	- 8.3	-18.3	-13.5	- 5.7	3.3	29	-31.7	7	0	31	-18.3	67	45	15	42	3	0	424	432	2.6	31	16.1	33	4	10	8	13	5.6	
KANSAS																																
CONCORDIA	448	964.4	1019.8	- 0.6	-11.1	- 5.7	- 3.2	16.7	29	-23.9	6	0	31	-10.0	73	19	2	19	4	1	231	229	0.8	31	18.8	NW	3	9	8	14	6.1	66
DODGE CITY	787	924.8	1018.8	3.3	- 8.3	- 2.7	- 2.2	22.2	29	-22.2	7+	0	30	- 8.3	71	28	13	27	3	1	251	254	0.6	30	20.6	NW	3	10	5	16	6.3	63
GOODLAND	1114	886.2	1016.8	6.7	- 8.9	- 1.2	1.3	21.7	20	-23.9	6	0	30	- 9.4	64	13	4	13	2	0	211	152	1.8	25	14.3	31	25+	9	6	16	6.2	
TOPEKA	267	987.5	1020.6	0.0	- 8.9	- 4.4	- 2.6	13.9	29	-17.8	6	0	31	- 8.9	73	30	5	29	4	0	53	25	1.2	33	13.9	SW	20+	10	5	16	6.1	60
WICHITA	403	969.9	1019.6	3.9	- 7.8	- 1.8	- 1.8	21.1	29	-15.6	6	0	31	- 6.7	74	25	4	25	2	1	T	T	1.4	1	18.8	NW	4	10	7	14	5.9	69
KENTUCKY																																
COVINGTON	265	985.8	1018.5	2.8	- 7.2	- 2.1	- 1.8	14.4	14	-16.7	31	0	29	- 7.8	67	63	- 28	28	7	2	81	25	2.4	26	17.9	27	26	5	10	16	7.2	
LEXINGTON	294	982.4	1019.2	3.3	- 6.1	- 1.3	- 2.7	15.6	14	-15.0	31	0	27	- 6.1	72	84	- 42	36	9	2	102	51	1.9	25	13.4	28	26	5	9	17	7.2	
LOUISVILLE	145	1001.0	1019.3	3.9	- 5.0	- 0.6	- 2.3	17.2	14	-13.9	31+	0	25	- 6.7	66	67	- 37	29	8	0	81	51	1.7	28	14.3	NW	29+	4	9	18	7.3	44
LOUISIANA																																
ALEXANDRIA	28	1015.2	1019.7	16.1	5.0	10.4	0.2	26.7	30	- 3.9	20	0	11			77	- 58	35	10	1	51	25	0.4	6	10.3	19	22+	4	6	21	7.5	
BATON ROUGE	20	1016.6	1019.4	17.2	6.1	11.6	- 0.1	25.6	30+	- 5.0	20	0	9	7.2	78	29	- 92	17	7	1	0	0	0.5	7	10.3	2	19+	6	7	18	7.0	
LAKE CHARLES	3	1018.0	1019.0	18.3	7.8	13.1	1.1	25.6	24	- 1.1	20+	0	3	8.3	80	20	- 93	7	5	0	T	T	1.2	11	11.2	36	4	6	7	18	7.1	
NEW ORLEANS	1	1018.6	1019.6	18.9	7.2	12.8	0.3	26.7	30+	- 3.3	20	0	3	8.3	76	29	- 69	10	5	0	0	0	0.6	2	9.4	23	30+	5	11	15	6.6	
SHREVEPORT	77	1009.1	1018.7	16.7	4.4	10.3	1.7	28.9	30	- 6.1	9	0	11	4.4	72	7	-115	4	3	0	20	25	0.6	14	11.6	14	3+	5	9	17	6.9	47
MAINE																																
CARIBOU	190	985.1		- 8.9	-20.0	-14.6	- 2.6	5.0	27	-33.3	18	0	31			43	- 10	15	15		422	483						8	6	17	6.4	
PORTLAND	13	1009.1	1011.4	- 5.0	-17.2	-11.0	- 5.3	4.4	5	-32.2	19	0	31	-15.6	66	57	- 54	14	10	0	437	686	2.7	28	17.0	W	30	16	6	9	4.5	64
MARYLAND																																
BALTIMORE	45	1011.2	1017.0	2.8	- 5.0	- 1.1	- 2.7	10.6	30+	-10.6	29+	0	27	- 7.8	62	51	- 36	26	10	0	104	127	2.6	28	24.1	NW	26	6	7	18	7.0	44
MASSACHUSETTS																																
BLUE HILL OBS R	192			- 1.7	-10.6	- 6.3	- 3.6	9.4	5	-21.7	19	0	31			50	- 64	13	9		310	406			21.5	W	27					57
BOSTON	5	1011.5	1012.5	- 0.6	- 8.3	- 4.6	- 3.4	7.8	5	-16.7	28+	0	31	-11.1	62	48	- 52	11	12	0	305	203	5.0	28	16.1	NW	27	11	10	10	5.6	66
WORCESTER	301	974.3	1012.6	- 3.3	-12.2	- 7.9	- 3.5	8.3	5	-22.8	28+	0	31	-13.3	66	50	- 44	15	11	0	422	610	4.0	28	14.3	28	27	10	11	10	5.6	
MICHIGAN																																
ALPENA	210	986.8	1013.3	- 3.9	-15.0	- 9.4	- 2.6	5.0	4	-26.7	30	0	31	-12.7	75	61	12	16	22	0	1097	711	2.0	26	17.0	NW	27+	2	7	22	8.0	39
DETROIT	189			- 2.2	- 9.4	- 5.8	- 2.9	6.7	4	-19.4	31	0	31	-10.0	74	23	- 29	12	16	0	170		3.5	26	17.9	26	29					
DETROIT METRO	193	990.9	1015.8	- 2.2	-10.6	- 6.3	- 3.1	8.3	4	-20.6	31	0	31	-10.6	74	26	- 23	12	11	0	221	102	3.3	26	22.4	W	30+	4	10	17	7.5	36
FLINT	235	985.8	1014.8	- 3.3	-10.6	- 6.9	- 2.7	6.1	4	-19.4	31	0	31	-10.6	74	12	- 31	3	14	0	246	152	3.4	26	16.1	29	29+	2	9	20	8.0	
GRAND RAPIDS	239	985.1	1015.5	- 3.9	-11.7	- 7.6	- 3.2	5.0	4	-22.8	19	0	31	-11.1	76	26	- 22	7	17	0	691	330	3.2	24	25.0	W	29	0	7	24	8.8	33
HOUGHTON LAKE	350	969.9	1013.8	- 5.0	-13.9	- 9.6	- 2.5	3.3	24+	-26.1	8	0	31	-12.8	77	33	- 5	14	16	0	699	305	2.6	27	13.9	34	26	0	9	22	8.5	
LANSING	256	982.4	1015.5	- 3.3	-11.1	- 7.2	- 2.9	6.1	4	-20.6	19	0	31	-11.1	72	17	- 33	7	12	0	226	178	3.5	25	24.1	W	30+	2	9	20	7.9	38
MARQUETTE U	206			- 6.7	-12.8	- 9.8	- 2.8	1.7	1	-22.8	31+	0	31			91	43	27	25		1336	864			18.8	SW	20	2	6	23	8.1	39
MUSKEGON	191	991.9	1015.7	- 2.8	-10.0	- 6.7	- 3.3	5.0	4	-21.7	19	0	31	-10.6	74	47	- 6	10	19	0	1148	356	2.9	28	19.7	31	26	0	2	29	9.5	
SAULT STE MARIE	220	984.8	1012.6	- 7.8	-16.7	-12.5	- 3.5	- 0.6	22+	-26.7	27	0	31	-15.6	75	89	36	15	22	0	1280	838	0.9	32	13.9	NW	26	4	7	20	7.6	46
MINNESOTA																																
DULUTH	435	962.8	1017.8	-12.2	-22.8	-17.4	- 4.5	- 2.2	1	-31.1	27	0	31	-21.7	70	40	10	16	16	0	808	635	3.5	30	16.5	W	30	9	5	17	6.4	46
INTERNATIONAL FALLS	359	972.2	1018.9	-15.6	-27.8	-21.7	- 5.7	- 4.4	1	-38.9	12	0	31	-25.6	68	13	- 8	6	10	0	241	406	2.1	28	10.3	28	30+	11	8	12	5.3	
MINNEAPOLIS	254	987.1	1019.4	- 9.4	-18.9	-14.2	- 3.3	1.7	22+	-27.8	27	0	31	-19.4	63	31	13	6	13	0	505	330	2.1	31	16.5	NW	29	11	7	13	6.0	52
ROCHESTER	395	967.8	1018.6	- 9.4	-19.4	-14.6	- 4.3	1.1	1	-27.2	27+	0	31	-17.8	74	28	5	17	12	0	411	432	3.0	29	17.0	31	29	12	6	13	5.8	
ST CLOUD	315	979.3	1020.1	-11.1	-21.7	-16.2	- 4.0	0.0	1	-30.0	27	0	31			22	4	4	11		333	305						9	6	16	6.1	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1971

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 (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	1007.8	1020.0	15.6	3.3	9.3	0.4	25.6	30	-10.0	20	0	15	4.4	75	77	- 55	39	11	3	T	T	0.3	19	12.5	SE	3	6	8	17	6.8	48
MERIDIAN	88	1008.8	1020.1	15.0	2.8	8.9	0.0	24.4	14	- 7.8	20	0	14	4.4	78	108	- 11	46	11	3	0	T	0.2	35	9.4	17	4+	6	8	17	6.9	
MISSOURI																																
COLUMBIA REGIONAL	270	986.1	1019.8	2.2	- 7.8	- 2.7	- 1.7	16.1	29	-16.1	6	0	31	- 8.9	66	41	- 2	41	3	1	25	25	1.3	29	14.3	NW	26	8	7	16	6.6	57
KANSAS CITY	226	991.9	1020.1	2.2	- 7.2	- 2.4	- 2.2	16.7	29	-15.0	6	0	28	- 7.8	70	38	2	37	3	1	33	25	1.3	32	15.2	SW	20	10	6	15	5.9	72
ST JOSEPH	247			1.1	-10.0	- 4.3	- 1.6	12.8	29	-28.9	6	0	29	-11.1	64	38	8		3				1.3	32	14.3	31	4+	10	5	16	5.6	
ST LOUIS	163	998.6	1019.9	3.3	- 8.3	- 2.6	- 2.5	17.8	29	-16.7	6	0	30	- 8.3	70	17	- 34	14	5	1	10	T	1.7	27	17.0	NW	26	9	7	15	6.5	61
SPRINGFIELD	386	972.6	1019.4	6.1	- 6.7	- 0.3	- 1.2	19.4	29	-16.1	6	0	31	- 6.1	68	31	- 19	24	5	1	T	T	0.2	23	13.9	SE	3	10	8	13	5.8	60
MONTANA																																
BILLINGS	1087	888.9	1018.0	- 2.8	-12.2	- 7.4	- 2.5	13.3	29+	-28.3	14	0	27	-12.8	67	33	19	11	15	0	292	152	2.7	27	20.1	NW	20	2	2	27	8.9	24
GLASGOW	696	933.6	1020.5	-10.0	-19.4	-14.9	- 2.6	5.6	29	-30.6	14+	0	31	-19.4	69	25	13	8	19	0	615	508	1.1	2	17.4	36	29	2	4	25	8.5	
GREAT FALLS	1116	885.9	1019.1	- 3.3	-13.9	- 8.8	- 3.3	14.4	19	-34.4	14+	0	28	-15.6	58	31	15	10	17	0	411	254	4.2	24	18.8	SW	29	3	4	24	8.2	38
HAVRE	788	922.8	1019.9	- 8.9	-20.0	-14.3	- 4.2	8.9	19	-34.4	14	0	31	-16.7	76	59	47	13	19	0	1052	533	1.9	25	17.0	SW	21	1	5	25	8.6	37
HELENA	1167	878.8	1019.2	- 2.2	-12.2	- 7.2	0.2	11.7	19	-34.4	13	0	30	-12.8	62	35	23	14	10	0	411	356	2.5	27	18.8	SW	25+	2	4	25	8.3	24
KALISPELL	904	909.2	1017.6	- 1.7	-10.0	- 5.7	1.1	10.6	30	-26.7	5	0	25	- 9.4	73	46	11	10	19	0	653	457	0.9	16	15.6	2	10	1	3	27	9.2	
MILES CITY	801	921.4	1019.2	- 6.1	-17.2	-11.6	- 2.9	6.1	29+	-31.1	11	0	31	-15.0	76	45	34		17	0	437		2.3	31								
MISSOULA	972	903.5	1018.9	0.6	- 7.2	- 3.2	3.9	11.1	29	-21.7	13	0	25	- 5.6	83	46	23	7	23	0	251	152	0.3	27	15.2	NW	21	1	4	26	9.1	22
NEBRASKA																																
GRAND ISLAND	561	950.6	1019.9	- 1.1	-12.2	- 6.7	- 1.5	17.8	29	-26.7	6	0	31	-13.3	63	21	5	18	6	0	262	203	1.8	30	15.6	34	4+	8	5	18	6.6	
LINCOLN U	351			- 2.2	-11.1	- 6.7	- 2.9	15.6	29	-23.3	7+	0	31			33	10	29	5		384	330			17.0	NE	3	9	7	15	6.1	61
NORFOLK	471			- 3.9	-13.9	- 8.9	- 1.9	13.3	29	-26.1	7	0	31			7	- 13	5	7		130	102						10	6	15	6.0	
NORTH PLATTE	846	916.7	1018.5	1.7	-12.2	- 5.5	- 1.1	17.8	29	-27.8	6	0	31	-11.1	69	12	1	6	5	0	142	102	1.1	32	15.2	NW	25	6	8	17	6.9	57
OMAHA	298	983.1	1020.2	- 2.8	-13.3	- 7.9	- 2.5	13.9	29	-26.7	6	0	31	-12.8	67	24	3	19	6	0	333	254	1.6	33	17.4	NW	25	12	5	14	5.9	56
SCOTTSBLUFF	1206	877.1	1017.3	3.3	- 8.9	- 2.9	0.8	18.3	20	-25.6	7	0	27	-11.1	58	6	- 2	5	4	0	56	51	2.7	31	17.9	28	25	3	8	20	7.8	
VALENTINE	789			- 1.7	-15.0	- 8.6	- 1.9	13.9	29	-27.2	6	0	31			12	2	9	6		236	203			16.5	NW	25	6	8	17	7.2	61
NEVADA																																
ELKO	1539	846.6	1022.0	3.9	- 6.1	- 0.9	4.3	14.4	31	-27.8	4	0	23			15	- 15	4	10	0	229	152	1.3	23	12.1	20	12	4	8	19	7.3	
ELY	1906	809.7	1022.5	3.9	-12.2	- 4.3	0.8	13.9	18+	-32.2	5	0	31	-10.0	69	16	- 4	14	4	0	224	254	2.5	20	17.4	N	2	11	5	15	6.0	69
LAS VEGAS	659	943.4	1021.5	13.9	0.0	6.9	0.7	23.3	31+	-11.1	6	0	15	- 7.8	37	T	- 13	T	0	0	T	0	1.4	27	16.5	SW	13	17	7	7	3.8	91
RENO	1342	869.3	1022.6	7.8	- 6.7	0.6	1.4	18.9	18	-23.9	3	0	27	- 5.0	71	19	- 11	9	5	0	290	152	0.6	21	18.8	W	13	10	9	12	5.4	67
WINNEMUCCA	1311	871.7	1022.4	8.3	- 6.1	0.9	3.6	20.0	18	-22.8	4	0	24	- 4.4	70	5	- 22	2	5	0	46	25	1.6	22	13.0	SW	14	7	4	20	6.8	63
NEW HAMPSHIRE																																
CONCORD	104	999.3	1012.5	- 3.9	-17.8	-10.8	- 4.8	6.1	25	-33.9	19	0	31	-15.0	67	41	- 41	13	9	0	396	610	2.5	29	15.6	NW	3	13	8	10	5.1	66
MT WASHINGTON OBS	1909			-13.9	-23.9	-18.9	- 4.7	2.2	5	-37.8	28+	0	31			208	70	36	21	0	1453	610			55.9Y	W	7	5	4	22	8.0	32
NEW JERSEY																																
ATLANTIC CITY	20	1013.2	1015.6	3.3	- 6.7	- 1.8	- 3.3	12.2	5	-16.1	19	0	28	- 8.9	60	68	- 23	31	13	1	183	76	3.2	29	21.0	29	26	4	10	17	6.9	43
ATLANTIC CITY U	3			3.3	- 3.9	- 0.3	- 2.5	10.6	5	- 9.4	20	0	25			73	- 22	35	13						16.1	W	27+					
NEWARK	2	1013.9	1015.0	1.1	- 6.1	- 2.6	- 2.8	7.8	30	-13.9	19	0	28	- 7.8	70	70	- 15	27	12	0	335	178	3.4	27	14.8	27	27	8	8	15	6.5	
TRENTON U	17			1.1	- 5.6	- 2.2	- 2.8	9.4	5	-13.3	19	0	28			66	- 12	27	11		279	152			17.0	NW	27	7	9	15	6.4	53
NEW MEXICO																																
ALBUQUERQUE	1619	838.8	1019.9	8.9	- 7.2	0.9	- 0.8	20.6	31	-27.2	7	0	26	- 8.9	55	7	- 4	7	2	0	76	76	1.2	2	15.2	E	3	18	5	8	3.8	87
CLAYTON	1515			10.0	- 7.2	1.2	0.6	24.4	30	-22.8	7+	0	30			3	- 6	3	2		58	51						12	6	13	5.1	
ROSWELL	1101			14.4	- 4.4	5.2	1.9	25.6	30+	-20.0	5	0	23			5	- 8	4	2		51	25			15.6	NW	30					75
NEW YORK																																
ALBANY	84	1003.4	1014.4	- 3.3	-16.7	-10.1	- 4.9	6.1	25	-33.3	19	0	31	-13.3	73	45	- 18	12	11	1	386	406	2.2	27	17.4	W	27	9	10	12	5.6	59
BINGHAMTON	485	952.9	1014.1	- 5.6	-12.8	- 9.1	- 4.6	5.6	5	-22.8	19	0	31	-12.2	77	43	- 21	12	16	0	437	432	3.0	26	25.0	SW	26	0	11	20	7.8	47
BUFFALO	215	987.5	1014.1	- 2.8	- 9.4	- 6.2	- 2.0	9.4	4	-18.3	19+	0	30	-10.6	73	37	- 35	11	21	0	437	152	4.3	27	21.0	SW	26	1	7	23	8.5	36
NEW YORK U	40	1011.2	1014.4	0.6	- 6.1	- 2.8	- 3.4	7.8	23+	-15.6	19	0	29	- 9.4	63	68	- 16	29	9	0	290	152	2.7	28	15.6	W	27					57
NEW YORK KENNEDY	4	1014.2	1015.0	1.1	- 5.6	- 2.3	- 2.2	8.9	5	-13.9	19	0	29	- 8.9	63	59	- 23	23	10	0	295	152	4.3	29	17.9	27	26	8	9	14	6.4	
NEW YORK LA GUARDIA	3	1014.2	1015.3	1.1	- 5.0	- 1.8	- 2.7	8.9	30	-13.9	19	0	27	-10.0	55	58	- 26	23	10	0	264	152	4.1	30	19.7	W	26	5	11	15	6.7	
ROCHESTER	167	993.2	1014.3	- 2.8	-11.1	- 6.9	- 3.2	6.7	4	-20.6	19+	0	31	-11.1	73	68	7	20	18	0	866	356	4.6	25	21.0	SW	26	2	8	21	7.8	45
SYRACUSE	125	998.3	1013.7	- 2.8	-12.2	- 7.5	- 3.1	6.7	4	-22.2	19+	0	31	-12.2	68	48	- 32	10	21	1	770	381	2.8	24	21.0	W	30	6	3	22	7.6	32

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1971

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	939.4	1017.2	8.3	- 3.3	2.5	- 0.6	18.3	11	-11.1	21	0	24	- 2.2	75	64	- 42	26	10	0	T	102	2.6	34	17.9	32	26	6	10	15	6.7	50
CAPE HATTERAS R	2	1016.9	1017.3	10.0	1.7	5.8	- 2.3	20.0	5	- 5.6	20	0	13	1.7	75	115	16	44	12	2	T	T	2.5	32	15.2	NW	27	3	7	21	7.8	43
CHARLOTTE	224	989.5	1017.6	8.9	- 0.6	4.4	- 1.6	19.4	5+	-10.6	20	0	16	- 2.8	66	86	- 3	20	12	1	T	25	0.9	29	13.0	SW	26	5	5	21	7.6	37
GREENSBORO	273	985.1	1017.6	7.2	- 3.3	1.8	- 2.5	17.2	5	-11.7	29+	0	24	- 3.9	68	46	- 41	11	13	1	10	51	1.6	27	19.2	NW	26	4	8	19	7.4	48
RALEIGH	132	1001.4	1017.6	7.8	- 2.2	2.8	- 2.6	19.4	5	-12.2	29+	0	21	- 3.9	64	83	2	41	9	1	T	T	1.5	29	18.3	27	26	6	6	19	7.4	38
WILMINGTON	9	1016.6	1018.1	12.2	2.2	7.1	- 1.7	22.8	5	- 6.1	20	0	12	1.1	70	126	54	41	14	2	T	T	1.3	29	14.3	W	27	7	3	21	7.3	48
NORTH DAKOTA																																
BISMARCK	502	957.0	1020.8	-11.7	-22.2	-16.9	- 4.7	1.1	20+	-37.8	15	0	31	-20.0	72	20	9	6	11	0	323	203	1.7	32	16.1	N	29	6	7	18	7.2	65
FARGO	273	985.8	1021.0	-12.8	-23.9	-18.2	- 4.4	0.0	20	-34.4	15	0	31	-21.7	72	21	7	10	11	0	384	254	1.6	33	20.1	NW	29	10	5	16	6.0	50
WILLISTON	579	947.5	1020.6	-12.2	-21.7	-16.9	- 3.7	2.2	20	-35.0	15	0	31	-19.4	77	20	6	5	13	0	267	254	2.0	32	14.8	N	29	5	5	21	7.9	60
OHIO																																
AKRON	368	969.9	1016.2	0.0	-10.0	- 5.2	- 3.2	12.8	4	-20.0	31	0	30	-10.0	72	44	- 28	13	16	0	229	102	3.0	25	17.4	26	26	4	3	24	8.1	
CINCINNATI ABBE OB	232			2.2	- 7.2	- 2.4	- 3.3	13.9	14+	-16.1	31+	0	28			58	- 36	29	7		53	25			15.6	NW	26					40
CLEVELAND	237	986.5	1016.8	- 1.7	-10.0	- 5.9	- 3.9	12.2	4	-20.6	31	0	31	-10.6	71	34	- 34	11	16	0	218	102	3.6	24	18.8	W	29+	3	3	25	8.3	42
COLUMBUS	247	986.8	1018.0	0.6	- 8.9	- 4.3	- 3.1	11.7	4	-20.0	18	0	31	- 9.4	69	40	- 40	25	12	0	165	76	2.5	26	20.6	W	29	4	6	21	7.6	30
DAYTON	305	980.4	1018.1	0.6	- 9.4	- 4.5	- 3.2	13.3	4	-18.9	19	0	31	-10.0	67	42	- 39	28	10	1	117	25	2.7	26	25.0	W	26	6	7	18	7.1	44
MANSFIELD	395			- 0.6	-10.0	- 5.3	- 2.7	12.2	4	-20.6	31+	0	31	- 9.4	77	36	- 46	19	9	0	183	76	4.0	24	20.6	24	29	4	6	21	7.6	
TOLEDO	204	990.5	1016.6	- 1.7	-11.1	- 6.5	- 3.3	10.6	4	-20.6	31	0	31	-11.1	70	21	- 38	11	13	0	216	76	3.4	26	21.0	W	29	4	9	18	7.5	36
YOUNGSTOWN	359	971.9	1016.2	- 2.2	-10.6	- 6.3	- 3.7	11.7	4	-21.1	31	0	31	-10.6	74	53	- 27	15	17	1	406	178	3.4	26	17.9	27	26	3	4	24	8.3	
OKLAHOMA																																
OKLAHOMA CITY	392	971.2	1019.0	8.9	- 3.3	2.7	- 0.1	22.2	29	-11.7	6	0	25	- 4.4	65	19	- 14	19	3	1	T	T	1.1	3	15.2	SW	21	13	6	12	5.1	73
TULSA	198	994.6	1019.5	8.3	- 3.3	2.5	0.2	23.3	29	-12.2	6	0	26	- 4.4	64	35	- 9	32	3	1	T	T	0.4	1	13.0	S	20+	14	3	14	5.3	67
OREGON																																
ASTORIA	2	1019.3	1019.9	7.2	2.2	4.8	0.0	14.4	18	- 6.1	12	0	9	3.9	92	424	126	76	24	1	409	305	2.7	19	24.6	17	15+	0	4	27	9.5	
BURNS U	1265	874.7	1021.6	3.9	- 6.1	- 1.2	2.8	14.4	31	-23.9	4	0	25	- 5.0	76	45	4	21	11		135	203	1.6	28				3	8	20	7.6	
EUGENE	109	1008.8	1022.5	7.8	1.7	4.5	0.6	18.3	30	- 7.8	13	0	11	2.2	87	275	114	47	18	0	480	279	2.5	17	14.8	18	15	0	5	26	9.2	
MEACHAM	1234	876.7	1020.2	2.2	- 3.9	- 0.8	2.5	13.9	31	-15.6	4+	0	22			161	54	52	21		800	432			13.9	25	21	1	5	25	8.7	
MEDFORD	396	974.9	1023.8	5.6	- 1.1	2.3	0.4	11.7	18	- 8.3	3	0	21	- 0.6	86	93	14	41	12	0	267	178	0.2	31	10.3	14	14	3	4	24	8.5	
PENDLETON	452	964.8	1019.7	8.3	0.6	4.4	4.3	18.3	31+	-11.1	4+	0	15	- 2.2	64	21	- 15	5	11	0	102	51	2.7	24	17.9	27	21+	5	3	23	7.9	
PORTLAND	6	1020.3	1021.4	7.2	2.2	4.7	1.1	15.6	19+	- 6.7	5	0	9	2.2	85	180	44	31	20	0	175	102	2.9	18	18.8	S	15	1	1	29	9.5	8
SALEM	60	1014.2	1021.7	7.2	0.6	3.9	0.3	17.8	30	- 8.9	5	0	14	1.1	83	165	- 5	26	22	0	282	229	3.6	19	14.3	18	15	0	3	28	9.3	
SEXTON SUMMIT R	1169	886.6	1022.1	5.0	- 1.1	2.0	0.8	18.3	31	-10.6	2	0	19			240	98	71	13		737	864			21.5	21	15	8	3	20	7.1	
PACIFIC AREA																																
GUAM TAGUAC R	110	996.3	1008.9	28.9	22.8	25.6	- 0.1	30.0	1	18.3	14	0	0	22.8	86	133	16	38	24	1	0	0	3.6	8	9.4	S	11+	0	6	25	8.7	34
JOHNSTON	2	1010.2	1010.9	26.7	21.7	24.3	- 0.7	28.3	12	20.0	9	0	0	18.9	72	37	- 61	13	13	0	0	0	2.1	5	11.6	W	27+	13	13	5	4.5	67
KOROR R	29	1004.4	1007.9	31.1	23.9	27.4	0.6	32.2	27+	22.8	17+	3	0	23.9	84	344	46	113	22	0	0	0	2.2	3	12.5	N	8	0	3	28	9.0	59
KWAJALEIN	2	1007.8	1008.4	30.0	25.0	27.6	0.8	32.2	18	22.8	25+	1	0	22.8	76	136	44	48	10	0	0	0	6.0	7	13.4	9	7	4	5	22	8.0	
MAJURO	3	1008.5	1008.6	29.4	25.0	27.0	0.2	30.6	17+	23.3	30+	0	0	22.8	77	209	31	70	16	1	0	0	4.7	6	13.0	E	23+	4	13	14	6.9	63
PAGO PAGO	4	1008.5	1008.5	30.0	23.9	26.7		31.1	27+	21.7	4+	0	0	23.3	82	292		67	24	2	0	0	1.0	6	10.7	NW	22	2	10	19	7.6	50
PONAPE R	37	1002.7	1008.0	31.1	23.3	26.9	0.0	32.2	17+	20.6	15+	6	0	23.3	82	423	141	98	22	1	0	0	2.7	7	8.5	NE	2	2	10	19	7.7	52
TRUK MOEN ISLAND	2	1007.5	1007.9	30.0	25.0	27.5	0.4	31.1	29+	22.2	13	0	0	23.3	80	210	- 4	59	16	1	0	0	3.6	7	9.8	NE	2	1	5	25	8.5	71
WAKE	3	1011.5	1011.6	27.8	22.8	25.3	0.1	28.9	30+	21.1	26+	0	0	20.0	74	45	17	14	11	0	0	0	3.1	7	15.6	NE	1	14	12	5	4.3	78
YAP R	13			30.0	23.9	26.8	- 0.1	31.1	27+	21.1	17+	0	0			265	65	59	24	1	0	0			10.3	NW	11+	0	11	20	8.1	86
PENNSYLVANIA																																
ALLENTOWN	118	1001.0	1015.7	- 1.7	- 9.4	- 5.6	- 3.9	4.4	5	-16.7	19	0	31	- 9.4	75	69	- 11	36	9	0	284	203	3.1	28	17.4	27	30	6	11	14	6.5	
ERIE	223	988.2	1015.8	- 1.7	- 9.4	- 5.6	- 2.9	9.4	4	-20.6	31	0	31	-11.1	68	41	- 26	9	21	0	681	127	3.8	24	17.9	25	29	0	5	26	9.0	
HARRISBURG	103	1003.1	1016.3	0.6	- 7.2	- 3.1	- 2.7	7.2	11	-12.2	31	0	31	-10.0	61	69	- 2	27	11	1	295	279	3.0	29	20.6	W	26	5	9	17	7.1	49
PHILADELPHIA	2	1014.9	1015.9	1.7	- 6.1	- 2.3	- 2.5	11.7	5	-12.2	19	0	30	- 7.8	69	54	- 30	27	10	0	196	127	3.0	27	18.8	W	26	7	7	17	6.9	51
PITTSBURGH	347	970.9	1016.4	- 0.6	- 8.9	- 4.6	- 2.9	12.8	4	-19.4	31	0	28	- 8.9	73	58	- 17	25	20	1	307	102	3.4	27	21.5	27	30	4	3	24	8.2	26
SCRANTON	283	980.0	1015.6	- 2.8	-11.1	- 6.9	- 4.6	6.7	5	-19.4	19	0	31	-11.1	71	39	- 19	14	13	1	386	254	2.5	25	15.2	W	30+	7	6	18	6.9	60
WILLIAMSPORT	160	995.9	1015.8	- 0.6	- 9.4	- 5.0	- 3.2	6.1	12	-20.6	31	0	30	-10.0	67	65	- 3	19	12	1	361	127	2.1	28	15.6	30	27	7	7	17	6.7	
RHODE ISLAND																																
BLOCK ISLAND	34			0.6	- 6.7	- 2.9	- 2.9	11.7	5	-16.1	20	0	30			63	- 35	31	10		89	25						10	7	14	5.7	
PROVIDENCE	16	1011.2	1013.4	0.0	-10.0	- 5.1	- 3.5	10.0	5	-20.6	20	0	30	-11.1	62	51	- 46	16	10	0	279	229	3.6	30	15.6	23	30	14	4	13	5.2	62

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.							%
SOUTH CAROLINA																																
CHARLESTON	12	1016.9	1019.0	15.6	4.4	9.9	0.1	25.0	4	- 5.6	20	0	7	2.8	64	138	74	41	9	4	T	0	1.3	27	20.1Y	NW	26	9	3	19	6.5	58
CHARLESTON U	3			13.9	5.6	9.6	- 1.2	22.2	4	- 5.0	20	0	5			119	58	34	9		T	0			13.9	NW	15					
COLUMBIA	65	1010.2	1018.4	13.9	1.1	7.4	- 0.8	23.9	4	-10.0	20	0	12	1.7	69	116	39	34	10	3	T	T	1.6	27	15.6	32	31+	8	2	21	7.1	42
GRNVLLE SPRTNBRG	292	982.7	1018.2	9.4	- 1.1	4.2	- 2.3	19.4	5	-10.6	28	0	17	- 1.7	70	85	- 24	20	11	1	T	51	1.1	29	13.0	SW	23	7	5	19	7.1	38
SOUTH DAKOTA																																
ABERDEEN	395	970.9	1020.8	- 9.4	-20.6	-14.8	- 3.0	3.3	1	-33.9	15	0	31	-19.4	67	9	- 8	3	7	0	259	127	1.8	33	13.9	36	29	9	6	16	6.6	
HURON	390	970.9	1020.4	- 8.3	-18.9	-13.6	- 2.7	5.0	29	-32.8	15	0	31	-17.2	71	5	- 8	1	8	0	117	127	1.8	31	17.0	NW	29	6	5	20	7.4	57
RAPID CITY	964	902.8	1018.7	- 2.8	-13.3	- 8.1	- 2.5	13.3	29	-23.3	15	0	31	-13.3	67	30	21	19	10	0	335	229	2.1	34	24.1	NW	25	3	4	24	8.3	49
SIOUX FALLS	432	965.1	1019.7	- 8.3	-18.3	-13.2	- 3.8	4.4	29	-29.4	7+	0	31	-16.7	73	3	- 12	2	6	0	48	152	2.1	30	14.3	33	29	8	6	17	6.4	
TENNESSEE																																
BRISTOL	459	962.8	1018.2	7.2	- 2.8	2.0	- 1.5	18.9	4	-12.2	31	0	24	- 3.9	68	97	4	32	14	1	114	76	1.5	28	13.9	28	26	4	6	21	7.5	
CHATTANOOGA	203	993.6	1018.9	8.9	- 1.1	3.8	- 1.6	18.3	30	-10.6	20	0	21	- 1.1	72	132	- 11	43	11	3	15	25	0.9	32	11.6	NW	26	6	5	20	7.6	32
KNOXVILLE	299	982.7	1018.7	8.9	- 1.1	3.6	- 1.6	18.3	13	-10.0	31	0	21	- 2.2	68	128	4	41	13	0	33	76	1.7	30	14.8	SW	30	5	5	21	7.5	40
MEMPHIS	79	1009.5	1020.1	9.4	- 0.6	4.2	- 1.1	22.2	14	-10.6	20	0	18	- 1.7	66	55	-100	25	12	2	T	T	0.4	34	13.4	SE	3	7	8	16	6.8	50
NASHVILLE	180	997.0	1019.5	7.2	- 2.8	2.0	- 2.4	21.1	14	-13.9	20	0	23	- 1.7	76	68	- 72	31	12	1	30	25	1.1	29	13.0	SE	3	4	8	19	7.5	31
OAK RIDGE R	276			7.2	- 2.2	2.7	- 1.7	16.7	14	- 9.4	27+	0	21			124	- 27	54	10		43	76			17.9Y		26					
TEXAS																																
ABILENE	537	955.3	1018.0	16.7	- 0.6	8.0	1.0	25.6	29+	-12.8	5	0	14	- 5.0	45	T	- 22	T	1	0	0	0	0.6	26	16.5	SW	21	15	8	8	4.3	84
AMARILLO	1098	890.3	1016.1	11.7	- 5.0	3.2	0.6	24.4	20	-20.0	5	0	24	- 8.9	49	3	- 14	3	2	0	20	25	1.3	27	15.2	W	13	14	4	13	5.0	74
AUSTIN	182	995.6	1017.9	19.4	5.6	12.6	2.3	32.2	30	- 5.0	5	1	7	3.3	59	1	- 59	1	2	0	0	0	0.6	3	13.4	N	3	8	11	12	5.6	58
BROWNSVILLE	6	1016.6	1017.1	24.4	13.9	19.2	2.8	33.9	31	1.7	7+	2	0	13.3	73	6	- 29	4	5	0	0	0	1.6	16	15.2	N	4	5	11	15	7.0	43
CORPUS CHRISTI	12	1015.9	1017.4	22.2	11.1	16.8	2.7	32.8	30	1.1	7+	1	0	11.1	75	1	- 41	1	2	0	0	0	2.0	12	15.2	S	21+	5	11	15	6.6	52
DALLAS	147	1000.7	1018.5	15.6	2.8	9.2	1.4	25.6	11	- 8.3	5	0	9	- 0.6	55	4	- 55	3	2	0	0	0	0.2	5	12.5	NW	3	12	8	11	4.8	76
DEL RIO	313	980.7	1017.1	21.7	5.6	13.4	2.7	31.7	30	- 6.1	6	0	6	1.7	52	T	- 23	T	0	0	0	0	0.9	6	11.2	34	3	14	7	10	4.8	
EL PASO	1194	883.2	1017.3	16.1	- 2.2	7.0	0.9	23.9	31+	-16.1	8	0	20	- 7.8	40	4	- 7	2	4	0	97	25	0.8	27	20.1	W	3	14	9	8	4.0	86
FORT WORTH	164	998.0	1019.0	15.6	0.6	8.2	0.7	25.0	11	- 8.3	8+	0	14	0.0	64	5	- 47	5	1	0	0	0	0.5	32	11.6	20	3	14	5	12	4.9	
GALVESTON U	2			16.7	11.1	13.9	1.2	22.8	25	- 1.7	7	0	2			5	- 83	2	4		T	0			12.1	N	7					46
HOUSTON INTERCON	29	1014.9	1018.8	20.0	7.2	13.7	3.0	27.8	30+	- 2.2	8+	0	7	8.3	76	9	- 91	6	3	0	T	T	0.6	13	9.8	20	21+	5	13	13	6.7	55
LUBBOCK	992	903.5	1016.6	14.4	- 3.9	5.2	1.2	23.9	30+	-20.0	5	0	25	- 7.8	45	T	- 17	T	0	0	T	T	1.1	28	13.9	28	8	15	3	13	4.9	
MIDLAND	869	917.0	1016.5	17.8	- 0.6	8.6	1.9	26.7	30	-16.7	5	0	12	- 8.3	35	T	- 20	T	0	0	T	T	1.0	25	13.0	4	21	13	13	5	4.0	
PORT ARTHUR	5	1018.3		18.9	9.4	14.2	2.2	25.6	23	- 1.1	20+	0	4	10.0	80	15	- 92	7	7	0	0	T	0.8	14	13.0	SW	21	6	11	14	6.9	42
SAN ANGELO	580	949.9	1017.3	19.4	0.6	10.1	1.8	29.4	22	-10.6	8+	0	10	- 3.9	44	T	- 25	T	0	0	0	0	1.0	23	12.5	18	3	14	12	5	4.1	
SAN ANTONIO	240	989.5	1017.9	21.7	5.6	13.3	2.2	31.7	30	- 3.9	5	0	8	3.3	57	1	- 43	1	2	0	0	0	0.8	1	14.3	N	3	8	12	11	5.6	63
VICTORIA	32	1013.9	1017.8	21.7	8.9	15.4	2.4	31.1	30	- 1.7	5	0	4	9.4	74	1	- 59	T	2	0	0	0	0.9	14	20.1Y	N	3	5	11	15	7.1	
WACO	153	1000.0	1018.2	18.3	3.3	10.9	2.1	31.1	30	- 6.1	5	0	9	1.7	57	1	- 57	1	1	0	T	T	0.4	26	12.1	33	4	13	9	9	4.6	
WICHITA FALLS	303	981.0	1018.5	12.8	- 3.3	4.8	- 1.2	22.8	29	-12.2	5	0	28	- 3.3	65	14	- 15	11	3	2	0	0	0.6	36	14.3	32	3	12	8	11	4.8	
UTAH																																
MILFORD	1533	848.3		6.1	- 8.9	- 1.2	2.9	17.8	18	-31.7	6+	0	29			6	- 8	6	1		119	127						11	9	11	5.3	
SALT LAKE CITY	1286	874.0	1021.9	5.0	- 4.4	0.2	2.9	16.1	31+	-21.1	6	0	22	- 5.0	70	27	- 7	15	9	0	345	178	1.7	16	17.9	S	10	3	5	23	8.1	40
WENDOVER	1291	873.4	1022.2	4.4	- 5.6	- 0.4	2.3	13.3	30	-22.2	6	0	28			6	- 2	4	3		81	51						7	8	16	6.6	
VERMONT																																
BURLINGTON	101	999.7	1012.9	- 6.7	-17.8	-12.4	- 3.6	4.4	25	-28.9	18	0	31	-17.2	64	31	- 18	15	16	0	434	533	1.0	22	13.4	S	22	2	10	19	7.5	57
VIRGINIA																																
LYNCHBURG	279			5.6	- 3.9	0.8	- 2.3	13.9	14	-13.3	20	0	25			44	- 40	23	15		43	203			20.1	W	26	6	11	14	6.4	49
NORFOLK	7	1015.9	1016.8	7.8	0.0	3.7	- 1.4	20.0	5	-10.0	29	0	15	- 2.8	67	102	18	45	12	1	T	T	2.0	29	20.1	SW	26	3	5	23	8.1	33
RICHMOND	50	1010.8	1017.4	6.1	- 3.9	1.0	- 2.7	18.9	5	-13.3	29	0	26	- 5.0	69	47	- 41	26	14	0	84	76	1.0	29	19.2	NW	26	3	11	17	7.7	34
ROANOKE	350	973.6	1016.9	6.1	- 4.4	1.1	- 2.3	20.0	14	-11.7	27	0	26	- 7.2	57	31	- 49	24	9	0	28	229	2.8	30	23.2	30	26	5	13	13	6.4	
WALLOPS ISLAND	3			5.0	- 3.3	0.6		15.6	26	-10.0	29+	0	25			54		12	13		203	127			25.9Y	WNW	26					
WASHINGTON																																
OLYMPIA	59	1011.5	1019.0	6.7	1.1	3.7	0.3	13.3	18	-10.0	5	0	12	2.8	92	283	84	62	22	0	391	254	3.5	20	17.0	20	16	0	2	29	9.5	
QUILLAYUTE	55	1010.2	1017.5	6.7	1.7	4.2	0.5	11.1	18	- 7.8	3	0	11	2.8	91	593	205	168	28	1	671	457	1.4	20	14.3	SW	15	1	1	29	9.4	17
SEATTLE TACOMA	122	1001.7	1018.4	6.7	2.2	4.3	0.8	12.8	18	- 4.4	5+	0	11	1.1	81	135	- 10	31	21	0	231	127	3.8	19	20.1	SW	16	2	1	28	9.3	15
SPOKANE	718	930.9	1016.6	2.8	- 2.8	- 0.1	3.6	15.0	30	-12.8	5+	0	18	- 3.3	80	54	- 8	21	15	0	155	127	4.3	21	19.2	SW	21	3	3	25	8.5	19
STAMPEDE PASS R	1206	876.7		- 1.1	- 4.4	- 2.7	2.0	7.2	31+	-12.8	13	0	27			592	286	92	24		3635	5461						2	3	26	9.1	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1971

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			9.4	2.2	5.7	5.0	20.0	31	- 8.9	5	0	11			40	- 8	14	15		145	76			14.8	W	21	2	5	24	8.6	23
YAKIMA	321	978.7	1018.1	6.7	- 3.3	1.6	4.1	20.0	30	-13.9	4+	0	24	- 3.9	70	38	7	18	6	0	274	254	2.0	27	17.4	30	23+	4	4	23	7.8	
WEST INDIES																																
SAN JUAN P.R.	4	1014.6	1016.9	28.3	22.2	25.3	1.8	31.1	19+	20.0	24+	0	0	19.4	72	55	- 64	13	18	0	0	0	3.3	9	12.1	E	23+	8	16	7	5.1	57
WEST VIRGINIA																																
BECKLEY	763	926.2	1018.3	2.2	- 7.2	- 2.4	- 3.3	16.1	14	-17.8	31	0	26	- 6.1	77	95	- 13	26	21	1	356	254	2.5	26	16.5	28	26	2	10	19	7.8	
CHARLESTON	286	982.7	1018.0	3.3	- 6.1	- 1.4	- 4.0	17.2	14	-15.0	31	0	26	- 5.6	75	60	- 50	18	15	2	295	279	1.7	26	16.5	31	26	2	5	24	8.2	
ELKINS	594	543.1		1.7	-10.0	- 4.3	- 4.6	15.0	14	-22.8	2	0	28			110	18	47	20		640	508						3	5	23	8.4	
HUNTINGTON	252	987.1	1018.2	3.3	- 5.6	- 1.2	- 3.9	16.1	14	-15.0	31	0	26	- 5.6	75	65	- 27	24	15	2	180	127	1.9	25	17.0	27	26	3	5	20	7.9	
PARKERSBURG U	187			2.8	- 6.7	- 1.8	- 3.2	14.4	14	-15.6	31	0	27			62	- 23	24	9		173	61			21.9	W	26					32
WISCONSIN																																
GREEN BAY	208	988.8	1016.0	- 8.3	-19.4	-13.9	- 5.5	0.6	1	-29.4	8	0	31	-16.7	76	41	11	19	11	1	528	483	2.8	28	14.8	NW	26	13	4	14	5.8	51
LA CROSSE	198	992.9	1019.1	- 7.8	-19.4	-13.7	- 5.1	2.2	1	-30.6	8	0	31	-17.2	73	39	8		12	0	673		1.3	27								
MADISON	262	984.1	1017.2	- 6.1	-18.3	-12.4	- 4.4	2.8	25+	-32.2	18	0	31	-16.1	73	38	2	24	9	2	556	533	2.3	27	17.4	NW	29	11	6	14	5.5	54
MILWAUKEE	205	990.5	1017.0	- 6.1	-15.6	-10.7	- 4.4	2.8	25	-24.4	31	0	31	-15.0	70	35	- 12	24	10	0	401	305	3.8	26	16.1	NW	29	10	8	13	5.8	54
WYOMING																																
CASPER	1627	833.4	1016.0	2.2	- 9.4	- 3.7	1.1	15.6	30	-25.0	4	0	28	- 9.4	67	5	- 9	2	5	0	94	102	5.6	24	17.0	30	25+	3	5	23	8.0	
CHEYENNE	1867	808.0	1015.7	3.9	- 6.1	- 1.3	2.4	15.6	20	-26.1	6	0	25	-11.7	49	13	7	8	3	0	218	203	6.9	29	24.1	W	30	6	6	19	7.0	69
LANDER	1696	825.3	1016.1	2.8	- 8.9	- 3.1	4.0	17.2	31	-25.6	5	0	29	-11.1	57	9	- 3	6	4	0	175	152	1.7	26	25.0	SW	25	4	8	19	7.7	60
SHERIDAN	1208	875.7	1018.0	- 1.1	-12.8	- 6.9	- 1.0	15.6	19	-25.0	14+	0	30	-13.9	59	36	20	9	15	0	396	203	2.1	31	17.0	NW	21+	1	2	28	9.0	34

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 November 19 - 30, inclusive.
X Sun below horizon November 24 - 30, inclusive.

