U.S. DEPARTMENT OF COMMERCE
C. R. SMITH, Secretary

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

JANUARY 1968
Volume 19 No. 1

ASHEVILLE: 1968

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NOTE: Delayed data and corrections will be carried in the June and December issues of this publication.

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

Volume 19 No. 1 JANUARY 1968

GENERAL SUMMARY OF WEATHER CONDITIONS

HIGHLIGHTS:
1. Extreme cold east of Rockies first half of month.
2. Freezing on record number of days in southeast.
3. Continued drought northeastern Oregon.
4. Damaging floods south-central Texas.
5. Midmonth snowstorm Ohio Valley and Appalachian region.

TEMPERATURE.--Temperatures for January averaged below normal along the Continental Divide and well below east of the Mississippi River. Except for Florida and a few areas in the Far West, the first half of January was part of a prolonged period of extreme cold which persisted through the last week of December 1967 and the first 2 weeks of January 1968. During the second half of the month temperatures rose rapidly to above normal levels and remained that way until the end of the month except in the Appalachian region and Atlantic Coast States where temperatures were alternately above and below.

The first week of January was extremely cold nearly everywhere except Florida and Washington State. Average temperatures for the week ranged from 27° below normal in northeastern North Dakota and northwestern Minnesota to 1° to 3° below in Washington and along the southern borders and Gulf Coast. Freezing occurred everywhere except in the Florida Peninsula and some southern portions of Arizona and California, and subzero minima spread southward over northern interior and central areas to the northern portion of the Southern States. A few stations in the northern Great Plains recorded more than 40° below zero.

With rapid advection of cold air from western Canada on the 6th and 7th, barometer readings in the lower Ohio and middle Mississippi Valleys reached record and near record high levels. Cairo, Ill., recorded 31.00 inches m.s.l. on the 5th, tieing the previous record set on January 5, 1929. At Springfield, Ill., 30.99 inches m.s.l. equaled the alltime low recorded there on January 15, 1888 and again on December 20, 1924, and 30.96 inches m.s.l. on the 7th tied the record for Memphis, Tenn., which had stood since January 5, 1924.

The second week of January was colder than the first in the Atlantic Coast States but warmer elsewhere. North of Florida temperatures averaged from 12° to 24° below normal. In the Pacific Northwest the week was a few degrees warmer than normal.

An alltime low temperature of -26° for Albany, N. Y., was equaled on the 12th. From the 7th through the 12th at Burlington, Vt., subzero temperatures persisted for 115 hours, the longest such period on record; also this was the fourth coldest month and third coldest January. At Concord, N. H., the week ending the 13th was the third coldest week in January since the beginning of records in 1871. Buffalo, N. Y., recorded -11° on the 12th, the lowest ever so early in the winter. In the Midwest at Sault Ste. Marie, Mich., -28° on the 8th was the lowest there since February 1934.

The severe cold weather froze over Nantucket Harbor, a phenomenon many compared with a similar occurrence during the coldest winter on record in the northeastern United States in 1917-18.

In the Chesapeake Bay ice conditions were the worst since 1963. Many Eastern Shore streams draining into the Bay were frozen over with 6 inches or more of ice.

In the Midwest, Iowa reported frost penetration of 2 to 4 feet in northern sections, but topsoil had thawed in southern sections by the end of the month. Wisconsin reported frost averaged about 15 inches deep in the south and 30 inches in the north.

The third week was warmer than normal everywhere except the Ohio Valley, Southeast, and the snow-covered areas of eastern Utah, western Colorado, northeastern Arizona, and southwestern Wyoming. The week was 9° to over 15° warmer than normal in north-central areas and the Pacific Northwest, in contrast to 3° to 21° colder than normal in the upper Colorado River Basin.

Temperatures averaged below normal for the fourth week in the Appalachian region and Atlantic Coast States except eastern New England. In nearly all the rest of the Country the week was warmer than normal, by as much as 15° in north-central areas. The last 3 days of the week were abnormally warm nearly everywhere.

At Red Bluff, Calif., a high of 78° on the 22d was only 1° less than the highest ever recorded there in January.

PRECIPITATION.--Precipitation in the 48 States was well above normal in the Texas-southern Oklahoma-eastern New Mexico area, most of Montana, and a few other small scattered areas. Monthly totals were less than 50% of normal in the Florida Peninsula, eastern Kentucky, much of the central Great Plains and central Rockies, the Colorado River Basin and northeastern Oregon.

In central Texas where monthly totals ranged up to more than 400% of normal, this was one of the wettest Januarys on record. The heaviest rainfall occurred during the period January 18-21 and totaled up to 10 inches or more. The heavy rains caused flooding in many streams. In San Antonio where 8.52 inches was the greatest January total since records began in 1871, flash flooding was blamed for the death of five persons and property damage of about $4 million.

The Florida Peninsula was unusually dry, with monthly totals nearly all less than 1 inch. Jacksonville had only 0.07 inch, its second driest January. Lakeland's total of 0.29 inch was its least for January in the last 53 years. Despite the January deficits, however, soil moisture was adequate owing to heavy rains in December.

In large areas of the central Great Plains precipitation was less than 50% of normal, and in parts of western Nebraska and Kansas, and eastern Colorado less than 25%. At the end of the month the soil was dry in western Kansas.

SNOWFALL.--January snowfall was below normal except an area that included the lower Appalachians, the lower Ohio Valley and nearly all of Indiana and Illinois, and a few other widely scattered localities.

In the Ohio Valley and adjacent areas, heaviest snowfall occurred on the 13th and 14th. Indianapolis, Ind., received 11 inches during this storm and 17 inches for the month which was the greatest monthly total since 1895 when 20 inches fell.

Some stations in the Great Plains measured less than 50% of their normal January snowfall, and nearly

all stations reported below normal amounts. During the second half of the month the snow cover in the midcontinent area receded northward from Kansas, Missouri, and the Ohio Valley to North Dakota and northern portions of Minnesota, Wisconsin, and Michigan. No general snowstorm occurred in the northern Plains.

STORMS.--Icing was more frequent and widespread than usual east of the Rockies. In North Carolina icing occurred daily over large areas from the 9th through the 13th, and broken trees and limbs falling on utility lines disrupted services from a few hours up to a week. Ice storms also affected the entire State on the 6-7th and 24-25th. On the 8th ice caused hazardous driving conditions over almost the entire State of Texas - a very unusual situation.

The snowstorm about midmonth in the Midwest and East hampered traffic and caused considerable damage. Up to 14 inches of snow in the southern Appalachian area collapsed roofs of several commercial buildings in Roanoke and Carroll Counties, Va., and also damaged windows, awnings, carports, roofs, and sheds. Schools closed for 1 or 2 days in parts of the Carolinas, Virginia, West Virginia, and Ohio.

CONDENSED CLIMATOLOGICAL SUMMARY

JANUARY 1968

Section	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	2 Stations	79	30+	Waterloo	5	8	Double Springs	9.15	Mobile WBAP	0.98
Alaska	Data delayed									
Arizona	Sabino Canyon	83	22	2 Stations	-17	6	Payson 12NNE	3.64	13 Stations	.00
Arkansas	2 Stations	75	31	Harrison	-9	7	Hamburg	12.56	Paragould Radio KDRS	1.82
California	do	86	23	2 Stations	-20	11	Honeydew 2WSW	28.60	17 Stations	.00
Colorado	do	75	25	Fraser	-42	12	Wolf Creek Pass 1E	4.77	4 Stations	.00
Connecticut	West Thompson Dam	52	20	Falls Village	-22	11	Colchester 1E	3.61	Norwalk Gas Plant	1.24
Delaware	2 Stations	66	30	Middletown 1WSW	-6	2	2 Stations	2.91	Newark University Farm	1.47
Florida	Sanford Exp Station	89	10	Fountain 3SSE	17	15	De Funiak Springs	3.46	Key West WBAP	.07
Georgia	2 Stations	80	29+	Blairsville Exp Station	7	8	Louisville	7.80	Moultrie 2ESE	1.15
Hawaii	Data delayed									
Idaho	Grasmere	62	24	Island Park Dam	-31	6	Mullan FAA	5.36	3 Stations	.19
Illinois	Quincy	68	27	2 Stations	-20	7+	Kewanee	3.56	Rockford 6ENE	.36
Indiana	Jeffersonville	64	31	do	-21	8+	Greenfield	4.91	Brookville 1S	.48
Iowa	Keokuk Lock and Dam 19	62	27	Le Mars 2N	-28	7	Corning	1.84	Peterson 1W	.10
Kansas	Elkhart	78	25	Centralia	-18	7	Columbus 6NNW	2.31	6 Stations	.00
Kentucky	Nolin River Reservoir	70	30	Owenton 2S	-16	8	Williamsburg 1E	3.81	Bowling Green	.86
Louisiana	Donaldsonville	81	7	4 Stations	15	8	Stevenson Fire Tower	11.26	New Orleans WB Moisant	.54
Maine	West Buxton 2NNW	48	19	Hiram	-38	9	Belfast	4.69	St Francis	1.35
Maryland	Leonardtown 3NW	65	30	Oakland 1SE	-23	2	Leonardtown 3NW	4.42	Cumberland Police Brks	D .77
Massachusetts	Hyannis 2NNE	54	12	Birch Hill Dam	-28	11	Spot Pond	5.67	Adams	1.28
Michigan	Mio Hydro Plant	50	19+	Stambaugh 1S	-34	8	Harbor Beach 3NW	3.55	Eagle Harbor Coast GD	.41
Minnesota	2 Stations	53	22+	Baudette 22S	-52	6	Cokato	1.54	2 Stations	.22
Mississippi	Monticello	79	31	7 Stations	10	14+	Greenville	10.66	Saucier Exp Forest	1.01
Missouri	3 Stations	72	22+	2 Stations	-22	7	Ozark	4.47	Mercer 6NW	.05
Montana	Roy 24NE Mobridge	68	24	Opheim 10N	-40	29	Jardine	7.27	Dodson 3W	.02
Nebraska	Beaver City	70	25	3 Stations	-29	7	Beemer 5N	.62	9 Stations	T
Nevada	Sunrise Manor Las Vegas	74	23	do	-19	29+	Glenbrook	2.59	8 Stations	.00
New Hampshire	Windham	50	27+	Mount Washington	-46	8	Mount Washington	4.12	Lebanon FAA AP	1.11
New Jersey	2 Stations	60	31+	Newton	-23	12	Phillipsburg Bridge	4.35	Hammonton 2NNE	.69
New Mexico	Jal	78	31	Gavilan	-32	12	Elida	2.16	12 Stations	.00
New York	Suffern Water Works	55	21+	Wanakena Ranger School	-41	9	Oswego Teachers Col	D 4.05	Peru 2WSW	.75
North Carolina	2 Stations	75	30	Grandfather Mountain	-4	7	Andrews 2E	6.43	Carthage 1SSE	1.72
North Dakota	4 Stations	59	24	Willow City	-45	1	Verona	D 1.67	2 Stations	T
Ohio	2 Stations	64	28+	Tom Jenkins Dam	-23	9+	Chardon	4.39	London Water Works	1.26
Oklahoma	do	76	25	2 Stations	-5	7	Flashman Tower	7.37	Regnier	.05
Oregon	Port Orford No 2	76	22	Ukiah	-14	7	Illahe 1N	18.29	Redmond KPRB	.09
Pennsylvania	Burnt Cabins 2NE	59	4	Clermont 4NW	-32	12	Union City Filt Plant	5.19	Bloserville 1N	.65
Puerto Rico	Red Hook Bay	97	21	Cayey 1E	51	31	Rio Blanco Upper	9.33	3 Stations	.00
Rhode Island	Greenville	49	19	Kingston	-10	12	Kingston	4.41	Block Island WBAP	2.37
South Carolina	Bamberg	76	30	Caesars Head 1NE	10	8	Caesars Head 1NE	7.66	Charleston WB City	2.01
South Dakota	2 Stations	69	24	2 Stations	-35	4	Deadwood	1.05	5 Stations	T
Tennessee	Selmer	71	22	Mountain City No 2	-2	17	Moscow	D 7.30	Clarksville Sew Plt	1.63
Texas	2 Stations	84	31+	Gruver	-3	7	Freeport 2NW	12.76	Plata	.17
Utah	La Verkin	63	20	2 Stations	-34	12	Silver Lake Brighton	3.91	2 Stations	.00
Vermont	Vernon	45	21	Mount Mansfield	-39	9	Mount Mansfield	3.91	Bellows Falls	1.06
Virginia	4 Stations	70	30	2 Stations	-13	12+	Woolwine 4S	5.72	Mount Weather	.87
Washington	Walla Walla WB City	71	20	Chesaw 4NNW	-18	28	Quinault Ranger Sta	D30.85	Lower Monumental Dam	.55
West Virginia	2 Stations	65	30	Bayard	-27	2	Flat Top	3.97	Mathias	1.58
Wisconsin	Dodge	53	20	2 Stations	-37	7	Merrill	1.96	Frederic	.23
Wyoming	4 Stations	64	24	Linch 10ESE	-41	6	Yellowstone Park	3.81	5 Stations	T

+ And also on an earlier date or dates.

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

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

CLIMATOLOGICAL DATA

ENGLISH UNITS

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	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, Sleet: Total	Snow, Sleet: 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	1001.4	1024.5	52	33	42.5	- 4.0	72	29	18	14	0	14	31	69	5.56	0.53	2.29	12	0	1.0	1	2.0	3	26	N	7	7	6	18	7.0	39
HUNTSVILLE	624	1000.7	1024.5	48	29	38.0	- 4.9	70	31	9	8	0	22	31	80	6.01	0.79	1.70	13	0	4.3	4	2.2	4	26	36	24	8	3	20	6.9	
MOBILE	211	1015.2	1023.4	61	40	50.3	- 2.7	74	29	24	14	0	9	40	71	0.98	- 3.66	0.35	9	0	T	0	2.6	5	25	36	7	10	3	18	6.3	
MONTGOMERY	194	1016.9	1024.3	55	35	45.0	- 3.1	73	30+	24	17+	0	12	34	70	2.78	- 1.28	0.94	12	1	T	T	2.1	3	17	SW	23+	6	6	19	7.0	33
ALASKA																																
ANCHORAGE	114	1010.2	1015.1	18	7	12.5	0.4	41	2	-10	19	0	31	2	61	0.83	0.03	0.34	7	0	7.3	6	4.4	2	44	4	31	10	8	13	5.9	45
ANNETTE	110	1005.1	1009.2	37	27	32.2	- 2.2	52	15	13	10	0	24	23	70	11.05	- 0.31	3.48	18	0	25.2	9	4.0	8	35	15	22	5	8	18	7.2	
BARROW	31	1021.0	1021.7	- 2	-17	- 9.6	6.6	31	6	-47	21	0	31	-16	73	0.41	0.23	0.11	11	0	6.2	16	2.5	18	39	23	2	V	V	V		
BARTER ISLAND	39	1021.7	1023.6	- 2	-17	- 9.4	7.4	31	2	-40	21+	0	31	-16	72	0.73	0.33	0.39	7	0	8.4	21	5.9	26	48	27	31	X	X	X		
BETHEL	125	1015.2	1021.2	17	5	11.2	7.6	41	1	-30	20	0	29	8	88	0.48	- 0.64	0.27	5	0	2.9	3	1.5	7	38	20	25	10	5	16	6.2	
COLD BAY	96	1015.2	1019.1	33	24	28.3	0.5	42	26+	7	20	0	27	24	83	2.77	0.45	1.06	14	0	6.8	6	1.4	8	59	17	24	6	6	19	7.2	
FAIRBANKS	436	1004.7	1023.3	- 2	-20	-11.0	0.1	32	27+	-46	17	0	31	-15	77	1.19	0.30	0.58	9	0	22.6	33	0.9	35	21	27	29	7	5	19	7.0	
JUNEAU	12	1011.9	1012.6	25	12	18.7	- 6.4	45	23	- 9	31	0	31	13	80	3.25	- 0.75	1.16	13	0	31.1	14	5.5	10	38	12	22	10	4	17	6.5	44
KING SALMON	49	1015.6	1017.7	16	4	10.0	- 3.4	47	1	-26	20	0	30	2	69	1.10	0.03	0.72	6	0	9.3	6	4.5	1	29	14	1	13	10	8	4.9	
KOTZEBUE	10	1021.0	1021.5	9	- 6	1.4	7.1	37	2	-35	21	0	31	- 5	75	0.31	- 0.08	0.12	8	0	6.8	18	5.0	12	47	10	25	5	6	20	7.5	
MC GRATH	344	1008.5	1022.2	4	-14	- 4.9	4.1	38	2	-52	20	0	30	-11	71	0.98	- 0.28	0.31	10	0	14.2	15	0.6	27	26	21	25	10	5	16	6.1	
NOME	13	1019.6	1020.3	17	0	8.5	4.1	36	1	-29	19	0	31	0	67	1.26	0.24	0.55	9	0	6.9	18	2.2	17	21	9	24+	5	5	21	7.6	26
ST. PAUL ISLAND	22	1016.6	1017.7	34	26	30.1	4.7	40	25+	12	19+	0	20	27	85	1.63	- 0.18	0.43	17	0	6.0	5	4.0	15	56	16	3	3	3	25	8.2	
SHEMYA	122	1002.7	1006.4	37	30	33.4	2.1	40	30+	22	21	0	20	30	88	1.77	- 0.73	0.33	21	0	5.3	1	13.1	17	62	14	9	1	4	26	8.9	
YAKUTAT	28	1008.5	1009.7	26	10	18.2	- 9.1	39	22	- 3	15+	0	31	13	78	8.09	- 2.77	3.41	14	0	33.7	26	4.6	9	37	11	16	6	6	19	7.1	
ARIZONA																																
FLAGSTAFF	6993	788.0	1022.9	40	11	25.5	- 1.8	53	15	- 6	5	0	31	16	70	1.55	- 0.28	1.29	5	0	15.2	28	1.3	13	26	20	27	16	4	11	4.7	
PHOENIX	1117	979.3	1018.8	66	39	52.4	2.7	74	14	31	6+	0	5	34	56	0.19	- 0.54	0.12	3	0	0.0	0	3.3	10	28Y	ENE	13	15	8	8	4.5	83
TUCSON	2584	928.9	1017.9	65	40	52.4	2.6	75	14	32	20+	0	4	34	56	0.18	- 0.64	0.09	5	0	0.0	0	4.7	13	38	E	13	16	2	13	4.6	72
WINSLOW	4895	856.4	1030.6	23	2	12.9	-18.1	46	31	- 9	8	0	31	8	81	T	- 0.43	T	0	0	0.3	7	1.5	21	25	18	27	14	5	12	5.1	
YUMA	194	1011.5	1018.8	68	43	55.2	1.8	77	23	34	1	0	0	29	42	T	- 0.39	T	0	0	0.0	0	3.5	2	26	NE	23	15	9	7	4.2	91
ARKANSAS																																
FORT SMITH	447	1007.1	1024.3	49	31	39.6	- 0.2	70	31	7	7	0	21	30	72	2.81	0.15	1.02	10	0	0.3	T	2.7	5	23	NW	6	4	4	23	8.2	32
LITTLE ROCK	257	1014.6	1024.6	45	30	37.7	- 2.9	68	26	10	7	0	22	31	78	4.76	- 0.46	1.09	12	1	1.0	1	3.0	5	28	N	6	4	6	21	7.8	47
TEXARKANA	391	1010.5	1024.1	51	37	44.0	- 1.1	75	31	16	8+	0	12	35	74	5.07	0.23	1.35	14	0	0.1	1	1.8	11	21	19	29+	5	1	25	8.0	
CALIFORNIA																																
BAKERSFIELD	475	1003.4	1021.4	57	38	47.9	0.5	75	23	31	5	0	1	37	69	0.49	- 0.68	0.28	3	0	0.0	0	0.7	4	21	30	27	8	7	16	6.5	
BISHOP	4108	876.1		56	20	37.9	1.1	71	24+	10	29	0	30			0.01	- 0.98	0.01	1		T	T						12	7	12	5.0	
BLUE CANYON	5280			44	31	37.6	0.5	65	23	17	28+	0	19			11.71	0.01	3.18	11		34.9	51			36	21	29	10	6	15	6.2	
EUREKA U	43			53	40	46.6	- 0.8	70	22	32	11	0	1			7.59	0.89	2.34	15		T	T			34	N	25+	6	7	18	6.7	58
FRESNO	328	1009.1	1021.3	54	35	44.8	- 1.3	69	23	26	4	0	7	38	81	1.05	- 0.98	0.41	5	1	0.0	0	0.9	11	22	NW	16	5	11	15	6.9	47
LONG BEACH	34	1018.3	1019.6	67	44	55.6	2.5	82	23	36	30+	0	0	37	55	0.52	- 1.47	0.23	5	0	0.0	0	1.0	31	18	21	27	14	8	9	4.9	
LOS ANGELES	97	1015.2	1018.9	66	48	57.3	2.9	82	23	41	30+	0	0	40	57	0.84	- 1.82	0.40	6	0	0.0	0	0.5	34	28Y	S	27	12	7	12	5.0	
LOS ANGELES U	270			68	49	58.5	2.7	84	23	40	29+	0	0			0.90	- 2.17	0.53	6		0.0	0			17	SW	27	13	7	11	4.8	65
MT SHASTA R	3544			42	24	33.0	- 0.3	62	23	4	11	0	27			8.40	2.04	2.57	14		76.0	37										
OAKLAND	6	1020.7	1020.8	54	41	47.1	- 0.9	74	22	33	7+	0	0	39	75	5.05	1.22	2.58	11	0	0.0	0	2.2	12	31	15	29	10	6	15	6.0	
RED BLUFF	342	1007.8	1020.8	53	33	43.1	- 2.4	78	22	20	4	0	15	34	77	5.82	1.53	1.87	10	0	0.1	T	1.0	30	45	SE	29	7	7	17	7.0	50
SACRAMENTO	17	1020.0	1021.0	52	35	43.4	- 1.8	63	25+	24	4+	0	8	37	84	3.77	0.59	1.60	9	0	0.0	0	1.5	17	30	SE	29	3	13	15	7.2	55
SANDBERG R	4517	864.5		46	33	39.0	- 0.9	61	24+	18	28	0	18	18	50	0.31	- 2.24	0.31	1		3.3	3	4.0	7	35	36	16	15	4	12	5.1	
SAN DIEGO	13	1018.0	1018.9	67	48	57.2	2.2	80	23	41	30+	0	0	40	57	0.35	- 1.66	0.31	5	0	0.0	0	0.9	32	17	NW	29	14	9	8	4.5	84
SAN FRANCISCO	8	1020.0	1020.6	55	38	46.5	- 2.1	71	22	32	6+	0	3	40	80	5.25	1.24	2.45	12	1	0.0	0	2.2	17	45	S	10	9	6	16	6.2	
SAN FRANCISCO U	52			55	44	49.8	- 0.9	74	22	36	7	0	0			4.54	- 0.01	1.88	12		0.0	0			32	SW	29					63
SANTA CATALINA	1568	962.8		59	49	54.1	0.5	74	21	38	29	0	0			0.53	- 2.13	0.21	5		0.0	0										
SANTA MARIA	236			63	38	50.9	0.7	77	24	28	6	0	6			0.60	- 2.24	0.35	6		0.0	0						10	7	14	5.7	
STOCKTON	22	1020.7	1021.6	50	35	42.6	- 2.1	61	15	25	5+	0	7	36	81	4.10	1.55	2.70	6	0	0.0	0	2.4	17	26	16	29	2	9	20	7.8	
COLORADO																																
ALAMOSA	7536	772.8		27	-11	7.9	- 9.5	41	31	-27	7	0	31			0.04	- 0.22	0.02	2		1.3	8						14	11	6	4.4	
COLORADO SPRINGS	6145	811.0	1021.6	43	19	30.7	2.1	63	25	0	3+	0	30	14	55	0.10	- 0.19	0.04	5	0	3.0	2	2.5	5	30	36	20	12	7	12	5.4	
DENVER	5283	836.4	1019.7	44	15	29.7	1.2	62	25	-10	3	0	30	14	57	0.51	- 0.04	0.47	4	0	3.0	4	2.4	17	29	NW	3	10	10	11	5.1	80
GRAND JUNCTION	4855	857.1	1029.4	27	4	15.4	-10.6	45	27	-13	8+	0	30	9	78																	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

JANUARY 1968

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, Sleet: Total	Snow, Sleet: 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.							%
COLORADO																																
PUEBLO	4684	857.1	1022.2	42	14	27.9	- 2.1	64	25	- 8	7+	0	30	17	67	0.10	- 0.21	0.04	5	0	2.9	3	1.2	34	30	W	28	12	8	11	5.2	73
CONNECTICUT																																
BRIDGEPORT	7	1023.4	1024.0	33	18	25.5	- 4.7	47	21+	- 3	9	0	25	15	67	1.92	- 1.77	0.75	13	0	6.4	7	6.7	32	36	7	14	11	8	12	5.5	
HARTFORD	169	1016.6	1023.4	30	12	21.1	- 4.9	48	19	-11	12+	0	29	7	56	1.92	- 1.66	0.57	13	0	7.5	17	4.5	33	37	NW	7	11	8	12	5.5	62
NEW HAVEN	6	1023.7		33	17	24.8	- 4.8	50	31	- 5	9	0	28			1.92	- 2.04	0.73	12		7.0	5			30	W	4	11	9	11	5.5	61
DELAWARE																																
WILMINGTON	74	1021.7	1024.7	36	20	28.0	- 5.4	52	27+	1	2	0	28	17	65	2.29	- 1.11	1.61	10	0	1.6	3	4.0	32	39	28	4	8	7	16	6.5	
DIST. OF COLUMBIA																																
WASH NATL AP	14	1022.7	1025.0	40	23	31.4	- 5.5	58	30	7	12	0	27	18	61	1.97	- 1.06	0.96	9	0	2.8	3	2.7	34	38	NE	14	7	8	16	6.6	46
FLORIDA																																
APALACHICOLA U	13			60	44	52.2	- 2.9	75	4	31	14	0	1			1.82	- 1.32	0.73	7	0	T	0			31	N	7	9	9	13	6.0	48
DAYTONA BEACH	31	1021.7	1022.9	68	49	58.2	- 1.0	81	4	33	16	0	0	48	74	0.42	- 1.54	0.30	5	2	0.0	0	3.8	34	25	26	24	7	13	11	6.1	
FORT MYERS	15	1021.7	1021.9	76	54	64.6	1.1	83	3+	37	26	0	0	55	76	0.40	- 1.12	0.22	2	0	0.0	0	3.6	4	25	27	14	11	16	4	4.6	
JACKSONVILLE	20	1022.4	1023.3	64	43	53.4	- 2.5	78	4	29	15	0	5	44	75	0.82	- 1.63	0.40	6	0	0.0	0	3.5	35	33	NE	8	9	7	15	6.3	50
KEY WEST	4	1020.0	1020.5	76	67	71.7	2.1	82	7	56	26	0	0	61	72	0.07	- 1.46	0.04	3	0	0.0	0	7.6	5	28	E	9	13	10	8	4.7	81
LAKELAND U	214			70	51	60.4	- 1.3	83	2	33	26	0	0			0.29	- 1.76	0.29	2		0.0	0						9	15	7	5.2	78
MIAMI	7	1020.7	1020.8	74	58	66.1	- 0.8	80	7+	38	26	0	0	58	75	1.92	- 0.11	1.02	6	0	0.0	0	4.7	5	30	6	8	8	17	6	5.5	
ORLANDO	108	1018.6	1022.8	70	49	59.6	- 0.8	81	4	32	26	0	1	50	76	0.65	- 1.35	0.58	3	3	0.0	0	3.6	1	26	28	24	8	12	11	5.6	
PENSACOLA	112	1019.3	1023.4	59	40	49.6	- 3.9	73	3	25	14	0	9	41	74	1.22	- 3.00	0.57	9		0.0	0	2.8	4	37	SW	23	7	7	17	6.3	55
TALLAHASSEE	55	1021.0	1023.5	65	39	51.9	- 2.0	80	4	23	26+	0	8	42	76	2.15	- 1.27	1.01	6	0	T	T	2.0	2	20	35	7	10	5	16	6.2	
TAMPA	19	1022.0	1022.3	70	49	59.4	- 1.8	79	7	31	26	0	1	50	75	0.41	- 1.72	0.41	2	1	0.0	0	3.2	4	24	29	23	10	13	8	5.2	71
WEST PALM BEACH	15	1020.7	1021.3	74	55	64.8	- 2.1	83	4	36	26	0	0	54	70	0.56	- 1.92	0.31	3	1	0.0	0	3.2	5	25	30	24	7	12	12	6.1	
GEORGIA																																
ATHENS	802	994.2	1024.0	49	30	39.6	- 5.0	70	21	20	8	0	21	30	72	5.26	0.37	1.61	12	0	1.9	1	1.6	3	20	35	7	7	4	20	7.1	
ATLANTA	1010	986.1	1024.0	48	30	39.2	- 5.5	69	31+	17	8	0	20	30	75	4.07	- 0.37	1.31	12	0	0.7	T	1.4	2	32	NW	7	7	5	19	6.8	52
AUGUSTA	145	1018.6	1023.9	54	30	41.9	- 5.7	74	30+	19	16	0	20	30	71	3.77	0.78	1.85	13	0	1.4	1	2.2	35	26	27	15	7	5	19	6.8	
COLUMBUS	385			55	34	44.2	- 3.6	72	30+	22	17	0	16	34	75	1.78	- 2.28	0.57	9		T	T	2.3	2	18	30	13	9	3	19	6.8	
MACON	354	1010.5	1023.8	54	31	42.3	- 6.9	72	30+	19	17	0	22	31	71	2.88	- 0.49	1.34	14	0	T	T	2.6	36	23	NW	7	8	4	19	6.9	45
ROME	637			49	27	38.2	- 3.9	71	31	15	8	0	23			5.51	0.00	2.27	12		0.5	2										
SAVANNAH	46	1021.7	1023.5	57	34	45.7	- 6.0	76	30+	22	17	0	16	36	75	1.79	- 0.99	0.65	11	0	T	T	2.2	36	25	NW	4	8	7	16	6.6	54
HAWAII																																
HILO	27	1010.5	1011.7	81	65	72.9	2.1	87	21	60	9+	0	0	65	77	4.77	- 7.05	1.44	12	3	0.0	0	1.6	18	30	SE	20	4	11	16	6.8	36
HONOLULU	7	1010.8	1011.4	80	66	73.0	0.5	83	22+	59	10+	0	0	64	75	8.17	4.41	3.45	12	4	0.0	0	1.0	11	43	N	16	8	13	10	6.0	65
KAHULUI	48	1008.8	1011.2	78	64	70.8	- 1.3	83	15	55	10	0	0	65	84	4.31	1.17	1.33	11	3	0.0	0	1.7	14	34	SW	17+	8	9	14	6.2	58
LIHUE	103	1006.4	1011.7	76	63	69.5	- 1.4	81	20	56	12	0	0	63	82	7.43	1.92	2.43	12	3	0.0	0	1.9	23	32	SW	16	15	4	12	5.3	55
IDAHO																																
BOISE	2838	920.1	1023.3	38	21	29.5	0.4	51	16	6	6	0	30	20	72	0.43	- 0.89	0.18	6	0	3.3	3	4.3	14	30	NW	16	5	8	18	7.1	53
LEWISTON	1413			42	28	34.8	4.1	58	20	15	28+	0	22			0.65	- 0.45	0.14	12		2.7	1						1	3	27	8.7	
POCATELLO	4454	866.2	1025.1	32	10	21.2	- 1.1	43	24	- 9	29	0	31	14	73	0.75	- 0.46	0.41	7	0	11.6	7	4.3	20	36	S	10	3	13	15	7.1	55
ILLINOIS																																
CAIRO U	314			41	26	33.4	- 4.0	60	30+	2	7	0	24			1.55	- 2.91	0.58	12		4.6	4			27	N	23	9	5	17	6.7	37
CHICAGO O HARE	658	998.6	1024.4	31	17	23.8	- 0.4	51	29	-13	7	0	27	16	73	1.77	- 0.05	0.44	12	0	10.4	6	2.4	23	30	28	4	4	9	18	7.3	
CHICAGO MIDWAY	607	1001.0		32	18	24.8	- 1.2	53	29	-11	7	0	26	16	70	1.69	- 0.17	0.39	14	1	12.7	5	2.5	21	28	W	4	5	7	19	7.4	40
MOLINE	582	1002.0	1024.7	30	13	21.0	- 1.6	52	29+	-17	1	0	30	12	67	0.80	- 0.81	0.31	10	0	8.6	7	1.7	25	28	W	4	5	10	16	6.9	46
PEORIA	652	999.7	1024.8	30	14	22.1	- 3.6	52	29	-15	7	0	27	16	77	1.12	- 0.76	0.43	10	1	8.4	9	1.1	18	30	W	4	7	7	17	6.7	48
ROCKFORD	724	995.9	1024.1	30	13	21.2	- 0.8	49	29	-17	7	0	27	15	78	0.58	- 1.40	0.21	7	0	2.9	3	1.1	23	27	31	4	7	8	16	7.0	
SPRINGFIELD	588	1001.7	1024.8	31	16	23.8	- 4.6	57	29	-14	7	0	27	17	75	1.79	- 0.10	0.52	10	1	13.0	13	1.7	19	28	S	5	9	6	16	6.4	51
INDIANA																																
EVANSVILLE	381	1010.5	1025.4	38	19	28.5	- 5.7	61	31	- 8	8	0	26	19	69	2.44	- 1.54	1.15	11	0	10.0	8	0.8	32	26	NW	6	10	4	17	6.6	43
FORT WAYNE	791	993.6	1025.0	28	13	20.3	- 6.7	48	29	-17	8	0	29	14	74	2.05	- 0.62	0.66	11	0	8.9	8	1.7	22	32	W	4	7	7	17	7.1	48
INDIANAPOLIS	792	994.2	1024.9	33	17	25.1	- 4.0	53	27	-12	1	0	25	16	69	2.96	- 0.09	1.28	10	0	17.0	10	0.6	16	25	NW	15+	8	6	17	6.8	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	Average minimum	Average	Departure from normal	Highest	Date	Lowest	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	Departure from normal	Greatest in 24 hours	No. of days: .01 inch or more	With thunderstorms	Snow, Sleet: Total	Maximum depth on ground	Wind: Resultant speed	Resultant direction	Fastest mile: Speed	Direction	Date	No. of days (sunrise to sunset): Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	Ft.	Mb.	Mb.	°F.	°F.	°F.	°F.	°F.		°F.				°F.	%	In.	In.	In.			In.	In.	M.p.h.		M.p.h.							%
INDIANA																																
SOUTH BEND	773	994.9	1024.3	29	15	22.3	- 3.3	48	29	-10	1	0	26	16	77	2.06	- 0.14	0.79	15	0	12.6	9	2.3	19	25	28	4	4	6	21	7.7	
IOWA																																
BURLINGTON	692			32	14	23.2	- 1.2	58	27	-13	7	0	29	17	75	0.40	- 1.24		6	0	5.6		1.3	27	23	33	23+	10	7	14	6.2	
DES MOINES	938	988.2	1024.8	31	14	22.3	2.4	55	29+	-14	7	0	26	16	79	0.78	- 0.52	0.45	7	2	8.5	8	1.5	28	26	NW	22	12	4	15	6.0	51
DUBUQUE	1056	983.1		27	12	19.1	- 0.1	45	31+	-19	7	0	31			1.20	- 0.63	0.51	9		5.7	6						6	8	17	7.0	
SIOUX CITY	1095	982.4	1024.4	27	10	18.6	- 0.1	49	24+	-19	7	0	29	11	76	0.32	- 0.46	0.18	8	0	3.4	2	1.3	31	31	S	8	13	7	11	5.3	64
WATERLOO	868	990.9	1024.3	27	9	18.0	0.1	47	29+	-20	7	0	31	10	70	0.73	- 0.42	0.33	9	1	6.2	4	1.2	25	26	34	22+	7	7	17	6.5	
KANSAS																																
CONCORDIA	1470	968.5	1023.7	37	16	26.2	- 1.3	68	28	-12	7	0	30	19	78	0.17	- 0.53	0.11	3	0	2.0	3	1.3	23	37	S	8	11	6	14	5.6	59
DODGE CITY	2582	928.2	1022.0	44	20	32.1	1.0	73	25	- 3	7+	0	26	19	65	0.14	- 0.43	0.12	3	0	0.2	1	1.2	24	33	S	8	7	8	16	6.4	64
GOODLAND	3650	889.9	1021.0	45	17	31.2	3.8	69	25	- 9	6	0	30	18	67	0.06	- 0.33	0.03	3	0	1.4	2	4.4	26	33	33	17	15	6	10	4.6	
TOPEKA	876	991.5	1024.8	37	16	26.6	- 2.2	65	28	- 9	7	0	28	19	76	0.89	- 0.13	0.48	6	1	4.7	4	0.8	31	33	N	29	6	11	14	6.3	52
WICHITA	1321	973.9	1023.5	42	23	32.5	0.5	69	28	- 3	7	0	25	23	70	0.14	- 0.67	0.05	7	0	0.6	1	0.6	15	37	S	8	6	6	19	7.3	39
KENTUCKY																																
COVINGTON	869	992.2	1025.1	35	19	26.8	- 4.8	55	30+	-10	8	0	24	17	69	1.79	- 1.77	0.72	11	0	8.7	6	0.8	22	26	30	4	8	5	18	7.0	
LEXINGTON	966	988.2	1025.2	38	22	29.6	- 4.9	58	28	- 3	8	0	24	21	71	1.44	- 3.50	0.44	11	0	12.1	10	1.9	18	21	27	4	8	4	19	6.9	
LOUISVILLE	477	1006.8	1025.1	38	23	30.3	- 4.7	60	31	- 2	1	0	26	22	73	2.13	- 1.97	0.86	9	0	13.8	7	0.2	7	25	W	4	8	4	19	7.1	39
LOUISIANA																																
ALEXANDRIA	92	1019.3	1023.6	55	35	45.0	- 5.3	73	31+	21	14+	0	13	39	82	6.12	0.80	3.50	10	1	0.0	0	1.9	36	25	18	22	6	4	21	7.5	
BATON ROUGE	64	1020.7	1023.4	60	39	49.6	- 3.3	76	30	25	14	0	9	41	79	3.59	- 1.19	2.08	10	2	T	0	2.9	6	24	32	12	7	3	21	7.0	
LAKE CHARLES	9	1021.7	1022.7	59	43	50.8	- 2.9	76	31	26	14	0	6	45	85	3.89	- 0.55	1.80	7	1	0.0	0	3.8	6	24	1	6	6	4	21	7.5	
NEW ORLEANS	3	1022.4	1023.1	62	42	51.6	- 3.0	76	6	27	15+	0	6	43	74	0.54	- 3.30	0.15	8	0	0.0	0	3.2	3	25	25	23	9	3	19	6.6	
SHREVEPORT	254	1013.9	1023.4	53	38	45.4	- 2.1	76	31	18	8	0	13	38	80	8.33	3.53	2.85	15	1	1.0	1	2.0	9	23	30	13+	4	3	24	8.2	31
MAINE																																
CARIBOU	624	995.6		16	- 4	6.1	- 4.4	34	20+	-23	3	0	31			2.31	0.20	0.58	13		33.5	35						9	8	14	5.9	
PORTLAND	47	1019.6	1022.0	28	5	16.6	- 5.2	44	20+	-20	11	0	30	5	59	3.00	- 1.37	0.98	11	0	20.0	24	4.2	31	31	W	5	15	4	12	4.6	65
MARYLAND																																
BALTIMORE	148	1019.0	1024.9	38	21	29.2	- 5.6	55	27+	0	2	0	28	17	62	3.42	- 0.01	2.54	9	0	2.5	2	3.6	31	35	NW	4	12	4	15	6.1	52
MASSACHUSETTS																																
BLUE HILL OBS R	629			31	15	22.6	- 4.4	49	19	- 9	9	0	31			4.01	- 0.48	1.37	13		23.2	20			59	NW	7					58
BOSTON	15	1021.7	1022.6	33	18	25.6	- 4.3	50	19	- 4	9+	0	28	12	57	3.85	- 0.09	1.25	13	0	17.7	13	7.8	31	36	NW	8	12	7	12	5.0	63
NANTUCKET	43	1021.7	1021.9	36	21	28.9	- 4.1	46	14	2	9	0	27	20	71	2.46	- 1.76	0.62	14	0	4.3	2	6.6	33	47	NW	8	13	4	14	5.3	54
PITTSFIELD	1170			27	7	16.6	- 5.2	43	20+	-20	9	0	30			1.86	- 1.11	0.66	14		10.6	12										
WORCESTER	986	984.1	1022.7	27	11	19.2	- 4.8	44	19	-13	9	0	31	8	63	3.00	- 0.71	0.63	12	0	18.6	22	7.2	30	40	28	7	12	7	12	5.3	
MICHIGAN																																
ALPENA	689	997.6	1024.2	26	10	18.3	- 1.4	48	18	-21	8	0	30	12	74	1.19	- 0.76	0.49	12	0	13.6	8	0.7	23	27	NE	15	2	5	24	8.3	29
DETROIT	619			30	18	23.7	- 3.2	48	29	0	1	0	29	16	73	1.85	- 0.20	0.59	11	0	11.4		1.8	25	32	29	4					
DETROIT M WAYNE CO	633	999.0	1024.2	28	14	20.9	- 5.3	44	29	- 8	8	0	29	15	76	2.30	0.37	0.78	14	0	11.8	10	1.1	26	35	W	4	6	7	18	7.3	44
DETROIT WILLOW RUN	711	994.9	1024.5	29	15	22.0	- 4.6	43	29	- 6	8	0	29	14	70	1.95	0.01	0.57	12	0	9.7	10	1.9	24	31	30	4	5	8	18	7.4	
FLINT	770	994.9	1024.0	29	14	21.1	- 3.4	44	29	- 8	8	0	28	12	68	1.54	- 0.16	0.48	14	0	14.1	11	1.9	23	27	1	15	4	6	21	7.5	
GRAND RAPIDS	784	993.6	1024.0	29	13	21.0	- 3.0	45	29	-15	1	0	29	14	72	1.55	- 0.36	0.75	14	0	11.8	8	0.6	20	29	NW	4	5	3	23	7.9	35
HOUGHTON LAKE	1149	980.0	1024.2	26	10	17.6		47	18	-21	8	0	31	12	77	1.03		0.39	14	0	9.0	7	1.2	22	21	2	14+	4	4	23	7.7	
LANSING	841	990.9	1024.2	29	11	20.1	- 4.2	47	29	- 9	8	0	29	15	77	1.46	- 0.50	0.54	14	0	10.8	9	2.2	22	33	W	4	3	9	19	7.7	49
MARQUETTE U	677			25	11	17.8	- 1.7	43	19	-14	7	0	31			1.24	- 0.65	0.48	10		11.6	8			30	S	25	3	3	25	8.4	37
MUSKEGON	627	999.7	1023.8	28	17	22.8	- 3.2	44	29	- 2	1	0	26	14	69	1.87	- 0.23	0.53	15	0	22.5	15	1.1	16	25	29	4	5	1	25	8.3	
SAULT STE MARIE	721	996.3	1024.4	20	3	11.5	- 4.3	39	18	-28	8	0	31	6	76	1.40	- 0.67	0.46	13	0	14.8	20	3.2	8	33	NW	6	6	5	20	7.4	38
MINNESOTA																																
DULUTH	1428	968.8	1023.7	19	0	9.1	0.4	44	20	-33	6	0	31	2	69	0.77	- 0.38	0.22	11	0	10.8	8	0.8	25	34	NE	27	4	6	21	7.9	40
INTERNATIONAL FALLS	1179	978.0	1024.4	16	- 8	3.8	0.7	45	21	-46	6	0	31	- 4	68	0.77	- 0.07	0.19	12	0	10.1	17	1.3	18	28	27	29	10	6	15	6.0	
MINNEAPOLIS	834	992.2	1024.4	23	5	14.3	1.9	41	20	-21	7+	0	30	8	72	0.71	0.01	0.30	9	0	10.6	7	1.1	24	30	S	8	6	5	20	7.2	43
ROCHESTER	1297	973.6	1024.1	23	6	14.6	1.0	45	21+	-22	7	0	31	9	76	0.77	- 0.14	0.42	7	1	4.7	3	3.5	23	32	30	5	7	8	16	6.6	

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

JANUARY 1968

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, Sleet: Total	Snow, Sleet: 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.							%
MINNESOTA																																
ST CLOUD	1034	983.4	1023.7	21	1	10.7	0.6	43	21	-27	6	0	31		71	0.86	0.14	0.27	10		9.0	5						6	4	21	7.2	
MISSISSIPPI																																
JACKSON	310	1011.9	1024.1	54	33	43.4	- 4.5	74	31+	16	8	0	16	37	84	4.56	- 0.62	1.71	13	0	T	T	1.1	5	38	N	23	9	1	21	7.2	43
MERIDIAN	290	1012.9	1024.4	56	33	44.6	- 3.5	76	30+	18	8	0	14	35	78	3.70	- 0.99	0.95	11	0	T	T	1.9	36	28	34	23	6	3	22	7.5	
MISSOURI																																
COLUMBIA	778	994.6	1024.2	38	20	29.1	- 1.2	65	27+	-11	7	0	24	22	75	1.79	0.08	1.24	10	2	4.6	3	1.3	22	24	NW	13+	5	6	20	7.4	43
KANSAS CITY	742	996.3	1024.7	38	19	28.4	- 3.3	65	26	- 7	7	0	25	23	80	0.27	- 1.14	0.18	6	0	2.8	3	1.1	23	24	NW	29	6	10	15	6.7	41
ST JOSEPH	811			36	16	26.3	- 0.9	61	29	-14	7	0	28	19	80	0.27	- 0.93	0.16	4	0		4	0.7	29	30	33	29	12	6	13	5.5	
ST LOUIS	535	1003.7	1025.2	38	20	28.6	- 3.3	65	29	- 7	7+	0	24	22	77	1.86	- 0.12	1.10	9	1	6.9	6	1.3	24	26	S	26+	5	9	17	7.0	42
SPRINGFIELD	1268	977.0	1024.1	43	24	33.3	- 0.3	66	26	- 7	7	0	21	25	75	3.07	1.11	1.55	11	0	1.0	2	2.2	17	27	N	23	4	6	21	7.8	31
MONTANA																																
BILLINGS	3567	891.6	1020.5	32	14	23.4	0.2	58	24	-16	2	0	25	10	58	1.22	0.68	0.35	9	0	13.2	8	9.3	25	36	SW	2	5	8	18	7.3	40
GLASGOW	2284	935.3		21	1	11.2	1.4	55	24	-23	6	0	31	2	59	0.13	- 0.35	0.09	3		2.7	3						6	5	20	7.3	
GREAT FALLS	3662	867.6	1020.2	33	11	22.0	- 0.1	61	24	-18	6+	0	24	9	59	1.29	0.68	0.36	7	0	12.8	5	10.9	22	43	SW	4	3	5	23	7.6	48
HAVRE	2582	924.1		22	1	11.9	- 2.0	63	24	-25	6	0	28	6	73	0.27	- 0.22	0.21	5		4.8	4	2.8	23	42	NW	4	3	6	22	7.8	47
HELENA	3828	881.8	1023.6	27	5	15.7	- 2.9	51	24	-23	2	0	31	7	70	0.59	0.12	0.18	10	0	8.7	10	4.4	26	41	S	10	5	8	18	7.5	50
KALISPELL	2965	912.3		29	12	20.4	0.6	50	24	-22	2	0	30			1.01	- 0.36	0.40	18	0	14.1	11			37	2	1	0	3	28	9.0	
MILES CITY	2629	924.1	1022.1	25	4	14.3	- 2.2	51	24	-23	29	0	30	6	72	0.84	0.40		11	0	7.5		1.4	30								
MISSOULA	3190	906.2	1022.8	29	12	20.2	1.0	44	24	- 8	7	0	30	14	77	0.87	- 0.05	0.30	12	0	14.5	12	1.4	11	34	SW	24	0	6	25	8.6	24
NEBRASKA																																
GRAND ISLAND	1841	954.6	1023.8	35	13	23.9	1.3	64	25	-16	7+	0	31	16	74	0.13	- 0.50	0.10	4	0	1.1	1	2.2	28	28	36	29+	12	4	15	5.6	
LINCOLN U	1150			34	16	24.9	- 0.2	58	25+	-11	7	0	25			0.38	- 0.54	0.28	6		4.3	3			32	S	8	11	8	12	5.3	61
NORFOLK	1544			30	10	19.8	0.4	55	21	-25	7	0	31			0.19	- 0.59	0.14	3		2.4	4						13	5	13	5.5	
NORTH PLATTE	2775	920.8	1023.1	36	8	22.2	- 1.8	61	25+	-20	7	0	31	12	69	0.12	- 0.31	0.10	2	0	1.6	2	2.0	35	28	N	28	8	8	15	5.7	70
OMAHA	977	987.1	1024.3	32	13	22.6	0.3	55	28	-16	7	0	28	14	71	0.49	- 0.33	0.36	6	0	4.6	5	1.1	35	32	N	22+	12	7	12	5.3	61
SCOTTSBLUFF	3957	881.1	1022.3	38	11	24.1	- 1.2	61	24	-22	2	0	29	16	73	0.15	- 0.14	0.07	4	0	2.1	3	2.9	33	33	28	4	11	7	13	5.5	
VALENTINE	2587			34	7	20.8	0.8	59	24	-28	7	0	30			0.20	- 0.20	0.08	7		5.9	5			33	SW	10	9	6	16	6.3	66
NEVADA																																
ELKO	5050	846.6	1022.7	41	13	27.0	4.4	53	22	-11	29	0	30	15	65	1.16	0.00	0.77	8	0	16.1	11	1.2	23	25	17	10	11	10	10	5.3	
ELY	6253	810.0	1022.9	38	8	23.1	0.3	51	25+	-12	12	0	31	10	61	0.15	- 0.63	0.08	5	1	2.4	3	7.7	19	37	S	27	12	6	13	5.2	84
LAS VEGAS	2162	943.1	1021.2	57	32	44.2	1.1	68	22	24	8	0	19	21	43	0.01	- 0.52	0.01	1	0	0.0	0	3.1	25	31	SW	31	17	5	9	4.0	83
RENO	4404	867.9	1021.3	47	17	31.7	1.3	57	22	- 1	7	0	30	9	42	1.11	- 0.08	0.71	4	0	12.4	9	2.5	20	80	SW	10	10	8	13	5.7	69
WINNEMUCCA	4299	870.3	1022.2	45	15	29.8	2.6	59	15	2	7+	0	31	19	68	0.81	- 0.24	0.52	8	0	8.2	6	2.1	17	26	S	10	10	7	14	5.7	56
NEW HAMPSHIRE																																
CONCORD	342	1009.8	1023.2	28	4	15.8	- 5.4	46	19	-21	2	0	31	4	58	1.79	- 1.44	0.40	13	0	15.8	17	4.9	30	40	NW	8	12	7	12	5.0	59
MT WASHINGTON OBS	6262			14	- 5	4.5	- 1.8	32	18	-46	8	0	31			4.12	- 1.32	0.57	19	0	36.8	4			134Y	NW	8	8	3	20	6.9	43
NEW JERSEY																																
ATLANTIC CITY	64	1022.4	1024.9	35	18	26.1	- 8.7	60	30	0	12+	0	28	17	68	2.77	- 0.79	2.17	9	0	0.8	1	4.5	32	36	30	4	12	4	15	5.8	47
ATLANTIC CITY U	11			39	25	32.0	- 4.0	56	21	9	12+	0	21			2.09	- 1.66	1.50	10						41	WNW	4					
NEWARK	7	1023.7	1024.7	35	20	27.8	- 4.5	51	21	1	9	0	25	16	64	1.71	- 1.62	0.95	12	0	4.6	4	4.9	31	32	29	7	12	7	12	5.5	
TRENTON U	56			35	22	28.3	- 4.8	49	21+	4	9	0	24			2.29	- 0.81	1.74	8		1.9	4			33	NW	7	11	6	14	5.6	58
NEW MEXICO																																
ALBUQUERQUE	5311	840.8	1022.0	49	25	36.8	1.8	61	28	13	1	0	28	18	51	0.01	- 0.40	0.01	1	0	T	T	2.3	36	33	NW	31	12	12	7	4.6	79
CLAYTON	4969			49	20	34.5	1.3	72	25	1	6	0	28			0.17	- 0.18	0.10	3		1.0	1						12	5	14	5.4	
RATON	6379			45	14	29.1	0.1	64	25	- 1	12	0	31			T	- 0.36	T	0		T	4						14	4	13	5.2	
ROSWELL	3617	894.3		54	25	39.1	1.2	74	31	7	9	0	25	27	71	1.50	1.02	0.80	7	0	2.9	3	2.0	33	28	NW	11	8	8	15	6.2	61
SILVER CITY	5373			51	28	39.3	- 0.2	61	25+	18	9	0	26			0.45	- 0.18	0.30	3		3.0	3						9	14	8	5.2	
NEW YORK																																
ALBANY	275	1013.9	1025.2	25	4	14.7	- 8.0	41	31+	-26	12	0	29	7	67	1.48	- 0.99	0.52	13	0	8.0	9	3.4	31	33	NW	7	8	7	16	6.2	59
BINGHAMTON	1590	962.1	1024.0	25	10	17.1	- 6.7	38	20+	-15	9	0	31	10	74	2.26	- 0.24	0.66	15	0	11.0	12	2.6	27	33	W	7+	2	9	20	7.7	44
BUFFALO	705	997.3	1024.3	27	13	19.9	- 4.6	45	29	-11	12	0	30	14	76	2.18	- 0.66	0.51	19	0	19.1	12	3.5	24	29	SW	21+	1	8	22	8.1	37

