MARCH 1980 VOLUME 31 NUMBER 3

CLIMATOLOGICAL DATA

NATIONAL SUMMARY

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C O N T E N T S

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

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CLIMATOLOGICAL DATA

NATIONAL SUMMARY

MARCH 1980

GENERAL SUMMARY OF WEATHER CONDITIONS

Lyle Denny, Climatologist
Environmental Data and Information Service, NOAA

HIGHLIGHTS: The dominant features of the March centered on the southeastern United States. As March began very cold air moved into the Southeast and by the third day of the month had enveloped all of Florida. Freezing temperatures reached all the way to Miami. Immediately after the freeze, rain set in and accumulated excessive amounts for each week of the month. Much of the Southeast had well over double the normal rainfall. The northern Plains, northern Mississippi Valley, and western Great Lakes areas experienced a dry month. The area from southeastern Oklahoma to southern New Mexico and southward into Mexico was also very dry.

March began cold and snowy for much of the eastern United States. On the first day, snow eased into the Midwest and spread a mantle from the southern Appalachians to the Atlantic Coast. Very cold air moved in with the storm. A record snowfall left 1 to 2 feet in southeastern Virginia and northeastern North Carolina. The morning temperature at Raleigh, NC, dipped to 11° with the cold air pushing southward. On the 3d freezing temperatures reached all the way to Miami, FL; much of the Southeast was chilled by readings in the teens.

Gradual warming took place during the succeeding week and by the 7th springlike weather prevailed in the East. Showers and thunderstorms deluged the Southeast. Elsewhere, moderate rain fell in most of California and spread eastward to the Rockies in lesser amounts.

Early in the period of the 10th-16th another cold airmass moved rapidly southward through the Plains and eastward. New England recorded light to moderate snow in the mountains and rain on the coast as the front moved through. The cold air stalled in the South and caused another week of very heavy rain, keeping Southern farmers out of their fields. Another storm system moved into the Pacific Northwest and on to the Rockies. Rain, with snow at higher elevations, again covered the entire West. Average temperatures for the week of the 10th-16th were normal or warmer in all but the northern Mississippi Valley through New England.

The 17th-23d showed some precipitation falling in nearly all of the Nation. Exceptions included parts of the north central Plains and in southwestern Texas. Again, the area of greatest rainfall ranged from the lower Mississippi Valley through the Southeast and into New England. As much as 8 inches of rain accumulated in parts of northern Georgia and Alabama. Flooding ensued along the already swollen rivers. No severely cold temperatures were reported during the week except near the western Great Lakes, but the freeze line did reach into southwestern Texas.

March went out like a lion in parts of the Nation. Excessive rain, thunderstorms, and even tornadoes were reported from eastern Texas to the Florida Panhandle and North Carolina. It was the fourth week of excessive rain in the Southeast. A series of storms originating in the central Rockies caused near blizzard conditions in the west central Plains. Parts of western Kansas and Nebraska accumulated over 15 inches of snow. Temperatures hovering near freezing and periodic high winds compounded the problems. Again, nearly all of the Nation recorded some precipitation. Average temperatures for the week were cooler than normal in the Rockies and central Plains, warmer in the northern Plains, and near normal elsewhere.

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES

March 1980

STATE	Temperature						Precipitation			
	Monthly extremes						Monthly extremes			
	Station	Highest	Date	Station	Lowest	Date	Station	Greatest	Station	Least
		°F			°F			In.		In.
Alabama	Mobile WSO AP	85	13	Valley Head	2	3	Calera 2 SW	18.86	Frisco City 4 SSW	9.91
Alaska	2 Stations	53	31	Chandalar Lake	-48	15	Little Port Walter	15.53	Lonely	T
Arizona	Casa Grande	87	2	Sunrise Mountain	- 5	17	Hawley Lake	5.47	Bisbee 2	.15
Arkansas	4 Stations	82	21+	Fayetteville Exp Sta	- 4	1	Eudora	11.91	Horatio	2.25
California	2 Stations	86	31+	Bodie	-14	25	Crescent City 7 ENE	12.12	Bishop WSO AP	.28
Colorado	Lamar	80	15	Taylor Park	-38	17	Wolf Creek Pass 1 E	8.19	Creede	.34
Connecticut	Hartford-Brainard FLD	66	21	Wigwam Reservoir	- 9	1	New Haven	10.65	Hartford WSO AP	5.87
Delaware	Lewes 1 SW	68	8	Wilmington WSO AP	6	1	Wilmington Porter Resv	7.30	Middletown 1 WSW	4.94
Florida	Ft. Myers FAA AP	93	19	Smith Creek	13	3	Lake City 2 E	15.69	Key West WSO AP	.83
Georgia	Folkston 9 SW	87	28+	Blairsville Exp Sta	- 3	3	Dahlonega	19.70	Folkston 3 SW	5.78
Hawaii	Puukohola Heiau 98.1	90	11	‡Mauna Kea Obs 111.2	20	22+	Waiakea SCD	90.07	Waiawa 943	.24
Idaho	Grand View 2 W	69	14	Island Park Dam	-14	26	Silver City 5 W	5.20	May	.11
Illinois	Cairo WSO CI	71	10	2 Stations	-13	2	Fairfield Radio WFIW	6.19	Marengo	.48
Indiana	Evansville	70	15	Martinsville 2 SW	-15	2	Williams	6.03	Warsaw	2.29
Iowa	4 Stations	68	20+	2 Stations	-12	2	Fort Madison	D 3.27	Waukon	.27
Kansas	2 Stations	81	15	Sabetha Lake	-14	2	LeRoy	7.17	Richfield 1 NE	.53
Kentucky	Tomahawk 1 WSW	76	17+	2 Stations	-12	3	Blackmont	D 8.64	Calhoun Lock 2	3.96
Louisiana	2 Stations	86	13	2 Stations	11	3	Bunkie	18.43	Shreveport WSO AP	3.75
Maine	Lewiston	58	29+	Rangeley	-25	3	Bar Harbor 3 NW	6.84	Clayton Lake 2	2.10
Maryland	Cumberland 2	75	8	McHenry 2 NW	- 5	2	Catoctin Mountain Park	D 7.39	Hancock Fruit Lab	3.83
Massachusetts	Chester 2	68	20	Chester 2	-14	1	Chester 2	13.60	Nantucket FAA AP	3.85
Michigan	3 Stations	63	21+	Trout Lake	-31	1	Monroe	4.44	Fayette 3 SW	.18
Minnesota	Winona	61	20	Tower 3 S	-36	1	New London	2.67	Crookston NW Exp Sta	.34
Mississippi	4 Stations	84	9+	4 Stations	7	3+	Centreville 4 ESE	17.99	Rosedale	9.49
Missouri	2 Stations	78	8+	Cole Camp 9 SE	-18	2	Marble Hill	6.66	Princeton 6 SW	1.73
Montana	Ballantine	67	14	Simpson 6 NW	-33	5	Red Lodge	4.90	Bloomfield	.02
Nebraska	4 Stations	75	18+	Nenzel 20 S	-32	1	Benkelman	4.99	Tryon 6 NE	.34
Nevada	Sunrise Manr Las Vegas	78	30+	Mountain City R S	- 2	17	Red Rock Canyon St Pk	2.53	Lahontan Dam	.07
New Hampshire	2 Stations	62	20	Mount Washington	-30	1	MacDowell Dam	8.25	Lancaster	2.41
New Jersey	Moorestown	68	8	2 Stations	0	2+	Woodcliff Lake	9.59	Shiloh	4.70
New Mexico	3 Stations	84	31+	Chama	- 8	17	Brazos Lodge	4.40	7 Stations	.00
New York	Aurora Research Farm	66	21	Old Forge	-36	2	Slide Mountain	14.53	Ellenburg Depot	1.74
North Carolina	2 Stations	78	22+	Grandfather Mountain	- 8	3	Coweeta Exp Station	17.04	Roanoke Rapids	4.00
North Dakota	Breien	64	18	Upham 3 N	-38	1	Forbes 9 NNW	1.12	Ambrose 3 N	.00
Ohio	Ironton	74	9	Dorset	-20	2	Waterloo	6.76	Ashtabula	2.39
Oklahoma	3 Stations	83	16	2 Stations	- 2	2	Eufaula	6.08	Marietta 3 NW	.54
Oregon	Gold Beach Ranger Sta	71	9	Crater Lake NPS Hq	3	16	Port Orford 5 E	13.79	Redmond FAA AP	.18
Pennsylvania	2 Stations	70	17+	Kane 1 NNE	-23	2	Bucksville	8.17	Titusville Waterworks	2.31
Puerto Rico	2 Stations	95	28+	Adjuntas Substation	49	1	Pico Del Este	8.86	Puerto Real	.00
Rhode Island	Providence WSO AP	63	17	North Foster 1 E	1	1	Kingston	10.06	Woonsocket	6.91
South Carolina	Ridgeland 5 NE	82	31	Simms Water Plant	- 3	3	Walhalla	15.43	Andrews	D 6.48
South Dakota	3 Stations	75	15	Usta 8 WNW	-35	1	Edgemont	2.38	Glad Valley 2 W	T
Tennessee	2 Stations	77	9+	Oneida	-11	3	Chattanooga WSO AP	16.32	Samburg Wildlife Ref	5.40
Texas	2 Stations	97	23+	Lipscomb	- 2	2	Deweyville 5 S	10.49	27 Stations	.00
Utah	3 Stations	69	14	Scofield	-16	26+	Alta	11.64	Duchesne Airport	.29
Vermont	3 Stations	62	21+	Enosburg Falls	-28	2	Searsburg Station	9.13	Enosburg Falls	1.59
Virginia	2 Stations	77	30+	Timberville 3 E	- 7	3	Meadows of Dan 5 SW	7.56	Colonial Beach	2.31
Virgin Islands	Annaly	90	28	Beth Upper New Works	62	2	Caneel Bay Plantation	4.05	East Hill	.94
Washington	Sunnyside	70	23	Chesaw 4 NNW	- 1	6	Rainier Paradise R S	13.83	Wenatchee	.07
West Virginia	2 Stations	78	8	Elkins WSO AP	-14	3	Seneca State Forest	7.05	Moorefield 2 SSE	2.22
Wisconsin	2 Stations	59	31	3 Stations	-26	1	Madeline Island	1.63	2 Stations	.30
Wyoming	Yoder 4 SW	67	15	Double Four Ranch	-24	1	Atlantic City Ore Mine	4.24	Deaver	.02