HEATING DEGREE DAYS

(Base 65°F.)

JANUARY 1971

State and station	Current season: This month	Current season: Period July through this month	Normals: July through this month
ALABAMA			
BIRMINGHAM	657	1787	1609
HUNTSVILLE	708	1847	1922
MOBILE	361	906	1007
MONTGOMERY	525	1373	1468
ALASKA			
ANCHORAGE	1934	6791	6429
ANNETTE	1111	4283	3930
BARROW	2624	11964	11228
BARTER ISLAND	2723	11783	10796
BETHEL	2210	7938	7570
BETTLES	3074	10755	
BIG DELTA	2777	9276	
COLD BAY	1323	5369	5389
FAIRBANKS	3002	9437	8794
GULKANA	2624	9542	
HOMER	1711	6440	
JUNEAU	1607	6188	5140
KING SALMON	2094	7295	6552
KOTZEBUE	2444	9295	8846
MC GRATH	2873	9483	8680
NOME	2194	8521	7918
ST. PAUL ISLAND	1288	5869	6006
SHEMYA	1049	5206	5300
SUMMIT	2428	9433	
TALKEETNA	2249	7985	6924
UNALAKLEET	2351	8530	
YAKUTAT	1527	6724	5124
ARIZONA			
FLAGSTAFF	1098	3956	3982
PHOENIX	396	910	1145
TUCSON	445	1049	1133
WINSLOW	992	3031	3024
YUMA	331	743	830
ARKANSAS			
FORT SMITH	795	2104	2074
LITTLE ROCK	737	1890	2073
CALIFORNIA			
BAKERSFIELD	532	1257	1367
BISHOP	719	2573	2537
BLUE CANYON	809	2962	2761
EUREKA U	590	2720	2573
FRESNO	593	1556	1561
LONG BEACH	332	794	871
LOS ANGELES	311	729	956
LOS ANGELES U	255	578	708
MT SHASTA R	911	3320	3169
OAKLAND	523	1702	2592
RED BLUFF	584	1683	1531
SACRAMENTO	603	1600	1647
SANDBERG R	690	2371	2181
SAN DIEGO	331	740	745
SAN FRANCISCO	513	1744	1638
SAN FRANCISCO U	433	1853	1648
SANTA MARIA	471	1838	1554
STOCKTON	616	1567	1658
COLORADO			
ALAMOSA	1417	4919	5043
COLORADO SPRINGS	1086	3747	3607
DENVER	1018	3547	3546
GRAND JUNCTION	1152	3473	3451
PUEBLO	926	2894	3201
CONNECTICUT			
BRIDGEPORT	1196	3001	3053
HARTFORD	1410	3617	3516
DELAWARE			
WILMINGTON	1159	2741	2816
DIST. OF COLUMBIA			
WASHINGTON DULLES	1121	2891	
WASHINGTON NATIONAL	1034	2423	2474
FLORIDA			
APALACHICOLA U	337	795	835
DAYTONA BEACH	230	537	536
FORT MYERS	110	204	279
JACKSONVILLE	348	788	798
KEY WEST	25	37	68
LAKELAND U	176	406	416
MIAMI	67	132	139
ORLANDO	165	364	490
PENSACOLA	373	895	967
TALLAHASSEE	423	1156	961
TAMPA	201	461	433
WEST PALM BEACH	113	211	158
GEORGIA			
ATHENS	678	1745	1806
ATLANTA	681	1742	1824
AUGUSTA	601	1601	1512
COLUMBUS	515	1293	1515
MACON	507	1287	1375
ROME	753	1978	2070
SAVANNAH	458	1122	1167
IDAHO			
BOISE	958	3354	3469
LEWISTON	885	3224	3278
POCATELLO	1166	4233	4055
ILLINOIS			
CAIRO U	967	2345	2360
CHICAGO O HARE	1422	3591	3746
CHICAGO MIDWAY	1413	3544	3682
MOLINE	1556	3875	3712
PEORIA	1418	3714	3509
ROCKFORD	1549	4044	3920
SPRINGFIELD	1275	3240	3217
INDIANA			
EVANSVILLE	1087	2819	2743
FORT WAYNE	1382	3539	3588
INDIANAPOLIS	1281	3282	3293
SOUTH BEND	1387	3668	3612
IOWA			
BURLINGTON	1483	3769	3577
DES MOINES	1521	3835	3937
DUBUQUE	1663	4305	4262
SIOUX CITY	1581	4416	4028
WATERLOO	1776	4748	4262
KANSAS			
CONCORDIA	1339	3596	3224
DODGE CITY	1163	3269	2640
GOODLAND	1084	3494	3517
TOPEKA	1262	3314	3101
WICHITA	1118	3103	2808
KENTUCKY			
COVINGTON	1133	2797	3053
LEXINGTON	1087	2811	2750
LOUISVILLE	1052	2658	2731
LOUISIANA			
ALEXANDRIA	452	1309	1231
BATON ROUGE	392	1065	1025
LAKE CHARLES	311	819	951
NEW ORLEANS	329	885	896
SHREVEPORT	459	1231	1373
MAINE			
CARIBOU	1833	5400	5480
PORTLAND	1634	4326	4129
MARYLAND			
BALTIMORE	1080	2557	2738
MASSACHUSETTS			
BLUE HILL OBS R	1371	3710	3464
BOSTON	1269	3362	3059
WORCESTER	1461	4116	3854
MICHIGAN			
ALPENA	1541	4489	4610
DETROIT	1338	3503	3454
DETROIT METRO	1368	3678	3620
FLINT	1400	3929	3806
GRAND RAPIDS	1441	4026	3885
HOUGHTON LAKE	1556	4551	4574
LANSING	1416	4020	3835
MARQUETTE U	1553	4467	4522
MUSKEGON	1387	3953	3615
SAULT STE MARIE	1712	5133	4903
MINNESOTA			
DULUTH	1996	5765	5599
INTERNATIONAL FALLS	2239	6424	6126
MINNEAPOLIS	1811	4887	4846
ROCHESTER	1832	4961	4755
ST CLOUD	1927	5363	5116
MISSISSIPPI			
JACKSON	507	1347	1398
MERIDIAN	521	1445	1481
MISSOURI			
COLUMBIA REGIONAL	1164	2988	2999
KANSAS CITY	1151	2818	2808
ST JOSEPH	1254	3092	3270
ST LOUIS	1159	2968	2900
SPRINGFIELD	1035	2863	2728
MONTANA			
BILLINGS	1429	4520	4022
GLASGOW	1856	5624	5237
GREAT FALLS	1509	4602	4321
HAVRE	1821	5788	4598
HELENA	1422	5067	4690
KALISPELL	1338	5026	4785
MILES CITY	1664	5031	4460
MISSOULA	1195	4627	4804
NEBRASKA			
GRAND ISLAND	1392	3981	3815
LINCOLN U	1393	3740	3411
NORFOLK	1512	4391	4038
NORTH PLATTE	1320	4213	3891
OMAHA	1458	3873	3670
SCOTTSBLUFF	1177	4200	3832
VALENTINE	1454	4573	4253
NEVADA			
ELKO	1068	4268	4264
ELY	1259	4585	4328
LAS VEGAS	630	1667	1770
RENO	985	3425	3724
WINNEMUCCA	962	3658	3919
NEW HAMPSHIRE			
CONCORD	1622	4402	4158
MT WASHINGTON OBS	2079	7680	7709
NEW JERSEY			
ATLANTIC CITY	1117	2781	2655
ATLANTIC CITY U	1029	2582	2502
NEWARK	1160	2769	2856
TRENTON U	1137	2788	2810
NEW MEXICO			
ALBUQUERQUE	968	2889	2681
CLAYTON	950	3115	2956
ROSWELL	729	2235	2439
NEW YORK			
ALBANY	1580	4116	3879
BINGHAMTON	1525	4213	4030
BUFFALO	1361	3650	3826
NEW YORK U	1173	2840	2691
NEW YORK KENNEDY	1144	2796	2810
NEW YORK LA GUARDIA	1117	2685	2638
ROCHESTER	1405	3811	3687
SYRACUSE	1437	3923	3749
NORTH CAROLINA			
ASHEVILLE	875	2345	2670
CAPE HATTERAS R	690	1554	1452
CHARLOTTE	770	1971	1950
GREENSBORO	916	2362	2300
RALEIGH	862	2183	2076
WILMINGTON	620	1429	1432
NORTH DAKOTA			
BISMARCK	1967	5684	5115
FARGO	2035	5720	5323
WILLISTON	1964	5859	5329
OHIO			
AKRON	1309	3342	3420
CINCINNATI OBS	1150	2869	2805
CLEVELAND	1344	3488	3397
COLUMBUS	1256	3239	3278
DAYTON	1265	3188	3232
MANSFIELD	1316	3330	3589
TOLEDO	1379	3727	3669
YOUNGSTOWN	1367	3647	3601
OKLAHOMA			
OKLAHOMA CITY	866	2348	2311
TULSA	878	2382	2378
OREGON			
ASTORIA	746	3024	2854
BURNS U	1077	4236	4000
EUGENE	767	2643	2670
MEACHAM	1062	4466	4294
MEDFORD	890	2689	2917
PENDLETON	767	3202	3073
PORTLAND	757	2685	2659
SALEM	796	2939	2662
SEXTON SUMMIT R	906	3485	3274
PENNSYLVANIA			
ALLENTOWN	1326	3359	3297
ERIE	1324	3638	3464
HARRISBURG	1192	2939	3046
PHILADELPHIA	1145	2763	2950
PITTSBURGH	1277	3361	3397
PITTSBURGH U	1200	2994	3076
SCRANTON	1404	3748	3607
WILLIAMSPORT	1297	3205	3407
RHODE ISLAND			
BLOCK ISLAND	1180	3025	2917
PROVIDENCE	1298	3468	3277
SOUTH CAROLINA			
CHARLESTON	465	1234	1299
CHARLESTON U	484	1072	1112
COLUMBIA	602	1575	1576
GRNVLLE SPRTNBRG	782	2012	1878
SOUTH DAKOTA			
ABERDEEN	1846	5178	4941
HURON	1777	4982	4768
RAPID CITY	1463	4602	4082
SIOUX FALLS	1754	5057	4551
TENNESSEE			
BRISTOL	903	2351	2516
CHATTANOOGA	807	2110	2049
KNOXVILLE	813	2072	2147
MEMPHIS	781	1964	2022
NASHVILLE	902	2267	2193
OAK RIDGE R	870	2248	2312
TEXAS			
ABILENE	565	1556	1693
AMARILLO	837	2448	2467
AUSTIN	328	877	1112
BROWNSVILLE	130	268	420
CORPUS CHRISTI	174	406	631
DALLAS	505	1264	1508
DEL RIO	278	828	1081
EL PASO	625	1751	1831
FORT WORTH	564	1361	1539
GALVESTON U	250	572	758
HOUSTON	298	853	1075
LUBBOCK	723	2151	2249
MIDLAND	540	1520	1711
PORT ARTHUR	269	678	942
SAN ANGELO	453	1251	1489
SAN ANTONIO	282	803	1026
VICTORIA	228	610	770
WACO	411	1076	1305
WICHITA FALLS	749	1977	1815
UTAH			
MILFORD	1088	3704	3802
SALT LAKE CITY	1002	3540	3603
WENDOVER	1039	3728	3511
VERMONT			
BURLINGTON	1710	4714	4592
VIRGINIA			
LYNCHBURG	968	2489	2485
NORFOLK	812	1866	1980
RICHMOND	960	2297	2344
ROANOKE	959	2501	2488
WALLOPS ISLAND	983	2305	
WASHINGTON			
OLYMPIA	810	3345	2982
QUILLAYUTE	783	3388	3158
SEATTLE TACOMA	778	2849	2882
SPOKANE	1022	3985	3887
STAMPEDE PASS R	1168	5313	5131
WALLA WALLA U	699	2767	2907
YAKIMA	932	3601	3636
WEST VIRGINIA			
BECKLEY	1149	3070	3131
CHARLESTON	1097	2766	2653
ELKINS	1258	3446	3298
HUNTINGTON	1089	2665	2641
PARKERSBURG U	1112	2736	2777
WISCONSIN			
GREEN BAY	1797	4778	4487
LA CROSSE	1781	4664	4388
MADISON	1718	4554	4446
MILWAUKEE	1615	4239	4239
WYOMING			
CASPER	1222	4397	4139
CHEYENNE	1087	4111	4056
LANDER	1187	4594	4520
SHERIDAN	1407	4744	4317

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

COOLING DEGREE DAYS

(Base 65°F.)

JANUARY 1971

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
ALABAMA			
BIRMINGHAM	1	1	
HUNTSVILLE	0	0	
MOBILE	18	18	
MONTGOMERY	4	4	
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	7	7	
TUCSON	6	6	
WINSLOW	0	0	
YUMA	22	22	
ARKANSAS			
FORT SMITH	0	0	
LITTLE ROCK	0	0	
CALIFORNIA			
BAKERSFIELD	0	0	
BISHOP	0	0	
BLUE CANYON	0	0	
EUREKA U	0	0	
FRESNO	0	0	
LONG BEACH	12	12	
LOS ANGELES	23	23	
LOS ANGELES U	71	71	
MT SHASTA R	0	0	
OAKLAND	0	0	
RED BLUFF	0	0	
SACRAMENTO	0	0	
SANDBERG R	0	0	
SAN DIEGO	5	5	
SAN FRANCISCO	0	0	
SAN FRANCISCO U	0	0	
SANTA MARIA	7	7	
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	0	0	
DAYTONA BEACH	39	39	
FORT MYERS	128	128	
JACKSONVILLE	15	15	
KEY WEST	204	204	
LAKELAND U	61	61	
MIAMI	176	176	
ORLANDO	77	77	
PENSACOLA	14	14	
TALLAHASSEE	3	3	
TAMPA	54	54	
WEST PALM BEACH	121	121	
GEORGIA			
ATHENS	0	0	
ATLANTA	0	0	
AUGUSTA	0	0	
COLUMBUS	0	0	
MACON	0	0	
ROME	0	0	
SAVANNAH	1	1	

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
HAWAII			
HILO	203	203	
HONOLULU	216	216	
KAHULUI	157	157	
LIHUE	156	156	
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	17	17	
BATON ROUGE	21	21	
LAKE CHARLES	25	25	
NEW ORLEANS	29	29	
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	9	9	
MERIDIAN	5	5	
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	0	0	
CHARLOTTE	0	0	
GREENSBORO	0	0	
RALEIGH	0	0	
WILMINGTON	0	0	
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	411	411	
JOHNSTON	342	342	
KOROR R	514	514	
KWAJALEIN	519	519	
MAJURO	494	494	
PAGO PAGO	474	474	
PONAPE R	491	491	
TRUK MOEN ISLAND	517	517	
WAKE	394	394	
YAP R	480	480	
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	2	2	
CHARLESTON U	0	0	
COLUMBIA	0	0	
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	14	14	
BROWNSVILLE	185	185	
CORPUS CHRISTI	98	98	
DALLAS	0	0	
DEL RIO	10	10	
EL PASO	0	0	
FORT WORTH	0	0	
GALVESTON U	8	8	
HOUSTON INTERCON	48	48	
LUBBOCK	0	0	
MIDLAND	0	0	
PORT ARTHUR	42	42	
SAN ANGELO	0	0	
SAN ANTONIO	14	14	
VICTORIA	70	70	
WACO	6	6	
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.	398	398	
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 1971

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	2	1	0	0	4					0	0	4	2	0	0	4	0												
Alaska										0	?	6	0																
Arizona *																													
Arkansas	1	1	0	10	4									0	0	4	0												
California *																													
Colorado												4																	
Connecticut *																													
Delaware										0	4	5	0																
Florida	1	1	0	0	2					0	0	3	0																
Georgia	12	4	1	13	5	0	0	3	0	0	3	5	0									0	0	4	0				
Hawaii	1	1	0	4	6					0	3	5	4													0	0	6	4
Idaho										0	0	4	0					0	1	4	0								
Illinois N																													
Indiana										0	0	4	0					0	0	4	0								
Iowa																		0	0	6	0								
Kansas																		2	0	0	4	0	0	4	0				
Kentucky										0	2	?	0	0	2	4	0												
Louisiana																		0	0	4	0	0	0	4	0				
Maine										0	0	3	0									0	0	3	0				
Maryland										0	4	5	0									9	300+	5	0				
Massachusetts										0	0	4	0																
Michigan										0	1	5	0					2	?	4	0	0	32+	0	0				
Minnesota																		2	0	5	0								
Mississippi						0	0	?	0	0	0	4	0					0	0	?	0	0	0	?	0	0	0	?	0
Missouri																		1	10	4	0	2	250	5	0				
Montana																		1	0	0	0								
Nebraska																		1	?	5	0								
Nevada										0	0	?	0					0	0	?	0								
New Hampshire *																													
New Jersey																				4									
New Mexico																										0	0	°6	C
New York												5						1											
North Carolina	1	1	0	0	5					0	0	5	0	0	0	4	0					1	0	5	0	0	0	4	0
North Dakota *																													
Ohio										0	79	6										3	270	5					
Oklahoma										0	1	4	0									2	0	?	0				
Oregon										0	0	6	6					0	1	5	0					0	0	6	0
Pacific Area *																													
Pennsylvania										0	17	6	5	0	0	4	0	2	20	5	5								
Puerto Rico *																													
Rhode Island *																													
South Carolina						0	0	2	0	0	4	5	0									0	0	4	4				
South Dakota *																													
Tennessee						0	0	?	0	0	2	5	0																
Texas																		0	0	5	0								
Utah																						0	?	5	0	0	0	5	0
Vermont *																													
U. S. Virgin Is. *																													
Virginia										0	23	5	0																
Washington												5														5	6		
West Virginia										0	0	5	0	0	0	3	0												
Wisconsin														0	0	5	0	5	15	6	0								
Wyoming *																													

- • 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 $5,000,000
7 $5,000,000 to $50,000,000
8 $50,000,000 to $500,000,000
9 $500,000,000 to $5,000,000,000

GENERAL SUMMARY OF RIVER AND FLOOD CONDITIONS
JANUARY 1971

Elmer R. Nelson, Office of Hydrology

Major flooding occurred in western Oregon during January. The most severe flooding occurred on the Coquille River which remained above flood stage for 5-days. The Geological Survey reported that the peak discharges of some streams were the highest for January in more than 60 years. In southwestern Washington, the Chehalis River at Grand Mound was the 3d highest since 1928.

Extreme low temperatures caused several ice jams and minor flooding on the Kenai River near Cooper Landing, Alaska, on Jan. 11-15. The accumulation of snow in the Fairbanks, Alaska, area at the end of the month totalled 39 inches with water equivalent of nearly 7 inches.

HUDSON BAY DRAINAGE

Red River of the North Basin.--River stages in the Red River of the North Basin were near seasonal normal during the month of January. All rivers were ice covered, except near sewer or industrial discharge outlets. Most smaller tributaries were frozen solid.

The snow depth over the Red River of the North Basin averaged 14 inches and 11 inches over the Souris Basin. The heaviest snow cover was in the upper reaches of the Red Lake River where average snow depths ranged from 20 to 28 inches. Average snow depths in the Pembina Basin ranged from 12 to 20 inches. The water equivalent of the snow pack in the Souris Basin averaged 1.5 inches at the end of the month. The soil was frozen to depths greater than 36 inches over most sections of the basin.

ATLANTIC SLOPE DRAINAGE

Heavy rainfall (1 to 2 inches) during the afternoon and evening of the 4th caused flooding on the Neuse River at Smithfield, N. C., and on the lower Cape Fear on the 6-9th. Rainfall amounts in the headwater areas ranged locally up to 2.5 inches. No damage resulted from the overflows.

There were two rises on the Lumber River at Lumberton, N. C. The first rise occurred on the 16th-22d and the second on the 30th which continued into February. Moderate lowland flooding occurred on the Pee Dee River from below Blewett Lake to Cheraw, S. C. Flood stage was reached at Peedee, S. C., on the 13th. The overflows were due to rainfall that averaged 1 inch on the 8-9th and on the 25-26th. Flood damages along the Pee Dee River were estimated at $4,000 and were due to the cost of moving logging machinery from the lowlands. Flood damages along the Lumber River were minor.

Heavy rainfall on the 24-26th in the Savannah Basin caused moderate flooding on Stevens Creek at Modoc, S. C., on the 26-27th. Slight to moderate damage resulted from the overflow.

EAST GULF OF MEXICO DRAINAGE

The Apalachicola River at Blountstown, Fla., was out of its banks on the 6-15th. The crest on the 8th was almost 3 ft. above flood stage. Wooded and unpopulated areas not susceptible to much damage were flooded.

Moderate rains in the headwaters of the Tombigbee Basin caused minor flooding at Fulton and Aberdeen, Miss., between the 24th and 27th. No damage resulted.

Moderate to heavy rainfall during the last few days of December produced rising stages on the Pearl River during the first week of January. Discharges from Ross Barnett Reservoir raised the Pearl River to slightly above flood stage at Jackson, Miss., on the 3d-5th. Flooding was confined to the immediate vicinity of the river and was of little consequence. Local rains caused flooding at Bogalusa, La., during the first 10 days of the month and again during the last few days of January. Flooding was confined to low-lying farm and timber lands adjacent to the river and was of little consequence.

MISSISSIPPI SYSTEM

Upper Mississippi Basin.--Precipitation during January in Minnesota and Wisconsin was above normal except in the Minnesota River Basin above Mankato, Minn. In most areas, the precipitation was twice the amount received during December. The water equivalent of the snow that fell during January ranged from 1 inch in west-central Minnesota to 2.5 to 3 inches over central and eastern Wisconsin. The snowfall during January on the south shore of Lake Superior ranged in depth from 32 inches to over 50 inches in the Gurney-Hurley, Wisconsin, area.

Locally heavy rains of 1 to 1.5 inches on the 3d-4th caused a slight overflow of the Salt River at New London, Mo. No significant damage was reported.

Missouri Basin.--Some minor flooding occurred along lowland areas on the Gallatin River in Montana on the 12-15th due to ice jams. The ice jammed for about 30 miles between Toston and Logan, Mont., causing minor damage.

Heavy rain or rain and snow mixed on the 3d and 4th caused 3 to 8 ft. of flooding on several streams in northwestern Missouri. Precipitation amounts ranged from 1.5 to slightly over 2 inches. Heavy snow fell just north of the Kansas City, Mo., area eastward into central Missouri and to the north of this line. Snowfall measured from 4 to 8 inches over most of northwest and north-central Missouri and from 10 to 16 inches over extreme northeast Kansas, southeast Nebraska and southwest and south-central Iowa. No significant damage resulted from the flooding.

Heavy precipitation (1.5 to 2.5 inches) on the Marais des Cygnes and 2 to 3 inches on the Marmaton on the 2d-3d produced substantial rises on these streams. One to 3 foot overflows occurred on Pottawatomie Creek and on the Marais des Cygnes from Osawatomie, Kans., downstream from the 4th to the 7th. The flooding was brief and caused no crop losses. Livestock in low lying pastures were either moved or water was not deep enough to cause losses.

Some minor flooding occurred along the upper Missouri River in Montana on the 12-15th due to ice jams. In the reach at and below Sioux City, Iowa, ice action caused a rise of over 10 ft. at Sioux City. The high water and ice caused some damage to low docks and boats. Ice bridges remained during the entire month in the Leavenworth, Kans. - St. Joseph, Mo., areas and northward. Occasional ice bridges occurred from around the Kansas City area to several miles downstream.

Ohio Basin.--Heavy snowfall occurred over most of the Monongahela Basin on Dec. 31 to Jan. 1. Totals of 12 inches or more covered the Cheat, Tygart and upper Youghiogheny and West Fork Rivers. The largest amounts were 26 inches at Thomas and Alpena, W. Va., in the headwaters of the Cheat River. Heavy rains on the 4th and 5th melted most of the snow cover except in the Cheat Basin where 6 inches of snow remained. Minor flooding occurred on the West Fork at Weston and Clarksburg, W. Va., and on the Tygart River at Philippi, W. Va. The lower Mononghela River in Pennsyl-

vania exceeded flood stage by 1 foot or less. This was about the same level as in December. No significant damage resulted from the overflows.

Heavy rain on the 4th and 5th caused flooding in the headwater areas of the Little Kanawha River and Twelvepole Creek in West Virginia. Some overflow occurred on Point Creek near Paintsville, W. Va. Some highways were cut off by the high water.

Heavy rains on the 2d-3d and on the 13-14th caused up to 2 ft. of flooding on the Muscatatuck River at Austin, Ind. No damage resulted from the overflows on the 5th and 14-16th.

The main stem of the Ohio River at Fords Ferry, Ky., continued in flood from Dec. 27 to Jan. 1.

White Basin.--Heavy rain on the 13-14th caused the Black River at Black Rock, Ark., to rise rapidly above flood stage on the 14th. It crested on the 15th 3.7 ft. above flood stage and receded within its banks on the 19th.

The Cache River at Patterson, Ark., continued above flood stage from Dec. 19 through January.

The White River rose to flood stage at Clarendon, Ark., on Dec. 31 to Jan. 2 and again on Jan. 14-15.

No damage resulted from the flooding in the White Basin during January.

Arkansas Basin.--Minor lowland flooding occurred on the Neosho River at Commerce, Okla., on the 5-6th. This overflow was due to over 2 inches of rain on the 3d.

Lower Mississippi Basin.--Locally heavy rains at mid-month resulted in slight lowland flooding on the St. Francis River in the St. Francis, Ark., reach on the 16th - 20th. No damage resulted from this rise.

PACIFIC SLOPE DRAINAGE

Sacramento Basin.--One major storm period, with precipitation beginning about the 12th and continuing through the 18th, produced a major rise on the upper Sacramento River on the 16-17th. Flood stage was exceeded at Tehama Bridge and Vina, Calif., just above Hamilton City, and warning stages were exceeded from Ord Ferry to Fremont, Calif. Overflow into the Sutter Bypass began on the 17th and continued through January. Overflow into the Yolo Bypass began on the 19th and continued through the 29th with flooding of the lower tracts. Runoff in the Feather-Yuba River System was effectively controlled by the Oroville and New Bullards Bar reservoir systems.

Central Coastal Basins.--Heavy precipitation on the 10-18th, totalling 15.5 inches in the Smith Basin and 10.4 inches in the Eel Basin, caused overflow in these basins on the 16-18th. The Eel River at Fernbridge, Calif., rose steadily to 2 ft. above flood stage on the 17th. There were two periods of overflow on the Smith River near Crescent City, Calif., and Fort Dick River, Calif. The first rise occurred on the 16-17th and the second on the 17-18th. The major effect of the overflows was the temporary dislocation of persons and livestock and the deposit of silt and debris over the inundated areas. Moderate to heavy damage occurred to roads and highways from mud slides due to the heavy precipitation.

Coastal streams in southwestern Oregon rose out of their banks during the period from the 15th to the 20th. Snowfall from the 11th to the 14th blanketed all of southwestern Oregon with 6 to 12 inches of snow in the valleys and 2 to 3 ft. in the foothills. A warm rain beginning on the 15th was reported up to the 10,000 foot level by the evening of the 16th. The warm rains decreased the snowpack at Crater Lake Park Headquarters by 20 inches on the 17th and 18th. The resulting runoff triggered general flooding west of the Cascade Mountains. The most severe flooding occurred on the Coquille River, which remained above flood stage for 5 days. The crest at Myrtle Point, Oreg., on the 17th was 9.5 ft. above flood stage. Flood waters affected the Rogue and Umpqua Rivers on the 17-18th with crests 5 to 10 ft. above flood stage. Damage due to the high water was confined mostly to siltation and debris.

Columbia Basin.--Runoff over the Snake River Basin during January ranged from higher than average to record high over most of the basin. Warm rains near mid-month caused considerable snowmelt along small streams at low elevations in the southwest valleys and in the central plains area of southern Idaho. Rain and snowmelt in the central plains area of south Idaho accumulated as it flowed over frozen surface ground. This resulted in flooding of farmlands, in the lower areas, and the filling of many residential basements. Damage was primarily due to ice jamming and plugging drainage facilities that soon became inadequate, causing the runoff to pond. Extreme runoff occurred over the lower drainage areas of the Owyhee River above the reservoir. The Portneuf River at Pocatello, Idaho, was above flood stage on the 8-16th due to ice plugging the channel at and for a mile below the gaging station. The Weiser River near Weiser, Idaho, was out of its banks on the 15-16th due to ice blocking the channel. Earlier flooding in the vicinity of Montour, Idaho, along the Payette River below the Horseshoe Bend gaging station was due to an ice jam in the channel. The main damage from the flooding occurred in this area. The total damages in Washington and Cassia Counties, Idaho, were estimated at $235,000.

The flooding in the Willamette Basin streams during the first few days of January was due to a series of storms during the last 4 days of December. All streams crested on Dec. 31 except the Tualatin at Farmington, Oreg., which crested on Jan. 2 nearly 2 ft. above flood stage. All streams continued falling until the weekend of Jan. 8-10 when a series of storms brought 0.5 to 0.75 inches of precipitation to Willamette valley stations. In the local Portland area, Johnson Creek crested 0.5 ft. over bankfull stage late on the 8th with a second peak nearly as high on the morning of the 10th. Primarily because of the low freezing levels, other streams in the Willamette Basin responded only slightly.

During the period from the 11th to the 14th, an outbreak of windy, snowy weather brought 6 to 12 inch snowfall amounts in the Willamette Valley. A flow of warm, moist air from low latitudes beginning on the 15th caused the freezing levels to rise to the 8 to 10 thousand foot levels both west and east of the Cascade mountains. Rainfall totalled about 6 inches at valley stations during the period from the 15th to the 20th. This rain, coupled with warm weather, melted the snow cover on the valley floor up to elevations near 3,500 feet. The Willamette tributaries which head in the Coast Range, rose to above flood stage on the 15-17th. Crests ranged up to 5 ft. above flood stage on the South Yamhill at Whiteson, Oreg., on the 16th. Local creeks in the Portland, Oreg., area had their highest crests from the rainfall-snowmelt runoff on the 15-16th. The more sluggish drainages, the Tualatin and Pudding Rivers, reached their crests on the 19-20th. The main stem of the Willamette rose above flood stage at Harrisburg and Oregon City, Oreg., on the 18-19th. The crests ranged up to 3.6 ft. above flood stage at Oregon City on the 19th.

Coast Range Willamette tributaries had secondary

rises and crests over flood stage during the last week of the month. The crests were lower than those observed earlier as the heavier precipitation occurred along the coastal sections of extreme northwest Oregon. The Nehalem and Wilson River drainages received close to 8 inches of rainfall. The Nehalem River at Foss, Oreg., crested 6.4 ft. above flood stage.

The Corps of Engineers estimated damages in the Willamette, lower Columbia and Oregon Coastal Basins at about $1.6 million. Damages from a flash flood on Pataha Creek at Pomeroy, Wash., on the 9th were estimated at nearly $0.5 million.

Northern Coastal Basins.--Minor flooding occurred in the Chehalis Basin on Dec. 31 to Jan. 1, moderate flooding on the 16-20th and severe flooding on the 25-28th. The first overflow was due to heavy rain; the second and 3d overflows to rain and snowmelt. The 3d flood was the most severe since 1937. The peak flow of 40,100 c.f.s. at the Grand Mound, Wash., USGS gage was the 3d highest on record. It flooded considerable farmland, numerous roads, many homes and a number of motels and business establishments. Preliminary damage estimates by the Corps of Engineers were placed at $1 million.

The Snohomish River exceeded flood stage 3 times during the month. The first flood on the 19-20th was the highest with a crest 3.2 ft. above flood stage. The causes of the overflows were heavy rain and snowmelt. Only minor damage resulted as the dikes held.

Serious flooding occurred on the Nooksack River at Deming, Wash., on the 30th-31st. This overflow was due to warm rains of 2 to 4 inches in 24 hours plus rapid snowmelt. Heavy antecedent snowfall had built up a deep snowpack over the upper basin. Temperatures rose to the upper 40's in the upper reaches and to the 50's in the lowlands. Flash flooding in the upper reaches washed out two bridges above Deming, Wash., and stranded some 200 skiers on Mount Baker overnight. The river crested 2 ft. above flood stage at Deming on the 30th.

Shallow flooding occurred the length of the flood plain. Some 150 people were evacuated from their homes near Marietta. Preliminary estimates of flood damages were placed at $200,000.