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

JANUARY 1968

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, Sleet: Total	Snow, Sleet: 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.							%
NEW YORK																																
J.F. KENNEDY	13	1023.4	1024.3	32	19	25.6	- 6.2	49	21	0	9	0	27	14	62	1.99	- 1.24	1.03	12	0	5.1	3	5.4	33	41	9	14	11	7	13	5.6	
NEW YORK U	132	1020.3	1023.8	33	20	26.7	- 6.5	50	21	- 1	9	0	24	13	58	2.04	- 1.27	1.30	12	0	3.6	3	4.6	33	32	NW	7					60
NEW YORK LA GUARDIA	11	1022.7	1024.7	33	21	26.8	- 6.8	49	21+	1	9	0	25	13	57	1.67	- 1.64	0.83	12	0	5.2	3	5.7	33	39	NW	7	11	8	12	5.6	
ROCHESTER	547	1004.1	1025.6	28	12	19.8	- 5.4	47	29	-11	12	0	29	13	70	1.91	- 0.49	0.58	13	0	24.2	11	3.2	25	31	SW	21+	0	10	21	8.3	39
SYRACUSE	410	1009.5	1025.1	27	10	18.5	- 5.5	41	30+	-22	9	0	31	10	66	2.08	- 1.07	0.66	16	0	18.5	15	1.5	31	33	W	4	6	4	21	7.5	36
NORTH CAROLINA																																
ASHEVILLE	2140	945.1	1023.5	45	23	34.3	- 3.3	64	29+	9	8	0	27	27	79	2.93	- 1.24	1.03	11	0	7.2	4	2.9	34	33	35	7	7	6	18	6.6	45
CAPE HATTERAS R	7	1023.0	1023.5	50	34	41.8	- 4.8	67	30	25	8	0	14	34	77	5.62	1.72	2.28	13	2	T	T	8.8	35	38	SE	14	11	2	18	6.2	58
CHARLOTTE	736	995.6	1024.2	47	29	37.9	- 4.8	67	30	14	8	0	21	28	72	4.95	1.42	1.88	13	0	4.3	3	2.3	36	26	NE	24	9	4	18	6.5	58
GREENSBORO	897	991.5	1024.3	45	26	35.6	- 4.1	66	30+	13	12+	0	26	26	72	3.74	0.34	1.59	12	0	6.0	4	2.0	35	27	NE	24	10	3	18	6.6	46
RALEIGH	434	1007.8	1024.2	49	26	37.1	- 4.5	72	30	10	12	0	25	25	65	2.88	- 0.34	0.96	12	0	3.0	2	2.2	34	29	9	13	10	6	15	6.1	51
WILMINGTON	28	1022.7	1024.0	53	31	42.2	- 5.7	70	30+	21	8	0	22	31	70	3.71	0.86	1.34	13	0	0.1	T	3.6	36	36	SE	13	10	5	16	6.1	54
NORTH DAKOTA																																
BISMARCK	1647	960.0	1023.8	19	- 5	7.1	- 2.8	45	24	-41	4	0	31	1	76	0.30	- 0.14	0.15	7	0	4.3	8	2.8	32	40	N	5	6	8	17	7.0	56
FARGO	896	988.8	1023.9	17	- 2	7.7	0.4	39	21	-33	4	0	31	1	73	0.37	- 0.16	0.18	9	0	4.0	9	1.2	20	62	SE	11	5	8	18	6.8	46
WILLISTON	1899	950.2	1022.9	20	- 3	8.8	0.5	50	24+	-34	4	0	30	1	74	0.53	- 0.02	0.25	6	0	8.9	6	2.1	29	47	NW	5	5	12	14	6.7	66
OHIO																																
AKRON	1208	978.0	1024.6	32	14	23.0	- 5.3	46	31	- 8	8	0	29	16	73	2.88	0.02	0.98	14	0	16.6	13	2.6	22	32	29	4	5	8	18	7.4	
CINCINNATI OBS	761			35	20	27.6	- 6.1	54	27	- 5	8	0	23			1.72	- 1.95	0.76	10		7.6	6			31	W	4					41
CLEVELAND	777	994.6	1025.0	30	16	23.0	- 5.4	47	31	-10	8	0	27	13	67	3.27	0.60	0.83	16	0	14.5	8	3.8	20	27	W	4	4	7	20	8.0	36
COLUMBUS	812	994.2	1025.5	31	16	23.6	- 6.3	52	29	- 9	8	0	25	17	77	2.22	- 0.94	0.75	9	0	11.6	10	1.3	18	35	NW	4	6	6	19	7.0	46
DAYTON	1002	987.5	1025.1	33	16	24.7	- 4.9	51	27	-11	8	0	26	15	68	1.67	- 1.51	0.79	12	0	12.1	7	2.0	20	32	W	4	9	3	19	7.0	42
MANSFIELD	1295			30	15	22.8	- 4.5	47	30+	-10	8	0	29	14	68	2.27	- 0.95	0.76	14	0	21.3	16	4.4	21	24	34	15	5	6	20	7.4	
TOLEDO	669	999.0	1025.2	30	15	22.1	- 4.2	48	29	-14	8	0	29	15	73	1.91	- 0.42	0.73	12	0	10.4	7	1.8	22	31	W	4	4	9	18	7.5	46
YOUNGSTOWN	1178	980.0	1024.7	28	13	20.3	- 7.0	43	29	- 9	8	0	29	15	79	3.75	0.59	1.20	14	0	14.0	10	2.7	22	25	11	13	4	9	18	7.7	
OKLAHOMA																																
OKLAHOMA CITY	1285	975.3	1023.1	45	28	36.6	- 0.4	67	28	2	7	0	19	31	83	2.19	0.88	1.13	12	1	0.4	T	1.1	8	31	N	6	5	0	26	8.2	29
TULSA	650	999.0	1024.1	45	27	36.0	- 0.2	68	26	- 1	7	0	19	27	71	3.26	1.55	0.88	11	1	0.6	T	1.0	13	33	SW	31	3	6	22	8.0	32
OREGON																																
ASTORIA	8	1015.6	1016.3	48	36	42.0	1.3	60	23	25	28+	0	11	37	84	9.57	- 2.14	1.64	23	0	3.7	4	4.3	17	35	18	9	2	4	25	8.6	
BURNS U	4151	874.4	1021.2	37	17	27.0	2.2	50	20	2	27	0	31	20	76	0.99	- 0.63	0.43	10		4.6	1	1.2	26				5	11	15	6.6	
EUGENE	359	1004.7	1018.4	48	35	41.5	2.4	64	20	26	28+	0	12	38	87	7.53	1.20	1.55	18	0	3.6	2	4.3	17	32	16	29	0	6	25	9.0	
MEACHAM	4050	876.1	1020.0	32	21	26.6	0.6	48	20	3	27	0	29	20	80	2.54	- 1.66	0.89	19		14.0	10			23	21	30+	0	4	27	9.1	
MEDFORD	1298	971.6	1020.5	45	28	36.6	1.2	61	21	17	28	0	27	32	85	1.86	- 1.28	0.41	17	0	6.4	4	1.2	17	30	13	13	1	8	22	8.1	
PENDLETON	1482	964.1	1019.2	46	29	37.3	5.1	67	20+	12	28	0	19	27	70	0.59	- 0.83	0.18	11	0	1.3	1	3.8	23	30	26	24+	0	8	23	8.5	
PORTLAND	21	1016.9	1018.0	45	34	39.3	0.9	56	21	24	27+	0	12	33	80	4.58	- 0.79	1.15	21	0	5.2	5	5.9	15	45	S	9	1	3	27	8.9	28
SALEM	196	1010.8	1018.1	46	33	39.7	1.2	62	20	23	28+	0	14	35	84	6.37	- 0.33	1.34	21	0	9.3	6	4.1	18	23	18	31+	1	3	27	8.8	
SEXTON SUMMIT R	3836	882.8	1018.3	39	28	33.7	- 0.4	62	22	17	28	0	24	26	81	5.41	- 0.18	1.47	15		25.5	18			43	16	9	6	5	20	7.4	
PACIFIC AREA																																
JOHNSTON	7	1010.5	1011.0	81	73	76.7	- 0.4	84	21+	69	31+	0	0	65	71	0.83	- 3.06	0.42	7	2	0.0	0	6.9	8	36	E	2	19	12	0	3.5	80
KOROR R	94	1004.7	1008.2	87	75	81.0	0.7	91	30	73	30+	1	0	74	83	8.02	- 3.71	2.37	22	0	0.0	0	5.6	6	26	NE	10	0	0	31	9.7	76
KWAJALEIN	8	1007.1	1007.9	86	76	81.0	0.9	87	14+	73	17+	0	0	73	77	5.79	2.18	3.19	17	0	0.0	0	15.8	5	29	6	5+	2	10	19	8.0	
MAJURO	10	1007.5	1007.7	85	77	81.1	0.9	87	5	74	11	0	0	74	79	5.38	- 1.60	1.40	16	0	0.0	0	11.4	7	28	E	12+	1	15	15	7.3	60
MARCUS ISLAND	20			76	66	71.0	- 1.1	82	9	60	30+	0	0			1.26	- 2.50	0.71	12		0.0	0			37	N	6					54
PAGO PAGO	12	1007.1	1007.3	87	75	81.0		91	23	71	21	6	0	75		4.65		0.83	18	7	0.0	0	3.9	7	30	NE	3	2	8	21	8.3	45
PONAPE R	123	1002.0	1007.4	86	76	81.1	0.6	88	25	71	27	0	0	74	80	9.88	- 1.19	2.16	25	0	0.0	0	9.2	7	23	E	8	0	4	27	9.0	29
TAGUAC GUAM R	361			83	72	77.3	- 0.9	85	26+	67	26	0	0			5.75	1.12	2.48	24		0.0	0			26	NE	29	0	7	24	8.5	54
TRUK MOEN ISLAND	5	1007.1	1007.3	85	77	81.0	0.3	86	28+	74	31+	0	0	74	81	8.67	0.27	1.73	23	2	0.0	0	11.7	5	35	E	6	0	3	28	9.4	58
WAKE	11	1011.9	1012.2	83	72	77.3	- 0.1	86	10+	66	30	0	0	65	69	1.20	0.06	0.31	11	0	0.0	0	9.0	5	42	N	14	12	15	4	4.5	64
YAP R	62	1006.1	1008.0	85	75	79.9	- 0.6	87	27+	72	31+	0	0	75	85	10.77	2.90	2.10	27	0	0.0	0	8.0	5	28	NE	9	0	1	30	9.6	56
PENNSYLVANIA																																
ALLENTOWN	387	1010.2	1024.8	30	13	21.7	- 7.3	45	27	- 7	2	0	28	10	61	2.54	- 0.63	1.63	11	0	3.0	7	3.6	31	41	31	7	9	8	14	5.9	
ERIE	731	996.6	1024.7	31	16	23.5	- 3.8	47	31	- 5	12	0	29	15	71	2.98	0.31	0.75	19	0	24.2	12	3.5	22	33	29	4	3	5	23	8.1	

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, Sleet: Total	Snow, Sleet: 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.							%
PENNSYLVANIA																																
HARRISBURG	338	1011.9	1025.2	32	16	24.0	- 7.3	47	21	- 5	2	0	27	14	66	1.32	- 1.44	0.54	9	0	3.0	11	3.5	31	35	NW	7+	8	7	16	6.5	46
PHILADELPHIA	5	1023.7	1024.8	36	22	28.9	- 3.4	51	21+	6	12	0	26	16	62	2.90	- 0.42	2.27	10	0	1.5	4	3.9	34	35	NW	4	10	5	16	6.2	48
PITTSBURGH	1137	979.0	1025.0	31	15	23.4	- 5.5	47	31	- 8	8	0	27	16	72	2.83	- 0.14	0.73	15	0	15.4	12	2.3	25	25	27	4	4	9	18	7.4	37
READING U	266			34	20	26.9	- 5.8	50	20	1	2	0	25			1.51	- 1.56	0.87	9		3.5	5			51	E	14	10	7	14	5.9	52
SCRANTON	930	989.2	1025.2	28	12	20.0	- 7.7	43	21	-10	12	0	27	12	70	2.03	- 0.26	0.67	11	0	6.0	10	1.7	29	33	W	7	7	7	17	6.9	52
WILLIAMSPORT	524	1005.4	1025.3	32	14	23.0	- 5.8	46	27	-11	12	0	27	14	69	2.49	- 0.18	1.03	11	0	2.6	7	2.3	29	30	29	7	9	9	13	6.4	
RHODE ISLAND																																
BLOCK ISLAND	110			33	21	27.2	- 4.9	44	23+	- 2	9	0	24			2.37	- 1.47	0.98	13		8.8	4						14	5	12	5.3	
PROVIDENCE	51	1020.7	1023.1	33	16	24.5	- 4.7	48	19	- 5	9	0	30	10	56	3.50	- 0.31	1.22	14	0	13.5	9	6.0	30	31	30	7	13	7	11	4.9	60
SOUTH CAROLINA																																
CHARLESTON	40	1021.7	1023.4	55	32	43.5	- 6.3	75	30	20	17	0	18	33	74	2.25	- 0.29	0.90	11	1	0.5	T	3.3	36	30Y	N	7	8	8	15	6.4	55
CHARLESTON U	9			54	37	45.5	- 6.0	73	30	26	8	0	8			2.01	- 0.39	0.87	9		T	T			30	NE	10					
COLUMBIA	213	1015.9	1024.2	52	30	41.1	- 5.8	73	30	20	17	0	22	30	72	5.94	2.92	2.82	13	0	1.7	1	2.9	36	21	4	24+	10	1	20	6.7	54
GNVLE-SPARTANBURG	957	988.5	1024.3	49	29	39.0	- 4.7	69	21	16	8	0	22	28	68	4.12	- 0.16	1.46	14	0	0.9	1	2.4	1	31	N	7	8	5	18	6.6	43
SOUTH DAKOTA																																
ABERDEEN	1296	973.9	1023.8	21	0	10.4	- 0.4	43	24+	-30	4	0	31	5	78	0.15	- 0.51	0.09	6	0	3.1	4	0.8	28	37	16	10	8	5	18	6.5	
HURON	1282	974.3	1023.6	26	5	15.4	2.9	50	24+	-25	4	0	31	4	62	0.29	- 0.19	0.15	4	0	4.5	2	1.1	24	38	NW	5	6	7	18	7.0	62
RAPID CITY	3162	905.9	1021.3	35	12	23.4	1.4	69	24	-19	6	0	29	10	60	0.43	0.07	0.19	4	0	4.0	4	3.7	35	40	NW	11+	6	8	17	6.7	59
SIOUX FALLS	1418	969.5	1023.6	27	7	16.8	1.6	48	24	-22	7	0	30	10	75	0.33	- 0.29	0.24	6	0	4.6	3	1.7	27	24	19	8	6	12	13	6.4	
TENNESSEE																																
BRISTOL	1507	968.5	1024.6	43	23	33.2	- 5.1	62	31	1	8	0	26	24	73	3.58	- 0.11	0.95	13	0	12.1	5	0.9	1	24	10	13	6	6	19	7.1	
CHATTANOOGA	665	999.0	1024.4	46	28	37.1	- 4.6	68	22	13	8	0	23	30	80	4.98	- 0.63	1.36	14	0	5.6	4	1.3	32	25	N	7	8	4	19	6.9	39
KNOXVILLE	980	987.8	1023.8	46	28	37.1	- 4.3	65	30+	11	8	0	19	30	79	4.13	- 0.75	1.29	11	0	5.9	2	1.5	36	20	NE	24+	7	4	20	7.1	34
MEMPHIS	258	1014.2	1025.0	47	31	38.9	- 2.6	69	29+	11	7	0	22	30	73	5.57	- 0.50	1.70	13	0	2.0	2	1.7	4	26	N	6	5	6	20	7.6	37
NASHVILLE	590	1002.4	1025.0	43	25	34.0	- 5.9	68	29	4	8	0	25	27	76	3.50	- 1.99	0.89	12	0	7.2	6	0.8	1	23	NW	6	7	4	20	7.1	41
OAK RIDGE R	905			46	28	36.8	- 3.1	66	21	11	8	0	20			4.47	- 1.47	1.47	12		3.9	3			31Y		24	7	6	18	6.9	
TEXAS																																
ABILENE	1762	958.7	1021.4	53	35	43.9	- 0.7	74	31	12	7	0	14	36	77	4.35	3.47	1.52	10	1	T	T	1.3	20	35	N	18+	5	5	21	7.6	35
AMARILLO	3604	893.3	1019.6	50	26	38.3	1.6	67	28	3	7	0	19	26	69	2.33	1.68	1.74	5	0	0.6	T	2.6	27	31	N	11	9	8	14	5.9	57
AUSTIN	597	1000.0	1022.7	56	40	47.6	- 2.8	74	31	22	7	0	10	40	78	7.94	5.59	2.49	14	2	0.0	0	1.8	2	30	N	7	5	4	22	7.8	31
BROWNSVILLE	19	1020.7	1021.1	66	50	57.8	- 3.6	79	30+	32	13+	0	3	52	83	3.08	1.73	1.12	12	3	0.0	0	1.8	36	35	NW	7	5	6	20	7.5	29
CORPUS CHRISTI	41	1020.3	1021.8	61	45	53.2	- 4.2	76	31+	28	13+	0	5	48	86	2.11	0.48	0.76	12	1	0.0	0	2.9	5	33	SE	26+	4	4	23	7.9	32
DALLAS	481	1005.4	1023.1	52	39	45.2	- 0.7	72	31	13	7	0	13	37	77	3.24	0.92	0.75	16	0	T	T	2.0	11	27	S	26	6	2	23	8.1	27
DEL RIO	1026	984.8	1021.7	59	41	49.8	- 1.5	75	28	26	7	0	7	41	74	0.66	- 0.23	0.26	10	1	0.0	T	1.2	5	25	32	18+	7	3	21	7.4	
EL PASO	3918	885.2	1020.1	54	31	42.4	- 0.5	69	31	22	14	0	20	31	68	0.47	0.01	0.32	5	0	2.1	2	0.1	20	38	W	31	10	7	14	5.9	63
FORT WORTH	537	1002.0	1023.2	52	37	44.4	- 1.1	74	25	12	7	0	12	38	83	3.60	1.56	0.99	16	0	0.4	T	0.9	10	26	20	26	5	3	23	8.1	
GALVESTON U	7			57	48	52.6	- 2.3	69	31+	30	8	0	2			6.14	2.68	2.88	12		0.0	0			32	NE	7					30
HOUSTON	50	1020.3	1022.5	61	45	52.7	- 0.9	80	31	28	14	0	5	44	78	8.02	4.24	3.46	12	3	0.0	0	2.7	6	28	36	7	6	1	24	7.8	35
LUBBOCK	3254	906.5	1020.3	52	29	40.7	1.5	74	31	6	7	0	20	29	72	0.94	0.26	0.51	5	0	0.2	1	1.7	29	36	2	18	9	4	18	6.8	
MIDLAND	2851	919.7	1019.9	55	33	44.3	0.3	75	31	15	7	0	16	34	74	1.07	0.27	0.59	9	0	0.8	1	1.5	24	32	34	18	7	7	17	6.8	
PORT ARTHUR	16	1022.4	1023.0	60	42	51.0	- 2.6	77	30+	24	14	0	6	46	86	5.48	1.25	3.25	11	1	0.0	0	3.9	6	36	E	22	6	4	21	7.7	38
SAN ANGELO	1903	953.3	1021.2	56	37	46.3	- 0.6	75	25	17	7	0	13	39	80	2.32	1.35	0.72	11	1	0.4	T	2.4	24	25	32	18+	6	5	20	7.4	
SAN ANTONIO	788	993.6	1022.2	59	41	49.8	- 2.2	74	31	24	14+	0	7	42	78	8.52	6.78	3.18	16	3	0.0	T	1.7	4	33	NE	6	7	4	20	7.3	37
VICTORIA	104	1018.0	1022.0	60	44	52.1	- 3.3	77	31	27	14	0	6	46	82	3.27	0.93	1.29	11	1	T	0	3.1	3	43Y	N	6	5	4	22	7.8	
WACO	501	1004.1	1022.8	53	40	46.7	- 1.3	73	31	19	7	0	10	42	86	3.47	1.20	1.09	13	1	T	T	0.3	27	29	33	6	5	4	22	7.9	
WICHITA FALLS	994	985.1	1022.8	52	33	42.2	- 0.6	77	25	8	7	0	18	34	79	4.48	3.36	2.02	8	1	T	T	2.8	9	38	1	6	4	2	25	8.2	
UTAH																																
MILFORD	5028	849.3		37	11	24.1	- 0.5	49	25	- 8	12+	0	31			0.17	- 0.40	0.09	3		2.8	2						15	8	8	4.5	
SALT LAKE CITY	4220	875.7	1025.1	36	14	24.5	- 2.7	48	30	0	13+	0	30	14	68	0.46	- 0.89	0.26	4	1	6.8	4	3.6	18	32	W	28+	12	2	17	6.1	61
WENDOVER	4237	875.0	1025.1	34	15	24.6	- 2.4	50	30	7	12	0	31	13	62	0.17	- 0.15	0.09	4		0.3	T										
VERMONT																																
BURLINGTON	332	1011.2	1024.7	19	- 2	8.4	- 7.8	38	19	-27	11	0	31	- 2	59	1.26	- 0.69	0.26	11	0	18.4	11	0.8	30	32	S	30	8	7	16	6.6	59

See footnotes at end of table

CLIMATOLOGICAL DATA

ENGLISH UNITS

JANUARY 1968

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, Sleet: Total	Snow, Sleet: 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.							%
VIRGINIA																																
LYNCHBURG	916			42	22	32.0	- 5.6	63	30+	7	8	0	26			2.35	- 0.94	1.36	11		3.9	3			28	NE	13	11	3	17	6.5	48
NORFOLK	22	1023.7	1024.7	43	26	34.8	- 6.4	66	30	17	8	0	27	22	62	3.62	0.29	2.10	12	0	1.5	1	3.6	35	33	SE	14+	12	2	17	5.9	56
RICHMOND	164	1018.6	1024.9	45	23	33.9	- 4.8	70	30	7	12	0	27	22	66	2.53	- 0.93	1.70	9	0	2.3	1	1.4	1	25	NW	7	9	5	17	6.4	48
ROANOKE	1149	980.7	1024.2	42	24	33.0	- 5.1	64	29	10	8	0	25	19	58	3.33	0.21	2.71	8	0	15.4	8	3.4	33	32	29	4	9	6	16	6.5	
WALLOPS ISLAND	9			38	24	31.0		56	21	10	12	0	28			2.47		1.15	13		2.4	1			51Y	N	7	10	6	15	6.1	
WASHINGTON																																
OLYMPIA	195	1008.8	1016.4	44	33	38.3	0.2	56	20+	17	28	0	15	35	87	9.04	1.19	1.54	21	0	16.9	7	5.0	20	35	19	9	2	1	28	9.0	
QUILLAYUTE	179	1006.8	1014.4	45	35	40.2	1.6	59	23	23	27	0	14	37	91	22.59	7.32	8.32	24	2	6.8	1	4.3	14	34	S	9	3	2	26	8.8	12
SEATTLE TACOMA	400	1000.0	1016.7	46	36	40.9	2.6	59	20+	25	28	0	10	35	81	6.90	1.17	1.28	24	0	7.5	4	4.7	17	35	21	10	1	2	28	9.4	13
SPOKANE	2356	932.3	1018.3	33	22	27.8	2.5	46	19	1	28+	0	26	22	77	1.57	- 0.87	0.52	13	0	11.8	7	4.6	16	33	SW	31	3	6	22	8.3	24
STAMPEDE PASS R	3958	876.7		29	21	25.2	1.7	59	23	1	28+	0	27			13.80	1.77	1.93	26		83.2	70										
WALLA WALLA U	949			46	32	38.9	5.7	71	20	14	28	0	14			0.79	- 1.10	0.26	14		0.5	T			29	W	31	0	6	25	8.7	19
YAKIMA	1052	979.7	1019.2	40	22	30.9	3.4	62	21	4	28	0	26	23	74	1.76	0.57	0.80	11	0	11.1	5	2.8	28	32	29	24	5	7	19	7.4	
WEST INDIES																																
SAN JUAN P.R.	13	1015.2	1017.7	82	71	76.4	2.0	85	25+	62	25	0	0	66	72	2.15	- 2.55	0.67	17	0	0.0	0	7.4	6	32	E	17	6	22	3	5.0	61
SWAN ISLAND	28			82	74	77.5	- 0.8	84	4	69	29	0	0			5.61	2.17	4.21	13		0.0	0						5	15	11	6.2	
WEST VIRGINIA																																
BECKLEY	2504	932.3	1024.8	37	19	28.3	- 5.3	59	29	- 7	8	0	27	19	72	2.64	- 1.62	1.13	16	0	21.2	16	2.1	23	32	12	13	7	6	18	7.0	
CHARLESTON	939	989.2	1024.8	39	19	29.1	- 7.5	62	29	- 4	8	0	27	19	68	2.01	- 2.31	0.77	14	0	13.3	11	1.1	28	27	24	4	6	6	19	7.0	
ELKINS	1970	950.6	1024.7	39	11	25.0	- 7.5	54	22	-17	2	0	28	18	77	1.88	- 1.74	0.76	15	0	14.1	15	2.2	28	31	30	7	8	3	20	7.1	
HUNTINGTON	827	993.9	1025.3	38	21	29.4	- 7.2	62	29+	- 6	8	0	25	19	67	1.72	- 1.93	0.56	14	0	9.0	10	1.2	25	21	30	7+	6	7	18	6.8	
PARKERSBURG U	615			36	18	27.2	- 7.4	59	29	- 7	8	0	25			2.36	- 0.98	0.96	14		15.5	14			31	W	4					46
WISCONSIN																																
GREEN BAY	682	997.3	1024.4	24	8	16.4	- 0.4	39	31+	-24	7	0	31	12	79	0.94	- 0.21	0.22	10	0	9.2	5	2.3	28	27	NW	4	6	6	19	7.3	30
LA CROSSE	651	999.0	1024.8	28	11	19.3	2.8	50	20	-18	7	0	30	11	70	0.87	- 0.32	0.42	6	1	4.5	4	1.2	19	24	31	29	5	9	17	6.7	
MADISON	858	991.2	1024.2	28	11	19.6	2.1	48	20	-18	7	0	28	13	73	0.56	- 0.84	0.10	12	1	3.9	2	1.1	25	25	N	22+	8	4	19	7.2	42
MILWAUKEE	672	998.0	1024.4	29	15	21.8	1.2	48	29	-15	7	0	30	13	69	0.98	- 0.85	0.23	11	1	4.6	3	2.7	27	30	W	4	6	4	21	7.6	39
WYOMING																																
CASPER	5338	837.1	1020.7	34	13	23.2	- 0.2	48	24	-18	6	0	30	10	57	0.33	- 0.23	0.14	7	0	5.2	2	14.1	22	40	23	4	6	9	16	6.7	
CHEYENNE	6126	811.0	1019.8	41	16	28.7	3.3	61	24	-14	6	0	30	12	50	0.04	- 0.48	0.03	2	0	0.2	2	8.0	28	40	NW	11	9	9	13	5.5	68
LANDER	5563	828.7	1023.3	27	4	15.5	- 3.8	44	10	-18	3	0	31	7	70	0.17	- 0.29	0.13	3	0	2.4	14	2.0	22	40	SW	30	9	10	12	5.9	67
SHERIDAN	3964	879.1	1022.5	31	3	16.9	- 4.4	53	24	-25	6+	0	31	6	62	1.05	0.41	0.31	11	0	13.5	15	3.1	28	35	SW	30	4	7	20	7.4	55

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.

A Maximum hourly average.
B Number of days maximum 70°F. or above for Alaskan Stations.
Y Peak Gust.
+ And also on an earlier date or dates.
Ø Station pressures apply to elevations shown in the "Elevations - Station Pressure" table of the annual issue of this publication.

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

CLIMATOLOGICAL DATA

METRIC UNITS

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, Sleet: Total	Snow, Sleet: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (1.6 kilometers): Speed	Wind: Fastest mile (1.6 kilometers): Direction	Wind: Fastest mile (1.6 kilometers): Date	No. of days (sunrise to sunset): Clear, 0-3	No. of days (sunrise to sunset): Partly cloudy, 4-7	No. of days (sunrise to sunset): Cloudy, 8-10	Sky cover, tenths (sunrise to sunset)	Possible sunshine
	M.	Mb.	Mb.	°C.	°C.	°C.	°C.	°C.		°C.				°C.	%	Mm.	Mm.	Mm.			Mm.	Mm.	M.p.s.		M.p.s.							%
ALABAMA																																
BIRMINGHAM	189	1001.4	1024.5	11.1	0.6	5.8	-2.2	22.2	29	- 7.8	14	0	14	- 0.6	69	141	13	58	12	0	25	25	0.9	3	11.6	N	7	7	6	18	7.0	39
HUNTSVILLE	190	1000.7	1024.5	8.9	- 1.7	3.3	-2.7	21.1	31	-12.8	8	0	22	- 0.6	80	153	20	43	13	0	109	102	1.0	4	11.6	36	24	8	3	20	6.9	
MOBILE	64	1015.2	1023.4	16.1	4.4	10.2	-1.5	23.3	29	- 4.4	14	0	9	4.4	71	25	- 93	9	9	0	T	0	1.2	5	11.2	36	7	10	3	18	6.3	
MONTGOMERY	59	1016.9	1024.3	12.8	1.7	7.2	-1.7	22.8	30+	- 4.4	17+	0	12	1.1	70	71	- 33	24	12	1	T	T	0.9	3	7.6	SW	23+	6	6	19	7.0	33
ALASKA												B																				
ANCHORAGE	35	1010.2	1015.1	- 7.8	-13.9	-10.8	0.2	5.0	2	-23.3	19	0	31	-16.7	61	21	1	9	7	0	185	152	2.0	2	19.7	4	31	10	8	13	5.9	45
ANNETTE	34	1005.1	1009.2	2.8	- 2.8	0.1	-1.2	11.1	15	-10.6	10	0	24	- 5.0	70	281	- 8	88	18	0	640	229	1.8	8	15.6	15	22	5	8	18	7.2	
BARROW	9	1021.0	1021.7	-18.9	-27.2	-23.1	3.7	- 0.6	6	-43.9	21	0	31	-26.7	73	10	6	3	11	0	157	406	1.1	18	17.4	23	2	V	V	V		
BARTER ISLAND	12	1021.7	1023.6	-18.9	-27.2	-23.0	4.1	- 0.6	2	-40.0	21+	0	31	-26.7	72	19	8	10	7	0	213	533	2.6	26	21.5	27	31	X	X	X		
BETHEL	38	1015.2	1021.2	- 8.3	-15.0	-11.6	4.2	5.0	1	-34.4	20	0	29	-13.3	88	12	- 16	7	5	0	74	76	0.7	7	17.0	20	25	10	5	16	6.2	
COLD BAY	29	1015.2	1019.1	0.6	- 4.4	- 2.1	0.3	5.6	26+	-13.9	20	0	27	- 4.4	83	70	11	27	14	0	173	152	0.6	8	26.4	17	24	6	6	19	7.2	
FAIRBANKS	133	1004.7	1023.3	-18.9	-28.9	-23.9	0.1	0.0	27+	-43.3	17	0	31	-26.1	77	30	8	15	9	0	574	838	0.4	35	9.4	27	29	7	5	19	7.0	
JUNEAU	4	1011.9	1012.6	- 3.9	-11.1	- 7.4	-3.6	7.2	23	-22.8	31	0	31	-10.6	80	83	- 19	29	13	0	790	356	2.5	10	17.0	12	22	10	4	17	6.5	44
KING SALMON	15	1015.6	1017.7	- 8.9	-15.6	-12.2	-1.9	8.3	1	-32.2	20	0	30	-16.7	69	28	1	18	6	0	236	152	2.0	1	13.0	14	1	13	10	8	4.9	
KOTZEBUE	3	1021.0	1021.5	-12.8	-21.1	-17.0	3.9	2.8	2	-37.2	21	0	31	-20.6	75	8	- 2	3	8	0	173	457	2.2	12	21.0	10	25	5	6	20	7.5	
MC GRATH	105	1008.5	1022.2	-15.6	-25.6	-20.5	2.3	3.3	2	-46.7	20	0	30	-23.9	71	25	- 7	8	10	0	361	381	0.3	27	11.6	21	25	10	5	16	6.1	
NOME	4	1019.6	1020.3	- 8.3	-17.8	-13.1	2.3	2.2	1	-33.9	19	0	31	-17.8	67	32	6	14	9	0	175	457	1.0	17	9.4	9	24+	5	5	21	7.6	26
ST. PAUL ISLAND	7	1016.6	1017.7	1.1	- 3.3	- 1.1	2.6	4.4	25+	-11.1	19+	0	20	- 2.8	85	41	- 5	11	17	0	152	127	1.8	15	25.0	16	3	3	3	25	8.2	
SHEMYA	37	1002.7	1006.4	2.8	- 1.1	0.8	1.2	4.4	30+	- 5.6	21	0	20	- 1.1	88	45	- 19	8	21	0	135	25	5.9	17	27.7	14	9	1	4	26	8.9	
YAKUTAT	9	1008.5	1009.7	- 3.3	-12.2	- 7.7	-5.1	3.9	22	-19.4	15+	0	31	-10.6	78	205	- 70	87	14	0	856	660	2.1	9	16.5	11	16	6	6	19	7.1	
ARIZONA																																
FLAGSTAFF	2131	788.0	1022.9	4.4	-11.7	- 3.6	-1.0	11.7	15	-21.1	5	0	31	- 8.9	70	39	- 7	33	5	0	386	711	0.6	13	11.6	20	27	16	4	11	4.7	
PHOENIX	340	979.3	1018.8	18.9	3.9	11.3	1.5	23.3	14	- 0.6	6+	0	5	1.1	56	5	- 14	3	3	0	0	0	1.5	10	12.5Y	ENE	13	15	8	8	4.5	83
TUCSON	788	928.9	1017.9	18.3	4.4	11.3	1.4	23.9	14	0.0	20+	0	4	1.1	56	5	- 16	2	5	0	0	0	2.1	13	17.0	E	13	16	2	13	4.6	72
WINSLOW	1492	856.4	1030.6	- 5.0	-16.7	-10.6	-10.1	7.8	31	-22.8	8	0	31	-13.3	81	T	- 11	T	0	0	8	178	0.7	21	11.2	18	27	14	5	12	5.1	
YUMA	59	1011.5	1018.8	20.0	6.1	12.9	1.0	25.0	23	1.1	1	0	0	- 1.7	42	T	- 10	T	0	0	0	0	1.6	2	11.6	NE	23	15	9	7	4.2	91
ARKANSAS																																
FORT SMITH	136	1007.1	1024.3	9.4	- 0.6	4.2	-0.1	21.1	31	-13.9	7	0	21	- 1.1	72	71	4	26	10	0	8	T	1.2	5	10.3	NW	6	4	4	23	8.2	32
LITTLE ROCK	78	1014.6	1024.6	7.2	- 1.1	3.2	-1.6	20.0	26	-12.2	7	0	22	- 0.6	78	121	- 12	28	12	1	25	25	1.3	5	12.5	N	6	4	6	21	7.8	47
TEXARKANA	119	1010.5	1024.1	10.6	2.8	6.7	-0.6	23.9	31	- 8.9	8+	0	12	1.7	74	129	6	34	14	0	T	25	0.8	11	9.4	19	29+	5	1	25	8.0	
CALIFORNIA																																
BAKERSFIELD	145	1003.4	1021.4	13.9	3.3	8.8	0.3	23.9	23	- 0.6	5	0	1	2.8	69	12	- 17	7	3	0	0	0	0.3	4	9.4	30	27	8	7	16	6.5	
BISHOP	1252	876.1		13.3	- 6.7	3.3	0.6	21.7	24+	-12.2	29	0	30			T	- 25	T	1		T	T						12	7	12	5.0	
BLUE CANYON	1609			6.7	- 0.6	3.1	0.3	18.3	23	- 8.3	28+	0	19			297	0	81	11		886	1295			16.1	21	29	10	6	15	6.2	
EUREKA U	13			11.7	4.4	8.1	-0.4	21.1	22	0.0	11	0	1			193	23	59	15		T	T			15.2	N	25+	6	7	18	6.7	58
FRESNO	100	1009.1	1021.3	12.2	1.7	7.1	-0.7	20.6	23	- 3.3	4	0	7	3.3	81	27	- 25	10	5	1	0	0	0.4	11	9.8	NW	16	5	11	15	6.9	47
LONG BEACH	10	1018.3	1019.6	19.4	6.7	13.1	1.4	27.8	23	2.2	30+	0	0	2.8	55	13	- 37	6	5	0	0	0	0.4	31	8.0	21	27	14	8	9	4.9	
LOS ANGELES	30	1015.2	1018.9	18.9	8.9	14.1	1.6	27.8	23	5.0	30+	0	0	4.4	57	21	- 46	10	6	0	0	0	0.2	34	12.5Y	S	27	12	7	12	5.0	
LOS ANGELES U	82			20.0	9.4	14.7	1.5	28.9	23	4.4	29+	0	0			23	- 55	13	6		0	0			7.6	SW	27	13	7	11	4.8	65
MT SHASTA R	1080			5.6	- 4.4	0.6	-0.2	16.7	23	-15.6	11	0	27			213	52	65	14		1930	940										
OAKLAND	2	1020.7	1020.8	12.2	5.0	8.4	-0.5	23.3	22	0.6	7+	0	0	3.9	75	128	31	66	11	0	0	0	1.0	12	13.9	15	29	10	6	15	6.0	
RED BLUFF	104	1007.8	1020.8	11.7	0.6	6.2	-1.3	25.6	22	- 6.7	4	0	15	1.1	77	148	39	47	10	0	T	T	0.4	30	20.1	SE	29	7	7	17	7.0	50
SACRAMENTO	5	1020.0	1021.0	11.1	1.7	6.3	-1.0	17.2	25+	- 4.4	4+	0	8	2.8	84	96	15	41	9	0	0	0	0.7	17	13.4	SE	29	3	13	15	7.2	55
SANDBERG R	1377	864.5		7.8	0.6	3.9	-0.5	16.1	24+	- 7.8	28	0	18	- 7.8	50	8	- 57	8	1		84	76	1.8	7	15.6	36	16	15	4	12	5.1	
SAN DIEGO	4	1018.0	1018.9	19.4	8.9	14.0	1.2	26.7	23	5.0	30+	0	0	4.4	57	9	- 42	8	5	0	0	0	0.4	32	7.6	NW	29	14	9	8	4.5	84
SAN FRANCISCO	2	1020.0	1020.6	12.8	3.3	8.1	-1.2	21.7	22	0.0	6+	0	3	4.4	80	133	31	62	12	1	0	0	1.0	17	20.1	S	10	9	6	16	6.2	
SAN FRANCISCO U	16			12.8	6.7	9.9	-0.5	23.3	22	2.2	7	0	0			115	0	48	12		0	0			14.3	SW	29					63
SANTA CATALINA	478	962.8		15.0	9.4	12.3	0.3	23.3	21	3.3	29	0	0			13	- 54	5	5		0	0										
SANTA MARIA	72			17.2	3.3	10.5	0.4	25.0	24	- 2.2	6	0	6			15	- 57	9	6		0	0						10	7	14	5.7	
STOCKTON	7	1020.7	1021.6	10.0	1.7	5.9	-1.2	16.1	15	- 3.9	5+	0	7	2.2	81	104	39	69	6	0	0	0	1.1	17	11.6	16	29	2	9	20	7.8	
COLORADO																																
ALAMOSA	2297	772.8		- 2.8	-23.9	-13.4	-5.3	5.0	31	-32.8	7	0	31			1	- 6	1	2		33	203						14	11	6	4.4	
COLORADO SPRINGS	1873	811.0	1021.6	6.1	- 7.2	- 0.7	1.2	17.2	25	-17.8	3+	0	30	-10.0	55	3	- 5	1	5	0	76	51	1.1	5	13.4	36	20	12	7	12	5.4	
DENVER	1610	836.4	1019.7	6.7	- 9.4	- 1.3	0.7	16.7	25	-23.3	3	0	30	-10.0	57	13	- 1	12	4	0	76	102	1.1	17	13.0	NW	3	10	10	11	5.1	80
GRAND JUNCTION	1480	857.1	1029.4	- 2.8	-15.6	- 9.2	-5.9	7.2	27	-25.0	8+	0	30	-12.8	78	7	- 10	3	3	0	94	229	0.8	7	9.8	NW	31	13	7	11	5.0	69
PUEBLO	1428	857.1	1022.2	5.6	-10.0	- 2.3	-1.2	17.8	25	-22.2	7+	0	30	- 8.3	67	3	- 5	1	5	0	74	76	0.5	34	13.4	W	28	12	8	11	5.2	73

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1968

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, Sleet: Total	Snow, Sleet: 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.							%
CONNECTICUT																																
BRIDGEPORT	2	1023.4	1024.0	0.6	- 7.8	- 3.6	-2.6	8.3	21+	-19.4	9	0	25	- 9.4	67	49	- 45	19	13	0	163	178	3.0	32	16.1	7	14	11	8	12	5.5	
HARTFORD	52	1016.6	1023.4	- 1.1	-11.1	- 6.1	-2.7	8.9	19	-23.9	12+	0	29	-13.9	56	49	- 42	14	13	0	191	432	2.0	33	16.5	NW	7	11	8	12	5.5	62
NEW HAVEN	2	1023.7		0.6	- 8.3	- 4.0	-2.7	10.0	31	-20.6	9	0	28			49	- 52	19	12		178	127			13.4	W	4	11	9	11	5.5	61
DELAWARE																																
WILMINGTON	23	1021.7	1024.7	2.2	- 6.7	- 2.2	-3.0	11.1	27+	-17.2	2	0	28	- 8.3	65	58	- 28	41	10	0	41	76	1.8	32	17.4	28	4	8	7	16	6.5	
DIST. OF COLUMBIA																																
WASH NATL AP	4	1022.7	1025.0	4.4	- 5.0	- 0.3	-3.1	14.4	30	-13.9	12	0	27	- 7.8	61	50	- 27	24	9	0	71	76	1.2	34	17.0	NE	14	7	8	16	6.6	46
FLORIDA																																
APALACHICOLA U	4			15.6	6.7	11.2	-1.6	23.9	4	- 0.6	14	0	1			46	- 34	19	7	0	T	0			13.9	N	7	9	9	13	6.0	48
DAYTONA BEACH	9	1021.7	1022.9	20.0	9.4	14.6	-0.6	27.2	4	0.6	16	0	0	8.9	74	11	- 39	8	5	2	0	0	1.7	34	11.2	26	24	7	13	11	6.1	
FORT MYERS	5	1021.7	1021.9	24.4	12.2	18.1	0.6	28.3	3+	2.8	26	0	0	12.8	76	10	- 28	6	2	0	0	0	1.6	4	11.2	27	14	11	16	4	4.6	
JACKSONVILLE	6	1022.4	1023.3	17.8	6.1	11.9	-1.4	25.6	4	- 1.7	15	0	5	6.7	75	21	- 41	10	6	0	0	0	1.6	35	14.8	NE	8	9	7	15	6.3	50
KEY WEST	1	1020.0	1020.5	24.4	19.4	22.1	1.2	27.8	7	13.3	26	0	0	16.1	72	2	- 37	1	3	0	0	0	3.4	5	12.5	E	9	13	10	8	4.7	81
LAKELAND U	65			21.1	10.6	15.8	-0.7	28.3	2	0.6	26	0	0			7	- 45	7	2		0	0						9	15	7	5.2	78
MIAMI	2	1020.7	1020.8	23.3	14.4	18.9	-0.4	26.7	7+	3.3	26	0	0	14.4	75	49	- 3	26	6	0	0	0	2.1	5	13.4	6	8	8	17	6	5.5	
ORLANDO	33	1018.6	1022.8	21.1	9.4	15.3	-0.4	27.2	4	0.0	26	0	1	10.0	76	17	- 34	15	3	3	0	0	1.6	1	11.6	28	24	8	12	11	5.6	
PENSACOLA	34	1019.3	1023.4	15.0	4.4	9.8	-2.2	22.8	3	- 3.9	14	0	9	5.0	74	31	- 76	14	9		0	0	1.3	4	16.5	SW	23	7	7	17	6.3	55
TALLAHASSEE	17	1021.0	1023.5	18.3	3.9	11.1	-1.1	26.7	4	- 5.0	26+	0	8	5.6	76	55	- 32	26	6	0	T	T	0.9	2	8.9	35	7	10	5	16	6.2	
TAMPA	6	1022.0	1022.3	21.1	9.4	15.2	-1.0	26.1	7	- 0.6	26	0	1	10.0	75	10	- 44	10	2	1	0	0	1.4	4	10.7	29	23	10	13	8	5.2	71
WEST PALM BEACH	5	1020.7	1021.3	23.3	12.8	18.2	-1.2	28.3	4	2.2	26	0	0	12.2	70	14	- 49	8	3	1	0	0	1.4	5	11.2	30	24	7	12	12	6.1	
GEORGIA																																
ATHENS	244	994.2	1024.0	9.4	- 1.1	4.2	-2.8	21.1	21	- 6.7	8	0	21	- 1.1	72	134	9	41	12	0	48	25	0.7	3	8.9	35	7	7	4	20	7.1	
ATLANTA	308	986.1	1024.0	8.9	- 1.1	4.0	-3.1	20.6	31+	- 8.3	8	0	20	- 1.1	75	103	- 9	33	12	0	18	T	0.6	2	14.3	NW	7	7	5	19	6.8	52
AUGUSTA	44	1018.6	1023.9	12.2	- 1.1	5.5	-3.2	23.3	30+	- 7.2	16	0	20	- 1.1	71	96	20	47	13	0	36	25	1.0	35	11.6	27	15	7	5	19	6.8	
COLUMBUS	117			12.8	1.1	6.8	-2.0	22.2	30+	- 5.6	17	0	16	1.1	75	45	- 58	14	9		T	T	1.0	2	8.0	30	13	9	3	19	6.8	
MACON	108	1010.5	1023.8	12.2	- 0.6	5.7	-3.8	22.2	30+	- 7.2	17	0	22	- 0.6	71	73	- 12	34	14	0	T	T	1.2	36	10.3	NW	7	8	4	19	6.9	45
ROME	194			9.4	- 2.8	3.4	-2.2	21.7	31	- 9.4	8	0	23			140	0	58	12		13	51										
SAVANNAH	14	1021.7	1023.5	13.9	1.1	7.6	-3.3	24.4	30+	- 5.6	17	0	16	2.2	75	45	- 25	17	11	0	T	T	1.0	36	11.2	NW	4	8	7	16	6.6	54
HAWAII																																
HILO	8	1010.5	1011.7	27.2	18.3	22.7	1.2	30.6	21	15.6	9+	0	0	18.3	77	121	-179	37	12	3	0	0	0.7	18	13.4	SE	20	4	11	16	6.8	36
HONOLULU	2	1010.8	1011.4	26.7	18.9	22.8	0.3	28.3	22+	15.0	10+	0	0	17.8	75	208	112	88	12	4	0	0	0.4	11	19.2	N	16	8	13	10	6.0	65
KAHULUI	15	1008.8	1011.2	25.6	17.8	21.6	-0.7	28.3	15	12.8	10	0	0	18.3	84	109	30	34	11	3	0	0	0.8	14	15.2	SW	17+	8	9	14	6.2	58
LIHUE	31	1006.4	1011.7	24.4	17.2	20.8	-0.8	27.2	20	13.3	12	0	0	17.2	82	189	49	62	12	3	0	0	0.8	23	14.3	SW	16	15	4	12	5.3	55
IDAHO																																
BOISE	865	920.1	1023.3	3.3	- 6.1	- 1.4	0.2	10.6	16	-14.4	6	0	30	- 6.7	72	11	- 23	5	6	0	84	76	1.9	14	13.4	NW	16	5	8	18	7.1	53
LEWISTON	431			5.6	- 2.2	1.6	2.3	14.4	20	- 9.4	28+	0	22			17	- 11	4	12		69	25						1	3	27	8.7	
POCATELLO	1358	866.2	1025.1	0.0	-12.2	- 6.0	-0.6	6.1	24	-22.8	29	0	31	-10.0	73	19	- 12	10	7	0	295	178	1.9	20	16.1	S	10	3	13	15	7.1	55
ILLINOIS																																
CAIRO U	96			5.0	- 3.3	0.8	-2.2	15.6	30+	-16.7	7	0	24			39	- 74	15	12		117	102			12.1	N	23	9	5	17	6.7	37
CHICAGO O HARE	201	998.6	1024.4	- 0.6	- 8.3	- 4.6	-0.2	10.6	29	-25.0	7	0	27	- 8.9	73	45	- 1	11	12	0	264	152	1.1	23	13.4	28	4	4	9	18	7.3	
CHICAGO MIDWAY	185	1001.0		0.0	- 7.8	- 4.0	-0.7	11.7	29	-23.9	7	0	26	- 8.9	70	43	- 4	10	14	1	323	127	1.1	21	12.5	W	4	5	7	19	7.4	40
MOLINE	177	1002.0	1024.7	- 1.1	-10.6	- 6.1	-0.9	11.1	29+	-27.2	1	0	30	-11.1	67	20	- 21	8	10	0	218	178	0.8	25	12.5	W	4	5	10	16	6.9	46
PEORIA	199	999.7	1024.8	- 1.1	-10.0	- 5.5	-2.0	11.1	29	-26.1	7	0	27	- 8.9	77	28	- 19	11	10	1	213	229	0.5	18	13.4	W	4	7	7	17	6.7	48
ROCKFORD	221	995.9	1024.1	- 1.1	-10.6	- 6.0	-0.4	9.4	29	-27.2	7	0	27	- 9.4	78	15	- 36	5	7	0	74	76	0.5	23	12.1	31	4	7	8	16	7.0	
SPRINGFIELD	179	1001.7	1024.8	- 0.6	- 8.9	- 4.6	-2.6	13.9	29	-25.6	7	0	27	- 8.3	75	45	- 3	13	10	1	330	330	0.8	19	12.5	S	5	9	6	16	6.4	51
INDIANA																																
EVANSVILLE	116	1010.5	1025.4	3.3	- 7.2	- 1.9	-3.2	16.1	31	-22.2	8	0	26	- 7.2	69	62	- 39	29	11	0	254	203	0.4	32	11.6	NW	6	10	4	17	6.6	43
FORT WAYNE	241	993.6	1025.0	- 2.2	-10.6	- 6.5	-3.7	8.9	29	-27.2	8	0	29	-10.0	74	52	- 16	17	11	0	226	203	0.8	22	14.3	W	4	7	7	17	7.1	48
INDIANAPOLIS	241	994.2	1024.9	0.6	- 8.3	- 3.8	-2.2	11.7	27	-24.4	1	0	25	- 8.9	69	75	- 2	33	10	0	432	254	0.3	16	11.2	NW	15+	8	6	17	6.8	39
SOUTH BEND	236	994.9	1024.3	- 1.7	- 9.4	- 5.4	-1.8	8.9	29	-23.3	1	0	26	- 8.9	77	52	- 4	20	15	0	320	229	1.0	19	11.2	28	4	4	6	21	7.7	
IOWA																																
BURLINGTON	211			0.0	-10.0	- 4.9	-0.7	14.4	27	-25.0	7	0	29	- 8.3	75	10	- 31		6	0	142		0.6	27	10.3	33	23+	10	7	14	6.2	
DES MOINES	286	988.2	1024.8	- 0.6	-10.0	- 5.4	1.3	12.8	29+	-25.6	7	0	26	- 8.9	79	20	- 13	11	7	2	216	203	0.7	28	11.6	NW	22	12	4	15	6.0	51
DUBUQUE	322	983.1		- 2.8	-11.1	- 7.2	-0.1	7.2	31+	-28.3	7	0	31			30	- 16	13	9		145	152						6	8	17	7.0	

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1968

State and Station	Elevation (ground)	Pressure: Station ⊙	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	No. of days: Max. 32.2 °C or above	No. of days: Min. 0 °C or lower	Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	No. of days: .25 mm. or more	No. of days: With thunderstorms	Snow, Sleet: Total	Snow, Sleet: 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.							%
IOWA																																
SIOUX CITY	334	982.4	1024.4	- 2.8	-12.2	- 7.4	-0.1	9.4	24+	-28.3	7	0	29	-11.7	76	8	- 12	5	8	0	86	51	0.6	31	13.9	S	8	13	7	11	5.3	64
WATERLOO	265	990.9	1024.3	- 2.8	-12.8	- 7.8	0.1	8.3	29+	-28.9	7	0	31	-12.2	70	19	- 11	8	9	1	157	102	0.5	25	11.6	34	22+	7	7	17	6.5	
KANSAS																																
CONCORDIA	448	968.5	1023.7	2.8	- 8.9	- 3.2	-0.7	20.0	28	-24.4	7	0	30	- 7.2	78	4	- 13	3	3	0	51	76	0.6	23	16.5	S	8	11	6	14	5.6	59
DODGE CITY	787	928.2	1022.0	6.7	- 6.7	0.1	0.6	22.8	25	-19.4	7+	0	26	- 7.2	65	4	- 11	3	3	0	5	25	0.5	24	14.8	S	8	7	8	16	6.4	64
GOODLAND	1113	889.9	1021.0	7.2	- 8.3	- 0.4	2.1	20.6	25	-22.8	6	0	30	- 7.8	67	2	- 8	1	3	0	36	51	2.0	26	14.8	33	17	15	6	10	4.6	
TOPEKA	267	991.5	1024.8	2.8	- 8.9	- 3.0	-1.2	18.3	28	-22.8	7	0	28	- 7.2	76	23	- 3	12	6	1	119	102	0.4	31	14.8	N	25	6	11	14	6.3	52
WICHITA	403	973.9	1023.5	5.6	- 5.0	0.3	0.3	20.6	28	-19.4	7	0	25	- 5.0	70	4	- 17	1	7	0	15	25	0.3	15	16.5	S	8	6	6	19	7.3	39
KENTUCKY																																
COVINGTON	265	992.2	1025.1	1.7	- 7.2	- 2.9	-2.7	12.8	30+	-23.3	8	0	24	- 8.3	69	45	- 45	18	11	0	221	152	0.4	22	11.6	30	4	8	5	18	7.0	
LEXINGTON	294	988.2	1025.2	3.3	- 5.6	- 1.3	-2.7	14.4	28	-19.4	8	0	24	- 6.1	71	37	- 89	11	11	0	307	254	0.8	18	9.4	27	4	8	4	19	6.9	
LOUISVILLE	145	1006.8	1025.1	3.3	- 5.0	- 0.9	-2.6	15.6	31	-18.9	1	0	26	- 5.6	73	54	- 50	22	9	0	351	178	0.1	7	11.2	W	4	8	4	19	7.1	39
LOUISIANA																																
ALEXANDRIA	28	1019.3	1023.6	12.8	1.7	7.2	-2.9	22.8	31+	- 6.1	14+	0	13	3.9	82	155	20	89	10	1	0	0	0.8	36	11.2	18	22	6	4	21	7.5	
BATON ROUGE	20	1020.7	1023.4	15.6	3.9	9.8	-1.8	24.4	30	- 3.9	14	0	9	5.0	79	91	- 30	53	10	2	T	0	1.3	6	10.7	32	12	7	3	21	7.0	
LAKE CHARLES	3	1021.7	1022.7	15.0	6.1	10.4	-1.6	24.4	31	- 3.3	14	0	6	7.2	85	99	- 14	46	7	1	0	0	1.7	6	10.7	1	6	6	4	21	7.5	
NEW ORLEANS	1	1022.4	1023.1	16.7	5.6	10.9	-1.7	24.4	6	- 2.8	15+	0	6	6.1	74	14	- 84	4	8	0	0	0	1.4	3	11.2	25	23	9	3	19	6.6	
SHREVEPORT	77	1013.9	1023.4	11.7	3.3	7.4	-1.2	24.4	31	- 7.8	8	0	13	3.3	80	212	90	72	15	1	25	25	0.9	9	10.3	30	13+	4	3	24	8.2	31
MAINE																																
CARIBOU	190	995.6		- 8.9	-20.0	-14.4	-2.4	1.1	20+	-30.6	3	0	31			59	5	15	13		851	889						9	8	14	5.9	
PORTLAND	14	1019.6	1022.0	- 2.2	-15.0	- 8.6	-2.9	6.7	20+	-28.9	11	0	30	-15.0	59	76	- 35	25	11	0	508	610	1.9	31	13.9	W	5	15	4	12	4.8	65
MARYLAND																																
BALTIMORE	45	1019.0	1024.9	3.3	- 6.1	- 1.6	-3.1	12.8	27+	-17.8	2	0	28	- 8.3	62	87	0	65	9	0	64	51	1.6	31	15.6	NW	4	12	4	15	6.1	52
MASSACHUSETTS																																
BLUE HILL OBS R	192			- 0.6	- 9.4	- 5.2	-2.4	9.4	19	-22.8	9	0	31			102	- 12	35	13		589	508			26.4	NW	7					58
BOSTON	5	1021.7	1022.6	0.6	- 7.8	- 3.6	-2.4	10.0	19	-20.0	9+	0	28	-11.1	57	98	- 2	32	13	0	450	330	3.5	31	16.1	NW	8	12	7	12	5.0	63
NANTUCKET	13	1021.7	1021.9	2.2	- 6.1	- 1.7	-2.3	7.8	14	-16.7	9	0	27	- 6.7	71	62	- 45	16	14	0	109	51	3.0	33	21.0	NW	8	13	4	14	5.3	54
PITTSFIELD	357			- 2.8	-13.9	- 8.6	-2.9	6.1	20+	-28.9	9	0	30			47	- 28	17	14		269	305										
WORCESTER	301	984.1	1022.7	- 2.8	-11.7	- 7.1	-2.7	6.7	19	-25.0	9	0	31	-13.3	63	76	- 18	16	12	0	472	559	3.2	30	17.9	28	7	12	7	12	5.3	
MICHIGAN																																
ALPENA	210	997.6	1024.2	- 3.3	-12.2	- 7.6	-0.8	8.9	18	-29.4	8	0	30	-11.1	74	30	- 19	12	12	0	345	203	0.3	23	12.1	NE	15	2	5	24	8.3	29
DETROIT	189			- 1.1	- 7.8	- 4.6	-1.8	8.9	29	-17.8	1	0	29	- 8.9	73	47	- 5	15	11	0	290		0.8	25	14.3	29	4					
DETROIT M WAYNE CO	193	999.0	1024.2	- 2.2	-10.0	- 6.2	-2.9	6.7	29	-22.2	8	0	29	- 9.4	76	58	9	20	14	0	300	254	0.5	26	15.6	W	4	6	7	18	7.3	44
DETROIT WILLOW RUN	217	994.9	1024.5	- 1.7	- 9.4	- 5.6	-2.6	6.1	29	-21.1	8	0	29	-10.0	70	50	0	14	12	0	246	254	0.8	24	13.9	30	4	5	8	18	7.4	
FLINT	235	994.9	1024.0	- 1.7	-10.0	- 6.1	-1.9	6.7	29	-22.2	8	0	28	-11.1	68	39	- 4	12	14	0	358	279	0.8	23	12.1	1	15	4	6	21	7.5	
GRAND RAPIDS	239	993.6	1024.0	- 1.7	-10.6	- 6.1	-1.7	7.2	29	-26.1	1	0	29	-10.0	72	39	- 9	19	14	0	300	203	0.3	20	13.0	NW	4	5	3	23	7.9	35
HOUGHTON LAKE	350	980.0	1024.2	- 3.3	-12.2	- 8.0		8.3	18	-29.4	8	0	31	-11.1	77	26		10	14	0	229	178	0.5	22	9.4	2	14+	4	4	23	7.7	
LANSING	256	990.9	1024.2	- 1.7	-11.7	- 6.6	-2.3	8.3	29	-22.8	8	0	29	- 9.4	77	37	- 13	14	14	0	274	229	1.0	22	14.8	W	4	3	9	19	7.7	49
MARQUETTE U	206			- 3.9	-11.7	- 7.9	-0.9	6.1	19	-25.6	7	0	31			31	- 17	12	10		295	203			13.4	S	25	3	3	25	8.4	37
MUSKEGON	191	999.7	1023.8	- 2.2	- 8.3	- 5.1	-1.8	6.7	29	-18.9	1	0	26	-10.0	69	47	- 6	13	15	0	572	381	0.5	16	11.2	29	4	5	1	25	8.3	
SAULT STE MARIE	220	996.3	1024.4	- 6.7	-16.1	-11.4	-2.4	3.9	18	-33.3	8	0	31	-14.4	76	36	- 17	12	13	0	376	508	1.4	8	14.8	NW	6	6	5	20	7.4	38
MINNESOTA																																
DULUTH	435	968.8	1023.7	- 7.2	-17.8	-12.7	0.2	6.7	20	-36.1	6	0	31	-16.7	69	20	- 10	6	11	0	274	203	0.4	25	15.2	NE	27	4	6	21	7.9	40
INTERNATIONAL FALLS	359	978.0	1024.4	- 8.9	-22.2	-15.7	0.4	7.2	21	-43.3	6	0	31	-20.0	68	20	- 2	5	12	0	257	432	0.6	18	12.5	27	29	10	6	15	6.0	
MINNEAPOLIS	254	992.2	1024.4	- 5.0	-15.0	- 9.8	1.1	5.0	20	-29.4	7+	0	30	-13.3	72	18	0	8	9	0	269	178	0.5	24	13.4	S	8	6	5	20	7.2	43
ROCHESTER	395	973.6	1024.1	- 5.0	-14.4	- 9.7	0.6	7.2	21+	-30.0	7	0	31	-12.8	76	20	- 4	11	7	1	119	76	1.6	23	14.3	30	5	7	8	16	6.6	
ST CLOUD	315	983.4	1023.7	- 6.1	-17.2	-11.8	0.3	6.1	21	-32.8	6	0	31		71	22	4	7	10		229	127						6	4	21	7.2	
MISSISSIPPI																																
JACKSON	94	1011.9	1024.1	12.2	0.6	6.3	-2.5	23.3	31+	- 8.9	8	0	16	2.8	84	116	- 16	43	13	0	T	T	0.5	5	17.0	N	23	9	1	21	7.2	43
MERIDIAN	88	1012.9	1024.4	13.3	0.6	7.0	-1.9	24.4	30+	- 7.8	8	0	14	1.7	78	94	- 25	24	11	0	T	T	0.8	36	12.5	34	23	6	3	22	7.5	
MISSOURI																																
COLUMBIA	237	994.6	1024.2	3.3	- 6.7	- 1.6	-0.7	18.3	27+	-23.9	7	0	24	- 5.6	75	45	2	31	10	2	117	76	0.6	22	10.7	NW	13+	5	6	20	7.4	43
KANSAS CITY	226	996.3	1024.7	3.3	- 7.2	- 2.0	-1.8	18.3	26	-21.7	7	0	25	- 5.0	80	7	- 29	5	6	0	71	76	0.5	23	10.7	NW	29	6	10	15	6.7	41