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	Temperature: No. of days: Max. 32.2 °C or above	Temperature: No. of days: Min. 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .25 mm. or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (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/s		m/s							%
ALABAMA																																	
BIRMINGHAM U	207			16.6	4.7	10.7	-2.1	26.1	8	-10.6	3	0	6			389	227	117	21		76	76											52
BIRMINGHAM	189	993.9	1016.8	16.7	4.9	10.8	-1.1	26.7	8	-11.7	3	0	5	3.9	66	401	245		20	9	8		0.2	24								
HUNTSVILLE	190	993.2	1016.8	14.4	3.0	8.7	-1.7	23.3	8	-14.4	3	0	7	3.3	71	432	285	130	18	4	51	51	0.2	36	15.6	27	21	7	6	18	7.1	
MOBILE	64	1008.5	1016.4	21.9	10.9	16.4	1.2	29.4	13	-5.0	3+	0	3	10.6	72	342	162	113	14	10	T	T	0.4	14	11.6	34	2	6	3	22	7.4	
MONTGOMERY	59	1009.5	1016.8	19.3	7.8	13.6	-0.1	27.8	8	-7.2	3	0	4	7.2	69	261	108	83	15	7	T	0	0.3	30	13.0	W	20+	5	6	20	7.5	53
ALASKA												8																				
ANCHORAGE	35	1001.4	1006.2	1.1	-6.4	-2.7	1.9	8.3	31	-16.7	17	0	29	-8.3	67	8	-7	2	8	0	86	51	0.7	2	19.2Y	E	31	3	7	21	7.7	44
ANNETTE	34	1008.5	1012.6	6.4	0.6	3.5	0.0	9.4	23	-3.9	6+	0	13	0.6	82	247	14	52	20	0	137	25	1.7	13	19.2Y	SE	27	6	3	22	7.7	
BARROW	9	1018.6	1019.2	-22.0	-26.3	-24.2	2.1	-15.0	24	-32.8	19	0	31	-28.3	68	1	-4	1	1	0	10	406	3.0	5	17.0Y	W	15	20	4	7	3.5	
BARTER ISLAND	12	1016.3	1018.4	-22.2	-28.3	-25.3	0.7	-12.2	23	-36.1	12	0	31	-31.7	56	8	2	8	3	0	81	381	0.8	10	25.9Y	W	15	8	9	14	5.8	
BETHEL	38	996.6	1002.5	-3.1	-10.0	-6.5	4.9	5.0	31	-28.9	13	0	31	-8.3	85	29	9	7	14	0	320	330	3.3	10	23.2Y	NE	29	4	4	23	7.5	
BETTLES	196	987.5	1013.1	-7.8	-18.5	-13.2	3.8	1.7	22+	-34.4	16	0	31			3	-18	2	5	0	107	457	2.2	36								
BIG DELTA	386			-1.2	-10.7	-5.9	5.0	8.9	31	-31.7	16	0	30			1	-7	1	2		41	203										
COLD BAY	29	994.6	998.3	3.2	-1.4	0.9	2.6	6.1	26+	-9.4	16+	0	17	-2.2	82	89	40	18	25	0	602	127	4.1	17	23.7	18	20+	2	4	25	8.7	
FAIRBANKS	133	991.9	1009.3	-1.2	-15.2	-8.2	4.3	8.9	31	-31.7	16	0	31	-15.0	59	3	-9	2	4	0	81	330	1.2	3	9.8	8	2	9	8	14	6.5	
GULKANA	479			-1.2	-12.5	-6.8	2.9	6.1	31	-28.9	14	0	31			6	-3	2	8		274	279										
HOMER	19			3.1	-3.1	0.1	2.5	6.7	31+	-15.0	16	0	19			54	23	18	15	0	79	76			11.6	7	29	7	8	16	6.7	
JUNEAU	4	1010.2	1010.9	4.2	-1.9	1.2	1.2	8.9	22	-9.4	15	0	18	-3.3	74	70	-21	12	17	0	61	25	2.3	11								
KING SALMON	15	999.7	1001.6	1.1	-6.0	-2.4	4.0	6.7	3	-21.7	14	0	26	-7.8	69	38	9	14	14	0	229	102	2.1	10	22.8Y	E	2	4	6	21	7.7	
KODIAK	4	999.3	1003.6	5.8	-0.9	2.4	2.4	9.4	30	-7.8	17+	0	18	-3.3	68	130	32	34	19	0	180	25	0.4	24	21.9Y	SE	29	5	10	16	7.2	
KOTZEBUE	3	1008.8	1009.3	-7.4	-16.1	-11.8	6.3	0.6	21	-31.1	17+	0	31	-15.6	74	16	7	6	8	0	152	533	4.6	8	23.2Y	E	3	10	4	17	6.3	
MC GRATH	105	993.6	1006.8	-2.0	-15.2	-8.6	4.2	6.7	30	-34.4	15	0	31	-13.9	66	7	-14	4	6	0	119	508	0.6	5	16.5Y	S	31	8	5	18	6.5	
NOME	4	1004.1	1004.8	-4.2	-11.5	-7.8	5.8	2.2	31+	-30.0	16+	0	31	-12.8	68	18	-2	4	15	0	206	305	3.9	6	13.0	2	26+	8	2	21	6.9	36
ST. PAUL ISLAND	7			2.4	-2.9	-0.2	4.3	10.0	18	-13.9	12	0	25			25	-7	5	24	0	307	127			26.4Y	S	17	1	7	23	8.4	
TALKEETNA	105			1.4	-10.6	-4.6	2.1	6.7	30	-26.7	15	0	31			23	-17	7	9	0	267	813			10.3	2	16					
UNALAKLEET	5																															
VALDEZ	11	1006.8	1007.8	2.7	-3.3	-0.3	2.6	5.6	9	-8.9	14	0	29	-4.4	75	83	-27	20	19	0	925	1143	1.2	7	17.0Y	SE	13	5	3	23	8.3	
YAKUTAT	9	1007.1	1008.2	4.9	-1.3	1.8	2.7	7.2	19	-8.9	20	0	15	-2.2	77	190	-53	29	23	0	714	406	2.0	9	20.6Y	E	27	3	6	22	8.1	
ARIZONA																																	
FLAGSTAFF	2135			6.0	-5.7	0.2	-1.1	11.1	13	-14.4	31	0	31			106	59	20	14		1080	229			12.1	SW	6	10	7	14	5.7	83
PHOENIX	338	973.9	1012.9	22.0	9.8	15.9	0.6	26.1	30+	6.7	20+	0	0	2.8	46	22	3	10	7	1	0	0	0.6	18	20.1Y	NW	31	16	6	9	4.3	85
TUCSON	788	924.1	1012.2	20.8	7.4	14.2	-0.1	25.6	21+	3.3	29+	0	0	-1.7	40	31	15	18	6	0	T	0	1.0	21	13.9	W	22	17	3	11	4.6	83
WINSLOW	1492			13.4	-1.3	6.1	-1.1	20.6	14	-8.9	17	0	20			20	9	6	9		163	102										
YUMA	59			24.6	10.6	17.6	-0.2	29.4	14	7.8	19+	0	0			10	5	4	5		0	0			13.0	N	28+	17	7	7	3.8	88
ARKANSAS																																	
FORT SMITH	136	999.0	1015.8	15.8	1.5	8.7	-1.5	25.6	7	-11.1	2	0	10	0.6	64	76	-17	33	13	4	T	T	0.7	4	16.1	NW	20	9	6	16	6.5	55
LITTLE ROCK	78	1006.4	1016.2	16.0	4.3	10.2	0.0	26.7	10	-7.2	2	0	4	2.8	64	168	42		12	5	T		0.2	35								
NO. LITTLE ROCK	165			14.5	3.7	9.1	-1.9	24.4	10+	-10.0	2	0	4			124	-4	53	12	7	T	T			12.1	W	20					75
CALIFORNIA																																	
BAKERSFIELD	145	999.0	1016.6	18.7	7.1	12.9	-0.8	26.1	29	3.3	16	0	0	5.6	66	34	12	18	7	0	0	0	0.6	36	9.8	16	2	13	8	10	5.0	
BISHOP	1252	871.3		14.8	-2.4	6.2	-1.7	20.0	29+	-8.3	25	0	29			7	-4	4	4		T	T			19.7Y		30	15	7	9	4.5	
BLUE CANYON	1609	836.8	1016.0	7.1	-1.1	3.0	-0.3	15.6	19	-5.6	21+	0	23	-5.6	62	167	-51	46	14		1123	787	0.7	15	9.8	18	5					
EUREKA U	13			12.4	6.0	9.2	0.2	16.1	7	0.6	16	0	0			156	33	43	19	1	0	0			16.1	NW	31	9	7	15	6.1	69
FRESNO	100	1005.1	1016.8	18.2	5.9	12.1	-0.1	23.9	29	1.7	16	0	0	5.0	65	52	11	23	7	1	0	0	0.9	33	11.6	30	30	13	7	11	4.8	74
LONG BEACH	8	1013.9	1015.2	19.7	9.2	14.4	0.4	26.1	29	6.7	22+	0	0	7.8	68	73	35	27	9	2	0	0	1.3	24	9.4	28	28+	19	4	8	3.6	
LOS ANGELES	30	1011.5	1015.2	18.4	10.7	14.6	1.0	23.3	29+	7.8	26+	0	0	8.3	68	94	50	59	8	3	0	0	1.8	27	19.2Y	W	6	21	5	5	3.2	
LOS ANGELES U	82			21.1	11.0	16.1	0.9	26.7	29	7.2	26	0	0			122	66	64	9		0	0										
MT SHASTA R	1077	891.3	1017.1	9.6	-1.8	3.9	-0.8	18.9	29	-6.7	12	0	28			44	-58	13	13		132	25	1.3	34	8.5	33	23+					
OAKLAND	2	1017.6	1017.7	16.8	9.3	13.1	1.0	22.8	22	6.1	12	0	0	6.7	68	43	-15	21	8	2	0	0	1.5	30	11.2	32	25	14	9	8	4.3	
RED BLUFF	104	1004.1	1016.7	18.1	5.7	11.9	0.1	23.9	28+	1.7	12+	0	0	2.2	58	53	-11	16	10	2	0	0	1.8	33	13.4	NW	31+	12	9	10	5.1	88
SACRAMENTO	5	1015.9	1016.8	16.6	5.2	10.9	-0.8	22.8	29	0.0	18	0	1			67	11	18	8	1	0	0	1.2	30	17.9	NW	30	16	8	7	4.0	90
SAN DIEGO	4	1014.6	1015.6	20.1	12.7	16.4	1.9	26.7	29	9.4	26	0	0	10.0	68	69	29	25	9	1	0	0	1.4	25	13.4	SW	6	12	11	8	4.5	81
SAN FRANCISCO	2	1016.9	1017.6	16.6	6.8	11.7	0.0	21.1	29	3.3	26	0	0	5.6	69	67	3	32	11	2	T	0	3.3	30	17.9	29	31	14	8	9	4.3	
SAN FRANCISCO U	16			16.4	10.2	13.3	0.9	21.1	29	8.3	16	0	0			32	-39	15	9													
SANTA MARIA	72			18.1	4.7	11.4	-0.2	21.7	29+	0.6	31+	0	0			45	-5	24	6		0	0						18	6	7	3.7	
STOCKTON	7	1015.9		18.7	5.4	12.1	0.6	23.3	29	1.7	26	0	0	5.0	68	28	-21	15	6		0	0	1.9	30	14.3	34	18	11	12	8	4.5	