FLOOD STAGE DATA

(All dates in January unless otherwise specified)

River and station	Flood stage	Above flood stages -dates From—	Above flood stages -dates To—	Crest* Stage	Crest* Date
ATLANTIC SLOPE DRAINAGE	Ft.			Ft.	
Neuse: Smithfield, N. C.	13	6	8	15.8	7
Cape Fear: Wm. O. Huske L&D (nr) Tarheel, N. C.	42	6	8	45.8	7
Lock No. 2, Elizabethtown, N. C.	20	6	9	23.2	7
Lumber: Lumberton, N. C.	9	16 30	22 1/	9.7	18
Pee Dee: Peedee, S. C.	19	13	13	19.0	13
Stevens Creek: Modoc, S. C.	18	26	27	21.7	26
EAST GULF OF MEXICO DRAINAGE					
Apalachicola: Blountstown, Fla.	15	6	15	# 1.80	8
Tombigbee: Fulton, Miss.	16	24	27	17.5	25
Aberdeen, Miss.	34	27	27	34.1	27
Pearl: Jackson, Miss.	18	3	5	19.3	4
Bogalusa, La.	15	1 29	9 30	16.3 15.5	6 29
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Salt: New London, Mo.	19	5	5	20.5	5
Missouri Basin					
Blue: Kansas City(Banister Rd), Mo.	21	3	3	24.2	3
Little Blue: Lake City, Mo.	18	3	4	22.9	4
Lamine: Clifton City, Mo.	19	4	5	25.8	4
Blackwater: Valley City, Mo.	20	3	5	28.5	4
Blue Lick, Mo.	25	4	10	29.95	8
Pottawatomie Creek: Garnett, Kans.	26	3	4	27.9	3
Lane, Kans.	23	4	5	25.8	3-4
Marais des Cygnes: Osawatomie, Kans.	28	4	5	# 29.5	4
La Cygne, Kans.	25	4	7	# 28.3	5
Trading Post, Kans.	24	5	6	# 24.6	5
Kansas-Missouri State Line	25	5	6	# 26.1	5
Ohio Basin					
Tygart: Philippi, W. Va.	17	5	5	17.4	5
West Fork: Weston, W. Va.	17	5	5	17.2	5
Clarksburg, W. Va.	7	5	6	8.05	5
Monongahela: Lock No. 4, Charleroi, Pa.	26	5	6	27.1	5
Lock No. 3, Elizabeth, Pa.	20	5	6	20.4	5
Lock No. 2, Braddock, Pa.	19	5	6	19.7	5
Muscatatuck: Austin, Ind.	16	5 14	5 16	16.5 17.9	5 15
Ohio: Dam No. 50, Fords Ferry, Ky.	34	Dec. 27	1	36.7	Dec. 30
White Basin					
Black: Black Rock, Ark.	14	14	19	18.7	15
Cache: Patterson, Ark.	7	Dec. 19	1	9.0	Dec. 24 Dec. 28
White: Clarendon, Ark.	26	Dec. 31 14	2 15	26.0 26.0	Dec. 31 14
Arkansas Basin					
Neosho: Commerce, Okla.	15	5	6	15.5	5
Lower Mississippi Basin					
St. Francis: St. Francis, Ark.	18	16	20	18.4	18
PACIFIC SLOPE DRAINAGE					
Sacramento Basin					
Sacramento: Tehama Bridge, Calif.	213	M	M	216.3	17
Vina (Woodson Bridge), Calif.	183	M	M	185.3	17
Ord Ferry, Calif.	W110.5	16	18	112.2	17
Moulton Weir, Calif.	W76.8	16	20	79.7	18
Colusa Weir, Calif.	W61.8	17	28	66.4	18
Colusa Bridge, Calif.	W63	17	21	65.3	18
Tisdale Weir, Calif.	W45.5	1 16	4 1/	48.7	19
Fremont Weir, Calif.	W33.5	19	29	35.4	20
PACIFIC SLOPE DRAINAGE-Cont.	Ft.			Ft.	
Central Coastal Basins					
Eel: Fernbridge, Calif.	20	16	17	22.0	17
Smith: Crescent City(nr), Calif.	35	16 17	17 18	36.6 36.3	16 17
Fort Dick River, Calif.	33	16 17	17 18	33.6 33.4	17 17
Rogue: Eagle Point(nr), Oreg.	10	17	18	11.0	17
Raygold Dam, Oreg.	12	17	18	15.6	17
Grants Pass, Oreg.	19	17	18	25.0	17
Coquille: Coquille, Oreg.	21	16	20	25.4	18
Myrtle Point, Oreg.	35	15	20	44.5	17
South Umpqua: Roseburg, Oreg.	22	17	18	27.8	17
Winston(nr), Oreg.	26	17	18	30.6	17
Tiller, Oreg.	15	17	18	18.45	18
North Umpqua: Winchester Dam, Oreg.	18	18	18	18.2	18
Umpqua: Elkton(nr), Oreg.	33	17	18	43.6	18
Riddle(nr), Oreg.	18	15 16	15 18	20.9 25.0	15 17
Nehalem: Foss, Oreg.	13	15 24	20 27	15.7 19.4	17 26
Columbia Basin					
Portneuf: Pocatello, Idaho	8	8	16	10.0	10
Weiser: Weiser(nr), Idaho	8	15	16	9.3	15
Mary's: Philomath, Oreg.	20	15	18	20.4	16
Luckiamute: Suver, Oreg.	27	Dec. 31 16 26	1 20 26	28.1 29.8 27.3	Dec. 31 17 26
Santiam: Jefferson, Oreg.	15	19	20	16.1	19
South Yamhill: Whiteson, Oreg.	38	Dec. 31 15 26	2 20 27	42.5 43.0 43.25 41.1	Dec. 31 16 17 26
Pudding: Aurora, Oreg.	20	Dec. 31 12 15	2 12 29	21.3 20.0 23.4 25.2 22.0	1 12 17 20 26
Tualatin: Dilley, Oreg.	17	Dec. 30	1	17.8	Dec. 31
Farmington, Oreg.	29	1 17	5 31	30.9 32.8 31.6	2 19 28
Johnson Creek: Sycamore, Oreg.	8	15 19	15 19	9.0 9.15	15 19
Willamette: Harrisburg, Oreg.	12	18 19	19 20	13.3 12.6	18 20
Oregon City, Oreg.	27	18	22	30.6	19
Northern Coastal Basins					
Skookumchuck: Centralia, Wash.	85	25	26	86.0	26
Chehalis: Centralia, Wash.	63	Dec. 31 16 25	1 20 28	64.5 65.2 70.2	Dec. 31 17 26
Snohomish: Snohomish, Wash.	25	19 26 31	20 26 Feb. 1	28.2 25.5 27.2	19-20 26 31
Skagit: Mt. Vernon, Wash.	21	31	Feb. 1	22.5	31
Nooksack: Deming, Wash.	12	30	31	14.0	30

* Provisional
1/ Continued at end of month
\# Highest stage observed
W Warning stage
M Missing

RAWINSONDE DATA

Average monthly values

JANUARY 1971

Standard pressure surface (mb.)	ALBANY, N. Y. 1003 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	86	-10.9	-15.2	27	1.6
1000	31	111			29	2.7
950	31	507	-9.8	-14.1	28	7.4
900	31	924	-11.1	-14.8	28	10.3
850	31	1,362	-12.5	-16.4	28	13.1
800	31	1,824	-13.3	-19.3	28	15.4
750	31	2,315	-14.3	-22.5	28	17.9
700	31	2,837	-16.1	-24.6	28	20.2
650	31	3,392	-18.0	-26.8	28	23.8
600	31	3,987	-21.1	-30.5	28	26.2
550	31	4,624	-24.7	-33.9	28	28.7
500	31	5,312	-28.8	-36.7	27	32.1
450	31	6,059	-33.4	-39.0	27	29.7
400	31	6,877	-38.6	-43.5	28	33.5
350	31	7,787	-43.5	-44.6	27	36.2
300	30	8,814	-49.1		27	40.1
250	30	9,997	-53.7		27	28.6
200	30	11,427	-54.5		27	30.8
175	30	12,282	-54.5		27	29.0
150	30	13,289	-55.0		27	27.6
125	30	14,432	-56.3		27	27.5
100	29	15,849	-57.6		26	27.9
80	29	17,236	-58.1		26	28.4
70	28	18,089	-58.3		26	27.9
60	28	19,059	-58.4		26	24.6
50	27	20,220	-57.5		26	23.2
40	24	21,626	-55.9		25	20.7
30	24	23,469	-53.6		24	13.6
25	23	24,632	-52.7		24	12.5
20	19	26,082	-52.4		22	6.3
15	18	27,932	-52.8		16	.2
10	14	30,582	-52.2			
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Standard pressure surface (mb.)	ALBUQUERQUE, N. MEX. 839 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	28	1,619	-4.4	-10.4	03	1.7
1000	28	211				
950	28	625				
900	28	1,059				
850	28	1,513				
800	28	1,996	-.2	-13.9	32	3.7
750	28	2,510	-2.7	-16.0	30	6.1
700	28	3,055	-4.8	-19.1	30	9.0
650	28	3,636	-7.0	-23.3	29	10.9
600	28	4,256	-10.5	-27.3	29	13.2
550	28	4,921	-14.2	-31.5	28	14.8
500	28	5,637	-18.8	-36.2	28	16.6
450	28	6,414	-24.1	-40.9	28	18.0
400	28	7,263	-30.6	-45.0	28	18.2
350	28	8,200	-37.8	-50.4	27	18.9
300	28	9,243	-45.3		27	21.5
250	28	10,439	-52.7		27	25.8
200	28	11,861	-58.0		26	29.5
175	28	12,702	-58.6		26	30.4
150	28	13,667	-59.6		26	28.7
125	28	14,800	-62.3		27	27.0
100	26	16,162	-64.1		26	23.5
80	29	17,517	-64.9		27	18.0
70	28	18,334	-63.7		27	14.6
60	28	19,279	-63.3		27	12.2
50	27	20,403	-62.4		27	7.6
40	28	21,785	-62.2		30	3.8
30	23	23,612	-58.6		04	4.5
25	18	24,755	-57.6		06	5.4
20	8	26,148	-56.3			
15	7	27,984	-54.9			
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Standard pressure surface (mb.)	AMARILLO, TEXAS 890 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	1,095	-2.3	-10.0	29	2.0
1000	31	160				
950	31	575				
900	31	1,008				
850	31	1,469	4.0	-8.7	28	5.3
800	31	1,961	3.4	-11.0	28	7.0
750	31	2,483	1.0	-13.1	28	9.1
700	31	3,034	-1.7	-16.3	28	11.6
650	31	3,621	-5.0	-19.6	28	13.1
600	31	4,245	-9.0	-23.4	29	15.4
550	31	4,913	-13.2	-27.6	28	17.9
500	31	5,632	-17.8	-32.4	28	21.1
450	31	6,412	-23.2	-37.2	27	22.9
400	31	7,263	-29.8	-42.8	27	26.1
350	31	8,205	-36.5	-45.6	27	28.7
300	31	9,253	-44.1		27	31.0
250	31	10,454	-52.3		27	33.9
200	31	11,875	-58.3		27	35.5
175	31	12,713	-59.6		27	36.4
150	31	13,674	-60.9		27	35.2
125	31	14,802	-62.9		27	32.4
100	31	16,167	-65.5		27	27.1
80	30	17,516	-66.4		27	22.6
70	30	18,326	-66.2		27	18.4
60	28	19,264	-65.9		27	15.7
50	25	20,373	-64.7		28	11.4
40	21	21,730	-64.1		28	11.8
30	20	23,513	-61.0		27	12.0
25	18	24,647	-59.5		27	12.9
20	17	26,036	-57.5		27	14.1
15	12	27,879	-54.2			
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Standard pressure surface (mb.)	* ANCHORAGE, ALASKA 1011 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	45	-17.1	-24.1	02	2.1
1000	31	124			02	3.4
950	31	510	-15.4	-23.1	02	4.8
900	31	920	-14.4	-23.2	03	5.0
850	31	1,353	-15.1	-24.5	04	3.3
800	31	1,809	-17.2	-26.5	04	2.5
750	31	2,291	-19.5	-29.0	02	2.8
700	31	2,802	-21.7	-32.2	34	3.5
650	31	3,345	-24.1	-34.8	33	5.1
600	31	3,926	-26.8	-37.4	33	6.8
550	31	4,550	-30.2	-40.0	32	7.4
500	31	5,222	-34.5	-43.2	32	8.5
450	31	5,952	-38.4	-44.3	32	10.4
400	31	6,755	-42.6	-46.2	32	11.4
350	31	7,652	-46.5		31	11.7
300	31	8,665	-49.6		31	12.1
250	31	9,856	-50.4		29	13.7
200	31	11,315	-49.3		28	13.6
175	31	12,192	-48.4		28	13.8
150	31	13,208	-47.9		28	13.1
125	30	14,415	-48.5		29	10.6
100	29	15,883	-49.1		29	9.2
80	28	17,356	-49.2		30	8.0
70	28	18,236	-50.0		31	7.1
60	28	19,248	-49.8		30	6.6
50	28	20,442	-49.5		31	5.9
40	25	21,901	-50.3		33	4.9
30	25	23,781	-49.7		35	4.7
25	24	24,970	-50.2		01	5.4
20	21	26,440	-50.1		36	3.8
15	19	28,322	-49.4		34	5.8
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Standard pressure surface (mb.)	* ANNETTE, ALASKA 1009 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	37	-2.1	-6.6	08	1.9
1000	31	105	-2.1	-7.6	11	1.8
950	31	511	-4.7	-9.1	16	1.9
900	31	934	-7.3	-11.7	20	2.3
850	31	1,378	-9.5	-13.9	25	3.9
800	31	1,845	-11.7	-16.4	25	6.3
750	31	2,337	-14.1	-19.5	25	8.2
700	31	2,858	-16.8	-23.5	26	11.0
650	31	3,412	-19.7	-26.0	26	13.5
600	31	4,003	-22.8	-29.5	27	15.4
550	31	4,637	-26.4	-33.3	27	18.1
500	31	5,320	-30.6	-36.3	27	21.2
450	31	6,062	-34.9	-36.7	28	23.3
400	31	6,874	-40.3	-39.9	29	23.7
350	31	7,777	-45.8	-42.3	28	24.8
300	30	8,780	-50.7		29	25.0
250	30	9,959	-54.1		28	22.6
200	30	11,390	-54.4		29	22.9
175	28	12,261	-52.6		30	22.2
150	28	13,258	-52.1		30	20.5
125	28	14,437	-52.9		30	18.5
100	28	15,874	-54.0		31	17.4
80	28	17,307	-53.8		31	16.1
70	28	18,164	-54.5		32	14.0
60	28	19,153	-54.2		33	12.2
50	28	20,321	-54.4		34	10.8
40	25	21,783	-53.8		36	9.1
30	22	23,630	-54.0		02	12.0
25	21	24,791	-54.6		02	12.7
20	20	26,206	-54.4		04	17.1
15	18	28,043	-52.9		05	17.7
10	13	30,685	-51.1			
7	9	32,963	-50.2			
5	5	35,261	-45.8			

Standard pressure surface (mb.)	ATHENS, GEORGIA 989 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	246	3.4	.1	28	2.4
1000	31	152				
950	31	569	4.2	-1.2	28	6.6
900	31	1,010	4.3	-3.0	28	10.3
850	31	1,475	2.9	-6.5	29	12.0
800	31	1,964	1.0	-7.6	28	14.6
750	31	2,482	-.6	-10.6	28	16.8
700	31	3,031	-2.6	-13.5	28	20.0
650	31	3,616	-5.6	-16.4	27	22.4
600	31	4,240	-9.2	-19.6	27	24.8
550	31	4,907	-13.4	-23.8	27	27.3
500	31	5,626	-18.1	-28.5	27	28.0
450	31	6,406	-22.3	-33.6	27	31.1
400	31	7,257	-29.4	-39.3	27	35.7
350	31	8,200	-36.1	-43.9	27	41.2
300	31	9,250	-43.9	-51.4	27	44.5
250	31	10,453	-51.9		27	48.0
200	30	11,888	-57.6		27	48.8
175	29	12,726	-58.3		27	46.4
150	27	13,680	-60.0		27	43.3
125	25	14,796	-63.5		27	40.6
100	25	16,154	-66.5		27	31.7
80	25	17,499	-68.0		27	26.4
70	24	18,298	-67.6		27	22.6
60	21	19,245	-66.0		27	17.7
50	20	20,361	-64.3		27	16.5
40	19	21,733	-61.1		27	13.9
30	16	23,532	-59.0		26	13.5
25	16	24,681	-57.2		26	12.7
20	16	26,101	-55.1		27	9.1
15	15	27,944	-53.0		27	6.7
10	12	30,584	-49.4		28	6.5
7	9	32,948	-45.3			

Standard pressure surface (mb.)	* BARROW, ALASKA 1026 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	29	8	-29.0	-30.1	12	.8
1000	29	194	-25.1	-28.1	24	.5
950	29	569	-23.3	-28.1	01	.8
900	29	965	-22.7	-28.9	02	1.5
850	29	1,384	-22.7	-28.6	01	1.6
800	29	1,829	-23.0	-30.0	36	2.2
750	29	2,301	-24.1	-31.0	35	2.3
700	29	2,803	-26.0	-32.2	34	2.6
650	29	3,337	-28.3	-35.1	33	2.8
600	29	3,908	-31.2	-38.2	34	3.5
550	29	4,520	-34.7	-40.7	33	4.0
500	29	5,180	-38.7	-40.0	33	4.3
450	29	5,898	-42.9	-43.7	32	5.2
400	29	6,685	-47.0		31	6.7
350	29	7,564	-50.8		30	8.2
300	29	8,559	-53.0		30	10.3
250	29	9,734	-52.9		30	10.7
200	29	11,177	-51.6		29	12.3
175	29	12,046	-50.2		29	12.6
150	28	13,056	-49.1		28	13.5
125	28	14,254	-48.7		28	14.4
100	28	15,724	-48.2		28	14.7
80	27	17,193	-48.1		27	15.7
70	27	18,074	-48.0		27	16.6
60	27	19,090	-48.3		27	17.4
50	28	20,291	-48.1		28	16.5
40	28	21,763	-48.7		28	15.8
30	29	23,670	-48.7		29	13.0
25	29	24,867	-48.3		29	13.7
20	9	26,362	-45.0			
15						
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Standard pressure surface (mb.)	BARTER IS., ALASKA 1025 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	29	15	-30.3	-33.1	24	1.5
1000	29	193	-25.6	-29.8	21	1.0
950	29	566	-24.1	-28.4	24	1.3
900	29	962	-22.7	-28.2	26	1.3
850	29	1,382	-22.6	-28.5	31	1.5
800	29	1,827	-22.8	-28.9	34	1.7
750	29	2,299	-24.0	-30.5	35	2.4
700	29	2,801	-25.8	-32.6	01	3.3
650	29	3,335	-28.2	-34.9	02	3.8
600	29	3,907	-30.8	-37.6	02	4.9
550	29	4,520	-34.0	-40.3	02	6.4
500	29	5,182	-37.9	-41.8	02	7.0
450	29	5,902	-42.0	-41.9	02	8.1
400	29	6,692	-46.6		01	8.6
350	29	7,572	-50.8		01	10.8
300	29	8,567	-53.0		36	12.1
250	29	9,743	-52.4		35	12.3
200	29	11,198	-50.4		32	10.2
175	29	12,071	-49.7		32	10.8
150	29	13,083	-48.7		31	10.7
125	29	14,283	-48.1		31	11.4
100	29	15,757	-47.3		31	11.2
80	29	17,233	-47.8		32	12.6
70	29	18,115	-47.9		32	12.7
60	29	19,133	-47.6		31	11.4
50	29	20,339	-47.2		32	13.3
40	28	21,814	-47.9		33	10.5
30	28	23,709	-48.9		33	9.1
25	26	24,914	-47.9		33	8.9
20	23	26,387	-48.2		33	8.8
15	19	28,289	-49.1		35	10.0
10	9	30,987	-47.5			
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Standard pressure surface (mb.)	BETHEL, ALASKA 1013 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	15	39	-20.0	-22.1	02	3.9
1000	15	134	-18.4	-24.8		
950	15	521	-13.6	-18.2	03	4.6
900	15	933	-13.5	-19.8	01	4.0
850	15	1,368	-13.9	-20.3	35	4.4
800	15	1,827	-15.7	-21.9	34	5.6
750	15	2,311	-18.7	-24.6	33	5.7
700	15	2,822	-22.2	-28.5	32	6.1
650	15	3,364	-26.8	-31.9	31	6.7
600	15	3,943	-28.0	-35.8	28	6.6
550	15	4,564	-30.9	-38.6	28	7.1
500	15	5,234	-35.2	-41.3	26	10.0
450	15	5,975	-38.3	-43.4	25	11.3
400	15	6,778	-42.3		25	12.2
350	15	7,676	-46.3		24	12.5
300	15	8,691	-49.1		25	14.5
250	15	9,882	-51.2		25	14.5
200	15	11,333	-50.0		26	13.8
175	15	12,207	-49.2		26	12.7
150	15	13,220	-48.6		26	10.8
125	15	14,420	-48.8		26	11.2
100	15	15,886	-48.8		27	8.8
80	15	17,352	-48.9		27	7.8
70	15	18,230	-49.0		27	6.3
60	14	19,241	-49.2		27	5.5
50	14	20,437	-49.4		27	4.2
40	14	21,900	-49.1		29	3.3
30	14	23,790	-48.9		32	2.2
25	14	24,987	-48.9		36	2.8
20	14	26,467	-48.3		02	4.5
15	11	28,341	-48.8		03	5.1
10	5	31,093	-44.3			
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Standard pressure surface (mb.)	* BISMARCK, N. DAK. 956 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	503	-17.5	-21.2	31	1.1
1000	31	165				
950	31	551			31	1.8
900	31	958	-14.8	-17.9	31	6.3
850	31	1,393	-12.3	-16.3	31	9.7
800	31	1,857	-12.1	-17.4	31	12.2
750	31	2,350	-13.4	-19.7	30	14.2
700	31	2,873	-15.8	-22.5	30	15.8
650	31	3,428	-19.1	-25.9	30	17.5
600	31	4,020	-22.5	-28.1	30	20.5
550	31	4,654	-26.6	-31.8	30	22.0
500	31	5,335	-31.3	-35.9	30	24.4
450	31	6,075	-35.8	-39.2	30	27.1
400	31	6,885	-41.1	-42.1	30	30.1
350	31	7,784	-46.8		30	33.1
300	31	8,792	-51.5		30	35.9
250	31	9,968	-53.9		30	36.7
200	30	11,398	-54.5		29	33.5
175	30	12,254	-54.0		29	31.9
150	30	13,244	-53.9		29	31.5
125	30	14,411	-55.4		29	28.6
100	30	15,827	-57.5		29	25.1
80	29	17,236	-58.8		29	23.4
70	26	18,080	-58.7		29	20.6
60	25	19,055	-57.8		30	18.6
50	25	20,203	-58.8		30	15.9
40	25	21,605	-58.4		30	13.2
30	25	23,419	-56.5		32	11.3
25	23	24,605	-54.8		34	7.9
20	22	26,031	-54.0		35	9.0
15	22	27,886	-52.3		02	8.7
10	20	30,563	-49.9		01	7.4
7	16	32,930	-50.3		01	13.8
5						

Standard pressure surface (mb.)	BOISE, IDAHO 919 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	871	-.4	-4.1	13	2.0
1000	31	190				
950	31	606				
900	31	1,040	.0	-4.3	13	.9
850	31	1,498	-.6	-5.7	27	3.9
800	31	1,981	-3.0	-7.6	28	7.8
750	31	2,490	-5.8	-10.0	29	10.1
700	31	3,028	-8.7	-13.8	30	11.7
650	31	3,599	-11.6	-17.9	30	13.9
600	31	4,209	-14.9	-20.6	29	16.6
550	31	4,863	-18.5	-25.3	29	19.4
500	31	5,568	-22.9	-30.4	29	20.8
450	30	6,333	-28.0	-33.6	29	23.6
400	30	7,168	-34.1	-39.1	30	25.5
350	30	8,092	-41.2	-41.8	30	27.0
300	30	9,120	-48.6		30	29.8
250	30	10,301	-55.4		30	30.6
200	30	11,711	-59.1		30	28.5
175	28	12,534	-57.2		30	26.1
150	28	13,509	-57.3		29	24.3
125	27	14,656	-58.5		30	22.3
100	25	16,063	-59.9		30	18.3
80	23	17,448	-61.0		30	14.1
70	20	18,265	-59.7		30	11.8
60	18	19,224	-59.5		30	9.4
50	13	20,429	-58.0		34	4.2
40	10	21,871	-56.8			
30	8	23,683	-55.7			
25	8	24,846	-55.1			
20	8	26,274	-54.3			
15	6	28,136	-53.5			
10						
7						

Standard pressure surface (mb.)	* BROWNSVILLE, TEXAS 1016 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	7	15.6	12.5	21	.9
1000	31	142	15.6	13.8	18	2.0
950	31	578	14.4	11.9	17	5.7
900	31	1,035	13.8	6.4	18	5.5
850	31	1,517	13.2	-.3	19	4.5
800	31	2,026	11.7	-3.8	21	5.0
750	31	2,564	9.2	-5.6	23	5.9
700	31	3,132	5.9	-9.9	25	8.4
650	31	3,735	2.4	-14.9	26	9.9
600	31	4,376	-1.9	-19.6	26	11.9
550	31	5,062	-6.4	-23.6	26	13.8
500	31	5,801	-10.9	-28.4	26	16.4
450	30	6,602	-16.6	-33.8	26	18.4
400	30	7,475	-23.2	-37.3	26	21.1
350	30	8,441	-30.7	-43.1	26	23.1
300	30	9,513	-39.5	-49.7	26	25.7
250	30	10,735	-49.3		26	29.0
200	30	12,170	-57.0		25	32.4
175	30	13,010	-60.0		25	34.1
150	30	13,960	-63.9		25	34.4
125	30	15,071	-68.6		25	28.7
100	30	16,389	-73.6		25	20.2
80	25	17,686	-74.9		26	11.5
70	25	18,484	-73.3		27	6.4
60	24	19,372	-69.8		29	5.1
50	24	20,468	-66.4		28	5.9
40	23	21,827	-63.5		27	6.5
30	22	23,610	-60.2		26	8.2
25	19	24,744	-58.5		26	8.0
20	16	26,150	-54.7		26	10.8
15	13	27,991	-51.0		26	17.0
10	10	30,624	-46.4			
7	5	33,016	-40.4			

Standard pressure surface (mb.)	BUFFALO, N. Y. 987 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	218	-7.1	-10.7	27	4.6
1000	31	114				
950	31	513	-9.0	-11.5	26	7.4
900	31	930	-10.9	-13.9	26	10.9
850	31	1,358	-12.3	-16.8	27	13.4
800	31	1,831	-13.3	-18.8	28	15.2
750	31	2,322	-14.9	-21.2	28	16.1
700	31	2,841	-17.2	-22.9	28	17.7
650	31	3,395	-19.5	-26.2	28	19.9
600	31	3,986	-22.3	-29.7	28	20.8
550	31	4,622	-25.6	-33.1	28	24.6
500	31	5,307	-29.3	-37.6	27	29.3
450	31	6,053	-33.8	-39.9	27	31.1
400	31	6,869	-39.3	-44.3	28	32.7
350	31	7,776	-44.6	-47.1	28	33.0
300	31	8,793	-49.9		28	31.4
250	31	9,974	-53.3		28	35.4
200	31	11,406	-54.5		28	31.9
175	31	12,262	-54.5		28	32.6
150	31	13,249	-55.0		28	30.7
125	29	14,416	-56.6		28	27.0
100	28	15,819	-57.8		28	29.1
80	26	17,209	-58.7		27	25.6
70	26	18,048	-59.0		27	24.9
60	24	19,020	-58.8		26	23.7
50	23	20,171	-58.1		26	20.6
40	21	21,603	-57.1			
30	18	23,451	-54.4			
25	17	24,622	-54.2			
20	16	26,057	-53.0			
15	11	27,901	-53.6			
10	8	30,500	-54.2			
7						
5						

Standard pressure surface (mb.)	CAPE HATTERAS, N. C. 1017 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	4	5.2	1.3	32	2.6
1000	31	139	5.8	-.8	31	3.5
950	31	538	4.4	-2.8

RAWINSONDE DATA

Average monthly values

JANUARY 1971

Standard pressure surface (mb.)	CHARLESTON, S. C. 1017 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.	CHATHAM, MASS. 1010 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.	CHIHUAHUA, MEXICO 858 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.	* COLD BAY, ALASKA 1013 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.	DAYTON, OHIO 982 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	30	13	6.4	1.9	26	1.0	29	16	-4.0	-6.9	25	2.6	31	1,428	3.4	-5.4	25	1.0	28	30	-4.8	-7.2	33	1.6	31	299	-6.6	-10.4	28	2.4
1000	30	149	7.8	2.8	26	2.9	29	92	-4.3	-11.6	28	5.2	31	182					28	127	-5.6	-11.2	02	1.9	31	151				
950	30	572	7.4	1.2	26	7.9	29	496	-6.2	-11.4	27	10.4	31	589					28	528	-7.4	-11.5	36	2.9	31	553	-6.7	-11.1	27	4.9
900	30	1,017	6.4	-.6	27	10.3	29	918	-8.0	-13.8	27	12.8	31	1,034					28	949	-8.6	-14.8	36	3.2	31	975	-7.3	-14.4	28	8.6
850	30	1,485	4.7	-3.0	27	12.1	29	1,361	-9.2	-17.6	28	14.0	31	1,501	7.0	-7.4	26	1.1	28	1,390	-9.9	-18.2	35	3.7	31	1,420	-7.4	-18.3	28	12.0
800	30	1,978	2.9	-5.5	27	13.6	29	1,829	-10.2	-18.8	28	15.3	31	2,003	8.5	-6.9	26	3.2	28	1,857	-11.4	-20.3	34	4.1	31	1,891	-8.9	-19.5	28	14.4
750	30	2,499	.5	-8.2	27	16.6	29	2,325	-12.0	-20.7	28	16.5	31	2,534	6.4	-8.0	25	5.9	28	2,350	-13.3	-22.6	33	4.3	31	2,390	-10.3	-21.0	28	16.7
700	30	3,051	-1.9	-12.0	27	18.8	29	2,852	-13.9	-23.1	27	18.6	31	3,098	3.7	-13.0	26	8.4	28	2,873	-15.4	-25.1	32	5.3	31	2,919	-12.4	-23.4	28	20.0
650	30	3,637	-4.6	-16.0	27	21.3	29	3,412	-16.9	-25.3	27	22.0	31	3,696	.6	-17.3	26	9.1	28	3,430	-17.8	-28.1	32	7.0	31	3,483	-14.6	-24.8	28	23.0
600	30	4,263	-8.5	-19.1	27	23.6	29	4,011	-19.5	-29.0	27	27.0	31	4,334	-3.4	-21.5	26	9.8	28	4,026	-20.9	-31.0	30	7.9	31	4,086	-17.4	-28.3	27	25.2
550	30	4,933	-12.4	-22.7	27	26.1	29	4,653	-23.1	-32.9	27	29.3	31	5,016	-8.1	-24.7	26	11.0	28	4,664	-24.3	-34.0	27	10.2	31	4,733	-21.1	-32.0	27	27.9
500	30	5,655	-16.9	-28.8	27	29.7	29	5,345	-27.6	-36.6	27	32.8	31	5,749	-13.0	-28.3	26	13.2	28	5,354	-28.4	-36.8	27	10.7	31	5,431	-25.4	-36.1	27	32.2
450	30	6,438	-22.1	-33.4	27	32.3	29	6,096	-31.9	-38.3	27	35.5	31	6,544	-18.3	-33.3	26	15.7	28	6,102	-33.1	-40.4	27	12.1	31	6,188	-30.1	-38.5	27	36.3
400	30	7,294	-27.9	-39.2	27	36.2	29	6,919	-37.2	-42.7	27	38.0	31	7,412	-24.8	-38.7	26	17.1	28	6,920	-38.8	-42.3	27	11.0	31	7,018	-35.1	-42.7	27	41.3
350	30	8,242	-34.9	-44.4	27	39.2	29	7,834	-42.6	-44.2	27	41.0	31	8,373	-31.9	-43.8	26	19.8	28	7,828	-44.6		27	10.0	31	7,940	-41.1	-48.2	27	43.3
300	30	9,297	-42.8	-48.6	27	42.4	29	8,859	-48.3		26	43.5	31	9,440	-40.6	-49.6	23	20.6	28	8,844	-49.8		26	10.6	31	8,971	-47.3		27	47.3
250	30	10,505	-51.4		27	46.8	29	10,045	-53.4		27	43.7	31	10,656	-50.0		25	21.6	28	10,026	-53.5		26	11.7	30	10,169	-53.7		27	48.9
200	30	11,934	-56.4		27	50.2	29	11,474	-54.8		27	42.9	31	12,086	-58.0		25	20.0	28	11,464	-52.3		26	9.7	30	11,595	-56.1		27	47.3
175	29	12,788	-58.0		27	49.2	28	12,325	-54.7		27	41.0	31	12,923	-60.4		25	19.9	27	12,328	-51.7		26	9.1	30	12,446	-55.0		27	44.6
150	29	13,755	-60.0		27	46.0	27	13,306	-54.7		27	39.6	31	13,879	-62.6		26	17.3	27	13,330	-50.7		25	8.2	30	13,430	-56.1		27	40.4
125	29	14,882	-64.2		27	42.9	27	14,469	-56.2		27	33.3	30	14,999	-65.8		26	14.5	27	14,516	-51.5		25	6.8	30	14,581	-59.0		27	38.5
100	29	16,235	-67.9		27	35.6	27	15,881	-58.3		27	31.1	24	16,342	-69.5		27	11.8	25	15,973	-51.4		25	7.6	30	15,975	-61.1		27	34.8
80	26	17,594	-69.3		27	26.4	27	17,284	-58.7		26	25.7	22	17,669	-69.8		28	10.3	23	17,424	-51.9		25	5.9	30	17,359	-61.6		27	29.2
70	26	18,393	-69.0		27	22.8	27	18,125	-57.9		26	21.0	22	18,465	-69.5		28	9.0	22	18,291	-51.8		24	4.5	29	18,188	-61.5		27	26.5
60	26	19,318	-67.3		27	18.8	27	19,098	-57.7		26	19.4	20	19,385	-68.8		28	8.5	22	19,291	-51.7		23	3.8	29	19,143	-62.0		27	23.3
50	25	20,436	-64.1		27	14.4	27	20,250	-56.7		26	19.5	20	20,486	-65.7		27	8.1	21	20,472	-51.4		19	3.0	28	20,274	-60.6		27	19.7
40	25	21,812	-61.5		27	10.7	27	21,670	-54.6		26	14.7	20	21,840	-64.1		27	8.9	19	21,930	-51.4		16	2.4	27	21,678	-59.5		27	16.7
30	24	23,606	-58.6		26	9.1	25	23,532	-53.4		25	10.8	20	23,625	-60.9		26	7.2	19	23,800	-50.9		12	3.2	26	23,686	-57.4		26	12.5
25	24	24,757	-57.2		28	6.6	24	24,699	-53.4		25	8.9	19	24,756	-59.7		25	9.3	18	24,999	-50.6		11	4.0	25	24,651	-55.9		26	11.2
20	24	26,174	-55.5		27	2.7	23	26,139	-53.1		25	7.4	16	26,158	-56.7		26	12.5	18	26,455	-49.9		10	5.4	25	26,079	-53.8		25	7.4
15	22	28,003	-54.0		31	2.1	22	27,985	-52.5		26	5.7	12	27,990	-54.0				18	28,341	-48.8		09	7.4	20	27,951	-52.6		26	3.0
10	20	30,629	-49.5		35	3.4	18	30,610	-50.4										16	30,999	-46.6		07	9.9	14	30,599	-51.4		29	3.5
7	9	32,994	-44.0																12	33,406	-44.3									

Standard pressure surface (mb.)	DEL RIO, TEXAS 980 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.	DENVER, COLO. 834 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.	DODGE CITY, KANS. 925 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.	EL PASO, TEXAS 883 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.	ELY, NEV. 810 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	29	314	8.6	2.2	06	1.3	31	1,611	-3.0	-10.0	25	2.3	30	791	-6.6	-10.1	32	1.5	31	1,193	1.9	-9.0	34	1.1	31	1,908	-8.4	-12.6	20	3.9
1000	29	147					31	150					30	172					31	178					31	241				
950	29	575	11.2	1.7	15	2.0	31	568					30	577					31	600					31	631				
900	29	1,027	11.4	-1.4	21	3.0	31	1,004					30	1,004	-1.3	-9.2	31	3.1	31	1,041					31	1,079				
850	29	1,504	10.3	-4.3	26	4.3	31	1,461					30	1,463	1.8	-11.6	32	5.6	31	1,508	7.4	-6.0	31	2.6	31	1,529				
800	29	2,007	8.4	-7.6	27	5.7	31	1,946	.4	-12.8	28	5.7	30	1,951	1.0	-14.2	31	7.6	31	2,005	5.3	-7.5	28	5.8	31	2,003	-2.4	-7.6	21	2.9
750	29	2,537	5.9	-9.9	27	7.0	31	2,461	-2.4	-15.8	29	7.7	30	2,467	-2.0	-15.9	29	10.2	31	2,530	2.7	-10.0	28	9.6	31	2,516	-3.0	-10.4	31	2.6
700	29	3,100	3.7	-14.6	26	10.8	31	3,005	-6.1	-18.1	29	9.2	30	3,012	-5.4	-18.0	29	12.3	31	3,085	.1	-12.6	27	10.8	31	3,060	-5.7	-13.7	31	6.0
650	29	3,698	.3	-17.5	26	11.7	31	3,581	-9.7	-20.7	30	12.3	30	3,590	-8.7	-20.7	29	15.2	31	3,676	-2.5	-16.3	27	11.6	31	3,639	-8.5	-16.7	31	9.7
600	29	4,334	-3.9	-19.8	26	14.2	31	4,195	-13.4	-23.9	30	15.6	30	4,206	-12.2	-24.0	28	17.5	31	4,307	-6.5	-20.5	27	13.3	31	4,257	-11.4	-21.0	30	13.3
550	29	5,015	-8.7	-24.5	26	15.4	31	4,853	-17.2	-27.6	30	17.9	30	4,867	-16.4	-27.9	29	20.1	31	4,982	-10.6	-24.9	27	14.5	31	4,920	-15.1	-23.9	30	15.2
500	29	5,746	-13.7	-29.5	26	17.2	31	5,561	-21.6	-31.9	30	21.6	30	5,577	-21.0	-33.2	29	23.4	31	5,707	-15.9	-29.0	27	16.4	31	5,634	-19.8	-28.6	30	16.5
450	29	6,539	-19.0	-34.0	26	20.0	31	6,330	-26.8	-36.5	30	22.2	30	6,348	-26.0	-38.5	28	26.2	31	6,493	-21.4	-34.1	27	17.5	31	6,408	-25.1	-33.9	30	17.7
400	29	7,405	-25.2	-39.7	26	23.3	31	7,168	-33.3	-41.3	30	24.6	30	7,190	-32.1	-42.5	28	29.3	31	7,350	-27.8	-40.0	26	20.5	31	7,253	-31.2	-38.6	30	19.5
350	29	8,384	-32.2	-44.9	26	26.8	31	8,095	-40.4	-45.5	30	26.2	30	8,123	-38.5	-47.2	28	33.7	31	8,300	-34.6	-43.1	26	22.9	31	8,169	-38.3	-42.5	30	20.8
300	29	9,430	-40.8	-51.3	26	30.0	30	9,127	-47.3		29	28.2	30	9,164	-45.7		28	35.8	31	9,356	-42.6	-48.9	26	28.7	31	9,228	-46.5		30	21.9
250	29	10,644	-50.6		26	33.3	30	10,315	-54.1		29	29.8	30	10,339	-53.2		28	38.2	31	10,564	-51.2		25	32.3	31	10,417	-54.5		30	22.1
200	29	12,069	-58.3		26	32.9	30	11,728	-58.6		28	29.1	30	11,774	-59.4		28	40.1	31	11,992	-57.9		26	31.0	31	11,824	-60.0		29	23.9
175	29	12,905	-60.6		26	30.7	29	12,560	-58.6		28	28.5	29	12,610	-60.0		28	40.3	31	12,830	-60.1		26	30.4	31	12,659	-59.5		29	25.2
150	29	13,858	-63.3		26	27.2	29	13,528	-59.4		28	28.8	28	13,569	-59.9		27	37.8	31	13,788	-62.0		26	29.1	29	13,640	-59.7		29	23.5
125	29	14,988	-67.1		26	25.3	28	14,660	-60.4		28	25.6	28	14,704	-61.7		27	34.1	31	14,910	-64.3		26	25.2	29	14,775	-61.6		29	21.6
100	28	16,304	-70.4		27	19.3	26	16,047	-62.1		28	20.7	27	16,078	-63.5		27	28.6	31	16,263	-67.8		27	21.3	27	16,159	-63.4		29	16.9
80	27	17,620	-71.8		27	14.7	25	17,423	-62.2		29	15.3	25	17,446	-64.3		28	21.6	30	17,599	-68.6		26	18.4	27	17,525	-64.9		29	12.4
70	26	18,409	-70.5		28	10.5	24	18,248	-61.7		28	12.5	22	18,252	-65.4		28	18.1	28	18,402	-67.8		27	15.3	26	18,337	-65.6		29	9.4
60	25	19,328	-68.5		27	8.2	22	19,205	-61.3		29	9.3	22	19,192	-65.2		28	16.4	28	19,333	-66.3		27	11.6	24	19,270	-63.9		30	6.9
50	25	20,427	-66.6		27	8.3	22	20,335	-62.0		30	7.5	21	20,299	-64.9		28	15.4	26	20,447	-63.8		28	7.6	24	20,391	-62.9		31	5.4
40	24	21,788	-63.7		28	8.3	22	21,716	-61.9		31	7.1	20	21,671	-63.7		28	12.4	24	21,818	-63.4		28	6.1	22	21,763	-63.3		34	4.3
30	23	23,576	-60.5		27	7.8	20	23,505	-60.2		34	5.9	19	23,447	-61.2		27	11.2	21	23,599	-61.0		27	7.5	20	23,537	-62.5		36	5.1
25	23	24,717	-38.2		27	7.7	19	24,635	-59.2		35	4.6	16	24,560	-60.7		27	16.8	21	24,738	-58.8		27	7.5	19	24,664	-60.4		36	4.8
20	21	26,133	-55.7		29	5.1	17	26,042	-57.8		34	2.9	9	25,929	-58.4				20	26,151	-56.4		27	7.5	16	26,022	-60.2		35	4.5
15	18	27,989	-52.9		29	4.7	16	27,869	-54.6		33	4.6	5	27,790	-54.0				16	28,010	-52.2		28	4.4	12	27,793	-57.6			
10	12	30,618	-48.9				5	30,469	-50.0										7	30,693	-47.8				8	30,273	-50.4			