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1968

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, Sleet: Total	Snow, Sleet: 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.							%
MISSOURI																																
ST JOSEPH	247			2.2	- 8.9	- 3.2	-0.5	16.1	29	-25.6	7	0	28	- 7.2	80	7	- 24	4	4	0		102	0.3	29	13.4	33	29	12	6	13	5.5	
ST LOUIS	163	1003.7	1025.2	3.3	- 6.7	- 1.9	-1.8	18.3	29	-21.7	7+	0	24	- 5.6	77	47	- 3	28	9	1	175	152	0.6	24	11.6	S	26+	5	9	17	7.0	42
SPRINGFIELD	386	977.0	1024.1	6.1	- 4.4	0.7	-0.2	18.9	26	-21.7	7	0	21	- 3.9	75	78	28	39	11	0	25	51	1.0	17	12.1	N	23	4	6	21	7.8	31
MONTANA																																
BILLINGS	1087	891.6	1020.5	0.0	-10.0	- 4.8	0.1	14.4	24	-26.7	2	0	25	-12.2	58	31	17	9	9	0	335	203	4.2	25	16.1	SW	2	5	8	18	7.3	40
GLASGOW	696	935.3		- 6.1	-17.2	-11.6	0.8	12.8	24	-30.6	6	0	31	-16.7	59	3	- 9	2	3		69	76						6	5	20	7.3	
GREAT FALLS	1116	887.6	1020.2	0.6	-11.7	- 5.6	-0.1	16.1	24	-27.8	6+	0	24	-12.8	59	33	17	9	7	0	325	127	4.9	22	19.2	SW	4	3	5	23	7.6	48
HAVRE	787	924.1		- 5.6	-17.2	-11.2	-1.1	17.2	24	-31.7	6	0	28	-14.4	73	7	- 6	5	5		122	102	1.3	23	18.8	NW	4	3	6	22	7.8	47
HELENA	1167	881.8	1023.6	- 2.8	-15.0	- 9.1	-1.6	10.6	24	-30.6	2	0	31	-13.9	70	15	3	5	10	0	221	254	2.0	26	18.3	S	10	5	8	18	7.5	50
KALISPELL	904	912.3		- 1.7	-11.1	- 6.4	0.3	10.0	24	-30.0	2	0	30			26	- 9	10	18	0	358	279			16.5	2	1	0	3	28	9.0	
MILES CITY	801	924.1	1022.1	- 3.9	-15.6	- 9.8	-1.2	10.6	24	-30.6	29	0	30	-14.4	72	21	10		11	0	191		0.6	30								
MISSOULA	972	906.2	1022.8	- 1.7	-11.1	- 6.6	0.6	6.7	24	-22.2	7	0	30	-10.0	77	22	- 1	8	12	0	368	305	0.6	11	15.2	SW	24	0	6	25	8.6	24
NEBRASKA																																
GRAND ISLAND	561	954.6	1023.8	1.7	-10.6	- 4.5	0.7	17.8	25	-26.7	7+	0	31	- 8.9	74	3	- 13	3	4	0	28	25	1.0	28	12.5	36	29+	12	4	15	5.6	
LINCOLN U	351			1.1	- 8.9	- 3.9	-0.1	14.4	25+	-23.9	7	0	25			10	- 14	7	6		109	76			14.3	S	8	11	8	12	5.3	61
NORFOLK	471			- 1.1	-12.2	- 6.8	0.2	12.8	21	-31.7	7	0	31			5	- 15	4	3		61	102						13	5	13	5.5	
NORTH PLATTE	846	920.8	1023.1	2.2	-13.3	- 5.4	-1.0	16.1	25+	-28.9	7	0	31	-11.1	69	3	- 8	3	2	0	41	51	0.9	35	12.5	N	28	8	8	15	5.7	70
OMAHA	298	987.1	1024.3	0.0	-10.6	- 5.2	0.2	12.8	28	-26.7	7	0	28	-10.0	71	12	- 8	9	6	0	117	127	0.5	35	14.3	N	22+	12	7	12	5.3	61
SCOTTSBLUFF	1206	881.1	1022.3	3.3	-11.7	- 4.4	-0.7	16.1	24	-30.0	2	0	29	- 8.9	73	4	- 4	2	4	0	53	76	1.3	33	14.8	28	4	11	7	13	5.5	
VALENTINE	789			1.1	-13.9	- 6.2	0.4	15.0	24	-33.3	7	0	30			5	- 5	2	7		150	127			14.8	SW	10	9	6	16	6.3	66
NEVADA																																
ELKO	1539	846.6	1022.7	5.0	-10.6	- 2.8	2.4	11.7	22	-23.9	29	0	30	- 9.4	65	29	0	20	8	0	409	279	0.5	23	11.2	17	10	11	10	10	5.3	
ELY	1906	810.0	1022.9	3.3	-13.3	- 4.9	0.2	10.6	25+	-24.4	12	0	31	-12.2	61	4	- 16	2	5	1	61	76	3.4	19	16.5	S	27	12	6	13	5.2	84
LAS VEGAS	659	943.1	1021.2	13.9	0.0	6.8	0.6	20.0	22	- 4.4	8	0	19	- 6.1	43	T	- 13	T	1	0	0	0	1.4	25	13.9	SW	31	17	5	9	4.0	83
RENO	1342	867.9	1021.3	8.3	- 8.3	- 0.2	0.7	13.9	22	-18.3	7	0	30	-12.8	42	28	- 2	18	4	0	315	229	1.1	20	35.8	SW	10	10	8	13	5.7	69
WINNEMUCCA	1310	870.3	1022.2	7.2	- 9.4	- 1.2	1.4	15.0	15	-16.7	7+	0	31	- 7.2	68	21	- 6	13	8	0	208	152	0.9	17	11.6	S	10	10	7	14	5.7	56
NEW HAMPSHIRE																																
CONCORD	104	1009.8	1023.2	- 2.2	-15.6	- 9.0	-3.0	7.8	19	-29.4	2	0	31	-15.6	58	45	- 37	10	13	0	401	432	2.2	30	17.9	NW	8	12	7	12	5.0	59
MT WASHINGTON OBS	1909			-10.0	-20.6	-15.3	-1.0	0.0	18	-43.3	8	0	31			105	- 34	14	19	0	935	102			59.9Y	NW	8	8	3	20	6.9	43
NEW JERSEY																																
ATLANTIC CITY	20	1022.4	1024.9	1.7	- 7.8	- 3.3	-4.8	15.6	30	-17.8	12+	0	28	- 8.3	68	70	- 20	55	9	0	20	25	2.0	32	16.1	30	4	12	4	15	5.8	47
ATLANTIC CITY U	3			3.9	- 3.9	0.0	-2.2	13.3	21	-12.8	12+	0	21			53	- 42	38	10						18.3	WNW	4					
NEWARK	2	1023.7	1024.7	1.7	- 6.7	- 2.3	-2.5	10.6	21	-17.2	9	0	25	- 8.9	64	43	- 41	24	12	0	117	102	2.2	31	14.3	29	7	12	7	12	5.5	
TRENTON U	17			1.7	- 5.6	- 2.1	-2.7	9.4	21+	-15.6	9	0	24			58	- 21	44	8		48	102			14.8	NW	7	11	6	14	5.6	58
NEW MEXICO																																
ALBUQUERQUE	1619	840.8	1022.0	9.4	- 3.9	2.7	1.0	16.1	28	-10.6	1	0	28	- 7.8	51	T	- 10	T	1	0	T	T	1.0	36	14.8	NW	31	12	12	7	4.6	79
CLAYTON	1515			9.4	- 6.7	1.4	0.7	22.2	25	-17.2	6	0	28			4	- 5	3	3		25	25						12	5	14	5.4	
RATON	1944			7.2	-10.0	- 1.6	0.1	17.8	25	-18.3	12	0	31			T	- 9	T	0		T	102						14	4	13	5.2	
ROSWELL	1102	894.3		12.2	- 3.9	3.9	0.7	23.3	31	-13.9	9	0	25	- 2.8	71	38	26	20	7	0	74	76	0.9	33	12.5	NW	11	8	8	15	6.2	61
SILVER CITY	1638			10.6	- 2.2	4.1	-0.1	16.1	25+	- 7.8	9	0	26			11	- 5	8	3		76	76						9	14	8	5.2	
NEW YORK																																
ALBANY	84	1013.9	1025.2	- 3.9	-15.6	- 9.6	-4.4	5.0	31+	-32.2	12	0	29	-13.9	67	38	- 25	13	13	0	203	229	1.5	31	14.8	NW	7	8	7	16	6.2	59
BINGHAMTON	485	962.1	1024.0	- 3.9	-12.2	- 8.3	-3.7	3.3	20+	-26.1	9	0	31	-12.2	74	57	- 6	17	15	0	279	305	1.2	27	14.8	W	7+	2	9	20	7.7	44
BUFFALO	215	997.3	1024.3	- 2.8	-10.6	- 6.7	-2.6	7.2	29	-23.9	12	0	30	-10.0	76	55	- 17	13	19	0	485	305	1.6	24	13.0	SW	21+	1	8	22	8.1	37
J.F. KENNEDY	4	1023.4	1024.3	0.0	- 7.2	- 3.6	-3.4	9.4	21	-17.8	9	0	27	-10.0	62	51	- 31	26	12	0	130	76	2.4	33	18.3	9	14	11	7	13	5.6	
NEW YORK U	40	1020.3	1023.8	0.6	- 6.7	- 2.9	-3.6	10.0	21	-18.3	9	0	24	-10.6	58	52	- 32	33	12	0	91	76	2.1	33	14.3	NW	7					60
NEW YORK LA GUARDIA	3	1022.7	1024.7	0.6	- 6.1	- 2.9	-3.8	9.4	21+	-17.2	9	0	25	-10.6	57	42	- 42	21	12	0	132	76	2.5	33	17.4	NW	7	11	8	12	5.6	
ROCHESTER	167	1004.1	1025.6	- 2.2	-11.1	- 6.8	-3.0	8.3	29	-23.9	12	0	29	-10.6	70	49	- 12	15	13	0	615	279	1.4	25	13.9	SW	21+	0	10	21	8.3	39
SYRACUSE	125	1009.5	1025.1	- 2.8	-12.2	- 7.5	-3.1	5.0	30+	-30.0	9	0	31	-12.2	66	53	- 27	17	16	0	470	381	0.7	31	14.8	W	4	6	4	21	7.5	36
NORTH CAROLINA																																
ASHEVILLE	652	945.1	1023.5	7.2	- 5.0	1.3	-1.8	17.8	29+	-12.8	8	0	27	- 2.8	79	74	- 31	26	11	0	183	102	1.3	34	14.8	35	7	7	6	18	6.6	45
CAPE HATTERAS R	2	1023.0	1023.5	10.0	1.1	5.4	-2.7	19.4	30	- 3.9	8	0	14	1.1	77	143	44	58	13	2	T	T	3.9	35	17.0	SE	14	11	2	18	6.2	58
CHARLOTTE	224	995.6	1024.2	8.3	- 1.7	3.3	-2.7	19.4	30	-10.0	8	0	21	- 2.2	72	126	36	48	13	0	109	76	1.0	36	11.6	NE	24	9	4	18	6.5	58
GREENSBORO	273	991.5	1024.3	7.2	- 3.3	2.0	-2.3	18.9	30+	-10.6	12+	0	26	- 3.3	72	95	9	40	12	0	152	102	0.9	35	12.1	NE	24	10	3	18	6.6	46
RALEIGH	132	1007.8	1024.2	9.4	- 3.3	2.8	-2.5	22.2	30	-12.2	12	0	25	- 3.9	65	73	- 9	24	12	0	76	51	1.0	34	13.0	9	13	10	6	15	6.1	51

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1968

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, Sleet: Total	Snow, Sleet: Maximum depth on ground	Wind: Fastest mile (1.6 kilometers): Resultant speed	Wind: Resultant direction	Wind: Speed	Wind: Direction	Wind: 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																																
WILMINGTON	9	1022.7	1024.0	11.7	- 0.6	5.7	-3.2	21.1	30+	- 6.1	8	0	22	- 0.6	70	94	22	34	13	0	T	T	1.6	36	16.1	SE	13	10	5	16	6.1	54
NORTH DAKOTA																																
BISMARCK	502	960.0	1023.8	- 7.2	-20.6	-13.8	-1.6	7.2	24	-40.6	4	0	31	-17.2	76	8	- 4	4	7	0	109	203	1.3	32	17.9	N	5	6	8	17	7.0	56
FARGO	273	988.8	1023.9	- 8.3	-18.9	-13.5	0.2	3.9	21	-36.1	4	0	31	-17.2	73	9	- 4	5	9	0	102	229	0.5	20	27.7	SE	11	5	8	18	6.8	46
WILLISTON	579	950.2	1022.9	- 6.7	-19.4	-12.9	0.3	10.0	24+	-36.7	4	0	30	-17.2	74	13	- 1	6	6	0	226	152	0.9	29	21.0	NW	5	5	12	14	6.7	66
OHIO																																
AKRON	368	978.0	1024.6	0.0	-10.0	- 5.0	-2.9	7.8	31	-22.2	8	0	29	- 8.9	73	73	1	25	14	0	422	330	1.2	22	14.3	29	4	5	8	18	7.4	
CINCINNATI OBS	232			1.7	- 6.7	- 2.4	-3.4	12.2	27	-20.6	8	0	23			44	- 50	19	10		193	152			13.9	W	4					41
CLEVELAND	237	994.6	1025.0	- 1.1	- 8.9	- 5.0	-3.0	8.3	31	-23.3	8	0	27	-10.6	67	83	15	21	16	0	368	203	1.7	20	12.1	W	4	4	7	20	8.0	36
COLUMBUS	247	994.2	1025.5	- 0.6	- 8.9	- 4.7	-3.5	11.1	29	-22.8	8	0	25	- 8.3	77	56	- 24	19	9	0	295	254	0.6	18	15.6	NW	4	6	6	19	7.0	46
DAYTON	305	987.5	1025.1	0.6	- 8.9	- 4.1	-2.7	10.6	27	-23.9	8	0	26	- 9.4	68	42	- 38	20	12	0	307	178	0.9	20	14.3	W	4	9	3	19	7.0	42
MANSFIELD	395			- 1.1	- 9.4	- 5.1	-2.5	8.3	30+	-23.3	8	0	29	-10.0	68	58	- 24	19	14	0	541	406	2.0	21	10.7	34	15	5	6	20	7.4	
TOLEDO	204	999.0	1025.2	- 1.1	- 9.4	- 5.5	-2.3	8.9	29	-25.6	8	0	29	- 9.4	73	49	- 11	19	12	0	264	178	0.8	22	13.9	W	4	4	9	18	7.5	46
YOUNGSTOWN	359	980.0	1024.7	- 2.2	-10.6	- 6.5	-3.9	6.1	29	-22.8	8	0	29	- 9.4	79	95	15	30	14	0	356	254	1.2	22	11.2	11	13	4	9	18	7.7	
OKLAHOMA																																
OKLAHOMA CITY	392	975.3	1023.1	7.2	- 2.2	2.6	-0.2	19.4	28	-16.7	7	0	19	- 0.6	83	56	22	29	12	1	10	T	0.5	8	13.9	N	6	5	0	26	8.2	29
TULSA	198	999.0	1024.1	7.2	- 2.8	2.2	-0.1	20.0	26	-18.3	7	0	19	- 2.8	71	83	39	22	11	1	15	T	0.4	13	14.8	SW	31	3	6	22	8.0	32
OREGON																																
ASTORIA	2	1015.6	1016.3	8.9	2.2	5.6	0.7	15.6	23	- 3.9	28+	0	11	2.8	84	243	- 54	42	23	0	94	102	1.9	17	15.6	18	9	2	4	25	8.6	
BURNS U	1265	874.4	1021.2	2.8	- 8.3	- 2.8	1.2	10.0	20	-16.7	27	0	31	- 6.7	76	25	- 16	11	10		117	25	0.5	26				5	11	15	6.6	
EUGENE	109	1004.7	1018.4	8.9	1.7	5.3	1.3	17.8	20	- 3.3	28+	0	12	3.3	87	191	30	39	18	0	91	51	1.9	17	14.3	16	29	0	6	25	9.0	
MEACHAM	1234	876.1	1020.0	0.0	- 6.1	- 3.0	0.3	8.9	20	-16.1	27	0	29	- 6.7	80	65	- 42	23	19		356	254			10.3	21	30+	0	4	27	9.1	
MEDFORD	396	971.6	1020.5	7.2	- 2.2	2.6	0.7	16.1	21	- 8.3	28	0	27	0.0	85	47	- 33	10	17	0	163	102	0.5	17	13.4	13	13	1	8	22	8.1	
PENDLETON	452	964.1	1019.2	7.8	- 1.7	2.9	2.8	19.4	20+	-11.1	28	0	19	- 2.8	70	15	- 21	5	11	0	33	25	1.7	23	13.4	26	24+	0	8	23	8.5	
PORTLAND	6	1016.9	1018.0	7.2	1.1	4.1	0.5	13.3	21	- 4.4	27+	0	12	0.6	80	116	- 20	29	21	0	132	127	2.6	15	20.1	S	9	1	3	27	8.9	28
SALEM	60	1010.8	1018.1	7.8	0.6	4.3	0.7	16.7	20	- 5.0	28+	0	14	1.7	84	162	- 8	34	21	0	236	152	1.8	18	10.3	18	31+	1	3	27	8.8	
SEXTON SUMMIT R	1169	882.8	1018.3	3.9	- 2.2	0.9	-0.2	16.7	22	- 8.3	28	0	24	- 3.3	81	137	- 5	37	15		648	457			19.2	16	9	6	5	20	7.4	
PACIFIC AREA																																
JOHNSTON	2	1010.5	1011.0	27.2	22.8	24.8	-0.2	28.9	21+	20.6	31+	0	0	18.3	71	21	- 78	11	7	2	0	0	3.1	8	16.1	E	2	19	12	0	3.5	80
KOROR R	29	1004.7	1008.2	30.6	23.9	27.2	0.4	32.8	30	22.8	30+	1	0	23.3	83	204	- 94	60	22	0	0	0	2.5	6	11.6	NE	10	0	0	31	9.7	76
KWAJALEIN	2	1007.1	1007.9	30.0	24.4	27.2	0.5	30.6	14+	22.8	17+	0	0	22.8	77	147	55	81	17	0	0	0	7.1	5	13.0	6	5+	2	10	19	8.0	
MAJURO	3	1007.5	1007.7	29.4	25.0	27.3	0.5	30.6	5	23.3	11	0	0	23.3	79	137	- 41	36	16	0	0	0	5.1	7	12.5	E	12+	1	15	15	7.3	60
MARCUS ISLAND	6			24.4	18.9	21.7	-0.6	27.8	9	15.6	30+	0	0			32	- 64	18	12		0	0			16.5	N	6					54
PAGO PAGO	4	1007.1	1007.3	30.6	23.9	27.2		32.8	23	21.7	21	6	0	23.9		118		21	18	7	0	0	1.7	7	13.4	NE	3	2	8	21	8.3	45
PONAPE R	37	1002.0	1007.4	30.0	24.4	27.3	0.3	31.1	25	21.7	27	0	0	23.3	80	251	- 30	55	25	0	0	0	4.1	7	10.3	E	8	0	4	27	9.0	29
TAGUAC GUAM R	110			28.3	22.2	25.2	-0.5	29.4	26+	19.4	26	0	0			146	28	63	24		0	0			11.6	NE	29	0	7	24	8.5	54
TRUK MOEN ISLAND	2	1007.1	1007.3	29.4	25.0	27.2	0.2	30.0	28+	23.3	31+	0	0	23.3	81	220	7	44	23	2	0	0	5.2	5	15.6	E	6	0	3	28	9.4	58
WAKE	3	1011.9	1012.2	28.3	22.2	25.2	-0.1	30.0	10+	18.9	30	0	0	18.3	69	30	2	8	11	0	0	0	4.0	5	18.8	N	14	12	15	4	4.5	64
YAP R	19	1006.1	1008.0	29.4	23.9	26.6	-0.3	30.6	27+	22.2	31+	0	0	23.9	85	274	74	53	27	0	0	0	3.6	5	12.5	NE	9	0	1	30	9.6	56
PENNSYLVANIA																																
ALLENTOWN	118	1010.2	1024.8	- 1.1	-10.6	- 5.7	-4.1	7.2	27	-21.7	2	0	28	-12.2	61	65	- 16	41	11	0	76	178	1.6	31	18.3	31	7	9	8	14	5.9	
ERIE	223	996.6	1024.7	- 0.6	- 8.9	- 4.7	-2.1	8.3	31	-20.6	12	0	29	- 9.4	71	76	8	19	19	0	615	305	1.6	22	14.8	29	4	3	5	23	8.1	
HARRISBURG	103	1011.9	1025.2	0.0	- 8.9	- 4.4	-4.1	8.3	21	-20.6	2	0	27	-10.0	66	34	- 37	14	9	0	76	279	1.6	31	15.6	NW	7+	8	7	16	6.5	46
PHILADELPHIA	2	1023.7	1024.8	2.2	- 5.6	- 1.7	-1.9	10.6	21+	-14.4	12	0	26	- 8.9	62	74	- 11	58	10	0	38	102	1.7	34	15.6	NW	4	10	5	16	6.2	48
PITTSBURGH	347	979.0	1025.0	- 0.6	- 9.4	- 4.8	-3.1	8.3	31	-22.2	8	0	27	- 8.9	72	72	- 4	19	15	0	391	305	1.0	25	11.2	27	4	4	9	18	7.4	37
READING U	81			1.1	- 6.7	- 2.8	-3.2	10.0	20	-17.2	2	0	25			38	- 40	22	9		89	127			22.8	E	14	10	7	14	5.9	52
SCRANTON	283	989.2	1025.2	- 2.2	-11.1	- 6.7	-4.3	6.1	21	-23.3	12	0	27	-11.1	70	52	- 7	17	11	0	152	254	0.8	29	14.8	W	7	7	7	17	6.9	52
WILLIAMSPORT	160	1005.4	1025.3	0.0	-10.0	- 5.0	-3.2	7.8	27	-23.9	12	0	27	-10.0	69	63	- 5	26	11	0	66	178	1.0	29	13.4	29	7	9	9	13	6.4	
RHODE ISLAND																																
BLOCK ISLAND	34			0.6	- 6.1	- 2.7	-2.7	6.7	23+	-18.9	9	0	24			60	- 37	25	13		224	102						14	5	12	5.3	
PROVIDENCE	16	1020.7	1023.1	0.6	- 8.9	- 4.2	-2.6	8.9	19	-20.6	9	0	30	-12.2	56	89	- 8	31	14	0	343	229	2.7	30	13.9	30	7	13	7	11	4.9	60
SOUTH CAROLINA																																
CHARLESTON	12	1021.7	1023.4	12.8	0.0	6.4	-3.5	23.9	30	- 6.7	17	0	18	0.6	74	57	- 7	23	11	1	13	T	1.5	36	13.4Y	N	7	8	8	15	6.4	55
CHARLESTON U	3			12.2	2.8	7.5	-3.3	22.8	30	- 3.3	8	0	8			51	- 10	22	9		T	T			13.4	NE	10					
COLUMBIA	65	1015.9	1024.2	11.1	- 1.1	5.1	-3.2	22.8	30	- 6.7	17	0	22	- 1.1	72	151	74	72	13	0	43	25	1.3	36	9.4	4	24+	10	1	20	6.7	54

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1968

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, Sleet: Total	Snow, Sleet: 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																																
GNVLE-SPARTANBURG	292	988.5	1024.3	9.4	- 1.7	3.9	-2.6	20.6	21	- 8.9	8	0	22	- 2.2	68	105	- 4	37	14	0	23	25	1.1	1	13.9	N	7	8	5	18	6.6	43
SOUTH DAKOTA																																
ABERDEEN	395	973.9	1023.8	- 6.1	-17.8	-12.0	-0.2	6.1	24+	-34.4	4	0	31	-15.0	78	4	- 13	2	6	0	79	102	0.4	28	16.5	16	10	8	5	18	6.5	
HURON	391	974.3	1023.6	- 3.3	-15.0	- 9.2	1.6	10.0	24+	-31.7	4	0	31	-15.6	62	7	- 5	4	4	0	114	51	0.5	24	17.0	NW	5	6	7	18	7.0	62
RAPID CITY	964	905.9	1021.3	1.7	-11.1	- 4.8	0.8	20.6	24	-28.3	6	0	29	-12.2	60	11	2	5	4	0	102	102	1.7	35	17.9	NW	11+	6	8	17	6.7	59
SIOUX FALLS	432	969.5	1023.6	- 2.8	-13.9	- 8.4	0.9	8.9	24	-30.0	7	0	30	-12.2	75	8	- 7	6	6	0	117	76	0.8	27	10.7	19	8	6	12	13	6.4	
TENNESSEE																																
BRISTOL	459	968.5	1024.6	6.1	- 5.0	0.7	-2.8	16.7	31	-17.2	8	0	26	- 4.4	73	91	- 3	24	13	0	307	127	0.4	1	10.7	10	13	6	6	19	7.1	
CHATTANOOGA	203	999.0	1024.4	7.8	- 2.2	2.8	-2.6	20.0	22	-10.6	8	0	23	- 1.1	80	126	- 16	35	14	0	142	102	0.6	32	11.2	N	7	8	4	19	6.9	39
KNOXVILLE	299	987.8	1023.8	7.8	- 2.2	2.8	-2.4	18.3	30+	-11.7	8	0	19	- 1.1	79	105	- 19	33	11	0	150	51	0.7	36	8.9	NE	24+	7	4	20	7.1	34
MEMPHIS	79	1014.2	1025.0	8.3	- 0.6	3.8	-1.4	20.6	29+	-11.7	7	0	22	- 1.1	73	141	- 13	43	13	0	51	51	0.8	4	11.6	N	6	5	6	20	7.6	37
NASHVILLE	180	1002.4	1025.0	6.1	- 3.9	1.1	-3.3	20.0	29	-15.6	8	0	25	- 2.8	76	89	- 51	23	12	0	183	152	0.4	1	10.3	NW	6	7	4	20	7.1	41
OAK RIDGE R	276			7.8	- 2.2	2.7	-1.7	18.9	21	-11.7	8	0	20			114	- 37	37	12		99	76			13.9Y		24	7	6	18	6.9	
TEXAS																																
ABILENE	537	958.7	1021.4	11.7	1.7	6.6	-0.4	23.3	31	-11.1	7	0	14	2.2	77	110	88	39	10	1	T	T	0.6	20	15.6	N	18+	5	5	21	7.6	35
AMARILLO	1098	893.3	1019.6	10.0	- 3.3	3.5	0.9	19.4	28	-16.1	7	0	19	- 3.3	69	59	43	44	5	0	15	T	1.2	27	13.9	N	11	9	8	14	5.9	57
AUSTIN	182	1000.0	1022.7	13.3	4.4	8.7	-1.6	23.3	31	- 5.6	7	0	10	4.4	78	202	142	63	14	2	0	0	0.8	2	13.4	N	7	5	4	22	7.8	31
BROWNSVILLE	6	1020.7	1021.1	18.9	10.0	14.3	-2.0	26.1	30+	0.0	13+	0	3	11.1	83	78	44	28	12	3	0	0	0.8	36	15.6	NW	7	5	6	20	7.5	29
CORPUS CHRISTI	12	1020.3	1021.8	16.1	7.2	11.8	-2.3	24.4	31+	- 2.2	13+	0	5	8.9	86	54	12	19	12	1	0	0	1.3	5	14.8	SE	26+	4	4	23	7.9	32
DALLAS	147	1005.4	1023.1	11.1	3.9	7.3	-0.4	22.2	31	-10.6	7	0	13	2.8	77	82	23	19	16	0	T	T	0.9	11	12.1	S	26	6	2	23	8.1	27
DEL RIO	313	984.8	1021.7	15.0	5.0	9.9	-0.8	23.9	28	- 3.3	7	0	7	5.0	74	17	- 6	7	10	1	0	T	0.5	5	11.2	32	18+	7	3	21	7.4	
EL PASO	1194	885.2	1020.1	12.2	- 0.6	5.8	-0.3	20.6	31	- 5.6	14	0	20	- 0.6	68	12	0	8	5	0	53	51	0.0	20	17.0	W	31	10	7	14	5.9	63
FORT WORTH	164	1002.0	1023.2	11.1	2.8	6.9	-0.6	23.3	25	-11.1	7	0	12	3.3	83	91	40	25	16	0	10	T	0.4	10	11.6	20	26	5	3	23	8.1	
GALVESTON U	2			13.9	8.9	11.4	-1.3	20.6	31+	- 1.1	8	0	2			156	68	73	12		0	0			14.3	NE	7					30
HOUSTON	15	1020.3	1022.5	16.1	7.2	11.5	-0.5	26.7	31	- 2.2	14	0	5	6.7	78	204	108	88	12	3	0	0	1.2	6	12.5	36	7	6	1	24	7.8	35
LUBBOCK	992	906.5	1020.3	11.1	- 1.7	4.8	0.8	23.3	31	-14.4	7	0	20	- 1.7	72	24	7	13	5	0	5	25	0.8	29	16.1	Z	18	9	4	18	6.8	
MIDLAND	869	919.7	1019.9	12.8	0.6	6.8	0.2	23.9	31	- 9.4	7	0	16	1.1	74	27	7	15	9	0	20	25	0.7	24	14.3	34	18	7	7	17	6.8	
PORT ARTHUR	5	1022.4	1023.0	15.6	5.6	10.6	-1.4	25.0	30+	- 4.4	14	0	6	7.8	86	139	32	83	11	1	0	0	1.7	6	16.1	E	22	6	4	21	7.7	38
SAN ANGELO	580	953.3	1021.2	13.3	2.8	7.9	-0.3	23.9	25	- 8.3	7	0	13	3.9	80	59	34	18	11	1	10	T	1.1	24	11.2	32	18+	6	5	20	7.4	
SAN ANTONIO	240	993.6	1022.2	15.0	5.0	9.9	-1.2	23.3	31	- 4.4	14+	0	7	5.6	78	216	172	81	16	3	0	T	0.8	4	14.8	NE	6	7	4	20	7.3	37
VICTORIA	32	1018.0	1022.0	15.6	6.7	11.2	-1.8	25.0	31	- 2.8	14	0	6	7.8	82	83	24	33	11	1	T	0	1.4	3	19.2Y	N	6	5	4	22	7.8	
WACO	153	1004.1	1022.8	11.7	4.4	8.2	-0.7	22.8	31	- 7.2	7	0	10	5.6	86	88	30	28	13	1	T	T	0.1	27	13.0	33	6	5	4	22	7.9	
WICHITA FALLS	303	985.1	1022.8	11.1	0.6	5.7	-0.3	25.0	25	-13.3	7	0	18	1.1	79	114	85	51	8	1	T	T	1.3	9	17.0	1	6	4	2	25	8.2	
UTAH																																
MILFORD	1533	849.3		2.8	-11.7	- 4.4	-0.3	9.4	25	-22.2	12+	0	31			4	- 10	2	3		71	51						15	8	8	4.5	
SALT LAKE CITY	1286	875.7	1025.1	2.2	-10.0	- 4.2	-1.5	8.9	30	-17.8	13+	0	30	-10.0	68	12	- 23	7	4	1	173	102	1.6	18	14.3	W	28+	12	2	17	6.1	61
WENDOVER	1291	875.0	1025.1	1.1	- 9.4	- 4.1	-1.3	10.0	30	-13.9	12	0	31	-10.6	62	4	- 4	2	4		8	T										
VERMONT																																
BURLINGTON	101	1011.2	1024.7	- 7.2	-18.9	-13.1	-4.3	3.3	19	-32.8	11	0	31	-18.9	59	32	- 18	7	11	0	467	279	0.4	30	14.3	S	30	8	7	16	6.6	59
VIRGINIA																																
LYNCHBURG	279			5.6	- 5.6	0.0	-3.1	17.2	30+	-13.9	8	0	26			60	- 24	35	11		99	76			12.5	NE	13	11	3	17	6.5	48
NORFOLK	7	1023.7	1024.7	6.1	- 3.3	1.6	-3.6	18.9	30	- 8.3	8	0	27	- 5.6	62	92	7	53	12	0	38	25	1.6	35	14.8	SE	14+	12	2	17	5.9	56
RICHMOND	50	1018.6	1024.9	7.2	- 5.0	1.1	-2.7	21.1	30	-13.9	12	0	27	- 5.6	66	64	- 24	43	9	0	58	25	0.6	1	11.2	NW	7	9	5	17	6.4	48
ROANOKE	350	980.7	1024.2	5.6	- 4.4	0.6	-2.8	17.8	29	-12.2	8	0	25	- 7.2	58	85	5	69	8	0	391	203	1.5	33	14.3	29	4	9	6	16	6.5	
WALLOPS ISLAND	3			3.3	- 4.4	- 0.6		13.3	21	-12.2	12	0	28			63		29	13		61	25			22.8Y	N	7	10	6	15	6.1	
WASHINGTON																																
OLYMPIA	59	1008.8	1016.4	6.7	0.6	3.5	0.1	13.3	20+	- 8.3	28	0	15	1.7	87	230	30	39	21	0	429	178	2.2	20	15.6	19	9	2	1	28	9.0	
QUILLAYUTE	55	1006.8	1014.4	7.2	1.7	4.6	0.9	15.0	23	- 5.0	27	0	14	2.8	91	574	186	211	24	2	173	25	1.9	14	15.2	S	9	3	2	26	8.8	12
SEATTLE TACOMA	122	1000.0	1016.7	7.8	2.2	4.9	1.4	15.0	20+	- 3.9	28	0	10	1.7	81	175	30	33	24	0	191	102	2.1	17	15.6	21	10	1	2	28	9.4	13
SPOKANE	718	932.3	1018.3	0.6	- 5.6	- 2.3	1.4	7.8	19	-17.2	28+	0	26	- 5.6	77	40	- 22	13	13	0	300	178	2.1	16	14.8	SW	31	3	6	22	8.3	24
STAMPEDE PASS R	1206	876.7		- 1.7	- 6.1	- 3.8	0.9	15.0	23	-17.2	28+	0	27			351	45	49	26		2113	1778										
WALLA WALLA U	289			7.8	0.0	3.8	3.2	21.7	20	-10.0	28	0	14			20	- 28	7	14		13	T			13.0	W	31	0	6	25	8.7	19
YAKIMA	321	979.7	1019.2	4.4	- 5.6	- 0.6	1.9	16.7	21	-15.6	28	0	26	- 5.0	74	45	14	20	11	0	282	127	1.3	28	14.3	29	24	5	7	19	7.4	
WEST INDIES																																
SAN JUAN P.R.	4	1015.2	1017.7	27.8	21.7	24.7	1.1	29.4	25+	16.7	25	0	0	18.9	72	55	- 65	17	17	0	0	0	3.3	6	14.3	E	17	6	22	3	5.0	61

See footnotes at end of table

CLIMATOLOGICAL DATA

METRIC UNITS

JANUARY 1968

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, Sleet: Total	Snow, Sleet: 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.							%
WEST INDIES																																
SWAN ISLAND	9			27.8	23.3	25.3	-0.4	28.9	4	20.6	29	0	0			142	55	107	13		0	0						5	15	11	6.2	
WEST VIRGINIA																																
BECKLEY	763	932.3	1024.8	2.8	- 7.2	- 2.1	-2.9	15.0	29	-21.7	8	0	27	- 7.2	72	67	- 41	29	16	0	538	406	0.9	23	14.3	12	13	7	6	18	7.0	
CHARLESTON	286	989.2	1024.8	3.9	- 7.2	- 1.6	-4.2	16.7	29	-20.0	8	0	27	- 7.2	68	51	- 59	20	14	0	338	279	0.5	28	12.1	24	4	6	6	19	7.0	
ELKINS	600	950.6	1024.7	3.9	-11.7	- 3.9	-4.2	12.2	22	-27.2	2	0	28	- 7.8	77	48	- 44	19	15	0	358	381	1.0	28	13.9	30	7	8	3	20	7.1	
HUNTINGTON	252	993.9	1025.3	3.3	- 6.1	- 1.4	-4.0	16.7	29+	-21.1	8	0	25	- 7.2	67	44	- 49	14	14	0	229	254	0.5	25	9.4	30	7+	6	7	18	6.8	
PARKERSBURG U	187			2.2	- 7.8	- 2.7	-4.1	15.0	29	-21.7	8	0	25			60	- 25	24	14		394	356			13.9	W	4					46
WISCONSIN																																
GREEN BAY	208	997.3	1024.4	- 4.4	-13.3	- 8.7	-0.2	3.9	31+	-31.1	7	0	31	-11.1	79	24	- 5	6	10	0	234	127	1.0	28	12.1	NW	4	6	6	19	7.3	30
LA CROSSE	198	999.0	1024.8	- 2.2	-11.7	- 7.1	1.6	10.0	20	-27.8	7	0	30	-11.7	70	22	- 8	11	6	1	114	102	0.5	19	10.7	31	29	5	9	17	6.7	
MADISON	262	991.2	1024.2	- 2.2	-11.7	- 6.9	1.2	8.9	20	-27.8	7	0	28	-10.6	73	14	- 21	3	12	1	99	51	0.5	25	11.2	N	22+	8	4	19	7.2	42
MILWAUKEE	205	998.0	1024.4	- 1.7	- 9.4	- 5.7	0.7	8.9	29	-26.1	7	0	30	-10.6	69	25	- 22	6	11	1	117	76	1.2	27	13.4	W	4	6	4	21	7.6	39
WYOMING																																
CASPER	1627	837.1	1020.7	1.1	-10.6	- 4.9	-0.1	8.9	24	-27.8	6	0	30	-12.2	57	8	- 6	4	7	0	132	51	6.3	22	17.9	23	4	6	9	16	6.7	
CHEYENNE	1867	811.0	1019.8	5.0	- 8.9	- 1.8	1.8	16.1	24	-25.6	6	0	30	-11.1	50	1	- 12	1	2	0	5	51	3.6	28	17.9	NW	11	9	9	13	5.5	68
LANDER	1696	828.7	1023.3	- 2.8	-15.6	- 9.2	-2.1	6.7	10	-27.8	3	0	31	-13.9	70	4	- 7	3	3	0	61	356	0.9	22	17.9	SW	30	9	10	12	5.9	67
SHERIDAN	1208	879.1	1022.5	- 0.6	-16.1	- 8.4	-2.4	11.7	24	-31.7	6+	0	31	-14.4	62	27	10	8	11	0	343	381	1.4	28	15.6	SW	30	4	7	20	7.4	55

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.

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

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

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

HEATING DEGREE DAYS

(Base 65°F.)

JANUARY 1968

State and station	Current season: This month	Current season: Period July through this month	Normals: July through this month
ALABAMA			
BIRMINGHAM	690	1895	1609
HUNTSVILLE	829	2189	1922
MOBILE	448	992	1067
MONTGOMERY	614	1469	1468
ALASKA			
ANCHORAGE	1625	5954	6429
ANNETTE	1011	3763	3930
BARROW	2311	11146	11028
BARTER ISLAND	2307	10968	10796
BETHEL	1662	7065	7570
COLD BAY	1133	5165	5389
FAIRBANKS	2358	8258	8794
JUNEAU	1432	5325	5140
KING SALMON	1700	6667	6552
KOTZEBUE	1971	8417	8846
MC GRATH	2167	8180	8680
NOME	1748	7773	7918
ST. PAUL ISLAND	1079	5404	6006
SHEMYA	972	5167	5300
YAKUTAT	1445	5698	5124
ARIZONA			
FLAGSTAFF	1218	3955	3982
PHOENIX	384	974	1145
TUCSON	384	989	1133
WINSLOW	1609	3744	3024
YUMA	296	718	830
ARKANSAS			
FORT SMITH	781	2161	2074
LITTLE ROCK	840	2198	2073
TEXARKANA	646	1627	1610
CALIFORNIA			
BAKERSFIELD	523	1269	1367
BISHOP	833	2431	2537
BLUE CANYON	840	2580	2761
EUREKA U	565	2440	2573
FRESNO	619	1573	1561
LONG BEACH	282	631	871
LOS ANGELES	236	620	908
LOS ANGELES U	207	526	708
MT SHASTA R	983	3131	3169
OAKLAND	548	1388	1592
RED BLUFF	671	1501	1531
SACRAMENTO	663	1598	1647
SANDBERG R	800	2306	2161
SAN DIEGO	239	572	745
SAN FRANCISCO	564	1536	1638
SAN FRANCISCO U	465	1492	1648
SANTA CATALINA	337	907	872
SANTA MARIA	431	1289	1594
STOCKTON	691	1670	1658
COLORADO			
ALAMOSA	1766	5523	5043
COLORADO SPRINGS	1057	3631	3607
DENVER	1086	3518	3546
GRAND JUNCTION	1532	4036	3451
PUEBLO	1140	3695	3201
CONNECTICUT			
BRIDGEPORT	1216	3168	3053
HARTFORD	1353	3671	3516
NEW HAVEN	1239	3335	3202
DELAWARE			
WILMINGTON	1139	3134	2816
DIST. OF COLUMBIA			
NATL ARPT	1033	2672	2474
FLORIDA			
APALACHICOLA U	391	831	835
DAYTONA BEACH	227	413	534
FORT MYERS	67	103	279
JACKSONVILLE	352	693	798
KEY WEST	5	6	68
LAKELAND U	172	303	416
MIAMI	56	81	139
ORLANDO	191	300	490
PENSACOLA	473	1017	967
TALLAHASSEE	399	904	961
TAMPA	193	357	433
WEST PALM BEACH	74	112	158
GEORGIA			
ATHENS	784	1988	1806
ATLANTA	792	2057	1824
AUGUSTA	709	1690	1512
COLUMBUS	639	1555	1515
MACON	696	1731	1375
ROME	825	2200	2070
SAVANNAH	592	1261	1167
IDAHO			
BOISE	1092	3444	3469
LEWISTON	926	2997	3278
POCATELLO	1352	4309	4055
ILLINOIS			
CAIRO U	974	2506	2360
CHICAGO U HARL	1274	3816	3748
CHICAGO MIDWAY	1243	3600	3462
MOLINE	1354	3955	3712
PEORIA	1323	3794	3509
ROCKFORD	1349	4074	3920
SPRINGFIELD	1271	3576	3217
INDIANA			
EVANSVILLE	1128	3004	2743
FORT WAYNE	1382	4033	3588
INDIANAPOLIS	1232	3379	3293
SOUTH BEND	1317	3869	3612
IOWA			
BURLINGTON	1292	3738	3577
DES MOINES	1317	3860	3937
DUBUQUE	1415	4318	4262
SIOUX CITY	1430	4148	4028
WATERLOO	1450	4561	4262
KANSAS			
CONCORDIA	1196	3376	3224
DODGE CITY	1015	2974	2940
GOODLAND	1043	3438	3517
TOPEKA	1184	3310	3101
WICHITA	998	2925	2808
KENTUCKY			
COVINGTON	1178	3178	3053
LEXINGTON	1090	2989	2750
LOUISVILLE	1069	2844	2731
LOUISIANA			
ALEXANDRIA	615	1533	1231
BATON ROUGE	468	1117	1025
LAKE CHARLES	439	961	951
NEW ORLEANS	407	935	896
SHREVEPORT	604	1435	1373
MAINE			
CARIBOU	1823	5275	5480
PORTLAND	1496	4207	4129
MARYLAND			
BALTIMORE	1100	3028	2738
MASSACHUSETTS			
BLUE HILL OBS R	1309	3700	3464
BOSTON	1214	3337	3059
NANTUCKET	1111	3113	2920
PITTSFIELD	1495	4419	4228
WORCESTER	1414	4018	3854
MICHIGAN			
ALPENA	1441	4750	4610
DETROIT	1274	3558	3454
DETROIT M WAYNE CO	1300	3967	3620
DETROIT WILLOW RUN	1325	4002	3491
FLINT	1354	4134	3806
GRAND RAPIDS	1356	4086	3885
HOUGHTON LAKE	1468	4802	4574
LANSING	1385	4249	3835
MARQUETTE U	1459	4716	4522
MUSKEGON	1301	3811	3619
SAULT STE MARIE	1655	5303	4903
MINNESOTA			
DULUTH	1730	5568	5599
INTERNATIONAL FALLS	1899	6099	6126
MINNEAPOLIS	1567	4770	4846
ROCHESTER	1556	4859	4755
ST CLOUD	1680	5084	5116
MISSISSIPPI			
JACKSON	662	1667	1398
MERIDIAN	626	1639	1481
MISSOURI			
COLUMBIA	1106	3072	2999
KANSAS CITY	1125	2949	2808
ST JOSEPH	1195	3298	3270
ST LOUIS	1121	3076	2900
SPRINGFIELD	979	2745	2718
MONTANA			
BILLINGS	1285	3982	4022
GLASGOW	1664	4945	5237
GREAT FALLS	1329	4113	4321
HAVRE	1647	4717	4998
HELENA	1525	4571	4690
KALISPELL	1379	4480	4785
MILES CITY	1570	4601	4460
MISSOULA	1383	4421	4804
NEBRASKA			
GRAND ISLAND	1272	3761	3815
LINCOLN U	1239	3548	3411
NORFOLK	1395	4177	4038
NORTH PLATTE	1321	4211	3891
OMAHA	1307	3776	3670
SCOTTSBLUFF	1265	4145	3832
VALENTINE	1365	4347	4253
NEVADA			
ELKO	1168	3669	4264
ELY	1293	4322	4328
LAS VEGAS	638	1616	1770
RENO	1025	3340	3724
WINNEMUCCA	1083	3566	3919
NEW HAMPSHIRE			
CONCORD	1520	4361	4158
MT WASHINGTON OBS	1876	7729	7709
NEW JERSEY			
ATLANTIC CITY	1195	3423	2655
ATLANTIC CITY U	1016	2633	2502
NEWARK	1148	2992	2856
TRENTON U	1130	2994	2810
NEW MEXICO			
ALBUQUERQUE	870	2663	2681
CLAYTON	940	3058	2966
RATON	1108	3772	3583
ROSWELL	796	2444	2439
SILVER CITY	790	2335	2234
NEW YORK			
ALBANY	1557	4169	3879
BINGHAMTON	1477	4292	4030
BUFFALO	1393	3834	3826
NEW YORK U	1179	2998	2691
J.F. KENNEDY	1214	3176	2810
NEW YORK LA GUARDIA	1181	2974	2638
ROCHESTER	1399	3878	3687
SYRACUSE	1436	3865	3749
NORTH CAROLINA			
ASHEVILLE	947	2838	2670
CAPE HATTERAS R	708	1613	1452
CHARLOTTE	835	2133	1950
GREENSBORO	904	2320	2300
RALEIGH	855	2202	2076
WILMINGTON	701	1557	1432
NORTH DAKOTA			
BISMARCK	1795	5379	5115
FARGO	1773	5307	5323
WILLISTON	1741	5231	5329
OHIO			
AKRON	1296	3639	3420
CINCINNATI OBS	1153	3168	2805
CLEVELAND	1295	3541	3397
COLUMBUS	1276	3661	3278
DAYTON	1241	3458	3232
MANSFIELD	1300	3758	3589
TOLEDO	1324	3982	3669
YOUNGSTOWN	1378	4050	3601
OKLAHOMA			
OKLAHOMA CITY	872	2291	2311
TULSA	892	2392	2378
OREGON			
ASTORIA	765	2626	2854
BURNS U	1173	3868	4000
EUGENE	722	2309	2670
MEACHAM	1186	4034	4294
MEDFORD	873	2718	2917
PENDLETON	850	2757	3073
PORTLAND	789	2443	2659
SALEM	778	2416	2662
SEXTON SUMMIT R	963	3264	3274
PENNSYLVANIA			
ALLENTOWN	1336	3758	3297
ERIE	1280	3665	3464
HARRISBURG	1266	3406	3046
PHILADELPHIA	1112	2912	2950
PITTSBURGH	1284	3615	3397
PITTSBURGH U	1176	3307	3076
READING U	1177	3130	2848
SCRANTON	1388	3843	3607
WILLIAMSPORT	1296	3608	3407
RHODE ISLAND			
BLOCK ISLAND	1166	3146	2917
PROVIDENCE	1246	3410	3277
SOUTH CAROLINA			
CHARLESTON	657	1485	1299
CHARLESTON U	599	1158	1112
COLUMBIA	732	1877	1576
GNVLE-SPARTANBURG	799	2066	1878
SOUTH DAKOTA			
ABERDEEN	1690	4981	4941
HURON	1533	4528	4768
RAPID CITY	1285	4141	4082
SIOUX FALLS	1490	4539	4551
TENNESSEE			
BRISTOL	979	2778	2516
CHATTANOOGA	857	2228	2049
KNOXVILLE	860	2396	2147
MEMPHIS	803	2063	2022
NASHVILLE	952	2532	2193
OAK RIDGE R	870	2439	2312
TEXAS			
ABILENE	648	1758	1693
AMARILLO	820	2484	2467
AUSTIN	538	1255	1112
BROWNSVILLE	262	449	420
CORPUS CHRISTI	373	752	631
DALLAS	603	1488	1508
DEL RIO	466	1137	1081
EL PASO	691	1871	1831
FORT WORTH	631	1554	1539
GALVESTON U	381	717	758
HOUSTON	390	822	880
LUBBOCK	748	2288	2249
MIDLAND	634	1770	1711
PORT ARTHUR	435	924	942
SAN ANGELO	577	1515	1489
SAN ANTONIO	477	1126	1026
VICTORIA	414	848	770
WACO	560	1288	1305
WICHITA FALLS	699	1846	1810
UTAH			
MILFORD	1260	3829	3802
SALT LAKE CITY	1246	3571	3603
WENDOVER	1245	3546	3511
VERMONT			
BURLINGTON	1751	4688	4592
VIRGINIA			
LYNCHBURG	1018	2877	2485
NORFOLK	928	2385	1980
RICHMOND	956	2607	2344
ROANOKE	984	2781	2488
WALLOPS ISLAND	1049	2826	
WASHINGTON			
OLYMPIA	820	2774	2982
QUILLAYUTE	761	2886	3158
SEATTLE TACOMA	737	2349	2882
SPOKANE	1149	3766	3887
STAMPEDE PASS R	1227	4719	5131
WALLA WALLA U	801	2546	2907
YAKIMA	1049	3266	3636
WEST VIRGINIA			
BECKLEY	1133	3514	3131
CHARLESTON	1104	3041	2653
ELKINS	1233	3698	3298
HUNTINGTON	1095	3072	2641
PARKERSBURG U	1164	3130	2777
WISCONSIN			
GREEN BAY	1506	4774	4487
LA CROSSE	1411	4298	4388
MADISON	1401	4540	4446
MILWAUKEE	1333	4056	4239
WYOMING			
CASPER	1289	4468	4139
CHEYENNE	1117	4056	4056
LANDER	1531	4850	4520
SHERIDAN	1487	4705	4317

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

STORM SUMMARY

JANUARY 1968

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	1	1	0	0	5																								
Alaska *																													
Arizona *																													
Arkansas																		0	0	3	0	6	many	6	0				
California																		0	0	4	0					0	0	5	0
Colorado *																													
Connecticut										0	0	5	0									0	0	5	0				
Delaware *																													
Florida	2	2	0	0	4																								
Georgia																						0	0	5	0	0	2	?	0
Hawaii																										0	0	°6	C
Idaho *																													
Illinois *																													
Indiana *																													
Iowa *																													
Kansas *																													
Kentucky																						0	?	?	0				
Louisiana										0	0	3	0									0	?	°6	C	2	2	4	0
Maine										0	0	4	0					2	0	4	0	0	0	3	0				
Maryland *																													
Massachusetts										0	0	4	0					4	0	6	0	0	0	4	0				
Michigan *																													
Minnesota														0	0	4	0												
Mississippi																		0	0	6	0					0	0	?	0
Missouri *																													
Montana *																													
Nebraska *																													
Nevada *																													
New Hampshire										0	0	4	0					0	0	4	0	0	0	3	0				
New Jersey *																													
New Mexico *																													
New York																								4					
North Carolina																						?	?	6	0				
North Dakota																		0	2	?	0					1	0	0	0
Ohio																		?	?	?						0	0	5	
Oklahoma																						0	0	?	0				
Oregon *																													
Pacific Area *																													
Pennsylvania										0	0	4	0																
Puerto Rico *																													
Rhode Island																		0	0	4	0	0	0	5	0				
South Carolina																						?	?	6	2				
South Dakota *																													
Tennessee																		0	0	5	0	0	0	?	0				
Texas	2	1	0	0	4																					8	0	6	4
Utah *																													
Vermont *																													
U. S. Virgin Is.*																													
Virginia																		0	0	5	0								
Washington N																													
West Virginia																		0	0	4	0								
Wisconsin *																													
Wyoming *																													

° Includes crop damage
C Crop damage
N No report received by printing deadline

* No occurrence of storms or unusual weather phenomena.
‡ 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 U. S. Weather Bureau 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 1968

Elmer R. Nelson, Office of Hydrology

The most significant flooding in continental United States during January occurred in Texas in the river drainages west of the Colorado River. The heaviest damage and loss of life was in the San Antonio area where damages totalled about $3 million. There were four known deaths from drowning. Major flooding occurred on the lower Frio, lower Nueces, and Atascosa Rivers.

A flash flood was reported in Hawaii on Jan. 5 in the Pearl Harbor area, Oahu. About 30 residents of the Hoolaulea Street area, near the Pearl City Shopping Center were evacuated as Waimano stream rose suddenly out of its banks. Waimalu stream near Aiea flooded a school. Eight families were evacuated. On the Ewa side of Pearl City, the rapid current of Waiawa stream, destroyed a frame house. Roads and highways in the Pearl Harbor area were clogged with mud and debris. At least 30 homes and a supermarket were damaged. The damage to property and crops was estimated at 2 1/2 million dollars.

ST. LAWRENCE DRAINAGE

Lake Erie.--Minor flooding occurred in the Lake Erie drainage during January. The St. Marys River at Decatur, Ind., crested 3.6 feet above flood stage on the 30th. The St. Joseph River at Montpelier, Ohio, crested 2.5 feet above flood stage on the 31st. The Maumee River at Ft. Wayne, Ind., and downstream to Grand Rapids, Ohio, went out of its banks on the 30th and crested 1 to 3.3 feet above flood stage on the 30th and 31st. Stages and crests were affected by ice jam formations and ice breakup.

The Sandusky River at Fremont, Ohio, rose rapidly to above flood stage on the 29th. Only a trace to 4 inches of snow remained over the Sandusky drainage when the rain began on the 27th. The rain continued for 4 days and averaged 1.4 inches over the basin. Historically, all winter floods at Fremont have geen associated with ice. On this occasion the ice averaged only 8 inches thick. The initial rise in the river was due to an ice jam less than one-half mile downstream from the river gage. The ice jam yielded to the pressure of the stored water after a few hours resulting in a sudden drop of the river at the gage. The stage fluctuated for the next 24 hours though never quite reaching the initial crest of 11.7 feet on the 30th. The flooding at Fremont resulted in the closure of several streets, flooded basements, and the flooding of a section of the sugar plant. It was necessary to remove some small electric motors to dry areas at the sugar plant but production was not interrupted. Upstream at Tiffin and Upper Sandusky, Ohio, crests ranged from 0.3 to 0.9 foot above flood stage on the 31st. The stream receded within its banks on the same date.

Lake Ontario.--The flooding on Canaseraga Creek at Groveland, N. Y., on the 30th was due to an ice jam. No damage resulted from the overflow of 2.5 feet as this area has been flooded much of the winter.

Heavy thawing during the latter 2 weeks of January and ice jams produced flooding in scattered areas in southwestern New York. Tannery Creek in East Aurora, N. Y., flooded nearby streets and some cellars. Similar conditions occurred in Silver Creek at the confluence of Walnut and Silver Creeks. Sunset Bay at the mouth of the Cattaraugus Creek experienced flooding from an ice jam. Fifty families were evacuated.

ATLANTIC SLOPE DRAINAGE

Heavy rain on the 14th in central and southern New Jersey caused light flooding on the Millstone River at Blackwells Mills, N. J., and on Assunpink Creek in Trenton, N. J., on the 14th and 15th. The rainfall which totaled 1.74 inches at Trenton, N. J., was the second largest 24-hour rainfall in 20 years. This was also the coldest January since 1961 at Trenton. Flooded roads and intersections were reported from Camden, Glassboro, Cherry Hill, Lindenwold, and Gloucester, N. J. Ice jams developed on Rancocas Creek and on the lower Raritan Basin at New Brunswick, N. J. Water was reported on some roads around New Brunswick due to an ice jam above the bridge.

Heavy precipitation (2.5 inches) and snowmelt on the 13th over the upper Rappahannock River resulted in near bankfull stage at Remington, Va., on the 13th and 14th. The runoff was appreciably halted as the latter half of the storm developed into solid precipitation. No damage resulted.

Minor flooding was in progress on the Neuse River at Neuse and Smithfield, N. C., during the beginning of the month. This overflow was due to heavy precipitation towards the end of December. There were rather frequent intervals of precipitation over the river basins in eastern North Carolina during the first half of the month. The most significant precipitation occurred during the afternoon of the 13th. It was mostly in the form of snow over the upper Roanoke with some accumulations in excess of 1 foot. Elsewhere it was mostly rain with amounts of 1 to 1 1/2 inches. This plus snowmelt produced quite substantial rises. The Cape Fear River rose to around bankfull stage in the upper reaches to 10 feet in flood in the lower basin. The Neuse River rose 2 to 5 feet over its banks. The Tar River rose to bankfull stage to a couple of feet above flood stage. No flooding occurred on the Dan and upper Roanoke Rivers in Virginia, although a rise of 9 feet took place in the midreaches above Kerr Dam. A slow rise to near bankfull stage resulted in the lower portion because of upstream reservoir discharge. This was one of the most severe winter storms in years. Communications were seriously disrupted in most areas and quite a few lines to the automatic type river gages were destroyed. Minor flood damage resulted in the lower Cape Fear River Basin.