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	Temperature: No. of days: Max. 32.2 °C or above	Temperature: No. of days: Min. 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .25 mm. or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (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/s		m/s							%
COLORADO																																
ALAMOSA	2297			8.3	-10.3	-1.0	-0.4	13.9	21+	-20.6	17	0	31			17	8	11	7		160	76	1.9	21				9	12	10	5.4	
COLORADO SPRINGS	1873	804.9	1012.2	8.9	-4.8	2.1	0.2	18.3	15	-19.4	1	0	27	-8.9	52	33	13	10	6	0	323	102	1.0	3	14.3	32	12	8	8	15	6.4	
DENVER	1610	830.3	1010.0	9.9	-3.3	3.3	0.6	20.0	15	-17.2	1	0	26	-7.2	53	29	-2	10	14	0	307	152	0.4	33	15.2	NW	12	7	8	16	6.8	67
GRAND JUNCTION	1476	848.3	1012.7	10.8	-0.9	4.9	-0.2	17.8	14	-8.9	31	0	20	-3.3	61	45	26	12	13	0	185	51	0.6	8	13.0	30	30	6	9	16	6.6	53
PUEBLO	1428			13.3	-3.8	4.8	0.3	25.0	14	-15.6	1	0	27			31	14	13	6		330	152			19.7	NW	12	8	8	15	6.4	81
CONNECTICUT																																
BRIDGEPORT	2	1015.2	1015.8	6.6	-1.1	2.8	-0.5	12.8	23	-14.4	1	0	14	-6.7	55	179	90	45	15	3	160	127	2.0	32	17.4	7	22	6	10	15	6.5	
HARTFORD	52	1008.8	1015.5	6.8	-3.3	1.8	-0.2	15.0	20	-16.1	1	0	22	-6.7	58	149	52	39	17	2	150	102	1.8	33	17.0	NW	15	5	9	17	6.9	54
DELAWARE																																
WILMINGTON	23	1013.5	1016.5	9.6	-0.7	4.4	-0.9	18.9	8	-14.4	1	0	15	-3.3	59	158	63	35	16	3	130	76	1.7	31	17.4	32	18	8	6	17	6.9	
DIST. OF COLUMBIA																																
WASHINGTON DULLES	88	1005.1	1017.0	11.6	-0.6	5.5	0.1	22.8	8	-14.4	4	0	17	-1.1	66	122	34	28	17	2	249	203	1.5	29	16.5	30	22+	5	7	19	7.2	
WASHINGTON NATIONAL	3	1014.9	1017.1	12.9	2.9	7.9	0.6	22.8	8	-10.0	1	0	6	1.7	67	128	43	32	15	0	155	152	1.4	30	18.8	NW	22	6	7	18	7.1	50
FLORIDA																																
APALACHICOLA U	6	1016.6	1017.2	20.5	11.4	16.0	0.1	24.4	31	-5.6	3	0	3	12.2	82	88	-31	31	12	4	T	T	0.6	16	18.8	S	30	4	6	21	7.5	27
DAYTONA BEACH	9	1016.3	1017.7	24.8	13.2	19.1	1.3	31.1	20	-3.3	3	0	3	13.3	71	61	-24	22	10	2	0	0	0.8	20	13.4	27	2	5	10	16	7.0	
FORT MYERS	5	1017.3	1017.5	27.7	16.3	22.0	1.7	33.9	19	0.6	3	2	0	16.7	76	91	13	87	4	0	0	0	1.3	17	13.4	33	2	12	13	6	4.9	
JACKSONVILLE	8	1016.3	1017.1	23.1	10.7	16.9	0.7	29.4	20	-5.0	3	0	3	12.2	77	173	83	43	12	5	T	T	0.8	22	16.1	W	30	5	6	20	7.3	73
KEY WEST	1	1016.6	1017.1	26.7	21.3	24.0	0.3	29.4	30+	9.4	4	0	0	19.4	79	21	-19	21	1	1	0	0	2.6	13	20.6	26	1	16	10	5	3.8	90
MIAMI	2	1017.6	1017.8	26.7	19.1	22.9	1.1	31.7	31	0.0	3	0	1	17.2	73	81	28	81	1	1	0	0	1.9	13	13.0	31	2	7	19	5	5.4	85
ORLANDO/MC COY AFB	29	1013.9	1017.8	26.8	13.3	20.1	1.3	32.2	20	-3.9	3	1	2	13.9	73	38	-50	25	8	1	0	0	1.2	18	14.3	27	2	6	9	16	6.6	
PENSACOLA	34	1012.5	1016.8	20.6	11.1	15.9	0.4	27.8	13	-5.6	2	0	4	10.6	75	288	128	82	15	8	T	T	0.5	9	10.3	22	12+	6	5	20	7.2	
TALLAHASSEE	17	1014.6	1016.8	22.5	9.6	16.1	0.3	28.3	13	-6.7	3	0	3	10.6	74	283	132	95	15	5	T	0	0.5	17	9.4	18	30+	4	7	20	7.5	
TAMPA	6	1017.6	1017.8	25.1	15.1	20.1	1.2	30.0	27	-1.7	3	0	2	15.6	78	78	-20	29	7	3	T	0	0.9	16	11.6	32	2	5	11	15	6.5	68
WEST PALM BEACH	5	1017.3	1017.9	26.2	16.2	21.2	0.2	31.7	21	-1.1	3	0	1	16.7	77	64	-20	64	2	1	0	0	2.0	15	14.3	28	2	5	14	12	6.0	
GEORGIA																																
ATHENS	244	987.1	1016.5	16.0	5.1	10.6	-0.4	23.9	8	-11.7	3	0	5	3.3	68	254	109	54	16	4	84	76	0.4	33	11.6	31	21	6	5	20	7.3	
ATLANTA	308	979.0	1016.3	17.1	5.2	11.2	0.6	25.6	8	-11.7	3	0	4	3.9	68	296	148	86	18	4	69	51	0.5	35	17.0	30	21	4	7	20	7.5	52
AUGUSTA	41	1011.5	1016.9	18.0	4.8	11.4	-1.2	25.6	30	-11.1	3	0	5	5.6	73	303	184	92	16	1	28	25	0.3	28	13.0	30	21	7	6	18	7.1	
COLUMBUS	136	1002.7	1016.8	19.3	6.7	13.0	0.0	27.2	8	-8.9	3	0	4	6.7	73	284	131	53	18	5	25	25	0.1	1	10.3	31	18	6	5	20	7.3	
MACON	108	1003.7	1017.0	18.7	6.5	12.6	-1.0	25.0	8	-10.0	3	0	5	6.7	73	302	171	93	19	5	28	25	0.4	23	13.9	SW	21	7	3	21	7.3	60
ROME	194			15.6	3.1	9.4	-0.9	25.6	8	-12.8	3	0	7			407	251	95	20		5	T										
SAVANNAH	14	1015.9	1017.7	19.2	8.7	13.9	-0.5	27.2	30	-6.7	3	0	4	7.8	70	197	85	75	17	4	T	T	0.5	26	15.6	NW	21	4	8	19	7.4	40
HAWAII																																
HILO	8	1016.3	1017.4	25.9	18.8	22.4	0.7	28.3	6	16.7	2	0	0	18.3	82	1268	920	433	31	0	0	0	1.1	7	9.8	10	24+	0	7	24	8.5	30
HONOLULU	2	1016.6	1017.0	27.1	20.7	23.9	1.1	28.3	15	16.1	2	0	0	17.8	71	77	-4	30	12	0	0	0	7.3	7	13.4	8	25+	4	19	8	5.6	68
KAHULUI	15	1014.2	1016.6	27.3	21.1	24.2	1.9	30.0	30	16.7	2	0	0			74	2	21	22	0	0	0	7.2	6	13.9	NE	11	9	11	11	6.1	56
LIHUE	31	1013.2	1018.3	25.4	20.2	22.8	0.8	26.7	31+	18.3	4+	0	0	18.3	78	71	-47	17	25	0	0	0	7.3	6	13.0	8	22	0	15	16	7.4	59
IDAHO																																
BOISE	865	913.6	1014.9	10.7	-0.7	5.1	0.0	16.1	10	-6.1	25+	0	20	-2.2	61	54	29	17	12	2	69	25	0.7	31	17.9	NW	15	5	4	22	7.6	55
LEWISTON	431			10.6	1.7	6.2	0.1	16.1	22	-2.2	25	0	8			31	7	8	12		61	51			19.2V		29	0	7	24	8.8	
POCATELLO	1358	859.8	1014.9	6.7	-2.1	2.3	0.4	12.8	10	-6.7	16	0	27	-4.4	65	39	15	13	12	0	183	76	4.8	23	16.1	SW	4	5	10	16	7.2	56
ILLINOIS																																
CAIRO U	96			11.4	2.9	7.2	-1.6	21.7	10	-10.0	2	0	7			117	-3	44	13		23	25			16.5	NE	1					36
CHICAGO O HARE	201	991.2	1016.3	5.1	-4.4	0.3	-1.7	15.0	20	-18.3	2	0	24	-4.4	70	50	-14	12	16	1	295	102	0.7	34	14.3	29	10	3	10	18	7.8	
MOLINE	177	994.6	1016.7	5.8	-4.2	0.8	-1.2	15.0	18+	-18.9	2	0	22	-4.4	69	44	-21	12	11	1	191	76	0.7	5	15.2	NW	10	4	10	17	7.3	43
PEORIA	199	992.2	1016.7	6.8	-2.8	2.0	-0.9	15.0	20	-16.1	2	0	22	-3.3	70	71	0	19	14	3	135	127	0.4	7	13.0	NW	10	4	7	20	7.5	48
ROCKFORD	221	989.8	1017.7	3.8	-6.0	-1.1	-2.2	13.3	31	-22.8	2	0	27	-5.0	74	25	-43	7	14	0	117	76	1.0	3	14.8	31	10	3	9	19	7.6	
SPRINGFIELD	179			7.6	-1.9	2.8	-1.3	17.8	20	-18.9	2	0	18	-1.7	75	109	40	35	15	2	140	152	0.6	9	14.3	8	30+	4	6	21	7.5	37
INDIANA																																
EVANSVILLE	116	1002.4	1016.7	9.3	-0.1	4.6	-2.2	18.9	15	-16.1	3	0	16	0.0	75	111	-8	26	16	0	107	102	0.1	28	12.5	NW	21+	6	4	21	7.8	45