Standard pressure surface (mb.)	EMPALME, MEXICO 1014 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.	* FAIRBANKS, ALASKA 1007 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.	FLINT, MICH. 986 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.	FORT WORTH, TEXAS 997 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.	GLASGOW, MONT. 934 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	30	12	10.2	.3	32	2.6	31	135	-35.8	-29.5	02	.3	31	236	-8.2	-11.6	26	2.5	31	180	3.3	-3.2	26	.7	31	696	-15.5	-19.8	35	1.6
1000	30	133	14.4	-.4	33	3.0	31	186			08	1.2	31	224					31	151			02	1.6	31	174				
950	30	568	16.4	-2.4	35	3.4	31	557	-24.0	-27.5	10	2.8	31	522	-10.0	-13.5	27	7.1	31	571	7.5	-2.7	23	3.8	31	564				
900	30	1,028	15.1	-5.9	33	1.9	31	953	-22.1	-27.6	11	3.2	31	937	-11.9	-15.0	28	9.3	31	1,017	8.2	-4.8	25	6.7	31	975	-13.1	-15.9	32	4.5
850	30	1,509	12.9	-8.7	25	1.9	31	1,375	-21.1	-27.4	10	2.5	31	1,374	-12.2	-17.2	29	11.1	31	1,489	7.6	-7.1	26	8.2	31	1,412	-11.3	-14.6	31	8.4
800	30	2,016	10.6	-11.5	24	2.9	31	1,822	-22.3	-28.6	07	1.9	31	1,837	-13.0	-19.7	29	12.7	31	1,987	5.5	-9.8	27	9.9	31	1,878	-11.5	-14.7	31	11.0
750	30	2,550	7.6	-14.7	26	4.0	31	2,294	-23.9	-30.6	05	1.5	31	2,328	-14.8	-22.0	29	14.7	31	2,512	3.2	-11.9	27	12.3	31	2,372	-12.2	-15.1	30	13.5
700	30	3,114	4.2	-16.8	26	5.5	31	2,796	-25.9	-33.0	01	2.2	31	2,848	-17.4	-25.1	28	16.4	31	3,068	.9	-14.7	27	14.3	31	2,898	-14.1	-17.4	30	16.3
650	30	3,712	.2	-19.6	26	6.2	31	3,330	-27.9	-34.8	35	3.3	31	3,400	-20.2	-27.8	28	18.4	31	3,660	-2.2	-18.0	27	15.9	31	3,498	-16.9	-21.0	30	18.6
600	30	4,348	-4.4	-22.2	26	6.6	31	3,903	-30.3	-37.4	36	4.8	31	3,989	-23.4	-30.8	28	21.8	31	4,292	-5.9	-22.2	27	18.3	31	4,094	-20.7	-25.3	30	20.7
550	30	5,027	-9.2	-26.3	25	7.8	31	4,518	-33.5	-40.6	36	6.8	31	4,622	-26.5	-33.5	28	25.3	31	4,968	-10.4	-26.5	27	20.0	31	4,692	-25.0	-29.7	30	22.3
500	30	5,757	-14.5	-30.5	25	9.7	31	5,182	-37.0	-42.6	36	8.8	31	5,305	-30.4	-36.7	27	29.4	31	5,694	-15.6	-30.6	27	21.9	31	5,378	-30.0	-33.5	30	24.2
450	30	6,547	-20.0	-35.2	25	13.1	31	5,905	-40.5	-43.4	36	11.2	31	6,048	-34.8	-41.3	27	31.5	31	6,481	-21.1	-34.7	27	25.5	31	6,121	-35.0	-37.5	31	27.9
400	30	7,409	-26.6	-39.7	25	16.7	31	6,701	-44.6		34	10.9	31	6,862	-39.8	-44.8	27	35.7	31	7,340	-27.1	-40.5	27	28.9	31	6,932	-40.8	-40.4	30	30.4
350	30	8,363	-33.8	-45.6	25	19.6	31	7,590	-48.4		34	13.4	31	7,767	-44.8	-50.2	27	40.3	31	8,292	-33.9	-46.5	27	32.7	31	7,834	-45.7	-44.4	31	34.1
300	30	9,422	-42.1	-51.4	25	22.3	31	8,595	-51.2		33	15.0	31	8,784	-49.7		28	40.9	31	9,352	-41.8	-51.8	27	37.3	31	8,847	-50.8		31	36.4
250	30	10,630	-51.4		24	25.7	31	9,779	-51.2		31	13.0	31	9,968	-53.1		28	42.1	31	10,562	-51.3		27	40.6	31	10,024	-54.6		30	34.8
200	30	12,052	-59.0		24	24.9	31	11,235	-49.5		30	13.5	31	11,402	-54.1		28	37.4	31	11,987	-57.7		27	43.7	31	11,448	-55.3		30	29.9
175	30	12,886	-61.1		25	22.3	31	12,112	-48.7		30	13.6	31	12,259	-54.0		28	34.2	31	12,826	-59.5		26	42.1	31	12,302	-54.7		30	29.3
150	30	13,839	-63.0		25	21.0	31	13,127	-48.1		29	13.2	31	13,246	-55.1		28	32.1	31	13,787	-61.5		26	41.4	31	13,290	-54.2		29	25.0
125	30	14,952	-66.7		25	18.4	31	14,329	-48.1		29	13.4	30	14,412	-56.4		29	30.9	31	14,909	-64.4		26	36.1	31	14,457	-55.2		30	23.2
100	30	16,289	-70.2		25	16.1	31	15,601	-48.2		29	12.6	29	15,815	-58.9		29	28.6	29	16,260	-67.4		27	29.4	31	15,877	-56.5		30	18.2
80	30	17,610	-71.6		25	13.0	30	17,274	-48.6		30	11.7	29	17,204	-59.9		29	26.3	29	17,601	-66.3		27	23.3	30	17,293	-58.1		30	16.4
70	30	18,400	-71.1		26	11.6	30	18,153	-48.7		30	10.5	25	18,034	-60.0		28	24.8	29	18,404	-67.5		28	18.4	30	18,133	-58.6		30	15.4
60	28	19,318	-69.8		27	9.2	26	19,184	-48.7		31	9.3	25	18,997	-59.9		28	25.7	27	19,337	-66.1		27	14.0	29	19,089	-59.0		30	14.4
50	28	20,413	-66.5		28	8.9	24	20,372	-49.0		31	10.3	23	20,127	-60.3		28	20.9	27	20,445	-64.9		27	12.7	28	20,248	-59.5		31	13.1
40	28	21,767	-65.3		27	8.6	21	21,847	-49.4		31	9.6	22	21,534	-58.3		27	18.3	26	21,818	-62.1		28	10.7	22	21,655	-58.6		31	9.1
30	27	23,534	-62.1		27	7.2	19	23,732	-49.7		33	10.0	21	23,359	-55.5		26	18.3	25	23,604	-58.9		27	10.6	19	23,451	-57.1		34	8.9
25	26	24,668	-60.4		26	8.0	16	24,926	-49.1		33	9.2	19	24,546	-54.1		26	12.8	23	24,745	-57.3		26	11.1	17	24,617	-56.1		36	6.4
20	23	26,062	-58.2		26	11.8	12	26,376	-50.1		32	6.8	16	25,985	-51.9		26	11.8	21	26,166	-55.5		27	12.2	12	26,069	-52.7			
15	23	27,887	-55.0		26	12.6	8	28,260	-50.1				13	27,819	-51.6		24	10.1	15	28,009	-52.8		25	12.6	10	27,933	-50.3			
10	10	30,556	-49.4										9	30,485	-49.7				8	30,652	-48.6				6	30,498	-50.5			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

JANUARY 1971

Standard pressure surface (mb.)	GRAND JUNCTION, COLO. 855 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	1,472	-5.7	-10.1	12	2.6
1000	31	221				
950	31	632				
900	31	1,062				
850	31	1,513			13	3.1
800	31	1,995	-2.6	-10.4	17	2.1
750	31	2,505	-4.6	-11.7	24	3.0
700	31	3,046	-7.3	-13.8	28	7.0
650	31	3,621	-9.9	-16.4	29	9.8
600	31	4,235	-13.0	-19.4	29	12.1
550	31	4,894	-16.7	-22.8	29	15.3
500	31	5,604	-21.0	-27.8	29	18.2
450	31	6,375	-26.2	-32.3	29	20.6
400	31	7,217	-32.2	-38.1	29	22.5
350	31	8,148	-39.4	-44.1	29	24.6
300	31	9,183	-46.9		29	27.2
250	31	10,372	-53.9		29	30.1
200	31	11,786	-58.7		29	27.8
175	31	12,626	-58.3		29	28.1
150	30	13,592	-58.3		29	25.0
125	29	14,729	-59.7		28	21.6
100	29	16,116	-62.0		28	17.8
80	27	17,482	-63.5		28	12.2
70	23	18,294	-61.6		28	10.2
60	23	19,251	-61.2		28	7.9
50	20	20,393	-60.0		29	6.6
40	19	21,781	-61.0		32	3.1
30	14	23,598	-58.8		02	3.0
25	13	24,788	-56.7		05	7.3
20	12	26,211	-55.2		06	8.8
15	9	28,036	-54.0			
10						
7						

Standard pressure surface (mb.)	* GREAT FALLS, MONT. 885 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	1,118	-10.2	-16.8	23	3.5
1000	31	166				
950	31	571				
900	31	991				
850	31	1,433	-9.5	-15.7	26	8.1
800	31	1,903	-8.4	-13.3	27	12.4
750	31	2,403	-8.6	-13.1	28	15.4
700	31	2,935	-11.8	-16.6	29	18.3
650	31	3,499	-15.4	-20.6	29	19.5
600	31	4,099	-19.6	-24.8	30	18.3
550	31	4,740	-23.7	-30.3	30	20.5
500	31	5,430	-28.6	-34.2	30	22.7
450	31	6,178	-33.4	-36.2	30	26.5
400	31	6,996	-38.5	-39.2	30	31.9
350	31	7,906	-44.2	-41.2	30	33.0
300	31	8,922	-50.6		30	35.3
250	31	10,096	-55.7		30	34.7
200	31	11,510	-57.3		29	30.6
175	31	12,356	-56.4		29	27.9
150	31	13,336	-55.9		29	24.6
125	31	14,494	-56.9		29	19.7
100	29	15,906	-56.5		29	18.2
80	27	17,322	-57.0		29	14.6
70	25	18,164	-58.0		30	13.3
60	24	19,141	-58.4		30	12.1
50	20	20,283	-58.1		31	9.8
40	18	21,668	-56.7		33	9.4
30	14	23,495	-56.2		35	7.8
25	13	24,642	-55.6		36	10.4
20	12	26,074	-54.1		03	9.7
15	9	27,886	-52.8			
10		30,583	-51.0			
7		32,967	-48.4			

Standard pressure surface (mb.)	GREEN BAY, WIS. 989 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	210	-15.1	-17.7	29	3.0
1000	31	127				
950	31	518	-12.5	-15.1	30	5.4
900	31	931	-13.1	-17.4	30	6.5
850	31	1,366	-13.0	-20.1	30	8.0
800	31	1,828	-13.9	-21.0	29	9.4
750	31	2,317	-15.9	-22.6	29	12.6
700	31	2,834	-18.1	-25.1	29	14.0
650	31	3,385	-20.9	-28.0	29	15.4
600	31	3,973	-24.0	-31.7	29	16.7
550	31	4,603	-27.9	-35.3	29	18.4
500	31	5,282	-32.3	-39.3	29	19.6
450	31	6,018	-36.9	-40.7	29	23.4
400	31	6,824	-42.1	-44.5	28	27.7
350	31	7,720	-46.8		28	32.1
300	31	8,732	-50.2		28	35.1
250	31	9,916	-52.2		28	34.9
200	31	11,358	-52.8		28	36.3
175	31	12,220	-52.8		28	31.9
150	31	13,213	-54.2		28	31.5
125	31	14,378	-55.9		28	29.4
100	31	15,793	-57.4		28	24.8
80	31	17,198	-58.8		28	23.1
70	31	18,036	-59.3		28	23.7
60	31	19,000	-60.0		28	20.5
50	31	20,141	-58.7		28	18.7
40	31	21,549	-58.5		28	16.8
30	31	23,385	-55.4		28	13.2
25	31	24,552	-54.0		27	12.5
20	31	25,989	-52.4		27	9.5
15	19	27,846	-51.8		26	7.0
10	7	30,426	-48.5			

Standard pressure surface (mb.)	GREENSBORO, N. C. 984 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	275	-.3	-4.0	28	1.5
1000	31	144				
950	31	557	1.8	-5.8	28	4.7
900	31	993	.9	-7.3	28	8.3
850	31	1,451	-.6	-8.5	28	11.0
800	31	1,935	-1.9	-11.5	28	13.5
750	31	2,447	-3.7	-12.8	28	17.0
700	31	2,990	-5.7	-16.3	28	19.9
650	31	3,569	-7.8	-19.4	28	22.4
600	31	4,188	-11.4	-21.7	28	24.5
550	31	4,850	-15.4	-26.2	28	27.5
500	31	5,563	-20.5	-31.6	28	31.3
450	31	6,335	-25.4	-36.6	28	34.3
400	31	7,180	-31.4	-40.4	27	37.6
350	31	8,116	-37.9	-45.4	27	40.3
300	31	9,159	-44.9		27	43.9
250	31	10,357	-52.5		28	48.3
200	31	11,782	-57.0		28	50.6
175	31	12,628	-56.8		28	48.1
150	31	13,602	-58.4		28	41.9
125	31	14,741	-61.2		28	37.0
100	30	16,117	-63.4		27	31.0
80	29	17,492	-65.2		28	24.3
70	27	18,318	-64.6		27	21.0
60	26	19,256	-64.3		28	15.7
50	28	20,375	-62.7		28	14.2
40	26	21,760	-59.7		27	13.7
30	27	23,571	-56.9		27	11.2
25	26	24,730	-55.6		26	7.7
20	26	26,155	-54.8		26	6.5
15	28	28,008	-53.3		28	5.7
10	16	30,623	-50.1			
7						

Standard pressure surface (mb.)	* GUAM, MARIANA IS. 997 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	111	24.6	22.3	08	3.2
1000	31	66				
950	31	537	22.8	20.1	08	7.5
900	31	1,007	20.0	16.3	09	7.0
850	31	1,499	17.4	11.8	10	5.8
800	31	2,016	14.7	10.3	12	4.5
750	31	2,561	12.5	4.6	14	3.9
700	31	3,138	9.7	-1.3	16	3.5
650	31	3,751	6.7	-6.3	17	3.8
600	31	4,403	2.8	-11.4	18	3.7
550	31	5,103	-1.2	-14.8	20	3.8
500	31	5,856	-5.9	-19.2	21	3.8
450	31	6,676	-9.9	-26.8	20	3.5
400	31	7,575	-15.6	-32.8	20	3.1
350	31	8,572	-22.4	-38.8	21	2.8
300	31	9,682	-31.0	-45.2	24	2.9
250	31	10,948	-41.2	-52.0	24	3.7
200	31	12,423	-53.6		23	4.6
175	31	13,269	-60.2		23	4.6
150	31	14,213	-67.8		20	3.2
125	30	15,287	-76.0		15	3.4
100	29	16,548	-84.4		13	7.8
80	28	17,777	-83.0		11	7.4
70	27	18,531	-77.1		10	7.0
60	26	19,429	-71.2		09	8.8
50	25	20,520	-67.3		09	12.9
40	25	21,883	-62.7		09	14.0
30	24	23,676	-58.4		09	6.2
25	23	24,826	-55.6		33	1.0
20	23	26,263	-51.3		28	8.2
15	22	28,145	-48.8		28	13.6
10	20	30,829	-45.2		27	15.9
7	9	33,235	-39.9			

Standard pressure surface (mb.)	HILO, HAWAII 1010 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	30	11	19.6	16.5	21	1.8
1000	30	99	20.4	16.4	20	2.0
950	30	542	18.1	14.3	17	3.2
900	30	1,004	15.3	11.9	18	3.7
850	30	1,486	12.5	8.2	20	4.1
800	30	1,994	10.0	2.2	21	5.1
750	30	2,529	7.7	-4.2	23	7.1
700	30	3,095	5.3	-9.0	23	7.7
650	30	3,697	1.8	-13.5	24	7.8
600	30	4,338	-2.0	-17.3	24	9.6
550	30	5,024	-6.4	-20.5	24	10.5
500	30	5,763	-11.5	-24.2	25	10.8
450	30	6,562	-17.1	-28.2	25	12.7
400	30	7,435	-23.0	-35.7	26	14.7
350	29	8,403	-29.5	-42.3	25	18.5
300	29	9,485	-36.5	-49.7	27	21.8
250	29	10,728	-44.3		28	25.3
200	29	12,194	-53.7		28	26.9
175	29	13,043	-58.5		28	27.6
150	29	13,999	-64.1		28	22.9
125	29	15,098	-70.8		28	16.9
100	28	16,402	-75.7		28	10.4
80	27	17,690	-76.5		26	3.6
70	27	18,467	-72.3		22	1.9
60	25	19,381	-69.7		11	1.4
50	25	20,478	-66.2		10	3.1
40	24	21,839	-63.6		07	2.1
30	23	23,619	-62.4		36	2.8
25	23	24,747	-60.3		28	2.2
20	23	26,151	-56.4		28	6.1
15	22	27,999	-52.1		27	10.6
10	20	30,650	-47.6		26	19.7
7	17	33,036	-42.8			

Standard pressure surface (mb.)	HUNTINGTON W. VA. 988 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	246	-3.0	-5.9	25	2.3
1000	31	148				
950	31	555	-2.9	-7.6	26	4.7
900	31	983	-4.8	-9.1	27	8.6
850	31	1,431	-6.0	-13.2	27	11.1
800	31	1,905	-6.9	-14.6	28	14.0
750	31	2,408	-8.4	-15.9	28	17.6
700	31	2,942	-9.9	-18.4	27	20.3
650	31	3,511	-12.3	-20.9	28	23.3
600	31	4,119	-15.3	-23.2	29	27.0
550	31	4,772	-19.0	-27.1	28	30.5
500	31	5,476	-23.2	-31.2	27	33.9
450	31	6,241	-28.0	-34.7	27	36.9
400	31	7,077	-33.7	-39.4	27	40.6
350	31	8,004	-39.7	-43.1	27	44.8
300	31	9,041	-46.4		27	46.5
250	31	10,232	-53.2		27	48.6
200	31	11,659	-55.7		28	47.7
175	31	12,509	-55.4		28	46.1
150	31	13,489	-57.1		28	43.5
125	31	14,637	-59.5		28	38.0
100	31	16,024	-61.9		27	34.7
80	29	17,392	-62.7		27	29.9
70	29	18,215	-62.7		27	28.4
60	29	19,180	-62.0		27	25.0
50	28	20,292	-60.8		27	21.0
40	25	21,675	-59.6		26	19.6
30	23	23,493	-55.9		26	16.4
25	22	24,654	-55.2		26	14.8
20	22	26,277	-53.0		25	11.9
15	16	27,931	-51.8		23	8.6
10	8	30,590	-46.1			
7						

Standard pressure surface (mb.)	* INTERNATIONAL FALLS, MINN. 972 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	359	-23.0	-26.9	28	1.8
1000	31	148				
950	31	526	-20.3	-23.0	30	2.9
900	31	928	-18.5	-21.5	30	5.6
850	31	1,356	-17.9	-22.5	31	7.7
800	31	1,810	-18.0	-23.8	30	9.1
750	31	2,291	-19.2	-25.0	30	9.9
700	31	2,802	-21.2	-26.8	30	12.1
650	31	3,347	-23.5	-29.5	30	13.7
600	31	3,928	-26.7	-32.2	30	15.2
550	31	4,552	-30.4	-35.5	30	17.2
500	31	5,224	-34.6	-39.9	30	18.6
450	31	5,953	-39.3	-42.7	30	20.6
400	31	6,750	-44.9	-44.2	30	21.5
350	31	7,635	-50.0		30	24.0
300	31	8,630	-53.9		30	25.3
250	31	9,802	-53.4		29	25.7
200	31	11,238	-52.6		29	26.4
175	30	12,100	-52.7		29	26.1
150	30	13,095	-53.3		29	25.4
125	30	14,265	-54.7		29	24.3
100	30	15,686	-56.6		29	22.6
80	30	17,096	-58.1		29	22.1
70	30	17,934	-58.5		29	20.7
60	30	18,914	-58.5		30	19.1
50	30	20,077	-58.7		30	16.3
40	30	21,496	-58.3		30	13.0
30	30	23,319	-55.4		31	10.5
25	30	24,488	-54.8		32	8.3
20	30	25,872	-52.6		32	4.6
15	30	27,801	-51.1		34	3.7
10	11	30,417	-50.2			
7	6	32,803	-48.0			

Standard pressure surface (mb.)	JACKSON, MISS. 1008 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	100	6.3	3.4	06	.6
1000	31	162			19	.2
950	31	584	6.3	1.6	27	3.3
900	31	1,029	6.9	-2.6	27	6.7
850	31	1,498	5.8	-3.5	27	9.7
800	31	1,994	4.5	-5.6	27	11.6
750	31	2,517	2.3	-9.5	27	13.6
700	31	3,073	.3	-12.8	27	16.4
650	31	3,664	-2.8	-16.8	27	18.9
600	31	4,294	-6.3	-21.3	27	21.6
550	31	4,969	-10.5	-24.6	27	23.6
500	31	5,696	-15.3	-28.9	27	26.3
450	31	6,484	-20.3	-34.1	27	29.9
400	31	7,346	-26.4	-40.6	27	34.0
350	31	8,300	-33.5	-45.7	27	36.4
300	31	9,360	-42.0	-52.4	27	38.1
250	31	10,569	-51.4		27	41.7
200	31	11,992	-58.3		27	44.8
175	31	12,831	-59.6		26	45.6
150	31	13,791	-61.6		27	44.1
125	31	14,911	-65.4		27	39.8
100	31	16,256	-69.0		27	33.1
80	31	17,589	-69.6		27	23.9
70	31	18,386	-69.2		27	20.3
60	27	19,310	-67.7		27	16.8
50	24	20,411	-65.2		27	12.3
40	24	21,774	-62.3		27	10.8
30	22	23,563	-59.2		27	10.1
25	22	24,709	-58.0		27	9.0
20	22	26,124	-55.5		26	8.9
15	21	27,971	-53.3		26	7.4
10	12	30,571	-48.8			
7						

Standard pressure surface (mb.)	JOHN F. KENNEDY INT. AP NY 1015 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	30	5	-3.3	-9.7	30	3.2
1000	30	120	-4.1	-10.9	31	4.8
950	30	524	-6.0	-11.0	29	7.3
900	30	946	-6.9	-13.7	28	10.1
850	30	1,392	-7.9	-16.5	28	13.3
800	30	1,862	-9.0	-17.5	28	16.1
750	30	2,361	-10.7	-19.5	28	18.5
700	30	2,889	-13.2	-21.8	28	22.3
650	30	3,452	-15.1	-23.9	28	25.4
600	30	4,053	-18.3	-27.9	27	28.4
550	30	4,698	-21.9	-32.2	28	29.9
500	30	5,393	-26.4	-36.5	27	35.3
450	29	6,143	-31.1	-38.0	28	39.0
400	29	6,970	-36.2	-41.5	27	42.3
350	29	7,889	-41.5	-41.9	28	40.6
300	29	8,918	-47.8		28	43.1
250	29	10,107	-53.1		28	43.4
200	28	11,527	-54.8		28	39.6
175	28	12,381	-54.9		27	39.0
150	28	13,367	-54.9		27	36.8
125	26	14,510	-56.5		27	34.5
100	26	15,919	-58.9		27	32.7
80	26	17,320	-58.8		26	30.4
70	26	18,159	-58.8		26	29.0
60	26	19,127	-57.9		26	28.4
50	24	20,284	-57.1		26	24.6
40	24	21,702	-54.8		25	20.6
30	23	23,553	-52.7		26	16.4
25	21	24,739	-52.4		25	17.2
20	20	26,189	-52.0		25	11.7
15	18	28,055	-51.5		25	7.2
10	12	30,693	-49.7			
7						

Standard pressure surface (mb.)	JOHNSTON IS., PACIFIC AREA 1011 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	3	24.0	18.9	06	2.4
1000	31	96	22.9	17.6	06	2.3
950	31	541	19.4	15.8	06	2.1
900	31	1,005	16.2	13.0	05	1.3
850	31	1,489	13.1	8.7	34	1.5
800	31	1,997	10.9	2.4	31	2.3
750	31	2,535	9.9	-7.8	29	3.5
700	31	3,106	7.8	-12.0	30	4.8
650	31	3,713	4.4	-14.3	30	6.3
600	31	4,361	.9	-18.5	30	8.9
550	31	5,054	-3.4	-22.9	30	10.1
500	31	5,801	-8.3	-27.2	30	12.5
450	31	6,611	-12.7	-31.7	31	15.3
400	31	7,501	-18.2	-36.6	30	17.1
350	31	8,488	-25.0	-42.1	30	19.0
300	31	9,587	-33.2	-48.8	30	22.1
250	31	10,843	-43.0		31	25.5
200	31	12,314	-53.2		31	25.6
175	30	13,164	-59.0		31	24.5
150	30	14,115	-66.1		31	21.7
125	28	15,205	-72.9		31	18.5
100	28	16,493	-78.5		31	11.8
80	26	17,759	-78.7		32	4.1
70	26	18,527	-74.8		08	3.0
60	26	19,436	-69.2		10	5.9
50	26	20,538	-65.3		09	8.8
40	25	21,904	-62.1		09	9.2
30	25	23,691	-60.8		08	4.3
25	25	24,893	-57.7		30	2.0
20	25	26,255	-53.6		28	7.5
15	23	28,128	-49.7		27	14.1
10	22	30,805	-46.9		27	16.6
7	11	33,141	-43.1			
5						

Standard pressure surface (mb.)	KEY WEST, FLA. 1018 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	27	3	20.3	17.3	07	2.4
1000	27	152	20.0	15.3	07	2.7
950	27	590	17.1	11.7	11	2.3
900	27	1,054	14.2	7.6	14	1.4
850	27	1,535	12.4	.9	27	1.0
800	27	2,042	10.2	-5.3	26	2.5
750	27	2,577	8.8	-11.3	28	4.1
700	27	3,146	6.5	-14.6	28	6.0
650	27	3,749	3.3	-19.3	28	7.4
600	27	4,395	-.3	-23.3	27	9.1
550	27	5,080	-4.5	-26.5	27	11.2
500	27	5,829	-9.7	-30.6	27	12.7
450	27	6,627	-15.9	-34.2	27	14.4
400	27	7,510	-22.9	-39.9	27	16.2
350	27	8,474	-30.3	-47.1	27	18.8
300	27	9,551	-38.9	-53.5	27	22.4
250	27	10,780	-46.7		26	27.9
200	27	12,231	-55.3		26	32.0
175	27	13,074	-59.9		26	30.7
150	27	14,025	-65.3		26	28.9
125	27	15,119	-70.9		26	24.0
100	25	16,418	-75.5		25	18.6
80	23	17,706	-76.6		26	11.7
70	23	18,476	-74.8		26	7.6
60	23	19,383	-69.2		26	4.8
50	23	20,486	-64.1		30	3.1
40	23	21,857	-62.0		29	5.0
30	21	23,653	-58.7		28	3.6
25	21	24,812	-56.7		29	1.9
20	19	26,229	-54.5		28	1.7
15	17	28,098	-50.2		29	6.3
10	12	30,774	-45.2		28	11.6
7	11	33,107	-42.5			
5	6	35,400	-38.0			

Standard pressure surface (mb.)	KING SALMON, ALASKA 1014 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind M.p.s.
SURFACE	31	15	-20.2	-25.4	01	2.4
1000	31	115			01	3.5
950	31	504	-13.7	-21.1	04	3.6
900	31	916	-12.3	-20.9	01	2.8
850	31	1,354	-12.0	-22.5	34	2.9
800	31	1,816	-13.5	-24.8	33	4.2
750	31	2,300	-15.6	-27.2	32	5.1
700	31	2,824	-17.9	-29.6	31	5.3
650	31	3,375	-20.9	-31.5	31	5.8
600	31	3,962	-24.3	-34.3	31	6.5
550	31	4,592	-27.7	-37.8	31	7.7
500	31	5,272	-31.5	-39.8	31	8.2
450	31	6,012	-35.8	-41.9	31	9.1
400	31	6,822	-40.6	-45.0	31	9.8
350	31	7,725	-45.5		30	10.8
300	31	8,740	-49.5		31	12.1
250	31	9,929	-51.4		30	12.1
200	31	11,382	-49.8		29	12.1
175	30	12,257	-49.3		28	11.5
150	31	13,269	-48.9		28	10.5
125	31	14,466	-49.3		28	10.2
100	31	15,928	-49.5		28	7.7
80	30	17,387	-50.0		29	6.0
70	30	18,259	-50.4		29	4.4
60	30	19,265	-50.6		29	3.7
50	28	20,438	-49.9		32	3.1
40	27	21,917	-49.9		35	3.4
30	25	23,796	-50.1		02	3.5
25	23	24,971	-50.5		03	3.0
20	21	26,409	-51.5		04	5.8
15	20	28,323	-49.8		06	7.3
10						
7						

| Standard pressure surface (mb.) | KORORO, CAROLINE IS. 1006 MB No. of observations | Dynamic height | Temperature | Dew Point + | Resultant Wind Direction | Resultant

RAWINSONDE DATA

Average monthly values

KWAJALEIN, MARSHALL IS. 1009 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	4	26.4	22.7	07	6.0
1000	31	79	25.9	22.0	07	6.9
950	31	530	22.4	19.5	07	8.4
900	31	1,000	19.3	15.7	07	8.1
850	31	1,491	17.6	10.1	08	7.2
800	31	2,008	15.5	4.9	08	6.1
750	31	2,554	13.5	-1.3	08	5.5
700	31	3,133	10.8	-5.8	08	6.0
650	31	3,747	7.3	-11.9	08	6.5
600	31	4,401	3.6	-16.0	08	7.5
550	31	5,101	-.7	-20.1	08	7.9
500	31	5,836	-5.1	-24.5	08	8.3
450	31	6,677	-9.7	-28.8	07	8.3
400	31	7,576	-15.4	-33.1	06	7.6
350	31	8,572	-22.2	-40.2	06	5.6
300	31	9,685	-30.9	-46.7	04	4.6
250	31	10,952	-40.9	-54.5	07	3.2
200	31	12,430	-53.3	-64.4	08	2.3
175	31	13,276	-60.2	-66.9	10	1.6
150	31	14,220	-67.7		07	2.3
125	31	15,295	-76.0		06	5.1
100	28	16,558	-83.8		07	8.9
80	27	17,787	-83.9		09	10.8
70	27	18,538	-78.4		09	8.6
60	27	19,432	-72.7		09	11.1
50	27	20,515	-68.2		09	18.2
40	27	21,871	-63.3		09	21.4
30	27	23,667	-57.0		08	10.4
25	27	24,628	-54.1		31	1.9
20	24	26,277	-50.9		27	11.0
15	23	28,162	-47.2		26	17.9
10	21	30,872	-43.8		26	16.2
7	18	33,286	-41.4		26	11.6
5	13	35,569	-39.2		27	4.4

LAKE CHARLES, LA. 1018 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	5	9.9	6.0	06	1.3
1000	31	154	11.0	7.2	11	.7
950	31	593	10.7	5.0	23	3.4
900	31	1,034	10.2	1.2	25	5.8
850	31	1,509	8.6	-2.6	26	7.0
800	31	2,009	6.9	-5.5	26	8.7
750	31	2,537	4.7	-10.6	27	10.8
700	31	3,097	2.7	-16.8	27	13.6
650	31	3,694	-.2	-19.0	27	15.2
600	31	4,329	-4.2	-21.3	27	17.4
550	31	5,010	-8.7	-24.9	27	18.9
500	31	5,741	-13.5	-29.5	27	21.1
450	31	6,534	-18.8	-34.9	27	23.6
400	31	7,400	-25.3	-40.1	26	26.5
350	31	8,359	-32.4	-45.7	26	29.9
300	31	9,425	-40.7	-49.9	27	32.6
250	31	10,640	-50.2		26	36.2
200	31	12,071	-57.7		26	39.8
175	31	12,910	-59.8		26	40.2
150	31	13,867	-62.5		26	39.1
125	31	14,982	-66.7		26	33.8
100	30	16,317	-70.8		26	26.7
80	29	17,635	-72.0		26	19.7
70	27	18,423	-71.3		27	15.8
60	27	19,342	-68.5		27	13.3
50	27	20,443	-65.6		27	10.0
40	27	21,822	-62.9		26	9.6
30	27	23,600	-60.3		26	8.9
25	27	24,743	-58.2		26	7.7
20	26	26,136	-55.6		28	6.1
15	16	27,988	-53.3		26	9.0

LANDER, WYO. 825 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	1,697	-5.9	-12.3	26	2.3
1000	31	166				
950	31	579				
900	31	1,011				
850	31	1,463				
800	31	1,942	-2.9	-13.2	27	2.0
750	31	2,452	-4.8	-15.3	29	5.5
700	31	2,991	-8.3	-18.4	30	10.5
650	31	3,562	-12.2	-21.4	30	15.0
600	31	4,170	-15.5	-24.4	30	19.3
550	31	4,822	-19.1	-28.5	30	20.7
500	31	5,525	-23.6	-32.3	30	22.8
450	31	6,288	-28.7	-35.8	29	25.3
400	31	7,120	-34.8	-41.9	29	27.7
350	31	8,043	-41.3	-44.5	29	31.0
300	31	9,070	-48.8		29	33.0
250	31	10,231	-54.9		29	34.1
200	31	11,663	-58.6		29	29.3
175	31	12,504	-57.8		29	28.8
150	31	13,478	-57.0		29	26.0
125	31	14,629	-58.7		29	22.4
100	30	16,023	-60.7		29	18.4
80	29	17,403	-60.8		29	14.1
70	29	18,234	-61.2		29	11.5
60	29	19,188	-61.2		29	10.4
50	26	20,317	-61.5		30	9.2
40	22	21,704	-61.8		32	8.8
30	19	23,483	-59.9		34	7.5
25	18	24,611	-59.2		35	4.6
20	14	26,029	-56.4		32	3.7
15	11	27,986	-53.5			

* LIHUE KAUAI, HAWAII 1007 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	36	19.2	15.6	26	2.4
1000	31	97	20.1	15.7	27	1.7
950	31	538	17.3	14.1	24	1.4
900	31	998	14.2	11.3	24	2.7
850	31	1,479	11.5	7.7	23	5.8
800	31	1,985	9.2	1.7	23	6.4
750	31	2,517	6.5	-4.3	23	6.9
700	31	3,081	3.4	-7.8	24	7.9
650	31	3,679	.4	-12.2	24	8.9
600	31	4,317	-3.0	-17.3	25	10.6
550	31	5,002	-7.1	-20.0	25	12.1
500	31	5,737	-12.4	-25.5	25	13.5
450	31	6,534	-18.0	-30.6	26	14.9
400	31	7,403	-24.6	-36.7	27	16.8
350	31	8,366	-31.0	-43.4	27	18.9
300	31	9,441	-37.6	-49.0	28	24.3
250	31	10,684	-43.6	-55.3	28	30.1
200	31	12,157	-51.8		29	30.8
175	31	13,014	-56.4		29	28.9
150	31	13,980	-61.8		28	26.1
125	31	15,091	-68.2		28	21.2
100	31	16,409	-73.7		28	14.7
80	31	17,716	-73.4		26	6.2
70	29	18,502	-70.8		25	3.1
60	28	19,422	-68.1		24	1.4
50	28	20,524	-65.6		26	.3
40	28	21,889	-63.1		32	2.0
30	31	23,668	-61.2		31	3.0
25	29	24,673	-58.8		29	3.6
20	28	26,219	-55.4		28	5.8
15	22	28,065	-52.3		27	8.6
10	22	30,727	-46.0		25	13.7
7	18	33,124	-41.5		25	16.4
5	6	35,411	-38.8			

LITTLE ROCK, ARK. 1010 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	79	1.5	-1.3	01	.7
1000	31	157	.4	-4.3	33	.9
950	31	574	1.7	-4.0	26	3.8
900	31	1,014	2.2	-7.0	27	6.8
850	31	1,479	2.8	-9.5	28	9.7
800	31	1,971	1.3	-11.4	28	11.5
750	31	2,491	-.7	-13.4	27	14.3
700	31	3,041	-2.8	-15.1	27	17.5
650	31	3,612	-5.4	-18.2	27	20.8
600	31	4,237	-8.8	-22.2	27	23.6
550	31	4,905	-12.8	-25.6	27	26.3
500	31	5,628	-17.4	-30.2	27	28.2
450	31	6,407	-22.8	-34.8	27	30.2
400	31	7,261	-28.6	-40.4	27	33.9
350	31	8,208	-35.1	-44.9	27	37.7
300	31	9,263	-42.9	-49.0	27	41.8
250	31	10,469	-51.9		27	46.1
200	31	11,889	-58.4		27	49.2
175	31	12,728	-59.7		27	49.2
150	31	13,689	-60.7		27	47.4
125	31	14,816	-63.6		27	40.3
100	24	16,177	-66.2		27	31.1
80	23	17,526	-67.2		27	26.9
70	22	18,329	-66.9		27	23.1
60	22	19,262	-66.3		28	19.1
50	23	20,371	-63.6		28	15.5
40	25	21,747	-62.7		28	12.3
30	27	23,527	-60.1		27	11.8
25	27	24,637	-57.7		27	11.8
20	26	26,101	-56.2		27	10.4
15	7	27,950	-53.5			

MCGRATH, ALASKA 1008 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	29	103	-35.0	-29.7	06	.2
1000	29	160			03	1.6
950	29	532	-23.8	-28.4	05	4.3
900	29	930	-20.2	-26.3	06	6.7
850	29	1,356	-18.3	-25.8	05	6.0
800	29	1,808	-18.9	-27.0	04	5.3
750	29	2,288	-19.6	-27.8	02	4.8
700	29	2,799	-21.2	-28.8	36	5.0
650	29	3,343	-23.7	-31.4	35	5.7
600	29	3,925	-26.5	-32.6	35	6.7
550	29	4,550	-29.7	-36.3	34	7.5
500	29	5,223	-33.9	-39.6	33	7.6
450	29	5,956	-38.0	-42.3	33	8.0
400	29	6,759	-42.6	-43.7	33	9.7
350	29	7,655	-46.8		31	9.5
300	29	8,667	-49.9		30	11.3
250	28	9,860	-50.8		29	11.5
200	28	11,318	-49.7		28	11.8
175	28	12,194	-48.3		27	12.9
150	28	13,211	-47.7		27	12.5
125	28	14,416	-47.3		27	12.4
100	28	15,888	-48.3		27	10.2
80	27	17,355	-48.7		27	10.0
70	26	18,229	-48.6		27	8.2
60	25	19,237	-48.7		27	6.4
50	23	20,439	-49.0		27	5.7
40	21	21,889	-49.9		27	3.3
30	17	23,784	-49.6		26	4.6
25	16	24,989	-49.5		25	5.5
20	14	26,434	-50.6			
15	9	28,302	-50.4			
10						
7						
5						

MAJURO, MARSHALL IS. + 1009 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	3	28.2	23.2	07	4.7
1000	31	85	26.6	19.1	07	5.7
950	31	536	22.9	17.6	07	7.0
900	31	1,006	20.3	13.3	08	6.4
850	31	1,497	17.6	9.1	08	6.1
800	31	2,015	15.8	4.2	09	5.6
750	31	2,561	13.6	-2.0	09	5.7
700	31	3,140	10.9	-5.9	08	5.9
650	31	3,753	7.6	-9.7	09	6.6
600	31	4,410	4.0	-14.3	08	8.1
550	31	5,111	.0	-17.8	07	9.2
500	31	5,868	-4.5	-23.0	08	9.6
450	31	6,691	-9.0	-28.3	07	9.7
400	31	7,591	-14.3	-32.3	06	8.2
350	31	8,596	-21.2	-38.6	06	6.2
300	31	9,712	-29.5	-45.2	04	4.5
250	31	10,987	-39.7	-53.0	05	3.1
200	31	12,472	-52.1		09	1.6
175	31	13,324	-58.9		11	1.9
150	31	14,274	-66.6		09	1.9
125	31	15,356	-74.4		05	4.8
100	31	16,627	-82.1		06	8.3
80	27	17,870	-81.7		08	8.5
70	27	18,631	-75.8		08	8.1
60	27	19,537	-69.7		09	11.8
50	27	20,636	-64.9		09	19.5
40	27	22,016	-59.3		09	21.2
30	27	23,849	-52.9		09	5.4
25	26	25,031	-50.6		27	5.0
20	25	26,490	-47.9		27	12.3
15	22	28,398	-45.6		27	18.0
10	17	31,127	-42.2		27	14.7
7	7	33,555	-37.9			
5						

* MEDFORD, OREG. 976 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	401	.4	-1.2	17	.3
1000	31	203				
950	31	616	1.1	-.9	20	.4
900	31	1,052	1.6	-3.1	21	1.5
850	31	1,513	1.3	-6.5	25	3.6
800	31	2,000	-.7	-9.2	27	5.1
750	31	2,513	-3.2	-13.3	28	7.9
700	31	3,057	-5.8	-16.6	28	11.0
650	31	3,634	-8.8	-19.5	29	13.7
600	31	4,250	-12.2	-21.8	28	16.1
550	31	4,911	-16.0	-26.0	29	18.0
500	31	5,622	-20.9	-31.7	29	20.0
450	31	6,393	-26.0	-35.5	29	21.2
400	31	7,236	-31.9	-40.6	29	23.0
350	31	8,168	-39.0	-43.8	29	24.2
300	31	9,206	-46.6		29	26.4
250	31	10,393	-55.0		29	28.7
200	31	11,794	-61.9		29	25.0
175	30	12,624	-60.7		29	25.2
150	30	13,588	-58.9		29	22.7
125	30	14,728	-60.6		29	19.9
100	30	16,112	-62.3		29	17.0
80	29	17,489	-63.3		30	12.9
70	29	18,311	-62.8		31	10.4
60	29	19,262	-62.3		32	8.2
50	29	20,390	-61.7		34	5.5
40	29	21,774	-61.6		01	5.1
30	29	23,560	-60.8		03	7.4
25	29	24,697	-60.3		04	9.2
20	27	26,092	-59.0		05	10.8
15	23	27,905	-56.6		06	11.7
10	19	30,482	-51.8		06	11.1
7	19	32,809	-45.9		08	9.5
5	11	35,102	-41.6			

MERIDA, MEXICO 1015 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	11	17.7	16.6	10	.9
1000	31	140	20.9	18.0	10	4.3
950	31	584	18.9	14.8	11	5.6
900	31	1,048	16.7	10.2	11	3.9
850	31	1,533	14.1	5.9	13	1.9
800	31	2,043	11.9	.6	16	1.6
750	31	2,582	10.3	-7.1	16	.5
700	31	3,154	7.8	-11.5	31	1.1
650	31	3,761	4.7	-14.8	31	2.2
600	31	4,409	1.0	-19.4	29	3.5
550	31	5,103	-3.5	-23.8	27	3.0
500	30	5,849	-8.4	-28.3	25	4.4
450	30	6,657	-14.2	-33.0	26	6.5
400	30	7,539	-21.1	-37.4	25	8.4
350	29	8,512	-28.5	-43.3	25	10.0
300	29	9,595	-36.8	-50.3	25	13.8
250	29	10,833	-45.9		23	18.3
200	29	12,291	-54.2		23	21.4
175	29	13,137	-59.0		23	20.8
150	29	14,093	-64.1		23	19.5
125	29	15,194	-70.0		24	16.0
100	29	16,499	-76.7		23	8.9
80	29	17,774	-77.4		23	5.6
70	28	18,544	-75.6		24	4.2
60	27	19,430	-69.7		27	1.2
50	07	20,551	-64.9		07	1.2
40	09	21,922	-62.4		09	.6
30	25	23,710	-59.5		30	2.3
25	25	24,860	-57.0		34	1.6
20	25	26,275	-54.2		30	3.1
15	14	28,142	-50.2		28	7.7

MIAMI, FLA. 1018 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	4	16.3	13.9	36	.7
1000	31	158	17.9	12.7	08	.8
950	31	597	15.8	10.5	11	1.4
900	31	1,055	13.0	7.0	20	.6
850	31	1,534	11.1	.7	25	2.1
800	31	2,039	9.2	-5.5	28	3.4
750	31	2,572	7.9	-11.0	28	5.3
700	31	3,139	5.3	-13.9	28	6.5
650	31	3,740	2.4	-17.8	28	8.9
600	31	4,383	-1.2	-21.2	28	10.8
550	31	5,071	-5.5	-25.0	27	12.7
500	31	5,811	-10.6	-29.6	27	15.0
450	31	6,613	-16.1	-34.1	28	17.8
400	31	7,487	-22.7	-38.7	28	19.2
350	31	8,457	-30.0	-45.0	28	22.0
300	31	9,532	-38.4	-51.3	27	24.6
250	31	10,764	-46.2		26	29.2
200	31	12,221	-54.0		26	33.6
175	30	13,068	-58.3		26	33.0
150	29	14,026	-63.7		26	30.5
125	29	15,129	-69.3		26	26.7
100	29	16,445	-74.1		26	20.8
80	28	17,737	-74.9		26	14.8
70	28	18,516	-73.3		26	10.6
60	28	19,430	-68.2		26	7.1
50	27	20,540	-63.4		27	6.9
40	25	21,924	-61.0		27	5.9
30	25	23,724	-58.0		29	5.4
25	25	24,878	-56.1		28	3.7
20	24	26,302	-54.3		28	3.1
15	19	28,153	-50.8		29	7.8
10	11	30,814	-46.4			
7						
5						