The overflow of streams in South Carolina during January was due to precipitation during the first half of the month which was almost a daily occurrence. The heaviest precipitation occurred from the 7th to the 13th with amounts of 1 1/2 to over 3 inches over the central portion. The headwaters of the Yadkin Basin at the higher elevations were blanketed with snow, sleet, and ice all month. The snow cover reached depths of 15 inches by midmonth, with a water equivalent of almost 4 inches. The monthly total of frozen precipitation at Blowing Rock, N. C., was 21.5 inches and at Glendale Springs, N. C., 17.5 inches. Moderate overflow of 3 to 4 feet occurred along the Great Pee Dee River between the 11th and 28th. These were the highest crests since March 1966. Light flooding was in progress at Peedee, S. C., in the beginning of the month. The prolonged flood on the Lumber River at Lumberton, N. C., which began on Dec. 12 was aggravated by the almost continuous daily rains during the first 2 months of January. Excessive overflow began on Jan. 11 and continued rising to the 16th when it crested 4.5 feet above flood stage. This was the highest stage recorded at this station since it was established in November 1966. The crest of 12.5 feet was 4.5 feet below the record of August 1928. Overflow continued

into February. There were two periods of flooding on the Rocky River at Norwood, N. C. The first occurred on the 10-12th and the second on the 14-15th. Crests exceeded flood stage by 5 to 10 feet. Minor flooding occurred along the Little Pee Dee River in the Galivants Ferry, S. C., area from the 15th through the 27th; along the Lynches at Effingham, S. C., on the 17-18th; and along the North Fork Edisto at Orangeburg, S. C., on the 15th through the 17th. Much inconvenience and probably some damage resulted in low inhabited areas of the Lumber Basin in the Lumberton, N. C., area. Evacuation of several low areas were necessary. Flooding in the Santee Basin in January was confined to the Saluda and Broad Rivers. The Saluda River at Chappells, S. C., crested nearly 3 feet above flood stage and the Broad River at Blair, S. C., crested nearly 7 feet above flood stage on the 11th. Rises approaching but not reaching flood stage occurred on the Congaree River at Columbia and on the Wateree at Camden, S. C. These rises caused considerable flooding in the lowlands below Columbia and Camden, S. C.

Light to moderate damage resulted from the flooding on the Savannah River at Millhaven and Clyo, Ga., during December. This overflow was due to a combination of heavy rainfall and to release of excess water from Clark Hill Reservoir. At Clyo, Ga., flooding continued from Dec. 12 to Feb. 9, a period of 59 days.

EAST GULF OF MEXICO DRAINAGE

Minor flooding occurred on the Apalachicola River at Blountstown, Fla., on the 5-7th and again on the 12-14th. Weather conditions were very wet and abnormally cold during the first 2 weeks of January. The rains were mostly moderate in amount with the heaviest rains (1 to 3 inches) occurring on the 10-11th. No damage resulted from the light overflow.

Minor flooding occurred on the Oostanaula River at Resaca and Rome, Ga., between the 11th and 14th. There was no flooding of urban areas and damage to farmlands and public roads was estimated under $100,000. This flooding was due to 2 to 3 inches of rain on the 9th, preceded by light to moderate rains for several days.

The lower Tombigbee River in Alabama was above flood stage in the beginning of the month and continued above flood stage throughout most of the month. Rains, averaging near 3 inches, occurred over the Warrior and Tombigbee Basins on the 9th and 10th. The crests on the Warrior and upper Tombigbee River from the 11th to the 18th were higher than in December. Crests on the lower Tombigbee were slightly lower than in December. Preliminary estimates indicate that damages from flooding during January totalled $408,000.

Heavy rain (10-15 inches) during December produced flooding along the entire length of the Pearl River in Mississippi and Louisiana. Some stations reported 5 inches of rainfall during a 24-hour period. Flooding began on Dec. 16 at Jackson, Miss., and continued through the end of January at Pearl River, La. Crests during January ranged from 10 feet above flood stage at Jackson to nearly 2 feet above flood stage at Pearl River. The U. S. Corps of Engineers estimated the flood damages during December and January at $417,000.

MISSISSIPPI SYSTEM

Upper Mississippi Basin.--Continued cold temperatures during the first 3 weeks of January created heavy ice conditions on the Illinois River which resulted in erratic stage fluctuations. The Illinois River went out of its banks at Meredosia, Ill., on Dec. 10 and continued in flood through January. Upstream, flooding continued until Jan. 5 at Havana, Ill. The heavy field of ice at the mouth of the Illinois River broke during the evening of the 22d. The Corps of Engineers began flushing ice through at Alton Dam 26 on that date. The Kankakee River at Momence, Ill., rose to 2 feet above flood stage on the 6th and continued in flood until the 9th. The Sangamon River at Riverton, Ill., continued in flood from Dec. 4 to Jan. 2. Heavy rain towards the end of the month caused the Sangamon River to rise above flood stage at Riverton, Ill., on the 28th and at Monticello, Ill., on the 30th. It was still rising at the end of the month. The Kaskaskia River at Carlyle Dam, Ill., continued in flood from Dec. 14 to Jan. 31. It crested on Dec. 23, nearly 3 feet above flood stage. Heavy rain on Jan. 29 caused the Kaskaskia to rise above flood stage at Shelbyville and Vandalia, Ill., on the 31st. The Big Muddy River at Murphysboro, Ill., continued in flood from Dec. 16 to Jan. 5, cresting nearly 12 feet above flood stage on Dec. 27. It rose above flood stage again on Jan. 31.

Ohio Basin.--Below normal temperatures during the month of January resulted in heavy ice formations on the Allegheny River from Lock 7, Kittanning, Pa., upstream to Foxburg, Pa. An ice gorge developed at East Brady, Pa., and backwater from this gorge caused the river level to fluctuate at Parker, Pa., from half to near bankfull stage from the 8th to the 30th. Mild temperatures accompanied by rain showers and snowmelt on the 29th, 30th, and 31st, produced sufficient runoff to aggravate the ice conditions and cause serious backwater flooding at East Brady, Pa., Parker, Pa., and Foxburg, Pa. Flood stage was exceeded by 4 feet at Parker. Fourteen families were evacuated at Foxburg and many cottages in the Foxburg, Parker, and East Brady areas were damaged due to high water and heavy ice. Schools were closed due to backwater covering the highways and the main highway bridge at East Brady, Pa. Route 68 was closed until highway engineers could determine possible damage from the ice. Water rose 20 feet at East Brady and came within 4 feet of reaching floor level of the highway bridge over the Allegheny River. Power failure was reported at East Brady when lines were destroyed. The ice movement on the Allegheny River posed a threat to navigation but no damages resulted due to advanced warnings to navigation interests. The serious ice condition on French Creek above Meadville, Pa., at Saegerstown, Pa., and Cambridge Springs, Pa., dissipated with little or no damaging effect. Several highways in the Cochranton, Pa., and Mill Village, Pa., areas were closed for short periods due to backwater from ice. A mobile radio unit supplied by the State Civil Defense Office at Butler, Pa., was on duty around the clock at East Brady to notify downstream communities of the ice breakup.

Minor flooding occurred on the Hocking River at Athens, Ohio, on Jan. 31 and Feb. 1. The snow on the ground which averaged about 20 inches, with a water equivalent of 1 1/2 to 2 inches, on January 15 had nearly all melted by the time significant rainfall occurred on the 29th and 30th. The rainfall was heaviest north of the Ohio River and averaged about 0.7 to 0.8 inch in the Hocking River Basin and near 1 inch in the Muskingum River Basin. Amounts south of the Ohio River were generally less than 1/4 inch. Only small rises occurred in the Kanawha River Basin. Little or no damage resulted from the flooding at Athens, Ohio.

Minor flooding occurred along the Scioto River in Ohio from Jan. 30 to Feb. 4. Crest stages ranged from 1 to 2 feet above flood stage. This overflow was due to rainfall averaging 1.1 inches on the 27-30th.

The flooding along the Scioto River resulted in temporary closing of sections of highways.

The lower Wabash River at and below Montezuma, Ind., was above flood stage and falling in the beginning of the month. By the 4th, it had receded within its banks at all points. During the last week or 10 days of January, heavy snowmelt produced rising stages again in the Wabash Basin. Heavy rainfall on the morning of the 29th produced crests ranging from more than 2 feet above flood stage at Wabash, Ind., to more than 8 feet above flood stage at Lafayette, Ind., during the first week of February. Flooding was relatively minor. There was little if any crop damage. Some summer cottages along the river were surrounded by high water.

Minor flooding occurred on the Saline River at Harrisburg, Ill., on Jan. 30 to Feb. 6. No significant damage resulted from the overflow.

There were two periods of minor flooding on South Chickamauga Creek near Chickamauga, Tenn., during January. The first occurred on the 6-8th and the second on the 10-13th. Heavy rains (2 to 3 inches) over the Elk and Duck River Basins during the afternoon of the 9th and 10th produced some overflow on the Elk River at Fayetteville, Tenn., on the 10-13th. No damage was reported.

Minor flooding occurred along the main stem of the Ohio River at Wellsburg, W. Va., on Jan. 31 and Feb. 1. Damage, if any, was minor.

White Basin.--The Cache River at Patterson, Ark., rose above flood stage on Dec. 9 and continued in flood until Jan. 11. It crested 2.3 feet above flood stage on Dec. 19. The lower White River at Clarendon, Ark., went out of its banks on Dec. 25 and continued in flood until Jan. 16. It crested nearly 1 foot above flood stage on the 7th, 8th, and 11th. Minor flooding occurred downstream at St. Charles, Ark., on Jan. 6-17. This flooding was due to rainfall during December. This overflow was prolonged by a continuation of the intermittent rains during the first 2 weeks of January. The heaviest rains occurred over the flat delta country of east and southeast Arkansas which culminated in one of the worst ice storms in the history of east-central and southeast Arkansas. Preliminary estimates of flood damage were placed at near $250,000.

Arkansas Basin.--The minor flooding which began on the Illinois River at Tahlequah, Okla., on Jan. 31 continued into February. This flooding was due to heavy rain on the 28-30th. Precipitation on the 28th averaged about 1.5 inches. Due to the season of the year, damages were nominal.

Red Basin.--Minor flooding occurred on the Blue River at Blue, Okla., on the 29th. There were two periods of flooding on Clear Boggy Creek at Caney, Okla., during January. The first, occurred on the 19th-22d and the second, on the 29th-Feb. 1. The Kiamichi Creek at Belzoni, Okla., was out of its banks on the 30th and 31st. The Sulphur River at Hagansport, Tex., was above flood stage on the 5-6th, 23d-25th and on Jan. 29 to Feb. 4. Crests ranged from 2 feet above flood stage on the 5th to 6 feet above flood stage on the 23d and 31st.

Lower Mississippi Basin.--The St. Francis River at Fisk, Mo., was in flood from Dec. 16 to Jan. 4. It crested on Dec. 27, 4.5 feet above flood stage. Downstream at St. Francis, Ark., the stream continued in flood from Dec. 20 to Jan. 8. It crested nearly 3 feet above flood stage on Dec. 30-31.

Minor flooding occurred on the Tallahatchie and Yazoo Rivers in Mississippi during the middle decade of the month. The Big Black River at Bovina, Miss., continued in flood from Dec. 18 to Jan. 6. It crested nearly 11 feet above flood stage on Dec. 23-24. This rise was due to 3 to 8 inches of rain on Dec. 15-18. The Big Black River rose above flood stage again on Jan. 10 and continued in flood to the 28th. It crested on the 16th near the level of the first crest in December. Moderate to heavy damage resulted to farm-, pasture-, timberlands, and to farm roads.

WEST GULF OF MEXICO DRAINAGE

The Calcasieu River at Hineston, La., rose above flood stage on the 9th and continued in flood until the 16th. It crested on the 12th, 2.8 feet above flood stage. Downstream at Kinder and Old Town Bay, La., the river was out of its banks between the 14th and 16th. Crests occurred on the 14th and 15th and ranged from nearly 2 feet above flood stage at Kinder to slightly above flood stage at Old Town Bay. This flooding was due to moderately heavy rainfall during the first decade of the month. Runoff was heavy as it followed one of the wettest Decembers on record.

Minor flooding continued on the Sabine River at Mineola, Tex., from Dec. 15 to Jan. 14. Crests ranged from 3 feet above flood stage on Dec. 19 to 2 feet above flood stage on Jan. 7. This overflow was due to 2 to 4 inches of rainfall on Dec. 13-17. Additional rain of 2 inches near the end of December prolonged the flooding. Upstream at Edgewood, Tex., the river was out of its banks on the 8-11th. Lake Fork Creek at Quitman, Tex., was in light flood on the 5-9th. Heavy rains toward the end of the month caused the upper Sabine River at Edgewood, Tex., to rise above bankfull stage on the 30th. It crested 1 foot above flood stage on Feb. 3 and continued in flood until Feb. 11.

Moderate precipitation during the first decade of January produced flooding on the Neches, lower Trinity, and San Jacinto Rivers in Texas. Flooding was confined to the Trinity near its mouth, the upper Neches near Alto, Tex., and to the San Jacinto at Lake Houston, Tex. The heavy rainfall over the San Jacinto Basin resulted in Lake Houston flowing over the top of the spillway (44.5 feet) from the 11th into February. The highest level reached during January was 45.53 feet on the 22d.

Slight flooding occurred on the Trinity at Trinidad, Tex., on the 30th. Chambers Creek, near Corsicana, Tex., crested nearly 3.5 feet over its banks on the 23d. Richland Creek had 1 foot of overflow on the 23d. Both creeks were bankfull on the 31st. The rises on Chambers and Richland Creeks were due to a high runoff resulting from long periods of light to moderate rain. The total monthly rainfall averaged 4.5 to 6 inches over these creeks. No significant damage resulted from these overflows.

Heavy rainfall on the 18th, 19th, and 20th caused flooding on the San Antonio, Guadalupe, Lavaca, and Navidad Rivers in Texas. The most serious flooding occurred in the San Antonio area where drainage facilities are inadequate during periods of intense rainfall. The heaviest reported damage was in the San Antonio area where many dwellings, commercial and industrial properties located in low-lying areas were flooded. There was heavy damage to stocks, goods, and merchandise in these areas. Estimates of damage have totalled about $3 million. There were four known deaths due to this flooding.

Heavy rains on the 18th to the 21st caused flash flooding on the extreme upper Nueces and upper Frio Rivers in Texas. Tributaries with low water crossings were closed on the 18th, 20th, and 21st. The rainfall totals for the four days ranged from 2 to 4 inches

over the upper Nueces, upper Frio, and upper San Miguel Creek drainage areas to 10 to 11 inches in western parts of the Atascosa River drainage. Flooding began on the lower Atascosa and lower Frio Rivers on the 19th. By the 20th, the high water had reached the Nueces near Three Rivers, Tex. The additional heavy rains of 2 to 4 inches on the 20th and 21st produced major flooding on the lower Frio, the Atascosa, and the lower Nueces Rivers. The Atascosa River at Whitsett, Tex., crested 14 feet above flood stage on the 21st. The lower Frio River crested 8.2 feet above flood stage at Tilden, Tex., on the 20th and nearly 18 feet above flood stage at Calliham, Tex., on the 21st. The lower Nueces River near Three Rivers, Tex., crested nearly 16 feet above flood stage on the 22d. Below the Wesley Seale Dam, the Nueces at Calallen, Tex., crested 3.4 feet above flood stage on the 25th. One fatality was reported on the Atascosa River near Poteet, Tex., on the 20th where a car was washed into the river. Preliminary estimates of flood damage were placed at $210,000.

COLORADO BASIN

Moderate to heavy rains along and under the Mogollon Rim in Arizona on the 27th and 28th, combined with snowmelt caused minor flooding on Tonto River above Roosevelt Lake on the 27-29th. Significant rises occurred on most streams below the Mogollon Rim. Ice jams on the little Colorado River below Winslow and Holbrook, Ariz., caused some flooding of homes in the north part of Winslow on the 29th-31st.

PACIFIC SLOPE DRAINAGE

Several periods of precipitation during January over the Sacramento Basin in California brought moderate rises to the Sacramento River during the month. Two to three feet of overflow occurred at Tisdale and Colusa Weirs on the 15-18th and on the 30th and 31st.

Heavy rain on the 26th to the 31st caused the Russian River to rise to flood stage on the 30th. The Napa River reached a crest of 18.7 feet at Oak Knoll Bridge near Napa, Calif., in the early morning of the 30th. Flood stage at that point is 18 feet. Precipitation during January averaged about 12 inches in the Russian Basin and about 10 inches in the Napa Basin. Most of this precipitation occurred during three rainy periods, namely from the 8th to the 10th, 13th to the 16th and 26th to the 31st.

Heavy rainfall (3 to 5 inches) on the 13th and 14th in northern California caused flooding on the Van Duzen Fork at Bridgeville and on the Eel River at Fernbridge. Crests ranged from 0.8 to 1.5 feet above flood stage. No damage resulted from the flooding.

The South Fork of the Coquille River at Myrtle Point, Oreg., rose 4 feet above flood stage on the 15th. It receded within its banks on the 16th. Damage, if any, was minor. This overflow was due to heavy rain near the middle of the month. Despite high freezing levels, the lack of a heavy snowpack held runoff to a moderately low level.

Heavy rain and snowmelt on the 19th and 20th caused flooding along streams in Grays Harbor and Puget Sound Drainage in western Washington. On the Olympic Peninsula, the Wishkah headworks station reported a 2-day total rainfall of 11.72 inches and Quillayute, 10.28 inches in the same period. In the western Cascades, 3-day rainfall totals ranged from 4 to 7 inches. Several families and some livestock were evacuated in the Snohomish Basin. Temporary repairs of breaks in the Snohomish dikes which occurred in the December flood held and there was no general overflow despite a crest of 5.1 feet above flood stage. Preliminary estimates of flood damage by the Corps of Engineers were placed at $610,000.

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
ST. LAWRENCE DRAINAGE	Ft.			Ft.	
Lake Erie					
St. Marys: Decatur, Ind.	15	29	31	18.6	30
St. Joseph: Montpelier, Ohio	10	30	31	12.5	31
Maumee: Ft. Wayne, Ind.	15	30	31	17.7	30
Defiance, Ohio	10	30	31	13.2	30
Napoleon, Ohio	10	30	31	11.1	30
Grand Rapids, Ohio	15	30	31	16.3	31
Sandusky: Upper Sandusky, Ohio	13	30	31	13.9	31
Tiffin, Ohio	8	30	31	8.3	31
Fremont, Ohio	10	29	31	11.7	30
Lake Ontario					
Canaseraga Creek: Groveland, N.Y.	11	30	30	13.5	30
ATLANTIC SLOPE DRAINAGE					
Millstone: Blackwells Mills, N.J.	7	14	15	7.3	15
Assunpink Creek: Trenton, N. J.	5	14	15	5.4	14
Tar: Tarboro, N. C.	19	17	20	21.1	19
Greenville, N. C.	13	16	23	14.8	20-21
Neuse: Neuse, N. C.	14	14	18	15.7	17
Smithfield, N. C.	13	Dec. 29 14	2 20	14.5 18.0	1 16
Goldsboro, N. C.	14	1 15	5 26	14.4 18.0	4 22
Kinston, N. C.	14	18	28	15.7	25
Cape Fear: Fayetteville, N. C.	35	15	16	36.8	15
Wm. O. Huske L&D, N.C.	42	14	19	52.0	16
Lock No. 2, Elizabethtown, N. C.	20	Dec. 30 12 14	2 14 20	24.7 20.7 28.4	Dec. 31 13 17
Rocky: Norwood, N. C.	15	10 14	12 15	E22.5 E22.5	11 14
Lumber: Lumberton, N. C.	8	Dec. 12	1/	10.0 12.5	8 16
Lynches: Effingham, S. C.	14	17	18	14.3	18
Little Pee Dee: Galivants Ferry, S. C.	9	15	27	9.6	20
Pee Dee: Cheraw, S. C.	30	11 14	13 16	33.1 32.6	12 15
Peedee, S. C.	19	Dec. 31 11	4 28	19.3 23.0	2 19
Saluda: Chappells, S. C.	14	10	13	16.8	11
Broad: Blair, S. C.	14	11	14	20.7	11
North Fork Edisto: Orangeburg, S. C.	8	15	17	8.3	16
Savannah: Millhaven(nr), Ga.	15	Dec. 30 11 14	9 11 30	#15.7 #15.4 #16.8	8 11 17
Clyo, Ga.	11	Dec. 12	Feb. 9	#14.9	21
EAST GULF OF MEXICO DRAINAGE					
Apalachicola: Blountstown, Fla.	15	5 12	7 14	15.5 15.2	6 12
Oostanaula: Resaca, Ga.	22	12	14	23.6	13
Rome, Ga.	25	11	11	25.0	11
Old Town Creek: Tupelo, Miss.	21	10	10	21.9	10
East Fork: Fulton, Miss.	16	5	12	17.6	11
Noxubee: Macon, Miss.	26	11	15	28.5	11
Black Warrior: Oliver L&D, Tuscaloosa, Ala.	47	11	13	54.0	11
Warrior, Ala.	30	11	17	37.7	15
Tombigbee: Aberdeen, Miss.	34	7	16	41.9	11
Columbus, Miss.	29	11	17	35.6	12
Gainesville, Ala.	36	Dec. 20 10	2 24	48.4 48.7	Dec. 26 18
Demopolis L&D, Ala.	48	Dec. 17 10	6 26	59.3 58.8	Dec. 29 18
Jackson L&D, Ala.	43	Dec. 15	30	53.5 52.6	3 23
Pearl: Edinburg, Miss.	20	10	16	23.6	13
EAST GULF OF MEXICO DRAINAGE	Ft.			Ft.	
Pearl: Jackson, Miss.	18	Dec. 16 26	24 1/	31.25 30.0	Dec. 24 14
Monticello, Miss.	19	Dec. 24 10	3 23	21.55 21.9	Dec. 31 12
Bogalusa, La.	15	Dec. 17	31	19.1	4
Pearl River, La.	12	Dec. 20	31	13.4 13.9	Dec. 22 6
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Kankakee: Momence, Ill.	4	6	9	6.0	6
Sangamon: Monticello, Ill.	13	30	1/		
Riverton, Ill.	13	Dec. 4 28	2 1/	20.3	Dec. 14
Illinois: Havana, Ill.	14	Dec. 22	5	15.2 15.3	Dec. 28 2
Beardstown, Ill.	14	Dec. 15	4	16.6	Dec. 29
Meredosia, Ill.	10	Dec. 10	1/	14.9	Dec. 29
Kaskaskia: Shelbyville, Ill.	13	31	1/		
Vandalia, Ill.	18	31	1/		
Carlyle Dam, Ill.	21	Dec. 14	31	23.8	Dec. 23
Big Muddy: Murphysboro, Ill.	16	Dec. 16 31	5 1/	27.6	Dec. 27
Ohio Basin					
Allegheny: Parker, Pa.	20	30	31	24.2	30
Lock 5, Freeport, Pa.	21	31	31	21.4	31
Hocking: Athens, Ohio	17	31	Feb. 1	17.1	Feb. 1
Scioto: La Rue, Ohio	11	30	31	E12.0	31
Prospect, Ohio	10	31	Feb. 2	11.1	Feb. 1
Circleville, Ohio	14	31	Feb. 3	15.6	Feb. 1
Piketon, Ohio	16	31	Feb. 4	17.7 17.9	31 Feb. 3
Embarrass: Ste. Marie, Ill.	18	31	Feb. 8	20.1	Feb. 2
Lawrenceville, Ill.	11	Dec. 11 30	2 Feb. 11	20.35 18.05	Dec. 25 Feb. 11
Eagle Creek: Zionsville, Ind.	T 7	30	30	7.4	30
Eel: Bowling Green. Ind.	17	31	1/		
White: Anderson, Ind.	10	30	Feb. 3	12.3	Feb. 2
Centerton, Ind.	603	31	Feb. 5	607.6	Feb. 2
Spencer, Ind.	14	31	Feb. 7	21.1	Feb. 4
Elliston, Ind.	18	31	Feb. 9	25.8	Feb. 5
Skillet Fork: Wayne City, Ill.	15	30	Feb. 5	17.3	30
Little Wabash: Wilcox, Ill.	16	30	Feb. 9	#21.3	Feb. 3
Carmi, Ill.	27	Dec. 18 Feb. 2	7 Feb. 13	#33.5 #30.2	Dec. 29 Feb. 7-8
Wabash: Wabash, Ind.	12	30	Feb. 6	14.4 16.5	30 Feb. 2
Lafayette, Ind.	11	29	Feb. 14	19.6 22.2	31 Feb. 3
Covington, Ind.	16	30	Feb. 13	26.2	Feb. 4
Montezuma, Ind.	14	Dec. 22 29	1 Feb. 16	24.8 28.3	Dec. 22 Feb. 5
Clinton, Ind.	18	31	Feb. 11	27.4	Feb. 5
Terre Haute, Ind.	14	Dec. 22 30	1 Feb. 15	20.3 23.0	Dec. 26 Feb. 5
Hutsonville, Ill.	T20	Dec. 23 30	2 Feb. 15	#23.3 #26.2	Dec. 28 Feb. 7
Vincennes, Ind.	16	Dec. 24 31	4 Feb. 17	#21.2 #24.3	Dec. 29 Feb. 8
Mt. Carmel, Ill.	17	Dec. 25	3	#21.9	Dec. 30
New Harmony, Ind.	15	Dec. 26 Feb. 3	2 Feb. 16	#16.7 #19.1	Dec. 31 Feb. 10
Saline: Harrisburg, Ill.	13	30	Feb. 6		
South Chickamauga Creek: Chickamauga(nr), Tenn.	10	6 10	8 13	11.1 11.2	7 11
Elk: Fayetteville, Tenn.	659	10	13	661.2	11

FLOOD STAGE DATA

(All dates in January unless otherwise specified)

JANUARY 1968

River and station	Flood stage	Above flood stages -dates From—	Above flood stages -dates To—	Crest * Stage	Crest * Date
MISSISSIPPI SYSTEM	Ft.			Ft.	
Tennessee: Whitesburg, Ala.	11	Dec. 31	17	17.6	12
Florence, Ala.	18	10	15	21.0	10
Savannah, Tenn.	380	11	16	382.5	13
Gilbertsville, Ky.	320	11	18	322.55	14
Ohio: Wellsburg, W. Va.	30	31	Feb. 1	30.9	31
White Basin					
Cache: Patterson, Ark.	7	Dec. 9	13	9.3	19
White: Clarendon, Ark.	26	Dec. 25	16	26.9	7,8,11
St. Charles, Ark.	25	6	17	25.3	10-13
Arkansas Basin					
Illinois: Tahlequah, Okla.	11	31	Feb. U	15.35	Feb. 3
Red Basin					
Blue: Blue, Okla.	21	29	29	21.1	29
Clear Boggy Creek: Caney, Okla.	19	19 29	22 Feb. 1	21.5 20.9	20 30
Kiamichi Creek: Belzoni, Okla.	28	30	31	28.7	31
Sulphur: Hagansport, Tex.	38	5 23 29	6 25 Feb. 4	40.2 43.7 43.7	5 23 31
Lower Mississippi Basin					
St. Francis: Fisk, Mo.	20	Dec. 16	4	24.5	Dec. 27
St. Francis, Ark.	18	Dec. 20	8	20.8	Dec.30-31
Coldwater: Sarah, Miss.	18	10	10	19.95	10
Tallahatchie: Swan Lake, Miss.	26	10	19	27.3	13
Yazoo: Yazoo City, Miss.	29	10	19	30.5	10
Big Black: Pickens, Miss.	16	5	20	19.8	12
Bovina, Miss.	28	Dec. 18 10	6 28	38.7 38.6	Dec.23-24 15
WEST GULF OF MEXICO DRAINAGE					
Calcasieu: Hineston, La.	12	9	16	14.8	12
Kinder, La.	16	14	15	17.85	14
Old Town Bay, La.	4	15	16	4.2	15
Lake Fork Creek: Quitman, Tex.	14	5	9	14.7	9
Sabine: Edgewood, Tex.	12	8 30	11 Feb. 11	13.1	Feb. 3
Mineola, Tex.	14	Dec. 15	14	17.0 15.9	Dec. 19 7
Neches: Alto(nr), Tex.	16	10	12	16.35	11
Trinity: Trinidad, Tex.	28	30	30	29.9	30
Liberty, Tex.	24	11	14	25.3	12
Moss Bluff, Tex.	4	8	1/	6.85	18

River and station	Flood stage	Above flood stages -dates From—	Above flood stages -dates To—	Crest * Stage	Crest * Date
WEST GULF OF MEXICO DRAINAGE	Ft.			Ft.	
San Jacinto: Lake Houston, Tex.	44.5	11	1/	45.5	22
Little: Cameron, Tex.	30	21	24	36.6	22
Navasota: Bryan(nr), Tex.	12	27	27	13.4	27
Navidad: Ganado, Tex.	21	20	25	30.1	23
Lavaca: Edna, Tex.	21	22	24	22.7	23
San Antonio: Falls City, Tex.	12	20	24	22.8	21
Goliad, Tex.	35	23	27	41.75	24
Guadalupe: Gonzales, Tex.	20	20	23	32.2	22
Victoria, Tex.	21	21	29	29.7	25
Atascosa: Whitsett, Tex.	20	19	24	33.9	21
Frio: Derby, Tex.	6	22	23	7.0	23
Tilden, Tex.	12	19	24	20.2	20
Calliham, Tex.	12	19	24	29.9	21
Nueces: Three Rivers(nr), Tex.	25	20	26	40.7	22
Calallen, Tex.	7	23	31	10.4	25
PACIFIC SLOPE DRAINAGE					
Van Duzen Fork: Bridgeville, Calif.	15	15	15	15.8	15
Eel: Fernbridge, Calif.	17	15	15	18.5	15
Napa: Napa, Calif.	18	30	30	18.7	30
Russian: Guerneville, Calif.	32	30	30	32.0	30
Sacramento: Colusa Weir, Calif.	62	15 30	17 31	64.7 63.6	16 31
Tisdale Weir, Calif.	46	16 30	18 31	47.8 47.9	16 31
Coquille: Myrtle Point, Oreg.	35	15	16	39.0	15
Wynoochee: Montesano, Wash.	19	19	19	20.2	19
Satsop: Satsop, Wash.	34	19	20	36.4	19
Snoqualmie: Carnation, Wash.	54	21	22	56.7	21
Skykomish: Goldbar, Wash.	15	20	21	16.4	20
Snohomish: Snohomish, Wash.	25	20	22	30.1	21
Skagit: Concrete, Wash.	29	21	21	29.1	21
Mt. Vernon, Wash.	21	21	22	22.2	21
Nooksack: Deming, Wash.	12	20	21	12.3	20

* Provisional
\# Highest stage observed
E Estimated
T Tentative
1/ Continued at end of month
U Unknown - no readings available from Feb. 3 to Feb. 9 due to gage inoperative

RAWINSONDE DATA

Average monthly values

ALBANY, N. Y. 1014 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	86	-11.5	-15.0	30	1.5
1000	31	192	-10.7	-15.2	31	2.2
950	31	587	-9.7	-15.1	29	4.0
900	31	1,007	-8.8	-16.3	30	7.0
850	31	1,451	-8.2	-17.3	30	9.5
800	31	1,922	-8.3	-17.4	30	11.4
750	31	2,418	-9.6	-18.7	29	13.3
700	31	2,954	-11.0	-19.5	29	15.6
650	31	3,516	-13.8	-22.6	28	17.8
600	31	4,127	-16.7	-25.9	29	20.1
550	31	4,772	-20.2	-30.9	28	22.6
500	31	5,477	-24.5	-34.9	28	25.4
450	31	6,233	-29.4	-39.6	28	27.8
400	31	7,069	-35.2	-45.0	28	31.0
350	31	7,987	-42.1	-49.4	29	30.3
300	31	9,015	-48.9		29	29.4
250	31	10,193	-55.8		29	28.5
200	31	11,605	-56.7		29	27.2
175	31	12,456	-54.8		28	25.5
150	31	13,441	-55.1		28	22.7
125	31	14,601	-56.7		28	19.0
100	31	16,012	-57.3		28	15.8
80	31	17,421	-58.0		29	10.0
70	31	18,261	-57.9		29	8.9
60	31	19,236	-57.5		30	5.8
50	31	20,391	-56.1		29	3.8
40	31	21,813	-55.0		33	2.3
30	30	23,656	-54.3		04	1.5
25	30	24,825	-54.0		11	1.7
20	29	26,265	-53.4		13	2.5
15	24	28,114	-52.6		10	5.1
10	16	30,719	-50.0		20	1.0
7	8	33,074	-46.9			
5						
4						

ALBUQUERQUE, N. MEX. 841 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	1,619	-2.5	-8.4	02	1.8
1000	31	219				
950	31	634				
900	31	1,073				
850	31	1,532				
800	31	2,016	.3	-9.6	32	1.8
750	31	2,533	-1.0	-12.0	29	3.2
700	31	3,082	-3.0	-14.6	29	5.1
650	31	3,662	-6.3	-18.0	29	7.3
600	31	4,288	-10.1	-22.3	28	8.9
550	31	4,949	-14.1	-25.8	28	9.7
500	31	5,671	-19.0	-30.6	27	10.4
450	31	6,441	-24.5	-36.0	27	11.0
400	31	7,295	-30.8	-41.7	27	10.5
350	31	8,229	-38.0	-47.6	27	12.3
300	31	9,273	-46.0		27	14.4
250	31	10,463	-54.4		27	16.5
200	31	11,872	-59.7		27	20.7
175	31	12,706	-60.3		27	20.5
150	31	13,668	-60.2		27	20.2
125	31	14,800	-62.5		27	18.3
100	30	16,166	-65.4		27	16.2
80	29	17,526	-64.5		27	11.7
70	29	18,345	-63.6		26	9.7
60	29	19,293	-62.1		27	6.8
50	29	20,422	-61.1		26	4.2
40	29	21,811	-59.6		27	3.2
30	28	23,616	-58.6		28	.9
25	28	24,764	-57.2		26	1.8
20	26	26,176	-55.6		26	3.9
15	21	28,017	-54.9		31	1.5
10	7	30,595	-52.7			

AMARILLO, TEXAS 894 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	1,095	-1.3	-4.4	29	1.6
1000	31	189				
950	31	603				
900	31	1,042				
850	31	1,496	2.6	-5.8	27	4.0
800	31	1,990	2.6	-7.6	26	5.5
750	31	2,510	1.0	-10.0	26	7.7
700	31	3,063	-2.0	-12.7	27	8.8
650	31	3,649	-5.0	-16.8	27	9.1
600	31	4,275	-8.8	-21.3	27	9.3
550	31	4,940	-13.1	-25.6	28	9.4
500	31	5,664	-18.1	-30.4	27	10.5
450	31	6,438	-23.9	-35.5	27	11.3
400	31	7,292	-30.4	-41.6	27	12.9
350	31	8,228	-37.4	-47.1	26	15.2
300	31	9,275	-45.3		26	21.1
250	31	10,469	-53.8		26	24.6
200	31	11,880	-60.0		26	27.3
175	31	12,713	-60.0		26	28.5
150	31	13,675	-60.1		26	26.2
125	31	14,807	-62.0		26	23.6
100	30	16,179	-64.0		26	20.3
80	30	17,544	-64.3		26	16.0
70	28	18,362	-63.8		26	14.1
60	27	19,308	-62.7		26	11.2
50	25	20,439	-61.0		26	7.8
40	25	21,828	-59.9		25	5.4
30	23	23,633	-58.2		26	4.6
25	21	24,781	-57.4		26	3.0
20	21	26,195	-56.1		25	5.2
15	15	28,041	-54.0		24	7.2

* ANCHORAGE, ALASKA 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	45	-10.9	-17.2	01	2.4
1000	31	123			02	2.9
950	31	528	-8.8	-16.8	02	5.8
900	31	938	-9.0	-18.1	02	6.0
850	31	1,380	-10.1	-18.8	01	4.7
800	31	1,845	-12.2	-20.7	02	3.4
750	31	2,339	-14.9	-23.0	02	2.9
700	31	2,855	-17.6	-25.9	36	4.1
650	31	3,407	-20.4	-29.0	35	4.8
600	31	3,996	-23.7	-31.9	34	6.2
550	31	4,625	-27.7	-35.6	34	7.3
500	31	5,305	-32.3	-39.0	33	8.9
450	31	6,038	-37.2	-42.4	32	9.5
400	31	6,845	-42.7	-44.2	32	11.4
350	31	7,736	-48.2		32	11.1
300	31	8,740	-52.7		32	13.1
250	31	9,909	-55.6		31	14.6
200	31	11,328	-55.6		31	14.6
175	31	12,181	-54.2		30	13.0
150	31	13,169	-54.2		30	13.1
125	31	14,336	-54.9		30	14.1
100	31	15,758	-56.0		31	14.0
80	30	17,177	-56.5		31	14.7
70	30	18,023	-56.6		31	15.6
60	30	18,999	-57.3		31	15.2
50	29	20,168	-57.2		31	15.9
40	29	21,580	-56.9		32	17.6
30	28	23,405	-56.5		32	18.3
25	27	24,565	-55.7		32	18.2
20	22	25,993	-55.1		32	17.0
15	19	27,652	-54.5		30	9.6
10	8	30,536	-57.3			

* ANNETTE, 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	30	37	-.5	-5.6	08	1.6
1000	30	84			03	1.8
950	30	492	-3.2	-8.6	12	1.9
900	30	916	-5.5	-11.1	15	2.1
850	30	1,365	-7.8	-13.4	19	1.8
800	30	1,835	-10.2	-15.7	21	2.9
750	30	2,327	-13.1	-18.6	22	3.7
700	30	2,853	-15.9	-20.9	24	3.6
650	30	3,405	-19.2	-25.3	25	4.7
600	30	3,999	-22.6	-29.7	25	5.1
550	30	4,627	-26.5	-34.4	27	6.1
500	30	5,315	-30.8	-39.1	27	9.0
450	30	6,051	-35.8	-41.5	27	11.1
400	30	6,865	-41.2	-44.4	27	15.1
350	30	7,761	-46.6		28	14.5
300	30	8,770	-52.3		30	13.8
250	30	9,939	-55.4		30	15.2
200	30	11,362	-55.0		30	18.0
175	29	12,212	-54.7		30	17.5
150	29	13,198	-55.0		30	17.2
125	29	14,359	-56.1		30	17.1
100	29	15,772	-57.9		30	17.0
80	29	17,176	-58.8		30	17.0
70	29	18,013	-59.0		29	16.1
60	29	18,978	-59.6		30	16.5
50	29	20,118	-59.4		30	15.7
40	28	21,498	-59.7		31	15.7
30	24	23,354	-58.3		31	14.7
25	23	24,504	-58.2		31	12.6
20	23	25,910	-57.6		30	12.5
15	23	27,731	-56.2		31	13.1
10	22	30,329	-55.4		32	14.4
7	17	32,545	-53.6		31	14.7
5	13	34,768	-50.0			
4	7	36,273	-50.0			

ATHENS, GEORGIA 994 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	246	.6	-2.1	36	1.5
1000	31	195				
950	31	615	3.6	-2.3	35	1.9
900	31	1,053	4.5	-4.4	26	2.5
850	31	1,518	3.9	-6.5	28	5.7
800	31	2,011	2.7	-7.3	27	6.6
750	31	2,529	.7	-10.5	27	8.3
700	31	3,084	-1.8	-13.7	27	10.5
650	31	3,666	-4.8	-17.9	27	13.3
600	31	4,297	-8.6	-21.5	27	15.2
550	31	4,960	-12.7	-24.9	27	16.7
500	31	5,688	-17.5	-28.1	27	18.3
450	31	6,461	-22.9	-32.0	27	19.8
400	31	7,323	-29.3	-37.4	27	22.2
350	31	8,263	-36.2	-42.5	27	24.5
300	31	9,316	-43.8		27	27.5
250	31	10,518	-52.3		27	31.2
200	31	11,937	-56.5		27	35.8
175	31	12,774	-60.0		27	35.9
150	31	13,735	-60.4		27	33.0
125	31	14,865	-62.9		27	28.7
100	31	16,228	-66.3		27	23.0
80	29	17,575	-66.2		27	15.6
70	28	18,383	-65.4		27	12.9
60	28	19,323	-64.4		28	9.1
50	28	20,442	-62.4		28	5.3
40	28	21,826	-60.4		30	3.7
30	28	23,630	-57.4		33	1.6
25	25	24,780	-55.8		01	1.1
20	24	26,204	-54.3		04	1.6
15	22	28,056	-52.6		06	1.7
10	17	30,713	-47.8		25	2.9

* BARROW, ALASKA 1021 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	8	-23.3	-25.3	17	1.1
1000	31	162	-20.4	-23.8	23	1.2
950	31	547	-17.6	-20.6	26	1.8
900	31	949	-17.2	-21.0	27	2.3
850	31	1,377	-17.6	-22.4	26	2.2
800	31	1,830	-19.1	-24.0	29	3.4
750	31	2,312	-20.9	-26.0	29	4.2
700	31	2,817	-23.3	-26.6	30	5.6
650	31	3,359	-26.2	-31.0	29	5.9
600	31	3,932	-29.6	-34.3	29	7.3
550	31	4,551	-33.2	-36.8	30	8.3
500	31	5,213	-37.1	-39.9	30	10.2
450	30	5,933	-41.4	-41.2	30	11.4
400	30	6,726	-46.1		31	12.8
350	30	7,605	-51.1		30	14.7
300	30	8,598	-55.2		30	14.6
250	30	9,756	-56.5		30	14.0
200	30	11,176	-55.6		30	14.4
175	29	12,020	-55.0		30	14.8
150	29	13,005	-55.3		31	13.2
125	27	14,160	-56.3		31	13.9
100	25	15,585	-56.7		32	14.4
80	25	16,998	-57.1		32	15.4
70	25	17,842	-57.3		32	15.2
60	25	18,830	-57.1		33	15.8
50	25	19,984	-56.7		33	15.4
40	25	21,413	-56.0		34	16.4
30	24	23,256	-55.2		35	16.2
25	24	24,420	-55.1		35	15.7
20	21	25,890	-54.2		36	17.4
15	15	27,846	-53.2		35	16.5
10	6	30,608	-52.4			

BARTER IS., ALASKA 1021 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	29	15	-22.5	-24.6	25	2.2
1000	29	169	-19.2	-23.0	27	3.5
950	29	549	-17.6	-21.3	26	5.4
900	29	957	-17.6	-21.4	26	6.5
850	29	1,384	-18.5	-22.7	26	6.2
800	29	1,835	-20.3	-24.8	29	6.2
750	29	2,304	-22.1	-27.5	30	6.0
700	29	2,816	-24.2	-29.6	31	6.7
650	29	3,347	-26.7	-32.5	31	7.5
600	29	3,929	-29.5	-34.6	31	9.0
550	29	4,536	-33.1	-37.6	31	10.4
500	29	5,211	-36.8	-39.1	31	11.4
450	29	5,926	-41.5	-40.7	31	11.7
400	29	6,725	-46.5		31	13.5
350	29	7,602	-51.5		31	15.5
300	29	8,592	-55.3		30	14.7
250	28	9,761	-56.8		31	14.8
200	26	11,168	-55.9		31	13.7
175	25	12,018	-56.0		31	14.0
150	24	13,003	-55.9		31	16.0
125	24	14,160	-56.7		31	16.9
100	24	15,573	-57.2		31	16.0
80	23	17,007	-57.2		31	16.1
70	23	17,851	-57.0		32	17.6
60	23	18,826	-56.9		32	17.6
50	23	19,980	-56.8		32	17.9
40	22	21,392	-56.4		33	17.4
30	21	23,252	-55.5		33	20.1
25	21	24,413	-55.4		33	19.6
20	18	25,926	-53.1		34	21.3
15	13	27,814	-51.6		01	19.6
10	9	30,465	-49.3			

BETHEL, ALASKA 1016 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	39	-11.7	-13.5	03	.7
1000	31	161			03	1.9
950	31	559	-8.4	-14.9	03	3.1
900	31	976	-9.1	-16.2	01	3.3
850	31	1,416	-10.2	-19.0	34	3.8
800	31	1,884	-11.5	-20.6	31	3.8
750	31	2,376	-13.2	-21.7	31	3.7
700	31	2,901	-15.9	-23.3	30	5.3
650	31	3,454	-19.1	-27.4	30	5.6
600	31	4,046	-22.3	-30.8	30	7.4
550	31	4,679	-25.9	-34.6	29	7.7
500	31	5,368	-30.1	-38.0	28	8.5
450	31	6,105	-35.1	-42.2	28	9.3
400	31	6,922	-40.8	-45.3	27	9.8
350	31	7,818	-47.1		27	11.1
300	30	8,836	-53.1		28	14.0
250	30	9,997	-57.3		29	14.7
200	30	11,406	-56.8		28	14.7
175	30	12,255	-55.3		28	13.7
150	30	13,240	-54.6		28	12.9
125	30	14,407	-54.4		28	13.0
100	30	15,834	-54.7		28	13.9
80	30	17,260	-55.1		29	12.9
70	30	18,111	-55.4		29	14.7
60	30	19,093	-55.7		30	13.6
50	30	20,254	-55.5		31	15.2
40	30	21,676	-55.5		31	14.5
30	28	23,504	-55.6		32	14.4
25	27	24,679	-55.9		33	15.9
20	23	26,137	-55.3		33	16.7
15	18	28,058	-55.7		34	15.5
10	8	30,668	-54.6			

* BISMARCK, N. DAK. 960 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	505	-15.6	-18.7	32	1.7
1000	31	191				
950	31	561			32	2.3
900	31	995	-6.7	-15.3	31	6.1
850	31	1,440	-6.9	-15.5	31	7.8
800	31	1,913	-6.6	-16.6	31	9.9
750	31	2,413	-8.3	-18.5	30	12.7
700	31	2,950	-10.6	-20.0	30	14.4
650	31	3,509	-13.6	-22.4	29	16.2
600	31	4,122	-17.3	-25.4	29	16.0
550	31	4,763	-21.0	-29.6	29	18.5
500	31	5,467	-25.5	-34.6	29	22.1
450	31	6,218	-30.7	-38.2	29	24.0
400	31	7,051	-36.6	-42.0	29	26.2
350	31	7,963	-43.3	-44.9	29	27.3
300	31	8,984	-50.2		28	28.4
250	31	10,157	-56.3		28	28.8
200	31	11,565	-58.3		28	26.9
175	31	12,408	-56.8		28	23.5
150	31	13,365	-56.6		28	23.2
125	31	14,539	-57.3		27	21.3
100	30	15,942	-57.9		27	17.2
80	29	17,355	-58.2		27	15.1
70	29	18,194	-58.4		27	14.2
60	28	19,172	-58.3		27	12.7
50	28	20,321	-57.3		27	12.1
40	27	21,743	-57.5		27	6.0
30	27	23,561	-57.1		26	6.6
25	25	24,698	-57.5		26	8.0
20	22	26,086	-57.4		25	4.9
15	19	27,962	-56.2		21	4.3
10	10	30,566	-56.2			

BOISE, IDAHO 920 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	867	-3.6	-7.6	14	2.6
1000	31	205				
950	31	613				
900	31	1,044	-1.3	-7.6	14	3.6
850	31	1,501	-1.1	-9.4	17	3.4
800	31	1,983	-2.5	-11.9	23	3.9
750	31	2,493	-4.8	-13.9	26	6.5
700	31	3,034	-7.9	-15.5	26	8.5
650	31	3,604	-11.3	-17.6	26	11.0
600	31	4,217	-14.6	-22.4	26	12.8
550	31	4,869	-16.7	-27.3	27	15.0
500	31	5,576	-23.4	-32.3	27	16.5
450	31	6,336	-26.9	-37.1	27	17.6
400	30	7,180	-34.7	-41.5	27	18.4
350	30	8,099	-41.6	-44.8	27	19.6
300	30	9,126	-48.8		28	20.8
250	30	10,308	-55.7		28	21.7
200	30	11,713	-60.2		28	19.7
175	30	12,545	-59.8		28	19.7
150	30	13,513	-58.2		28	18.9
125	30	14,655	-59.0		28	17.3
100	30	16,055	-60.3		28	15.0
80	30	17,442	-60.9		28	13.7
70	28	18,281	-60.4		26	10.7
60	27	19,251	-59.6		29	8.8
50	27	20,392	-59.0		29	6.9
40	24	21,615	-58.4		28	5.0
30	23	23,627	-58.1		29	2.7
25	19	24,813	-57.3		11	2.3
20	18	26,236	-56.9		13	1.1
15	13	28,056	-56.6		23	2.2
10						
7						
5						

BOOTHVILLE, LA. 1022 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	9.7	6.1	03	2.4
1000	31	185	11.6	6.4	07	2.4
950	31	614	9.6	4.9	16	1.4
900	31	1,062	6.9	1.9	25	3.1
850	31	1,535	6.0	-2.4	27	5.4
800	31	2,033	6.5	-7.5	26	6.4
750	31	2,562	4.7	-10.5	26	7.1
700	31	3,121	1.7	-12.5	26	8.6
650	31	3,713	-2.0	-15.1	27	10.8
600	31	4,347	-5.9	-18.7	27	13.2
550	31	5,022	-10.0	-23.6	27	15.4
500	31	5,752	-14.5	-29.5	26	16.7
450	31	6,540	-20.4	-34.3	26	18.9
400	31	7,404	-26.4	-40.0	26	22.1
350	31	8,356	-33.6	-46.6	26	24.3
300	31	9,419	-42.1	-50.9	26	27.5
250	31	10,625	-50.7		26	30.1
200	31	12,056	-56.2		26	32.4
175	31	12,891	-60.6		26	33.7
150	31	13,847	-62.1		26	33.3
125	31	14,967	-65.3		26	27.1
100	31	16,312	-69.0		26	22.3
80	29	17,638	-69.5		26	14.5
70	28	18,430	-68.2		26	9.8
60	28	19,359	-66.2		27	5.4
50	28	20,471	-63.6		28	1.7
40	26	21,648	-61.0		32	.9
30	26	23,649	-57.8		03	1.9
25	28	24,607	-56.4		03	1.3
20	27	26,222	-54.4		02	1.9
15	26	28,073	-52.3		32	1.5
10	16	30,733	-44.2		26	2.5

* BROWNSVILLE, TEXAS 1020 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	7	11.7	9.5	33	1.5
1000	31	171	12.4	10.0	36	1.5
950	31	603	12.5	9.1	13	2.2
900	31	1,056	11.6	7.1	17	4.1
850	31	1,536	10.2	3.2	19	5.9
800	31	2,040	8.9	-1.0	21	5.5
750	31	2,573	7.2	-6.7	22	5.9
700	31	3,138	4.3	-11.1	24	5.6
650	31	3,736	.4	-15.6	25	7.8
600	32	4,376	-3.5	-20.0	25	9.5
550	31	5,047	-8.4	-24.2	25	10.5
500	31	5,791	-13.2	-28.9	25	12.0
450	31	6,578	-18.8	-34.1	25	13.5
400	31	7,453	-25.4	-39.6	25	16.2
350	31	8,409	-32.6	-46.0	25	18.3
300	31	9,477	-40.9	-51.5	26	21.3
250	31	10,691	-50.4		26	23.9
200	31	12,116	-59.1		25	25.3
175	31	12,947	-61.4		25	25.0
150	30	13,900	-62.8		25	26.2
125	26	15,006	-66.5		25	21.6
100	24	16,335	-70.3		25	18.5
80	22	17,656	-70.6		25	12.7
70	21	18,446	-69.6		25	8.0
60	21	19,370	-67.4		25	5.1
50	20	20,475	-64.6		23	1.1
40	20	21,649	-61.4		32	.7
30	19	23,647	-58.1		33	.4
25	19	24,802	-56.2		30	.7
20	19	26,226	-54.4		26	4.2
15	17	28,089	-51.3		28	6.8
10	16	30,749	-46.4		27	9.7
7	13	33,121	-43.2		26	14.8
5	6	35,429	-37.7			

BUFFALO, N. Y. 997 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point †	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	218	-7.5	-10.4	24	1.6
1000	31	193			14	1.7
950	31	596	-7.7	-12.2	26	4.1
900	31	1,014	-7.4	-13.2	27	6.0
850	31	1,460	-7.5	-14.0	28	6.7
800	31	1,931	-8.4	-15.0	29	9.4
750	31	2,436	-9.3	-17.5	28	11.9
700	31	2,965	-11.1	-19.8	29	13.9
650	31	3,533	-13.5	-21.8	28	15.6
600	31	4,138	-16.6	-24.1	28	18.1
550	31	4,788	-20.4	-29.1	28	21.4
500	31	5,489	-24.6	-32.6	28	23.8
450	31	6,245	-29.4	-37.2	28	25.9
400	31	7,082	-35.2	-43.5	28	27.1
350	31	8,002	-41.9	-47.5	28	30.1
300	31	9,026	-49.3		28	26.7
250	31	10,205	-55.7		29	29.4
200	31	11,617	-57.2		29	26.7
175	31	12,465	-56.0		28	23.1
150	31	13,447	-55.7		29	20.7
125	31	14,605	-57.0		28	15.7
100	31	16,012	-58.4		28	14.6
80	31	17,418	-58.5		29	10.5
70	31	18,258	-58.2		29	8.5
60	31	19,225	-57.8		30	5.3
50	29	20,382	-57.3		31	3.4
40	29	21,795	-56.4		02	2.4
30	29	23,626	-55.0		06	2.7
25	29	24,793	-54.8		08	2.6
20	29	26,221	-54.3		06	3.1
15	29	28,072	-52.4		08	3.7
10	18	30,709	-48.6			
7	6	33,049	-46.8			

CAPE HATTERAS, N. C. 1022 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	3.5	.7	35	4.4
1000	31	184	5.2	-1.5	36	[illegible]
950	31	606	4.2	-3.5	34	4.9
900	31	1,044	4.4	-4.6	25	4.9
850	31	1,509	3.4	-6.2	27	7.2
800	31	2,005	1.8	-8.2	21	8.7
750	31	2,517	-.1	-10.1	28	11.0
700	31	3,069	-2.6	-13.3	27	13.7
650	31	3,651	-5.3	-15.2	27	15.3
600	31	4,279	-8.9	-18.6	27	18.4
550	31	4,945	-13.1	-22.4	27	20.1
500	31	5,669	-17.6	-26.7	27	23.3
450	31	6,443	-23.1	-33.8	27	24.4
400	31	7,302	-29.1	-39.0	27	27.4
350	31	8,243	-36.1	-44.3	27	28.6
300	31	9,297	-43.7		27	31.3
250	29	10,496	-52.6		27	30.4
200	28	11,913	-58.9		27	34.7
175	26	12,765	-59.1		27	33.5
150	26	13,711	-59.6		27	29.1
125	26	14,845	-61.7		27	24.8
100	25	16,218	-63.9		27	21.7
80	24	17,584	-64.7		27	17.8
70	23	18,400	-63.8		28	12.8
60	23	19,347	-62.8		28	9.6
50	22	20,479	-61.0		28	4.9
40	22	21,875	-58.1		30	2.4
30	22	23,697	-55.8		05	1.9
25	22	24,861	-54.6		05	2.3
20	22	26,293	[illegible]		03	2.7
15	20	28,145	-52.2		31	1.2
10	14	30,803	-47.5		26	2.8
7	6	33,128	-45.4			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb.)	* CARIBOU, MAINE 995 MB						CHARLESTON, S. C. 1022 MB						* COLD BAY, ALASKA 1015 MB						COLUMBIA, MO. 995 Mb						DAYTON, OHIO 988 MB					
	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	191	-16.3	-22.1	31	3.3	31	13	2.1	-.1	35	1.7	31	30	-2.1	-4.6	12	.7	31	238	-4.1	-7.0	18	.7	31	297	-6.0	-9.0	25	.7
1000	31	154					31	187	6.1	1.4	36	2.3	31	151			16	1.5	31	195					31	199				
950	31	544	-15.2	-18.7	31	7.8	31	612	7.1	.8	32	2.4	31	556	-2.9	-7.1	33	.1	31	600	-2.4	-7.2	24	3.9	31	603	-4.7	-10.0	25	4.1
900	31	951	-13.6	-18.6	31	10.8	31	1,053	6.6	.1	26	5.3	31	986	-4.4	-11.6	34	1.9	31	1,031	-.5	-8.0	27	6.0	31	1,029	-3.4	-12.2	27	5.8
850	31	1,386	-13.3	-18.5	31	11.4	31	1,522	5.3	-3.7	26	8.3	31	1,435	-5.6	-14.4	33	4.1	31	1,488	-1.1	-8.9	27	6.3	31	1,482	-3.2	-13.5	27	7.4
800	31	1,849	-12.7	-18.9	30	12.0	31	2,016	4.1	-7.2	26	8.7	31	1,909	-7.8	-18.1	32	5.4	31	1,971	-1.8	-11.6	28	7.9	31	1,961	-3.9	-13.7	27	9.4
750	31	2,343	-13.8	-20.8	30	13.3	31	2,541	2.0	-10.8	26	9.6	31	2,405	-9.9	-20.3	32	6.8	31	2,481	-3.1	-13.7	28	9.8	31	2,468	-4.9	-15.5	27	11.5
700	31	2,863	-15.7	-22.9	29	14.2	31	3,094	-.8	-12.7	27	11.9	31	2,939	-12.5	-24.2	32	8.0	31	3,028	-5.3	-15.7	28	11.2	31	3,011	-6.6	-16.5	27	12.6
650	31	3,421	-18.2	-25.7	29	15.8	31	3,685	-4.0	-17.0	27	13.4	31	3,496	-15.3	-27.3	32	6.3	31	3,602	-8.0	-19.5	27	12.3	31	3,584	-9.2	-18.7	28	14.9
600	31	4,014	-21.1	-28.2	28	17.9	31	4,311	-7.7	-20.5	27	15.3	31	4,103	-18.6	-30.7	31	6.0	31	4,225	-11.5	-22.8	27	14.7	31	4,203	-12.6	-22.3	27	15.9
550	31	4,649	-25.1	-31.2	26	19.0	31	4,982	-11.8	-24.3	27	17.9	31	4,740	-22.4	-33.8	30	5.9	31	4,882	-15.6	-27.3	27	15.6	31	4,857	-16.5	-26.5	27	17.7
500	31	5,338	-29.3	-35.0	26	21.6	31	5,707	-16.5	-28.7	27	19.5	31	5,444	-27.2	-37.9	26	6.1	31	5,600	-20.3	-32.3	27	16.8	31	5,573	-21.3	-31.0	27	19.5
450	31	6,082	-34.5	-39.7	28	23.7	31	6,486	-21.9	-33.0	27	21.8	31	6,185	-32.5	-41.5	25	6.5	31	6,364	-25.9	-37.0	27	18.8	31	6,339	-26.7	-35.9	27	21.8
400	31	6,899	-40.1	-43.3	27	26.6	31	7,350	-28.3	-40.0	27	23.4	31	7,012	-38.4	-44.5	25	9.8	31	7,214	-32.3	-42.4	27	20.2	31	7,182	-33.2	-41.7	27	23.6
350	31	7,799	-45.4		28	29.9	31	8,294	-35.4	-44.5	27	26.0	31	7,917	-45.0	-46.9	29	10.5	31	8,143	-39.3	-48.2	27	22.8	31	8,106	-40.3	-45.7	27	27.3
300	31	8,816	-50.3		27	32.3	31	9,350	-43.1	-47.6	27	28.4	30	8,930	-51.4		28	12.0	31	9,182	-46.9		27	22.8	31	9,141	-47.8		27	29.9
250	31	9,995	-53.8		28	30.7	30	10,557	-51.6		27	32.0	30	10,101	-56.4		28	16.6	31	10,370	-54.6		27	24.4	31	10,324	-55.2		27	32.7
200	30	11,429	-52.8		28	27.3	30	11,980	-58.0		27	36.6	29	11,510	-57.4		28	14.7	31	11,778	-59.6		27	26.3	31	11,730	-58.8		27	34.8
175	29	12,290	-51.9		28	27.4	30	12,818	-59.4		27	37.2	29	12,360	-54.4		27	14.5	31	12,613	-58.9		27	26.7	31	12,569	-58.0		27	31.1
150	29	13,289	-51.9		28	24.1	30	13,782	-60.6		27	35.1	28	13,341	-53.1		27	14.0	31	13,582	-58.9		27	22.8	31	13,541	-58.0		27	27.9
125	29	14,467	-53.0		28	20.3	30	14,910	-63.2		27	30.9	28	14,516	-53.3		28	13.2	31	14,722	-60.6		27	20.2	31	14,685	-59.7		27	24.8
100	26	15,904	-53.9		28	17.1	30	16,272	-66.3		27	24.7	28	15,951	-54.4		27	10.6	31	16,106	-62.2		27	17.9	31	16,074	-61.6		27	21.4
80	24	17,339	-53.4		27	12.5	29	17,618	-67.2		27	19.6	28	17,377	-55.1		28	10.3	30	17,485	-62.1		27	12.8	31	17,458	-61.2		27	16.1
70	24	18,196	-54.0		27	9.5	29	18,425	-65.6		27	15.0	28	18,228	-55.4		29	9.2	30	18,310	-61.7		27	10.6	31	18,287	-60.9		27	13.6
60	24	19,186	-53.8		28	8.3	28	19,365	-66.2		28	10.2	28	19,210	-55.5		30	9.5	30	19,265	-60.9		27	9.1	29	19,242	-60.1		28	10.3
50	24	20,359	-53.5		28	6.5	28	20,485	-61.7		27	6.1	28	20,372	-55.4		31	10.2	29	20,403	-59.7		28	6.8	29	20,383	-58.9		28	7.4
40	24	21,797	-52.5		27	1.6	27	21,876	-56.8		30	3.9	28	21,794	-55.8		32	10.5	29	21,801	-58.6		31	3.1	27	21,785	-57.6		29	3.8
30	24	23,654	-52.5		12	2.7	27	23,694	-56.1		36	2.3	28	23,625	-55.2		33	11.9	26	23,611	-57.3		30	1.5	26	23,606	-56.7		31	1.0
25	23	24,629	-52.4		12	3.9	26	24,658	-55.6		05	2.2	28	24,788	-55.7		34	11.3	24	24,770	-56.8		27	1.2	25	24,763	-56.5		07	.6
20	22	26,272	-51.5		11	6.4	23	26,291	-53.0		01	2.2	28	26,208	-55.8		34	10.9	20	26,184	-56.1		23	1.4	24	26,186	-55.6		08	3.3
15	20	28,137	-51.4		10	11.0	20	28,153	-50.5		04	1.4	26	28,021	-55.8		35	13.6	16	28,014	-55.4		23	4.3	19	28,024	-54.4		08	3.0
10	17	30,769	-51.6		09	10.2	11	30,830	-47.6				29	30,611	-54.5		33	9.1	6	30,551	-53.9				11	30,640	-51.2			
7	16	33,104	-49.0		08	6.9							18	32,916	-55.1		29	9.9												
5	7	35,403	-44.7										9	35,138	-59.7															
4													6	36,510	-63.8															
3													5	38,291	-64.9															