CLIMATOLOGICAL DATA

METRIC UNITS

MARCH 1980

State and Station	Elevation (ground)	Pressure		Temperature										Average relative humidity	Precipitation						Wind					No. of days (sunrise to sunset)			Sky cover, tenths (sunrise to sunset)	Possible sunshine
												No. of days											Fastest mile (1.6 kilometers)								
		Station Ø	Sea level	Average maximum	Average minimum	Average	Departure from normal	Highest	Date	Lowest	Date	Max. 32.2 °C or above	Min. 0 °C or lower	Average dew point		Total	Departure from normal	Greatest in 24 hours	.25 mm. or more	With thunderstorms	Total	Maximum depth on ground	Resultant speed	Resultant direction	Speed	Direction	Date	Clear, 0-3	Partly cloudy, 4-7	Cloudy, 8-10		
	m	mb	mb	°C	°C	°C	°C	°C		°C				°C	%	mm	mm	mm			mm	mm	m/s		m/s								%
INDIANA																																
FORT WAYNE	241	985.8	1016.7	4.1	-3.6	0.3	-2.2	12.2	16	-21.7	2	0	25	-5.0	69	106	32	28	15	4	51	178	0.4	31	13.4	NE	30	5	5	21	7.7	63
INDIANAPOLIS	241	986.8	1016.7	6.9	-2.5	2.2	-2.1	16.1	15	-21.7	2	0	21	-2.8	70	108	13	23	16	0	91	127	0.1	25	13.0	32	21	6	3	22	7.5	40
SOUTH BEND	236	987.5	1016.2	6.3	-2.4	1.9	0.1	15.6	16	-15.0	1	0	19	-1.7	79	95	25	23	16	1	249	127	0.1	26	13.0	30	10	2	7	22	8.2	
IOWA																																
DES MOINES	286	980.4	1016.1	6.7	-3.7	1.5	0.4	18.9	19	-15.6	2+	0	22	-5.0	66	29	-29	9	7	0	147	76	1.0	4	13.0	SW	2	5	9	17	7.3	46
DUBUQUE	322	976.6		3.7	-6.3	-1.3	-1.4	13.9	31	-22.2	2	0	26			28	-47	11	6		203	102			13.0	32	10					
SIOUX CITY	334	975.6	1016.5	6.7	-4.9	0.9	0.2	19.4	19	-17.8	1	0	28	-5.6	66	26	-11	9	6	0	147	51	1.2	4	14.3	NW	16+	4	13	14	6.9	60
WATERLOO	265	984.4	1017.3	4.4	-6.3	-0.9	-0.7	15.6	19	-21.7	2	0	24	-5.0	75	22	-35	10	6	1	201	152	0.8	3	13.9	32	10	4	9	18	7.2	
KANSAS																																
CONCORDIA	448	961.1	1015.0	8.8	-2.7	3.1	-0.9	23.9	19	-18.9	1	0	20	-3.9	66	81	42	34	14	0	152	76	0.8	7	16.5	S	16	9	7	15	6.4	57
DODGE CITY	787	921.4	1013.4	10.5	-2.1	4.2	-0.9	25.6	15	-16.7	1	0	20	-2.8	69	73	44	35	10	3	259	203	0.5	1	21.0	SE	31	9	7	15	6.1	53
GOODLAND	1114	883.8	1013.1	7.9	-4.5	1.7	-0.7	21.1	15	-22.2	1	0	30	-3.9	73	70	47	31	10	2	696	381	0.7	34	18.3	33	12	9	7	15	6.2	
TOPEKA	267	983.1	1015.4	10.7	-0.9	4.9	-0.2	22.8	19	-19.4	2	0	14	-2.8	62	105	50	57	13	0	86	51	0.8	4	15.2	SW	19	8	6	17	6.7	51
WICHITA	403	965.8	1014.6	10.9	-0.4	5.3	-1.2	21.1	19	-15.6	2	0	14	-2.2	64	101	56	32	8	2	10	25	0.3	11	18.8	NE	23	13	3	15	5.9	60
KENTUCKY																																
COVINGTON	265	984.4	1016.7	8.7	-1.5	3.6	-1.8	19.4	16	-23.9	3	0	20	-0.6	76	114	10	20	15	2	201	279	0.8	24	12.5	31	21	5	4	22	7.6	
LEXINGTON	298	980.4	1016.6	10.2	0.3	5.3	-1.2	21.1	8	-17.8	3	0	15	-1.1	66	153	31	39	16	4	107	102	1.1	22	12.5	31	21	4	7	20	7.7	
LOUISVILLE	145	999.0	1017.0	10.5	0.3	5.4	-1.2	18.3	15+	-17.2	3	0	15	-1.1	67	122	-6	27	17	2	99	102	0.6	25	16.1	NW	21	5	6	20	7.6	37
LOUISIANA																																
BATON ROUGE	20	1013.9	1016.4	19.9	9.8	14.9	-0.5	26.7	10	-6.7	3	0	3	10.0	75	210	79	61	12	8	T	0	0.4	11	10.3	28	27+	5	6	20	7.7	
LAKE CHARLES	3	1014.6	1015.8	20.2	10.3	15.3	-0.4	25.6	12+	-3.9	3+	0	3	11.7	81	229	131	75	14	9	0	0	0.8	12	11.6	1	1	4	5	22	7.9	
NEW ORLEANS	1	1014.9	1015.9	21.6	11.7	16.7	0.7	28.9	8	-3.9	3+	0	3	11.7	74	256	117	83	12	11	T	0	1.1	9	10.3	1	2	5	5	21	7.7	42
SHREVEPORT	77	1006.1	1015.3	19.0	6.4	12.7	-1.1	28.3	12	-6.7	3+	0	3	6.7	70	95	-9	18	11	7	T	T	0.2	14	11.6	31	20	10	3	18	6.5	52
MAINE																																
CARIBOU	190	989.8		0.9	-9.8	-4.4	0.2	11.7	29	-23.3	3	0	30			80	24	24	12		701	940						10	5	16	6.2	
PORTLAND	13	1012.5	1014.9	5.1	-5.2	0.0	0.1	12.2	29	-20.6	1	0	26	-7.2	60	115	24	36	12	0	173	152	1.1	33	15.6	NW	18	9	6	16	6.3	54
MARYLAND																																
BALTIMORE	45	1010.8	1016.5	10.6	-0.1	5.3	-0.7	21.1	8	-11.7	1	0	15	-2.2	60	139	45	41	16	2	145	127	1.5	30	18.3	W	14	8	5	18	7.0	58
MASSACHUSETTS																																
BLUE HILL OBS R	192			6.3	-3.2	1.6	-0.2	14.4	20+	-17.2	1	0	23			154	40	38	13		119	76			24.1	S	18					45
BOSTON	5	1013.9	1014.7	6.9	-1.6	2.7	-0.7	15.0	20	-13.9	1	0	16	-5.0	62	136	35	38	15	1	91	76	1.6	31	16.1	NE	22	6	9	16	6.8	54
WORCESTER	301	976.3		5.3	-4.1	0.6	-0.1	14.4	20	-18.3	1	0	25	-7.2	60	174	76	65	17		246	127	2.1	31	16.1	29	15	5	11	15	6.8	
MICHIGAN																																
ALPENA	210	990.2	1016.4	2.1	-8.7	-3.3	-0.1	14.4	20	-25.0	1	0	30	-7.2	75	31	-17	6	13	1	399	229	1.0	30	11.6	NW	21+	2	11	18	7.5	57
DETROIT	189			3.6	-3.6	0.1	-1.8	13.9	20	-15.0	2+	0	24							1			0.8	27	13.0	30	21					
DETROIT METRO	193	991.2	1016.1	4.3	-5.2	-0.4	-2.2	14.4	20	-18.3	2	0	25	-4.4	74	99	36	23	14	0	297	152	1.1	34	14.3	32	21	4	9	18	7.4	48
FLINT	235	987.5	1016.1	3.5	-5.8	-1.2	-1.5	15.6	20	-19.4	2	0	26	-5.6	71	56	2	17	14	0	274	76	0.8	28	14.3	32	21	3	10	18	7.8	
GRAND RAPIDS	239	986.8	1016.7	4.9	-4.4	0.3	-0.3	16.1	20	-20.0	2+	0	23	-3.9	75	44	-19	13	11	0	166	51	0.2	34	11.2	34	21	2	7	22	8.2	30
HOUGHTON LAKE	350	972.9	1016.5	2.1	-9.9	-3.9	-0.9	11.7	20	-28.3	2	0	29	-8.3	71	28	-16	5	13	0	307	229	0.5	32	12.5	31	21	3	5	23	7.9	
LANSING	256	984.1	1016.8	3.7	-6.1	-1.2	-1.7	16.7	20	-21.1	2	0	28	-4.4	79	49	-11	15	13	0	224	76	0.7	28	16.1	NW	10	2	11	18	7.6	53
MARQUETTE	431			-0.2	-11.8	-5.9	-0.6	10.6	19	-23.9	12	0	31			14	-39	4	9	1	178	787			15.6	NW	10					54
MUSKEGON	191	992.9	1016.5	3.0	-4.6	-0.8	-1.2	13.9	16	-20.0	1	0	25	-5.6	71	26	-35	6	12	0	206	51	0.3	30	12.5	19	19+	1	8	22	8.4	
SAULT STE MARIE	220	988.8	1016.6	-0.2	-10.3	-5.3	-0.8	12.2	31	-25.0	12	0	31	-8.3	79	29	-15	10	13	0	445	432	1.1	31	14.3	NW	14	6	8	17	6.9	63
MINNESOTA																																
DULUTH	435	963.8	1017.5	-1.6	-12.1	-6.8	-2.1	6.7	19	-25.6	1	0	31	-11.1	71	26	-19	9	9	0	320	457	0.4	30	16.1	E	15	7	8	16	6.5	63
INTERNATIONAL FALLS	359	972.2	1017.4	-1.1	-15.8	-8.4	-2.1	11.7	31	-33.3	1	0	31	-15.0	58	22	-6	10	9	0	318	737	1.0	29	11.6	14	15+	7	11	13	6.1	
MINNEAPOLIS	256	986.1	1017.6	2.4	-7.7	-2.6	-0.6	13.3	31	-19.4	1	0	28	-10.0	57	28	-14	6	11	1	348	152	0.5	1	13.4	31	10	7	5	19	6.8	60
ROCHESTER	395	967.8	1017.1	2.2	-8.2	-3.0	-0.7	12.8	31+	-22.8	1	0	30	-7.8	71	21	-22	6	10	0	325	203	0.4	33	17.4	32	10	5	8	18	7.1	
ST CLOUD	313	979.3	1018.0	1.4	-11.2	-4.9	-1.5	12.2	31	-25.6	11+	0	30			19	-14	7	9		305	229										
MISSISSIPPI																																
JACKSON	94	1004.1	1016.1	18.6	6.2	12.4	-1.0	27.2	8	-9.4	3	0	4	7.8	74	345	202	85	17	13	T	T	0.2	11	10.3	9	29+	7	3	21	7.4	38