MIDLAND, TEXAS 917 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	874	1.6	-7.8	30	1.3
1000	31	165				
950	31	584				
900	31	1,024	7.0	-5.5	28	2.5
850	31	1,496	9.0	-9.5	28	6.1
800	31	1,997	6.8	-11.6	28	8.6
750	31	2,524	3.8	-13.5	28	10.2
700	31	3,081	1.4	-15.9	27	12.5
650	31	3,675	-1.5	-18.4	26	13.7
600	31	4,307	-5.6	-23.3	26	16.4
550	31	4,983	-10.2	-26.9	26	18.4
500	31	5,710	-15.3	-30.6	26	19.9
450	31	6,498	-20.6	-35.6	26	22.2
400	31	7,359	-27.0	-41.7	26	24.9
350	31	8,311	-33.7	-47.4	26	29.6
300	31	9,371	-41.7	-52.9	26	35.2
250	31	10,562	-51.3		26	36.3
200	31	12,005	-58.6		26	34.8
175	31	12,841	-60.3		26	33.2
150	31	13,799	-62.1		26	31.6
125	31	14,917	-65.4		26	29.3
100	29	16,271	-68.5		27	25.3
80	29	17,603	-69.6		27	20.2
70	29	18,399	-69.3		27	16.1
60	27	19,320	-67.7		28	13.8
50	27	20,422	-66.0		27	11.2
40	27	21,783	-64.1		28	11.2
30	27	23,561	-60.9		26	9.9
25	27	24,700	-58.6		26	11.0
20	24	26,104	-57.0		26	10.1
15	21	27,926	-55.0		25	12.9
10	7	30,521	-48.8			
7						

MONETT, MO. 966 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	438	-2.4	-5.5	11	.3
1000	31	159				
950	31	568	-2.2	-7.3	27	1.4
900	31	1,000	-.2	-11.2	27	5.8
850	31	1,458	.2	-13.6	28	8.3
800	31	1,943	-1.3	-14.1	28	10.3
750	31	2,455	-3.6	-16.3	28	12.1
700	31	2,998	-6.1	-19.2	28	14.7
650	31	3,575	-8.8	-21.5	28	18.0
600	31	4,191	-12.1	-25.4	28	22.3
550	31	4,852	-15.8	-29.2	28	26.7
500	31	5,565	-20.1	-33.1	27	30.3
450	31	6,339	-24.9	-38.6	28	32.2
400	31	7,185	-31.2	-43.6	28	35.0
350	30	8,120	-38.0	-46.7	28	40.0
300	31	9,161	-46.1		27	44.1
250	31	10,351	-54.4		27	47.9
200	31	11,765	-59.0		27	47.4
175	31	12,604	-58.4		27	47.2
150	31	13,571	-59.6		27	45.6
125	31	14,716	-62.3		27	41.7
100	29	16,090	-64.2		27	32.2
80	27	17,453	-64.7		27	24.8
70	26	18,269	-64.6		28	21.5
60	26	19,211	-64.5		27	17.7
50	23	20,330	-62.8		28	15.2
40	21	21,712	-61.7		28	11.7
30	19	23,506	-59.0		28	9.9
25	17	24,645	-57.9		27	9.5
20	13	26,048	-55.9		26	9.7
15	8	27,877	-52.6		25	7.7
10	8	30,458	-47.1			
7						

MONTGOMERY, ALA. 1013 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	57	5.5	2.2	32	1.1
1000	31	162	6.9	1.8	30	2.1
950	31	585	6.9	.9	29	4.8
900	31	1,029	6.4	-3.1	29	7.5
850	31	1,498	5.7	-5.1	28	9.5
800	31	1,992	4.1	-6.2	27	12.1
750	31	2,516	1.9	-7.8	27	14.4
700	31	3,070	-.4	-11.6	27	17.5
650	31	3,660	-3.3	-15.8	27	20.1
600	31	4,289	-6.9	-20.2	27	22.3
550	31	4,962	-11.2	-22.5	27	24.0
500	31	5,688	-15.4	-28.7	27	27.6
450	31	6,475	-20.8	-32.6	27	31.2
400	31	7,336	-26.7	-38.8	27	34.4
350	31	8,289	-33.8	-44.6	27	37.8
300	31	9,348	-42.0	-48.9	27	40.8
250	31	10,558	-51.2		27	44.2
200	31	11,985	-57.0		27	47.2
175	31	12,827	-58.8		27	47.8
150	31	13,792	-60.9		27	44.8
125	31	14,915	-64.9		27	42.0
100	31	16,262	-68.4		27	32.7
80	29	17,594	-69.5		27	24.6
70	29	18,392	-69.2		27	20.5
60	27	19,318	-67.1		27	16.6
50	27	20,426	-64.5		27	14.0
40	27	21,800	-61.7		27	13.1
30	27	23,597	-58.2		26	10.4
25	27	24,751	-56.1		26	8.9
20	26	26,178	-53.5		26	5.5
15	26	28,025	-52.7		26

RAWINSONDE DATA

Average monthly values

JANUARY 1971

Standard pressure surface (mb.)	NORTH PLATTE, NEBR. 916 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	847	-9.4	-12.2	35	1.0
1000	31	166				
950	31	567				
900	31	987	-7.1	-12.2	31	3.9
850	31	1,437	-3.0	-11.2	31	11.1
800	31	1,917	-4.0	-12.5	30	13.0
750	31	2,424	-6.3	-14.6	30	14.8
700	31	2,961	-9.1	-17.2	30	16.7
650	31	3,531	-12.6	-20.5	30	18.2
600	31	4,138	-15.9	-24.3	29	20.0
550	31	4,789	-19.8	-28.4	30	22.0
500	31	5,490	-24.1	-33.0	29	24.8
450	31	6,252	-29.0	-38.7	29	26.8
400	31	7,084	-34.8	-43.5	29	29.4
350	31	8,007	-41.1	-44.8	29	32.4
300	31	9,036	-48.0		29	34.1
250	31	10,222	-54.0		29	36.8
200	31	11,639	-57.7		29	38.7
175	31	12,483	-57.0		28	36.9
150	31	13,458	-57.3		28	33.2
125	31	14,608	-58.8		28	30.2
100	31	16,005	-60.2		28	26.4
80	31	17,392	-61.6		28	21.2
70	30	18,228	-61.4		29	17.6
60	27	19,193	-60.8		28	14.7
50	23	20,329	-60.2		29	10.3
40	21	21,717	-60.7		29	8.4
30	21	23,514	-59.3		31	6.4
25	18	24,697	-57.4		36	4.3
20	17	26,132	-55.9		03	4.7
15	13	28,034	-52.8		05	10.4
10	5	30,746	-50.0			
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Standard pressure surface (mb.)	OAKLAND, CALIF. 1021 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	6	6.9	4.6	36	.3
1000	31	180	9.0	2.6	36	.8
950	31	605	9.2	-.7	35	2.5
900	31	1,054	8.9	-3.9	34	4.5
850	31	1,525	7.1	-7.5	33	5.0
800	31	2,022	4.9	-10.4	32	5.6
750	31	2,545	2.2	-13.5	31	6.7
700	31	3,099	-.6	-16.2	31	8.7
650	31	3,688	-3.9	-19.9	31	10.2
600	31	4,315	-8.0	-23.6	31	11.7
550	30	4,985	-12.5	-27.9	30	12.9
500	30	5,706	-17.5	-31.0	30	14.0
450	30	6,486	-23.2	-36.3	30	15.9
400	31	7,338	-29.5	-41.7	30	18.2
350	30	8,280	-36.8	-47.0	30	17.1
300	31	9,325	-45.3		30	16.9
250	30	10,518	-54.3		30	17.5
200	31	11,920	-61.4		30	19.8
175	30	12,749	-60.7		29	20.8
150	29	13,716	-60.6		29	19.1
125	27	14,842	-62.4		29	17.4
100	27	16,210	-65.0		30	14.3
80	27	17,567	-66.2		30	11.0
70	27	18,377	-66.2		30	9.0
60	27	19,313	-65.4		30	7.0
50	23	20,423	-64.2		32	5.3
40	25	21,791	-63.5		34	3.6
30	25	23,573	-61.6		03	4.1
25	24	24,720	-60.8		04	4.0
20	26	26,112	-59.4		06	5.7
15	23	27,928	-56.6		05	4.2
10	21	30,541	-50.8		05	5.5
7	8	33,120	-47.1			
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Standard pressure surface (mb.)	OMAHA, NEBR. 969 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	403	-11.0	-14.6	31	1.3
1000	31	157				
950	31	553	-9.9	-13.1	30	3.1
900	31	973	-6.8	-12.6	30	7.3
850	31	1,421	-5.5	-14.5	30	9.9
800	31	1,896	-6.2	-14.8	29	12.7
750	31	2,400	-8.2	-16.9	29	14.2
700	31	2,933	-10.9	-18.9	29	16.3
650	31	3,499	-13.7	-20.3	29	19.1
600	31	4,105	-16.7	-23.8	29	22.8
550	31	4,753	-20.8	-27.7	29	24.4
500	31	5,451	-25.6	-32.1	29	26.7
450	31	6,208	-30.5	-37.1	28	29.4
400	31	7,035	-36.2	-41.9	29	32.8
350	31	7,952	-42.2	-44.2	29	36.5
300	31	8,978	-48.4		28	40.0
250	31	10,102	-54.1		28	41.9
200	31	11,585	-56.0		28	36.0
175	31	12,437	-55.4		28	34.5
150	31	13,419	-56.0		28	31.1
125	31	14,575	-57.3		27	25.9
100	31	15,979	-59.3		28	22.4
80	31	17,375	-60.6		29	19.9
70	30	18,206	-60.9		29	16.5
60	29	19,144	-61.0		30	12.0
50	27	20,306	-60.9		30	12.5
40	25	21,679	-60.5		30	11.7
30	23	23,482	-59.4		30	10.3
25	22	24,625	-58.2		32	9.3
20	26	26,069	-55.3		33	6.2
15	27	27,916	-50.6			
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Standard pressure surface (mb.)	+ PAGO PAGO, AMERICAN SAMOA 1008 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	5	28.7	24.3	07	1.8
1000	31	79	27.4	20.9	06	2.3
950	31	533	23.9	18.5	04	2.9
900	31	1,004	20.6	15.1	03	2.8
850	31	1,496	17.6	11.2	03	2.9
800	31	2,013	15.4	6.8	03	2.5
750	31	2,559	12.8	2.7	02	2.0
700	31	3,136	9.7	-.9	03	1.5
650	31	3,748	6.7	-4.9	03	1.2
600	31	4,401	3.1	-9.0	04	1.0
550	31	5,102	-.6	-14.1	01	.6
500	31	5,858	-4.7	-18.2	35	.8
450	31	6,680	-9.7	-23.8	33	1.1
400	31	7,579	-15.5	-29.8	33	1.1
350	31	8,577	-22.4	-36.9	26	1.5
300	31	9,687	-31.0	-44.7	24	1.8
250	31	10,953	-41.3	-52.9	21	2.4
200	31	12,428	-53.6		20	2.9
175	31	13,274	-60.1		20	2.5
150	31	14,221	-66.8		25	3.6
125	31	15,305	-73.6		25	3.7
100	31	16,587	-79.7		11	2.2
80	31	17,855	-77.4		09	10.3
70	31	18,628	-73.7		09	15.3
60	30	19,538	-69.6		09	18.7
50	30	20,636	-64.5		09	22.8
40	30	22,017	-59.6		09	25.0
30	30	23,837	-55.1		09	25.1
25	30	25,006	-53.6		09	23.3
20	26	26,453	-50.2		09	22.0
15	25	28,342	-45.8		09	16.9
10	19	31,059	-43.1		09	19.8
7	10	33,453	-40.3			
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Standard pressure surface (mb.)	* PEORIA, ILL. 994 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	200	-9.8	-12.9	27	1.8
1000	31	154				
950	31	531	-8.8	-13.4	27	5.1
900	31	971	-7.6	-15.5	29	7.9
850	31	1,416	-7.7	-16.5	29	10.3
800	31	1,887	-8.4	-19.4	29	12.7
750	31	2,386	-10.3	-21.2	29	15.0
700	31	2,915	-12.5	-21.8	29	18.0
650	31	3,478	-15.2	-23.5	29	21.8
600	31	4,079	-18.6	-26.5	28	23.8
550	31	4,723	-22.4	-29.4	28	27.5
500	31	5,418	-26.4	-34.3	28	32.1
450	31	6,172	-30.9	-38.6	28	36.2
400	31	6,999	-36.4	-42.8	28	41.6
350	31	7,915	-42.6	-45.4	27	44.7
300	31	8,939	-49.1		27	48.1
250	31	10,120	-54.5		27	48.7
200	31	11,545	-55.2		28	45.6
175	31	12,397	-55.4		28	43.9
150	31	13,379	-56.3		28	39.9
125	31	14,531	-58.5		27	36.5
100	31	15,928	-59.9		28	31.3
80	31	17,315	-61.6		28	25.7
70	31	18,142	-61.7		28	23.4
60	31	19,096	-62.3		28	20.4
50	31	20,223	-62.1		28	18.8
40	30	21,612	-61.0		28	16.6
30	30	23,409	-58.4		27	13.1
25	30	24,561	-56.6		27	11.9
20	30	25,983	-54.7		26	9.0
15	29	27,830	-53.5		26	7.0
10	30	30,463	-50.1		28	4.4
7	23	32,825	-46.0		30	7.4
5	16	35,044	-42.9			

Standard pressure surface (mb.)	* PITTSBURGH, PA. 972 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	359	-6.2	-10.1	25	3.0
1000	31	137				
950	31	539	-6.5	-10.2	26	5.9
900	31	961	-8.0	-12.0	27	9.5
850	31	1,404	-9.3	-17.4	27	12.2
800	31	1,872	-10.6	-19.2	28	15.6
750	31	2,367	-12.1	-21.7	28	18.3
700	31	2,893	-13.9	-25.5	28	20.7
650	31	3,455	-15.9	-26.7	28	24.2
600	31	4,054	-18.9	-29.5	27	26.0
550	31	4,698	-22.6	-32.4	27	28.6
500	31	5,392	-26.5	-36.6	27	31.5
450	31	6,146	-31.0	-39.9	27	37.1
400	31	6,972	-36.4	-43.9	27	41.8
350	31	7,890	-42.0	-46.9	27	45.7
300	31	8,917	-48.0		27	50.4
250	31	10,104	-53.6		27	49.8
200	31	11,532	-55.4		27	49.1
175	31	12,386	-54.9		28	45.7
150	31	13,367	-56.7		27	43.5
125	30	14,511	-58.6		27	42.3
100	30	15,906	-60.6		27	36.9
80	30	17,295	-61.0		27	33.7
70	29	18,122	-60.0		27	30.4
60	27	19,093	-58.8		27	26.4
50	25	20,244	-60.0		26	23.4
40	23	21,645	-58.8		26	22.3
30	23	23,471	-54.2		26	16.9
25	23	24,642	-53.6		25	13.7
20	21	26,078	-53.0		24	13.1
15	21	27,938	-52.3		24	8.2
10	19	30,562	-50.3		24	8.4
7	17	32,903	-46.3		28	10.5
5	5	35,144	-43.6			

Standard pressure surface (mb.)	+ PONAPE, CAROLINE IS. 1004 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	39	28.3	23.5	06	2.7
1000	31	73	27.4	21.0	07	3.4
950	31	527	24.0	18.3	08	6.9
900	31	998	20.7	14.7	08	7.2
850	31	1,490	17.6	10.1	09	7.9
800	31	2,008	15.6	5.1	09	6.7
750	31	2,554	13.2	-.6	09	6.6
700	31	3,132	10.3	-6.7	09	6.5
650	31	3,744	7.0	-10.2	09	7.5
600	31	4,398	3.2	-13.9	09	7.8
550	31	5,098	-.4	-19.1	09	9.6
500	31	5,854	-4.9	-22.7	09	8.7
450	31	6,676	-9.5	-26.6	09	9.4
400	31	7,577	-14.7	-32.7	08	8.5
350	31	8,578	-21.4	-38.8	08	7.8
300	31	9,693	-29.7	-45.9	09	5.6
250	31	10,965	-40.3	-52.8	09	5.4
200	31	12,448	-52.5		09	5.4
175	31	13,298	-59.2		09	5.9
150	31	14,246	-66.9		09	6.8
125	30	15,327	-74.8		09	8.4
100	30	16,598	-82.8		09	11.6
80	29	17,836	-82.8		09	12.3
70	28	18,593	-76.1		09	9.6
60	27	19,497	-71.2		09	11.4
50	27	20,584	-67.6		09	19.3
40	27	21,949	-61.2		09	23.1
30	26	23,768	-53.9		10	10.4
25	24	24,943	-52.4		23	1.7
20	24	26,397	-49.6		27	10.8
15	20	28,284	-47.3		27	17.3
10	18	30,982	-45.1		27	17.1
7	10	33,416	-40.0			
5	5	35,661	-39.3			

Standard pressure surface (mb.)	PORTLAND, MAINE 1009 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	20	-12.5	-17.1	27	2.4
1000	31	89			29	2.5
950	31	486	-9.4	-14.9	27	5.4
900	31	903	-10.9	-17.1	27	7.5
850	31	1,340	-12.8	-19.8	27	9.8
800	31	1,802	-13.5	-22.3	27	11.5
750	31	2,292	-15.1	-25.1	27	13.5
700	31	2,812	-16.8	-26.1	27	15.9
650	31	3,366	-19.3	-28.7	27	19.8
600	31	3,958	-22.4	-32.0	27	23.1
550	31	4,592	-25.8	-35.9	27	26.1
500	31	5,277	-30.0	-39.2	27	28.5
450	31	6,021	-34.6	-41.3	27	31.0
400	31	6,835	-39.7	-44.5	27	31.9
350	31	7,741	-44.3		27	34.0
300	31	8,760	-49.4		27	35.2
250	31	9,945	-53.1		27	33.2
200	31	11,383	-52.9		27	29.2
175	31	12,245	-52.9		26	28.4
150	31	13,238	-53.3		26	26.9
125	31	14,408	-55.0		26	26.3
100	31	15,829	-56.6		26	26.0
80	31	17,243	-56.8		25	23.6
70	30	18,088	-56.9		25	23.4
60	30	19,067	-56.1		25	23.8
50	29	20,219	-55.1		25	18.7
40	29	21,649	-53.9		24	15.5
30	28	23,504	-52.7		23	13.7
25	27	24,681	-52.9		24	12.5
20	23	26,118	-53.9		26	7.3
15	21	27,961	-53.7		29	4.7
10	13	30,596	-52.5			
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Standard pressure surface (mb.)	* QUILLAYUTE, WASH. 1011 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	58	3.9	2.7	21	1.6
1000	31	145			22	2.5
950	31	561	1.8	.3	24	5.5
900	31	996	-.3	-1.6	26	7.8
850	31	1,452	-2.4	-5.4	26	9.2
800	31	1,931	-4.4	-9.1	26	11.6
750	31	2,438	-7.0	-11.4	27	13.2
700	31	2,973	-10.1	-15.2	27	14.6
650	31	3,541	-13.4	-18.6	27	17.7
600	31	4,146	-17.2	-22.9	27	19.3
550	31	4,793	-21.4	-28.9	28	20.4
500	31	5,490	-26.0	-32.2	28	22.7
450	31	6,245	-30.5	-36.3	28	25.8
400	31	7,073	-35.9	-41.3	28	27.0
350	31	7,992	-41.8	-46.6	28	29.4
300	31	9,019	-48.4		29	29.9
250	31	10,201	-55.5		29	28.9
200	31	11,605	-60.0		30	26.6
175	30	12,447	-58.2		30	25.6
150	30	13,422	-57.0		30	23.3
125	30	14,574	-58.1		30	19.7
100	30	15,982	-58.9		30	16.1
80	29	17,380	-59.1		31	11.5
70	28	18,215	-60.0		32	10.8
60	27	19,101	-60.8		33	7.5
50	27	20,319	-58.6		34	6.4
40	27	21,639	-60.6		36	6.7
30	19	23,471	-58.0		04	7.6
25	13	24,654	-55.6		04	8.0
20	13	26,137	-53.9		05	12.6
15	8	28,006	-52.4		06	14.5
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Standard pressure surface (mb.)	RAPID CITY, S. DAK. 903 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	966	-9.9	-15.8	34	1.9
1000	31	165				
950	31	567				
900	31	987			34	1.9
850	31	1,433	-6.1	-13.3	31	8.1
800	31	1,907	-6.4	-13.1	31	11.1
750	31	2,411	-8.7	-15.0	31	14.0
700	31	2,942	-12.0	-18.3	30	17.1
650	31	3,506	-15.3	-21.2	30	19.3
600	31	4,106	-19.2	-25.8	30	20.8
550	31	4,748	-23.0	-29.6	30	22.9
500	31	5,441	-27.3	-33.3	30	25.3
450	31	6,192	-32.0	-36.9	30	28.8
400	31	7,015	-37.3	-43.0	30	33.0
350	31	7,928	-43.7	-43.2	30	35.9
300	31	8,946	-50.5		30	37.6
250	31	10,122	-54.9		30	37.9
200	31	11,540	-56.9		30	34.4
175	31	12,387	-56.0		29	30.7
150	30	13,365	-56.2		29	29.2
125	30	14,520	-57.8		29	26.2
100	30	15,925	-59.2		29	23.0
80	29	17,314	-60.9		29	18.2
70	28	18,144	-60.6		29	18.8
60	27	19,101	-60.8		30	16.2
50	27	20,235	-61.1		29	11.1
40	27	21,639	-60.6		30	8.6
30	19	23,471	-58.0		32	6.3
25	18	24,654	-55.6		36	4.5
20	13	26,137	-53.9		03	7.5
15	8	28,006	-52.4			
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Standard pressure surface (mb.)	ST CLOUD, MINN. 979 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	316	-17.7	-22.1	30	1.2
1000	31	155				
950	31	541	-16.7	-20.0	32	3.3
900	31	950	-14.1	-17.0	30	5.7
850	31	1,385	-12.7	-17.7	30	8.3
800	31	1,847	-13.5	-18.6	30	10.0
750	31	2,337	-15.4	-21.3	30	11.6
700	31	2,856	-17.2	-23.2	30	14.3
650	31	3,409	-20.3	-26.3	30	15.8
600	31	3,998	-23.7	-29.8	30	17.5
550	31	4,629	-27.6	-33.1	30	19.6
500	31	5,308	-31.8	-38.3	30	22.9
450	31	6,046	-36.6	-41.5	30	25.2
400	31	6,853	-42.1	-43.8	29	28.9
350	31	7,748	-47.9		29	31.9
300	31	8,752	-51.7		29	33.9
250	31	9,929	-53.3		29	35.3
200	31	11,366	-53.2		29	34.6
175	31	12,226	-53.4		29	32.8
150	31	13,219	-53.7		29	30.5
125	31	14,386	-55.6		29	29.2
100	30	15,806	-57.4		29	25.5
80	28	17,215	-58.1		29	22.6
70	27	18,067	-57.9		29	20.6
60	26	19,052	-58.8		29	17.0
50	24	20,215	-58.4		29	14.3
40	22	21,627	-58.5		29	13.3
30	21	23,443	-57.5		31	8.2
25	19	24,622	-56.7		33	6.9
20	18	26,052	-55.1		36	8.2
15	12	27,875	-53.9			
10						
7						

Standard pressure surface (mb.)	* ST PAUL IS., ALASKA 1018 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	10	-4.6	-7.0	02	3.9
1000	31	148	-5.0	-8.1	03	3.9
950	31	550	-6.9	-10.7	03	3.9
900	31	971	-8.2	-13.5	01	4.0
850	31	1,413	-9.6	-17.7	36	4.6
800	31	1,880	-11.7	-20.2	36	5.1
750	31	2,372	-13.9	-22.8	36	5.3
700	31	2,894	-16.2	-25.8	35	5.7
650	31	3,449	-19.0	-28.6	34	6.8
600	31	4,042	-22.1	-31.2	33	8.2
550	31	4,677	-25.6	-33.7	33	9.1
500	31	5,363	-29.4	-37.6	32	9.3
450	31	6,108	-34.2	-40.6	33	8.5
400	31	6,923	-39.6	-41.4	33	6.7
350	31	7,828	-45.4	-47.3	32	7.1
300	31	8,839	-50.9		31	8.2
250	30	10,016	-53.6		29	7.2
200	30	11,455	-52.7		26	5.8
175	30	12,320	-51.3		26	5.9
150	30	13,326	-50.3		25	4.9
125	30	14,516	-50.6		25	4.9
100	30	15,972	-50.4		24	5.1
80	30	17,427	-50.6		23	3.6
70	30	18,299	-50.2		23	3.3
60	30	19,306	-50.0		21	3.0
50	30	20,498	-50.2		18	2.6
40	30	21,958	-49.9		14	2.2
30	30	23,841	-49.4		11	3.3
25	30	25,036	-49.5		10	4.4
20	29	26,492	-49.7		09	5.1
15	25	28,390	-48.5		10	6.0
10	15	31,132	-45.2		09	6.8
7	8	33,540	-43.6			
5						

Standard pressure surface (mb.)	SALEM, ILL. 998 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	174	-5.5	-9.5	33	1.7
1000	31	155			34	3.2
950	31	558	-5.7	-11.2	29	3.8
900	31	983	-4.8	-14.5	29	7.5
850	31	1,432	-4.9	-17.8	29	9.7
800	31	1,909	-5.6	-20.5	28	12.1
750	31	2,413	-7.7	-21.3	28	14.6
700	31	2,948	-9.7	-21.0	28	18.4
650	31	3,517	-11.9	-22.8	28	20.4
600	31	4,127	-14.6	-25.4	28	23.9
550	31	4,782	-18.3	-29.3	28	28.6
500	31	5,487	-22.8	-33.4	27	31.2
450	31	6,252	-27.7	-39.1	27	34.6
400	31	7,089	-33.6	-43.6	27	38.9
350	31	8,011	-40.5	-47.5	27	39.4
300	30	9,041	-48.0		28	37.9
250	30	10,225	-54.4		29	41.7
200	30	11,644	-56.7			
175	30	12,491	-56.3			
150	30	13,467	-57.1			
125	30	14,619	-59.8			
100	30	16,013	-61.8			
80	29	17,389	-63.0			
70	28	18,211	-63.2			
60	26	19,155	-63.7			
50	26	20,276	-62.7			
40	21	21,656	-61.3			
30	21	23,447	-58.9			
25	20	24,601	-57.2			
20	12	26,018	-55.4			
15	10	27,877	-52.6			
10	13	30,504

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb.)	SAN DIEGO, CALIF. 1004 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	124	7.9	3.4	03	1.3
1000	31	156			03	1.8
950	31	588	12.4	-1.8	01	1.7
900	31	1,039	11.2	-5.5	35	2.1
850	31	1,514	9.5	-8.9	33	2.7
800	31	2,014	7.1	-12.4	32	3.9
750	31	2,542	4.5	-15.2	31	4.4
700	31	3,101	1.7	-17.3	31	5.9
650	31	3,694	-1.8	-20.9	30	7.1
600	31	4,326	-5.7	-24.2	30	8.5
550	31	5,002	-10.4	-27.8	30	9.5
500	31	5,728	-16.0	-32.9	30	10.6
450	31	6,512	-22.1	-36.6	29	11.2
400	31	7,367	-28.7	-41.8	30	9.8
350	31	8,312	-36.1	-46.4	29	10.9
300	31	9,360	-44.4	-51.2	29	12.5
250	31	10,558	-53.3		29	14.1
200	31	11,971	-59.0		28	15.0
175	31	12,806	-60.2		27	16.9
150	31	13,766	-61.4		28	15.3
125	31	14,890	-64.1		27	15.0
100	31	16,246	-67.0		28	13.6
80	31	17,589	-68.2		28	11.6
70	31	18,392	-67.6		28	10.0
60	31	19,322	-66.7		28	8.7
50	30	20,426	-65.3		29	6.6
40	28	21,791	-63.8		29	4.8
30	27	23,563	-61.4		28	3.7
25	26	24,693	-60.6		27	5.4
20	24	26,085	-58.1		26	5.8
15	19	27,919	-55.8		25	8.8
10	7	30,558	-50.3			
7						
5						
4						

Standard pressure surface (mb.)	SAN JUAN, P. R. 1016 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	6	22.9	19.1	09	2.0
1000	31	146	23.1	19.4	08	5.2
950	31	592	19.9	16.7	08	7.5
900	31	1,057	16.9	12.3	09	7.1
850	31	1,542	13.5	8.6	09	6.7
800	31	2,051	11.1	3.0	09	6.9
750	31	2,588	9.0	-4.1	09	5.4
700	31	3,158	7.1	-11.3	09	4.4
650	31	3,764	4.5	-16.3	08	4.2
600	31	4,412	1.1	-20.7	07	3.5
550	31	5,106	-3.2	-24.6	05	3.5
500	31	5,853	-8.2	-29.0	04	3.4
450	31	6,662	-13.7	-33.6	02	2.2
400	31	7,546	-20.3	-38.7	34	4.6
350	31	8,520	-26.5	-43.0	31	7.6
300	31	9,619	-34.4	-49.3	30	11.3
250	31	10,869	-43.6		29	14.5
200	31	12,336	-53.9		28	14.6
175	31	13,183	-59.1		29	13.8
150	31	14,136	-65.3		29	11.3
125	31	15,229	-71.3		29	5.8
100	31	16,527	-77.4		31	.3
80	31	17,797	-79.4		08	2.6
70	31	18,557	-77.7		08	4.5
60	31	19,454	-71.3		08	5.2
50	30	20,549	-65.6		08	5.9
40	28	21,921	-61.4		08	7.5
30	28	23,721	-59.0		08	9.1
25	28	24,870	-57.0		08	8.3
20	27	26,296	-53.9		09	2.1
15	26	28,162	-49.9		26	8.0
10	17	30,841	-45.8		27	18.6
7						
5						
4						

Standard pressure surface (mb.)	* SAULT STE MARIE, MICH. 985 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	221	-14.0	-17.5	01	1.2
1000	31	103				
950	31	493	-13.7	-16.7	31	3.2
900	31	903	-15.1	-17.1	31	6.1
850	31	1,335	-16.2	-19.7	30	8.6
800	31	1,790	-17.3	-22.5	30	10.8
750	31	2,273	-18.4	-24.3	30	12.5
700	31	2,787	-20.0	-26.4	30	13.7
650	31	3,334	-22.5	-28.9	29	14.5
600	31	3,918	-25.8	-31.7	29	15.5
550	31	4,544	-29.5	-36.3	29	16.9
500	31	5,218	-34.0	-40.5	29	17.4
450	31	5,949	-38.5	-41.7	28	18.9
400	31	6,750	-44.0	-46.4	28	20.7
350	31	7,639	-48.8		28	24.5
300	31	8,641	-51.8		28	28.9
250	31	9,820	-53.1		28	30.8
200	31	11,259	-52.9		28	29.5
175	31	12,121	-52.8		28	28.8
150	31	13,114	-53.6		28	28.6
125	30	14,289	-55.0		28	26.9
100	29	15,701	-56.6		28	29.7
80	29	17,110	-58.6		28	23.6
70	28	17,935	-58.9		28	24.3
60	28	18,903	-58.8		28	21.6
50	28	20,049	-58.1		28	20.2
40	28	21,461	-56.5		27	16.7
30	28	23,300	-53.3		26	14.1
25	28	24,479	-51.3		25	12.9
20	28	25,936	-49.7		24	9.2
15	25	27,814	-49.0		23	6.8
10	24	30,495	-48.2		28	4.5
7	17	32,859	-45.1		29	8.1
5	6	35,062	-47.5			
4						

Standard pressure surface (mb.)	* SHEMYA, ALASKA 1012 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	38	-.6	-5.4	12	2.9
1000	31	131			12	4.5
950	31	538	-4.0	-6.3	12	4.2
900	31	963	-6.4	-9.2	13	4.0
850	31	1,408	-8.0	-12.9	14	4.3
800	31	1,878	-9.3	-18.1	16	3.9
750	31	2,375	-11.2	-20.9	17	3.8
700	31	2,903	-13.3	-22.9	18	4.7
650	31	3,464	-16.3	-25.9	20	5.7
600	31	4,062	-19.8	-29.2	20	6.8
550	31	4,703	-23.8	-33.2	20	8.3
500	31	5,393	-28.5	-36.8	21	8.4
450	31	6,140	-33.0	-40.5	22	9.1
400	31	6,956	-39.7	-44.8	22	10.1
350	31	7,859	-46.1		21	11.3
300	31	8,866	-53.1		21	12.8
250	31	10,027	-57.9		21	12.9
200	31	11,440	-54.7		22	10.8
175	31	12,301	-51.8		22	10.4
150	31	13,303	-50.7		22	10.2
125	31	14,492	-50.7		22	8.2
100	30	15,944	-51.1		22	7.5
80	30	17,395	-51.1		21	6.0
70	30	18,264	-50.8		21	5.1
60	30	19,269	-50.7		19	4.8
50	30	20,457	-50.8		17	3.9
40	28	21,912	-50.7		14	4.6
30	28	23,789	-50.2		12	6.3
25	27	24,979	-50.3		11	7.1
20	26	26,435	-50.1		10	8.8
15	25	28,325	-49.1		10	9.6
10	18	30,967	-48.8		10	12.7
7	10	33,227	-50.3			
5						
4						

Standard pressure surface (mb.)	* SHREVEPORT, LA. 1009 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	79	6.4	3.6	11	.9
1000	31	153	6.0	2.1	14	.6
950	31	576	7.0	.8	22	3.6
900	31	1,021	7.0	-2.7	25	5.8
850	31	1,490	6.2	-4.8	27	8.5
800	31	1,986	4.6	-7.2	27	10.6
750	31	2,510	2.7	-10.1	27	12.9
700	31	3,066	.1	-12.3	27	15.6
650	31	3,657	-3.0	-16.9	27	18.3
600	31	4,287	-6.3	-20.8	27	20.9
550	31	4,961	-10.9	-24.1	27	22.3
500	31	5,687	-15.5	-28.9	27	25.6
450	31	6,474	-20.8	-33.6	27	29.0
400	31	7,334	-27.2	-39.7	27	31.5
350	31	8,285	-34.1	-45.2	27	34.7
300	31	9,343	-42.4	-50.9	27	35.7
250	31	10,551	-51.5		27	39.5
200	31	11,973	-58.6		27	42.6
175	31	12,809	-60.4		27	43.5
150	31	13,766	-62.6		27	39.1
125	31	14,883	-65.5		27	35.4
100	31	16,229	-68.8		27	29.2
80	31	17,559	-70.1		28	22.1
70	31	18,355	-69.5		28	18.6
60	31	19,278	-68.0		28	14.1
50	30	20,380	-65.4		27	13.8
40	31	21,744	-63.4		27	12.7
30	31	23,524	-60.6		27	8.6
25	31	24,670	-59.0		27	8.7
20	31	26,085	-56.4		27	5.7
15	31	27,918	-54.2		27	6.0
10	25	30,534	-49.6		28	9.6
7	21	32,912	-43.2		27	13.5
5	13	35,189	-38.4			
4	6	36,747	-35.5			

Standard pressure surface (mb.)	SPOKANE, WASH. 931 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	720	-1.1	-3.9	21	4.3
1000	31	140				
950	31	554				
900	31	987	-.7	-3.8	21	8.9
850	31	1,443	-1.6	-6.4	24	11.8
800	31	1,925	-3.7	-8.5	25	11.7
750	31	2,432	-6.6	-11.0	27	12.4
700	31	2,968	-9.8	-14.0	28	14.2
650	31	3,537	-13.3	-16.9	28	16.7
600	31	4,142	-16.9	-21.4	29	16.5
550	31	4,790	-20.9	-26.7	29	19.8
500	31	5,488	-25.6	-30.6	29	21.7
450	31	6,244	-30.6	-34.0	29	25.1
400	31	7,071	-36.5	-39.3	29	28.9
350	31	7,988	-42.4	-42.3	29	31.8
300	31	9,013	-48.9		29	35.5
250	31	10,193	-55.4		29	36.6
200	30	11,596	-57.5		30	33.7
175	29	12,446	-56.0		30	29.5
150	28	13,427	-55.3		30	24.6
125	28	14,589	-56.1		30	22.1
100	28	16,003	-57.6		30	19.1
80	27	17,407	-58.2		30	15.2
70	27	18,249	-58.0		31	13.5
60	26	19,216	-57.8		32	10.5
50	25	20,374	-57.3		33	8.5
40	25	21,787	-56.6		35	8.0
30	22	23,629	-55.7		02	10.2
25	21	24,810	-54.7		02	10.1
20	17	26,327	-53.4		03	12.0
15	13	28,235	-52.2		05	14.3
10	8	30,926	-51.7			
7						
5						

Standard pressure surface (mb.)	* SWAN ISLAND, W. I. 1014 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	10	24.3	20.2	07	5.1
1000	31	132	23.9	19.1	06	6.1
950	31	579	20.2	17.2	07	7.1
900	31	1,044	17.0	13.0	08	6.8
850	31	1,530	13.9	8.6	08	5.8
800	31	2,040	11.8	1.8	08	4.6
750	31	2,579	9.9	-4.6	09	3.8
700	31	3,150	7.5	-10.1	09	3.8
650	31	3,747	5.2	-14.6	09	3.2
600	31	4,400	1.8	-19.0	08	2.6
550	31	5,102	-2.3	-23.2	07	2.5
500	31	5,852	-7.3	-27.3	03	1.2
450	31	6,664	-13.1	-31.6	34	1.8
400	31	7,549	-19.9	-36.8	29	3.6
350	31	8,528	-27.1	-42.2	26	7.1
300	31	9,618	-35.4	-49.2	25	12.0
250	31	10,865	-43.8		24	18.7
200	31	12,332	-53.6		24	20.9
175	31	13,180	-59.3		24	17.6
150	30	14,130	-65.5		24	14.2
125	30	15,222	-72.0		24	9.3
100	30	16,519	-77.3		20	4.5
80	30	17,793	-77.8		15	3.7
70	28	18,562	-75.1		11	3.1
60	28	19,466	-70.4		09	4.1
50	30	20,566	-64.3		09	5.3
40	30	21,941	-61.6		09	7.3
30	30	23,739	-57.8		09	7.6
25	30	24,896	-55.6		08	6.1
20	30	26,331	-51.0		02	3.8
15	30	28,223	-47.4		29	8.5
10	26	30,929	-44.4		29	16.6
7	16	33,330	-41.1		28	22.1
5	6	35,681	-35.2			

Standard pressure surface (mb.)	TAMPA, FLA. 1018 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	8	12.0	9.9	07	1.1
1000	31	161	13.8	9.0	11	.9
950	31	594	13.1	7.4	24	2.5
900	31	1,048	11.6	2.1	26	4.2
850	31	1,525	9.8	-1.5	27	5.6
800	31	2,027	8.0	-4.6	28	7.5
750	31	2,558	6.2	-9.0	27	9.9
700	31	3,121	3.6	-13.7	27	12.0
650	31	3,720	-.7	-17.1	28	13.5
600	31	4,358	-3.1	-20.1	27	16.2
550	31	5,041	-7.5	-24.6	27	17.9
500	31	5,777	-11.9	-29.3	27	20.1
450	31	6,575	-17.4	-34.2	27	22.4
400	31	7,446	-23.9	-40.8	27	24.0
350	31	8,409	-31.3	-45.1	27	26.9
300	31	9,480	-39.6	-50.6	27	29.8
250	31	10,703	-48.3		27	33.5
200	31	12,150	-55.3		26	38.8
175	31	12,996	-58.6		26	39.5
150	31	13,956	-62.5		26	35.9
125	31	15,066	-68.0		26	31.3
100	31	16,391	-72.3		26	24.1
80	29	17,707	-73.8		26	15.7
70	28	18,489	-71.5		26	12.6
60	28	19,407	-68.4		27	9.2
50	27	20,510	-64.0		27	9.3
40	27	21,888	-61.2		28	6.7
30	27	23,686	-58.3		28	4.9
25	27	24,839	-56.2		28	4.1
20	26	26,266	-54.3		28	5.1
15	24	28,119	-51.8		28	6.3
10	17	30,784	-47.2		28	14.4
7						
5						
4						

Standard pressure surface (mb.)	TOPEKA, KANS. 987 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	268	-6.9	-9.9	33	1.6
1000	31	162				
950	31	563	-6.3	-11.7	30	2.4
900	31	989	-3.3	-12.0	30	5.4
850	31	1,443	-2.2	-11.5	30	8.5
800	31	1,924	-3.4	-12.8	30	12.1
750	31	2,432	-5.6	-15.3	29	14.1
700	31	2,971	-8.1	-18.0	29	15.9
650	31	3,544	-10.9	-19.3	29	18.6
600	31	4,155	-14.5	-23.4	29	21.2
550	31	4,809	-18.5	-27.9	28	23.6
500	31	5,514	-22.9	-32.7	28	26.1
450	31	6,279	-28.0	-36.9	28	28.3
400	31	7,115	-33.6	-42.7	28	33.0
350	31	8,043	-39.7	-44.7	28	36.8
300	31	9,078	-46.8		28	39.6
250	31	10,268	-54.1		28	43.1
200	31	11,685	-57.6		27	40.5
175	31	12,528	-57.5		28	41.1
150	31	13,503	-58.0		28	37.5
125	31	14,647	-60.0		28	34.3
100	31	16,035	-61.7		28	28.8
80	29	17,410	-63.4		28	22.8
70	29	18,231	-63.0		28	19.8
60	28	19,184	-62.6		28	18.9
50	28	20,299	-62.6		28	16.0
40	28	21,694	-61.6		28	10.8
30	28	23,508	-59.0		28	9.0
25	30	24,677	-57.6		30	5.8
20	27	26,076	-55.9		27	5.9
15	29	27,950	-53.8		29	4.0
10						
7						
5						
4						