Standard pressure surface (mb.)	DEL RIO, TEXAS 985 MB						DENVER, COLO. 838 MB						DODGE CITY, KANS. 928 MB						EL PASO, TEXAS 866 MB						ELY, NEV. 810 MB					
	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	314	7.2	4.6	04	.2	31	1,611	-5.7	-12.3	17	1.7	31	791	-4.5	-8.4	28	1.3	31	1,193	1.9	-1.4	33	.6	30	1,908	-10.3	-15.6	19	4.7
1000	31	186					31	199					31	195					31	199					30	255				
950	31	610	7.5	4.1	17	1.0	31	606					31	601					31	617					30	657				
900	31	1,054	7.0	1.9	23	1.7	31	1,043					31	1,032	-1.6	-7.4	29	1.6	31	1,057					30	1,086				
850	31	1,525	7.0	.1	23	3.0	31	1,494					31	1,491	1.1	-8.9	26	3.4	31	1,524	4.9	-3.4	30	1.8	30	1,533				
800	31	2,024	6.5	-4.4	24	4.4	31	1,977	1.2	-11.4	23	2.4	31	1,978	.8	-10.3	27	4.3	31	2,018	3.5	-6.4	26	4.4	30	2,005	-4.4	-11.0	20	3.6
750	31	2,549	4.1	-7.5	26	5.6	31	2,493	-.5	-13.9	26	4.4	31	2,496	-.5	-12.5	27	5.5	31	2,536	1.2	-9.1	27	5.8	30	2,516	-2.5	-12.9	21	2.3
700	31	3,110	1.1	-10.2	25	7.9	31	3,045	-3.2	-17.4	29	6.6	31	3,045	-3.2	-16.1	28	7.4	31	3,093	-1.6	-13.6	27	6.6	30	3,062	-4.9	-15.4	25	3.6
650	31	3,701	-2.4	-11.5	25	10.7	31	3,623	-7.1	-20.6	30	8.5	31	3,625	-6.2	-19.5	28	8.2	31	3,677	-4.8	-18.2	27	7.6	30	3,635	-7.5	-18.8	27	6.4
600	31	4,335	-6.2	-15.7	25	13.9	31	4,246	-11.4	-24.2	29	10.3	31	4,251	-10.0	-22.6	28	8.9	31	4,306	-8.6	-22.4	27	9.2	30	4,262	-11.1	-22.7	28	7.0
550	31	5,005	-10.7	-23.1	25	14.6	31	4,905	-15.6	-26.1	29	12.1	31	4,913	-14.4	-26.5	28	10.1	31	4,971	-12.9	-26.3	27	10.5	30	4,918	-15.6	-27.2	28	8.3
500	31	5,738	-15.4	-27.7	25	17.5	31	5,622	-20.4	-32.2	29	12.7	31	5,633	-19.4	-31.9	28	11.2	31	5,697	-17.7	-30.1	27	11.7	30	5,638	-20.5	-31.7	28	9.6
450	31	6,519	-20.9	-32.2	25	17.8	31	6,390	-25.8	-37.3	28	13.9	31	6,403	-25.0	-37.0	28	12.8	31	6,472	-23.0	-34.5	27	12.0	30	6,400	-26.3	-36.8	28	10.7
400	31	7,386	-27.3	-36.3	25	18.6	31	7,238	-32.0	-42.9	28	14.3	31	7,254	-31.6	-42.9	26	13.6	31	7,332	-29.2	-40.8	27	14.8	30	7,251	-32.7	-41.1	28	10.8
350	31	8,334	-34.6	-44.8	25	19.5	31	8,167	-39.4	-47.6	27	15.2	31	8,184	-39.0	-46.6	26	15.6	31	8,273	-36.2	-46.7	26	17.7	30	8,179	-39.7	-44.7	29	11.3
300	31	9,392	-42.9	-48.9	25	21.8	31	9,204	-47.5		27	16.1	31	9,222	-47.0		26	18.4	31	9,326	-44.0		26	21.1	30	9,216	-47.7		30	12.0
250	31	10,596	-51.9		25	25.4	31	10,385	-55.9		27	18.6	31	10,408	-55.0		26	23.6	31	10,527	-53.0		26	24.6	30	10,398	-55.9		29	13.2
200	30	12,016	-59.2		26	27.6	31	11,784	-61.2		27	21.5	30	11,813	-60.2		26	22.4	31	11,942	-59.5		26	26.2	30	11,802	-60.4		29	15.8
175	30	12,848	-61.1		26	28.3	31	12,613	-60.5		27	20.8	30	12,646	-59.8		26	21.9	30	12,773	-60.5		26	26.6	30	12,633	-61.0		28	17.8
150	29	13,802	-61.3		26	26.2	31	13,576	-59.6		27	21.4	29	13,614	-59.6		26	20.0	30	13,730	-61.7		26	24.5	30	13,594	-59.9		28	17.3
125	29	14,920	-64.3		26	22.8	31	14,714	-60.4		27	19.8	29	14,750	-61.2		26	19.5	30	14,854	-63.5		26	20.3	30	14,732	-60.4		28	15.7
100	28	16,276	-67.5		26	18.4	31	16,101	-61.4		27	16.0	29	16,129	-63.1		27	14.7	30	16,213	-66.5		26	17.6	28	16,113	-62.7		28	13.4
80	27	17,615	-68.2		26	12.8	31	17,443	-61.5		27	12.0	29	17,502	-62.5		26	12.3	29	17,564	-66.9		26	13.8	27	17,492	-62.2		28	10.0
70	25	18,418	-67.2		25	8.1	31	18,311	-61.2		27	11.1	29	18,326	-61.9		26	10.7	29	18,332	-65.9		26	10.0	27	18,316	-62.2		28	8.2
60	22	19,351	-65.0		25	4.9	31	19,272	-60.0		27	8.7	28	19,282	-60.6		26	7.6	29	19,312	-63.7		26	7.9	27	19,271	-60.6		27	6.1
50	22	20,469	-62.9		22	2.0	31	20,412	-59.4		27	6.5	28	20,416	-60.1		26	6.0	27	20,437	-62.6		26	3.3	26	20,410	-59.8		27	5.0
40	20	21,852	-60.4		23	.8	31	21,810	-59.0		27	4.5	26	21,810	-59.5		26	4.1	26	21,819	-60.9		24	2.5	25	21,812	-59.1		28	4.9
30	19	23,654	-58.3		17	.0	31	23,618	-56.5		27	4.5	24	23,624	-56.0		26	1.5	25	23,613	-56.9		33	.5	22	23,610	-58.4		27	4.4
25	18	24,807	-56.5		06	1.2	29	24,786	-58.4		28	4.2	20	24,776	-57.2		25	2.7	25	24,760	-57.7		26	.7	21	24,766	-58.2		25	1.7
20	17	26,232	-54.5		02	1.2	27	26,171	-57.8		27	4.7	20	26,184	-56.5		23	3.3	25	26,172	-55.9		27	2.3	19	26,185	-57.0		29	2.3
15	15	28,076	-52.7		31	3.5	12	27,996	-56.4		23	2.2	15	28,027	-54.9		24	7.0	24	28,014	-53.2		26	5.4	18	28,015	-56.1		32	2.9
10	14	30,723	-47.9		26	10.8							6	30,662	-51.0				15	30,633	-50.0		26	11.6	16	30,600	-54.4		29	9.9
7	7	33,110	-43.4																											

Standard pressure surface (mb.)	* FAIRBANKS, ALASKA 1005 MB						FLINT, MICH. 995 MB						FORT WORTH, TEXAS 1002 MB						GLASGOW, MONT. 936 MB						GRAND JUNCTION, COLO. 857 MB					
	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	135	-23.0	-20.6	31	.5	31	234	-7.0	-12.2	24	.8	31	180	4.9	2.3	35	.4	31	696	-13.8	-16.0	06	1.8	31	1,474	-12.1	-14.4	13	1.6
1000	31	175			36	.8	31	192					31	195			35	1.9	31	191					31	279				
950	31	565	-16.5	-19.0	06	1.0	31	592	-7.3	-11.3	26	3.0	31	617	4.5	1.3	26	2.4	31	585					31	675				
900	31	965	-15.7	-20.4	03	1.1	31	1,013	-6.7	-12.5	28	4.4	31	1,055	5.4	-.4	22	4.9	31	999	-8.9	-13.8	29	2.9	31	1,097				
850	31	1,396	-16.3	-21.3	02	2.0	31	1,460	-6.7	-14.3	28	6.0	31	1,523	5.1	-3.3	25	4.8	31	1,445	-6.0	-13.0	29	7.4	31	1,537			13	2.3
800	31	1,852	-17.2	-22.7	35	3.1	31	1,934	-7.0	-15.4	28	8.0	31	2,016	3.9	-5.9	25	6.3	31	1,919	-7.0	-14.1	30	9.0	31	2,013	-4.0	-10.9	14	2.7
750	31	2,332	-19.0	-25.2	34	4.5	31	2,434	-8.1	-17.2	28	10.2	31	2,542	1.6	-8.5	25	7.5	31	2,422	-6.8	-15.9	29	10.8	31	2,523	-3.6	-12.4	19	2.6
700	31	2,846	-21.2	-27.9	33	5.3	31	2,971	-10.1	-18.5	28	11.8	31	3,094	-1.1	-12.6	26	8.5	31	2,953	-11.3	-18.7	29	13.0	31	3,067	-5.6	-14.7	26	4.1
650	31	3,391	-23.9	-30.5	33	6.0	31	3,537	-13.0	-20.2	28	14.4	31	3,679	-4.4	-16.5	26	10.8	31	3,521	-14.3	-21.8	29	14.5	31	3,641	-8.3	-17.5	27	6.8
600	31	3,971	-27.2	-33.8	32	6.2	31	4,140	-15.9	-23.7	28	16.7	31	4,308	-6.1	-20.3	26	12.6	31	4,123	-17.9	-25.3	28	16.0	31	4,263	-11.4	-21.3	27	8.7
550	31	4,594	-30.6	-37.2	32	7.6	31	4,794	-19.8	-26.7	28	19.6	31	4,975	-12.3	-23.3	26	14.7	31	4,765	-22.0	-28.6	29	17.7	31	4,923	-15.6	-25.3	28	10.1
500	31	5,266	-34.6	-39.4	32	9.2	31	5,499	-24.1	-31.9	28	22.2	31	5,701	-17.0	-27.9	26	16.8	31	5,462	-26.7	-33.2	28	19.4	31	5,638	-20.2	-30.0	28	11.4
450	31	5,993	-39.3	-42.9	31	10.1	31	6,255	-29.0	-36.8	28	24.6	31	6,480	-22.5	-32.8	26	18.9	31	6,209	-31.8	-36.3	28	22.6	31	6,407	-25.9	-34.6	28	12.8
400	31	6,794	-44.5	-46.1	32	11.4	31	7,093	-34.9	-42.4	28	27.2	31	7,339	-28.6	-39.0	26	20.2	31	7,037	-37.5	-39.6	28	25.4	31	7,253	-32.2	-41.2	28	13.7
350	31	7,676	-50.1		32	12.6	31	8,012	-41.6	-45.6	27	29.7	31	8,281	-36.1	-46.0	26	22.4	31	7,946	-44.0	-44.0	28	27.4	31	8,181	-39.6	-44.9	27	15.2
300	31	8,672	-55.1		32	12.1	31	9,041	-49.0		27	32.0	31	9,334	-44.2		26	25.0	31	8,984	-50.4		29	27.8	31	9,216	-48.0		28	14.6
250	31	9,630	-57.3		32	12.6	31	10,219	-55.6		27	34.6	31	10,534	-53.2		26	28.7	31	10,135	-56.1		29	26.9	31	10,296	-55.7		27	16.7
200	31	11,247	-55.1		31	14.4	31	11,928	-57.4		28	33.5	31	11,942	-59.6		26	30.1	31	11,542	-58.5		29	24.0	31	11,798	-60.3		28	19.5
175	31	12,101	-54.9		30	12.8	31	12,947	-55.8		28	30.0	31	12,779	-60.4		26	26.5	31	12,384	-57.0		29	22.1	31	12,632	-59.2		28	18.2
150	30	13,089	-54.8		31	13.0	31	13,956	-55.8		27	26.3	30	13,737	-60.9		26	24.9	31	13,361	-56.3		29	20.8	31	13,598	-59.3		27	18.2
125	30	14,252	-56.0		30	14.5	31	14,613	-57.4		28	25.6	30	14,864	-63.3		26	22.3	31	14,516	-56.9		28	18.6	31	14,737	-60.3		27	16.6
100	30	15,670	-56.6		31	14.9	31	16,016	-58.6		27	20.1	30	16,226	-65.9		26	17.6	31	15,926	-57.9		28	17.8	31	16,121	-62.7		27	14.5
80	30	17,083	-57.2		31	16.5	30	17,422	-58.5		27	16.0	29	17,575	-66.3		26	13.2	30	17,321	-59.0		28	16.9	30	17,490	-62.2		27	12.1
70	30	17,927	-57.1		31	16.5	30	18,260	-58.4		27	13.0	28	18,385	-65.3		26	11.2	30	18,159	-58.4		28	16.1	30	18,316	-61.3		27	10.8
60	30	18,903	-57.1		31	16.5	30	19,231	-57.7		27	10.7	27	19,322	-63.7		27	7.4	29	19,123	-57.9		27	13.9	30	19,274	-60.4		27	6.3
50	30	20,056	-57.2		32	16.0	30	20,381	-57.5		27	7.7	25	20,448	-62.5		27	4.8	29	20,273	-57.9		27	12.7	29	20,408	-59.6		27	6.6
40	30	21,466	-57.6		31	18.3	30	21,792	-56.7		26	5.7	22	21,832	-60.3		27	2.4	29	21,680	-57.7		27	12.0	29	21,802	-59.6		27	5.7
30	30	23,280	-56.5		33	18.2	25	23,637	-55.3		23	1.1	22	23,633	-56.5		26	2.0	27	23,479	-58.6		25	13.3	24	23,603	-56.8		27	4.0
25	27	24,456	-55.5		33	16.7	24	24,806	-55.3		11	1.7	18	24,763	-57.4		26	2.9	25	24,658	-57.9		26	10.4	27	24,757	-58.2		27	3.4
20	26	25,681	-54.1		33	14.1	23	26,225	-54.9		13	2.5	18	26,199	-55.6		26	3.3	23	26,050	-57.9		26	10.5	26	26,171	-57.2		26	3.7
15	24	27,733	-53.8		33	13.2	19	28,067	-54.0		10	4.5	14	28,045	-53.2		27	3.1	15	27,875	-57.0		23	7.9	21	28,005	-56.0		27	3.1
10	19	30,318	-55.5		35	14.0	10	30,716	-50.1				9	30,686	-51.3				8	30,405	-56.7				10	30,599	-53.7			
7	11	32,674	-54.5										5	33,011	-47.0															

See reference note at end of table

RAWINSONDE DATA

Average monthly values

JANUARY 1968

* GREAT FALLS, MONT. 887 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	1,123	-6.6	-13.1	23	5.3
1000	31	172				
950	31	579				
900	31	1,010				
850	31	1,456	-4.3	-14.0	24	9.8
800	31	1,933	-5.6	-13.8	26	9.9
750	31	2,442	-8.1	-15.2	27	11.7
700	31	2,972	-10.0	-17.3	28	13.0
650	31	3,547	-13.3	-20.2	28	14.0
600	31	4,146	-17.2	-24.3	28	14.6
550	31	4,795	-21.5	-28.8	28	16.8
500	31	5,490	-26.3	-33.0	28	18.2
450	31	6,245	-31.8	-36.3	27	19.7
400	31	7,068	-37.5	-38.3	27	22.7
350	31	7,978	-43.7	-43.7	27	26.3
300	31	8,999	-50.5		28	25.2
250	31	10,174	-55.8		28	25.9
200	31	11,579	-59.3		28	23.4
175	31	12,417	-57.9		28	23.7
150	31	13,392	-56.4		28	20.0
125	30	14,539	-57.4		28	18.2
100	25	15,922	-57.4		28	18.0
80	23	17,344	-57.8		27	15.4
70	23	18,185	-57.9		27	13.4
60	23	19,154	-58.5		28	13.4
50	20	20,293	-58.4		27	14.8
40	20	21,701	-57.4		26	9.9
30	17	23,537	-57.2		25	11.0
25	15	24,700	-57.2		24	4.1
20	12	26,155	-57.3		26	4.8
15	10	28,008	-57.9			
10	5	30,636	-54.4			
7						
5						
4						

GREEN BAY, WIS. 997 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	210	-10.4	-12.7	27	.8
1000	31	186				
950	31	586	-9.5	-12.2	30	1.8
900	31	1,002	-8.5	-14.0	28	3.5
850	31	1,447	-8.0	-16.5	28	5.6
800	31	1,919	-7.6	-17.0	28	7.5
750	31	2,419	-8.8	-18.0	28	10.1
700	31	2,954	-10.8	-20.2	28	12.6
650	31	3,519	-13.3	-22.6	28	14.3
600	31	4,127	-17.0	-25.6	28	15.8
550	31	4,772	-20.8	-28.0	28	18.6
500	31	5,474	-25.4	-32.0	28	21.0
450	31	6,226	-30.3	-37.1	28	24.3
400	31	7,061	-36.1	-42.4	28	27.1
350	31	7,975	-42.7	-47.0	28	30.1
300	31	9,001	-49.9		28	31.5
250	31	10,176	-56.0		28	32.5
200	31	11,588	-57.5		28	30.6
175	31	12,433	-56.4		28	26.4
150	31	13,414	-55.9		28	26.3
125	31	14,572	-56.9		28	23.5
100	30	15,976	-58.0		28	19.3
80	30	17,383	-58.5		28	16.6
70	30	18,221	-58.3		26	15.2
60	30	19,194	-57.5		28	12.4
50	30	20,347	-56.8		27	8.6
40	30	21,761	-56.6		27	6.1
30	28	23,594	-56.4		27	2.8
25	27	24,753	-56.1		29	.4
20	24	26,171	-55.5		23	2.7
15	16	28,006	-54.3		24	10.8
10	8	30,625	-52.4			

GREENSBORO, N. C. 991 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	273	-.9	-4.1	36	1.3
1000	31	199				
950	31	612	.9	-7.5	33	2.8
900	31	1,046	1.5	-9.2	32	3.7
850	31	1,507	2.3	-9.9	28	5.3
800	31	1,997	1.4	-10.9	27	6.7
750	31	2,514	-.5	-12.4	27	9.1
700	31	3,064	-2.8	-14.7	27	12.2
650	31	3,647	-5.9	-17.1	27	13.3
600	31	4,272	-9.7	-20.9	28	14.3
550	31	4,936	-14.0	-25.6	27	16.5
500	31	5,655	-18.9	-29.7	27	18.2
450	31	6,428	-24.3	-34.8	27	21.0
400	31	7,280	-30.5	-40.0	27	20.7
350	31	8,217	-37.2	-44.4	28	23.5
300	31	9,265	-45.0		28	24.9
250	31	10,460	-53.4		28	26.5
200	31	11,874	-58.9		28	29.0
175	31	12,711	-59.3		28	26.5
150	31	13,676	-59.5		28	25.3
125	30	14,813	-61.6		28	19.7
100	30	16,187	-64.1		27	16.9
80	30	17,551	-63.9		28	13.0
70	30	18,370	-63.1		29	9.4
60	30	19,319	-62.3		29	5.7
50	30	20,448	-60.8		29	3.9
40	30	21,841	-58.7		33	1.7
30	30	23,656	-56.5		01	.7
25	28	24,815	-55.2		05	1.3
20	28	26,243	-53.9		06	.6
15	27	28,101	-51.6		02	.8
10	20	30,743	-48.9		26	7.3
7	12	33,085	-44.5			

* GUAM, MARIANA IS. 998 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	111	24.3	21.9	08	4.7
1000	31	93				
950	31	545	21.8	19.2	08	11.1
900	31	1,010	19.1	15.8	08	10.3
850	31	1,500	16.6	11.9	06	7.8
800	31	2,016	15.2	5.7	08	5.5
750	31	2,563	13.2	-.2	09	5.6
700	31	3,139	10.6	-6.3	09	5.0
650	31	3,756	7.6	-10.1	09	5.9
600	31	4,408	3.7	-13.1	09	6.3
550	31	5,108	-.2	-17.6	10	5.6
500	31	5,865	-5.0	-22.4	11	6.5
450	31	6,685	-9.9	-27.6	11	6.4
400	31	7,586	-15.4	-33.0	09	4.8
350	31	8,580	-22.5	-38.8	09	3.1
300	31	9,692	-31.1	-45.0	12	2.1
250	31	10,958	-41.0		17	1.2
200	31	12,434	-53.2		18	4.0
175	31	13,280	-60.1		18	5.0
150	31	14,224	-67.7		17	5.8
125	31	15,298	-76.1		15	7.1
100	31	16,555	-84.1		13	8.3
80	28	17,782	-84.4		10	5.8
70	28	18,528	-79.2		09	3.1
60	27	19,422	-72.7		33	.6
50	27	20,508	-67.5		16	1.1
40	27	21,870	-62.3		11	3.9
30	27	23,664	-58.7		06	10.0
25	26	24,816	-56.2		09	14.7
20	26	26,245	-52.9		09	17.4
15	25	28,121	-47.9		09	19.9
10	24	30,817	-44.9		09	16.9
7	22	33,216	-41.6		09	7.1
5	19	35,532	-36.4		21	4.4
4	8	37,068	-35.4			

HILO, HAWAII 1011 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	19.8	17.2	22	1.9
1000	31	103	20.8	17.4	22	2.2
950	31	544	18.6	15.1	16	1.4
900	31	1,009	15.6	12.1	16	2.2
850	31	1,493	12.9	6.3	17	2.8
800	31	2,002	11.5	1.5	20	3.3
750	31	2,538	9.7	-4.5	23	4.1
700	31	3,110	6.8	-7.7	25	5.5
650	31	3,712	3.4	-13.3	26	6.9
600	31	4,361	-.3	-17.2	26	8.8
550	31	5,045	-4.8	-21.1	26	9.8
500	31	5,795	-9.9	-25.9	26	11.3
450	31	6,596	-15.3	-29.5	27	12.7
400	31	7,481	-21.1	-35.4	27	15.1
350	31	8,454	-27.8	-41.4	27	18.9
300	31	9,545	-35.7	-46.7	27	23.5
250	31	10,791	-44.0		27	30.4
200	29	12,261	-53.7		28	30.6
175	29	13,108	-59.5		28	29.4
150	29	14,060	-65.0		29	25.5
125	29	15,153	-71.7		29	22.5
100	29	16,451	-77.3		29	16.0
80	26	17,728	-79.2		29	7.4
70	26	18,491	-75.7		32	2.7
60	26	19,393	-69.9		09	1.6
50	25	20,494	-65.7		10	3.3
40	25	21,867	-60.1		10	2.0
30	25	23,674	-57.6		07	3.6
25	24	24,833	-55.4		08	3.4
20	23	26,270	-51.9		10	7.6
15	23	28,148	-48.5		11	7.0
10	15	30,812	-46.7			

HUNTINGTON W. VA. 995 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	246	-4.1	-8.3	19	.8
1000	31	206				
950	31	616	-1.9	-6.9	25	3.7
900	31	1,042	-2.2	-9.3	26	5.5
850	31	1,497	-1.8	-11.4	27	6.9
800	31	1,979	-2.3	-11.2	27	8.7
750	31	2,491	-3.4	-11.9	27	10.7
700	31	3,036	-5.0	-14.6	27	12.6
650	31	3,612	-8.0	-17.7	28	13.9
600	31	4,234	-11.7	-21.7	28	15.6
550	31	4,895	-15.6	-25.5	27	18.1
500	31	5,610	-20.3	-30.4	27	20.0
450	31	6,380	-25.9	-35.9	27	21.3
400	31	7,227	-32.0	-41.2	27	24.2
350	31	8,157	-38.8	-45.9	27	28.2
300	31	9,199	-46.5		27	31.3
250	31	10,389	-54.2		27	35.1
200	31	11,800	-59.3		27	37.3
175	30	12,636	-58.3		27	33.2
150	30	13,607	-58.1		27	29.8
125	30	14,751	-60.0		27	25.8
100	30	16,136	-62.5		27	22.6
80	30	17,514	-61.7		27	17.6
70	30	18,341	-61.2		27	14.7
60	29	19,299	-60.2		28	10.7
50	29	20,440	-58.8		28	7.0
40	28	21,848	-57.4		28	4.0
30	28	23,674	-55.5		32	1.2
25	27	24,842	-54.7		07	1.0
20	26	26,271	-53.8		12	.5
15	21	28,132	-52.3		13	1.2
10	13	30,789	-49.0			
7						
5						

* INTERNATIONAL FALLS, MINN. 978 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	360	-17.2	-21.1	16	1.6
1000	31	188				
950	31	574	-15.6	-18.7	17	3.7
900	31	983	-13.0	-16.9	22	4.8
850	31	1,421	-11.5	-17.9	26	6.6
800	31	1,886	-11.4	-18.8	27	7.7
750	31	2,376	-12.8	-19.8	27	9.1
700	31	2,905	-14.4	-20.9	27	10.8
650	31	3,459	-17.0	-22.6	28	13.3
600	31	4,061	-20.0	-27.2	28	15.9
550	31	4,695	-23.8	-30.1	28	18.8
500	31	5,391	-28.2	-32.3	28	19.4
450	31	6,134	-33.0	-36.1	28	21.5
400	31	6,958	-38.8	-42.0	28	23.6
350	31	7,863	-45.0	-46.5	28	25.9
300	31	8,880	-51.0		28	28.3
250	31	10,051	-56.6		28	29.5
200	30	11,479	-57.1		28	27.6
175	30	12,328	-55.3		28	24.8
150	30	13,313	-55.0		28	24.0
125	30	14,476	-55.8		28	20.3
100	30	15,891	-56.9		28	19.2
80	30	17,303	-57.5		27	15.5
70	29	18,140	-57.1		27	16.0
60	29	19,117	-56.6		27	14.4
50	29	20,273	-56.8		27	12.5
40	29	21,688	-56.6		26	9.4
30	28	23,514	-56.8		26	10.4
25	24	24,716	-55.8		25	4.5
20	23	26,164	-55.2		19	1.7
15	20	28,032	-54.7		16	3.2
10	15	30,630	-53.3		14	5.3
7	6	32,914	-51.8			

JACKSON, MISS. 1012 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	94	3.5	1.8	04	.6
1000	31	191	5.2	2.0	11	1.3
950	31	615	5.7	-.2	18	1.9
900	31	1,055	5.8	-1.4	26	2.7
850	31	1,523	5.5	-3.1	27	5.1
800	31	2,018	4.0	-6.4	27	6.5
750	31	2,536	1.7	-9.8	27	8.4
700	31	3,095	-.8	-12.4	27	10.6
650	30	3,677	-4.4	-15.8	27	11.8
600	30	4,309	-8.1	-19.4	27	13.6
550	30	4,972	-12.3	-23.1	27	15.7
500	30	5,703	-17.1	-27.4	27	17.0
450	30	6,479	-22.6	-32.6	27	19.0
400	30	7,340	-29.0	-37.0	27	21.4
350	30	8,282	-35.7	-43.6	27	23.0
300	30	9,337	-43.3	-50.7	27	26.3
250	30	10,541	-51.7		26	31.3
200	30	11,962	-58.7		27	34.9
175	30	12,798	-60.3		26	34.7
150	30	13,755	-61.5		26	30.6
125	30	14,879	-63.7		26	26.7
100	30	16,236	-66.9		26	22.4
80	30	17,578	-67.5		26	16.0
70	30	18,383	-66.6		26	11.8
60	29	19,319	-64.9		27	6.4
50	29	20,436	-62.5		28	4.9
40	28	21,820	-60.3		28	3.1
30	25	23,623	-58.1		30	1.7
25	23	24,772	-57.3		33	1.1
20	23	26,188	-55.4		03	1.0
15	21	28,027	-54.0		08	2.7
10	16	30,634	-50.3		20	1.7
7	6	32,912	-49.2			

JACKSONVILLE, FLA. 1023 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	7.3	5.6	34	1.6
1000	31	191	9.9	6.6	36	2.2
950	31	621	9.8	4.9	29	1.7
900	31	1,067	8.1	2.1	25	3.3
850	31	1,538	7.0	-2.8	26	6.4
800	31	2,035	5.0	-7.5	25	8.1
750	31	2,553	3.6	-12.6	27	9.0
700	31	3,118	1.0	-15.1	27	10.1
650	31	3,706	-2.0	-19.1	27	12.1
600	31	4,343	-5.7	-22.8	27	13.6
550	31	5,011	-10.1	-27.9	27	15.6
500	31	5,748	-15.0	-30.0	26	17.4
450	31	6,525	-20.8	-33.2	26	19.8
400	31	7,397	-27.0	-36.1	27	21.0
350	31	8,347	-33.8	-45.2	26	24.7
300	31	9,410	-41.8	-53.0	27	29.0
250	31	10,623	-50.6		27	32.6
200	31	12,052	-57.9		27	36.4
175	30	12,889	-60.2		27	37.2
150	29	13,847	-61.4		27	33.5
125	29	14,970	-64.5		27	28.8
100	29	16,321	-68.4		27	25.2
80	29	17,652	-69.6		27	18.8
70	29	18,449	-68.6		27	13.5
60	29	19,375	-66.5		27	6.1
50	28	20,486	-63.5		29	3.6
40	28	21,864	-60.3		36	1.4
30	28	23,671	-56.9		01	2.4
25	27	24,825	-55.3		04	2.4
20	26	26,251	-53.7		07	3.1
15	25	28,109	-51.3		06	2.5
10	19	30,771	-46.1		27	7.5
7	14	33,188	-39.4			
5	6	35,494	-36.2			

JOHN F. KENNEDY INT. AP NY 1024 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	-4.5	-11.1	33	2.8
1000	31	193	-4.8	-11.8	33	4.7
950	31	599	-4.4	-12.2	32	5.3
900	31	1,023	-4.6	-12.8	31	6.9
850	31	1,474	-4.7	-15.0	30	9.7
800	31	1,951	-5.3	-15.5	29	11.6
750	31	2,460	-6.6	-16.5	29	14.2
700	31	2,994	-8.3	-16.9	28	15.0
650	31	3,569	-10.4	-19.1	28	18.7
600	31	4,181	-13.7	-23.2	28	20.3
550	31	4,839	-17.8	-26.6	28	22.9
500	31	5,545	-22.1	-32.4	29	25.8
450	31	6,311	-27.5	-37.4	28	28.6
400	31	7,149	-33.7	-42.9	28	31.6
350	31	8,074	-40.3	-47.1	28	33.0
300	31	9,109	-47.9		28	34.3
250	31	10,293	-55.0		28	36.7
200	31	11,705	-56.4		28	33.2
175	31	12,549	-56.5		28	30.3
150	31	13,529	-56.3		28	25.6
125	31	14,683	-58.1		28	22.7
100	31	16,084	-59.4		28	17.6
80	30	17,481	-60.1		29	13.5
70	30	18,315	-59.7		29	10.4
60	30	19,282	-58.4		29	6.8
50	30	20,432	-57.5		31	3.7
40	30	21,846	-56.3		31	1.6
30	29	23,678	-54.7		04	.9
25	29	24,847	-54.1		06	1.1
20	27	26,288	-52.8		10	3.3
15	26	28,148	-51.4		10	3.7
10	17	30,816	-49.1		11	2.6
7	6	33,157	-45.1			

JOHNSTON IS., PACIFIC AREA 1011 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	23.5	18.6	08	3.1
1000	31	96	22.7	18.0	07	3.5
950	31	539	19.1	15.6	07	3.3
900	31	1,004	15.7	12.7	08	2.4
850	31	1,488	14.0	4.0	11	1.3
800	31	1,998	12.6	-1.8	21	.9
750	30	2,536	10.5	-6.7	25	2.5
700	30	3,109	8.2	-12.1	25	4.0
650	30	3,714	5.1	-15.6	26	5.4
600	30	4,366	1.0	-18.4	26	6.6
550	30	5,054	-3.1	-22.7	28	6.7
500	30	5,809	-7.5	-26.5	28	8.1
450	30	6,620	-13.1	-31.2	30	9.5
400	30	7,509	-18.7	-36.7	29	12.1
350	30	8,492	-25.2	-41.7	29	14.6
300	30	9,594	-32.8	-48.5	28	16.7
250	30	10,853	-42.2		29	16.5
200	30	12,326	-53.3		30	18.1
175	30	13,173	-59.7		30	18.2
150	29	14,119	-66.3		30	17.5
125	29	15,203	-74.1		30	17.5
100	28	16,479	-80.9		30	13.6
80	27	17,730	-82.4		30	6.2
70	27	18,482	-76.3		31	2.4
60	26	19,377	-70.9		08	.4
50	26	20,474	-65.1		09	1.9
40	25	21,850	-60.7		09	3.0
30	22	23,659	-56.9		09	6.8
25	22	24,820	-54.6		08	9.9
20	21	26,258	-51.2		09	12.8
15	17	28,151	-47.4		10	12.7
10	5	30,806	-45.4			
7						
5						
4						

KING SALMON, ALASKA 1016 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	15	-11.9	-16.8	35	1.8
1000	31	137	-8.7	-13.9	35	2.0
950	31	534	-8.9	-15.0	36	5.1
900	31	953	-9.3	-16.6	35	5.7
850	31	1,395	-9.4	-18.6	35	6.0
800	31	1,863	-10.8	-20.9	34	5.8
750	31	2,355	-13.0	-23.1	34	6.9
700	31	2,881	-15.2	-25.0	34	8.7
650	31	3,435	-18.0	-28.3	34	8.6
600	31	4,033	-21.5	-31.4	33	9.7
550	31	4,665	-25.2	-34.6	33	10.5
500	31	5,356	-29.4	-37.7	32	11.5
450	31	6,096	-34.2	-41.2	32	12.2
400	31	6,917	-40.1	-44.7	32	14.9
350	31	7,816	-46.4		32	16.1
300	31	8,826	-52.2		32	17.0
250	31	9,994	-56.0		31	17.9
200	31	11,412	-55.9		30	16.8
175	31	12,264	-54.5		31	15.9
150	31	13,253	-53.8		30	15.0
125	30	14,416	-53.8		30	13.5
100	30	15,844	-55.3		30	15.8
80	30	17,267	-56.0		32	15.1
70	30	18,114	-56.2		32	16.6
60	30	19,095	-56.1		31	14.5
50	30	20,253	-56.2		32	15.2
40	30	21,670	-56.2		32	16.3
30	30	23,499	-56.2		33	15.5
25	28	24,676	-55.8		33	14.8
20	24	26,081	-55.1		34	13.5
15	22	27,904	-54.0		35	17.2
10	17	30,502	-51.3			
7	6	32,983	-48.7			

* KOROR, CAROLINE IS. 1006 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	30	27.0	23.7	06	2.6
1000	31	81	26.5	23.1	07	2.9
950	31	528	23.0	16.9	07	6.0
900	31	1,004	20.2	14.5	08	7.6
850	31	1,497	18.0	9.6	08	7.2
800	31	2,015	15.4	6.2	09	6.6
750	31	2,557	12.9	1.7	09	6.7
700	31	3,138	10.1	-2.7	08	7.2
650	31	3,747	6.7	-7.1	09	8.3
600	31	4,405	3.0	-10.4	09	9.2
550	31	5,103	-.8	-14.0	09	8.7
500	31	5,862	-5.0	-19.1	09	9.5
450	31	6,680	-9.8	-23.9	10	10.3
400	31	7,584	-15.1	-29.9	09	11.1
350	31	8,581	-22.1	-37.0	10	9.6
300	31	9,695	-30.7	-43.9	11	9.0
250	31	10,962	-40.9	-52.9	11	9.4
200	31	12,439	-53.4		11	12.6
175	31	13,284	-60.7		12	14.2
150	31	14,225	-66.6		12	15.3
125	31	15,294	-76.9		11	17.3
100	31	16,552	-83.5		11	15.8
80	31	17,797	-80.3		08	3.4
70	31	18,559	-75.5		29	4.3
60	31	19,461	-70.6		28	6.1
50	31	20,554	-66.3		27	3.7
40	30	21,917	-62.6		09	5.4
30	29	23,709	-56.8		09	21.0
25	27	24,861	-56.2		09	25.8
20	21	26,279	-52.6		09	27.1
15	11	28,136	-48.8		09	27.6

KOTZEBUE, ALASKA 1021 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	-16.5	-20.2	13	2.9
1000	31	160	-14.5	-19.3	14	1.9
950	31	550	-12.1	-17.2	19	1.5
900	31	965	-12.4	-18.8	24	2.4
850	31	1,401	-13.6	-20.5	25	3.5
800	31	1,860	-15.2	-22.9	27	4.6
750	31	2,344	-17.9	-24.9	27	4.9
700	31	2,859	-20.5	-27.4	26	6.1
650	31	3,403	-23.1	-29.9	25	7.2
600	31	3,985	-26.2	-33.0	25	10.5
550	31	4,609	-29.9	-35.2	25	11.9
500	31	5,287	-34.2	-39.0	25	14.5
450	31	6,016	-39.0	-41.3	25	16.7
400	31	6,817	-44.2	-43.3	24	18.0
350	31	7,702	-49.4		25	19.9
300	31	8,701	-54.1		25	18.7
250	31	9,861	-57.0		26	19.2
200	30	11,265	-55.5		26	16.5
175	30	12,118	-54.8		26	16.3
150	30	13,104	-54.6		26	17.0
125	29	14,270	-55.0		26	16.7
100	28	15,690	-55.7		26	19.4
80	28	17,111	-55.7		26	18.9
70	27	17,950	-56.6		27	21.1
60	27	18,931	-55.9		27	21.7
50	27	20,091	-55.9		27	22.8
40	25	21,533	-55.6		26	25.7
30	24	23,365	-55.7		26	24.9
25	21	24,512	-56.3		26	25.3
20	20	25,926	-56.6		29	26.0
15	10	27,743	-55.1			

KWAJALEIN, MARSHALL IS. 1008 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	22.5	05	6.4
1000	31	76	25.8	21.8	06	6.9
950	31	527	22.3	19.4	06	8.8
900	31	996	19.5	15.4	07	8.6
850	31	1,485	17.5	12.2	06	7.7
800	31	2,005	15.7	5.2	07	6.3
750	31	2,551	13.4	.3	07	5.3
700	31	3,130	10.7	-5.0	06	4.9
650	31	3,744	7.3	-11.7	07	5.8
600	31	4,398	3.2	-16.3	08	5.9
550	31	5,098	-.6	-21.6	07	7.4
500	31	5,853	-4.8	-25.6	07	8.2
450	31	6,674	-9.7	-31.2	07	8.5
400	31	7,574	-15.1	-36.5	06	8.6
350	31	8,571	-21.6	-41.5	06	6.5
300	31	9,687	-30.1	-47.5	05	4.5
250	31	10,957	-40.6	-54.4	04	2.3
200	31	12,435	-53.1	-63.8	12	.4
175	31	13,282	-60.0	-70.9	14	1.0
150	31	14,226	-67.9		05	1.4
125	30	15,297	-76.5		05	5.0
100	30	16,554	-84.9		07	7.2
80	29	17,776	-84.2		09	6.6
70	29	18,526	-78.6		01	.9
60	29	19,417	-73.1		27	5.5
50	28	20,500	-67.5		28	4.1
40	28	21,858	-63.6		08	3.7
30	28	23,637	-60.3		09	18.9
25	28	24,784	-56.8		09	21.4
20	27	26,206	-53.7		09	22.9
15	27	28,060	-48.4		09	26.0
10	27	30,784	-42.5		05	21.5
7	25	33,221	-37.5		11	5.3
5	14	35,593	-34.7			
4	5	37,180	-32.2			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

JANUARY 1968

LAKE CHARLES, LA. — 1022 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	7.3	6.2	05	2.2
1000	31	185	8.9	8.0	10	2.4
950	31	615	8.3	2.8	16	2.1
900	31	1,057	8.1	1.9	22	2.9
850	31	1,529	7.3	-1.6	25	4.8
800	31	2,027	5.8	-5.0	26	7.1
750	31	2,557	3.6	-7.7	26	8.4
700	31	3,111	.7	-11.0	26	10.6
650	31	3,703	-2.5	-15.5	26	11.5
600	31	4,334	-6.3	-19.4	26	13.5
550	31	5,004	-10.6	-23.6	26	14.8
500	31	5,737	-15.1	-28.7	26	17.3
450	31	6,519	-20.8	-32.4	26	19.7
400	31	7,386	-27.0	-38.2	26	22.3
350	31	8,335	-34.3	-44.8	26	23.0
300	31	9,394	-42.7	-49.3	26	24.8
250	31	10,600	-51.5		26	27.4
200	31	12,021	-58.8		26	32.7
175	31	12,855	-60.9		26	31.9
150	31	13,811	-61.9		26	30.9
125	30	14,936	-64.4		26	26.1
100	30	16,288	-68.3		26	20.7
80	30	17,624	-68.2		26	14.3
70	29	18,426	-67.5		26	10.7
60	28	19,357	-65.7		26	6.4
50	28	20,472	-62.9		27	3.3
40	27	21,855	-60.6		28	2.1
30	26	23,657	-58.0		30	.6
25	25	24,808	-56.8		32	1.7
20	23	26,226	-55.1		34	1.7
15	20	28,079	-51.9		35	1.8
10	12	30,715	-47.8			

LANDER, WYO. — 829 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	1,696	-11.4	-15.6	25	.7
1000	31	228				
950	31	627				
900	31	1,050				
850	31	1,498				
800	31	1,969	-3.7	-12.3	25	.8
750	31	2,478	-3.5	-14.9	28	3.6
700	31	3,023	-5.8	-17.4	28	6.8
650	31	3,593	-9.5	-20.4	28	9.8
600	31	4,215	-12.9	-24.6	28	12.8
550	31	4,864	-17.0	-28.8	28	14.1
500	31	5,584	-21.9	-33.7	28	15.5
450	31	6,342	-27.7	-38.8	28	16.4
400	31	7,188	-34.3	-43.1	28	17.4
350	31	8,107	-41.6	-46.5	28	18.5
300	31	9,135	-49.3		28	19.6
250	31	10,310	-56.7		28	20.8
200	30	11,715	-61.0		28	19.9
175	30	12,545	-60.5		28	20.4
150	30	13,510	-58.8		27	20.2
125	30	14,655	-59.0		27	17.1
100	29	16,043	-60.4		27	15.3
80	29	17,432	-60.9		27	13.1
70	29	18,261	-60.7		27	12.2
60	29	19,224	-59.7		27	11.5
50	29	20,366	-58.9		26	9.9
40	29	21,768	-58.4		26	8.4
30	28	23,574	-58.2		26	7.4
25	25	24,726	-58.3		25	7.1
20	21	26,136	-57.4		25	5.7
15	16	27,963	-56.5		22	4.9
10	6	30,617	-55.9			

* LIHUE KAUAI, HAWAII — 1008 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	18.9	17.1	24	1.7
1000	31	103	20.1	17.0	25	1.3
950	31	544	18.2	14.4	19	.7
900	31	1,006	14.9	11.3	22	2.2
850	31	1,491	12.4	5.6	23	3.3
800	31	1,998	10.9	-2.9	25	3.9
750	31	2,530	8.9	-8.8	25	6.1
700	31	3,103	5.8	-11.7	25	7.7
650	31	3,703	2.6	-15.2	26	8.6
600	31	4,349	-1.0	-18.1	26	10.9
550	31	5,029	-5.2	-22.0	27	12.0
500	31	5,780	-10.2	-26.5	27	13.3
450	31	6,578	-15.7	-30.7	27	14.9
400	31	7,463	-21.8	-35.9	27	16.3
350	31	8,433	-28.6	-42.1	28	19.9
300	31	9,520	-36.5	-47.3	28	25.0
250	31	10,762	-44.6		28	28.3
200	30	12,229	-53.3		28	30.6
175	30	13,078	-58.7		28	29.5
150	30	14,035	-64.0		28	28.5
125	30	15,135	-70.5		28	25.5
100	29	16,438	-77.0		28	22.2
80	29	17,712	-78.2		27	15.5
70	28	18,480	-75.0		27	10.4
60	28	19,383	-70.9		27	4.3
50	28	20,478	-65.6		08	1.4
40	28	21,847	-61.5		11	1.9
30	28	23,646	-57.5		36	.4
25	27	24,802	-55.6		30	.8
20	27	26,228	-53.4		08	2.4
15	27	28,096	-49.6		13	2.5
10	25	30,764	-47.5		21	4.0
7	21	33,132	-42.4		24	9.3
5	19	35,426	-38.4		25	16.9
4	14	37,001	-34.8		26	19.4
3	10	39,033	-31.6			

LITTLE ROCK, ARK. — 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	79	.6	-2.0	02	1.9
1000	31	195	1.3	-2.1	03	1.9
950	31	610	2.3	-2.3	27	.3
900	31	1,047	3.3	-3.2	26	3.1
850	31	1,510	2.9	-4.2	27	5.2
800	31	2,001	2.1	-5.3	28	6.8
750	31	2,518	-.1	-8.8	27	7.8
700	31	3,072	-2.4	-11.9	27	9.7
650	31	3,654	-5.7	-15.6	27	11.4
600	31	4,281	-9.4	-19.7	27	12.2
550	31	4,944	-13.2	-24.2	27	13.4
500	31	5,670	-17.8	-28.6	27	15.9
450	31	6,442	-23.4	-33.5	27	17.2
400	31	7,302	-29.8	-38.0	26	20.3
350	31	8,240	-36.9	-44.8	26	20.9
300	31	9,290	-44.7		27	23.6
250	31	10,488	-52.9		26	29.0
200	31	11,903	-59.7		27	34.6
175	31	12,736	-60.3		27	31.3
150	31	13,698	-60.0		26	27.2
125	29	14,829	-62.3		26	24.0
100	27	16,193	-65.2		26	18.3
80	22	17,547	-64.5		26	14.0
70	22	18,362	-64.0		27	11.1
60	20	19,309	-63.0		27	8.0
50	19	20,431	-61.3		28	5.2
40	19	21,820	-59.4		30	3.1
30	17	23,625	-57.8		29	2.0
25	16	24,777	-56.9		32	1.9
20	15	26,198	-55.6		01	.3
15	12	28,035	-54.1		30	1.8
10	5	30,676	-51.7			

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	16	103	-20.9	-19.6	01	.3
1000	16	164				
950	16	553	-16.0	-18.4	04	2.2
900	16	957	-14.3	-18.7	05	4.8
850	16	1,391	-14.0	-19.5	04	3.9
800	16	1,851	-15.1	-21.2	02	3.7
750	16	2,334	-16.7	-22.7	36	4.1
700	16	2,853	-19.3	-25.1	33	4.8
650	16	3,396	-22.2	-28.5	33	5.5
600	16	3,986	-25.6	-32.1	32	6.2
550	16	4,603	-29.4	-35.1	30	7.1
500	16	5,286	-33.5	-37.4	30	9.1
450	16	6,011	-38.6	-40.6	30	12.4
400	16	6,817	-43.8		30	13.3
350	16	7,701	-50.0		30	15.1
300	16	8,698	-54.3		30	16.5
250	16	9,860	-56.3		30	17.6
200	16	11,282	-54.3		30	16.7
175	16	12,139	-53.6		29	15.2
150	16	13,131	-53.2		29	15.9
125	16	14,304	-53.5		28	16.3
100	16	15,735	-54.5		28	18.1
80	16	17,161	-55.0		29	19.0
70	16	18,013	-54.8		29	20.3
60	16	19,000	-54.7		29	21.4
50	16	20,166	-55.0		29	21.0
40	15	21,618	-55.1		29	23.2
30	15	23,451	-55.9		30	23.6
25	13	24,651	-55.2		31	22.1
20	11	26,059	-56.2		32	18.4
15	8	27,949	-56.7			

• MAJURO, MARSHALL IS. — 1008 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	28.5	24.3	06	6.0
1000	31	77	27.3	21.4	06	6.9
950	31	521	23.2	17.2	07	9.3
900	31	1,000	20.1	13.6	07	9.4
850	31	1,492	17.5	9.6	08	8.6
800	31	2,009	15.5	4.1	08	7.6
750	31	2,555	14.0	-1.0	08	6.3
700	31	3,134	10.9	-4.0	08	5.7
650	31	3,745	7.4	-8.6	08	5.8
600	31	4,404	3.7	-13.3	08	6.6
550	30	5,101	-.2	-18.4	07	5.8
500	30	5,863	-4.3	-22.4	08	5.7
450	30	6,685	-8.9	-27.2	07	6.8
400	30	7,592	-14.6	-32.8	06	7.5
350	30	8,592	-20.8	-38.6	06	6.1
300	30	9,714	-26.9	-45.6	04	4.1
250	30	10,992	-39.1	-54.2	01	3.4
200	30	12,482	-51.5		04	1.5
175	30	13,335	-56.6		03	1.1
150	30	14,287	-66.4		04	1.9
125	30	15,368	-74.8		04	4.6
100	30	16,038	-83.0		06	7.5
80	30	17,660	-84.4		07	6.6
70	29	18,617	-77.0		29	.4
60	27	19,513	-71.2		27	7.0
50	22	20,603	-66.7		28	7.5
40	16	21,972	-61.5		11	2.5
30	13	23,755	-59.9		09	16.9
25	11	24,892	-57.1			
20	6	26,313	-52.4			

• MARCUS IS., N. PACIFIC — 1013 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	30	9	22.6	16.2	34	1.8
1000	30	125	21.0	13.6	34	.1
950	30	567	16.6	9.8	24	.9
900	30	1,025	13.0	7.4	24	2.6
850	30	1,503	10.3	3.1	25	3.6
800	30	2,007	8.4	-2.2	25	6.9
750	30	2,542	7.5	-8.2	26	10.4
700	30	3,105	5.8	-14.6	27	14.1
650	30	3,711	3.4	-17.0	26	18.0
600	30	4,355	.2	-19.9	27	20.7
550	30	5,044	-3.6	-23.1	27	24.6
500	30	5,796	-7.8	-26.9	27	28.0
450	30	6,607	-12.1	-30.5	27	31.5
400	30	7,501	-17.7	-35.6	27	32.9
350	30	8,498	-24.0	-40.8	27	34.7
300	30	9,596	-31.5	-47.3	28	34.1
250	30	10,662	-40.7	-53.9	28	35.7
200	30	12,346	-51.7		28	37.1
175	30	13,200	-58.0		27	35.3
150	30	14,155	-64.9		27	32.1
125	30	15,247	-72.6		27	28.9
100	30	16,531	-79.9		27	23.0
80	29	17,793	-79.3		27	15.3
70	29	18,554	-76.7		27	9.2
60	27	19,451	-71.6		29	3.7
50	27	20,546	-64.5		09	.8
40	26	21,926	-59.2		09	4.1
30	24	23,751	-55.3		10	3.0
25	24	24,921	-53.0		09	2.7
20	19	26,363	-49.7		22	2.4
15	17	28,254	-47.3			
10	10	30,946	-44.0			

* MEDFORD, OREG. — 973 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	.2	-1.4	15	.4
1000	31	176				
950	31	593	2.1	-.4	15	.8
900	31	1,028	3.1	-2.6	17	3.3
850	31	1,490	1.5	-5.4	20	4.0
800	31	1,977	-.7	-8.7	23	6.1
750	31	2,487	-3.3	-11.2	24	8.5
700	31	3,035	-6.2	-14.7	25	9.9
650	31	3,608	-9.6	-18.4	26	11.0
600	31	4,226	-13.5	-21.9	26	13.0
550	31	4,880	-18.0	-25.7	26	13.8
500	31	5,589	-22.7	-31.3	26	16.2
450	31	6,352	-26.0	-36.4	26	17.9
400	31	7,191	-34.0	-41.8	26	20.4
350	31	8,115	-40.8	-45.1	26	21.2
300	31	9,148	-47.8		26	21.8
250	31	10,333	-54.7		27	21.3
200	31	11,743	-59.6		28	19.0
175	29	12,576	-59.3		28	18.8
150	29	13,546	-58.1		28	16.5
125	29	14,694	-56.7		28	14.7
100	28	16,095	-61.0		28	13.9
80	28	17,462	-60.8		29	10.1
70	28	18,312	-60.8		28	8.5
60	28	19,272	-60.0		28	8.0
50	27	20,408	-59.9		28	7.0
40	27	21,803	-59.7		29	6.2
30	26	23,601	-59.2		28	6.3
25	25	24,734	-59.6		28	5.8
20	25	26,133	-58.7		27	4.6
15	22	27,973	-58.5		30	5.8
10	15	30,525	-57.9		29	10.4
7	10	32,829	-51.7		28	15.4

MERIDA, MEXICO — 1020 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	16.7	15.8	07	2.9
1000	31	177	20.4	16.6	08	6.0
950	31	613	17.7	13.2	09	6.6
900	31	1,080	14.9	9.0	09	4.7
850	31	1,562	12.1	4.9	08	3.6
800	31	2,069	10.6	-2.4	09	2.1
750	31	2,601	8.7	-9.0	13	1.1
700	31	3,174	5.8	-10.8	17	1.1
650	31	3,774	2.2	-14.8	22	1.9
600	31	4,419	-1.2	-19.9	24	2.7
550	31	5,101	-5.2	-23.6	24	4.0
500	31	5,851	-10.3	-27.9	25	6.4
450	31	6,648	-16.2	-31.0	25	8.5
400	31	7,531	-22.3	-37.1	25	10.3
350	31	8,499	-29.4	-42.8	25	11.9
300	31	9,580	-38.4	-50.9	25	13.6
250	31	10,807	-47.8		26	15.3
200	29	12,250	-57.5		25	16.3
175	29	13,086	-61.1		25	16.4
150	29	14,037	-64.3		25	16.8
125	26	15,144	-69.1		25	15.0
100	24	16,456	-73.6		24	15.0
80	21	17,749	-75.9		24	8.2
70	20	18,523	-74.3		25	3.2
60	20	19,431	-70.3		13	1.6
50	20	20,527	-65.2		08	4.1
40	20	21,904	-60.4		09	4.4
30	19	23,716	-56.2		07	6.3
25	19	24,881	-53.6		07	6.9
20	17	26,324	-50.1		06	4.4
15	14	28,208	-46.7		08	3.5
10	7	30,911	-44.1			