CLIMATOLOGICAL DATA

METRIC UNITS

MARCH 1980

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 32.2 °C or above	Temperature: No. of days: Min. 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .25 mm. or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (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/s		m/s							%
MISSISSIPPI																																
MERIDIAN	88	1005.4	1016.8	18.8	6.3	12.6	-0.8	28.3	8	-9.4	3	0	5	6.7	71	352	195	69	17	10	T	T	0.0	32	11.6	34	2	6	5	20	7.5	
MISSOURI																																
COLUMBIA REGIONAL	270	983.1	1016.0	9.0	-1.3	3.9	-1.5	18.9	15	-18.9	2	0	15	-1.7	71	69	3	16	15	4	211	152	0.6	11	14.8	N	20	4	9	18	7.3	41
KANSAS CITY	297	977.7	1015.3	8.9	-1.5	3.7	-1.1	20.6	19	-21.7	2	0	16	-3.9	61	92	28	39	13	1	137	102	0.6	9	14.8	S	15	8	6	17	6.6	52
KANSAS CITY MUN AP	226			11.2	0.7	5.9	0.2	23.9	16	-13.9	2	0	13	-3.3		80	11		10	1	53		0.6	3								
ST JOSEPH	247			8.5	-2.1	3.2	-1.2	22.2	19	-21.7	2	0	18			74	13	31	11		142	76										
ST LOUIS	163	995.6	1016.4	9.9	0.1	5.0	-1.3	20.0	15	-16.7	2	0	14	0.0	76	101	24	33	13	5	221	127	0.6	14	14.3	10	12	3	10	18	7.3	49
SPRINGFIELD	386	968.8	1015.1	12.1	-0.2	5.9	-0.7	22.8	7	-16.1	2	0	16	-1.1	67	100	24	22	10	3	23	51	1.6	18	13.4	N	20	8	5	18	6.8	53
MONTANA																																
BILLINGS	1087	886.9	1013.0	6.9	-4.3	1.3	1.0	16.7	14	-16.7	5+	0	25	-6.7	61	39	13	9	12	0	439	178	1.9	29	15.2	NE	30	1	8	22	8.3	58
GLASGOW	696	930.6	1015.0	3.9	-8.5	-2.3	1.5	15.0	29	-25.0	6+	0	29	-6.7	76	9	0	3	10	0	66	25	1.0	4	14.3	2	30	1	8	22	8.1	
GREAT FALLS	1116	884.5	1014.7	6.2	-5.7	0.2	1.1	16.1	14	-23.3	5+	0	29	-8.3	55	19	-6	5	9	0	175	76	3.3	24	15.6	SW	17	1	6	24	8.3	49
HAVRE	788	920.1		5.2	-8.8	-1.8	1.2	16.1	29	-27.8	5	0	31			15	3	6	7		104	102	1.0	28	15.2	SW	23	1	8	22	8.4	59
HELENA	1167	877.1	1015.3	4.9	-5.7	-0.4	0.4	13.3	29+	-20.0	6	0	30	-7.2	63	22	5	11	7	0	257	152	2.7	28	13.9	W	10	2	7	22	8.3	49
KALISPELL	904	908.6	1015.1	5.3	-4.4	0.4	1.3	12.2	22	-16.1	6	0	28	-3.9	75	22	0	5	13	0	287	51	1.2	16	14.3	3	3	1	6	24	8.7	
MILES CITY	801	918.7	1013.9	6.8	-7.2	-0.2	0.8	16.7	14	-24.4	5	0	30	-6.1	66	7	-9		7	0	56		0.8	34								
MISSOULA	972	901.8	1015.6	6.3	-3.5	1.4	0.7	13.9	29	-12.2	5	0	26	-3.3	74	22	4	6	16	0	300	152	1.1	29	13.0	SW	29+	1	3	27	8.8	46
NEBRASKA																																
GRAND ISLAND	561	947.9	1015.7	6.9	-4.4	1.2	-0.7	21.7	19+	-23.3	1	0	25	-5.0	67	57	27	18	9	1	295	127	0.9	4	12.5	21	18+	7	10	14	6.4	
LINCOLN	359	972.2	1015.9	7.5	-3.9	1.8	-0.7	20.6	19	-20.6	1	0	24	-3.3	71	46	7	17	9	1	165	51	1.2	1	16.5	S	18	8	10	13	6.3	56
NORFOLK	471	959.0	1016.2	6.5	-4.7	0.9	0.4	19.4	18	-21.1	1	0	27	-5.0	69	24	-11	13	7	0	94	25	0.7	1	17.0	N	16	6	13	12	6.5	
NORTH PLATTE	846	915.0	1014.8	8.4	-4.6	1.9	0.7	23.9	15	-23.9	1	0	30	-6.1	59	65	40	47	7	0	556	457	1.2	3	13.0	4	29+	4	8	19	7.3	57
OMAHA (EPPLEY)	298			6.3	-5.3	0.5	-2.3	19.4	15	-23.9	1	0	28	-4.4	74	36	-5		8	0	234		1.1	4								
OMAHA (NORTH)	399			6.4	-3.9	1.3	-0.2	19.4	19	-19.4	1	0	24			39	-2	13	9	0	203	152			13.4	N	10	10	8	13	6.5	62
SCOTTSBLUFF	1206	875.4	1013.6	8.7	-4.2	2.3	1.0	18.9	15	-22.2	1	0	29	-5.0	65	55	36	14	11	0	597	152	0.7	35	12.5	31	12	5	7	19	7.3	
VALENTINE	789	921.8	1016.0	6.3	-8.0	-0.8	-0.4	22.8	15	-33.9	1	0	30	-7.2	65	39	19	29	7		549	381	0.7	30	16.1	S	11	5	8	18	7.1	52
NEVADA																																
ELKO	1539	841.9	1014.4	8.9	-3.4	2.8	1.1	15.6	17	-8.9	26+	0	28	-5.0	62	20	-2	6	13	0	99	25	1.3	26	12.5	27	20	4	14	13	6.6	
ELY	1906	804.3	1013.3	7.2	-6.0	0.6	0.2	12.8	29+	-11.7	12	0	29	-7.2	60	40	18	14	12	1	483	178	0.7	26	14.8	NW	27	6	9	16	6.5	71
LAS VEGAS	659	936.3	1012.8	18.2	6.5	12.3	-0.3	23.3	20	2.8	17	0	0	-2.2	41	24	15	8	5	1	0	0	1.0	26	16.1	S	21	14	10	7	4.2	83
RENO	1342	864.2	1015.5	11.1	-3.8	3.6	-1.0	19.4	29	-9.4	12	0	28	-5.6	55	19	2	5	10	1	193	76	0.7	30	21.0	S	14	9	8	14	5.9	85
WINNEMUCCA	1311	867.3	1016.0	11.3	-4.6	3.4	0.3	17.8	29+	-11.1	25+	0	24	-6.7	53	13	-5	8	7	0	13	25	0.7	27	15.2	NW	20	4	12	15	6.7	60
NEW HAMPSHIRE																																
CONCORD	104	1002.4	1015.3	6.1	-6.3	-0.1	-0.3	16.1	20	-23.9	3	0	25	-7.2	61	86	15	20	13	0	218	152	1.8	32	17.4	W	12	7	8	16	6.5	49
MT WASHINGTON OBS	1909			-6.7	-15.4	-11.0	0.2	1.1	18	-34.4	1	0	31			203	61	68	21	0	1100	152			62.1Y	NW	18+	4	6	21	8.1	33
NEW JERSEY																																
ATLANTIC CITY	20	1013.2	1015.7	8.6	-1.2	3.7	-1.3	15.6	8	-15.0	1	0	20	-2.2	69	162	53	29	15	2	66	76	1.4	29	13.4	14	21	6	8	17	6.7	39
ATLANTIC CITY U	3			7.9	1.7	4.8	-0.4	13.9	23	-11.1	1	0	7			162	66	31	17							17.0	WNW	22					
NEWARK	2	1015.2	1016.1	8.3	-0.6	3.8	-0.9	15.0	20+	-13.9	1	0	14	-3.3	65	232	132	45	15	3	160	102	2.2	32	17.4	31	18	7	8	16	6.8	
TRENTON U	17			8.8	0.7	4.8	-0.3	17.2	8	-13.3	1	0	9			186	89	51	17		196	25			21.0	NW	18	5	9	17	7.1	45
NEW MEXICO																																
ALBUQUERQUE	1619	834.1	1011.1	16.1	-0.4	7.8	0.2	22.2	21	-5.0	18+	0	17	-7.2	40	15	3	6	5	1	79	25	1.8	26	17.9	W	3	10	9	12	5.4	67
CLAYTON	1515			13.1	-3.4	4.8	0.2	22.8	15	-16.7	1	0	28			20	3	6	6		142	51										
ROSWELL	1112	886.2	1010.7	19.3	1.9	10.6	1.0	25.6	22+	-7.8	2	0	12	-6.7	33	0	-12	0	0	0	0	0	1.7	20	13.9	SW	31	15	11	5	4.1	58
NEW YORK																																
ALBANY	84	1005.1	1016.2	6.1	-4.6	0.7	-0.1	17.2	20	-18.3	1	0	26	-6.1	63	113	47	28	15	0	274	203	2.0	30	17.9	NW	18+	7	6	18	7.0	56
BINGHAMTON	485	955.3	1015.7	4.3	-4.6	-0.1	0.3	15.0	20	-21.1	2	0	25	-6.7	66	152	80	27	17	1	455	203	1.2	27	15.6	SE	21+	4	8	19	7.6	43
BUFFALO	215	989.5	1016.0	3.8	-4.0	-0.1	-0.2	14.4	21+	-20.6	2	0	25	-5.0	73	103	30	35	17	0	353	127	1.3	25	14.8	SW	11	2	9	20	8.1	37
NEW YORK U	40	1012.2	1015.7	9.2	0.9	5.1	0.1	15.0	18+	-12.2	1	0	10	-3.9	55	264	170	68	15	1	117	76	1.5	31	20.6	SE	21					
NEW YORK KENNEDY	4	1015.2	1016.0	7.3	-0.3	3.6	-0.5	15.0	30	-13.3	1	0	13	-2.2	71	208	112	53	16	3	81	51	1.9	33	16.1	31	14	9	7	15	6.4	
NEW YORK LA GUARDIA	3	1015.2	1016.2	8.1	1.0	4.6	-0.2	13.3	21	-13.3	1	0	9	-3.3	60	220	119	64	15	3	81	76	2.1	32	19.7	13	21	7	9	15	6.5	
ROCHESTER	167	995.3	1016.2	4.4	-3.9	0.2	-0.3	16.1	20	-21.1	1	0	21	-4.4	71	97	32	23	16	1	538	127	1.9	25	13.9	W	18+	3	8	20	8.0	35