Standard pressure surface (mb.)	TRUK, CAROLINE IS. 1009 MB + No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	2	28.6	23.9	06	3.5
1000	31	82	27.8	21.3	07	4.1
950	31	536	24.2	18.5	08	6.3
900	31	1,008	21.4	14.1	09	6.6
850	31	1,501	18.5	10.0	10	6.4
800	31	2,020	16.1	4.9	10	5.9
750	31	2,567	13.8	-.4	09	6.3
700	31	3,146	10.7	-3.5	10	6.6
650	31	3,759	7.2	-8.5	10	7.1
600	31	4,413	3.5	-11.8	10	8.0
550	31	5,115	-.4	-16.8	10	8.1
500	31	5,871	-4.0	-20.9	10	8.6
450	31	6,694	-9.0	-25.0	10	9.0
400	31	7,596	-14.6	-31.8	10	6.8
350	31	8,598	-21.2	-38.6	10	5.9
300	31	9,714	-29.5	-45.7	10	4.9
250	31	10,987	-39.9	-54.3	11	5.8
200	31	12,471	-52.3		12	6.2
175	31	13,322	-59.2		12	6.7
150	31	14,271	-66.8		10	6.6
125	31	15,351	-75.1		09	9.0
100	31	16,618	-83.2		10	13.9
80	31	17,851	-81.7		10	11.9
70	31	18,613	-75.1		09	8.4
60	31	19,520	-70.5		09	11.5
50	31	20,611	-66.9		09	19.0
40	31	21,978	-61.1		09	22.9
30	31	23,800	-53.3		09	8.5
25	31	24,977	-51.2		25	2.3
20	31	26,434	-49.1		27	8.7
15	31	28,334	-46.1		27	15.1
10	22	31,045	-43.2		27	17.7
7	19	33,463	-40.0		27	14.0
5	9	35,753	-37.8			
4						

Standard pressure surface (mb.)	* TUCSON, ARIZ. 927 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	789	3.8	-5.8	15	2.9
1000	31	166				
950	31	588				
900	31	1,032	9.8	-5.1	14	2.3
850	31	1,506	9.0	-7.8	19	1.1
800	31	2,006	6.3	-10.4	25	2.1
750	31	2,532	3.5	-14.0	27	4.1
700	31	3,089	.8	-17.8	28	6.3
650	31	3,680	-2.7	-20.5	28	7.8
600	31	4,310	-6.8	-24.0	28	8.9
550	31	4,984	-11.2	-27.7	28	10.4
500	31	5,708	-16.5	-32.1	28	11.5
450	31	6,491	-22.4	-36.2	28	11.6
400	31	7,344	-28.9	-41.1	27	12.7
350	31	8,288	-36.2	-45.9	27	14.6
300	31	9,338	-44.0	-49.0	27	18.2
250	31	10,539	-52.5		26	19.7
200	31	11,960	-58.2		26	22.7
175	31	12,798	-60.0		26	22.2
150	30	13,763	-61.7		26	20.9
125	30	14,885	-64.5		26	18.9
100	30	16,238	-68.0		27	17.2
80	29	17,571	-68.7		27	15.7
70	29	18,372	-67.7		27	14.6
60	29	19,301	-67.1		27	12.7
50	29	20,404	-65.9		28	11.0
40	29	21,766	-63.9		28	9.2
30	28	23,534	-61.7		27	9.1
25	28	24,667	-60.1		27	10.0
20	28	26,069	-57.6		26	12.1
15	26	27,893	-55.0		26	13.7
10	23	30,511	-49.4		26	14.1
7	21	32,873	-43.4		26	13.7
5						

Standard pressure surface (mb.)	VICTORIA, TEXAS 1013 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	33	11.4	8.5	02	.6
1000	31	149	12.7	8.3	17	.7
950	31	576	12.4	5.1	20	5.2
900	31	1,029	11.6	1.1	22	4.6
850	31	1,506	10.5	-3.1	25	4.3
800	31	2,010	9.1	-7.4	26	5.7
750	31	2,543	6.9	-9.9	27	7.6
700	31	3,107	4.1	-13.9	27	9.9
650	31	3,706	1.0	-16.4	27	12.0
600	31	4,344	-3.0	-20.0	27	13.4
550	31	5,027	-7.7	-23.1	26	15.4
500	31	5,762	-12.5	-30.1	26	18.1
450	31	6,558	-17.9	-33.8	26	21.2
400	31	7,428	-24.3	-37.6	26	24.6
350	31	8,390	-31.5	-44.0	26	27.9
300	31	9,459	-40.0	-50.4	26	30.7
250	31	10,679	-49.6		26	34.7
200	31	12,110	-57.4		26	36.2
175	31	12,949	-59.8		26	36.5
150	30	13,906	-62.7		26	33.6
125	30	15,017	-67.4		26	31.2
100	30	16,347	-71.5		26	24.9
80	29	17,660	-72.7		27	17.9
70	28	18,447	-71.2		27	13.9
60	28	19,364	-68.9		27	11.1
50	28	20,461	-66.4		27	9.2
40	28	21,816	-63.9		27	9.2
30	28	23,592	-60.2		27	10.5
25	26	24,737	-58.2		26	10.3
20	26	26,149	-56.1		27	10.2
15	26	27,991	-53.5		27	10.3
10	26	30,619	-49.6		26	15.0
7	21	32,959	-46.7			
5	8					

Standard pressure surface (mb.)	* WAKE IS., PACIFIC AREA 1012 MB No. of observations	Dynamic height	Temperature	Dew Point +	Resultant Wind Direction	Resultant Wind Speed M.p.h.
SURFACE	31	5	24.9	20.6	07	2.9
1000	31	109	24.0	18.9	08	3.4
950	31	557	20.2	17.2	08	3.4
900	31	1,021	17.0	14.0	09	1.7
850	31	1,507	14.7	9.1	26	.2
800	31	2,020	13.5	2.1	29	2.0
750	31	2,562	11.5	-3.1	28	4.1
700	31	3,136	8.6	-7.7	28	5.4
650	31	3,746	5.7	-11.8	28	6.9
600	31	4,396	2.3	-16.1	28	8.5
550	30	5,095	-1.5	-20.8	28	9.9
500	30	5,847	-6.1	-25.1	28	11.0
450	30	6,664	-11.0	-28.6	28	13.1
400	30	7,559	-16.5	-34.7	29	15.0
350	30	8,553	-23.3	-41.6	29	16.9
300	30	9,660	-31.4	-48.5	28	17.2
250	30	10,925	-41.3	

RAWINSONDE DATA

Average monthly values

JANUARY 1971

Standard pressure surface (mb.)	WAYCROSS, GA. 1013 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	44	7.0	4.2	24	1.7
1000	31	152	8.4	3.3	26	2.1
950	31	577	9.0	2.4	26	5.7
900	31	1,025	8.2	-.8	27	8.5
850	31	1,497	6.7	-3.9	27	10.3
800	31	1,993	4.6	-6.8	27	11.9
750	31	2,517	2.5	-9.5	27	14.5
700	31	3,073	.5	-14.4	27	17.6
650	31	3,665	-2.5	-17.1	27	19.7
600	31	4,295	-6.3	-20.9	27	22.2
550	31	4,971	-10.5	-25.0	27	24.0
500	31	5,697	-15.0	-31.4	27	26.1
450	31	6,487	-19.9	-35.1	27	29.7
400	31	7,350	-26.0	-40.4	27	34.2
350	31	8,306	-33.0	-46.1	27	35.7
300	31	9,369	-41.2	-51.4	27	38.7
250	31	10,583	-50.1		27	38.8
200	31	12,019	-56.1		27	44.8
175	31	12,864	-57.8		27	46.7
150	31	13,832	-60.4		27	44.2
125	30	14,954	-65.0		27	38.3
100	30	16,302	-68.4		27	29.5
80	28	17,634	-70.0		27	24.1
70	28	18,429	-69.0		27	17.8
60	26	19,373	-66.4		27	12.9
50	25	20,495	-63.4		27	10.7
40	23	21,869	-60.5		27	11.0
30	22	23,880	-57.4		27	7.6
25	21	24,839	-56.0		27	4.9
20	19	26,208	-54.8		26	3.5
15	19	28,116	-52.3		29	5.2
10	13	30,772	-48.0		31	2.5
7						
5						

Standard pressure surface (mb.)	WINNEMUCCA, NEV. 873 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	1,312	-2.6	-6.2	20	1.0
1000	31	221				
950	31	636				
900	31	1,070				
850	31	1,528	1.2	-5.3	21	1.9
800	31	2,014	-.8	-8.2	25	4.7
750	31	2,527	-3.7	-11.3	27	6.1
700	31	3,070	-6.5	-14.2	28	9.3
650	31	3,646	-9.4	-16.5	29	12.1
600	31	4,261	-12.5	-20.9	29	14.6
550	31	4,921	-16.3	-26.0	30	15.8
500	31	5,633	-20.5	-29.9	30	17.6
450	31	6,404	-25.8	-34.0	30	18.1
400	31	7,247	-32.3	-39.2	30	19.8
350	31	8,177	-39.5	-43.6	30	20.0
300	31	9,211	-47.5		31	21.4
250	31	10,395	-55.4		30	21.4
200	30	11,789	-60.7		31	19.2
175	30	12,623	-59.5		30	18.8
150	30	13,590	-59.2		30	18.4
125	30	14,728	-61.1		30	16.0
100	28	16,113	-62.6		30	12.2
80	22	17,486	-62.6		32	8.4
70	19	18,327	-62.2		33	6.8
60	18	19,280	-61.3		34	6.3
50	16	20,406	-61.5		01	4.8
40	16	21,794	-60.7		05	6.4
30	13	23,622	-60.5		07	9.6
25	11	24,814	-59.4		07	11.5
20	10	26,222	-58.3			
15	9	28,018	-57.9			
10						
7						
5						

Standard pressure surface (mb.)	WINSLOW, ARIZ. 854 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	1,487	-7.0	-12.1	18	1.0
1000	31	235				
950	31	644				
900	31	1,072				
850	31	1,521			17	.9
800	31	2,007	1.9	-9.3	27	2.8
750	31	2,527	.1	-12.6	28	4.7
700	31	3,077	-2.3	-16.7	29	6.3
650	31	3,662	-5.2	-20.4	29	8.4
600	31	4,287	-8.7	-24.5	29	9.8
550	31	4,956	-13.0	-28.1	29	11.2
500	31	5,675	-17.8	-31.9	29	13.5
450	31	6,455	-23.6	-37.0	29	15.1
400	31	7,305	-29.8	-42.5	29	16.7
350	31	8,246	-37.1	-47.1	28	17.5
300	31	9,292	-45.1		28	19.0
250	30	10,480	-53.2		28	20.0
200	30	11,897	-58.5		27	23.5
175	30	12,735	-59.3		27	24.5
150	30	13,698	-60.7		27	23.3
125	29	14,823	-62.4		28	21.5
100	28	16,187	-65.0		28	19.1
80	26	17,535	-65.9		27	16.2
70	24	18,344	-65.1		28	12.0
60	23	19,288	-64.6		29	10.2
50	22	20,400	-64.3		29	7.7
40	21	21,768	-63.0		30	5.8
30	21	23,549	-60.9		28	4.9
25	21	24,687	-59.3		27	6.1
20	18	26,116	-57.2		28	4.8
15	14	27,995	-53.4		29	4.1
10						
7						
5						

Standard pressure surface (mb.)	YAKUTAT, ALASKA 1012 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	28	12	-9.6	-14.5	09	4.0
1000	28	103	-5.6	-13.3	10	5.0
950	28	504	-7.1	-13.9	10	7.1
900	28	924	-9.5	-15.1	11	4.9
850	28	1,363	-12.1	-17.3	12	2.8
800	28	1,825	-14.7	-21.1	13	2.5
750	28	2,311	-17.7	-24.1	12	2.3
700	28	2,824	-20.9	-27.9	16	1.5
650	28	3,368	-24.2	-31.5	25	1.7
600	27	3,939	-28.2	-35.5	26	3.8
550	27	4,559	-32.0	-38.6	27	6.0
500	27	5,227	-35.8	-40.0	27	9.8
450	27	5,954	-39.1	-42.5	27	13.4
400	27	6,736	-42.7	-44.7	27	16.7
350	27	7,653	-45.9		27	20.6
300	27	8,669	-48.7		28	20.6
250	27	9,867	-49.1		29	17.6
200	27	11,334	-48.0		30	16.3
175	27	12,214	-48.2		30	16.1
150	27	13,231	-47.8		30	16.0
125	27	14,434	-48.5		31	15.2
100	27	15,900	-49.1		31	13.1
80	27	17,365	-49.0		32	13.3
70	27	18,242	-49.2		32	12.2
60	27	19,253	-49.6		33	11.4
50	27	20,446	-49.5		34	9.6
40	27	21,907	-49.8		35	8.7
30	27	23,787	-50.2		01	9.1
25	27	24,977	-50.1		01	8.5
20	25	26,424	-51.0		02	9.6
15	21	28,261	-51.1		03	11.5
10	12	30,938	-49.5			
7						
5						

Standard pressure surface (mb.)	YAP, CAROLINE IS. + 1007 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	14	27.7	23.9	05	2.6
1000	31	73	26.5	21.1	06	3.4
950	31	525	23.2	18.4	06	5.5
900	31	995	20.3	14.6	07	4.8
850	31	1,487	17.4	10.5	08	4.4
800	31	2,004	15.3	6.0	09	3.9
750	31	2,549	13.3	-.3	11	3.6
700	31	3,127	10.2	-4.5	12	4.3
650	31	3,740	7.0	-7.6	12	4.6
600	31	4,394	3.2	-11.1	12	5.1
550	31	5,093	-.8	-14.9	13	5.4
500	31	5,848	-5.1	-19.7	12	4.9
450	31	6,668	-9.8	-24.7	12	5.5
400	31	7,568	-15.3	-31.2	11	4.5
350	31	8,567	-21.9	-37.4	10	3.9
300	31	9,680	-30.5	-45.0	10	3.3
250	31	10,948	-40.8	-51.9	14	4.1
200	31	12,426	-53.4		14	5.9
175	31	13,272	-60.4		13	6.3
150	31	14,214	-68.2		13	7.0
125	31	15,287	-76.4		11	9.2
100	31	16,545	-84.2		10	13.1
80	31	17,783	-80.8		10	9.2
70	31	18,543	-76.0		09	6.7
60	31	19,445	-70.7		08	10.1
50	30	20,540	-66.7		09	18.0
40	29	21,907	-61.7		09	22.5
30	27	23,721	-55.4		10	11.5
25	27	24,890	-53.1		14	1.6
20	26	26,339	-50.2		26	6.6
15	24	28,229	-47.8		26	14.8
10	21	30,923	-45.1		26	19.4
7	17	33,320	-41.4		27	18.2
5	9	35,594	-38.6			

Standard pressure surface (mb.)	YUCCA FLAT, NEV. 885 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	1,198	-3.1	-6.1	29	1.0
1000	31	214				
950	31	627				
900	31	1,059				
850	31	1,519	3.5	-6.2	35	3.0
800	31	2,010	2.2	-8.1	34	2.0
750	31	2,530	.5	-11.3	30	3.8
700	31	3,081	-2.2	-14.6	30	6.1
650	31	3,667	-5.4	-17.1	30	8.9
600	31	4,291	-9.1	-20.3	30	10.9
550	31	4,959	-13.3	-24.4	30	12.8
500	31	5,677	-18.3	-29.3	30	14.5
450	31	6,455	-23.8	-34.1	30	15.6
400	31	7,304	-30.6	-39.8	30	16.2
350	31	8,242	-37.8	-44.4	30	17.1
300	31	9,283	-45.7		31	17.4
250	31	10,475	-54.4		30	18.7
200	31	11,883	-60.1		29	21.3
175	31	12,716	-59.7		29	22.9
150	31	13,680	-60.4		29	23.0
125	31	14,812	-62.2		29	20.0
100	31	16,182	-64.8		29	17.3
80	31	17,540	-65.6		29	13.5
70	31	18,352	-65.8		29	11.3
60	29	19,285	-64.3		29	9.2
50	29	20,402	-63.5		29	7.0
40	29	21,776	-62.6		31	4.4
30	28	23,549	-61.6		33	5.0
25	27	24,683	-60.6		33	3.1
20	26	26,081	-57.9		31	4.0
15	23	27,896	-55.5		29	3.1
10	15	30,510	-50.4			

Standard pressure surface (mb.)	YUMA, ARIZ. 1003 MB No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	20	131	7.2	-5.2	36	1.1
1000	20	156			35	2.0
950	20	587	13.5	-4.7	36	5.2
900	20	1,040	11.7	-6.9	01	3.6
850	20	1,515	8.9	-9.9	35	3.1
800	20	2,015	6.3	-12.6	34	4.6
750	20	2,541	3.9	-16.3	33	5.6
700	20	3,099	1.2	-19.3	32	6.0
650	20	3,691	-2.3	-21.7	30	7.5
600	20	4,321	-6.6	-24.8	29	8.4
550	20	4,993	-11.5	-28.2	29	9.2
500	20	5,718	-17.0	-32.7	29	10.3
450	20	6,499	-23.0	-37.4	30	11.2
400	20	7,350	-29.7	-41.8	29	11.8
350	20	8,291	-37.3	-44.3	29	13.3
300	20	9,336	-44.8		28	15.8
250	20	10,532	-53.3		28	19.9
200	15	11,918	-57.2			
175	5	12,643	-57.8			
150						
125						
100						
80						
70						
60						
50						
40						
30						
25						
20						
15						
10						
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 1971

ALBUQUERQUE, N. MEX.

Date	Sun's zenith distance								
	A. M.				*	P. M.			
	78.7°	75.7°	70.7°	60.0°		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-----	----	----	----	1.43	1.44	1.41	1.27	----	----
2-----	----	----	----	1.34	----	----	----	----	----
5-----	1.13	1.23	1.34	1.48	1.49	1.47	1.31	1.21	1.10
6-----	1.07	1.17	1.28	1.43	1.48	1.47	1.28	1.15	1.03
7-----	1.05	1.15	1.25	1.44	1.39	1.38	1.26	1.02	.89
8-----	1.05	----	----	----	1.39	1.35	1.18	1.09	1.04
9-----	1.05	1.15	1.26	1.39	1.40	1.34	1.19	1.05	.95
10----	1.02	1.12	1.24	1.38	1.40	1.36	1.15	1.03	.91
12----	----	----	----	1.39	1.41	1.32	1.11	.98	.85
13----	----	----	----	1.33	1.36	1.35	1.21	1.13	1.04
14----	----	----	----	----	----	1.39	----	----	.98
15----	----	----	----	----	1.41	1.36	1.21	----	----
18----	----	----	----	----	----	1.31	1.15	1.06	.96
19----	1.01	1.12	1.19	1.35	1.39	1.35	1.17	1.09	1.00
20----	----	----	----	----	----	1.31	1.18	1.07	.94
22----	.91	1.05	1.16	----	----	----	----	----	----
23----	1.00	1.10	1.20	1.30	----	----	----	----	----
24----	1.08	1.17	1.27	1.41	1.45	1.39	1.24	1.13	1.03
25----	1.08	1.17	1.27	1.37	1.41	1.37	----	----	----
26----	1.07	1.17	1.25	1.37	1.40	1.37	1.24	1.14	1.05
27----	1.03	1.14	1.24	1.33	1.42	1.34	1.20	1.10	1.00
28----	1.01	1.13	1.22	1.38	1.40	1.34	1.21	1.12	1.03
29----	1.04	1.16	1.25	1.39	1.39	1.40	1.25	1.18	1.07
31----	1.02	1.11	1.22	1.35	1.37	1.34	1.20	1.08	1.00
Aver-ages	1.04	1.14	1.24	1.38	1.41	1.37	1.21	1.10	0.99

OMAHA, NEBR.

Date	Sun's zenith distance								
	A. M.				*	P. M.			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	Air mass								
	4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
Jan.									
5-----	----	0.87	1.04	----	1.17	----	----	----	----
6-----	----	1.00	1.12	----	1.26	----	1.04	0.87	0.74
7-----	0.83	.93	HI .97	----	1.25	----	1.13	.95	.78
8-----	----	----	----	----	1.24	----	1.14	.95	.83
19----	HS1.13	HS1.20	HS1.29	----	----	----	HM1.12	HS .99	----
21----	1.00	1.09	----	----	1.35	----	HS1.24	HS1.10	HS .98
22----	.97	1.06	1.14	----	1.33	----	1.20	1.05	.89
23----	----	----	----	----	1.27	----	HS1.14	HS1.01	HS .87
24----	1.01	1.12	1.21	----	1.32	----	----	----	----
25----	.98	----	----	----	----	----	----	1.07	----
Aver-ages	0.99	1.04	1.13	----	1.27	----	1.14	1.00	0.85

( ) Clouds present
HS Slight haze
HM Moderate haze
HI Intense haze
S Slight haze - indeterminable
I Intense haze - indeterminable
* Values corresponding to true solar noon

MADISON, WIS.

Date	Sun's zenith distance								
	A. M.				*	P. M.			
	78.7°	75.7°	70.7°	60.0°		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
Jan.									
2-----	(0.88)	S 1.00	(1.13)	----	----	----	----	----	----
5-----	S .88	1.00	1.13	----	1.20	----	1.14	1.00	0.87
6-----	S .83	S .95	S 1.13	----	S 1.21	----	S 1.08	S .94	S .81
7-----	S .86	S .95	S 1.10	----	S 1.20	----	S 1.12	S .99	S .91
8-----	----	----	I .98	----	----	----	----	----	----
15----	S .93	S 1.04	S 1.15	----	S 1.26	----	S 1.17	S 1.04	----
18----	S .92	S 1.05	S 1.19	----	----	----	S 1.14	S 1.02	S .92
19----	S .93	S 1.03	S 1.15	----	S 1.30	----	S 1.17	S 1.05	S .95
23----	S .96	S 1.05	S 1.15	----	----	----	----	----	----
24----	----	----	----	----	S 1.21	----	S 1.08	S .97	S .87
26----	----	----	S 1.17	----	S 1.29	----	S 1.16	S 1.05	S .94
27----	S .95	S 1.05	(1.16)	----	----	----	----	----	----
30----	1.00	1.12	1.21	----	1.34	----	1.20	1.08	.99
Aver-ages	0.91	1.02	1.14	----	1.25	----	1.14	1.02	0.91

TUCSON, ARIZ.

Date	Sun's zenith distance								
	A. M.				*	P. M.			
	78.7°	75.7°	70.7°	60.0°		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-----	0.93	1.02	----	----	----	1.29	----	----	----
2-----	----	----	1.16	1.19	----	----	----	----	----
3-----	.98	1.08	1.20	1.35	1.39	1.33	1.15	1.03	0.93
4-----	.94	1.04	1.17	1.32	1.35	1.32	1.16	1.05	.95
5-----	.94	1.03	1.17	1.31	1.36	1.33	1.09	.97	.86
6-----	.94	1.06	1.16	1.34	1.39	1.32	----	----	----
7-----	.90	1.02	1.11	1.28	1.34	1.27	1.09	.96	.85
8-----	.93	.98	1.10	1.21	1.35	1.23	1.03	----	----
9-----	.93	1.03	1.15	1.29	1.35	1.25	1.06	.93	.84
10----	.91	1.00	1.13	1.28	1.34	1.27	1.07	.94	.85
12----	.95	1.04	1.14	1.31	1.35	1.30	1.14	1.03	.94
13----	----	----	----	1.28	----	----	----	----	----
14----	.93	1.03	1.13	1.30	1.35	1.30	1.15	1.06	.90
15----	.91	1.00	1.09	1.28	1.36	1.32	1.17	1.05	.96
16----	----	1.10	1.21	1.34	----	----	----	----	----
17----	.87	.97	1.09	1.24	1.26	1.18	1.01	.94	.83
18----	.87	.93	1.02	1.18	1.26	1.19	.96	.83	.71
19----	.87	1.00	1.09	1.25	1.31	1.22	1.01	.86	.74
20----	.78	.89	1.03	1.17	1.24	1.11	.92	.76	.67
23----	.83	.92	1.04	1.22	1.22	1.13	.97	.81	.73
24----	.86	.96	1.09	1.25	1.33	1.19	.98	.91	.84
25----	.90	1.00	1.10	1.26	1.32	1.23	1.02	.93	.85
26----	.83	.92	1.06	1.23	1.31	1.25	1.07	.92	.83
27----	.96	1.03	1.14	1.29	1.38	1.24	1.08	.86	----
28----	.91	1.02	1.12	1.25	----	----	----	----	----
29----	.88	.96	1.08	1.25	1.32	1.23	1.10	.97	.88
30----	.93	1.03	1.14	1.29	1.37	1.29	1.12	1.01	.87
31----	.98	1.06	1.19	1.32	1.37	----	----	----	----
Aver-ages	0.91	1.00	1.12	1.27	1.33	1.25	1.06	0.94	0.84

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 1971

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.	319	180	158	251	361	348	343	333	328	326	328	332	346	303	348	316	252	321	347	323	317	352	339	382	378	379	378	385	394	362	393	330
AMES IOWA	181	92	25	192	206	221	222	174	113	157	161	167	63	214	222	169	97	153	222	152	225	201	160	227	178	207	86	175	152	114	247	167
ANNETTE ALASKA	40	65	15	15	16	24	51	67	87	62	91	91	91	84	68	27	8	59	39	43	23	23	78	91	27	63	15	101	40	44	45	51
APALACHICOLA FLORIDA	315	335	272	192	70	74	293	6	249	138	69	181	173	337	233	386	217	218	385	399	340	195	181	173	248	397	409	388	374	178	320	250
ARGONNE NAT. LAB.	35	193	16	52	226	238	229	206	126	135	81	142	35	81	250	71	122	356	259	172	180	160	245	252	188	283	204	285	117	288	271	177
ASTORIA OREGON	98	119	97	151	124	18	36	16	19	111	76	54	53	49	11	5	20	19	51	155	76	17	---	3	7	80	128	76	45	53	52	61
ATLANTA GEORGIA	333	289	116	46	208	83	296	26	136	52	97	253	130	74	150	177	146	123	322	360	334	110	144	59	65	361	386	363	328	126	304	193
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	0	0	2	0	---	1	2	---	2
BISMARCK N.DAK.	81	186*	175	162	163	190	200	---	169	100	198	91	112	---	167	126	125	207	174	99	231	238	185	161	211	266	212	152	142	148	257	170*
BLUE HILL MASS.	12	169	128	23	21	157	151	157	130	51	134	127	165	1	34	196	181	182	179	186	92	156	49	181	90	5	123	213	213	189	117	123
BOISE IDAHO	174	230	229	241	179	92	105	85	54	62	226	86	141	76	21	71	41	102	207	165	148	156	68	147	75	218	251	221	199	167	271	145
BROOKINGS SOUTH DAK.	184	111	75	206	199	196	187	146	146	84	206	141	140	190	186	158	172	187	229	158	222	233	228	159	106	218	126	132	126	164	234	169
BROWNSVILLE TEXAS	275	180	---	---	138	46	32	130	189	283	206	357	307	223	248	---	334	396	397	397	433	417	286	342	292	325	302	133	400	447	448	284
BURLINGTON VERMONT	71	170	49	46	88	110	120	231	218	98	157	176	241	30	129	237	220	254	197	202	61	183	126	189	236	37	109	246	249	202	251	159
CAPE HATTERAS N.C.	193	275	178	125	90	49	54	77	47	103	201	224	168	256	15	295	243	169	199	331	339	30	50	47	81	272	359	191	307	161	65	168
CARIBOU MAINE	105	94	88	83	54	152	150	187	---	---	163	176	205	114	---	---	208	---	---	129	---	161	98	168	123	74	157	163	225	134	---	140
CHARLESTON S.C.	335	291	164	213	57	46	258	21	51	221	291	97	278	231	---	304	211	191	163	344	343	246	71	200	138	345	376	356	339	215	149	218
CLEVELAND OHIO	---	---	110	37	91	209	196	125	187	169	102	91	17	20	86	135	218	146	185	140	63	254	260	109	193	57	---	---	---	---	---	133
COLUMBIA MISSOURI	251	152	44	198	271	289	243	267	255	265	101	38	45	135	243	176	99	144	316	222	138	194	250	306	274	215	240	165	235	165	312	201
DAVIS CALIFORNIA	78	293	291	283	284	254	255	225	234	60	99	228	218	137	67	85	154	107	77	260	320	295	320	194	298	256	175	105	77	93	88	191
DODGE CITY KANSAS	233	29	200	306	324	298	320	316	290	170	151	239	316	200	275	209	246	110	114	254	94	316	310	316	309	316	322	323	318	318	285	252
E. LANSING MICHIGAN	147	114	59	52	192	165	213	214	171	59	103	169	43	68	171	153	245	182	234	181	47	200	267	205	225	134	253	250	92	269	244	165
EL CENTRO CALIF. NPF	290	100	312	309	312	308	309	296	288	294	290	151	284	307	311	324	304	306	302	297	303	298	330	329	328	339	331	295	362	354	200	296
EL PASO TEXAS	325	210	99	205	239	344	319	360	345	331	333	84	347	346	364	353	355	353	351	353	273	328	318	376	394	380	392	390	382	411	400	325
ELY NEVADA	211	224	303	287	296	295	183	152	153	187	145	179	200	271	150	209	204	251	319	168	355	295	266	265	289	321	328	329	337	341	330	253
EPPLEY NEWPORT R.I.	38	206	204	50	21	213	206	212	177	82	189	227	227	27	108	240	243	234	235	249	138	244	70	160	121	27	196	258	234	211	119	167
FAIRBANKS ALASKA	3	3	7	11	3	13	6	13	16	8	3	6	---	21	13	18	18	14	4	4	11	13	8	12	12	20	15	11	---	15	18	11
FLAMING GORGE UTAH	---	---	93	112	272	245	263	174	118	165	214	224	139	---	205	121	238	228	158	252	284	263	229	174	265	---	269	222	275	260	217	210
FORT WORTH TEXAS	300	49	85	322	333	319	95	---	314	322	322	158	151	326	336	309	317	260	350	331	322	303	---	---	---	358	356	349	300	357	357	285
FRESNO CALIFORNIA	101	180	290	287	248	273	267	206	245	245	200	147	198	273	217	244	242	269	123	66	168	236	272	272	264	204	83	59	92	118	78	199
GAINESVILLE FLORIDA	250	220	110	80	40	30	215	47	86	95	176	206	318	353	204	439	344	310	327	391	361	357	258	323	297	387	415	409	314	344	194	255
GENEVA NEW YORK	72	100	122	32	127	164	159	163	180	107	90	129	130	50	140	202	193	193	158	171	60	178	181	155	188	89	136	137	178	212	192	142
GLASGOW MONTANA	136	153	163	129	124	166	84	49	106	101	109	109	187	147	87	123	78	137	138	163	146	188	95	124	163	151	209	171	88	71	184	132
GRAND JUNCTION COLO.	119	61	162	287	306	327	233	140	134	183	286	113	241	203	184	186	191	101	279	212	245	304	208	249	262	309	315	304	328	268	310	227
GREAT FALLS MONTANA	137	196	162	---	183	135	112	89	114	138	170	76	217	194	114	83	132	155	120	178	119	73	66	207	89	90	185	99	93	82	74	129
GREENSBORO N.C.	291	244	201	46	135	59	243	45	81	45	255	224	60	81	101	237	135	128	246	335	249	43	238	39	239	345	371	268	291	101	169	179
INDIANAPOLIS INDIANA	---	174	68	46	238	261	261	174	192	228	59	35	22	49	223	70	109	252	200	287	67	192	299	50	94	299	292	350	99	161	324	173
INYOKERN CALIFORNIA	248	83	292	282	296	291	271	190	236	262	282	261	283	273	240	259	285	284	269	291	---	---	---	---	---	---	---	---	---	---	---	---
ITHACA NEW YORK	139	175	182	87	163	234	179	205	262	192	171	160	196	90	201	243	250	221	236	192	144	176	264	189	243	174	224	271	248	275	287	202
LAKE CHARLES LA.	323	296	48	123	358	79	36	77	240	167	145	137	---	138	308	378	310	334	390	401	212	238	184	283	199	392	406	283	382	287	131	243
LAKELAND FLORIDA	346	366	247	268	153	215	76	290	216	155	308	337	334	356	284	369	390	273	382	421	294	388	354	285	312	363	418	431	397	357	284	312
LANDER WYOMING	204	108	150	238	197	219	184	195	221	188	128	97	109	147	177	160	210	184	190	199	255	246	250	230	191	243	257	182	148	157	271	192
LARAMIE WYOMING	76	82	159	204	205	205	196	156	90	182	219	146	104	184	117	121	66	179	232	185	246	201	157	159	217	162	217	259	230	208	197	173
LAS VEGAS NEVADA	270	108	304	297	295	297	256	184	248	258	284	197	204	255	223	253	232	295	297	295	235	324	327	301	328	332	336	344	348	355	336	278
LEXINGTON KENTUCKY	248	209	195	25	65	263	---	---	---	---	---	---	---	---	156	145	94	252	238	295	37	72	298	36	187	314	320	272	141	72	343	186
LITTLE ROCK ARKANSAS	268	187	9	213	265	242	99	189	305	81	146	60	63	208	306	226	217	69	323	308	35	62	221	163	235	327	303	325	264	191	266	199
LOS ANGELES CALIF.	244	303	314	285	287	290	296	261	242	253	38	126	156	296	325	319	312	308	253	278	34	213	245	81	290	342	272	209	339	350	137	248
MADISON WISCONSIN	69	204	54	104	226	229	227	218	74	209	148	120	43	196	---	111	245	258	260	151	222	174	243	252	146	285	199	276	156	312	278	190
MANHATTAN KANSAS	218	70	57	261	260	260	260	261	258	235	115	104	215	205	269	177	100	149	287	280	203	291	241	294	295	211	175	280	261	118	268	215
MATANUSKA ALASKA	27	8	14	5	7	24	---	---	---	---	33	50	36	38	39	42	62	52	27	55	---	58	59	---	76	68	87	80	86	---	61	46
MEDFORD OREGON	55	254	209	199	193	128	159	57	71	137	156	158	104	95	12	29	35	76	73	223	121	101	73	202	62	76	49	57	95	140	132	114
MIAMI FLORIDA	329	332	241	304	363	370	391	382	341	335	320	312	242	392	381	403	373	143	338	452	224	---	258	387	263	299	444	398	405	437	357	341
MIDLAND TEXAS	316	125	270	321	328	352	336	359	359	347	353	153	352	354	366	383	339	331	362	351	331	339	156	418	400	412	439	369	---	---	366	334
NASHVILLE TENNESSEE	115	254	111	33	94	246	196	40	107	86	93	67	35	179	258	117	112	99	290	317	28	28	329	34	86	324	340	288	280	43	223	157

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.

SOLAR RADIATION TOTALS

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

JANUARY 1971

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.
NEW YORK CENTRAL PRK	32	193	202	22	62	212	183	134	95	153	190	214	167	21	101	255	249	227	249	253	79	230	222	131	141	24	148	214	214	228	180	162
NORTH OMAHA NEBRASKA	207	---	60	260	267	266	261	257	221	207	243	132	166	241	167	186	101	172	289	247	291	294	266	286	289	178	176	119	212	134	318	217
OAK RIDGE TENNESSEE	272	204	170	24	86	133	230	44	103	83	97	193	73	86	199	197	150	130	296	308	184	20	299	23	105	321	345	243	272	73	181	166
OKLAHOMA CITY OKLA.	263	31	51	302	307	312	273	303	299	296	277	68	160	86	317	191	234	143	270	282	301	267	144	273	336	337	336	337	344	277	327	250
PAGE ARIZONA	55	20	67	52	52	---	51	89	128	49	50	29	52	49	42	42	43	51	---	---	---	---	---	---	---	---	---	---	---	---	---	---
PHOENIX ARIZONA	242	175	306	305	313	318	320	303	293	301	305	280	278	300	310	202	305	292	311	292	258	240	325	331	328	337	338	329	331	358	333	299
PORTLAND MAINE	36	181	178	47	59	159	187	210	197	94	194	202	218	55	130	225	216	237	234	244	142	235	63	232	205	24	---	247	236	226	186	170
PROSSER WASHINGTON	172	200	143	91	86	71	71	67	121	127	107	179	136	72	17	16	47	81	31	199	189	154	176	---	97	178	159	201	131	120	212	122
RAPID CITY S.DAK.	192	126	166	139	172	189	140	106	80	109	94	161	183	217	159	121	42	115	206	121	212	221	218	203	159	150	234	228	171	109	181	159
RENO NEVADA	109	259	265	272	264	224	153	130	184	114	200	217	188	277	109	116	99	252	220	171	279	279	287	265	266	287	291	295	302	300	275	224
RICHLAND 25 NW WASH.	176	157	152	79	62	52	71	52	121	120	105	66	121	85	65	16	46	94	46	218	149	108	168	88	151	202	136	216	110	53	239	114
RIVERSIDE CALIFORNIA	305	114	363	342	327	348	333	306	300	233	138	101	185	332	352	360	352	351	354	285	77	300	307	142	368	390	362	341	383	403	196	292
RUSTON LOUISIANA	292	207	29	---	---	---	42	103	213	136	264	134	149	151	252	281	272	143	328	326	121	137	136	100	202	320	342	319	121	241	154	197
SAINT CLOUD MINN.	100	175	46	181	200	173	201	141	98	157	213	93	72	157	224	130	195	257	276	112	203	280*	277*	246	119	258	117	162	119	281	279	179*
SALT LAKE CITY	111	151	254	266	263	259	133	87	83	59	47	47	118	222	80	160	83	69	241	61	281	268	85	232	156	---	281	287	270	170	284	170
SAN ANTONIO TEXAS	282	79	304	354	334	148	135	290	306	339	363	103	103	63	329	357	361	355	382	373	351	288	106	313	385	369	404	194	163	389	401	281
SANTA MARIA CALIF.	292	270	316	308	301	301	303	277	256	161	75	213	181	262	240	291	313	316	---	218	283	331	329	341	345	350	320	257	358	365	231	280
SAULT STE MARIE MICH	49	38	125	35	104	172	163	105	122	130	112	190	97	108	192	193	172	204	---	---	105	136	202	102	132	122	195	123	147	240	173	137
SEATTLE TACOMA WASH.	124	63	80	135	119	37	30	10	22	82	54	127	57	71	30	15	41	37	57	94	123	12	24	11	36	109	145	78	23	19	105	64
SEATTLE WASH. UNIV.	128	78	90	172	125	52	11	25	52	60	81	101	70	80	59	26	52	45	31	119	149	22	32	39	36	91	140	102	16	10	112	71

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

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 1971

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. . .	-31	- 5	-29	-12	-12	-28	- 6	-170	-152	-101	-88	-119	-188	-179	-169	-123	-105	-75	-52	-90	-74	-94	-95	-98	-55	-70	-64	-54	-58	-22	-36	-79

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

These data 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 the** 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. . .	6.41	4.44	1.57	8.29	8.29	8.29	7.99	7.40	6.11	7.30	7.30	6.81	3.75	8.35	8.58	7.10	5.23	7.59	8.29	7.10	8.29	8.48	6.90	8.09	7.00	8.09	4.63	7.69	6.71	5.62	8.48	6.97

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 $\lambda s \Omega \Omega \Omega$ 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
Amundsen-Scott, Antarctic	20347	20339	20333	20376	35353	35346	20363	35346	20381	35331	20345	20325	33323	20309	20321	33311	20301	20274	20302	20322	20301	20324	20314	20304	35319	20308	20294	20300	20305	20304	20281	323
Bedford, Mass.	-----	-----	-----	06360	-----	00310	00334	-----	-----	-----	00355	00309	00303	-----	-----	-----	-----	-----	00526	-----	-----	-----	-----	-----	00386	-----	-----	-----	00511	-----	-----	377
Bismarck, N. D.	35372	00385	00386	00416	00408	00399	00413	-----	35357	-----	20326	35345	-----	35421	34355	34349	35352	00318	35305	34342	00372	00443	00390	36394	-----	00398	00384	05421	-----	34443	02417	381
Boulder, Colo.	-----	-----	-----	02463	00431	-----	-----	03401	-----	-----	03337	05337	00385	03409	00326	-----	-----	03271	00244	00256	00319	00365	-----	-----	00348	03320	00315	00314	03341	-----	-----	343
Green Bay, Wis.	-----	00363	35406	-----	-----	02442	00410	00431	34414	00324	00318	00307	06345	00394	02358	04392	00435	00476	00409	04338	00385	05434	00414	00383	-----	-----	03475	-----	-----	00439	00494	399
Huancayo, Peru	00267	00272	00282	00272	00279	05273	00270	00272	00263	00282	00275	00272	00265	00264	00260	05266	00273	00268	00242	00266	00265	00272	00269	00265	00261	00267	00260	00267	05261	00267	00273	268
Mauna Loa, Hawaii	-----	-----	-----	00247	-----	-----	-----	00270	-----	-----	-----	-----	04236	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	251
Nashville, Tenn.	04343	00347	00326	04320	04309	00279	00282	-----	04345	00331	05333	34301	35295	00273	00388	04343	04349	03408	00417	00327	04311	-----	00293	-----	05335	00377	-----	00375	-----	-----	-----	334

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 $\Omega \Omega \Omega$) 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. PRECENTAGE 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 Weather Bureau and selected cooperative stations. This is converted in Chart V-A into a percentage of the mean monthly total amount computed for each Weather Bureau station having at least 10 years of record. The depth of snow on ground is that reported by both Weather Bureau and selected cooperative stations as of 7:00 a.m. Eastern Standard Time 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 Weather Bureau 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 Weather Bureau 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. EST 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.