MIAMI, FLA. — 1020 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	16.0	13.5	02	1.8
1000	31	174	17.8	14.0	05	3.5
950	31	612	15.3	11.2	07	3.1
900	31	1,070	12.6	7.3	10	2.2
850	31	1,548	9.9	3.7	13	1.7
800	31	2,051	8.1	-3.8	22	1.3
750	31	2,581	6.5	-10.7	27	3.1
700	31	3,146	4.3	-15.2	28	4.3
650	31	3,741	1.1	-18.3	28	5.4
600	31	4,386	-2.7	-22.1	27	7.6
550	31	5,065	-7.0	-25.8	27	8.9
500	31	5,808	-12.0	-30.2	27	10.8
450	31	6,595	-17.8	-34.1	27	14.4
400	31	7,478	-24.2	-39.2	27	17.2
350	31	8,438	-31.4	-44.6	27	20.3
300	31	9,512	-39.9	-52.5	27	22.3
250	31	10,735	-48.8		27	27.2
200	30	12,164	-57.8		27	31.0
175	30	13,003	-59.6		27	30.6
150	30	13,961	-62.7		26	29.5
125	30	15,073	-67.3		26	27.4
100	30	16,403	-72.0		26	22.1
80	30	17,711	-73.4		27	12.5
70	30	18,492	-72.5		27	7.1
60	29	19,405	-69.5		27	3.9
50	29	20,506	-64.9		04	1.6
40	29	21,881	-60.5		04	2.7
30	27	23,691	-56.3		05	4.0
25	27	24,854	-54.2		04	3.3
20	25	26,294	-51.8		04	1.5
15	21	28,161	-48.9		26	2.8
10	8	30,901	-45.2			

MIDLAND, TEXAS — 919 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	2.6	.3	29	1.2
1000	31	187				
950	31	609				
900	31	1,047	5.2	.2	28	1.6
850	31	1,515	6.1	-3.4	26	3.7
800	31	2,011	5.3	-6.1	27	5.2
750	31	2,535	2.7	-8.2	27	7.2
700	31	3,091	-.6	-11.4	27	8.6
650	31	3,678	-4.4	-14.7	26	9.7
600	31	4,307	-7.9	-21.0	26	11.8
550	31	4,976	-12.2	-25.9	26	14.4
500	31	5,700	-16.8	-29.7	26	14.8
450	31	6,476	-22.0	-33.9	25	17.0
400	31	7,340	-28.3	-39.6	25	19.6
350	31	8,284	-35.3	-44.6	25	22.4
300	31	9,339	-43.4		25	25.4
250	31	10,542	-52.5		25	27.8
200	31	11,958	-59.7		26	28.9
175	31	12,790	-61.0		26	26.7
150	31	13,749	-61.0		26	24.4
125	31	14,675	-63.5		26	21.0
100	31	16,235	-66.4		26	17.0
80	29	17,581	-67.0		26	10.7
70	29	18,388	-65.3		26	9.2
60	27	19,332	-63.8		26	6.4
50	26	20,456	-62.0		26	2.2
40	25	21,837	-60.7		35	1.3
30	22	23,635	-56.1		31	.5
25	19	24,781	-57.0		05	.4
20	15	26,192	-55.9		36	1.4
15	12	28,022	-54.1		32	1.0
10	5	30,600	-49.6			

MONTGOMERY, ALA. — 1017 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	61	3.4	.1	04	1.6
1000	31	197	5.5	1.2	07	1.9
950	31	620	5.7	-.1	22	.8
900	31	1,061	5.6	-2.3	26	3.7
850	31	1,528	5.1	-3.8	27	5.5
800	31	2,022	3.7	-5.7	27	7.6
750	31	2,544	2.1	-11.0	27	8.4
700	31	3,100	-.4	-12.8	27	10.9
650	31	3,686	-3.9	-15.0	26	12.7
600	31	4,317	-7.8	-19.0	26	14.0
550	31	4,984	-12.2	-23.4	26	15.6
500	31	5,712	-16.9	-28.2	26	18.3
450	31	6,491	-22.2	-32.5	26	20.9
400	31	7,350	-28.5	-37.4	26	22.2
350	31	8,294	-35.2	-43.2	26	24.8
300	31	9,351	-43.0	-49.4	26	27.4
250	31	10,558	-51.2		27	31.5
200	31	11,982	-56.5		27	33.6
175	31	12,817	-60.2		27	35.9
150	31	13,776	-61.5		26	32.5
125	31	14,900	-63.7		26	28.0
100	31	16,256	-67.2		26	23.1
80	31	17,599	-67.5		26	16.5
70	31	18,403	-66.8		26	12.5
60	31	19,340	-64.8		27	9.0
50	31	20,459	-62.6		28	5.0
40	29	21,843	-60.1		30	3.3
30	29	23,650	-57.5		36	1.5
25	29	24,807	-55.5		02	1.1
20	29	26,235	-53.9		04	1.9
15	28	28,094	-51.5		02	1.6
10	25	30,743	-47.0		26	3.8
7	14	33,145	-43.1			
5	7	35,430	-41.3			

* NANTUCKET, MASS. — 1022 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	14	-2.9	-6.8	33	3.5
1000	31	181	-3.5	-6.5	32	4.3
950	31	585	-4.7	-12.0	30	6.6
900	31	1,011	-5.1	-13.5	30	8.0
850	31	1,460	-5.2	-13.5	29	10.5
800	31	1,936	-5.9	-14.0	29	12.3
750	31	2,439	-7.0	-16.0	28	14.3
700	31	2,977	-9.5	-17.4	28	14.8
650	31	3,543	-12.3	-21.1	28	17.7
600	31	4,155	-15.5	-24.7	28	21.0
550	31	4,805	-19.1	-28.8	28	22.6
500	31	5,511	-23.5	-33.8	28	24.5
450	31	6,267	-28.6	-39.4	28	27.7
400	31	7,107	-34.5	-45.1	28	30.8
350	31	8,027	-41.1	-49.7	28	33.4
300	31	9,058	-48.5		28	34.6
250	31	10,240	-54.6		28	36.8
200	30	11,651	-56.3		28	34.0
175	29	12,496	-55.1		28	32.5
150	29	13,479	-55.6		28	29.5
125	28	14,638	-56.7		28	25.4
100	28	16,047	-58.4		27	20.2
80	28	17,449	-58.6		27	16.0
70	28	18,287	-57.9		28	12.8
60	28	19,262	-57.3		28	10.0
50	27	20,416	-56.3		28	5.7
40	27	21,839	-55.0		26	1.9
30	27	23,682	-53.8		05	.8
25	27	24,856	-53.0		09	2.4
20	26	26,294	-52.5		10	3.5
15	23	28,158	-51.0		08	3.5
10	19	30,802	-49.3		09	1.8
7	16	33,177	-45.3		24	3.7

NASHVILLE, TENN. — 1003 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	180	-1.6	-4.7	04	.9
1000	31	204			07	1.1
950	31	615	-.1	-5.0	24	2.3
900	31	1,048	.6	-5.0	27	3.9
850	31	1,508	.8	-6.2	28	6.1
800	31	1,994	-.2	-8.7	28	7.6
750	31	2,508	-1.9	-10.9	28	8.3
700	31	3,057	-4.2	-13.3	27	10.5
650	31	3,638	-6.7	-16.9	28	12.5
600	31	4,261	-10.4	-20.1	27	15.1
550	31	4,922	-15.0	-25.7	27	16.0
500	31	5,641	-19.5	-30.0	27	18.3
450	31	6,410	-24.7	-33.9	27	19.8
400	31	7,263	-31.0	-38.6	27	21.5
350	31	8,197	-37.6	-43.9	27	25.1
300	31	9,243	-45.4		27	27.0
250	31	10,437	-53.5		27	31.1
200	31	11,849	-59.4		27	31.9
175	31	12,684	-59.7		27	29.6
150	31	13,646	-59.7		27	24.8
125	31	14,782	-62.2		27	23.3
100	30	16,150	-64.4		27	20.1
80	27	17,512	-64.0		27	13.3
70	27	18,329	-63.4		28	9.3
60	25	19,275	-62.2		28	7.2
50	23	20,405	-60.6		31	3.6
40	22	21,799	-59.1		34	1.0
30	22	23,610	-57.0		04	1.7
25	21	24,767	-55.9		07	3.0
20	20	26,186	-55.3		07	1.4
15	19	28,031	-53.0		22	1.1
10	15	30,666	-47.7		27	11.7
7	5	33,054	-41.7			

* NOME, ALASKA — 1020 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	30	5	-12.5	-17.5	08	1.3
1000	30	157	-10.1	-14.7	12	1.7
950	30	553	-9.8	-15.4	19	2.2
900	30	970	-10.8	-17.0	21	1.6
850	30	1,408	-11.8	-19.2	27	2.3
800	30	1,872	-13.3	-21.2	26	3.5
750	30	2,357	-15.4	-23.5	27	4.9
700	30	2,880	-18.1	-25.8	28	5.8
650	30	3,429	-21.1	-28.2	28	7.4
600	30	4,019	-24.2	-32.7	29	8.8
550	30	4,643	-27.9	-36.5	28	10.8
500	30	5,328	-32.1	-37.5	28	12.5
450	30	6,060	-36.8	-42.8	29	13.6
400	30	6,872	-42.1	-45.4	28	14.5
350	30	7,765	-47.6		28	16.2
300	30	8,771	-53.2		28	11.0
250	30	9,935	-56.9		28	11.0
200	29	11,338	-56.4		28	10.9
175	29	12,189	-54.6		28	11.5
150	29	13,177	-54.0		29	11.3
125	29	14,347	-54.2		29	11.6
100	28	15,773	-54.5		30	13.5
80	28	17,201	-54.8		30	15.4
70	28	18,053	-55.1		30	16.2
60	28	19,038	-55.1		30	17.6
50	27	20,196	-54.9		31	18.1
40	27	21,622	-54.5		31	19.5
30	26	23,453	-54.7		31	18.5
25	26	24,619	-55.0		30	17.4
20	25	26,061	-55.8		32	14.8
15	18	27,886	-56.3			
10	10	30,414	-56.3			

See reference note at end of table

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb.)	NORTH PLATTE, NEBR. 921 MB						OAKLAND, CALIF. 1020 MB						OMAHA, NEBR. 974 MB						* PAGO PAGO, AMERICAN SAMOA 1007 MB						* PEORIA, ILL. 1000 MB					
	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	848	-9.9	-13.1	33	.9	31		6	5.5	4.0	14	1.2	31	403	-8.7	-11.9	31	.9	31	5	29.4	24.4	07	2.8	31	200	-7.7	-10.8	18	.2
1000	31	203					31	167	7.8	2.3	13	1.7	31	194					31	69	28.3	22.6	07	3.1	31	196			12	.6
950	31	602					31	591	8.3	-1.0	12	1.3	31	595	-7.1	-11.1	26	2.2	31	516	23.7	18.0	05	4.1	31	598	-5.3	-9.3	27	3.5
900	31	1,023	-4.8	-10.1	31	3.1	31	1,037	7.2	-4.8	22	1.7	31	1,017	-3.3	-11.1	26	4.7	31	993	20.9	14.3	05	4.9	31	1,024	-2.7	-10.6	28	5.8
850	31	1,477	-1.0	-10.2	30	5.1	31	1,505	5.6	-8.3	24	2.9	31	1,471	-2.0	-11.3	26	7.3	31	1,487	16.2	10.7	05	4.8	31	1,478	-2.8	-11.1	28	6.6
800	31	1,962	-1.0	-11.7	29	7.2	31	2,000	3.6	-11.1	25	4.0	31	1,953	-2.6	-11.5	26	8.7	31	2,004	15.7	7.0	05	3.8	31	1,958	-3.7	-13.0	29	8.6
750	31	2,474	-2.6	-14.1	29	8.8	31	2,517	.9	-14.6	27	5.5	31	2,461	-4.2	-13.4	28	10.4	31	2,544	13.1	2.9	05	3.5	31	2,461	-5.1	-15.0	28	10.2
700	31	3,020	-5.7	-16.8	29	9.8	31	3,073	-2.3	-17.1	26	6.3	31	3,006	-6.1	-17.1	28	11.8	31	3,127	10.1	-.8	05	2.9	31	3,007	-7.0	-16.4	28	11.9
650	31	3,592	-8.7	-20.4	29	10.9	31	3,652	-6.0	-20.0	27	7.6	31	3,579	-9.2	-20.8	28	13.9	31	3,733	6.9	-5.0	05	3.6	31	3,580	-9.8	-20.4	28	14.1
600	31	4,215	-12.3	-23.9	29	12.7	31	4,280	-10.0	-23.1	28	9.0	31	4,199	-12.9	-24.6	28	15.7	31	4,394	3.2	-8.4	05	2.9	31	4,197	-13.1	-23.3	28	14.8
550	31	4,869	-16.4	-27.7	29	14.5	31	4,937	-14.3	-26.4	28	10.4	31	4,853	-17.1	-28.3	26	17.7	31	5,089	-.8	-13.1	05	2.3	31	4,849	-16.8	-28.0	28	17.0
500	31	5,586	-21.4	-32.6	29	14.5	31	5,661	-19.3	-30.9	27	11.3	31	5,566	-21.8	-32.8	28	20.0	31	5,851	-4.9	-17.6	05	1.7	31	5,565	-21.7	-32.5	28	18.9
450	31	6,350	-26.7	-37.8	28	16.1	31	6,426	-25.2	-35.8	27	13.3	31	6,326	-27.5	-37.8	28	20.8	31	6,670	-9.9	-22.9	04	1.0	31	6,325	-27.1	-37.3	27	20.7
400	31	7,197	-33.1	-42.5	28	18.3	31	7,280	-31.9	-41.4	27	14.3	31	7,171	-33.8	-43.0	28	23.5	31	7,572	-15.3	-28.3	29	1.2	31	7,170	-33.5	-43.2	27	22.8
350	31	8,122	-40.2	-46.6	28	19.7	31	8,209	-39.3	-43.8	27	15.7	31	8,093	-40.7	-48.2	28	22.3	31	8,568	-22.1	-35.6	29	1.7	31	8,093	-40.5	-49.0	27	24.4
300	31	9,157	-48.1		27	22.2	31	9,246	-47.4		27	17.0	31	9,125	-48.4		28	25.0	31	9,684	-30.5	-43.9	26	2.4	31	9,126	-48.2		27	26.1
250	31	10,337	-56.3		27	22.9	31	10,428	-55.6		28	18.3	31	10,303	-56.3		27	26.4	31	10,953	-40.7	-50.9	23	4.8	31	10,306	-55.6		27	29.2
200	31	11,735	-60.7		27	25.4	31	11,831	-59.9		28	19.0	31	11,704	-59.5		27	25.9	31	12,432	-53.1		24	7.8	31	11,709	-59.6		27	31.2
175	31	12,570	-58.7		27	23.9	31	12,664	-60.1		28	19.7	31	12,541	-58.6		28	24.1	31	13,279	-60.2		23	8.5	31	12,546	-58.6		27	30.4
150	31	13,539	-58.5		27	22.4	30	13,621	-59.5		28	18.1	31	13,511	-58.1		27	22.4	31	14,224	-67.7		24	10.1	31	13,517	-58.3		27	26.7
125	31	14,682	-59.8		27	19.6	30	14,759	-60.6		28	15.6	31	14,653	-59.9		27	20.2	31	15,301	-74.8		24	10.2	31	14,661	-59.6		27	24.7
100	31	16,071	-61.1		27	15.1	29	16,144	-62.7		28	12.8	31	16,040	-61.3		27	15.0	31	16,575	-81.2		24	5.8	30	16,047	-61.2		27	20.0
80	31	17,458	-60.9		27	12.2	29	17,519	-62.2		28	7.3	31	17,426	-60.4		28	11.2	31	17,827	-79.7		12	3.6	29	17,436	-61.2		27	16.3
70	31	18,288	-60.5		27	10.6	26	18,344	-61.5		29	6.2	30	18,256	-60.0		28	8.6	31	18,593	-74.3		10	7.1	29	18,265	-60.6		28	13.8
60	31	19,251	-59.7		27	8.4	25	19,297	-60.6		29	4.2	30	19,218	-59.8		28	6.3	29	19,496	-69.6		09	9.9	29	19,227	-59.8		27	10.6
50	29	20,406	-58.4		27	6.6	24	20,439	-60.0		32	1.5	29	20,363	-59.1		28	4.3	25	20,596	-65.2		09	13.9	29	20,368	-58.9		26	8.5
40	29	21,809	-58.3		28	4.2	23	21,842	-59.2		31	1.2	27	21,772	-58.0		30	2.4	21	21,972	-60.0		09	17.3	29	21,771	-58.1		28	5.7
30	28	23,627	-57.8		27	2.7	22	23,650	-59.0		33	1.6	26	23,589	-57.2		31	.7	20	23,786	-55.8		09	21.9	29	23,586	-57.3		26	3.4
25	27	24,782	-57.4		26	2.1	21	24,790	-58.2		32	2.1	24	24,743	-56.9		18	.9	10	24,959	-53.7				29	24,739	-56.7		23	3.3
20	25	26,205	-56.2		18	.8	20	26,190	-57.4		31	3.6	21	26,169	-56.6		15	2.2	5	26,386	-46.9				28	26,158	-55.2		22	2.5
15	20	28,054	-55.7		16	1.5	18	28,015	-56.4		28	6.9	11	27,995	-55.6										25	28,001	-54.5		16	3.3
10	5	30,626	-56.2				15	30,596	-55.1		28	16.3													21	30,625	-51.3		15	2.2
7							6	32,613	-54.4																17	32,958	-46.6		26	4.4
5																									6	35,217	-42.5			

Standard pressure surface (mb.)	* PITTSBURGH, PA. 980 MB						* PONAPE, CAROLINE IS. 1003 MB						PORTLAND, MAINE 1020 MB						* GUILLAYUTE, WASH. 1007 MB						HAPIL CITY, S. DAK. 905 MB					
	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	359	-6.6	-10.9	23	1.1	31	39	27.9	23.6	07	5.0	31	20	-10.9	-16.5	31	2.4	31	58	3.9	2.8	14	2.0	31	966	-6.7	-13.2	32	1.5
1000	31	201					31	67	27.5	22.8	07	5.9	31	172	-8.4	-15.3	31	2.8	31	115			14	2.7	31	182				
950	31	605	-5.2	-10.2	25	3.4	31	513	23.4	18.0	07	5.7	31	572	-8.0	-14.8	30	4.6	31	529	2.4	-.7	17	6.8	31	567				
900	31	1,028	-5.4	-11.9	27	5.1	31	991	20.4	14.5	08	10.9	31	991	-8.3	-16.4	30	6.2	31	967	.1	-3.4	20	8.6	31	1,013			31	1.9
850	31	1,477	-4.6	-13.4	28	6.8	31	1,483	17.9	10.0	08	10.8	31	1,435	-8.7	-19.5	30	7.7	31	1,423	-2.0	-7.2	21	9.5	31	1,466	-1.3	-11.1	31	5.8
800	31	1,954	-5.1	-14.1	27	9.4	31	2,002	16.3	4.9	08	8.6	31	1,904	-9.5	-19.5	28	9.9	31	1,904	-4.1	-9.5	23	9.9	31	1,948	-3.4	-12.6	30	8.1
750	31	2,464	-6.0	-15.2	28	10.9	31	2,546	13.6	.8	08	7.7	31	2,399	-10.7	-19.9	28	12.1	31	2,410	-7.0	-13.7	24	10.3	31	2,452	-5.5	-15.1	30	10.0
700	31	3,000	-7.6	-16.8	28	12.5	31	3,128	10.5	-3.3	09	7.3	31	2,931	-12.5	-21.4	28	14.2	31	2,946	-10.1	-17.3	25	11.4	31	2,995	-8.0	-17.2	30	11.4
650	31	3,571	-10.0	-19.4	28	15.4	31	3,740	7.4	-6.7	09	8.4	31	3,493	-15.1	-23.2	28	15.6	31	3,509	-13.7	-21.2	25	13.0	31	3,561	-10.8	-21.2	29	12.0
600	31	4,187	-12.7	-22.7	28	18.3	31	4,398	4.2	-13.5	09	9.6	31	4,096	-18.3	-27.1	28	17.8	31	4,116	-17.9	-25.2	25	13.4	31	4,179	-14.3	-25.4	29	13.7
550	31	4,842	-17.0	-26.5	28	19.4	31	5,096	.4	-18.2	08	9.8	31	4,735	-22.0	-31.5	28	19.4	31	4,757	-22.1	-30.5	26	14.3	31	4,827	-18.6	-29.6	29	16.1
500	31	5,552	-21.5	-31.0	28	22.1	31	5,861	-3.8	-22.5	08	11.3	31	5,437	-26.1	-35.8	28	21.8	31	5,458	-26.6	-34.0	26	16.0	31	5,537	-23.3	-33.4	29	17.8
450	31	6,315	-27.2	-37.1	28	25.0	31	6,682	-6.6	-27.4	08	12.3	31	6,182	-30.9	-40.6	28	23.6	31	6,205	-31.6	-38.1	27	16.8	31	6,291	-28.4	-37.7	28	16.6
400	31	7,158	-33.4	-42.5	26	27.7	31	7,590	-14.3	-32.5	08	11.5	31	7,020	-36.8	-45.1	28	25.3	31	7,035	-37.3	-41.3	27	18.4	31	7,130	-35.5	-43.3	28	20.3
350	31	8,082	-40.2	-48.5	28	33.6	31	8,590	-20.9	-36.4	08	8.6	31	7,933	-42.7		28	28.9	31	7,946	-43.1	-42.9	27	20.4	31	8,046	-42.4	-47.7	28	21.7
300	31	9,117	-47.7		26	36.1	31	9,711	-29.1	-45.3	08	7.5	31	8,958	-49.3		28	30.3	31	8,970	-49.4		28	22.6	31	9,072	-49.5		28	21.9
250	31	10,300	-54.8		28	35.8	31	10,988	-39.4	-53.9	10	5.7	31	10,137	-54.7		28	30.2	31	10,150	-54.6		28	24.9	31	10,246	-56.9		28	24.7
200	31	11,711	-58.2		28	35.1	31	12,475	-51.8		12	5.3	31	11,559	-55.0		27	28.4	28	11,566	-57.0		28	21.7	31	11,641	-61.0		28	23.5
175	31	12,552	-57.6		28	31.4	31	13,327	-58.7		12	4.4	31	12,413	-54.1		27	26.9	26	12,404	-56.5		29	18.9	31	12,476	-58.7		27	23.0
150	31	13,526	-57.3		28	28.5	31	14,278	-66.3		11	4.4	31	13,402	-53.8		27	23.7	26	13,383	-56.2		29	18.0	31	13,446	-58.0		28	21.4
125	30	14,676	-59.0		26	23.9	31	15,360	-74.6		09	8.3	31	14,566	-55.4		27	21.1	23	14,535	-56.8		29	16.1	31	14,594	-59.0		28	16.5
100	28	16,070	-60.2		26	19.0	30	16,628	-83.3		06	12.5	31	15,985	-57.1		27	18.0	21	15,944	-57.3		29	13.7	31	15,989	-60.3		27	15.0
80	25	17,452	-59.9		26	13.8	30	17,864	-81.5		10	7.2	31	17,398	-56.6		27	14.3	18	17,349	-57.6		29	12.2	30	17,387	-59.8		26	13.1
70	25	18,285	-59.2		28	11.0	29	18,627	-74.5		22	1.2	31	18,244	-56.5		27	11.5	16	18,211	-56.8		29	10.5	30	18,223	-59.2		27	11.8
60	25	19,252	-58.4		28	9.2	27	19,534	-69.8		28	6.7	30	19,228	-55.6		28	8.0	14	19,150	-54.7		30	8.5	30	19,191	-58.6		27	10.2
50	23	20,399	-58.6		27	6.5	25	20,632	-65.6		28	6.1	30	20,391	-55.1		28	6.5	13	20,322	-56.5		31	6.7	29	20,341	-58.7		27	8.6
40	23	21,805	-57.1		27	4.0	19	21,993	-61.6		07	3.4	30	21,818	-54.4		27	2.8	11	21,720	-57.9				28	21,746	-58.2		27	7.1
30	20	23,627	-56.2		29	1.9	14	23,782	-59.3		09	19.0	29	23,665	-54.1		26	.9	11	23,530	-59.3		31	4.6	24	23,552	-58.4		25	5.5
25	18	24,792	-55.8		32	.6	12	24,924	-56.4		09	24.4	29	24,836	-53.5		14	.4	11	24,673	-58.6		35	3.3	19	24,703	-57.7		23	4.5
20	17	26,209	-55.1		09	1.5	8	26,352	-51.1				29	26,275	-52.6		11	2.3	11	26,079	-57.8				13	26,109	-56.5			
15	17	28,051	-53.3		14	1.2							29	28,135	-51.6		10	3.6	6	27,950	-59.0				5	27,953	-56.0			
10	16	30,681	-50.3		20	1.7							23	30,787	-49.8		17	1.7	5	30,457	-58.3									
7	13	33,034	-45.7		25	8.3							17	33,132	-46.7		23	2.2												
5	5	35,276	-41.0										11	35,357	-44.0															

Standard pressure surface (mb.)	ST CLOUD, MINN. 983 MB						* ST PAUL IS., ALASKA 1016 MB						SALEM, OREG. 1011 MB						SALT LAKE CITY, UTAH 876 MB						SAN DIEGO, CALIF. 1004 MB					
	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	316	-13.7	-17.7	22	.7	29	10	-.9	-3.1	16	2.0	31	61	3.5	1.6	16	2.6	31	1,288	-7.2	-11.4	17	2.1	31	124	7.7	3.7	06	1.3
1000	31	186					29	137	-.7	-3.7	16	3.5	31	148			19	3.0	31	23					31	155	9.6	3.4	06	1.3
950	31	581	-12.1	-15.0	20	1.9	29	544	-2.8	-7.0	19	3.8	31	568	4.1	.4	21	7.4	31	044					31	584	11.9	-.9	06	.7
900	31	993	-8.9	-14.3	25	4.5	29	973	-4.2	-9.9	20	4.4	31	1,004	2.2	-3.1	22	8.9	31	1,070					31	1,036	9.9	-5.3	33	.5
850	31	1,438	-6.8	-15.3	27	7.0	29	1,422	-6.1	-12.3	21	4.0	31	1,464	.1	-6.5	23	9.7	31	1,521	-6.8	-9.7	16	3.1	31	1,509	7.8	-6.4	32	1.1
800	31	1,911	-6.7	-16.5	28	9.5	29	1,895	-8.3	-16.1	22	3.6	31	1,947	-2.4	-9.5	24	10.8	31	2,003	-1.7	-11.0	19	4.9	31	2,007	5.2	-11.0	29	1.6
750	31	2,415	-8.4	-18.3	28	11.3	29	2,393	-11.1	-19.2	23	4.1	31	2,455	-5.4	-12.3	25	11.3	31	2,514	-3.6	-12.4	22	4.6	31	2,530	3.1	-15.4	29	2.9
700	31	2,948	-10.5	-19.8	28	12.6	29	2,921	-13.6	-22.2	24	4.2	31	2,995	-8.7	-16.6	25	12.2	31	3,055	-6.3	-14.6	25	5.4	31	3,089	.5	-16.6	28	4.4
650	31	3,514	-13.4	-22.9	26	14.4	29	3,480	-16.9	-26.3	25	5.8	31	3,560	-12.0	-21.3	26	13.4	31	3,632	-9.2	-18.3	27	7.5	31	3,674	-2.7	-21.3	28	5.5
600	31	4,122	-16.9	-26.4	28	16.0	29	4,078	-20.4	-29.8	25	5.7	31	4,174	-15.8	-24.6	26	14.7	31	4,250	-12.5	-22.1	26	9.0	31	4,310	-7.1	-24.1	27	7.2
550	31	4,766	-21.0	-29.2	28	18.0	29	4,717	-23.9	-33.2	25	6.7	31	4,816	-20.0	-28.6	26	16.1	31	4,907	-16.7	-26.2	26	9.9	31	4,975	-11.7	-28.1	27	7.3
500	31	5,469	-25.6	-33.8	28	19.8	29	5,409	-28.2	-37.0	25	6.8	31	5,525	-24.6	-32.8	26	17.4	31	5,618	-21.5	-30.2	27	12.6	31	5,707	-16.8	-31.2	28	9.5
450	31	6,218	-30.9	-36.3	28	21.4	29	6,154	-33.4	-39.7	25	6.9	31	6,279	-29.9	-36.7	26	19.3	31	6,381	-27.0	-35.6	27	13.9	31	6,484	-22.8	-35.3	28	10.5
400	31	7,052	-36.6	-41.3	28	23.3	29	6,975	-38.7	-43.9	25	7.8	31	7,113	-35.6	-40.4	27	20.7	31	7,225	-33.5	-40.5	27	13.4	31	7,344	-29.5	-40.4	28	11.4
350	31	7,965	-42.7	-47.8	28	25.4	29	7,880	-44.8		26	9.5	31	8,030	-41.8	-45.8	27	20.5	31	8,147	-46.9	-45.3	28	13.6	31	8,283	-36.7	-45.2	28	13.9
300	31	8,991	-49.5		28	26.9	29	8,897	-51.3		26	9.2	31	9,059	-48.2		27	20.7	31	9,175	-48.7		28	14.8	31	9,333	-44.7		28	16.7
250	31	10,166	-56.2		28	27.9	29	10,066	-56.7		27	10.6	30	10,247	-54.4		27	21.3	31	10,356	-56.3		28	17.2	31	10,531	-53.0		28	21.0
200	30	11,565	-58.7		28	26.6	29	11,477	-56.8		27	10.6	29	11,655	-56.2		27	21.8	31	11,755	-60.7		28	18.3	31	11,946	-59.7		28	23.9
175	30	12,408	-56.7		28	25.1	29	12,327	-54.6		27	9.8	29	12,495	-58.4		28	18.9	31	12,587	-59.6		28	19.5	31	12,776	-60.6		28	22.7
150	30	13,387	-56.0		28	22.8	29	13,318	-53.6		27	9.1	29	13,466	-57.6		28	18.1	31	13,550	-59.7		28	17.8	30	13,735	-60.8		27	20.6
125	30	14,545	-57.0		28	21.6	29	14,493	-53.0		27	9.5	29	14,615	-58.6		28	16.2	31	14,690	-60.2		27	17.0	30	14,884	-63.0		27	18.8
100	30	15,953	-58.4		28	18.2	29	15,927	-54.1		27	8.7	29	16,018	-59.3		27	15.9	29	16,070	-62.2		27	14.2	30	16,228	-65.5		27	14.3
80	30	17,354	-58.9		28	15.4	29	17,361	-53.7		28	7.6	29	17,411	-59.9		28	12.7	29	17,450	-61.5		27	12.3	29	17,582	-65.5		27	6.4
70	30	18,192	-58.1		27	14.6	29	18,219	-53.8		29	6.0	29	18,244	-59.7		28	11.7	29	18,277	-60.9		27	10.1	29	18,396	-64.4		27	6.8
60	30	19,165	-57.7		27	12.6	29	19,206	-54.2		30	6.8	29	19,208	-59.0		28	9.5	29	19,238	-60.8		27	9.2	29	19,341	-62.7		27	4.2
50	30	20,316	-57.6		27	9.9	29	20,376	-54.1		31	7.7	29	20,350	-59.5		27	9.2	26	20,369	-59.9		27	7.4	29	20,469	-61.1		27	3.3
40	30	21,725	-57.3		26	9.6	29	21,807	-54.3		32	7.8	28	21,738	-60.0		27	8.6	28	21,765	-59.2		26	6.5	28	21,863	-59.5		28	1.4
30	26	23,543	-56.7		26	9.3	29	23,649	-54.5		33	8.2	26	23,553	-59.0		26	8.0	26	23,576	-59.1		26	6.1	27	23,663	-58.7		28	1.7
25	26	24,698	-56.7		26	5.9	29	24,815	-55.0		34	9.8	26	24,697	-58.7		26	7.3	24	24,709	-58.6		25	7.6	26	24,811	-57.4		23	.8
20	27	26,111	-56.7		22	3.8	26	26,245	-55.3		35	11.2	25	26,098	-58.3		26	5.5	20	26,102	-58.0		27	7.0	25	26,228	-55.8		26	3.3
15	25	27,964	-55.5		21	4.1	24	28,064	-56.7		35	9.0	16	27,949	-56.2		28	6.0	14	27,922	-58.2		29	7.7	21	28,070	-53.4		26	6.7
10	11	30,604	-52.8				20	30,629	-55.6		35	7.2	6	30,446	-56.8				7	30,499	-54.8				9	30,709	-49.8			
7							17	32,986	-55.6		27	10.6																		
5							7	35,063	-57.4																					

See reference note at end of table

RAWINSONDE DATA

Average monthly values

JANUARY 1968

SAN JUAN, P. R. — 1017 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	6	22.2	18.4	07	2.2
1000	31	151	22.2	17.6	07	5.0
950	31	591	19.0	14.8	07	7.2
900	31	1,058	15.6	11.2	07	7.5
850	31	1,541	12.4	7.5	07	7.3
800	31	2,047	9.7	1.1	07	6.0
750	31	2,581	9.0	-7.0	06	5.1
700	31	3,152	6.8	-11.6	06	3.7
650	31	3,756	4.1	-16.1	03	2.9
600	31	4,404	.6	-20.1	36	3.2
550	31	5,090	-3.6	-23.6	33	4.0
500	31	5,844	-8.6	-27.5	31	5.0
450	31	6,645	-14.6	-32.4	31	6.1
400	31	7,533	-21.4	-37.9	30	8.3
350	31	8,504	-28.4	-43.1	30	12.4
300	31	9,592	-36.1	-50.0	29	18.2
250	31	10,835	-44.6		27	24.4
200	31	12,294	-54.4		27	29.4
175	31	13,140	-59.0		27	29.6
150	31	14,094	-64.3		28	26.9
125	31	15,193	-70.1		28	19.8
100	31	16,498	-76.2		29	12.4
80	31	17,773	-78.9		31	5.4
70	31	18,535	-77.1		34	2.4
60	30	19,429	-71.9		04	2.0
50	30	20,523	-64.8		04	1.5
40	30	21,903	-59.2		06	3.4
30	30	23,724	-55.1		08	4.9
25	30	24,893	-53.0		09	6.4
20	30	26,340	-50.0		10	8.9
15	28	28,236	-47.0		11	7.6
10	22	30,949	-42.3		10	4.3
7	8	33,338	-39.2			
5						

SAN NICOLAS, CALIF. — 998 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	30	174	11.3	6.6	31	2.4
1000	30	156				
950	30	588	12.2	-2.5	31	1.6
900	30	1,038	9.4	-5.4	30	1.3
850	30	1,510	7.5	-9.0	30	1.7
800	30	2,007	5.1	-13.8	30	2.2
750	30	2,531	2.6	-15.9	28	3.1
700	30	3,086	-.2	-17.3	28	4.7
650	30	3,675	-3.6	-22.4	28	5.8
600	30	4,303	-7.6	-26.9	28	6.8
550	30	4,974	-12.3	-27.7	28	7.2
500	30	5,694	-17.9	-32.9	28	8.1
450	30	6,473	-24.0	-37.6	28	9.7
400	30	7,322	-30.4	-41.5	28	12.0
350	30	8,257	-37.7	-47.6	28	14.3
300	30	9,301	-46.0	-55.2	28	16.6
250	30	10,491	-54.3	-62.8	28	20.7
200	30	11,899	-60.1	-67.7	28	24.4
175	30	12,731	-60.5	-68.8	28	22.6
150	29	13,691	-60.9		28	20.8
125	29	14,818	-63.7		27	18.4
100	29	16,177	-66.2		28	14.7
80	28	17,525	-65.4		27	7.9
70	28	18,340	-64.3		27	5.8
60	28	19,286	-62.8		27	5.1
50	28	20,414	-61.0		27	3.6
40	28	21,605	-59.7		26	2.3
30	28	23,608	-58.7		27	3.4
25	27	24,757	-57.6		24	2.2
20	27	26,173	-55.6		25	4.6
15	26	28,020	-53.2		27	11.6
10	19	30,647	-50.3		27	19.8
7	12	32,990	-45.3			
5						

* SAULT STE MARIE, MICH. — 996 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	221	-13.1	-16.1	07	1.2
1000	31	192				
950	31	584	-11.7	-15.1	17	1.3
900	31	998	-10.9	-16.4	25	3.0
850	31	1,438	-10.7	-18.0	27	5.4
800	31	1,904	-11.2	-20.3	28	7.4
750	31	2,401	-12.3	-21.8	28	9.5
700	31	2,924	-14.0	-23.6	28	11.5
650	31	3,484	-16.3	-25.2	28	13.8
600	31	4,083	-19.2	-27.0	29	16.5
550	31	4,722	-23.0	-30.6	29	18.9
500	31	5,418	-27.4	-33.1	28	21.6
450	31	6,165	-32.6	-38.0	28	23.4
400	31	6,988	-38.3	-42.8	26	26.0
350	31	7,895	-44.2		28	29.6
300	31	8,914	-50.8		28	31.7
250	31	10,086	-55.5		28	33.5
200	31	11,503	-56.0		28	30.2
175	31	12,356	-54.7		28	27.5
150	31	13,344	-53.9		28	26.6
125	31	14,512	-54.9		28	23.7
100	31	15,933	-56.2		28	20.1
80	30	17,349	-56.4		27	16.5
70	30	18,195	-56.5		27	15.0
60	30	19,174	-56.2		27	13.1
50	30	20,333	-56.0		27	11.7
40	30	21,754	-55.5		26	8.0
30	29	23,589	-55.1		24	7.1
25	29	24,755	-54.5		22	6.8
20	28	26,182	-54.0		21	7.0
15	28	28,032	-52.7		20	9.1
10	26	30,650	-50.5		20	9.8
7	20	32,970	-47.7		22	10.3
5	12	35,231	-44.5		26	9.9

* SHEMYA, ALASKA — 1002 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	38	.8	-.9	17	5.4
1000	31	50			15	4.2
950	31	457	-2.2	-4.3	17	6.9
900	31	888	-4.6	-7.5	18	7.1
850	31	1,336	-6.2	-11.1	18	7.3
800	31	1,809	-8.3	-15.5	18	8.0
750	31	2,309	-10.3	-19.2	19	8.1
700	31	2,837	-12.9	-23.6	19	8.3
650	31	3,395	-16.1	-27.0	19	9.1
600	31	3,997	-19.9	-30.2	19	9.4
550	31	4,630	-24.4	-34.7	19	9.9
500	31	5,325	-29.1	-38.1	18	11.3
450	31	6,065	-34.1	-42.0	18	11.6
400	30	6,893	-39.3	-46.0	17	12.0
350	30	7,796	-45.1		19	11.2
300	30	8,812	-50.9		19	12.4
250	30	9,983	-55.7		20	11.6
200	30	11,403	-54.8		20	10.7
175	30	12,261	-52.4		21	9.8
150	30	13,259	-51.5		21	9.7
125	30	14,443	-51.6		22	9.2
100	30	15,889	-51.6		21	7.5
80	30	17,336	-51.7		22	5.6
70	30	18,201	-51.9		22	5.5
60	30	19,200	-51.9		23	4.8
50	30	20,381	-52.2		21	2.9
40	30	21,825	-52.2		19	3.2
30	30	23,682	-53.2		16	3.1
25	28	24,855	-53.9		14	2.6
20	27	26,295	-54.8		12	3.4
15	26	28,135	-56.1		12	5.6
10	22	30,706	-57.6		16	5.0
7	12	32,955	-57.9			
5	8	35,107	-59.5			

* SHREVEPORT, LA. — 1014 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	4.3	2.1	09	.7
1000	31	189	4.8	2.3	11	1.5
950	31	617	5.8	1.4	18	2.9
900	31	1,052	6.3	-.7	23	2.9
850	31	1,521	5.2	-3.2	26	3.9
800	31	2,016	4.2	-5.0	27	6.5
750	31	2,538	1.6	-7.4	27	8.3
700	31	3,092	-1.3	-10.6	26	9.6
650	31	3,682	-4.5	-15.6	26	10.9
600	31	4,307	-8.1	-19.9	26	12.8
550	31	4,976	-12.3	-24.1	26	14.1
500	31	5,700	-17.0	-27.9	26	16.8
450	31	6,480	-22.7	-32.4	27	18.3
400	31	7,338	-29.0	-38.3	27	19.6
350	31	8,280	-35.9	-42.9	26	22.4
300	31	9,334	-43.9		26	26.3
250	31	10,535	-52.7		26	28.7
200	30	11,946	-59.6		26	35.2
175	30	12,779	-60.4		26	31.4
150	30	13,738	-61.1		26	27.6
125	30	14,862	-64.0		26	24.4
100	30	16,220	-66.5		26	21.6
80	28	17,563	-67.0		26	14.3
70	25	18,369	-65.5		27	8.3
60	24	19,308	-64.0		27	6.6
50	23	20,429	-62.3		28	3.5
40	23	21,813	-60.5		31	1.1
30	22	23,615	-58.4		04	1.7
25	22	24,763	-57.4		04	1.9
20	22	26,179	-55.7		04	2.3
15	21	28,023	-53.0		32	2.6
10	19	30,664	-48.3		28	7.1
7	11	33,023	-44.1		26	9.6
5						

SPOKANE, WASH. — 933 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	717	-3.0	-6.0	17	2.0
1000	31	160				
950	31	567				
900	31	999	-2.2	-6.5	20	5.1
850	31	1,452	-3.3	-9.2	22	7.4
800	31	1,931	-4.9	-11.4	24	9.1
750	31	2,430	-7.6	-13.9	25	10.6
700	31	2,971	-10.6	-16.3	25	12.1
650	31	3,530	-13.9	-19.9	25	13.6
600	31	4,141	-17.7	-23.8	25	14.2
550	31	4,778	-22.1	-28.8	26	15.5
500	31	5,480	-27.0	-32.7	26	16.0
450	31	6,222	-32.0	-34.8	26	18.2
400	31	7,054	-37.4	-37.2	27	21.1
350	31	7,965	-43.0	-43.2	27	23.8
300	31	8,991	-49.0		27	25.2
250	31	10,173	-54.4		27	25.6
200	31	11,587	-58.1		28	24.8
175	31	12,429	-57.3		28	23.8
150	31	13,405	-56.7		28	20.4
125	31	14,559	-57.5		27	19.2
100	31	15,965	-58.7		28	17.4
80	31	17,365	-59.3		28	15.5
70	30	18,212	-59.2		27	13.7
60	30	19,178	-58.7		27	12.8
50	30	20,324	-58.5		27	11.1
40	29	21,722	-58.7		26	12.1
30	26	23,540	-58.9		26	11.0
25	22	24,722	-57.3		26	8.1
20	20	26,120	-57.6		26	9.9
15	13	27,896	-59.2		26	12.6
10	6	30,566	-55.5			
7						

* SWAN ISLAND, W. I. — 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	10	24.4	19.5	05	5.1
1000	31	139	23.5	18.6	05	6.8
950	31	587	20.0	16.1	06	8.0
900	31	1,051	16.6	12.7	07	7.7
850	31	1,537	13.5	9.1	07	7.0
800	31	2,046	11.0	2.8	08	5.9
750	31	2,589	9.3	-2.6	08	5.2
700	31	3,154	6.8	-7.1	09	4.8
650	31	3,756	4.2	-12.5	10	4.6
600	31	4,407	.4	-16.3	11	2.9
550	31	5,093	-3.8	-20.1	16	2.6
500	31	5,846	-8.6	-25.1	21	2.6
450	31	6,651	-14.4	-30.3	24	3.6
400	30	7,535	-20.9	-36.3	25	7.4
350	30	8,507	-28.4	-41.9	26	11.1
300	30	9,592	-37.0	-48.8	26	13.8
250	30	10,828	-46.8		26	16.6
200	29	12,279	-56.1		25	21.1
175	29	13,116	-60.1		25	22.6
150	29	14,070	-65.0		25	23.2
125	27	15,169	-70.1		25	18.7
100	26	16,477	-76.3		25	12.4
80	22	17,758	-79.0		23	5.1
70	21	18,515	-77.6		20	2.3
60	21	19,409	-73.3		12	1.5
50	21	20,490	-67.8		10	2.2
40	20	21,851	-62.0		10	2.3
30	20	23,648	-57.1		07	5.7
25	20	24,806	-55.3		08	8.1
20	20	26,237	-52.6		09	10.4
15	18	28,122	-47.7		09	10.4
10	16	30,813	-45.5		10	7.0
7	10	33,212	-40.4			

TAMPA, FLA. — 1021 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	8	11.5	9.6	06	2.1
1000	31	185	13.9	9.4	07	3.5
950	31	617	12.5	8.1	12	1.1
900	31	1,071	10.7	4.7	24	2.6
850	31	1,546	8.5	.6	25	4.1
800	31	2,045	6.6	-5.8	25	4.8
750	31	2,575	5.4	-11.4	27	5.7
700	31	3,136	3.0	-14.2	27	7.5
650	31	3,734	.0	-18.2	27	8.9
600	31	4,370	-3.9	-21.9	27	11.5
550	31	5,045	-8.3	-25.4	26	12.9
500	31	5,785	-13.2	-29.8	26	14.9
450	31	6,578	-19.1	-33.6	26	17.5
400	31	7,446	-25.4	-38.4	26	20.5
350	31	8,402	-32.3	-45.4	26	22.9
300	31	9,471	-40.6	-52.1	26	26.6
250	31	10,690	-49.6		26	29.8
200	31	12,123	-56.0		26	33.9
175	30	12,954	-60.3		26	33.6
150	30	13,913	-61.4		26	30.8
125	30	15,033	-65.5		26	28.1
100	30	16,375	-69.9		26	24.3
80	30	17,698	-71.1		26	15.7
70	30	18,489	-70.2		26	10.4
60	30	19,410	-67.8		28	5.2
50	30	20,515	-64.4		31	1.9
40	28	21,891	-60.6		04	3.5
30	25	23,697	-56.7		04	4.2
25	25	24,858	-54.6		04	3.3
20	23	26,289	-52.7		03	2.6
15	20	28,158	-50.1		12	.2
10	8	30,832	-46.6			
7						

TOPEKA, KANS. — 991 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	269	-5.7	-8.7	26	.5
1000	31	199				
950	31	609	-3.8	-7.9	25	2.9
900	31	1,034	-.6	-7.1	25	6.0
850	31	1,491	-.7	-8.4	26	8.1
800	31	1,976	-1.0	-9.9	27	8.1
750	31	2,487	-2.7	-12.6	28	8.6
700	31	3,035	-5.0	-15.3	28	9.8
650	31	3,608	-8.1	-20.0	27	11.3
600	31	4,233	-11.4	-22.9	27	13.1
550	31	4,890	-15.3	-27.7	27	13.6
500	31	5,610	-20.3	-31.6	27	14.6
450	31	6,377	-26.1	-37.0	27	16.3
400	31	7,223	-32.7	-42.4	27	18.1
350	31	8,150	-39.9	-47.2	27	19.9
300	31	9,187	-47.4		27	20.0
250	31	10,371	-55.1		27	24.3
200	31	11,776	-59.9		27	22.5
175	31	12,610	-59.4		27	22.2
150	31	13,577	-59.1		27	21.8
125	31	14,716	-61.0		27	18.0
100	31	16,096	-62.6		27	15.4
80	31	17,472	-62.2		27	13.0
70	31	18,298	-61.4		27	10.9
60	31	19,256	-61.1		28	6.5
50	31	20,391	-60.0		28	5.9
40	31	21,786	-58.7		28	4.2
30	30	23,600	-57.6		28	2.2
25	27	24,743	-57.4		26	3.4
20	25	26,153	-56.4		25	6.4
15	23	27,984	-54.1		25	9.7
10	16	30,593	-51.7			
7						

* TRUK, CAROLINE 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	2	28.1	23.9	05	5.0
1000	31	78	27.3	22.6	06	6.2
950	31	525	23.3	18.0	07	10.6
900	31	1,002	20.3	14.1	08	11.0
850	31	1,495	17.7	9.0	08	9.9
800	31	2,012	15.5	4.6	09	9.0
750	31	2,558	13.4	.2	09	8.4
700	31	3,137	10.4	-3.1	09	8.3
650	31	3,749	7.2	-7.5	09	9.7
600	31	4,406	3.4	-12.1	09	11.1
550	31	5,102	-.3	-17.4	09	11.0
500	31	5,866	-4.4	-22.5	09	11.3
450	31	6,686	-9.5	-27.4	09	11.2
400	31	7,592	-14.8	-32.4	09	10.7
350	31	8,591	-21.4	-38.7	09	9.5
300	31	9,710	-29.7	-45.3	11	7.4
250	31	10,982	-40.2	-53.4	11	6.0
200	31	12,465	-52.5		13	5.5
175	30	13,314	-59.8		12	5.3
150	30	14,260	-67.7		12	6.0
125	30	15,334	-76.4		10	8.9
100	30	16,590	-85.2		10	14.6
80	29	17,819	-82.4		10	9.2
70	29	18,576	-76.4		20	.6
60	28	19,479	-71.2		27	6.0
50	27	20,569	-66.4		27	6.8
40	27	21,935	-61.9		11	1.0
30	22	23,721	-59.7		09	17.0
25	16	24,866	-57.2		09	22.7
20	13	26,290	-53.5		09	26.2
15	8	28,140	-49.0			
10						
7						

* TUCSON, ARIZ. — 928 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	789	6.2	.6	14	3.3
1000	31	167				
950	31	589				
900	31	1,039	10.1	.3	14	4.2
850	31	1,513	8.1	-2.7	15	3.3
800	31	2,012	5.3	-6.5	18	2.9
750	31	2,532	2.5	-11.5	24	3.1
700	31	3,092	.0	-15.5	26	5.0
650	31	3,678	-3.4	-19.2	27	5.9
600	31	4,312	-7.1	-23.1	26	7.5
550	31	4,979	-11.7	-27.0	27	8.5
500	31	5,710	-16.8	-30.2	27	9.7
450	31	6,483	-22.8	-35.5	27	11.4
400	31	7,346	-29.2	-40.9	27	13.5
350	31	8,286	-36.2	-47.1	27	15.5
300	31	9,338	-44.2		27	19.0
250	31	10,536	-52.9		27	21.8
200	31	11,951	-59.1		27	24.5
175	31	12,785	-60.3		27	24.4
150	31	13,744	-61.0		27	22.6
125	31	14,870	-63.0		27	20.0
100	31	16,234	-66.0		26	16.2
80	31	17,585	-65.9		26	12.2
70	31	18,396	-64.5		27	9.5
60	31	19,341	-63.2		26	7.3
50	31	20,467	-61.4		25	5.0
40	31	21,856	-60.1		26	2.5
30	31	23,658	-58.4		26	1.8
25	31	24,806	-57.8		26	2.6
20	31	26,220	-55.7		25	2.6
15	29	28,059	-53.1		28	7.6
10	28	30,697	-49.2		27	14.5
7	18	33,051	-46.6		26	24.7
5	11	35,317	-41.6		26	32.5
4						

* VANDENBERG AFB, CALIF. — 1008 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	30	100	6.5	3.8	10	1.3
1000	30	163	10.5	4.2	08	1.4
950	30	595	11.6	-3.5	07	.7
900	30	1,043	9.4	-6.0	31	.3
850	30	1,515	7.2	-10.6	29	1.7
800	30	2,011	5.0	-15.6	30	2.0
750	30	2,534	2.6	-18.8	29	3.1
700	30	3,090	-.5	-21.4	29	3.9
650	30	3,676	-3.4	-23.1	29	4.9
600	30	4,307	-7.6	-26.4	29	7.1
550	30	4,973	-12.3	-30.2	26	7.7
500	30	5,700	-17.6	-33.9	28	8.4
450	30	6,471	-23.7	-38.2	28	9.3
400	30	7,328	-30.6	-43.1	26	11.4
350	29	8,264	-37.7	-45.6	26	12.1
300	29	9,309	-46.1		29	14.8
250	29	10,497	-54.9		29	16.3
200	29	11,902	-60.4		28	20.5
175	29	12,734	-60.4		28	20.1
150	29	13,694	-60.8		27	19.1
125	29	14,824	-62.5		26	16.2
100	29	16,191	-65.2		27	13.2
80	29	17,552	-64.4		28	8.8
70	29	18,369	-63.4		26	7.3
60	29	19,318	-62.1		28	4.6
50	28	20,448	-60.9		29	2.6
40	24	21,836	-60.2		30	2.6
30	23	23,639	-59.1		34	.9
25	21	24,786	-58.1		02	1.3
20	21	26,194	-57.0		34	1.8
15	20	28,028	-55.0		27	4.4
10	17	30,608	-52.4		26	13.0
7	10	32,948	-47.9			
5						
4						

VICTORIA, TEXAS — 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	33	8.3	7.0	02	2.0
1000	31	179	9.2	6.5	05	1.9
950	31	605	9.6	6.6	15	2.3
900	31	1,056	9.5	3.9	21	4.1
850	31	1,529	8.0	.7	22	5.0
800	31	2,029	6.7	-2.8	24	5.9
750	31	2,556	4.8	-8.4	24	7.1
700	31	3,118	1.9	-11.0	25	8.4
650	31	3,706	-1.6	-12.7	26	10.3
600	31	4,345	-5.5	-16.8	26	12.2
550	31	5,016	-9.9	-21.5	26	13.5
500	31	5,751	-14.6	-26.8	26	15.0
450	31	6,534	-20.4	-32.9	26	17.3
400	31	7,402	-26.8	-38.9	26	19.5
350	31	8,351	-34.2	-45.4	26	21.5
300	31	9,412	-42.7	-49.2	26	23.9
250	31	10,618	-52.0		26	26.1
200	31	12,036	-59.7		26	30.8
175	30	12,871	-61.6		26	29.9
150	30	13,825	-62.5		25	27.4
125	30	14,941	-65.7		25	25.2
100	28	16,285	-68.9		26	19.5
80	27	17,616	-69.1		26	12.4
70	25	18,410	-67.6		26	8.3
60	25	19,341	-65.7		26	4.7
50	25	20,454	-63.3		27	2.3
40	25	21,834	-60.6		09	.6
30	23	23,637	-58.2		30	.4
25	23	24,787	-56.8		35	1.4
20	21	26,210	-54.5		35	3.1
15	18	28,061	-51.9		35	1.3
10	11	30,708	-47.8			
7						
5						
4						

* WAKE IS., PACIFIC AREA — 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	5	24.1	19.5	05	4.3
1000	31	114	23.2	18.4	05	4.6
950	31	556	19.6	15.8	05	4.7
900	31	1,024	16.3	13.1	05	4.0
850	31	1,509	13.7	8.8	03	2.3
800	31	2,020	12.9	-1.3	35	2.3
750	31	2,559	11.7	-9.9	33	3.4
700	31	3,135	9.4	-13.6	32	4.9
650	31	3,743	6.2	-16.9	31	5.8
600	31	4,398	3.1	-20.0	30	7.7
550	31	5,090	-.7	-22.6	29	9.0
500	31	5,852	-5.6	-25.8	29	10.8
450	31	6,667	-11.2	-29.8	30	12.7
400	31	7,565	-17.0	-35.9	29	14.2
350	31	8,554	-23.6	-41.4	30	16.0
300	31	9,664	-31.3	-48.0	29	17.9
250	31	10,929	-41.2		29	18.9
200	31	12,408	-52.7		29	18.7
175	31	13,257	-59.5		29	17.8
150	31	14,205	-66.7		29	15.7
125	29	15,286	-74.8		28	14.5
100	28	16,557	-82.1		28	10.9
80	27	17,794	-84.2		27	5.1
70	27	18,539	-80.3		26	2.2
60	26	19,425	-72.3		23	1.7
50	26	20,518	-65.0		24	.9
40	26	21,897	-59.9		33	1.0
30	25	23,705	-57.4		04	2.5
25	25	24,861	-56.0		07	4.4
20	23	26,290	-52.2		07	7.8
15	23	28,174	-47.4		08	9.4
10	20	30,865	-45.4		10	7.1
7	17	33,252	-42.7		18	2.9
5	14	35,561	-36.6		26	9.3
4	7	37,128	-32.7			

* WALLOPS IS., VA. NASA — 1025 MB

Standard pressure surface (mb.)	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	30	3	-2.3	-6.3	36	2.3
1000	30	197	.1	-8.5	35	3.3
950	30	606	-.1	-9.9	33	4.2
900	30	1,041	-.3	-11.4	31	5.0
850	30	1,498	-.4	-12.9	29	7.1
800	30	1,983	-1.2	-13.5	29	8.3
750	30	2,496	-2.8	-14.0	28	11.9
700	30	3,042	-4.9	-16.4	28	14.1
650	30	3,621	-7.8	-18.5	28	16.3
600	30	4,242	-11.2	-20.9	28	18.5
550	30	4,900	-15.3	-24.8	28	19.7
500	30	5,619	-20.2	-29.8	28	21.5
450	30	6,387	-25.6	-34.6	28	23.7
400	30	7,237	-31.6	-41.0	28	25.9
350	30	8,169	-38.5	-46.2	28	30.3
300	30	9,212	-45.8		27	29.1
250	30	10,404	-54.0		28	28.6
200	29	11,817	-59.5		28	26.3
175	28	12,650	-58.6		27	26.8
150	28	13,620	-58.3		27	24.9
125	27	14,760	-60.3		27	21.1
100	25	16,139	-61.2		28	16.8
80	23	17,524	-61.6		28	13.6
70	23	18,351	-61.5		28	10.7
60	23	19,306	-60.9		28	8.4
50	23	20,443	-59.8		30	5.2
40	23	21,842	-58.3		33	2.2
30	23	23,660	-56.6		06	2.4
25	23	24,818	-55.7		06	3.3
20	22	26,241	-54.6		06	2.9
15	20	28,093	-52.5		07	2.7
10	14	30,716	-48.4		29	2.5
7	7	33,105	-44.5			
5						
4						