CLIMATOLOGICAL DATA

METRIC UNITS

MARCH 1980

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 32.2 °C or above	Temperature: No. of days: Min. 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .25 mm. or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, Ice pellets: Total	Precipitation: Snow, Ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (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/s		m/s							%
NEW YORK																																	
SYRACUSE	125	1001.0	1016.4	5.1	-4.7	0.2	-0.4	17.8	20	-26.1	2	0	22	-4.4	73	110	33	25	21	1	521	229	1.3	27	15.6	NW	14+	3	7	21	7.8	39
NORTH CAROLINA																																	
ASHEVILLE	652	939.7	1016.6	13.3	2.5	7.9	0.2	22.8	8	-12.8	3	0	10	1.7	70	210	91	61	14	1	137	127	0.9	33	15.6	34	2	8	4	19	6.9	50
CAPE HATTERAS R	2	1016.6	1017.0	13.9	5.3	9.6	-0.7	20.0	20+	-5.6	3	0	6	5.6	77	227	130	41	15	2	185	178	1.3	35	21.5	2	2	9	5	17	6.8	34
CHARLOTTE	224	988.8	1016.7	13.8	3.2	8.6	-1.8	20.6	16+	-15.6	3	0	7	1.1	65	223	108	50	14	2	173	152	0.3	33	13.0	31	21	7	7	17	6.7	55
GREENSBORO	273	984.8	1017.0	13.4	2.7	8.1	-0.7	20.6	29	-12.2	3	0	9	0.0	61	128	34	35	13	1	201	203	0.6	29	11.2	31	21	8	7	16	6.7	52
RALEIGH	132	1001.0	1017.2	13.8	2.3	8.1	-1.5	21.7	21	-11.7	2+	0	12	2.8	74	149	62	27	16	4	282	279	0.5	28	13.0	27	21	8	8	15	6.5	42
WILMINGTON	9	1015.9	1017.3	16.1	4.3	10.2	-2.2	22.8	31+	-12.8	4	0	6	3.3	66	153	50	40	15	2	168	178	0.3	28	13.4	29	21	6	10	15	6.7	54
NORTH DAKOTA																																	
BISMARCK	502	955.6	1017.5	2.2	-10.2	-4.0	-0.2	14.4	18	-28.9	1	0	31	-9.4	69	8	-10	6	6	0	145	102	0.3	4	13.4	34	10+	6	8	17	6.8	63
FARGO	273	983.1	1017.4	-1.7	-10.9	-6.3	-1.9	10.6	31	-30.6	1	0	31	-10.0	76	16	-5	7	6	0	165	127	0.2	36	17.9	NW	9	5	12	14	6.8	74
WILLISTON	579	944.8	1015.7	3.4	-10.6	-3.6	0.5	15.6	29	-23.9	6	0	31	-8.9	70	4	-12	3	4	0	53	25	0.4	31	14.3	35	9	6	5	20	7.3	70
OHIO																																	
AKRON	368	970.9	1016.6	6.3	-3.2	1.6	-0.7	16.1	16	-19.4	2	0	24	-4.4	66	120	40	34	17	1	152	51	0.9	24	13.9	31	21	3	5	23	8.3	
CINCINNATI ABBE OB	232			9.5	-0.2	4.7	-1.4	20.0	16	-15.0	2	0	17			122	17	27	15							8.5	NW	9					23
CLEVELAND	237	987.1	1017.1	5.3	-3.6	0.9	-1.4	17.8	16	-16.7	2	0	26	-3.9	73	93	15	26	17	0	89	76	1.1	26	13.9	24	10	2	4	25	8.6	33
COLUMBUS	247	986.1	1016.9	7.8	-2.0	2.9	-1.1	18.9	16	-17.8	2	0	20	-2.8	67	96	8	16	14	1	30	25	0.6	22	17.9	NW	21	5	3	23	8.0	37
DAYTON	303	979.3	1016.4	7.1	-2.9	2.1	-1.8	17.8	16	-21.7	2	0	23	-2.2	75	113	31	25	17	0	61	152	1.0	23	15.2	NW	21	6	3	22	7.7	39
MANSFIELD	395			5.9	-3.9	1.1	-2.3	15.6	16	-21.1	2	0	25	-3.9	71	145	73	45	15	1	43	51	1.3	24	14.3	33	21	4	5	22	8.1	
TOLEDO	204	990.9	1016.7	4.7	-4.3	0.2	-1.9	15.0	16	-18.3	2	0	25	-3.9	74	93	29	24	16	1	86	25	0.8	31	16.1	W	21	4	7	20	7.8	58
YOUNGSTOWN	359	972.6	1016.7	4.7	-4.4	0.1	-1.7	15.0	16	-23.3	2	0	25	-5.1	65	131	49	32	16	0	213	127	0.8	25	12.5	27	11	4	3	24	8.1	
OKLAHOMA																																	
OKLAHOMA CITY	392	967.5	1014.5	14.9	0.9	7.9	-1.1	25.6	16	-13.3	2	0	10	-1.7	56	35	-17	19	7	6	T	25	0.6	16	16.5	NW	24	11	6	14	5.6	66
TULSA	198	990.5	1015.1	15.7	2.4	9.1	0.0	27.8	16	-11.7	2	0	6	0.6	60	91	27	42	9	4	T	T	1.2	20	14.3	21	4	9	8	14	5.9	53
OREGON																																	
ASTORIA	2	1017.6	1018.4	10.7	3.6	7.1	0.2	16.1	2	0.0	25	0	1	5.0	85	160	-8	19	26	0	13	T	1.3	22	16.5	21	13	0	3	28	8.9	
BURNS U	1265			7.6	-4.1	1.7	-0.6	13.9	10	-8.3	28+	0	28			15	-8	7	12		124	51						3	9	19	7.5	
EUGENE	109	1005.4	1019.0	12.4	2.5	7.5	-0.2	17.2	28	-0.6	23	0	5	3.9	82	130	17	52	16	0	T	0	1.5	21	12.1	18	12	1	3	27	8.9	
MEDFORD	396	970.5	1019.0	13.3	0.9	7.1	0.0	18.9	10	-2.8	28	0	13	0.6	68	32	-9	11	11	0	T	T	1.0	30	9.8	13	4	4	13	14	6.7	
PENDLETON	452	961.7	1016.2	9.7	0.7	5.2	-1.4	15.0	10	-6.7	6	0	11	0.0	72	41	15	13	12	0	99	76	3.1	26	14.3	27	22	0	10	21	8.1	
PORTLAND	6	1017.3	1018.5	11.9	3.9	7.9	0.3	17.8	2	0.6	24	0	0	3.9	81	79	-13	17	18	1	T	0	1.3	19	16.1	SW	12	1	3	27	8.8	37
SALEM	60	1011.2	1018.6	11.8	2.2	7.0	-0.3	17.2	2	-1.7	23	0	5	3.9	82	88	-22	23	14	0	T	0	1.3	19	12.5	18	12	1	3	27	8.8	
SEXTON SUMMIT R	1169	883.2	1017.8	6.4	-1.2	2.6	-0.6	12.2	10	-5.0	15	0	22			76	-11	29	14		274	76											
PACIFIC AREA																																	
GUAM TAGUAC R	110			28.6	22.1	25.3	-0.1	29.4	28+	20.0	19+	0	0			87	12	26	23		0	0			13.4	NE	16	0	10	21	8.3	60
JOHNSTON	2	1012.5	1013.1	28.4	23.8	26.2	1.4	29.4	30+	22.2	31+	0	0	22.8	83	21	-51	7	10	0	0	0	7.8	7	13.4	6	25+	21	8	2	3.2	90
KOROR R	29	1006.4		31.2	23.6	27.4	0.2	32.2	31+	22.8	27+	2	0			140	-57	26	22	0	0	0	3.0	5	8.9	NE	30	0	10	21	8.2	63
KWAJALEIN	2	1008.5		31.1	25.8	28.5	0.9	31.7	26+	23.3	28	0	0			30	-127	21	11	0	0	0	6.9	6	10.3	5	23+	1	6	24	8.5	
MAJURO	3	1008.5		29.8	24.9	27.4	0.1	30.6	29+	22.8	30	0	0			128	-107	24	22		0	0	5.5	7	12.1	E	21+	0	2	29	9.6	82
PAGO PAGO	4	1007.1	1007.4	30.9	24.8	27.9	1.0	32.2	29+	23.3	7+	2	0	25.0	84	377	70	96	29	6	0	0	2.2	3	14.3	31	25	0	14	17	7.7	38
PONAPE R	37			31.3	25.1	28.2	1.1	32.2	31+	22.8	1	7	0			206	-176	72	23	0	0	0			8.0	NE	13+	0	4	27	9.2	25
TRUK MOEN ISLAND	2	1009.1		30.3	25.0	27.7	0.3	31.1	28+	22.8	27+	0	0			207	4	96	18	0	0	0	4.3	6				0	4	27	9.4	56
WAKE	3	1014.9	1015.2	28.7	22.8	25.7	0.3	30.0	28+	21.1	30	0	0	21.1	77	28	-12	11	12	0	0	0	5.0	7	13.4	6	31+	15	12	4	4.0	76
YAP R	13	1008.5		30.6	23.8	27.2	0.0	31.1	30+	22.2	2	0	0			163	21	69	20	1	0	0	4.2	6	8.9	NE	19+	1	6	24	8.5	71
PENNSYLVANIA																																	
ALLENTOWN	118	1002.4	1016.8	8.2	-0.9	3.7	0.3	16.7	8	-14.4	1	0	17	-3.9	62	148	57	36	16	2	241	152	1.7	31	15.6	26	21	9	5	17	6.8	
ERIE	223	989.5	1016.9	3.6	-4.7	-0.6	-1.1	17.2	16	-22.8	2	0	26	-5.0	75	104	35	24	15	1	170	51	1.4	23	14.8	16	13	4	6	21	8.0	
HARRISBURG	103	1004.4	1017.4	9.2	-1.5	3.8	-1.2	20.0	8	-13.9	1	0	20			139	57	46	17	2	201	102			14.8	31	8	9	5	17	6.7	61
PHILADELPHIA	2	1015.6	1016.5	8.6	0.5	4.6	-0.9	16.1	8	-12.8	1	0	12	-1.7	66	178	84	40	16	2	188	51	1.5	32	18.8	NW	22+	6	9	16	7.1	45
PITTSBURGH	367	971.6	1016.5	7.0	-3.1	2.0	-1.4	17.2	16	-18.3	2	0	24	-3.9	68	144	52	30	17	1	201	102	1.0	26	14.3	29	10	4	5	22	8.1	36
SCRANTON	283	981.4	1016.5	6.7	-2.3	2.2	-0.1	14.4	21+	-16.7	1	0	19	-5.0	62	94	31	27	17	1	267	152	1.3	30	18.8	SW	8	8	4	19	7.2	45
WILLIAMSPORT	160	997.3	1016.8	7.7	-2.3	2.7	-0.3	13.9	21	-16.1	1	0	22	-4.4	62	151	62	50	15	1	218	178	1.3	31	14.3	28	21	7	5	19	6.9	
RHODE ISLAND																																	
BLOCK ISLAND	34			6.8	0.0	3.4	0.7	12.2	23	-12.8	1	0	11			204	106	77	15						15.6	28	15					