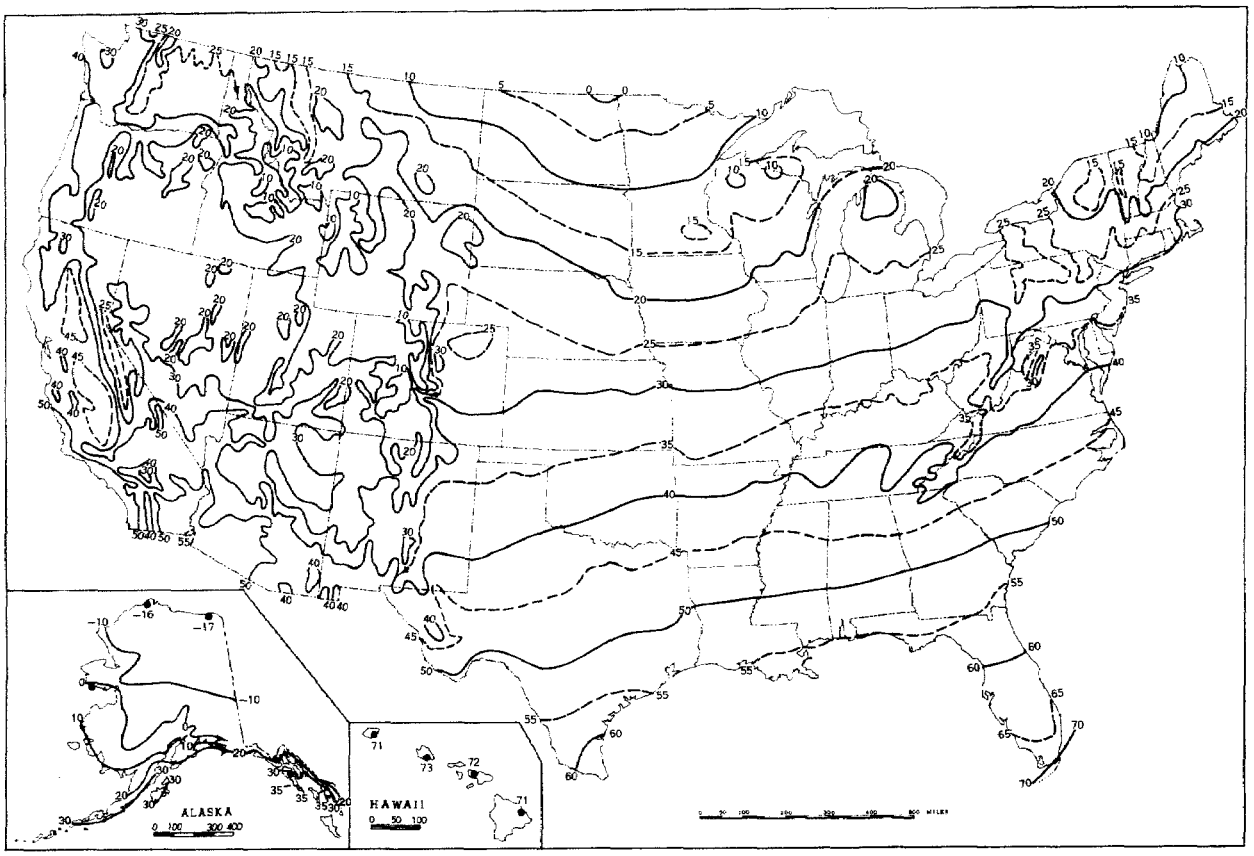
CHART X. AVERAGE SEA LEVEL PRESSURE (mb.) AND RESULTANT SURFACE WIND. The average monthly sea level pressures are obtained from eight daily 3-hourly observations reported at Weather Bureau Stations. Resultant surface wind directions (to 36 points of the compass) for the month are shown by arrows. Resultant 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 Weather Bureau 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 mb. Height is given in geopotential meters and temperature in degrees Celsius. These are the averages of the 1200 GMT 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 GMT.

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 GMT.

Exact values of most of these charted elements for Weather Bureau stations are printed each month in tabular form in CLIMATOLOGICAL DATA, NATIONAL SUMMARY. Extreme values of temperature and precipitation for each state are included in the tables, Condensed Climatological Summary. Annual averages for surface elements are presented in the CDNS Annual Issue each year.

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



B. Temperature Departure from 30 - Year Mean (°F 1931-60), January 1971

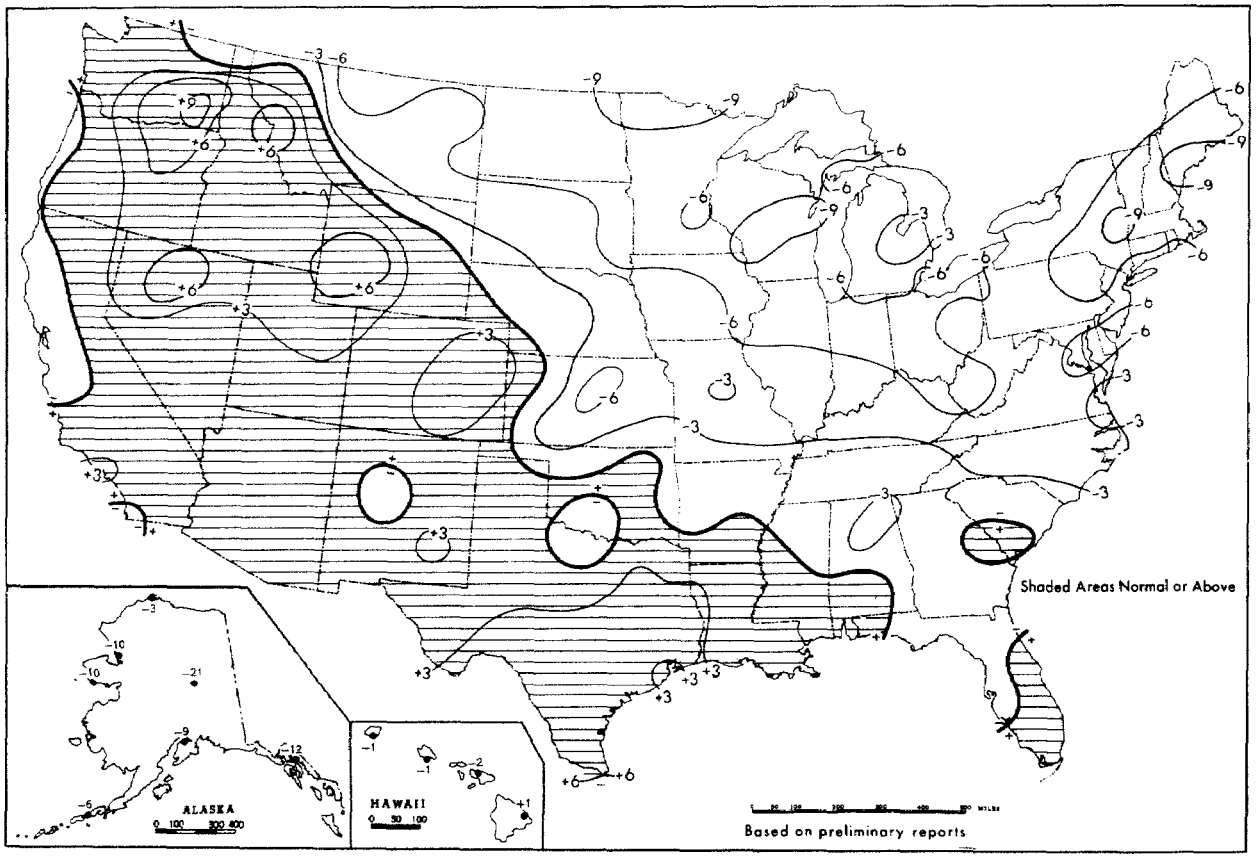


Chart II. Total Precipitation (Inches), January 1971

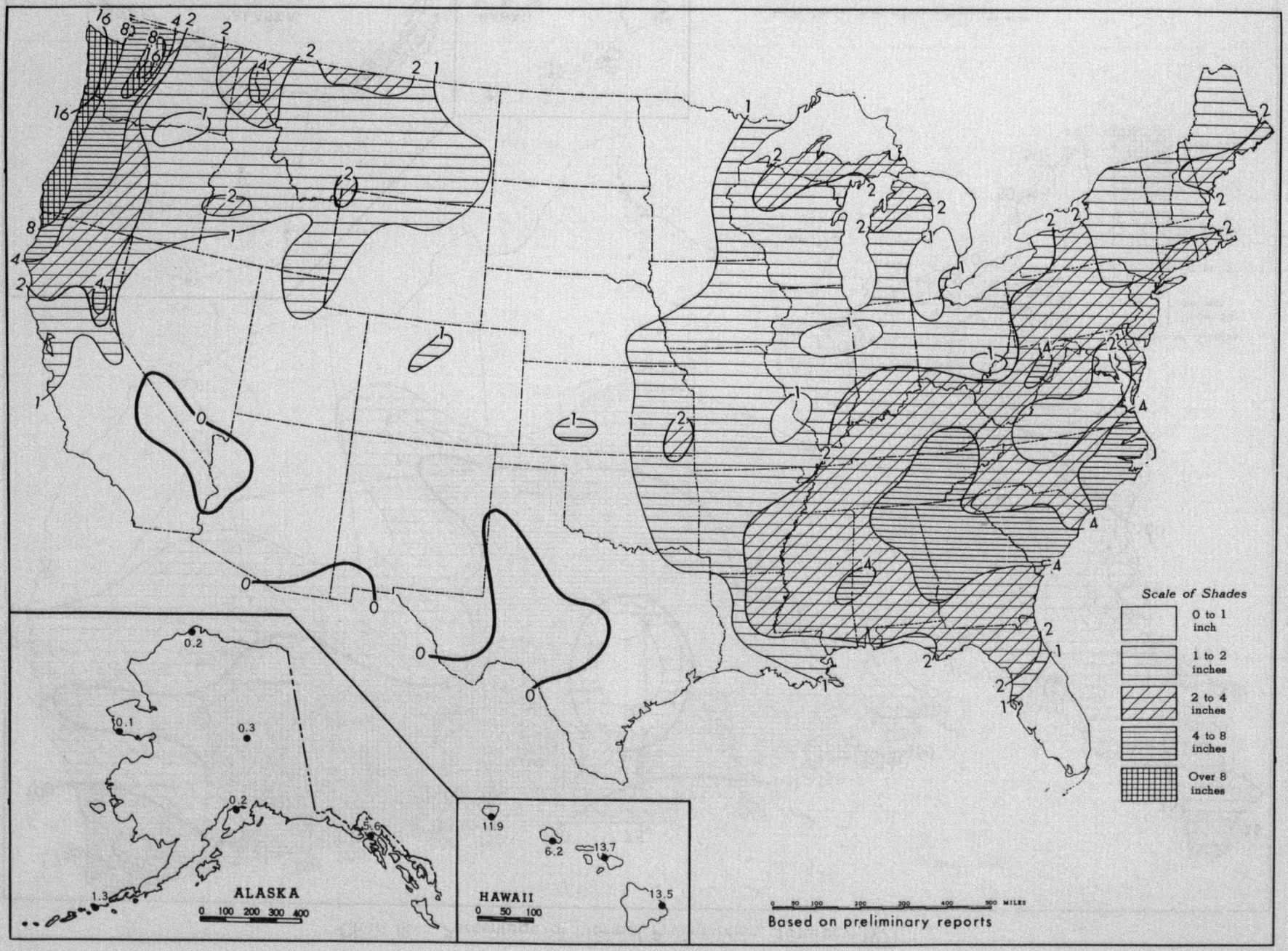


Chart III. Percentage of Normal Precipitation, January 1971

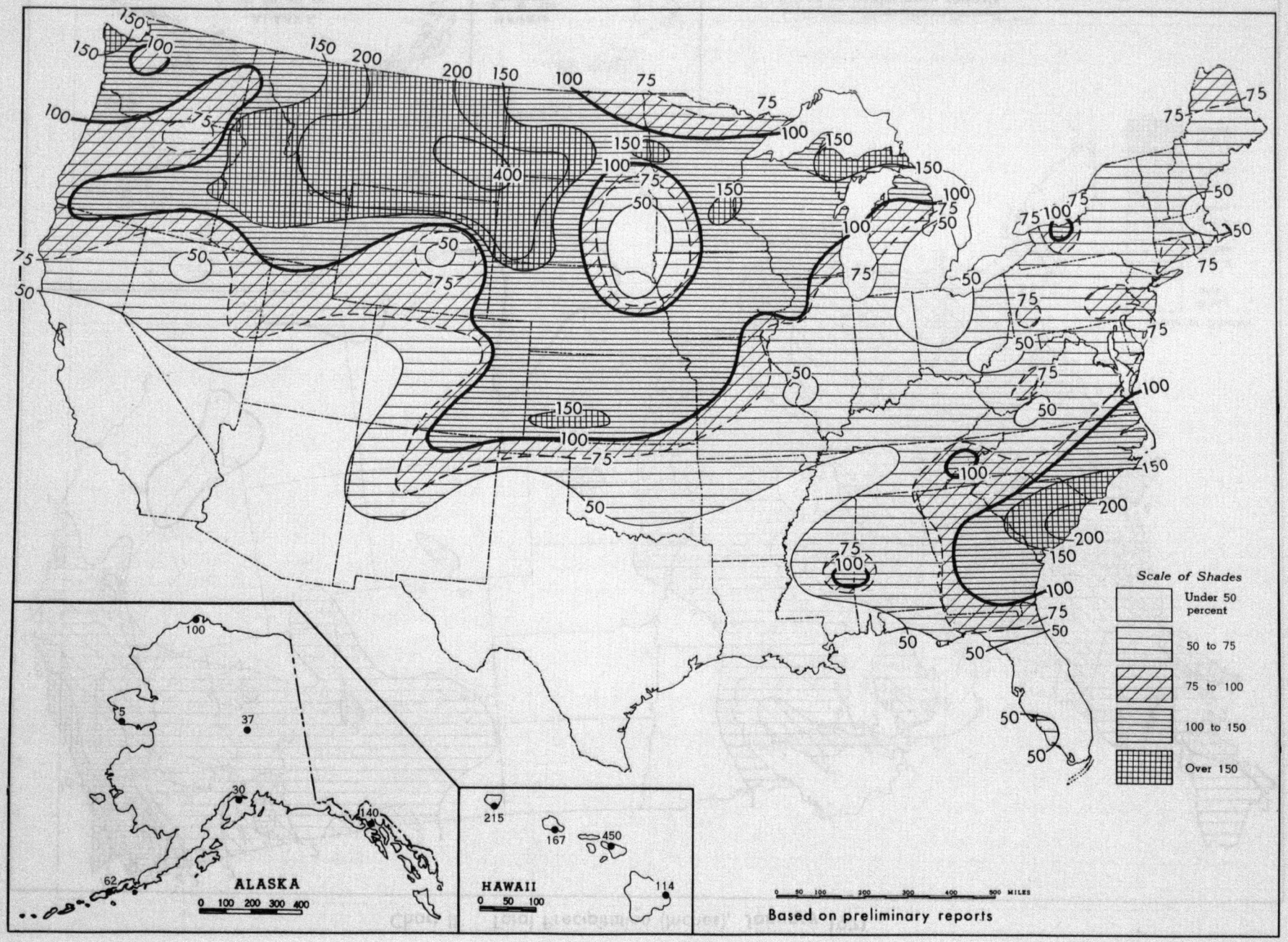
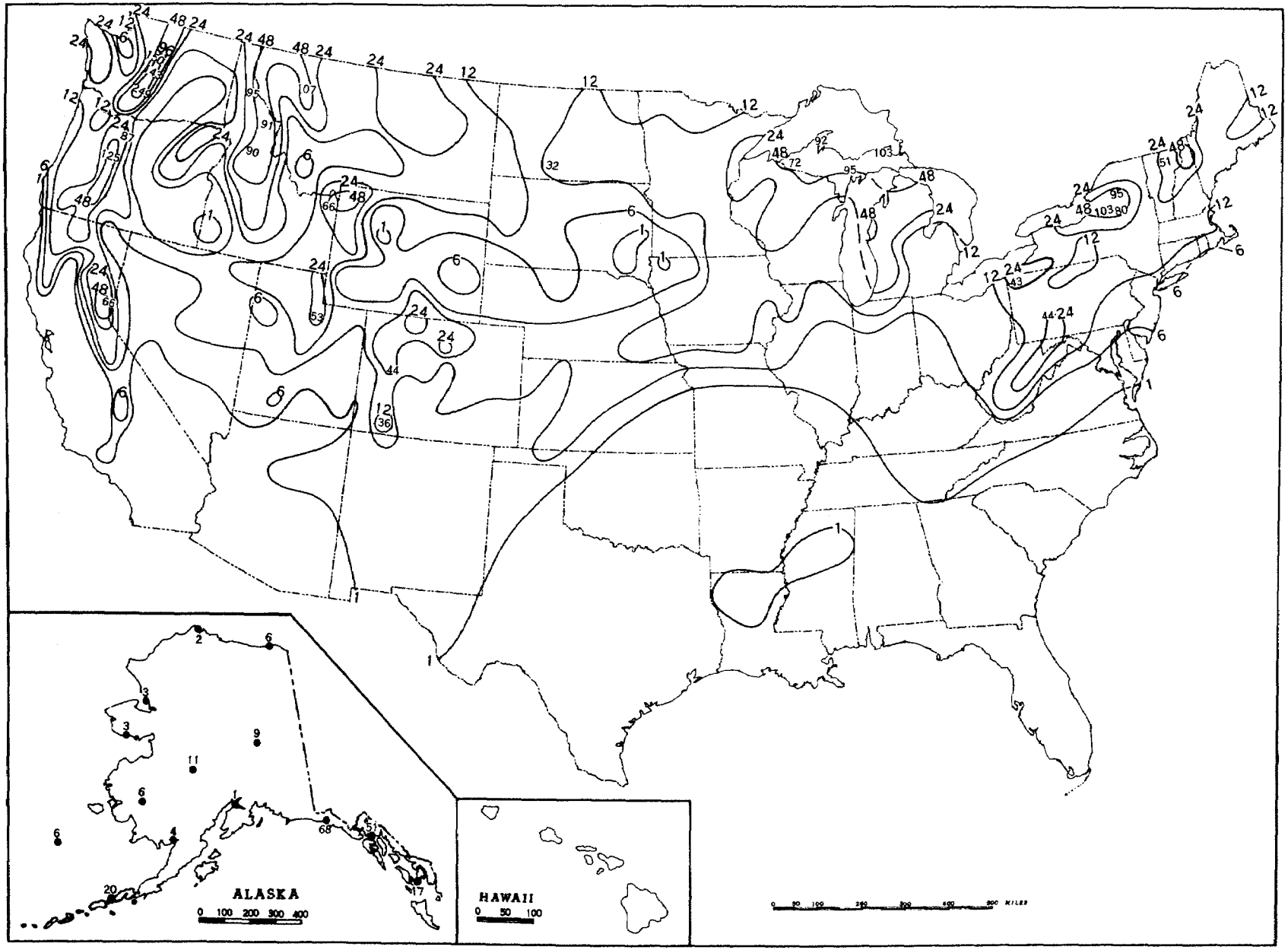
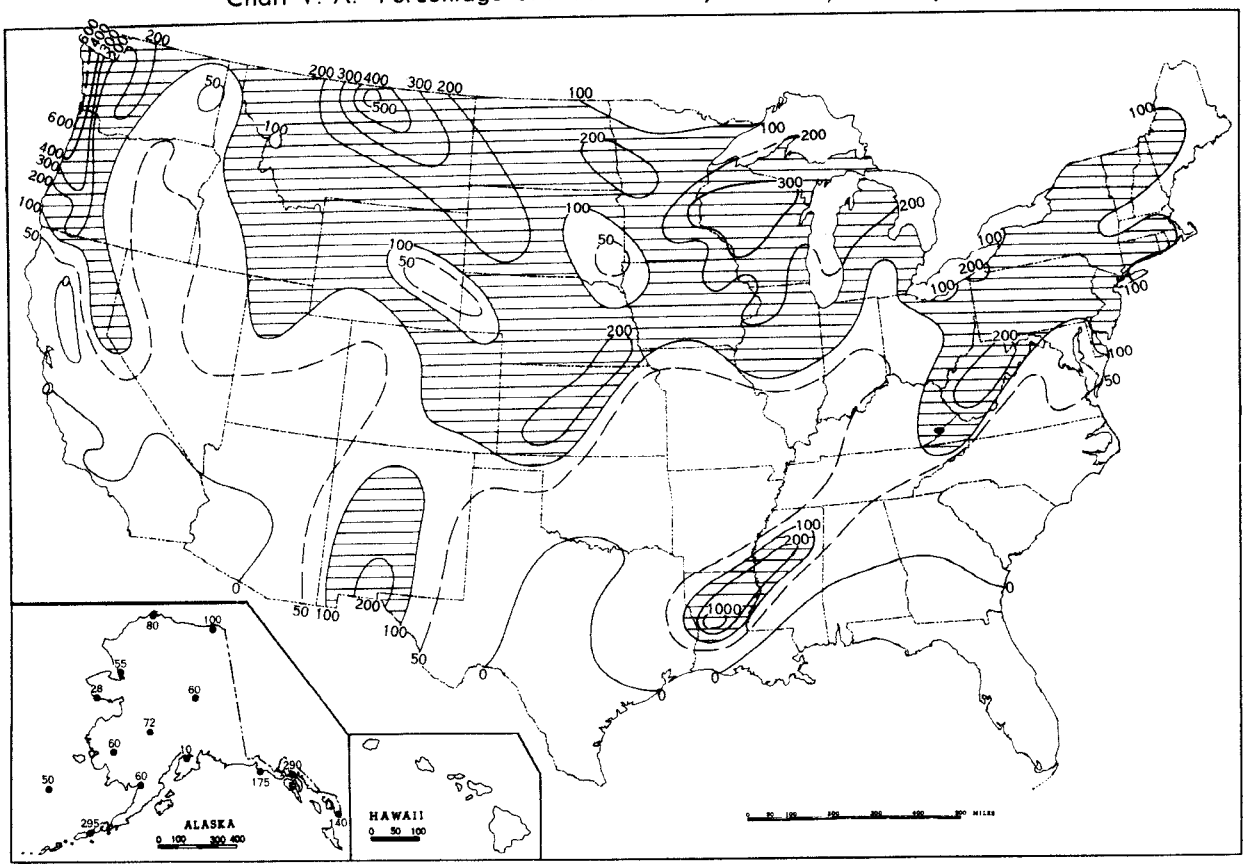


Chart IV. Total Snowfall (Inches), January 1971

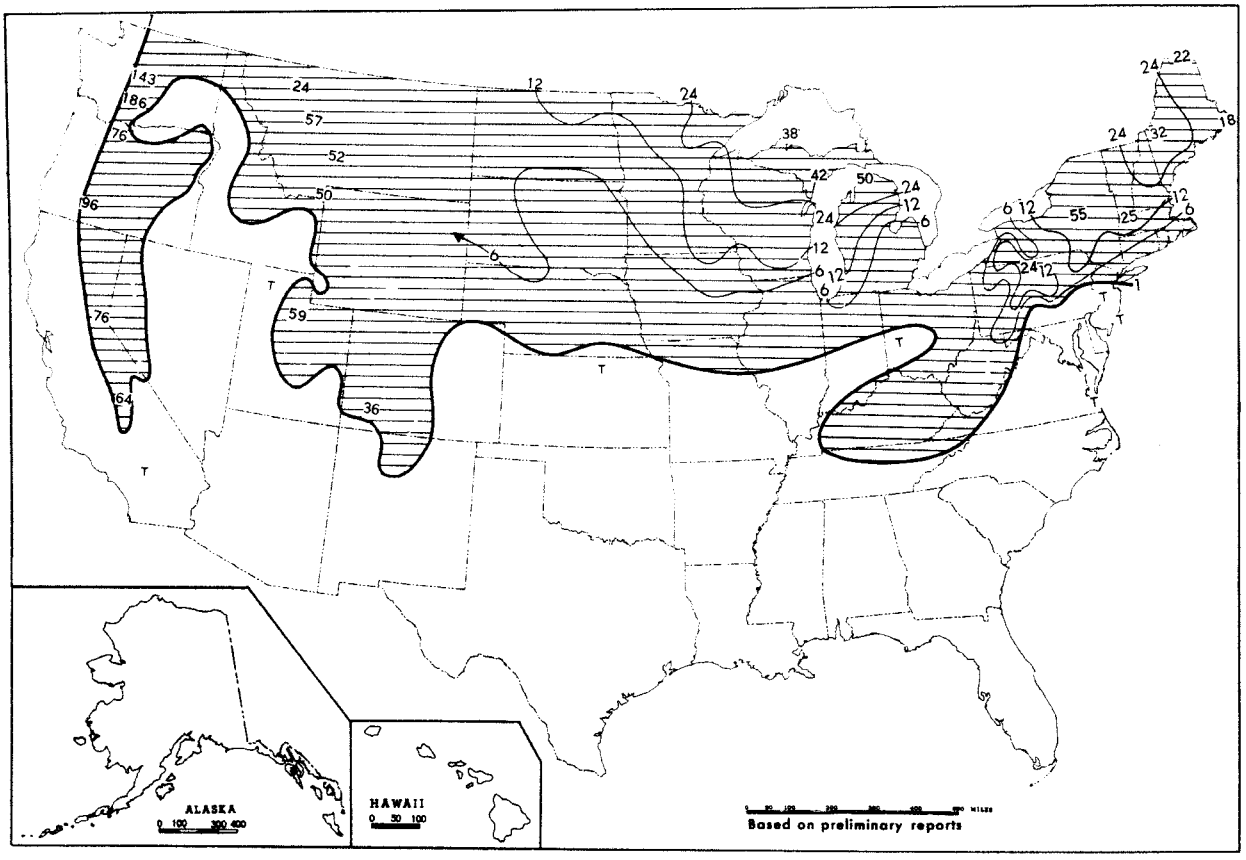


This is the total of unmelted snowfall recorded during the month at Weather Bureau and selected cooperative stations. This Chart and Chart V are published only for the months of November through April, although of course there is some snow at higher elevations, particularly in the far West, earlier and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

Chart V. A. Percentage of Mean Monthly Snowfall, January 1971

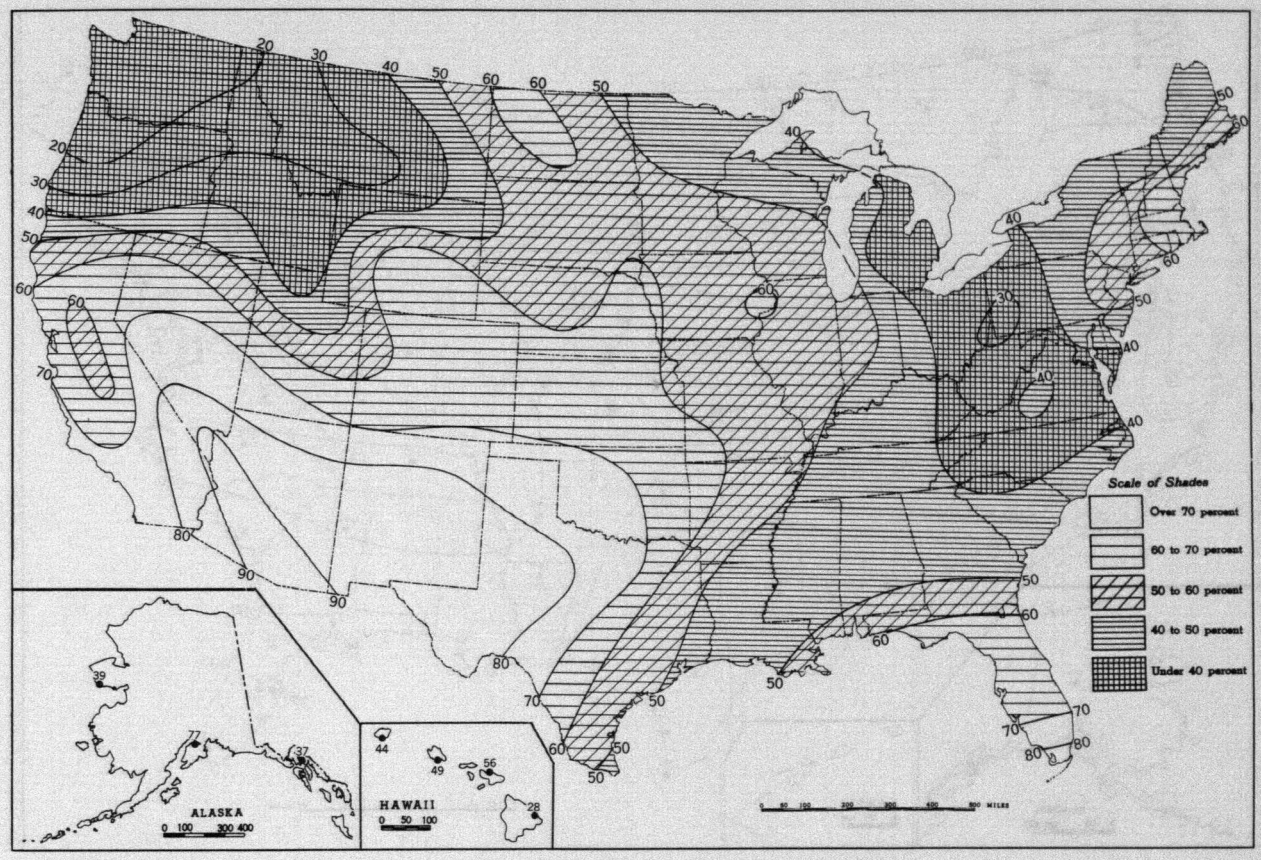


B. Depth of Snow on Ground (Inches), 7:00 a.m. E. S. T., February 1, 1971

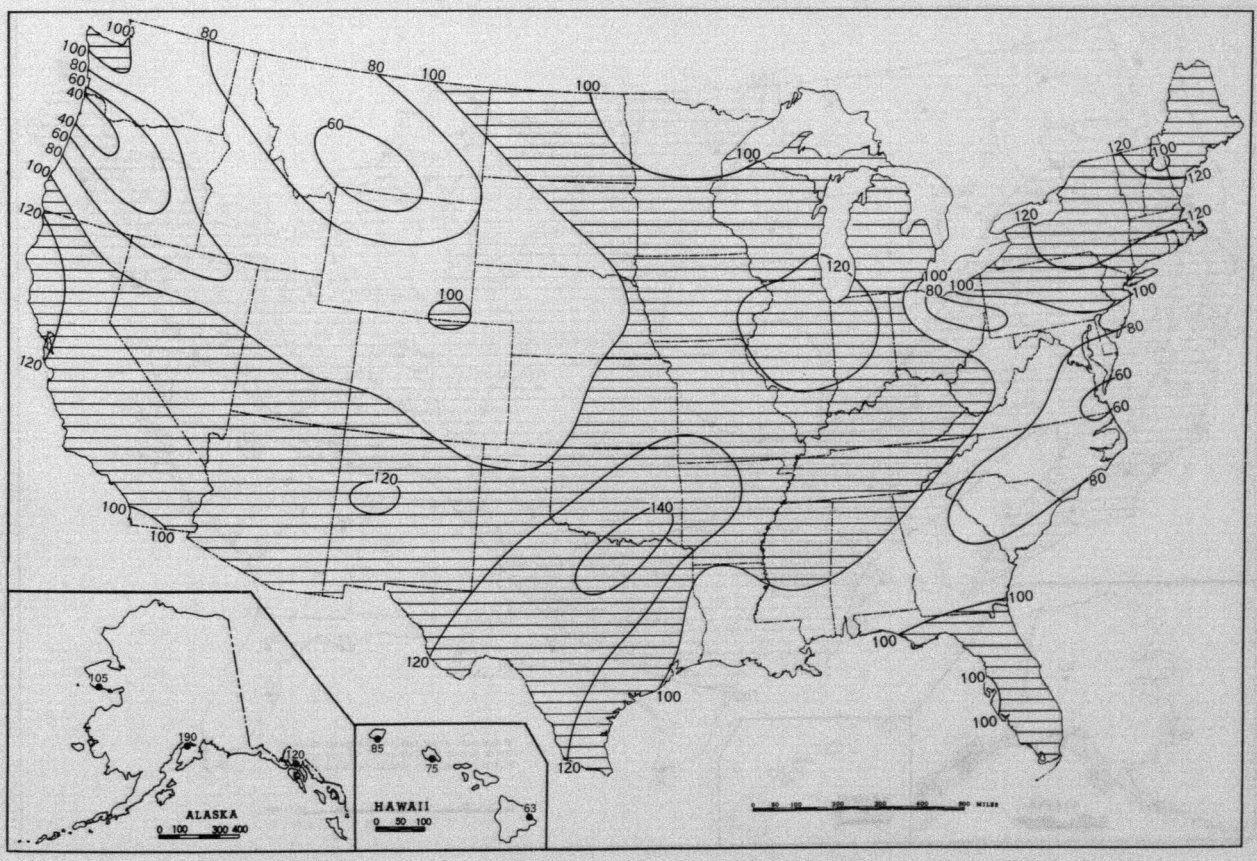


A. Amount of mean monthly snowfall is computed for Weather Bureau stations having at least 10 years of record.
B. Shows depth currently on ground at 7:00 a.m. E.S.T., of the Monday nearest the end of the month.
It is based on reports from Weather Bureau and selected cooperative stations.

Chart VI. A. Percentage of Possible Sunshine, January 1971

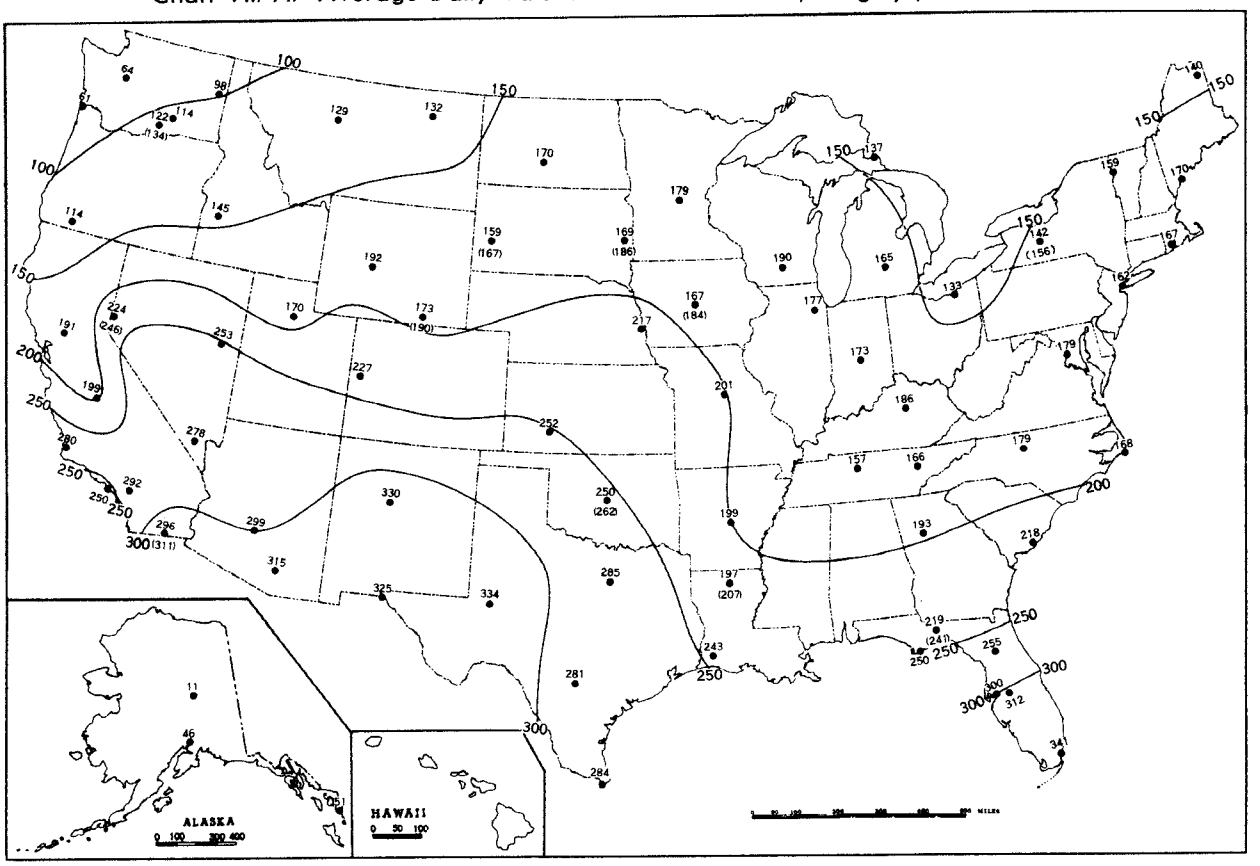


B. Percentage of Mean Monthly Sunshine, January 1971

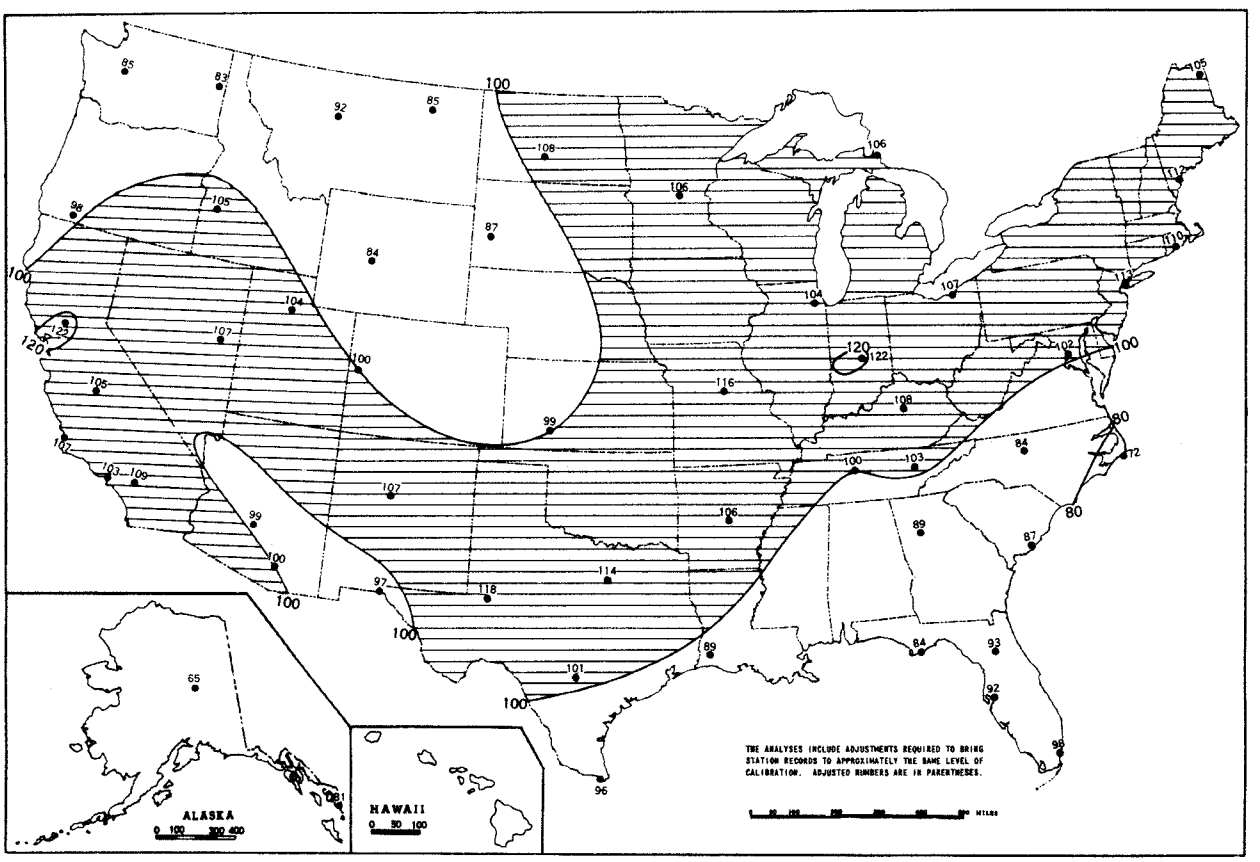


A. Computed from total number of hours of observed sunshine in relation to total number of possible hours of sunshine during month. B. Means are computed for stations having at least 10 years of record.

Chart VII. A. Average Daily Values of Solar Radiation, Langleys, January 1971.