See reference note at end of table

RAWINSONDE DATA

Average monthly values

Standard pressure surface (mb.)	WASHINGTON DULLES INT. AP 1015 MB						WINNEMUCCA, NEV. 872 MB						WINSLOW, ARIZ. 856 MB						YAKUTAT, ALASKA 1009 MB						YAP, CAROLINE IS. + 1007 MB					
	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	85	-5.4	-8.9	34	1.6	31	1,310	-5.6	-9.1	15	1.3	31	1,492	-13.5	-16.1	17	1.0	31	12	-7.6	-11.6	09	2.0	31	17	26.8	23.9	06	4.3
1000	31	198	-2.9	-9.9	33	2.3	31	219					31	292					31	79			09	3.1	31	82	26.1	22.6	06	5.8
950	31	612	-2.3	-10.6	31	3.4	31	631					31	688					31	485	-4.0	-11.3	08	4.8	31	530	22.4	18.2	07	10.1
900	31	1,035	-2.5	-11.5	31	5.2	31	1,063					31	1,104					31	910	-6.7	-13.9	08	3.9	31	1,004	19.8	14.5	08	10.4
850	31	1,489	-2.4	-13.3	30	7.1	31	1,512	-1.0	-8.5	15	2.1	31	1,545			18	.8	31	1,354	-9.5	-16.4	09	3.5	31	1,496	17.4	10.6	08	10.1
800	31	1,970	-2.9	-14.8	29	9.1	31	1,996	-4.9	-11.6	21	4.1	31	2,021	-2.0	-7.2	21	2.5	31	1,820	-11.6	-19.4	08	2.6	31	2,012	15.2	5.3	09	9.0
750	31	2,465	-4.0	-14.8	28	11.5	31	2,508	-3.1	-13.7	24	6.3	31	2,535	-.7	-9.5	23	4.7	31	2,312	-14.4	-21.6	04	1.3	31	2,553	12.7	1.2	09	9.1
700	31	3,024	-5.5	-15.7	28	13.3	31	3,053	-6.0	-16.8	25	7.6	31	3,087	-2.5	-12.2	24	5.5	31	2,832	-17.5	-25.0	33	1.0	31	3,134	9.8	-3.0	09	9.5
650	31	3,603	-8.2	-17.7	28	15.2	31	3,625	-8.8	-20.2	26	10.2	31	3,667	-5.3	-16.1	26	6.4	31	3,382	-20.8	-27.6	30	2.2	31	3,743	6.6	-7.1	10	9.9
600	31	4,221	-11.6	-21.2	28	18.0	31	4,247	-12.5	-23.8	26	11.3	31	4,297	-9.1	-19.9	27	6.9	31	3,972	-24.5	-31.1	30	3.5	31	4,400	3.0	-11.3	10	11.1
550	31	4,880	-15.9	-25.3	28	19.7	31	4,901	-16.9	-27.0	26	12.2	31	4,957	-13.5	-24.5	27	8.8	30	4,596	-28.8	-34.6	29	5.3	31	5,096	-.8	-15.7	10	10.5
500	31	5,595	-20.8	-30.5	28	21.5	31	5,614	-21.4	-31.9	27	13.6	31	5,683	-18.7	-26.1	27	9.4	30	5,278	-33.2	-37.4	30	5.1	31	5,856	-5.2	-19.7	10	10.1
450	31	6,360	-26.4	-36.0	28	22.8	31	6,375	-27.0	-36.9	27	13.9	31	6,454	-24.2	-33.0	27	10.7	30	6,005	-38.3	-39.0	29	6.2	31	6,675	-9.5	-25.3	11	10.4
400	31	7,206	-32.6	-42.1	28	25.6	31	7,221	-33.4	-41.9	27	14.7	31	7,310	-30.5	-39.0	27	13.1	30	6,814	-43.3	-41.7	29	8.2	31	7,580	-15.3	-31.1	10	9.2
350	31	8,134	-39.5	-46.8	27	29.1	31	8,145	-40.5	-43.1	27	16.7	31	8,246	-37.7	-45.0	27	15.1	30	7,702	-48.6		31	10.9	31	8,576	-22.1	-37.3	10	9.4
300	31	9,171	-47.2		27	31.8	31	9,178	-48.3		28	17.6	31	9,291	-45.9		27	17.8	30	8,706	-52.2		31	13.0	31	9,691	-30.5	-44.3	11	8.5
250	31	10,358	-54.8		27	35.3	31	10,357	-56.1		27	16.6	31	10,481	-54.6		27	21.5	30	9,878	-55.0		30	14.3	31	10,960	-40.6	-53.3	12	7.3
200	31	11,767	-59.0		27	35.5	31	11,759	-59.7		28	18.0	31	11,887	-60.3		27	23.4	30	11,304	-54.2		30	14.5	31	12,440	-53.0		13	7.8
175	31	12,608	-58.3		27	34.0	31	12,591	-60.0		27	18.4	31	12,720	-60.1		27	22.0	30	12,161	-53.6		31	13.9	31	13,286	-60.3		13	9.3
150	30	13,578	-57.8		28	29.5	30	13,548	-59.0		27	17.0	31	13,681	-60.6		27	21.4	30	13,150	-54.6		31	14.5	31	14,230	-68.1		13	10.9
125	30	14,724	-54.7		27	27.0	29	14,692	-59.8		27	15.5	31	14,812	-62.5		27	18.4	30	14,313	-55.9		31	14.5	31	15,303	-76.3		12	14.5
100	30	16,112	-61.1		27	21.6	29	16,081	-60.9		27	12.9	31	16,180	-64.5		26	15.3	30	15,729	-57.0		31	13.6	31	16,563	-83.7		11	15.1
80	28	17,495	-61.1		27	15.4	29	17,468	-60.9		28	9.0	31	17,540	-64.9		26	12.2	30	17,138	-57.8		31	15.0	31	17,802	-81.3		12	4.8
70	28	18,323	-61.2		27	12.0	29	18,297	-61.0		28	8.8	31	18,355	-64.0		26	9.4	30	17,976	-58.3		31	16.1	30	18,560	-76.8		26	.8
60	25	19,285	-60.2		28	9.6	27	19,267	-60.1		29	6.0	31	19,301	-62.7		27	7.5	29	18,941	-58.4		31	15.3	30	19,458	-71.2		28	3.0
50	25	20,421	-58.5		28	6.3	24	20,419	-59.4		27	4.5	30	20,429	-61.4		26	5.1	29	20,085	-58.9		31	14.8	30	20,550	-66.1		29	2.1
40	25	21,828	-57.0		27	3.4	21	21,819	-58.5		27	3.1	28	21,821	-60.1		26	4.2	29	21,486	-56.6		32	16.2	29	21,918	-61.5		09	6.0
30	20	23,652	-55.2		25	1.9	21	23,627	-56.4		26	2.1	25	23,619	-59.1		26	2.5	29	23,300	-57.2		31	15.9	27	23,713	-58.3		10	17.3
25	18	24,818	-54.8		25	1.5	19	24,771	-57.6		25	2.9	24	24,765	-58.4		27	2.4	29	24,455	-56.6		32	15.3	26	24,866	-55.3		09	21.7
20	15	26,249	-52.9		20	1.5	14	26,192	-57.0		11	.9	21	26,175	-56.9		27	2.5	27	25,898	-56.2		31	13.2	23	26,300	-51.9		09	23.9
15	14	28,107	-51.2		12	1.6	8	28,026	-55.3				11	28,009	-55.6				23	27,728	-53.8		34	12.8	16	28,178	-47.6		09	26.7
10	10	30,740	-49.2																18	30,348	-51.3		01	15.6	6	30,835	-45.1			
7																			11	32,637	-50.2									

Standard pressure surface (mb.)	YUCCA FLAT, NEV. 885 MB						YUMA, ARIZ. 1003 MB					
	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.	No. of observations	Dynamic height	Temperature	Dew Point	Resultant Wind Direction	Resultant Wind Speed M.p.s.
SURFACE	31	1,196	-2.6	-9.2	29	1.3	20	131	7.2	-.8	01	.4
1000	31	209					20	156	8.9	-.5	36	.5
950	31	622					20	587	12.9	-2.0	36	1.6
900	31	1,056					20	1,038	10.3	-3.1	31	.5
850	31	1,517	3.4	-10.1	36	2.5	20	1,512	7.4	-6.4	28	1.4
800	31	2,008	1.6	-12.2	13	.5	20	2,008	4.9	-10.4	28	2.2
750	31	2,524	-.4	-14.9	21	2.5	20	2,529	2.7	-14.6	26	2.8
700	31	3,078	-2.9	-17.8	24	3.6	20	3,088	-.1	-18.3	27	4.1
650	31	3,657	-6.1	-21.7	26	5.2	20	3,671	-3.3	-21.0	27	5.3
600	31	4,282	-10.1	-25.3	27	6.0	20	4,307	-7.3	-24.0	27	6.5
550	31	4,944	-14.6	-28.5	27	7.8	20	4,971	-12.0	-25.6	27	7.5
500	31	5,663	-19.8	-33.3	28	9.3	20	5,702	-17.1	-29.4	27	10.4
450	31	6,436	-25.4	-38.4	28	9.6	20	6,474	-23.0	-33.4	27	11.9
400	31	7,282	-31.8	-43.3	29	11.9	20	7,336	-29.6	-39.6	27	12.7
350	31	8,212	-38.9	-46.0	29	13.2	20	8,273	-38.9	-44.3	27	14.6
300	31	9,251	-48.7		29	14.4	20	9,321	-45.4		27	16.7
250	31	10,437	-55.3		29	17.2	20	10,513	-54.2		27	19.4
200	31	11,839	-60.4		28	19.5	18	11,913	-60.3		27	22.3
175	31	12,670	-60.5		28	19.0	17	12,747	-60.5		26	19.0
150	31	13,630	-60.4		28	18.5	13	13,715	-62.4		26	20.8
125	31	14,763	-61.6		28	16.6	9	14,821	-63.8			
100	31	16,138	-63.5		26	13.6	7	16,161	-65.3			
80	31	17,507	-63.4		28	9.7	7	17,537	-65.9			
70	31	18,327	-62.9		28	7.7	7	18,349	-64.3			
60	31	19,279	-61.6		28	7.2	6	19,289	-62.5			
50	31	20,412	-60.1		28	5.3	6	20,421	-60.1			
40	31	21,807	-59.5		26	3.8	6	21,816	-60.3			
30	30	23,612	-58.9		27	2.7	6	23,615	-58.6			
25	25	24,765	-58.6		24	2.6	6	24,768	-56.0			
20	19	26,163	-56.8		26	5.3						
15	15	27,982	-56.2		30	7.0						

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. Therefor, 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 DATA

Solar radiation intensities, tabulated in langleys per minute on a surface normal to the direction of the sun. JANUARY 1968

ALBUQUERQUE, N. MEX.

Date	Sun's zenith distance: A. M. 78.7°	75.7°	70.7°	60.0°	*	P. M. 60.0°	70.7°	75.7°	78.7°
	Air mass: 4.19	3.35	2.51	1.67	*	1.67	2.51	3.35	4.19
Jan. 25----	New pyrheliometer installed				1.47	1.38	1.20	1.10	1.00
27----	----	----	----	----	----	----	----	----	.92
28----	----	----	1.22	1.38	----	----	1.19	1.07	----
29----	----	----	----	----	----	----	1.24	1.13	1.02
30----	----	----	----	1.42	1.47	1.33	1.26	----	.90
Averages	----	----	1.22	1.40	1.47	1.36	1.22	1.10	0.96

TUCSON, ARIZ.

	Air mass: 4.56	3.65	2.74	1.83	*	1.83	2.74	3.65	4.56
Jan. 1-----	0.99	1.10	1.20	1.33	1.34	1.23	1.10	0.96	----
2-----	1.03	1.12	1.22	1.34	1.37	1.29	1.10	.97	0.83
4-----	.69	.74	.97	1.20	1.24	1.22	----	----	----
5-----	.79	----	----	----	----	----	----	----	----
6-----	.92	1.02	1.14	1.30	----	1.26	----	----	----
8-----	----	----	----	----	1.24	1.17	1.00	.88	.77
11----	----	----	----	----	1.39	1.32	1.18	1.05	.97
13----	1.01	----	1.23	1.40	1.42	1.37	----	----	1.02
14----	----	1.19	1.27	----	1.42	1.39	1.24	1.13	1.01
16----	.98	1.07	----	----	----	----	----	----	----
17----	.87	.98	----	1.27	1.38	1.31	1.16	1.01	.89
18----	----	----	1.19	----	1.40	1.33	1.12	1.02	.91
19----	.98	1.08	1.20	1.32	1.40	1.30	1.07	.96	.89
20----	.94	1.03	1.16	1.30	1.36	----	1.07	.97	.88
21----	.92	1.02	1.14	1.30	1.36	1.28	1.12	1.00	.91
22----	.93	1.01	1.10	1.30	1.37	1.28	1.10	.94	----
23----	.92	1.01	1.13	1.28	1.40	1.33	1.16	1.02	.91
24----	.92	1.03	1.14	1.29	1.30	1.20	1.01	1.00	.90
25----	.92	1.02	1.17	1.32	----	----	----	----	----
26----	Pyrheliometer inoperative								
29----	----	----	----	----	----	----	1.13	1.00	----
30----	.93	1.04	1.16	1.33	1.40	1.30	1.09	1.02	----
Averages	0.92	1.03	1.16	1.23	1.36	1.28	1.11	0.99	0.90

MAUNA LOA OBS., HAWAII

	Air mass: 3.36	2.69	2.01	1.34	*	1.34	2.01	2.69	3.36
Jan. 6-----	----	----	----	1.47	----	----	----	1.28	1.13
7-----	----	----	----	1.51	1.62	1.51	1.38	1.28	1.19
8-----	1.25	1.33	1.38	1.54	1.62	1.49	1.35	1.26	----
10----	1.22	1.32	1.40	1.52	----	1.52	1.39	1.29	1.20
11----	----	----	----	1.54	1.60	1.52	1.38	1.29	1.19
12----	1.21	1.30	1.34	1.52	1.62	1.52	1.40	1.30	1.21
13----	1.24	1.33	1.42	1.55	1.65	1.54	1.42	1.32	1.23
14----	1.23	1.31	1.40	1.52	1.59	1.39	1.26	----	----
15----	1.26	1.29	1.43	1.54	1.62	----	----	----	----
19----	1.15	1.29	1.39	1.48	1.60	1.48	1.37	1.22	----
20----	1.22	1.30	1.39	1.50	----	----	----	----	----
21----	1.15	1.34	1.40	1.50	----	----	----	----	----
24----	1.23	1.30	1.40	1.52	1.61	----	----	----	----
29----	1.21	1.24	1.40	1.52	1.62	1.46	1.36	1.22	1.12
30----	1.22	1.30	1.40	1.51	1.62	----	----	----	----
31----	1.23	1.31	1.40	1.52	----	----	----	----	----
Averages	1.22	1.30	1.40	1.52	1.62	1.49	1.37	1.27	1.18

MADISON, WIS.

Date	Sun's zenith distance: A. M. 78.7°	75.7°	70.7°	60.0°	*	P. M. 60.0°	70.7°	75.7°	78.7°
	Air mass: 4.69	3.75	2.81	1.88	*	1.88	2.81	3.75	4.69
Jan. 7-----	S 0.92	S 1.05	S 1.19	----	S 1.30	----	S 1.23	S 1.11	S 1.01
9-----	----	----	----	----	----	power failure		M .92	M .88
Averages	0.92	1.05	1.19	----	1.30	----	1.23	1.02	0.90

BLUE HILL OBS., MASS.

	Air mass: 4.89	3.92	2.94	1.96	*	1.96	2.94	3.92	4.89
Jan. 2-----	0.95	1.04	1.13	----	----	----	----	----	----
5-----	.89	1.00	1.16	----	1.27	----	1.17	1.04	0.95
6-----	----	.96	1.03	----	1.13	----	----	----	----
7-31--	Equipment inoperative								
Averages	0.92	1.00	1.11	----	1.20	----	1.17	1.04	0.95

OMAHA, NEBR.

	Air mass: 4.78	3.82	2.87	1.91	*	1.91	2.87	3.82	4.78
Jan. 4-----	----	----	HS1.14	----	HS1.25	----	----	----	----
5-----	HS0.84	HS1.00	HM1.08	----	----	----	----	----	----
7-----	HS1.00	HS1.08	HS1.18	----	HS1.28	----	HS1.14	HS1.02	HS0.90
10----	KS .74	KS .90	KS1.10	----	HS1.27	----	HS1.14	HS .95	----
15----	----	----	----	----	HM1.18	----	----	----	----
16----	HM .88	HS1.10	HS1.13	----	HS1.28	----	HS1.09	HS .88	HS .72
17----	.78	----	1.04	----	HM1.15	----	HI .93	----	----
18----	.89	HS1.03	----	----	----	----	HS1.19	HS1.04	HS .97
21----	----	HM1.00	HM1.12	----	HM1.29	----	HM1.14	HM1.04	HM .92
24----	----	----	HM1.07	----	----	----	----	----	----
25----	HM .80	HM .91	HM1.07	----	HM1.22	----	----	----	----
30----	----	----	HI1.08	KS1.28	HS1.27	HS1.18	----	----	----
Averages	0.85	1.00	1.10	1.28	1.24	1.18	1.11	0.99	0.88

GUAM, M. I.

	Air mass: 4.92	3.93	2.95	1.97	*	1.97	2.95	3.93	4.92
	No observations due to cloudiness								

KS Slight smoke
HS Slight haze
HM Moderate haze
HI Intense haze
S Slight haze - indeterminable
M Moderate haze - indeterminable
* Values corresponding to true solar noon

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 DATA

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

JANUARY 1968

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.	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	347	298	139	316	366	379	370	136	227	228	214	---	254	---
AMES IOWA	80	152	163	229	114	103	249	52	224	225	99	116	106	210	246	244	233	225	233	237	250	94	261	56	251	---	58	43	131	262	39	166
ANNETTE ALASKA	75	30	10	85	19	12	79	88	99	94	21	14	22	9	28	14	9	49	56	90	32	11	88	65	103	133	100	140	141	99	145	63
APALACHICOLA FLORIDA	98	254	185	185	377	103	188	319	327	133	84	220	202	103	373	386	---	377	382	359	387	369	181	146	388	415	415	372	237	380	240	273
ARGONNE NAT. LAB.	154	62	227	238	213	159	266	121	169	177	212	73	84	52	185	232	250	104	188	261	259	71	210	183	223	129	36	69	35	275	50	160
ASTORIA OREGON	156	134	45	51	93	166	36	75	44	93	121	12	18	44	128	72	59	34	48	26	155	134	195	119	107	162	221	93	133	147	79	97
ATLANTA GEORGIA	45	43	59	93	108	34	290	312	22	20	51	47	60	128	177	319	316	316	318	317	316	281	113	26	281	317	290	258	310	205	228	184
BARROW ALASKA †	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0	1	3	2	4	8	4	---
BETHEL ALASKA	0	23	0	11	2	11	59	13	19	48	52	14	32	12	55	65	59	73	---	---	---	---	---	---	---	---	---	---	---	---	---	---
BISMARCK N.DAK.	179	199	155	117	159	209	203*	112	196	179	77	206*	198	185	207	191	96	210	131	209	214	137	83	171	88	190	73	60	264	227	220	166*
BLUE HILL MASS.	215	178	36	46	218	185	158	236	220	232	243	242	224	53	115	246	233	202	206	227	159	203	120	88	37	269	254	68	81	53	136	167
BOISE IDAHO	67	89	197	166	144	200	180	62	37	---	---	203	107	117	122	137	213	164	153	209	177	214	202	220	204	146	172	181	61	76	117	149
BROWNSVILLE TEXAS	92	164	345	81	119	97	40	59	202	85	76	79	429	447	389	263	259	284	---	91	215	256	460	464	453	390	226	354	332	337	338	248
BURLINGTON VERMONT	201	166	49	67	191	131	107	130	197	210	230	227	200	268	37	232	153	158	38	94	113	86	51	241	223	128	223	91	35	26	200	145
CAPE HATTERAS N.C.	144	70	117	48	309	56	88	323	156	54	37	195	41	174	290	329	331	329	310	320	322	334	186	49	27	357	343	334	345	283	101	207
CARIBOU MAINE	121	185	99	156	168	199	83	110	194	201	195	203	195	203	87	189	221	132	76	125	70	223	67	130	226	180	230	251	147	62	---	158
CHARLESTON S.C.	61	48	125	114	288	183	277	365	135	21	24	35	90	215	272	358	353	349	331	341	349	343	229	62	70	388	367	312	212	332	211	221
CLEVELAND OHIO	177	118	51	173	145	50	193	230	39	129	229	202	23	108	92	254	253	---	50	249	190	107	---	---	257	200	89	36	44	61	151	139
COLUMBIA MISSOURI	97	60	---	284	198	95	285	67	213	263	136	50	132	174	170	75	279	42	300	136	214	103	189	92	296	292	144	83	28	102	75	156
DAVIS CALIFORNIA	57	213	193	219	258	49	48	32	98	250	278	201	184	64	188	242	286	288	271	250	201	275	241	279	285	248	219	158	47	48	303	193
DODGE CITY KANSAS	83	85	157	308	278	284	290	244	290	158	43	283	292	263	289	275	190	265	191	272	176	139	311	259	301	44	186	263	135	347	209	223
E. LANSING MICHIGAN	204	---	125	168	134	119	216	222	93	255	223	186	98	69	238	202	221	232	169	207	215	123	120	138	291	107	70	50	40	239	48	161
EL CENTRO CALIF. NPF	347	288	278	304	276	300	308	252	252	150	304	241	311	311	296	272	292	334	334	334	335	334	332	340	306	279	248	248	365	354	347	299
EL PASO TEXAS	346	261	313	307	163	294	91	177	110	199	378	389	302	389	381	381	342	231	272	216	116	375	404	392	415	240	400	301	218	404	328	295
ELY NEVADA	258	206	313	307	300	324	304	241	236	183	330	315	287	305	223	281	345	305	294	306	329	334	332	330	321	250	231	360	339	232	319	292
EPPLEY NEWPORT R.I.	112	159	27	28	212	177	95	224	205	216	225	228	---	---	92	237	150	199	198	222	171	239	124	54	29	255	243	78	90	66	195	157
FAIRBANKS ALASKA	7	1	6	3	1	2	2	5	3	6	20	22	16	6	10	4	5	5	10	10	17	3	5	16	7	2	6	3	24	15	12	8
FLAMING GORGE UTAH	143	148	262	270	208	267	75	258	241	170	280	108	295	123	197	116	280	207	130	310	307	193	256	198	250	339	246	214	277	367	140	222
FORT WORTH TEXAS	112	130	59	166	67	---	218	40	68	127	62	337	356	345	347	348	136	33	55	86	38	181	---	343	372	234	32	49	119	51	160	161
FRESNO CALIFORNIA	62	32	134	249	68	87	39	51	162	37	257	223	235	203	260	266	279	196	244	217	178	195	291	280	273	197	66	344	256	67	270	184
GAINESVILLE FLORIDA	94	114	155	154	324	282	164	313	294	---	167	113	163	133	342	354	376	275	294	326	340	346	244	92	115	361	328	254	279	243	239	243
GLASGOW MONTANA	103	179	136	80	172	184	106	120	157	73	179	190	167	190	169	178	118	135	177	186	149	74	119	115	202	87	153	122	208	221	161	149
GRAND JUNCTION COLO.	200	180	176	322	312	299	287	306	284	136	221	334	330	311	277	264	311	332	328	342	341	323	323	312	332	251	154	291	334	328	256	284
GREAT FALLS MONTANA	113	210	153	67	90	205	95	200	102	105	192	187	336	182	108	148	209	122	121	178	51	190	99	204	119	115	218	215	158	210	259	154
GREENSBORO N.C.	101	118	89	108	273	36	262	292	40	23	104	140	30	140	264	241	311	305	284	302	289	280	132	66	165	339	277	263	284	187	44	187
INDIANAPOLIS INDIANA	264	74	105	264	246	65	289	190	137	181	294	107	81	74	273	315	301	285	308	201	88	90	165	293	298	261	122	73	36	66	78	181
ITHACA NEW YORK	179	116	11	65	207	98	195	144	103	212	250	224	203	34	51	194	146	50	11	228	80	85	25	252	270	195	116	23	32	11	67	125
LAKE CHARLES LA.	40	114	161	50	84	61	324	43	20	52	49	96	387	362	332	371	361	241	84	239	156	196	105	375	380	217	206	152	266	256	212	193
LAKELAND FLORIDA	296	334	242	324	353	347	327	267	366	217	292	245	266	274	328	266	362	179	330	352	389	381	342	255	247	419	328	323	293	237	---	306
LARAMIE WYOMING	152	181	219	198	200	219	228	214	163	152	222	234	213	191	235	151	166	231	199	224	262	152	177	237	251	226	243	173	280	272	172	208
LAS VEGAS NEVADA	291	269	292	295	296	301	305	275	185	197	293	196	281	307	264	259	322	330	300	313	319	319	325	330	287	304	195	360	353	299	350	291
LITTLE ROCK ARKANSAS	66	69	35	189	98	56	304	68	36	161	81	45	180	190	279	307	312	295	132	---	---	98	244	321	327	256	99	121	127	53	91	160
LOS ANGELES CALIF.	240	147	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	341	332	318	331	351	306	94	245	359	363	297	298	---
MADISON WISCONSIN	84	123	219	243	168	94	246	90	204	227	170	46	107	62	230	214	233	107	229	236	257	104	257	115	120	85	21	58	83	274	45	153
MANHATTAN KANSAS	76	115	80	252	204	205	232	52	250	240	37	260	108	145	255	251	95	217	256	250	253	76	195	210	258	165	87	146	90	75	70	168
MATANUSKA ALASKA	5	3	26	7	28	28	29	11	18	26	31	32	33	37	37	17	53	41	26	60	30	13	16	41	22	9	22	87	61	73	74	32
MEDFORD OREGON	115	81	137	77	126	97	99	66	92	116	212	154	127	56	226	130	97	61	147	184	205	162	209	211	132	235	248	135	107	139	96	138
MIAMI FLORIDA	408	413	360	368	228	346	369	290	319	160*	326	322	124	295*	332	383	364	103	400	408	256	319	245	378	302	434	194	222	326	442	356	316*
MIDLAND TEXAS	269	165	109	96	158	137	90	---	330	250	309	341	339	333	329	275	190	120	69	66	126	138	359	340	346	185	311	325	161	131	347	225
NASHVILLE TENNESSEE	131	58	29	218	312	27	318	255	34	31	57	35	92	125	80	221	312	327	244	176	299	131	69	335	347	334	232	258	201	57	221	180
NEW YORK N.Y. U	232	166	34	29	227	123	239	232	145	223	243	240	203	7	38	260	191	212	195	234	206	166	41	52	42	269	244	45	51	31	262	157
NORTH OMAHA NEBRASKA	177	146	179	251	205	194	265	177	282	260	54	267	197	162	278	275	250	278	253	259	276	87	235	273	280	186	47	55	156	304	50	205
OAK RIDGE TENNESSEE	90	70	30	161	301	22	227	303	39	41	91	99	31	124	116	315	283	302	276	194	292	285	31	174	327	316	273	224	175	136	316	183
OKLAHOMA CITY OKLA.	88	47	46	271	60	125	251	66	84	79	33	331	298	273	320	332	105	30	45	169	112	45	248	289	341	245	67	100	94	78	94	154
PAGE ARIZONA	298	299	257	---	---	161	226	242	259	164	272	311	330	333	257	241	342	330	335	344	351	336	338	357	344	283	270	---	358	353	218	293

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

U Indicates Urban sites

† Sun below horizon January 1 through 23.

SOLAR RADIATION DATA

Daily totals and monthly averages of solar radiation (direct and diffuse) received on a horizontal surface, tabulated in langleys. JANUARY 1968

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.
PALMER AAES ALASKA	4	3	26	7	15	10	33	25	14	22	27	27	28	36	40	17	42	30	24	39	29	11	14	27	25	11	25	85	58	64	67	29
PHOENIX ARIZONA	329	323	168	321	302	328	275	326	272	126	328	253	329	355	240	261	339	367	364	315	361	361	369	371	339	124	200	263	383	388	310	303
PORTLAND MAINE	220	211	54	95	220	189	83	235	150	230	235	236	223	113	89	247	249	218	191	235	139	174	57	193	80	257	263	77	66	48	280	173
PROSSER WASHINGTON	137	163	145	97	160	138	55	106	98	166	171	87	70	43	89	99	121	44	128	53	192	40	32	150	175	94	220	---	147	228	180	121
RAPID CITY S.DAK.	152	216	201	154	109	245	225	161	160	205	146	235	217	225	225	216	214	227	180	230	224	216	178	300	57	70	81	104	262	247	173	189
RENO NEVADA	216	104	231	233	234	226	201	85	154	232	248	244	167	120	227	190	265	245	226	261	210	269	272	273	215	278	126	233	249	84	264	212
RICHLAND 25 NW WASH.	137	44	145	67	191	71	35	149	167	69	233	175	156	209	215	131	156	140	103	106	134	79	107	89	185	175	88	102	59	101	134	128
RIVERSIDE CALIFORNIA	204	11	239	253	252	172	264	169	169	2	246	164	242	267	228	183	244	286	282	290	289	271	293	303	265	179	51	303	304	270	269	225
RUSTON LOUISIANA	1	0	---	26	20	---	121	68	16	4	1	---	---	---	289	315	311	249	241	226	224	160	22	326	312	268	244	130	236	32	180	155
SAINT CLOUD MINN.	81	137	158	183	165	133	193	132	190	149	81	89	148	156	89	205	163	110	133	189	172	63	230	65	76	140	75	110	242	228	40	140
SALT LAKE CITY	130	138	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	257	260	208	150	---	---	285	211	184	---
SAN ANTONIO TEXAS	245	76	82	73	51	108	312	33	69	273	95	372	398	390	365	368	63	170	28	50	300	384	381	404	407	125	62	71	124	149	255	203
SANTA MARIA CALIF.	169	150	281	294	295	296	300	162	196	106	253	221	248	242	157	304	---	308	314	324	302	305	328	335	288	57	93	342	272	203	359	250
SAULT STE MARIE MICH	130	150	---	72	112	177	156	---	81	---	210	169	196	171	209	90	64	45	111	102	113	57	164	245	134	202	106	39	31	216	50	129
SEATTLE TACOMA WASH.	63	94	60	20	89	107	42	67	31	91	80	21	36	86	70	61	60	30	36	23	106	74	143	36	35	113	201	173	80	113	69	75
SEATTLE WASHINGTON	---	84	45	13	57	97	30	55	48	88	62	17	15	81	65	60	37	15	26	19	63	90	82	11	35	115	156	163	56	119	136	65
SPOKANE WASHINGTON	113	156	71	48	165	94	41	152	47	153	151	107	71	25	34	82	109	61	49	48	60	62	68	56	109	211	210	163	92	203	100	100
STATE COLLEGE PENN.	266	237	33	127	220	73	221	246	94	166	272	234	95	17	89	258	226	256	36	250	88	238	79	234	302	261	203	36	48	24	37	160
STERLING VIRGINA	249	101	---	146	287	105	244	262	82	181	292	231	61	41	137	279	294	294	---	294	273	292	---	53	---	315	297	95	---	---	25	197
SWAN ISLAND W.I.	458	376	453	471	478	466	466	265	432	214	239	398	217	172	412	442	410	214	276	462	489	479	499	502	368	265	423	437	431	391	514	391
TAMPA FLORIDA	374	370	304	361	377	374	304	356	372	198	345	256	---	244	311	327	403	328	373	349	418	414	324	293	280	451	417	310	288	366	---	341
TUCSON ARIZONA	317	320	154	293	264	330	166	312	292	132	329	296	343	342	283	293	340	349	349	346	346	345	351	361	336	59	217	216	314	374	209	290
WAKE ISLAND PACIFIC	429	418	400	349	423	439	402	426	432	419	409	420	452	265	408	291	411	290	472	432	428	337	441	480	---	433	408	442	432	388	494	409

Note.--Langley is the unit used to denote one gram calorie per square centimeter.

Values with an asterisk are interpolated.

NET RADIATION

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

JANUARY 1968

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	-2	-25	-2	-26	-30	-26	-31	-11	-52	-57	-55	-50	-36	-43	-30	-43	-52	-19	-7	-15	-32	-30	-24	-13	-5	-7	3	-59	-93	-87	-31

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 Weather Bureau.

SOLAR ULTRA-VIOLET RADIATION DATA

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

Date.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Avg.
Langleys. . .	3.70	5.05	6.58	7.40	5.23	4.24	7.49	2.34	6.94	6.67	4.15	5.05	4.69	7.94	8.57	10.10	10.01	9.56	9.29	9.38	9.56	4.69	8.93	3.24	9.65	7.58	3.06	2.52	6.40	10.73	2.43	6.5

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 ESSA, Weather Bureau.

TOTAL OZONE DATA

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

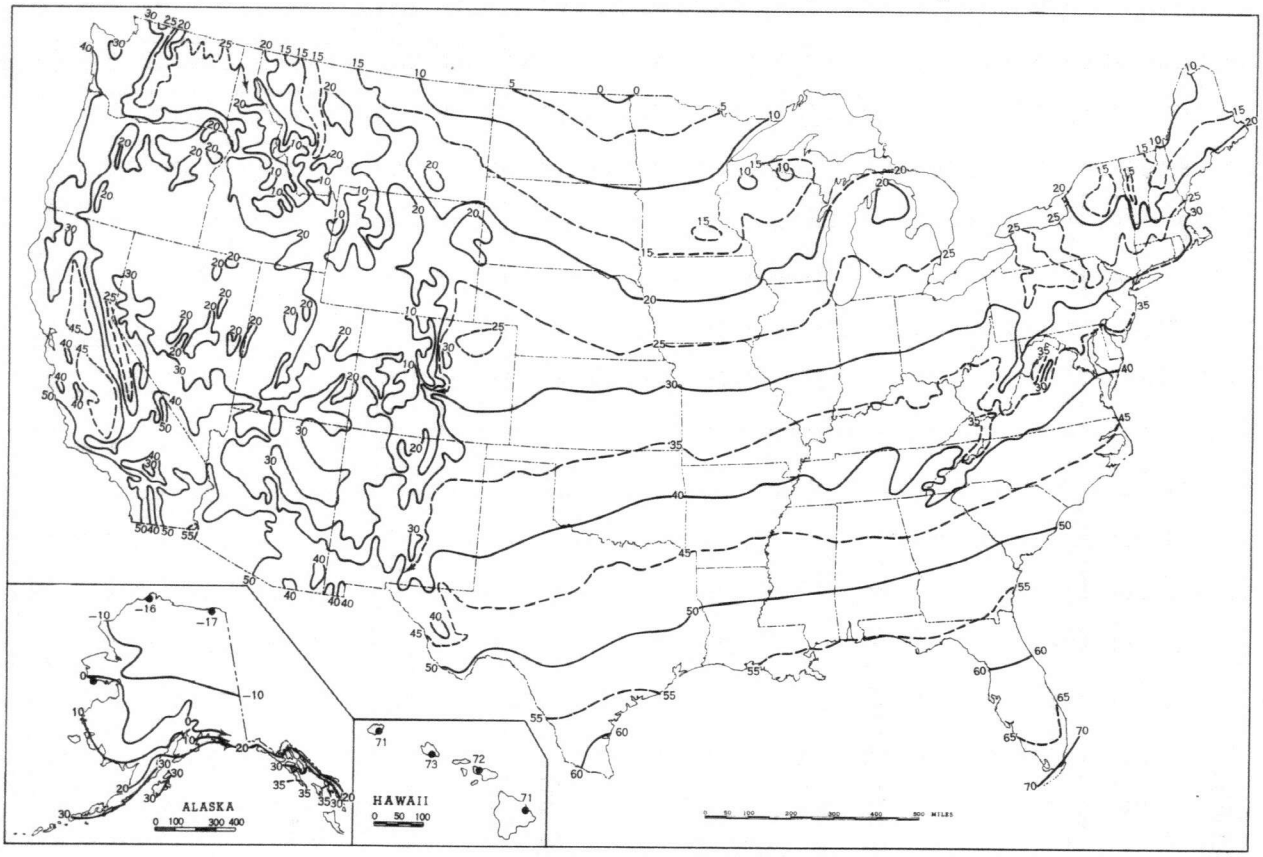
Units: Milli-atmo-cms.

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

Data will be delayed

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 Ω Ω Ω) 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.

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



B. Temperature Departure from 30 - Year Mean (°F 1931-60), January 1968.

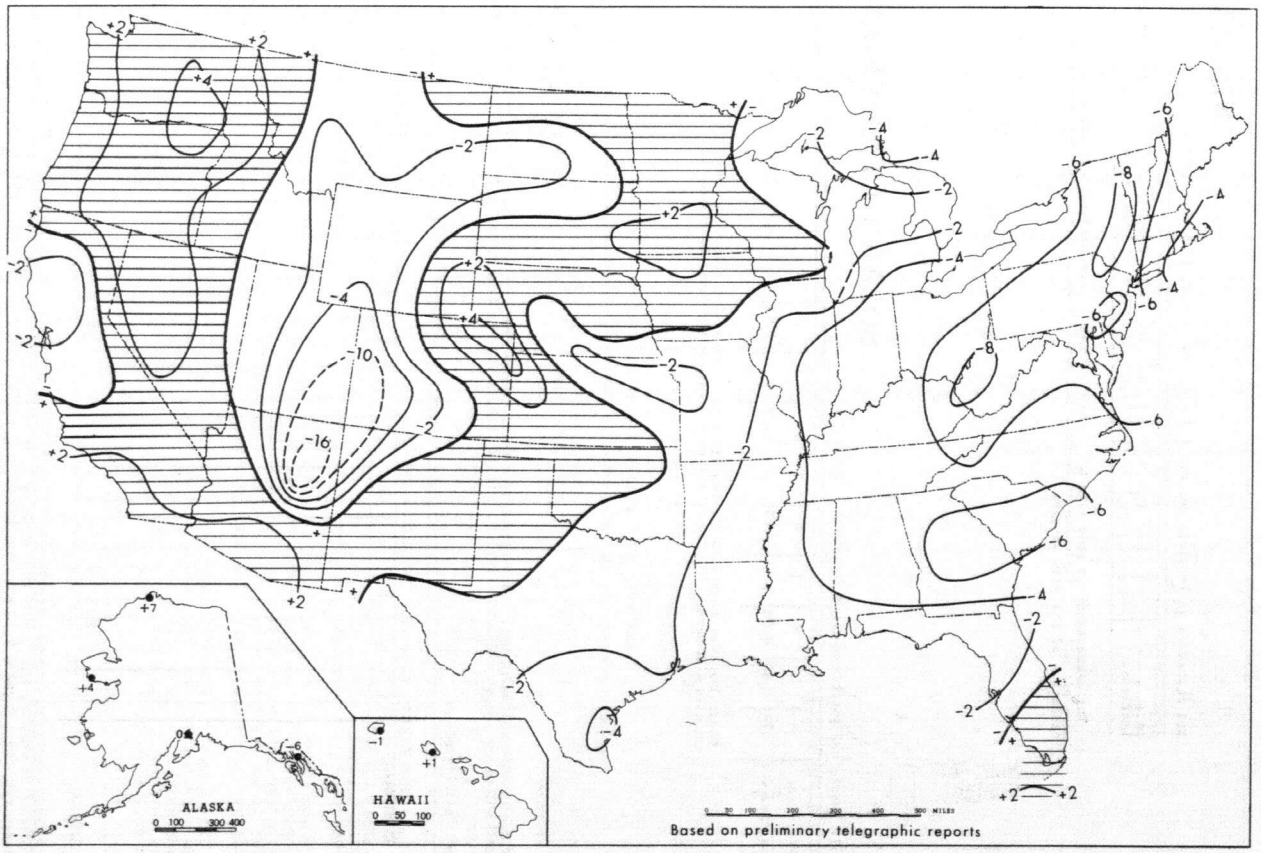
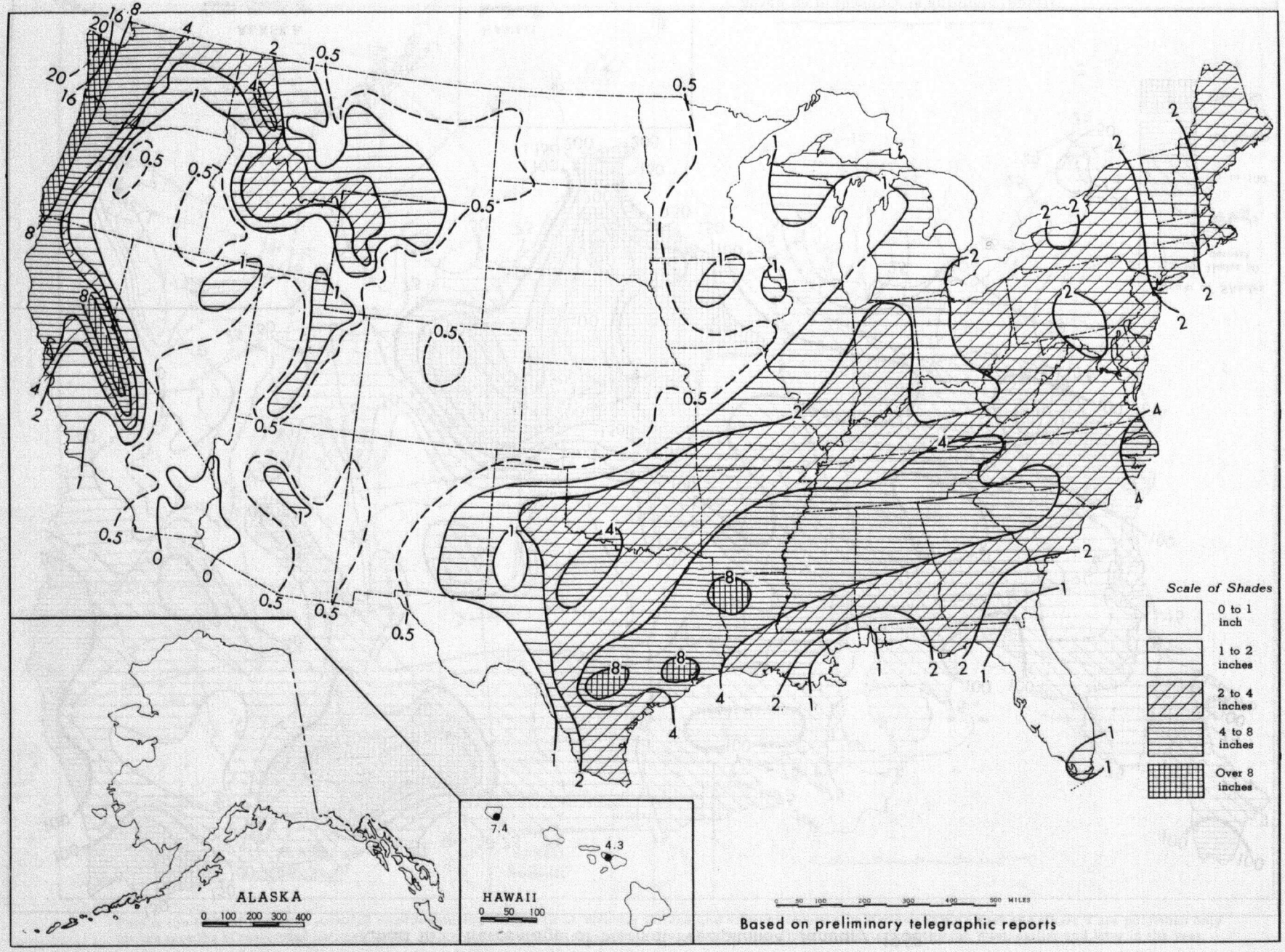


Chart II. Total Precipitation (Inches), January 1968.



Based on preliminary telegraphic reports

Chart III. Percentage of Normal Precipitation, January 1968.

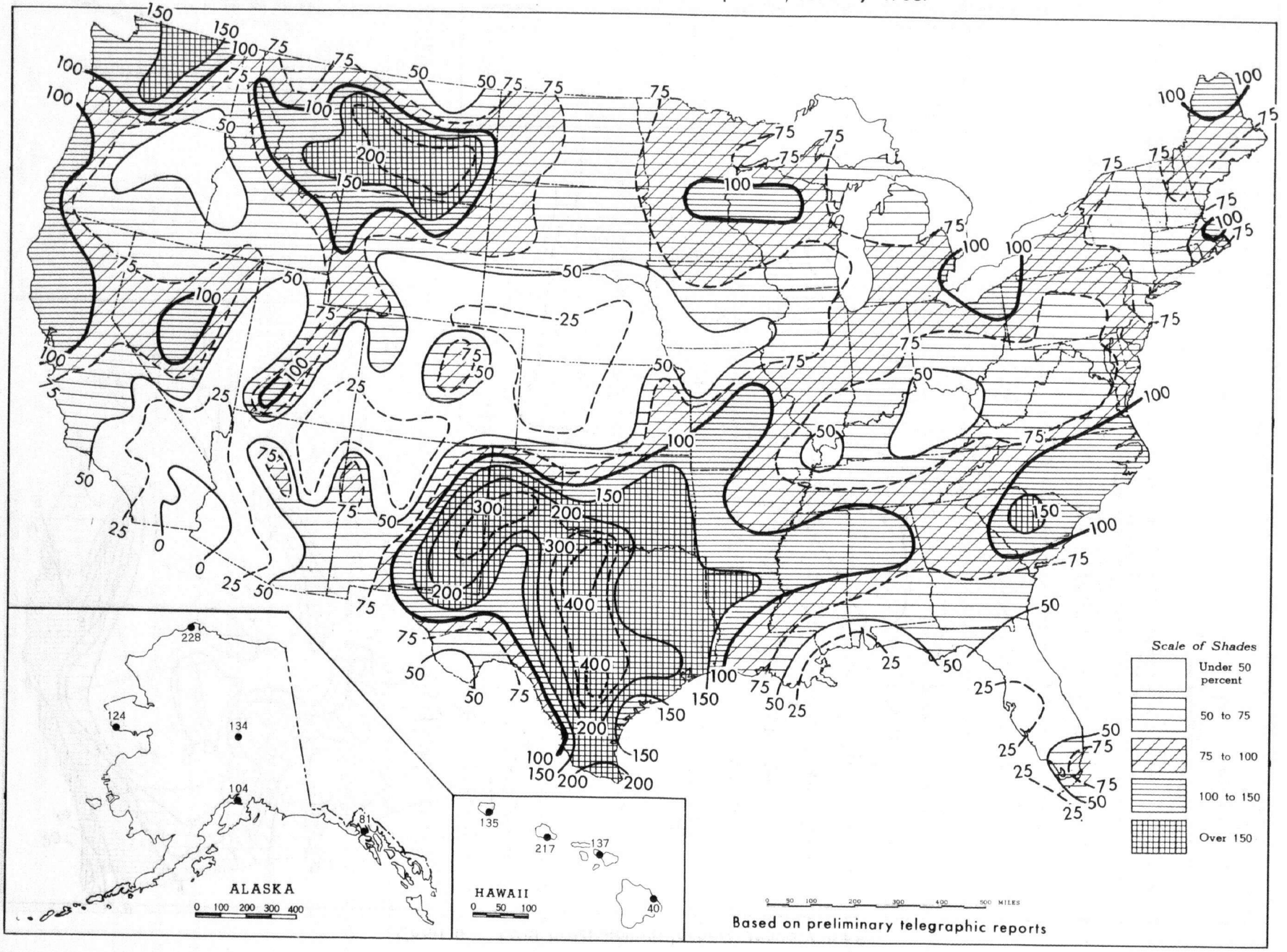
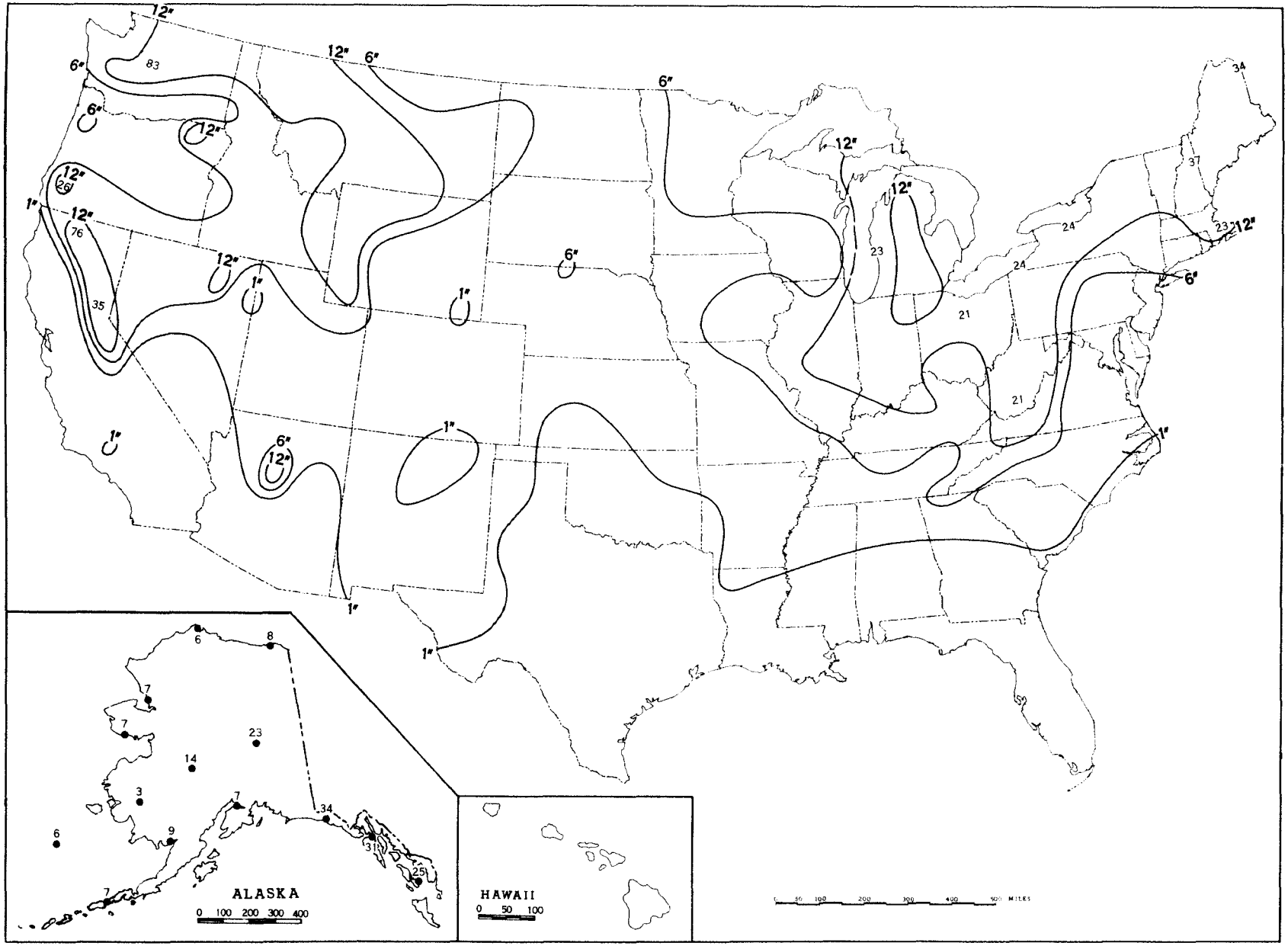
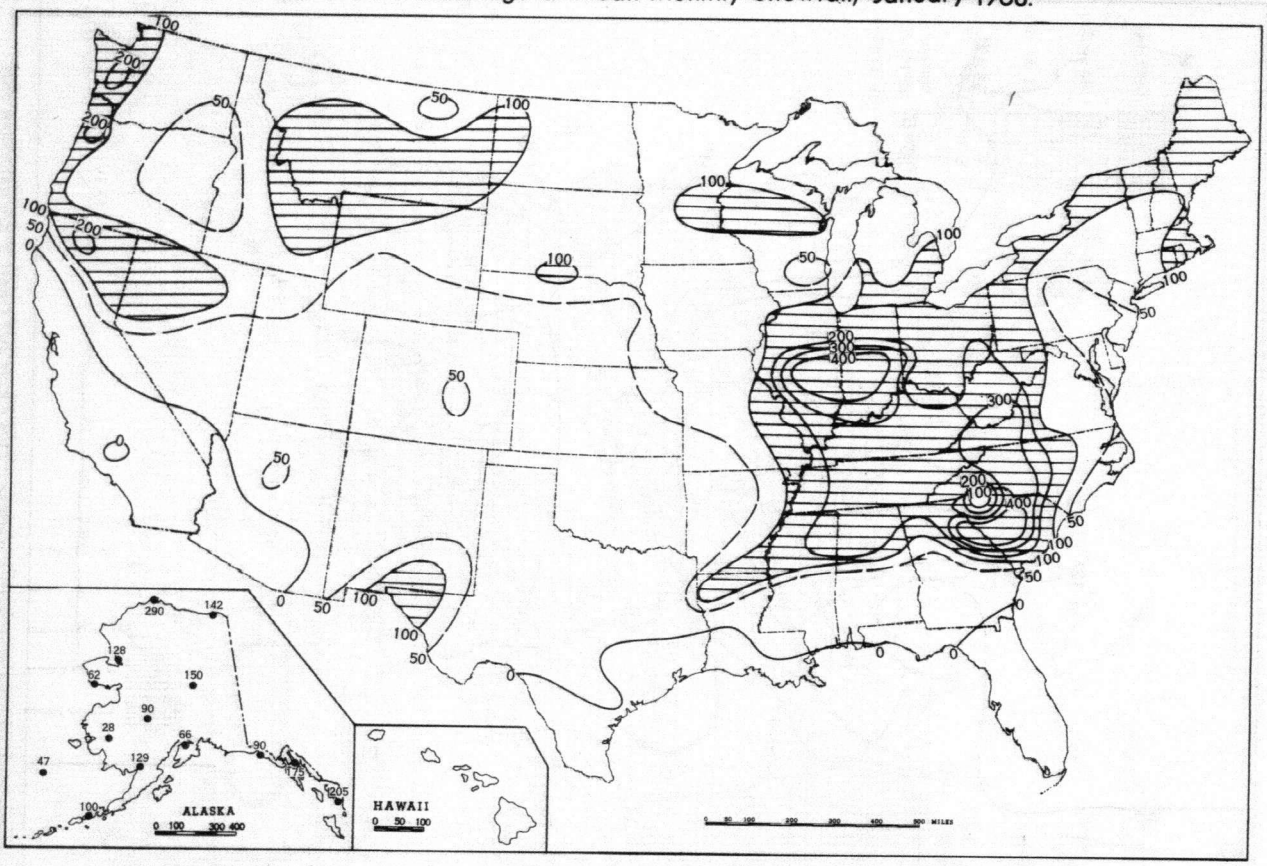


Chart IV. Total Snowfall (Inches), January 1968.

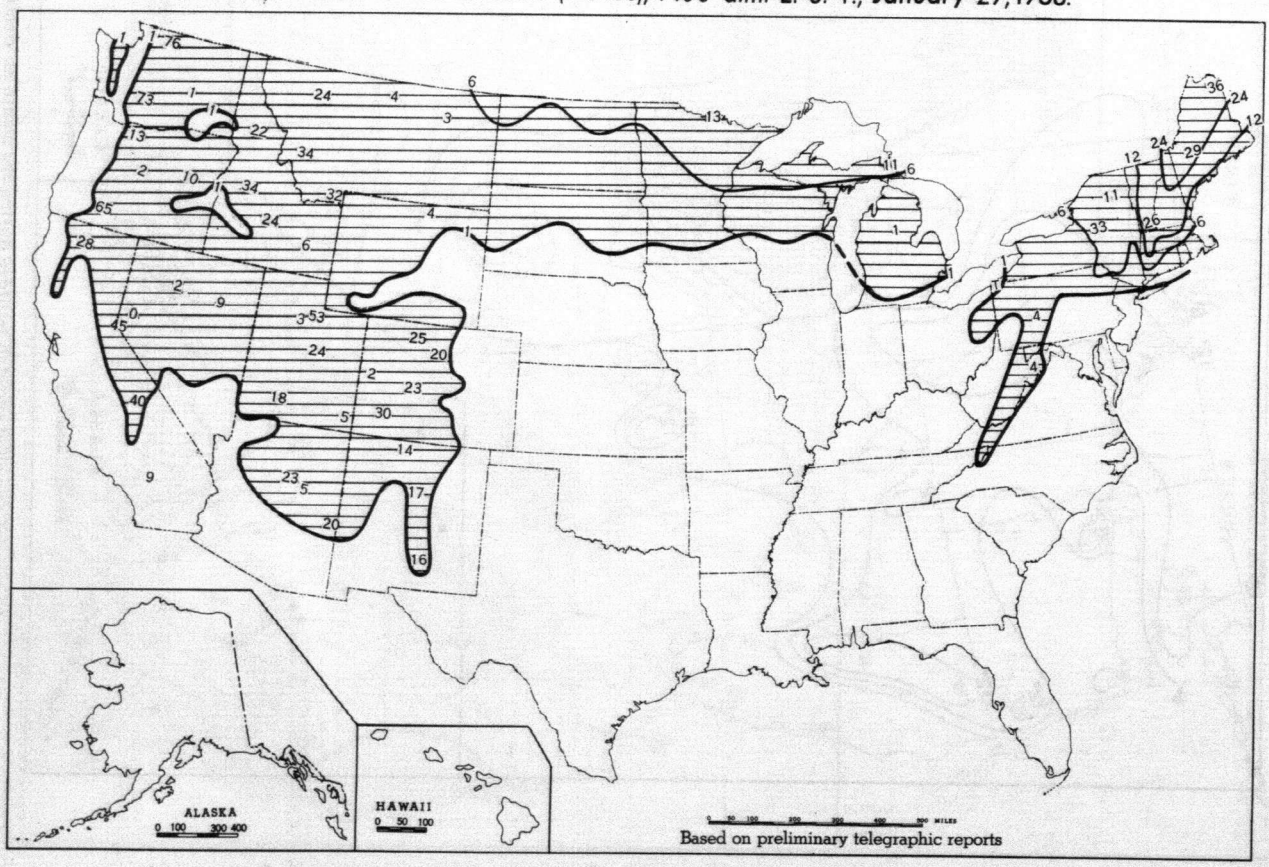


This is the total of unmelted snowfall recorded during the month at Weather Bureau and selected cooperative stations. This Chart and Chart V are published only for the months of November through April, although of course there is some snow at higher elevations, particularly in the far West, earlier and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

Chart V. A. Percentage of Mean Monthly Snowfall, January 1968.