CLIMATOLOGICAL DATA

METRIC UNITS

MARCH 1980

State and Station	Elevation (ground)	Pressure: Station Ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 32.2 °C or above	Temperature: No. of days: Min. 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .25 mm. or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (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/s		m/s							%
RHODE ISLAND																																
PROVIDENCE	16	1013.2	1015.4	7.9	-2.2	2.8	0.1	17.2	17	-15.6	1	0	21	-5.6	58	206	105	87	15	1	135	76	1.6	31	14.3	11	21+	7	9	15	6.6	59
SOUTH CAROLINA																																
CHARLESTON	12	1015.9	1017.8	18.2	6.9	12.6	-1.1	25.0	30+	-9.4	3	0	4	7.2	75	203	82	94	14	2	33	25	0.4	24	13.4	30	21+	7	6	18	7.1	58
CHARLESTON U	3			17.5	9.6	13.6	-0.4	24.4	30	-5.6	3	0	3			209	94	94	16		33	25										
COLUMBIA	65	1009.1	1017.4	16.3	3.4	9.9	-2.4	24.4	17	-15.6	3	0	8	5.0	75	272	154	62	15	2	104	102	0.3	29	13.0	28	21	7	6	18	6.9	57
GRNVLLE-SPRTNBRG	292	981.7	1016.8	13.9	3.4	8.7	-1.8	20.0	10+	-11.7	3	0	6	1.7	66	289	153	64	14	1	91	51	0.9	1	11.2	E	28	9	4	18	6.4	55
SOUTH DAKOTA																																
ABERDEEN	395	968.2		2.0	-9.1	-3.6	-0.9	13.3	18	-27.8	1	0	30			22	-2	14	5		272	127						9	4	18	6.8	
MURON	390	968.5	1016.7	4.6	-7.1	-1.3	0.4	17.2	18+	-23.9	1	0	28	-6.7	69	21	-7	12	9	0	218	25	0.6	6	13.9	N	16+	8	6	17	6.8	74
RAPID CITY	964	901.8	1015.1	6.2	-6.8	-0.3	0.2	18.3	15	-23.9	1	0	30	-6.1	67	22	-3	7	8	0	218	76	1.2	1	18.3	NW	12	5	10	16	7.0	60
SIOUX FALLS	432	964.1	1017.2	5.2	-5.6	-0.2	0.9	17.2	19	-20.0	1	0	26	-5.0	75	18	-18	6	10	1	147	25	0.7	5	13.0	35	16	4	12	15	6.7	
TENNESSEE																																
BRISTOL	459	962.1	1017.0	12.3	0.1	6.2	-1.4	21.7	8	-18.9	3	0	17	-0.6	66	144	45	40	12	2	91	76	0.7	28	11.6	25	21	4	8	19	7.5	
CHATTANOOGA	203	992.2	1017.0	14.2	3.3	8.8	-1.1	23.9	8	-12.8	3	0	7	1.1	64	415	272	146	19	5	10	T	0.6	32	13.0	28	21	7	7	17	7.1	44
KNOXVILLE	299	981.0	1016.4	14.3	3.1	8.7	-1.3	23.3	8	-17.2	3	0	6	2.2	68	221	98	80	16	1	89	102	1.1	32	11.6	28	21	3	8	20	7.5	48
MEMPHIS	79	1006.4	1016.8	14.8	4.5	9.7	-0.9	23.3	10	-8.3	2	0	5	3.3	68	276	146	81	15	6	20	25	0.3	13	15.6	31	17	7	3	21	7.3	45
NASHVILLE	180	994.9	1016.8	13.9	1.9	7.9	-1.3	21.7	30+	-16.7	3	0	9	1.1	66	185	58	58	16	5	79	76	0.5	24	13.4	27	24+	5	7	19	7.4	38
OAK RIDGE R	276			12.8	1.1	6.9	-1.7	22.2	8	-17.2	3	0	13			234	95	80	15		81	76						5	5	21	7.2	
TEXAS																																
ABILENE	544	950.6	1013.4	19.9	5.4	12.7	0.2	27.8	7	-12.2	2	0	5	-1.1	43	18	-7	14	3	3	T	T	1.9	19	16.1	26	23	9	10	12	5.5	68
AMARILLO	1098	887.2	1011.7	15.2	-2.0	6.6	-0.9	24.4	15	-15.6	1	0	22	-6.1	48	35	15	22	6	3	25	T	1.7	24	17.9	4	16	14	9	8	4.6	74
AUSTIN	182	992.6	1014.6	22.7	9.9	16.3	1.1	32.8	10	-7.2	2	1	3	5.6	55	81	33	68	7	3	0	0	0.4	33	14.8	34	1	5	12	14	6.4	53
BROWNSVILLE	6	1013.2	1013.6	26.2	15.6	20.9	1.1	32.8	20	0.0	2	1	1	15.0	73	7	-10	6	5	0	0	0	2.5	13	18.3	33	17	3	5	23	8.1	45
CORPUS CHRISTI	12	1012.5	1014.2	25.6	13.9	19.8	1.5	35.0	23	-4.4	2	3	2	12.8	70	8	-20	3	7	0	0	0	3.0	9	14.3	15	16	2	7	22	8.0	37
DALLAS - FORT WORTH	168	993.9	1015.3	19.3	5.4	12.3	-0.4	28.9	7	-9.4	2	0	6	3.3	59	31	-33	21	6	2	0	0	1.0	22	13.4	34	1	11	9	11	5.5	71
DEL RIO	313			24.5	10.6	17.6	0.6	32.2	10+	-6.1	2	2	2			8	-11		5		0											
EL PASO	1194	879.1	1011.0	20.6	3.9	12.3	-0.3	25.6	22	-4.4	2	0	6	-5.6	31	6	-4	6	3	0	0	0	2.1	28	17.4	31	31	17	6	8	4.0	82
GALVESTON	2			18.4	12.7	15.6	-0.6	25.0	10	-3.3	2	0	2			100	34	30	11		0	0			15.6	N	21					38
HOUSTON INTERCON	29	1011.9	1015.6	21.9	10.1	16.1	0.1	31.7	10	-5.6	2	0	3	10.6	73	137	69	53	15	6	0	0	0.5	9	11.2	34	1	2	5	24	8.0	40
LUBBOCK	992	900.4	1011.7	19.5	1.3	10.4	1.1	26.7	31	-13.3	2	0	10	-5.0	39	5	-18	3	4	3	T	0	2.0	23	16.5	29	12	13	9	9	4.7	84
MIDLAND	869	913.6	1012.0	19.8	2.8	11.3	-1.1	27.8	15	-12.8	2	0	8	-4.4	37	T	-15	T	0	0	0	0	1.3	21	16.5	28	23	12	9	10	5.0	
PORT ARTHUR	5	1014.9		21.5	11.2	16.3	0.7	29.4	10	-3.9	3+	0	3	11.7	75	173	96	78	15	6	0	0	1.0	10	13.4	35	1	4	3	24	8.1	
SAN ANGELO	580	947.2	1013.8	20.8	5.2	13.0	-0.9	27.2	7	-13.3	2	0	6	0.0	44	18	-4	9	3	3	0	0	1.9	20	15.6	27	4	10	5	16	6.0	
SAN ANTONIO	240	986.5	1014.4	23.7	9.0	16.4	0.4	32.8	10	-7.2	2	1	4	5.6	54	25	-14	14	6	3	0	0	0.8	5	15.6	36	1	8	5	18	7.0	60
VICTORIA	32	1011.2	1015.3	23.2	11.1	17.1	0.3	31.7	20+	-6.1	2	0	3	10.6	72	50	2	15	8	5	0	0	1.3	9	20.6Y	N	1	3	6	22	8.1	
WACO	153	996.6	1015.0	20.5	6.1	13.3	-0.7	30.0	10	-8.3	2	0	5	5.0	62	54	-6	36	10	2	0	0	0.7	21	14.3	34	17	11	5	15	6.0	
WICHITA FALLS	303	977.3	1014.3	18.0	1.9	9.9	-1.4	27.2	16	-12.2	2	0	7	-0.6	54	19	-22	10	4	2	T	T	0.9	20	19.7	26	23	13	6	12	5.1	
UTAH																																
MILFORD	1533	842.5	1014.2	9.6	-4.9	2.4	-1.0	16.7	14	-12.2	17	0	26			31	4	7	11		277	102			20.1	N	30	12	3	16	5.8	63
SALT LAKE CITY	1287	868.3	1013.3	10.4	0.1	5.3	1.1	17.8	14	-5.0	22	0	17	-2.2	63	62	21	18	10	2	505	102	1.3	19	16.1	S	5	6	10	15	6.9	66
VERMONT																																
BURLINGTON	101	1002.7	1015.7	4.6	-5.6	-0.5	1.1	14.4	28+	-27.8	2	0	23	-6.1	70	62	13	16	14	0	427	254	0.9	29	14.3	NW	18	6	10	15	6.8	49
VIRGINIA																																
LYNCHBURG	279	982.4		11.8	1.3	6.6	-0.9	21.1	29	-12.2	1	0	12			128	40	36	13		226	203	1.0	28	15.6	NW	21	8	6	17	6.6	53
NORFOLK	7	1015.6	1016.8	13.1	3.0	8.1	-0.9	24.4	21	-7.8	1	0	5	1.1	66	112	25	24	13	3	348	356	0.6	33	17.9	1	3+	7	7	17	6.7	53
RICHMOND	50	1010.2	1016.8	14.5	2.6	8.6	0.3	23.3	21	-10.6	1	0	7	1.7	66	139	54	37	13	1	381	330	1.3	28	13.0	NW	22	7	7	17	6.8	56
ROANOKE	350	973.9	1016.7	12.0	0.8	6.4	-1.0	23.9	8	-12.2	3+	0	15	-0.6	66	137	53	34	14	0	305	229	1.3	31	17.9	30	21	7	4	20	7.1	
WALLOPS ISLAND	3			9.3	1.4	5.4	-1.2	15.6	29+	-10.0	1	0	8			107	0	24	14		165	152			26.8	NNW	22					
WASHINGTON																																
OLYMPIA	59	1009.5	1016.6	10.6	0.6	5.6	-0.7	15.6	2	-5.0	30	0	16	2.8	83	101	-21	20	22	0	104	T	2.7	21	11.6	27	29	0	5	26	8.7	
QUILLAYUTE	55	1008.8		10.4	2.2	6.3	0.7	15.8	1	-3.3	6	0	8			267	-7	49	23	2	53	51	0.9	23	12.1	SW	13	1	4	26	8.6	22
SEATTLE U	6			11.7	4.8	8.3	0.8	16.1	2	0.0	6	0	1			83	1	18	17		0	0			19.7Y	WSW	22					