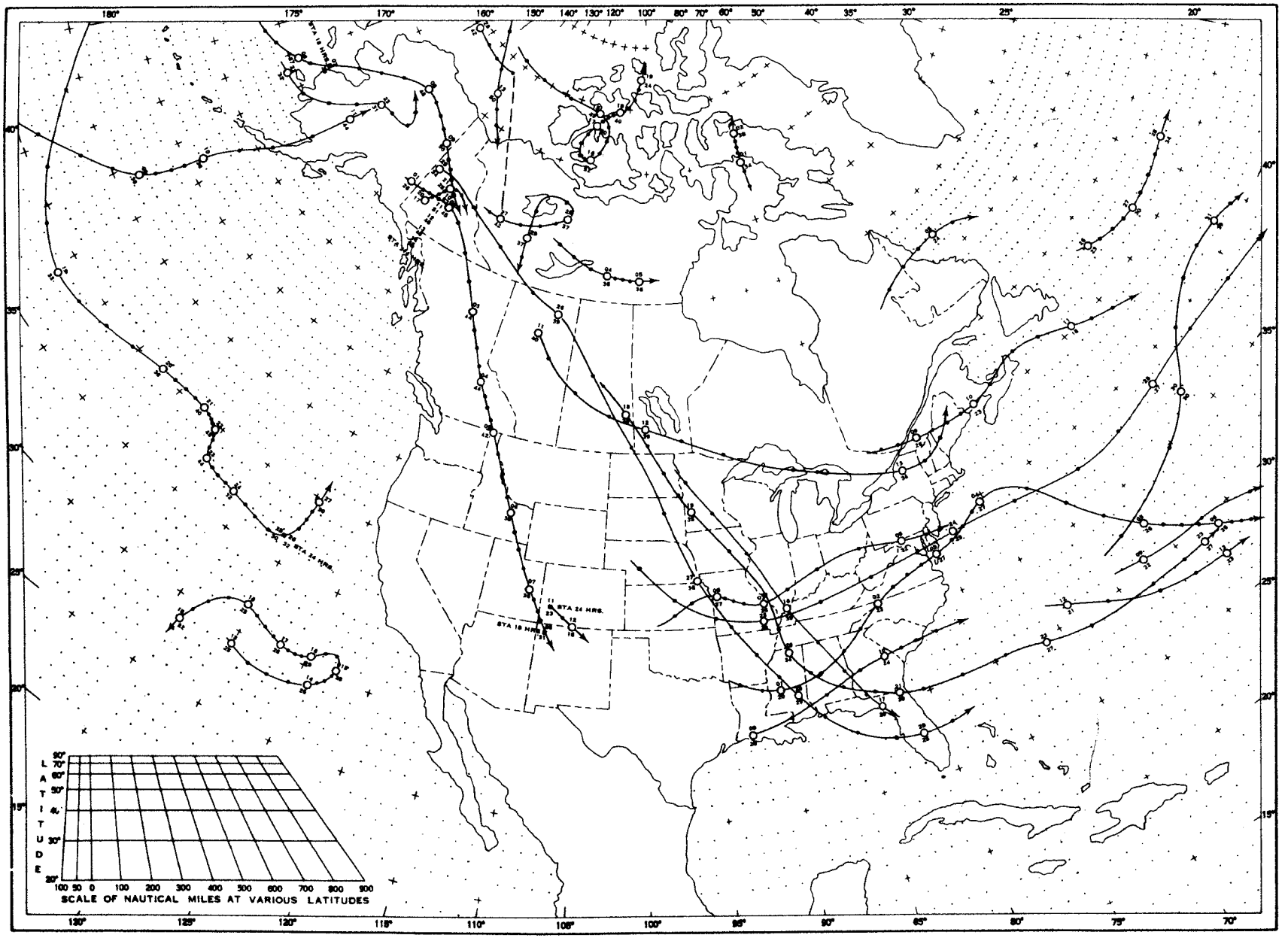


B. Percentage of Mean Daily Solar Radiation, January 1971



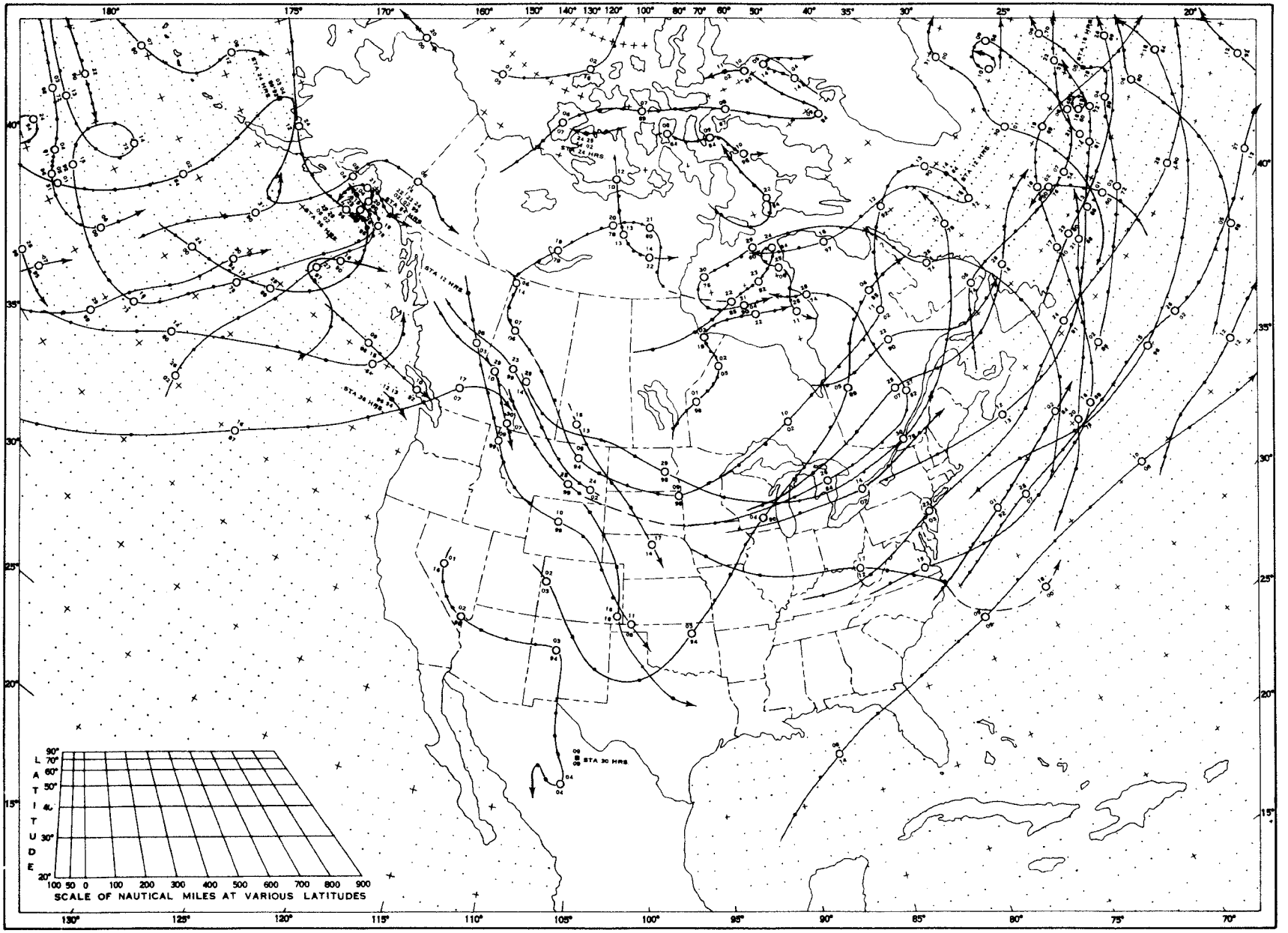
A. Mean daily solar radiation, direct + diffuse, received on a horizontal surface in langleys (1 langley = 1 gm. cal. cm.$^{-2}$) and recorded in International Pyrheliometer Scale of 1956. B. Percentage of the mean based on at least 5 years of record during the period 1950-60, and corrected to the International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

Chart VIII. Tracks of Centers of Anticyclones at Sea Level, January 1971.



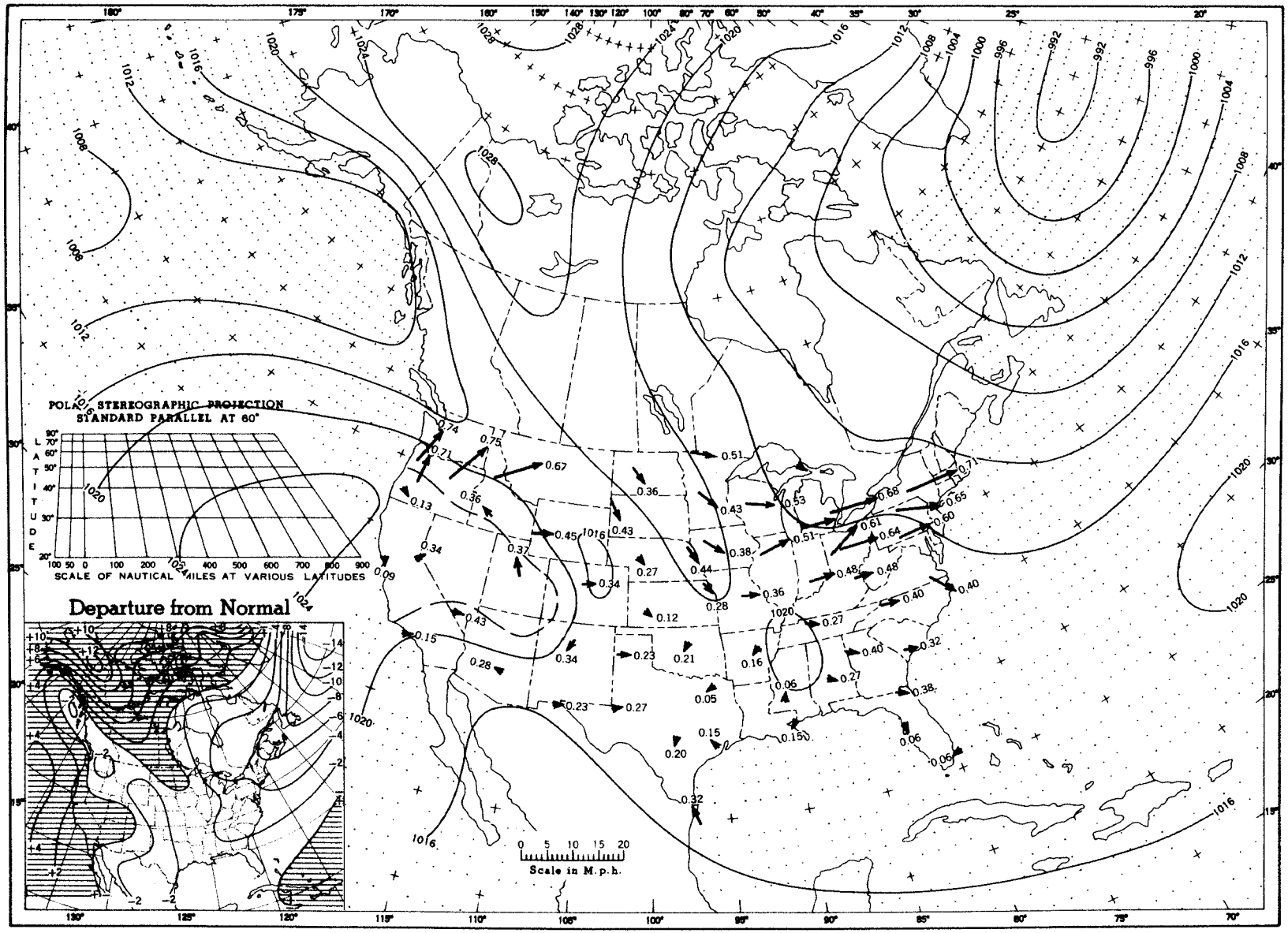
Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. 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 1971.



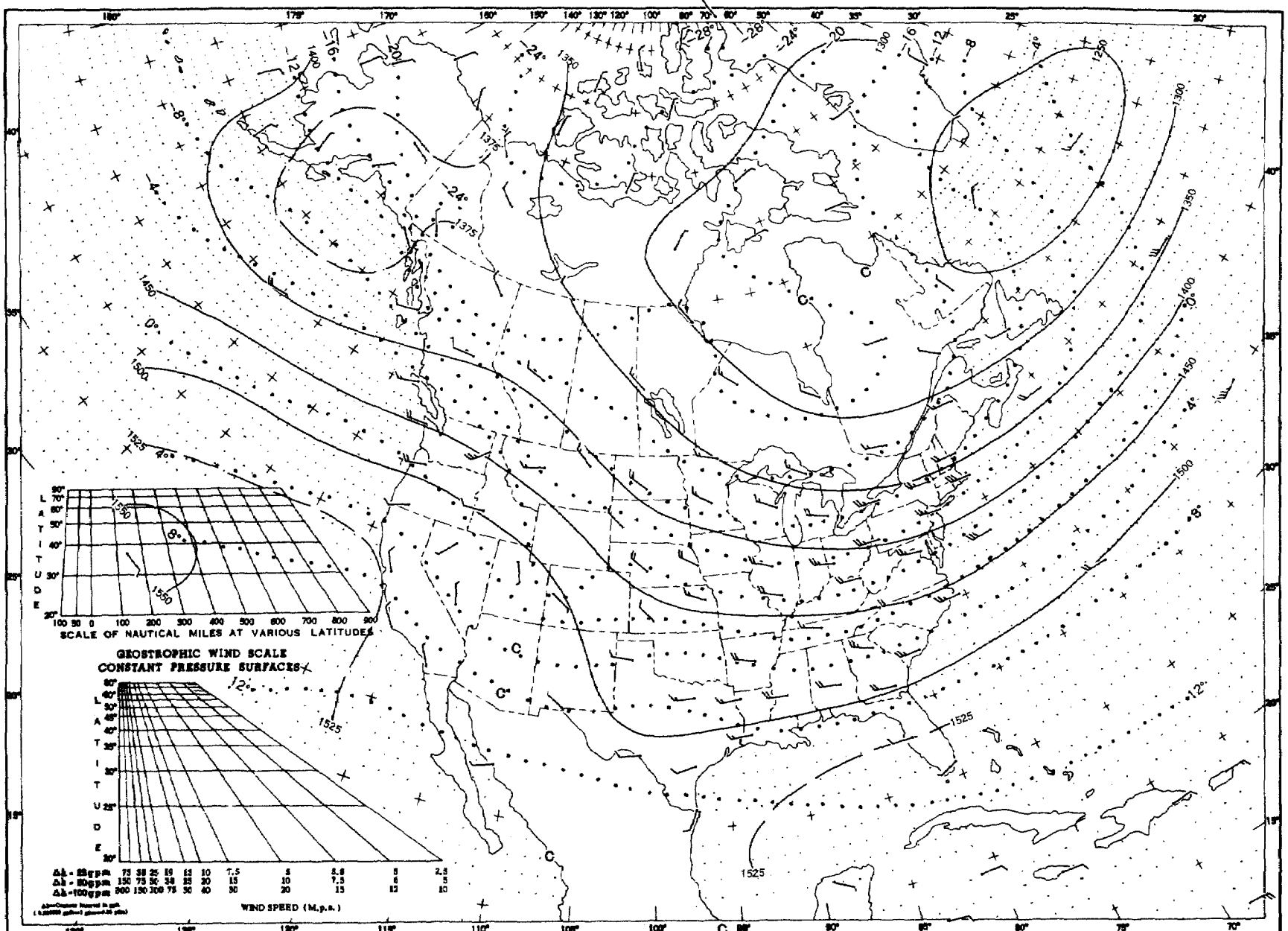
Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. 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 1971 Inset: Departure of Average Pressure (mb) from Normal, January 1971



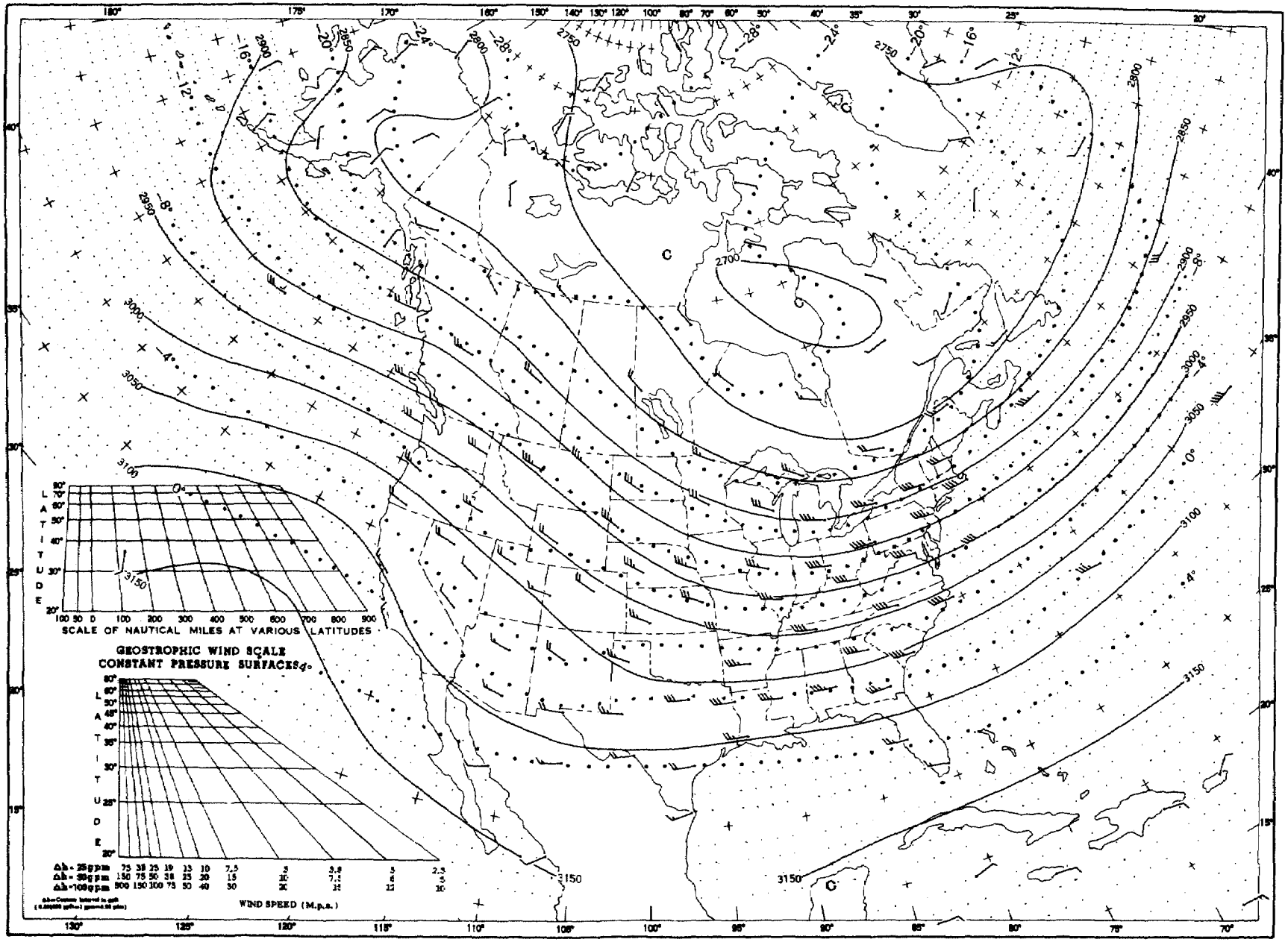
Average sea level pressures are obtained from eight daily 3-hourly observations. Resultant wind directions and speeds are shown by arrows. Constancy ratios (resultant speed÷average speed) are shown to two decimal places. Pressure normals are computed for stations having at least 10 years of record and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

Chart XI. 850-mb. Surface, 1200 GMT, January 1971. Average Height and Temperature, and Resultant Winds.



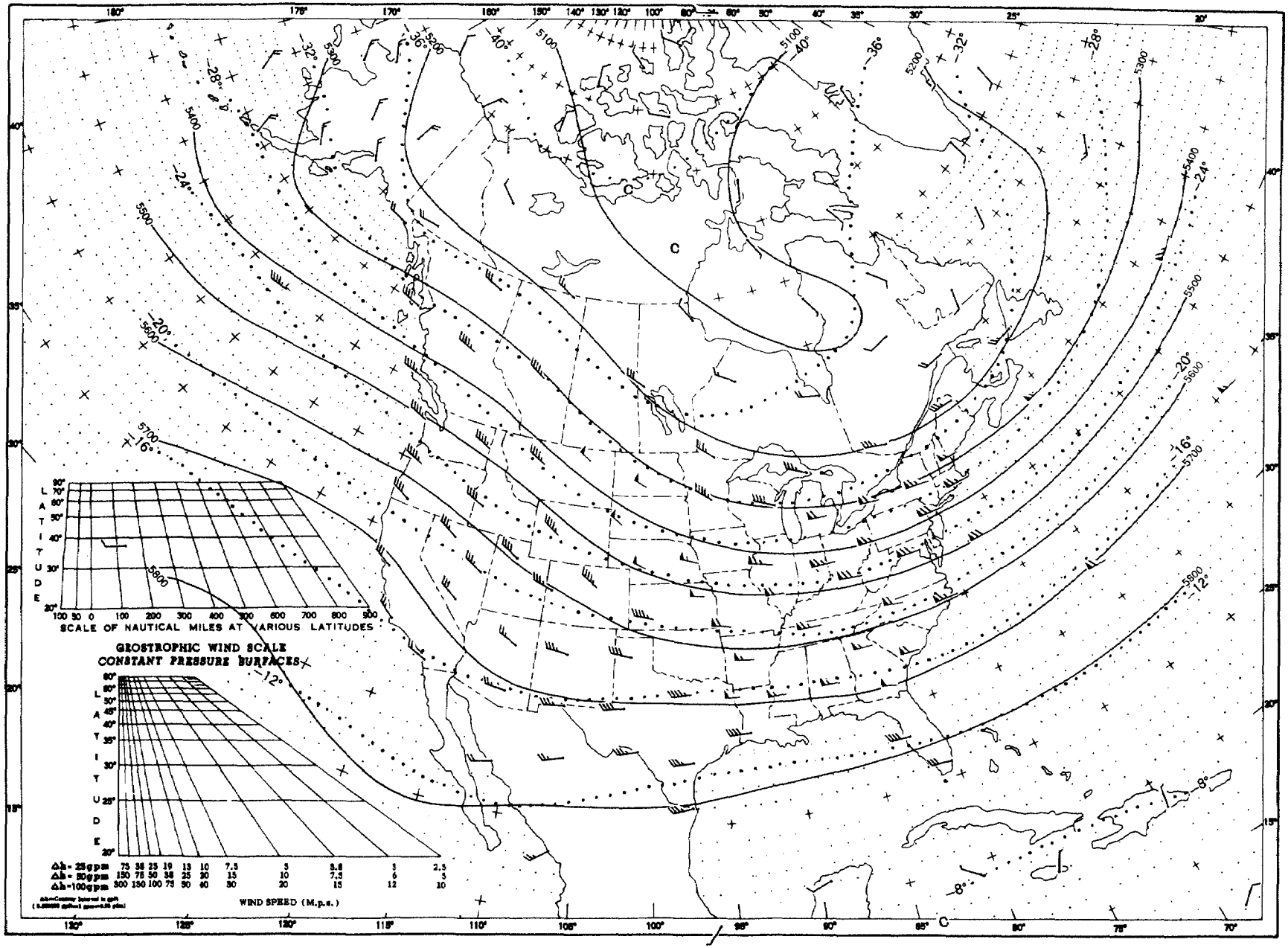
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XII. 700-mb. Surface, 1200 GMT, January 1971. Average Height and Temperature, and Resultant Winds.



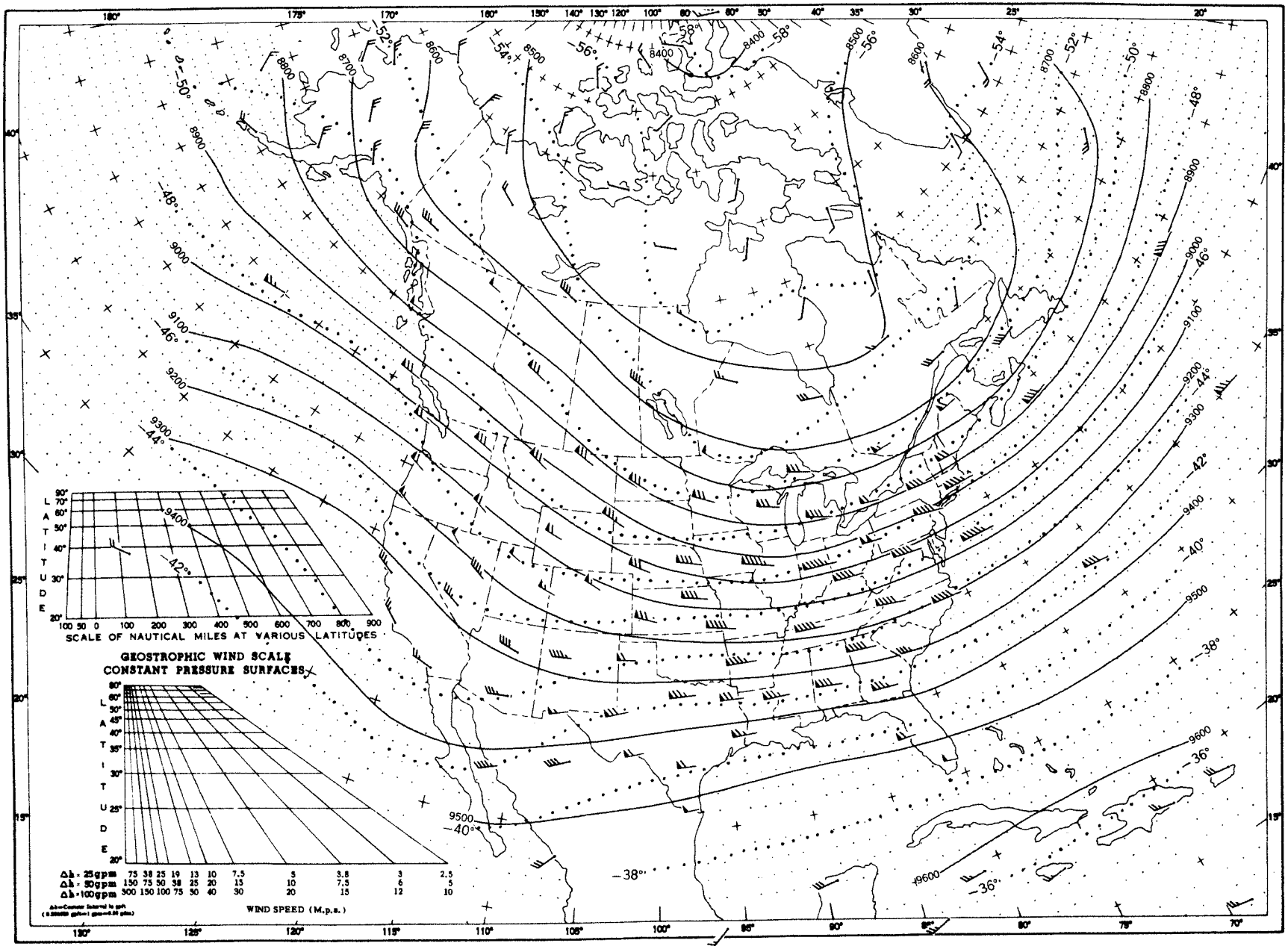
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XIII. 500-mb. Surface, 1200 GMT, January 1971. Average Height and Temperature, and Resultant Winds.



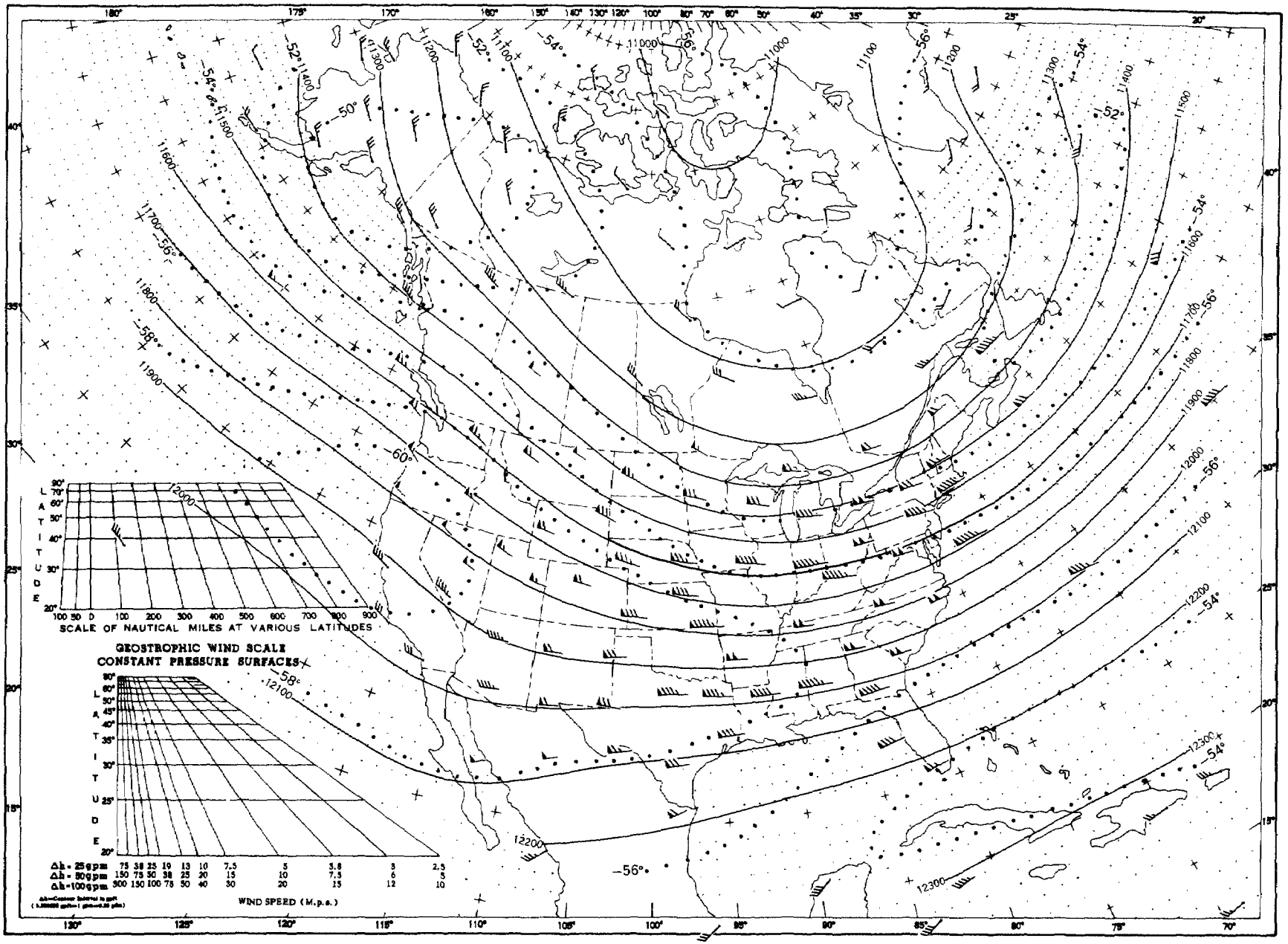
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XIV. 300-mb. Surface, 1200 GMT, January 1971 Average Height and Temperature, and Resultant Winds.



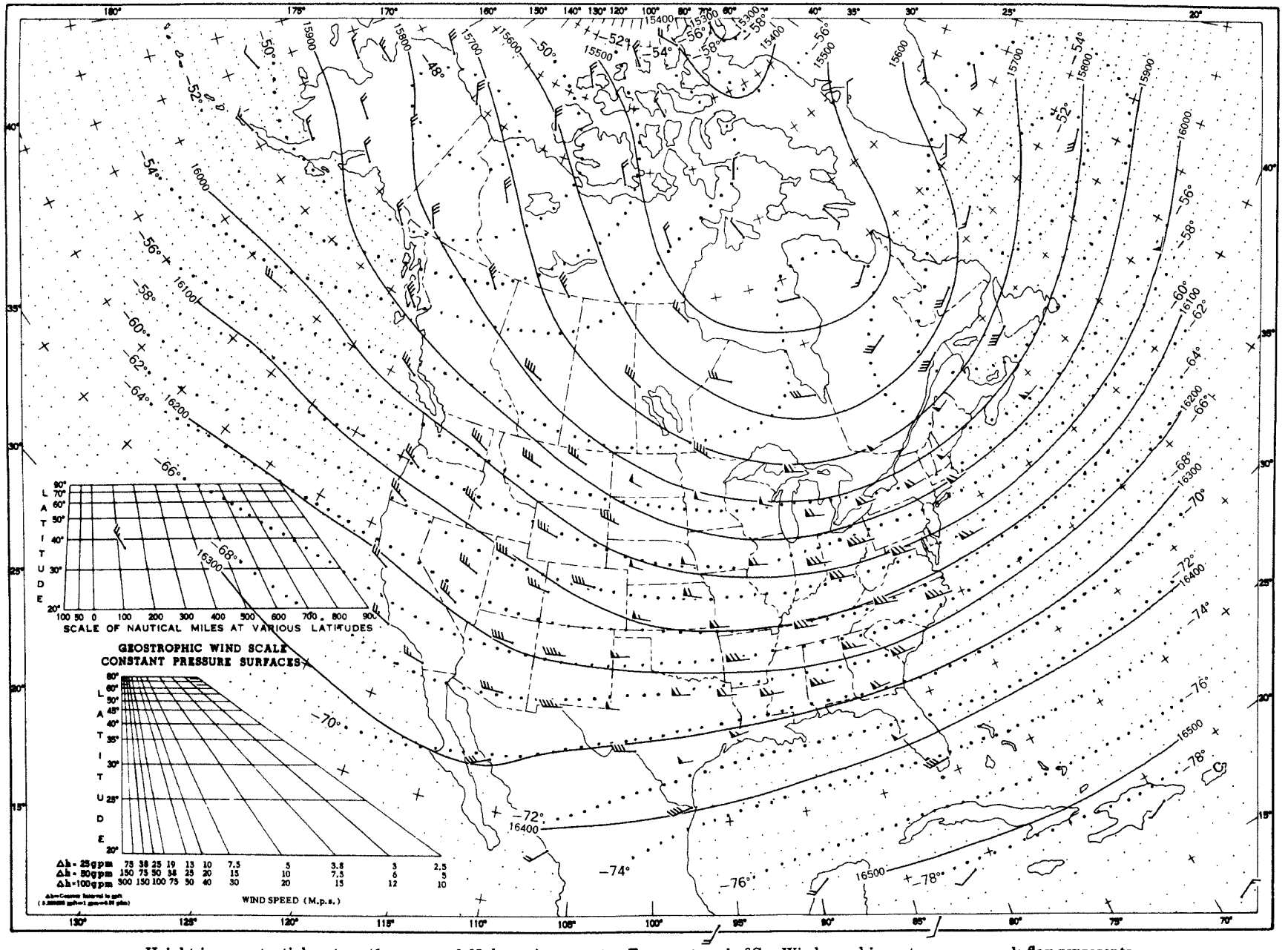
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XV. 200-mb. Surface, 1200 GMT, January 1971. Average Height and Temperature, and Resultant Winds.



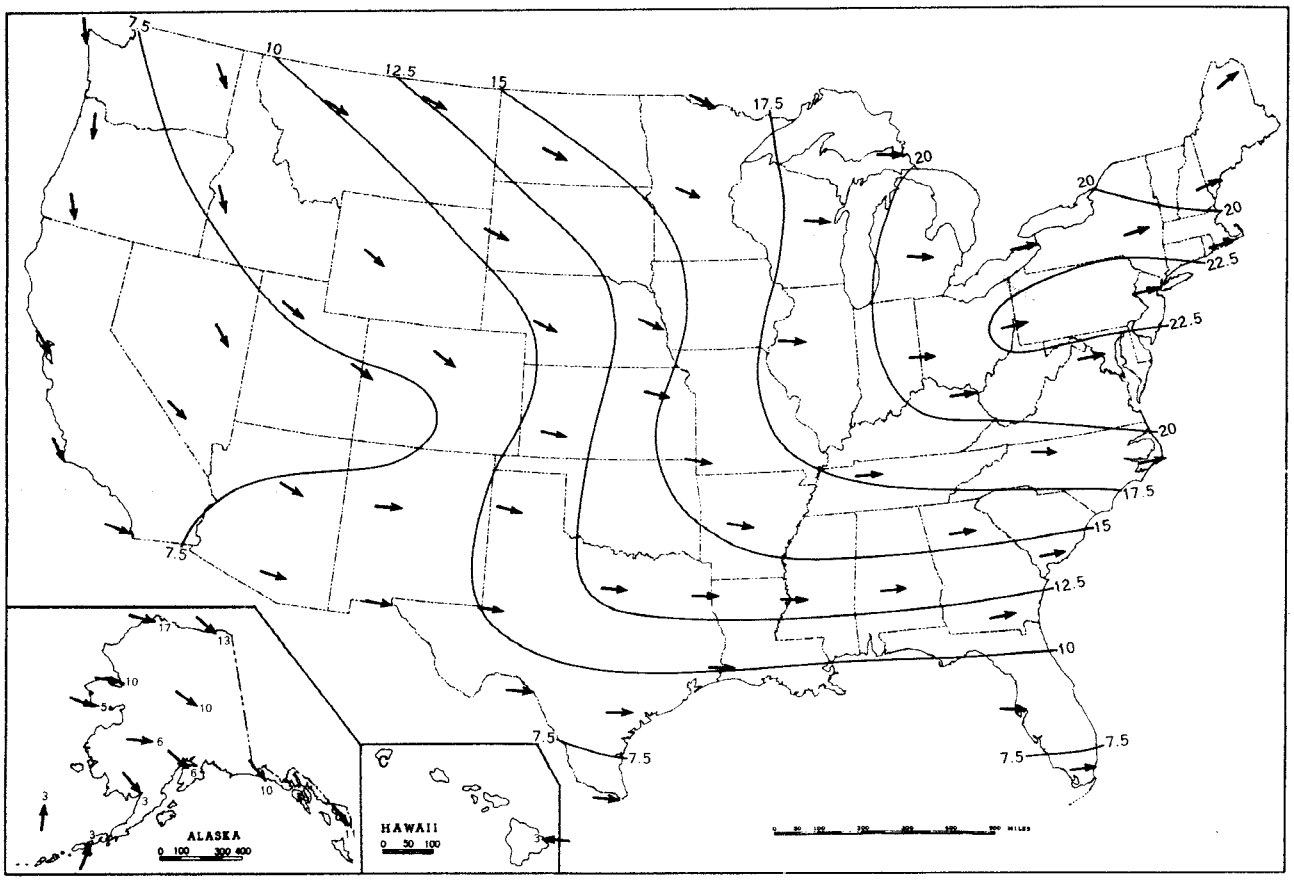
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XVI. 100-mb. Surface, 1200 GMT, January 1971. Average Height and Temperature, and Resultant Winds.

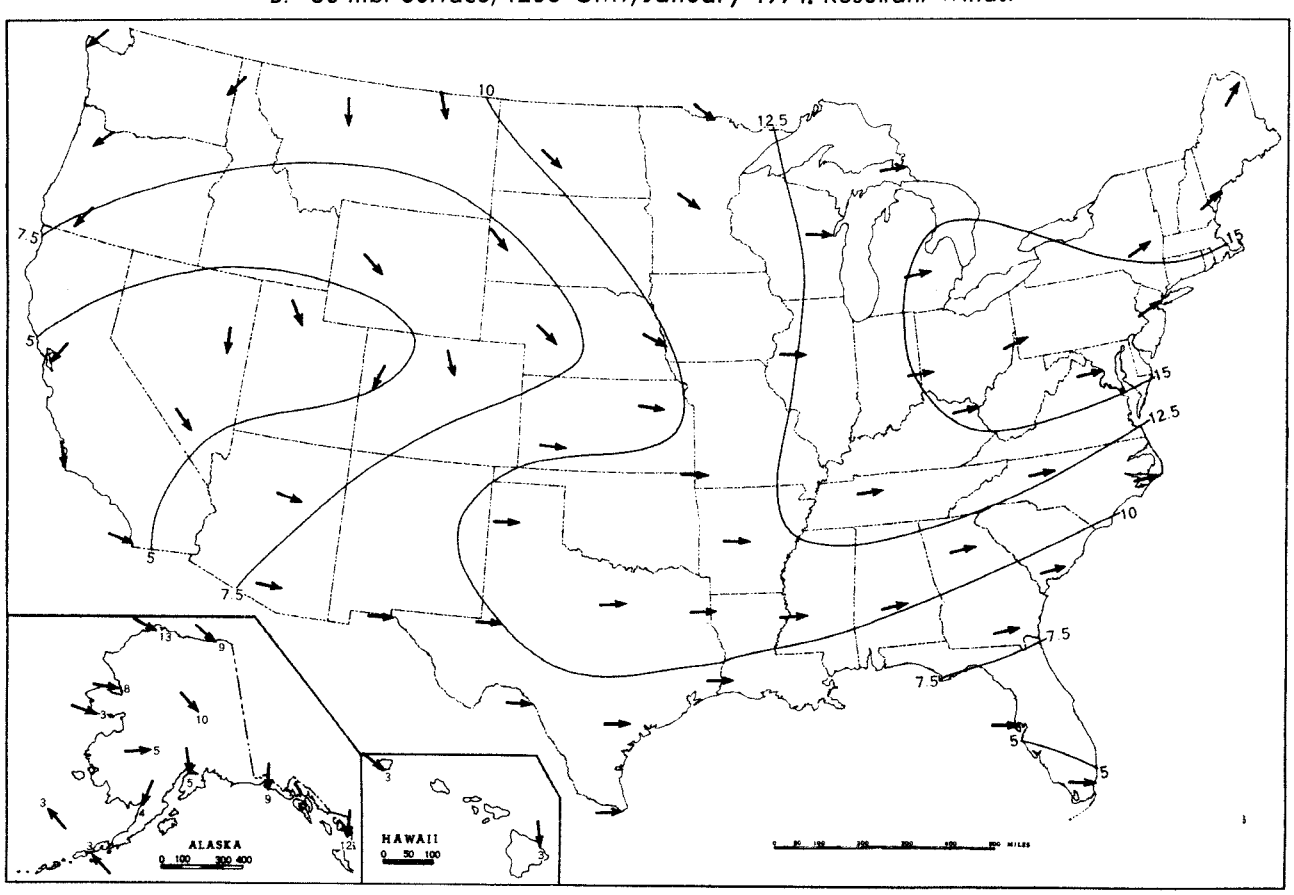


Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XVII. A. 50-mb. Surface, 1200 GMT, January 1971. Resultant Winds.



B. 30-mb. Surface, 1200 GMT, January 1971. 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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