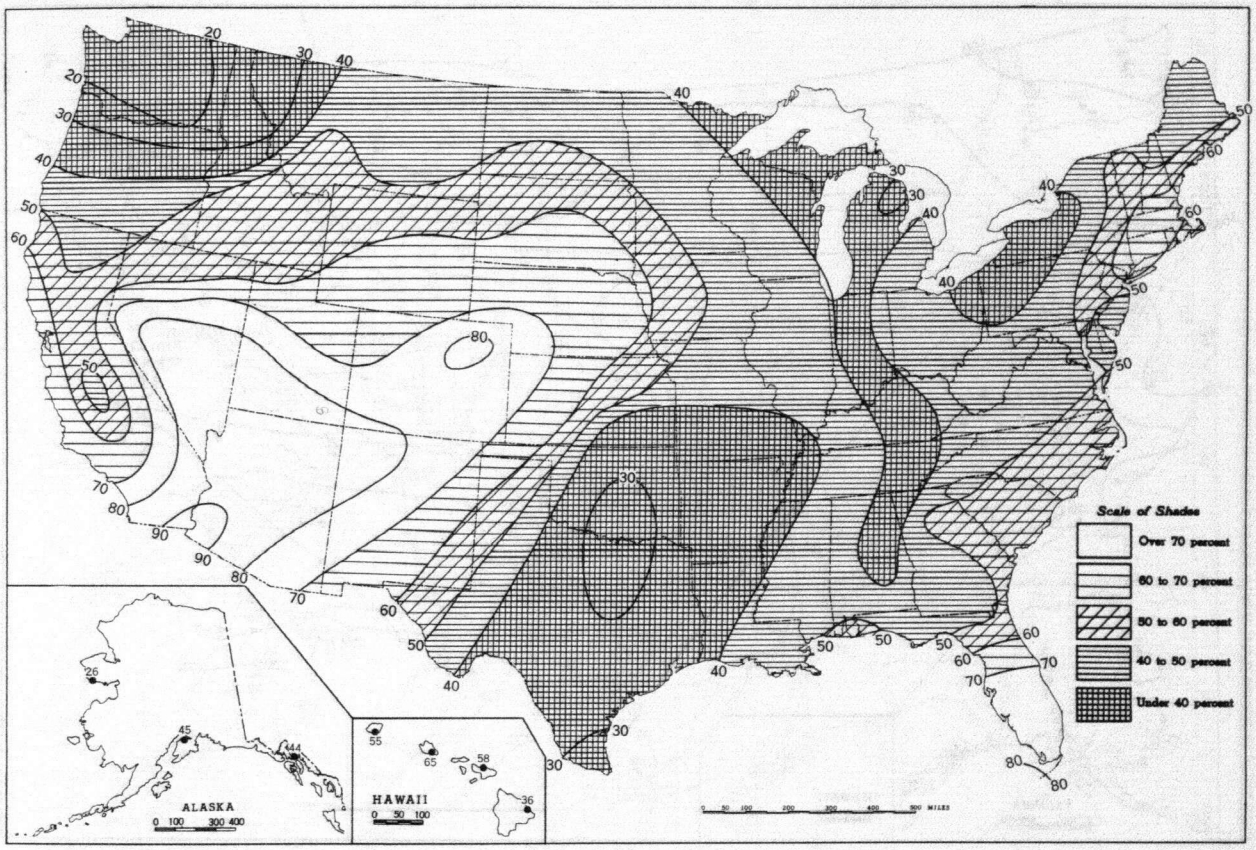


B. Depth of Snow on Ground (Inches), 7:00 a.m. E. S. T., January 29, 1968.

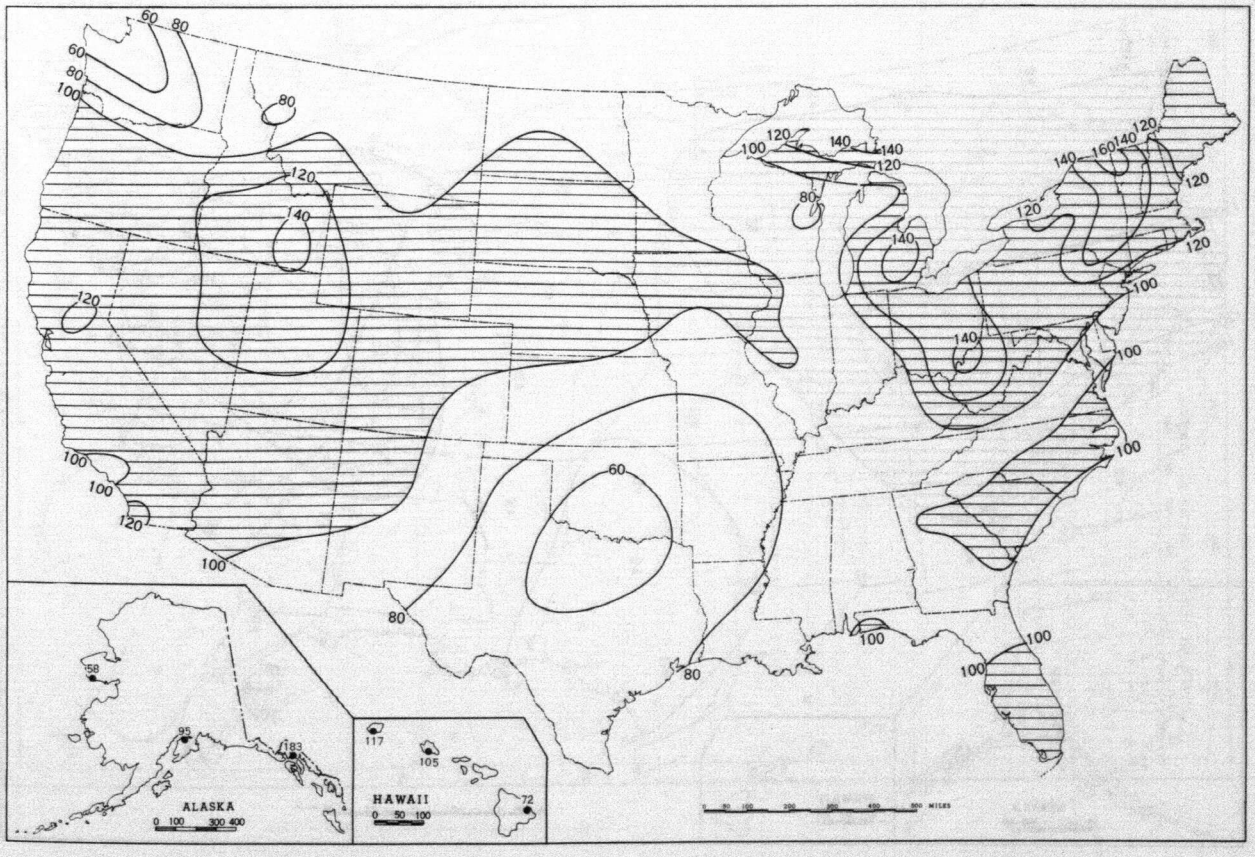


A. Amount of mean monthly snowfall is computed for Weather Bureau stations having at least 10 years of record.
B. Shows depth currently on ground at 7:00 a.m. E.S.T., of the Monday nearest the end of the month.
It is based on reports from Weather Bureau and selected cooperative stations.

Chart VI. A. Percentage of Possible Sunshine, January 1968.

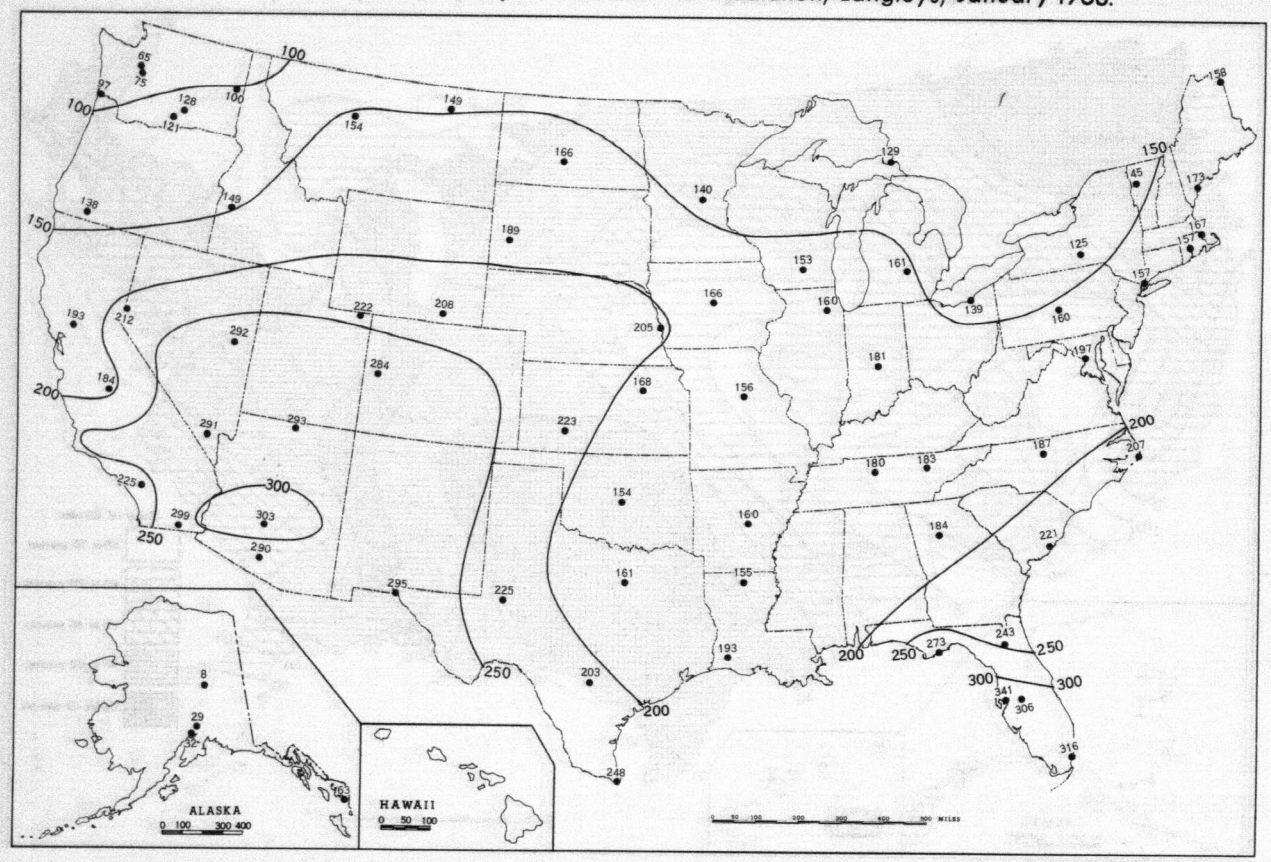


B. Percentage of Mean Monthly Sunshine, January 1968.

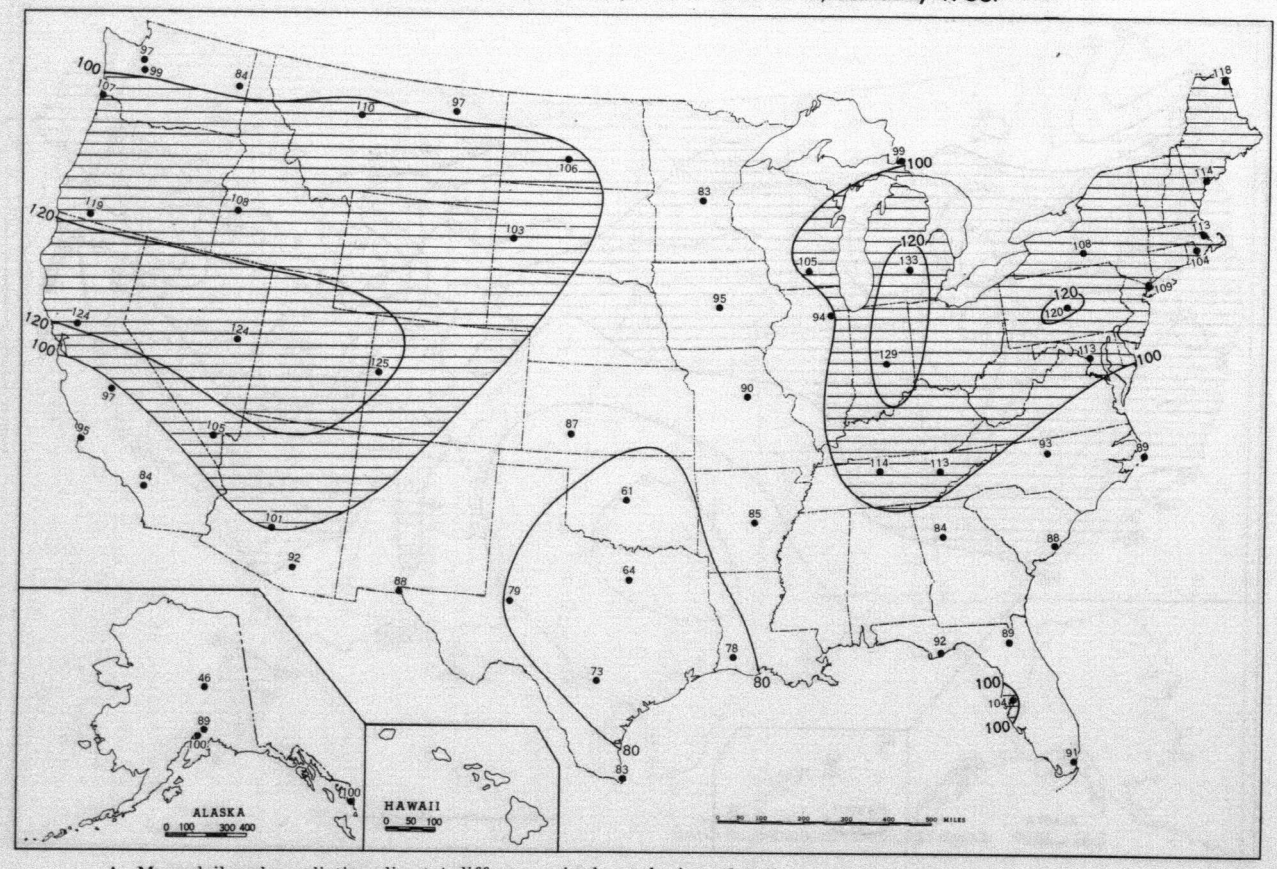


A. Computed from total number of hours of observed sunshine in relation to total number of possible hours of sunshine during month. B. Means are computed for stations having at least 10 years of record.

Chart VII. A. Average Daily Values of Solar Radiation, Langleys, January 1968.

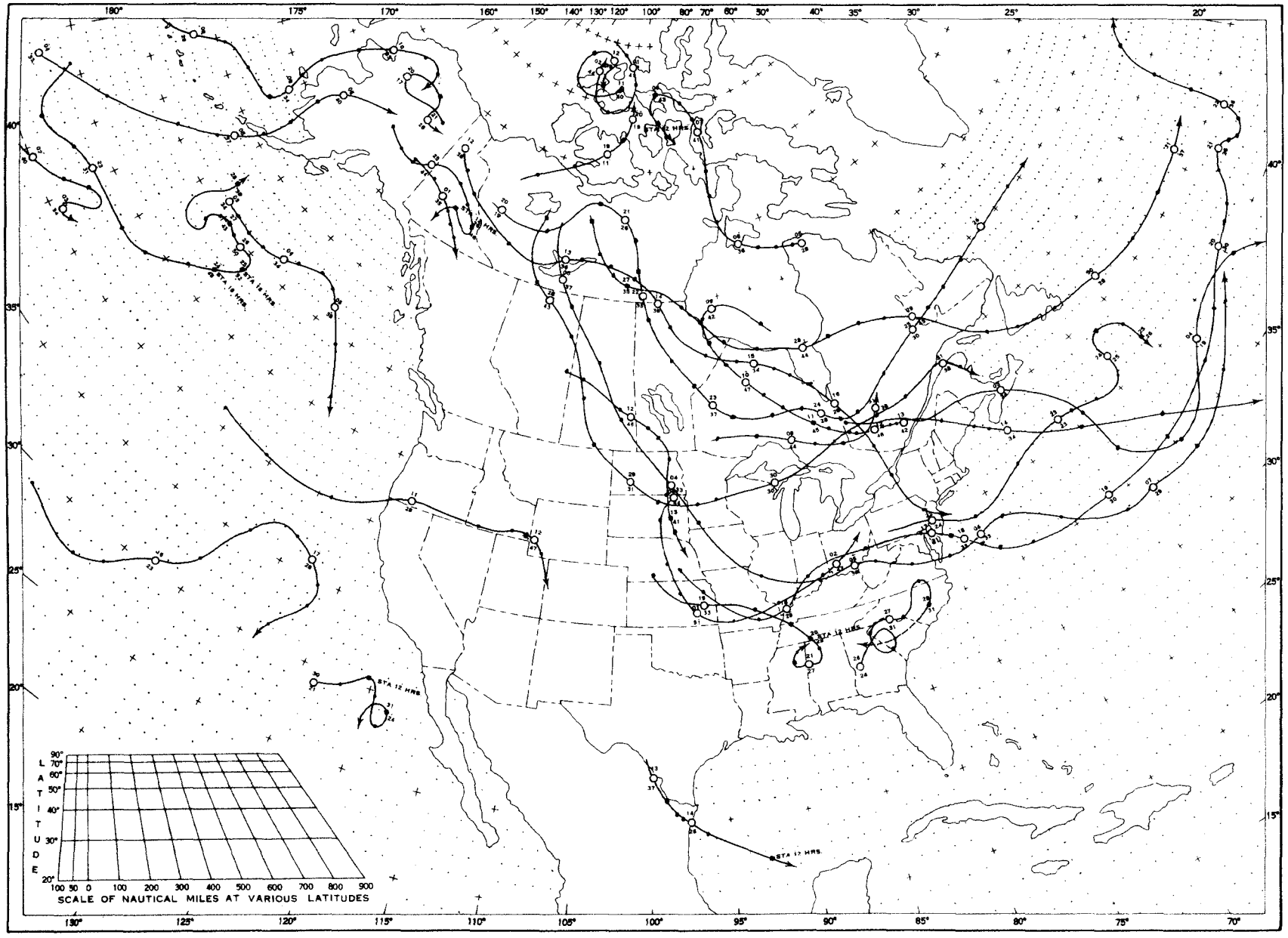


B. Percentage of Mean Daily Solar Radiation, January 1968.



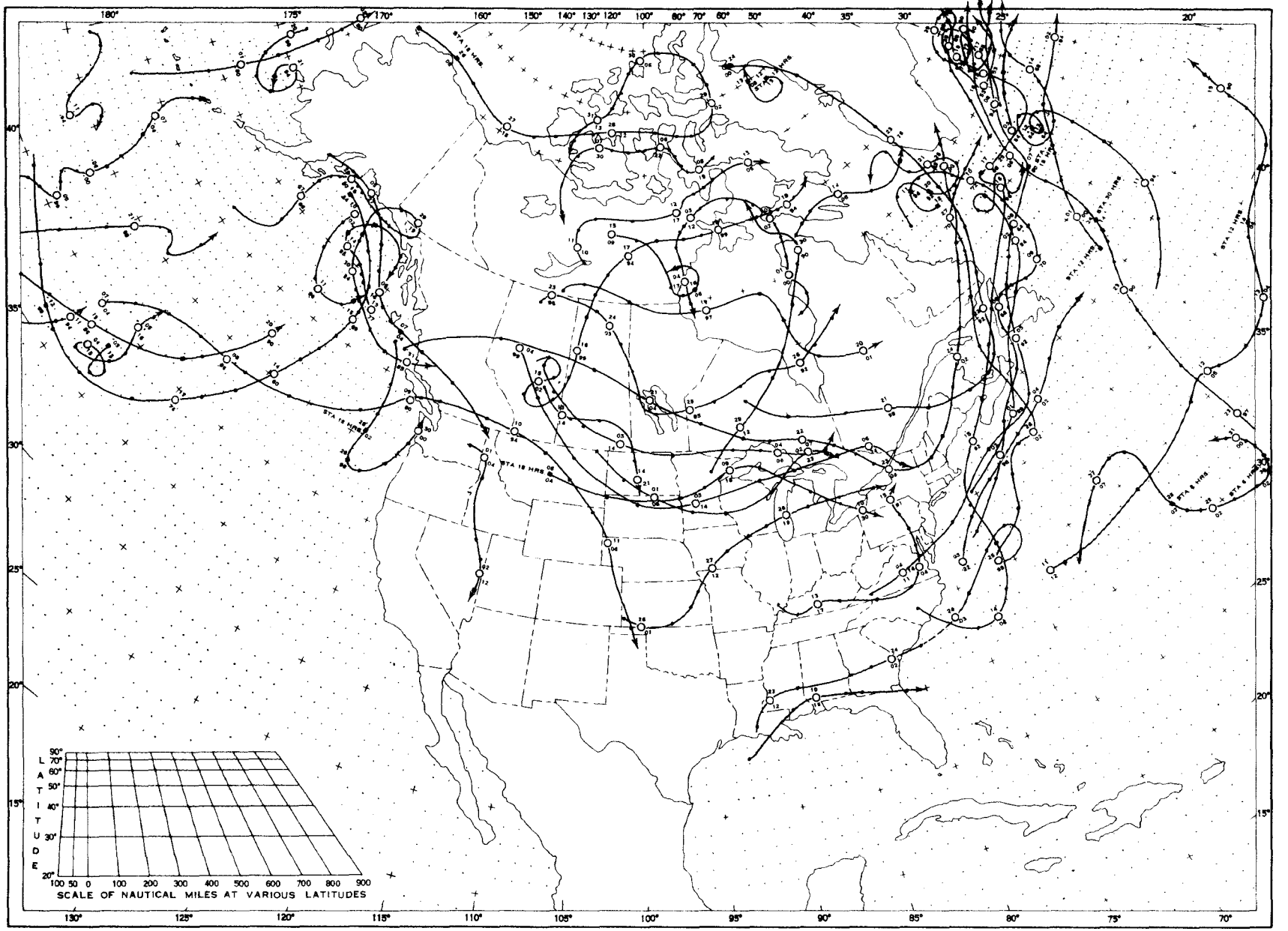
A. Mean daily solar radiation, direct + diffuse, received on a horizontal surface in langleys (1 langley = 1 gm. cal. cm.$^{-2}$) and recorded in International Pyrheliometer Scale of 1956. B. Percentage of the mean based on at least 5 years of record during the period 1950-60, and corrected to the International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

Chart VIII. Tracks of Centers of Anticyclones at Sea Level, January 1968.



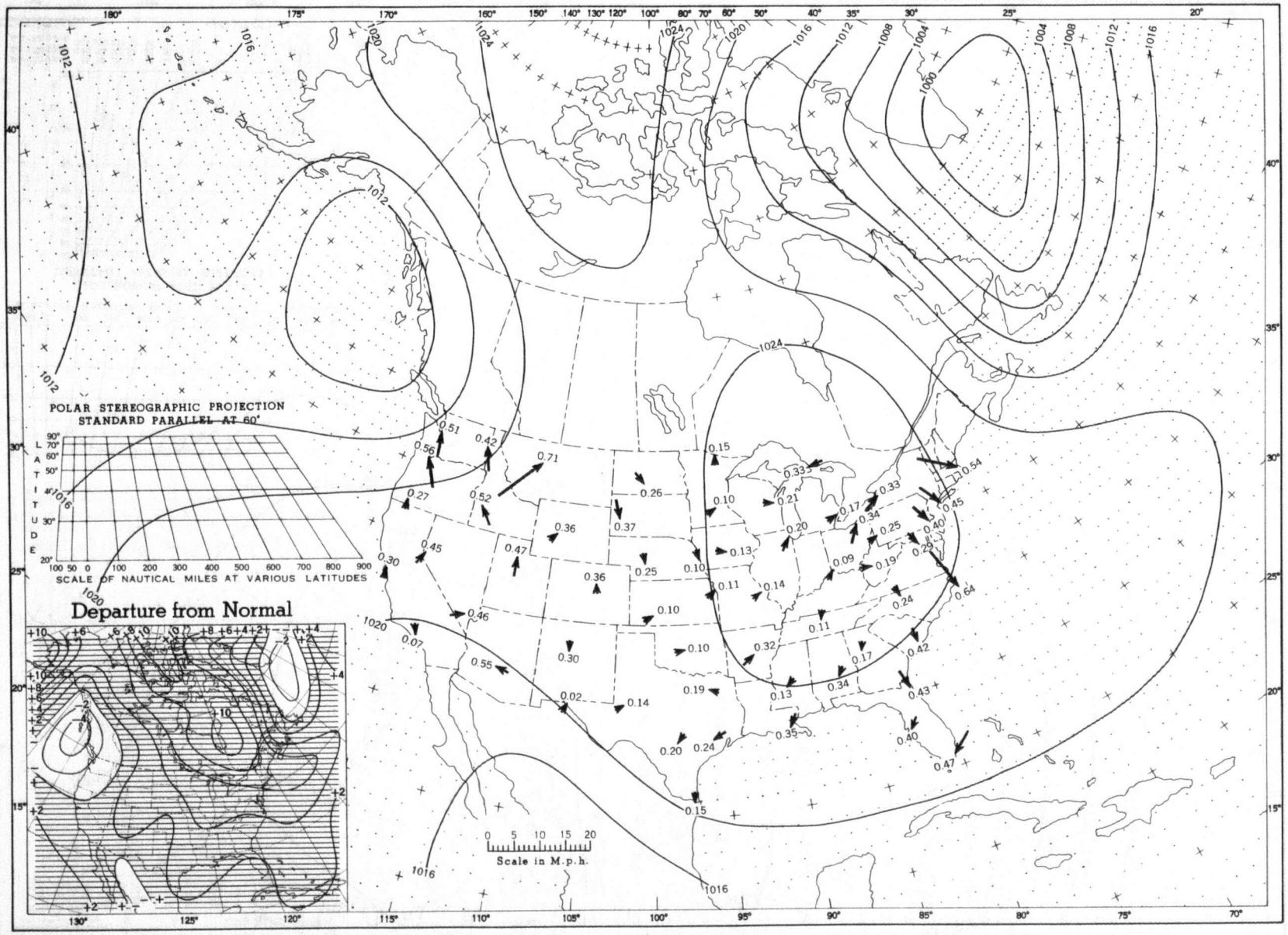
Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. 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 1968.



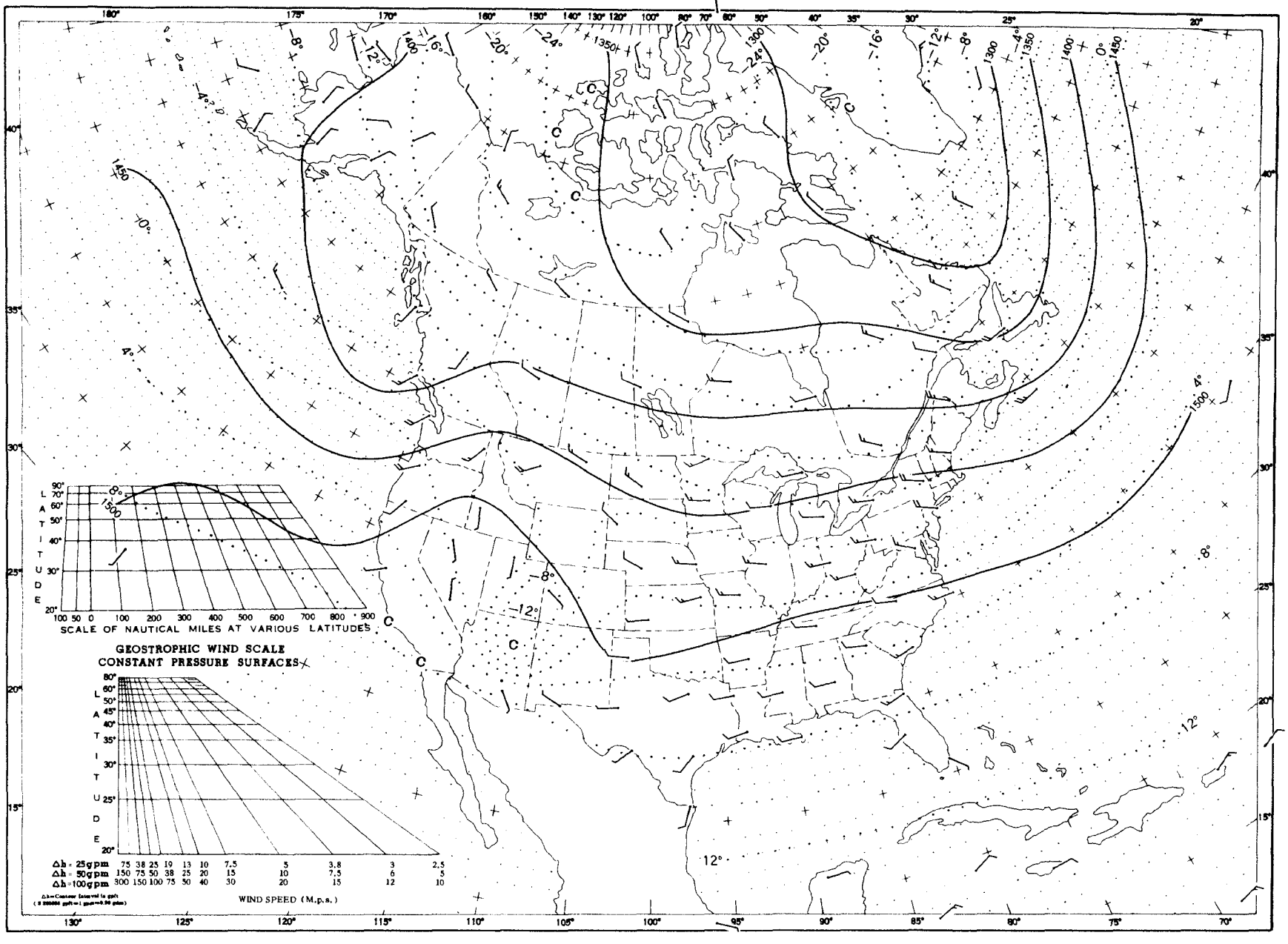
Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. Dots indicate intervening 6-hourly positions. Squares indicate position of stationary center for period shown. Dashed line in track indicates reformation at new position. 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 1968**. Inset: Departure of Average Pressure (mb) from Normal, **January 1968**.



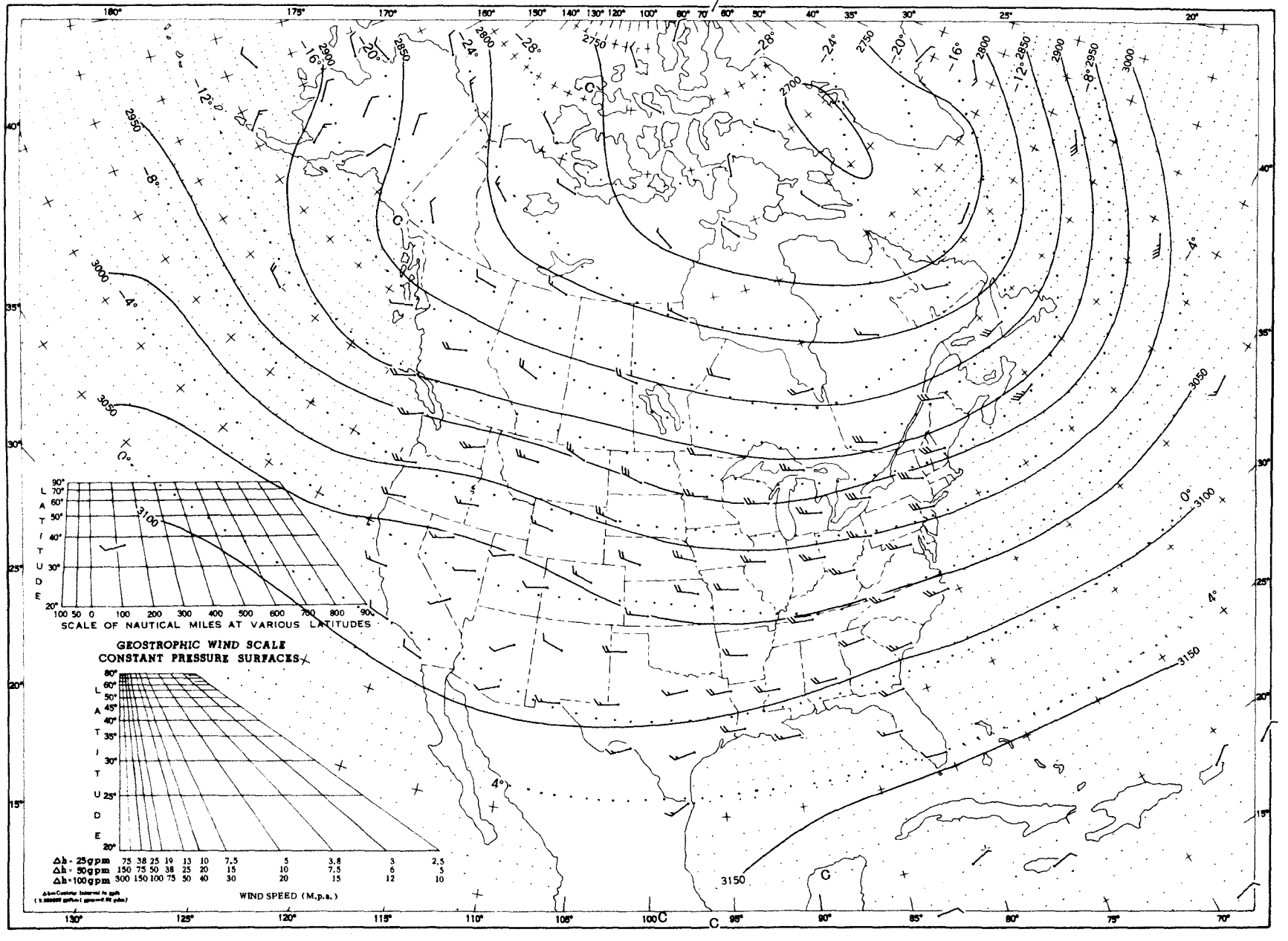
Average sea level pressures are obtained from eight daily 3-hourly observations. Resultant wind directions and speeds are shown by arrows. Constancy ratios (resultant speed÷average speed) are shown to two decimal places. Pressure normals are computed for stations having at least 10 years of record and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

Chart XI. 850-mb Surface, 1200 GMT, January 1968. Average Height and Temperature, and Resultant Winds.



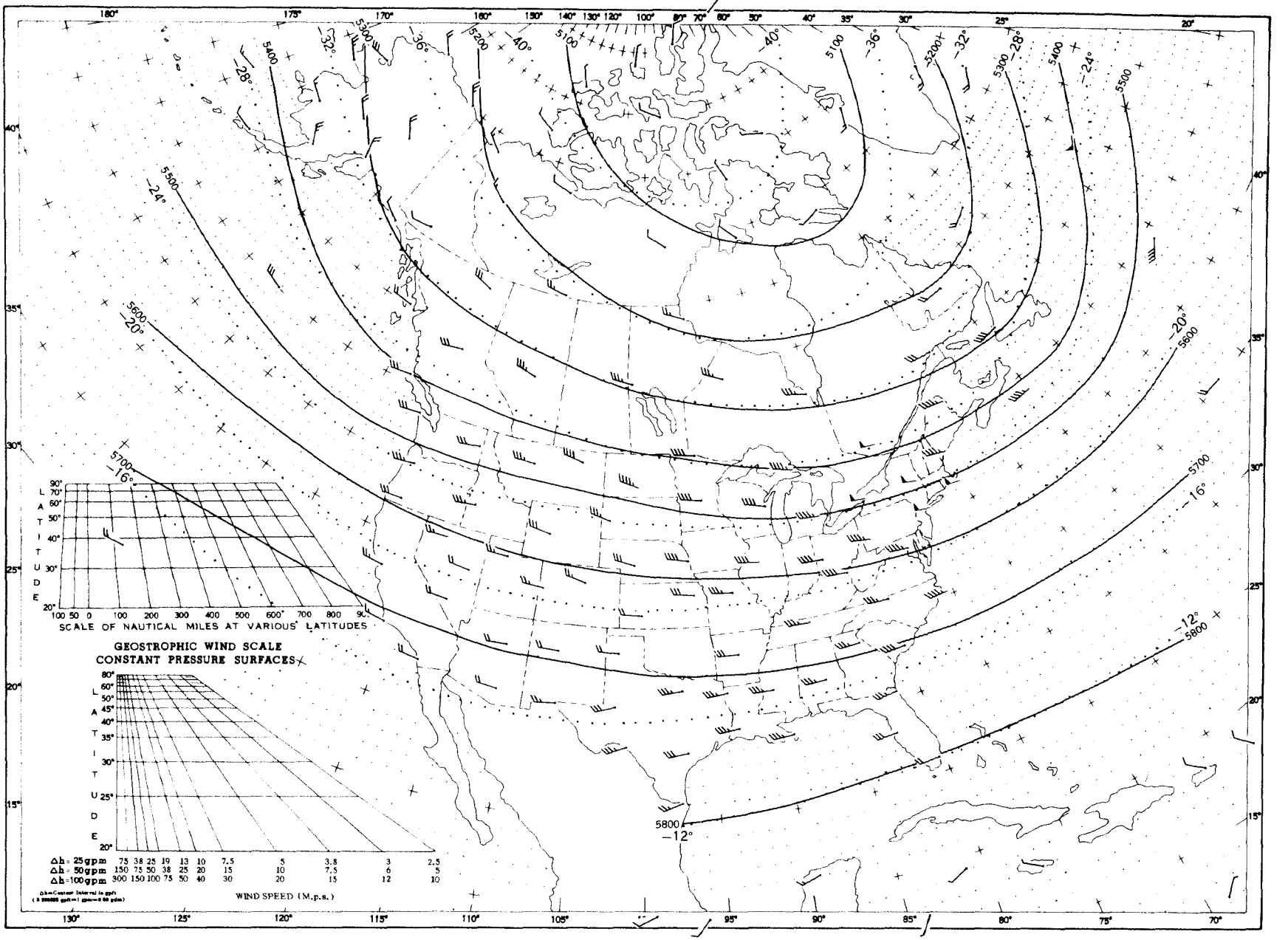
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XII. 700-mb. Surface, 1200 GMT, January 1968 Average Height and Temperature, and Resultant Winds.



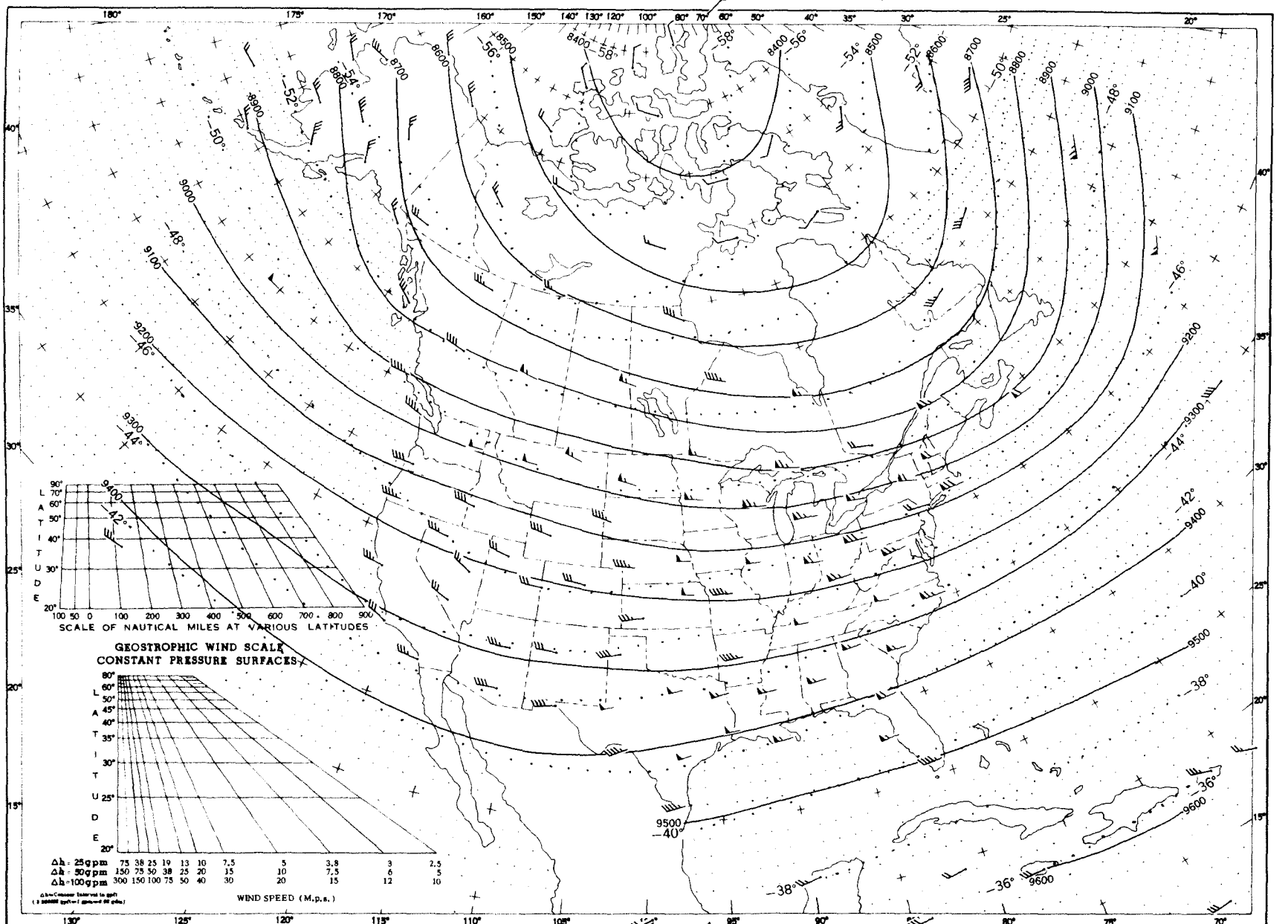
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XIII. 500-mb. Surface, 1200 GMT, January 1968. Average Height and Temperature, and Resultant Winds.



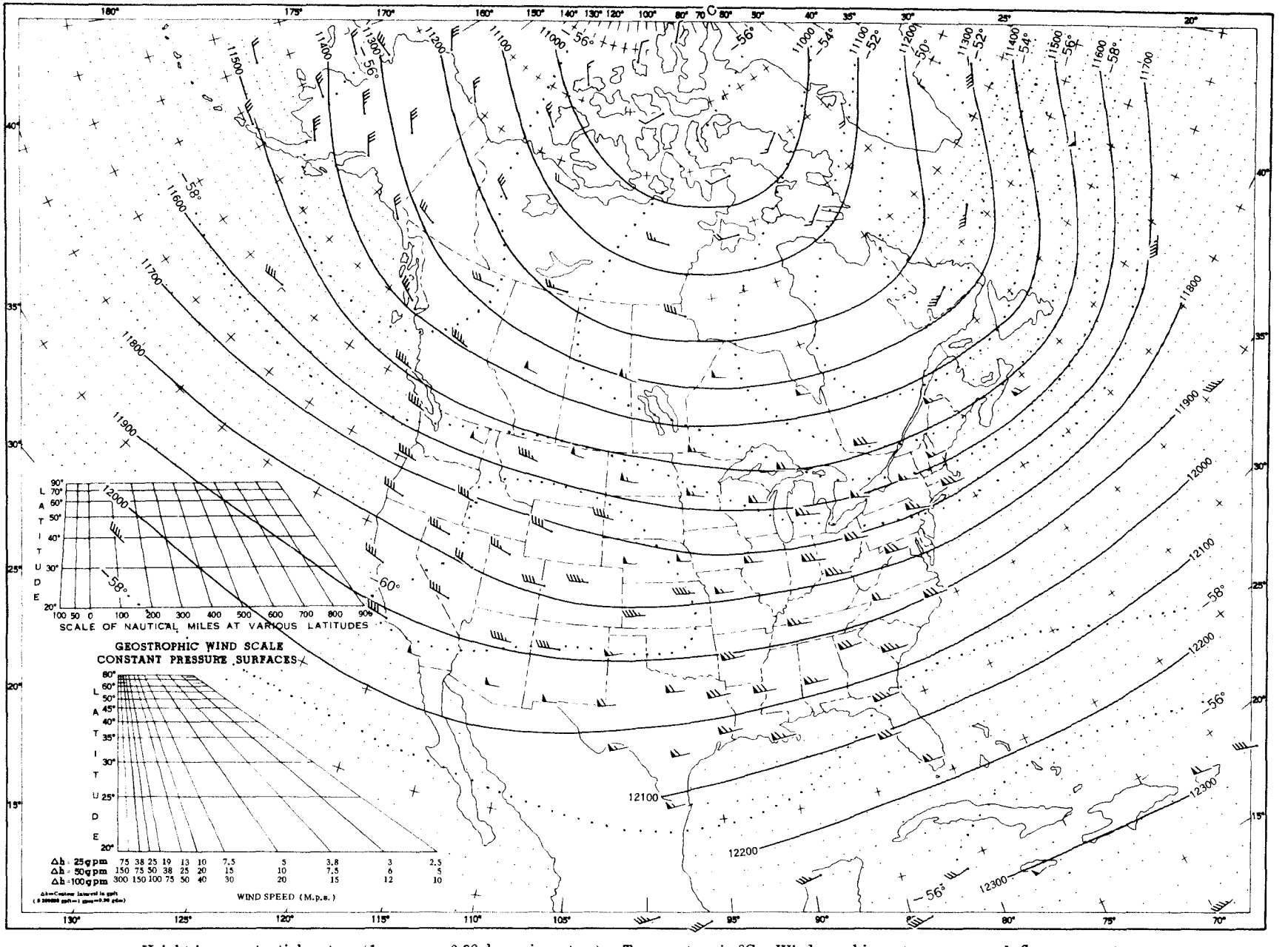
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XIV. 300-mb. Surface, 1200 GMT, January 1968. Average Height and Temperature, and Resultant Winds.



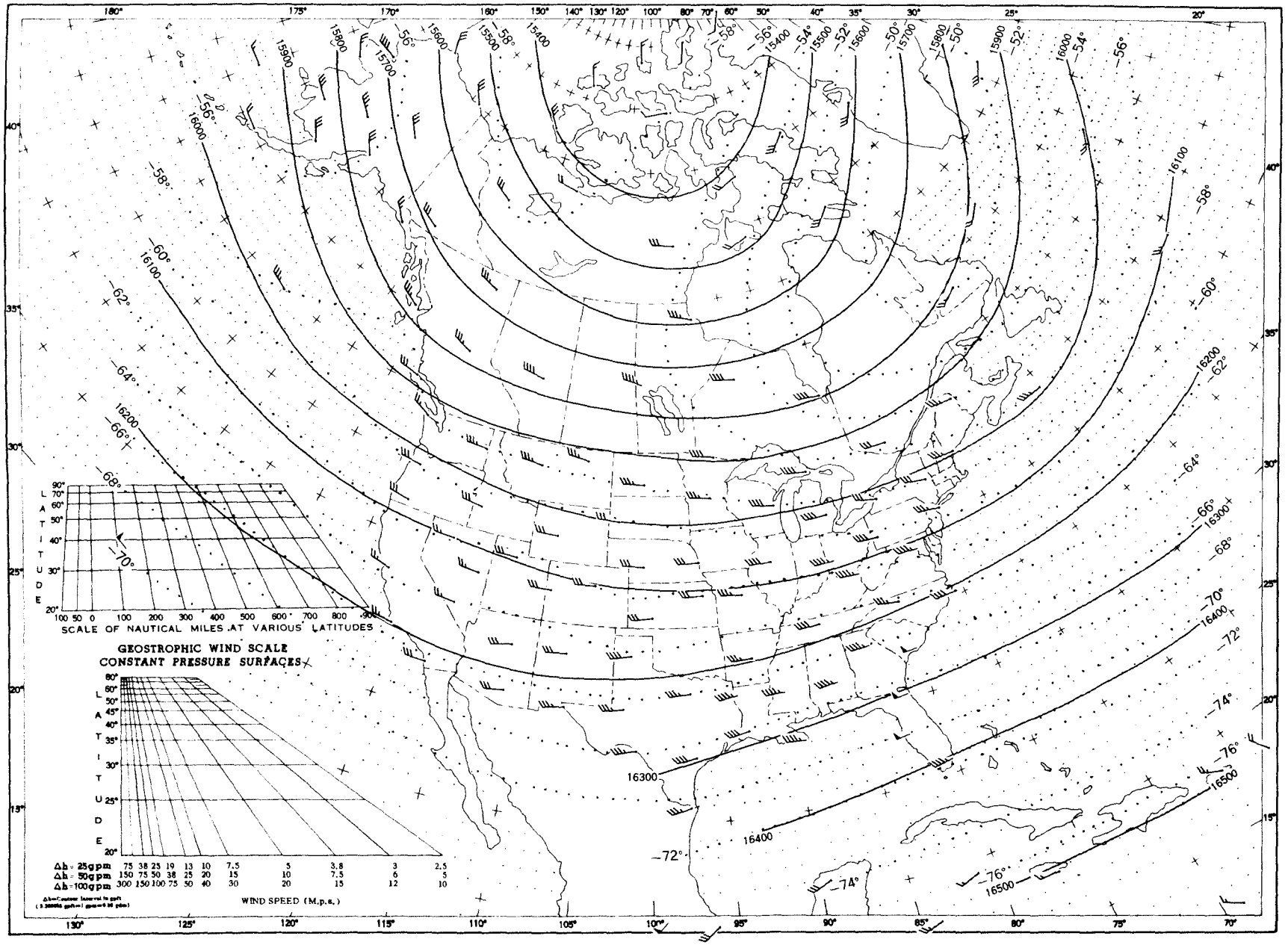
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XV. 200-mb. Surface, 1200 GMT, January 1968. Average Height and Temperature, and Resultant Winds.



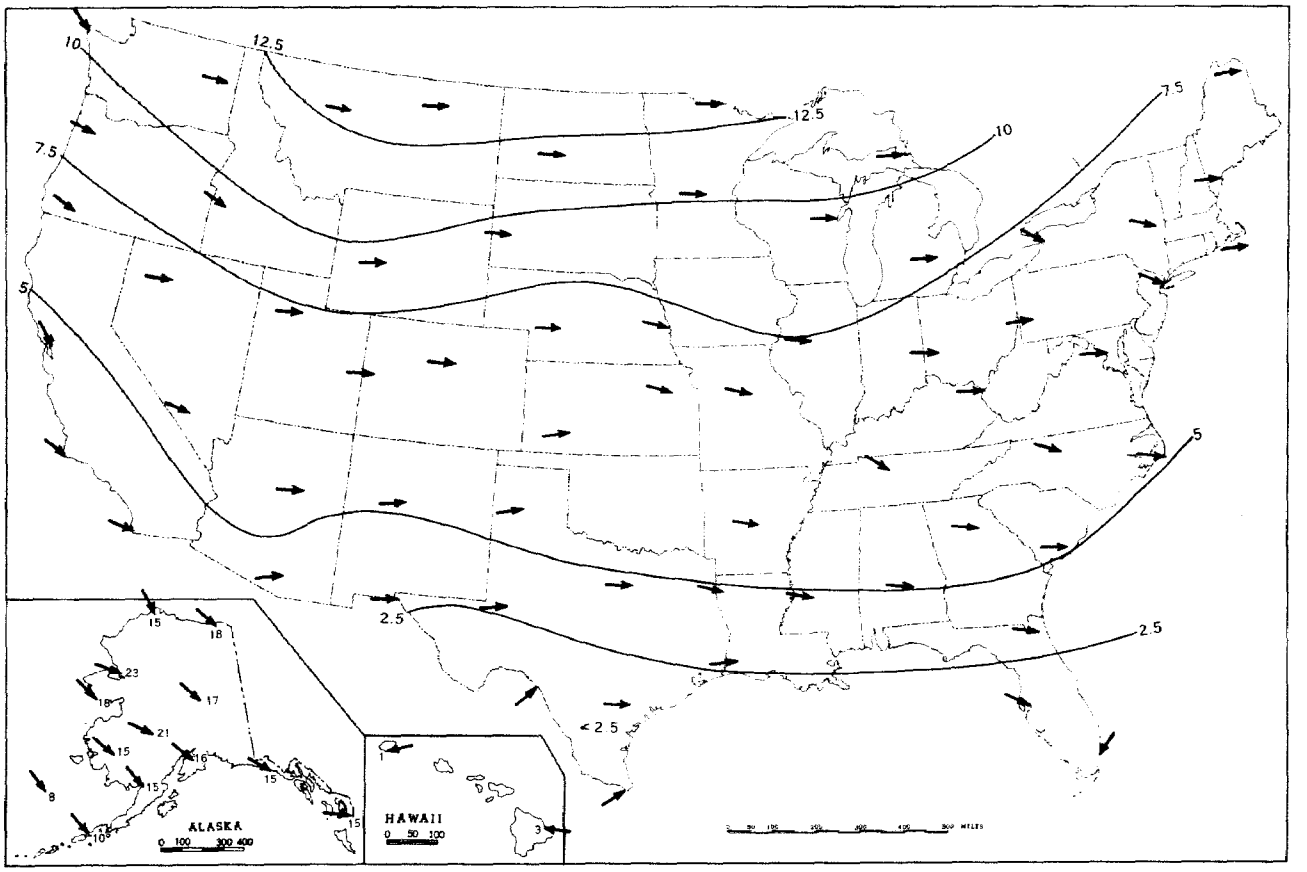
Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XVI. 100-mb. Surface, 1200 GMT, January 1968. Average Height and Temperature, and Resultant Winds.

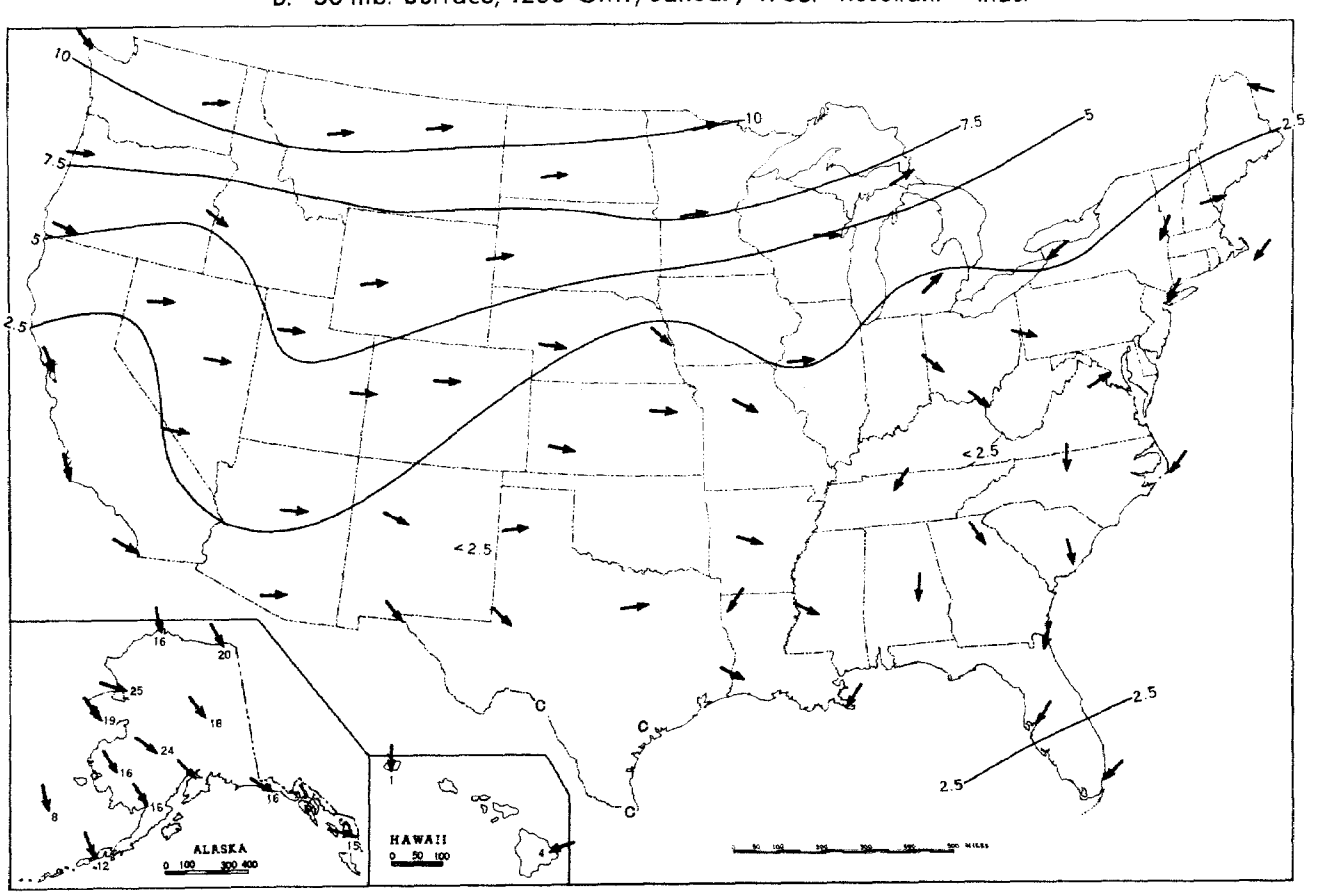


Height in geopotential meters (1 g.p.m. = 0.98 dynamic meters). Temperature in °C. Wind speed in meters per second; flag represents 25 mps, full feather 5 mps, and half feather 2.5 mps. All wind data are based on rawin observations.

Chart XVII. A. 50-mb. Surface, 1200 GMT, January 1968. Resultant Winds.



B. 30-mb. Surface, 1200 GMT, January 1968. 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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