CLIMATOLOGICAL DATA

METRIC UNITS

MARCH 1980

State and Station	Elevation (ground)	Pressure: Station ø	Pressure: Sea level	Temperature: Average maximum	Temperature: Average minimum	Temperature: Average	Temperature: Departure from normal	Temperature: Highest	Temperature: Date	Temperature: Lowest	Temperature: Date	Temperature: No. of days: Max. 32.2 °C or above	Temperature: No. of days: Min. 0 °C or lower	Temperature: Average dew point	Average relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: No. of days: .25 mm. or more	Precipitation: No. of days: With thunderstorms	Precipitation: Snow, ice pellets: Total	Precipitation: Snow, ice pellets: Maximum depth on ground	Wind: Resultant speed	Wind: Resultant direction	Wind: Fastest mile (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/s		m/s							%
WASHINGTON																																	
SEATTLE-TACOMA	122	1000.0	1016.6	10.0	3.6	6.8	0.1	16.1	1	-0.6	6	0	1	2.2	77	53	-38	11	16	0	T	0	2.4	19	13.4	S	12	2	4	25	8.5	37
SPOKANE	718	929.6	1014.4	8.1	-0.8	3.7	0.6	13.3	21	-6.1	6+	0	21	-1.1	77	23	-16	8	9	0	28	T	2.7	21	15.6	SW	14+	1	10	20	8.1	43
STAMPEDE PASS R	1206	876.1		1.1	-3.1	-1.0	0.1	6.1	25+	-7.8	6	0	30			236	9	29	26		2223	2946						1	1	29	9.3	
WALLA WALLA U	289			11.2	3.2	7.2	-0.3	17.2	10	-3.3	6	0	2			49	14	14	11		94	76			11.2	S	12	2	6	23	8.3	32
YAKIMA	321	976.6	1015.6	12.8	0.2	6.5	1.1	18.9	22	-3.9	15	0	17	-1.1	62	7	-7	4	6	0	43	51	2.1	27	15.6	31	-29	6	6	19	7.0	
WEST INDIES																																	
SAN JUAN P.R.	4	1014.9	1017.3	29.7	22.7	26.2	1.6	32.2	2	21.1	2	1	0	20.0	72	37	-14	9	14	0	0	0	3.2	8	11.2	E	29+	8	19	4	4.7	69
WEST VIRGINIA																																	
BECKLEY	763	926.5	1017.0	8.9	-1.6	3.7	-0.9	19.4	16+	-20.6	3	0	19	-2.8	69	94	-13	20	19	3	325	356	1.4	23	15.6	30	10	4	5	22	7.9	
CHARLESTON	310	981.4	1017.3	11.7	-0.7	5.6	-1.4	23.3	16	-17.8	3	0	17	-1.7	64	135	33	38	19	4	267	229	1.0	27	15.6	29	21	5	5	21	7.5	
ELKINS	594	944.8		9.3	-4.1	2.6	-1.2	20.6	8	-25.6	3	0	22			122	22	23	20		358	254						1	7	23	8.3	
HUNTINGTON	252	986.1	1016.7	11.2	-0.2	5.5	-1.3	22.8	8	-18.9	3	0	16	-1.7	63	128	25	22	17	4	140	178	0.7	26	13.4	26	21	4	5	22	8.0	
PARKERSBURG U	187			9.5	-1.1	4.2	-1.8	21.1	16	-16.7	3	0	18			118	23	26	16		277	254			17.0	W	21					38
WISCONSIN																																	
GREEN BAY	208	990.5	1017.3	1.9	-7.3	-2.7	-0.8	11.1	19+	-20.0	7	0	27	-7.2	74	25	-17	15	8	0	290	152	1.0	32	16.1	W	10	7	6	18	6.9	71
LA CROSSE	198	992.6	1018.1	4.2	-6.8	-1.3	-0.8	14.4	31+	-18.3	1	0	28	-5.0	78	17	-35		6	0	257		0.3	34								
MADISON	262	984.8	1017.2	3.1	-7.5	-2.2	-1.2	12.8	31	-20.0	1	0	27	-7.2	70	17	-32	8	7	0	142	76	0.7	35	16.1	NW	10	5	7	19	7.3	42
MILWAUKEE	205	990.9	1017.0	3.2	-4.9	-0.8	-0.5	13.9	20	-16.7	6	0	25	-5.6	71	20	-37	8	10	0	160	203	1.5	33	16.1	W	10	4	6	21	7.6	37
WYOMING																																	
CASPER	1627	832.0	1012.8	5.6	-6.8	-0.6	0.0	12.8	15	-23.3	1	0	31	-6.7	67	30	7	12	13	1	439	178	3.0	23	16.5	23	13	1	5	25	8.5	
CHEYENNE	1867	805.6	1011.8	6.1	-4.9	0.6	0.8	14.4	18	-21.7	1	0	28	-8.3	55	35	8	13	9	0	452	203	2.5	29	24.1	W	9	5	7	19	7.5	48
LANDER	1696	823.6	1012.2	6.3	-5.8	0.3	0.6	13.3	14	-11.1	26	0	31	-7.8	61	38	8	21	7	0	645	305	0.5	27	10.3	24	15	3	12	16	7.3	58
SHERIDAN	1208	874.4	1014.5	5.7	-7.4	-0.8	-0.3	13.3	11	-18.9	5	0	31	-5.6	72	32	1	10	13	0	490	102	2.0	31	14.8	NW	19	2	8	21	7.5	60

HEATING DEGREE DAYS

(Base 65°F.)

MARCH 1980

State and Station	Current season: This month	Current season: Period July through this month	Normals: July through this month
ALABAMA			
BIRMINGHAM U	425	2871	2403
BIRMINGHAM	417	2730	2708
HUNTSVILLE	532	3413	3125
MOBILE	159	1593	1644
MONTGOMERY	274	2017	2185
ALASKA			
ANCHORAGE	1164	7897	9125
ANNETTE	819	5156	5585
BARROW	2380	14592	15905
BARTER ISLAND	2438	14777	15759
BETHEL	1382	10438	10814
BETTLES	1751	12342	13598
BIG DELTA	1347	10206	11793
COLD BAY	964	7431	7529
FAIRBANKS	1475	10692	12502
GULKANA	1397	10417	11904
HOMER	1014	7433	8271
JUNEAU	949	6745	7306
KING SALMON	1157	8818	9454
KODIAK	879	6198	6882
KOTZEBUE	1679	11799	12774
MC GRATH	1499	11220	12399
NOME	1459	10627	11421
ST. PAUL ISLAND	1030	7367	8368
TALKEETNA	1273	9010	9801
UNALAKLEET			
VALDEZ	1032	7532	8592
YAKUTAT	916	6590	7534
ARIZONA			
FLAGSTAFF	1009	5982	5954
PHOENIX	129	1005	1492
TUCSON	227	1332	1671
WINSLOW	678	4175	4247
YUMA	54	522	981
ARKANSAS			
FORT SMITH	531	3469	3187
LITTLE ROCK	450	2892	3194
NO. LITTLE ROCK	505	3200	2952
CALIFORNIA			
BAKERSFIELD	293	1484	2023
BISHOP	667	3749	3793
BLUE CANYON	848	4326	4449
EUREKA U	500	2810	3538
FRESNO	343	2068	2408
LONG BEACH	209	892	1364
LOS ANGELES	203	766	1439
LOS ANGELES U	123	485	1036
MT SHASTA R	798	4633	4780
OAKLAND	286	1653	2332
RED BLUFF	350	2045	2398
SACRAMENTO	408	2381	2476
SAN DIEGO	104	486	1232
SAN FRANCISCO	366	2065	2421
SAN FRANCISCO U	275	1731	2338
SANTA MARIA	378	1796	2338
STOCKTON	345	2034	2510
COLORADO			
ALAMOSA	1071	7254	7284
COLORADO SPRINGS	901	5480	5505
DENVER	828	5213	5158
GRAND JUNCTION	740	4812	5048
PUEBLO	751	4864	4813
CONNECTICUT			
BRIDGEPORT	862	4772	4714
HARTFORD	916	5424	5561
DELAWARE			
WILMINGTON	768	4426	4431
DIST.OF COLUMBIA			
WASHINGTON DULLES	707	4312	4517
WASHINGTON NATIONAL	573	3463	3874
FLORIDA			
APPALACHICOLA U	152	1376	1331
DAYTONA BEACH	84	873	880
FORT MYERS	41	347	457
JACKSONVILLE	134	1390	1303
KEY WEST	16	73	64
MIAMI	39	200	206
ORLANDO	61	633	720
PENSACOLA	169	1482	1541
TALLAHASSEE	169	1662	1529
TAMPA	64	621	709
WEST PALM BEACH	50	356	299
GEORGIA			
ATHENS	430	2705	2824
ATLANTA	399	2689	2924
AUGUSTA	385	2611	2947
COLUMBUS	301	2060	2283
MACON	321	2060	2168
ROME	493		
SAVANNAH	257	1844	1889
IDAHO			
BOISE	736	4692	5004
LEWISTON	673	4425	4707
POCATELLO	888	5698	5998
ILLINOIS			
CAIRO U	616	3730	3619
CHICAGO O HARE	995	5698	5726
MOLINE	966	5965	5755
PEORIA	907	5805	5485
ROCKFORD	1073	6445	6073
SPRINGFIELD	857	5216	5051
INDIANA			
EVANSVILLE	756	4592	4266
FORT WAYNE	1001	5901	5499
INDIANAPOLIS	893	5361	5020
SOUTH BEND	908	5321	5675
IOWA			
DES MOINES	932	5715	6033
DUBUQUE	1086	6377	6456
SIOUX CITY	966	6141	6257
WATERLOO	1067	6401	6619
KANSAS			
CONCORDIA	846	5152	5070
DODGE CITY	780	4974	4566
GOODLAND	921	5331	5359
TOPEKA	744	4955	4783
WICHITA	723	4518	4315
KENTUCKY			
COVINGTON	814	5000	4582
LEXINGTON	721	4542	4313
LOUISVILLE	713	4292	4249
LOUISIANA			
BATON ROUGE	225	1854	1637
LAKE CHARLES	194	1615	1472
NEW ORLEANS	154	1456	1436
SHREVEPORT	312	2230	2097
MAINE			
CARIBOU	1265	7794	8139
PORTLAND	1018	6244	6342
MARYLAND			
BALTIMORE	723	4172	4279
MASSACHUSETTS			
BLUE HILL OBS R	927	5412	5449
BOSTON	866	4877	4884
WORCESTER	983	5842	5901
MICHIGAN			
ALPENA	1201	7043	7166
DETROIT	1012		
DETROIT METRO	1036	5933	5620
FLINT	1079	6066	6097
GRAND RAPIDS	1000	5744	5932
HOUGHTON LAKE	1233	7069	7145
LANSING	1081	6231	6021
MUSKEGON	1060	6091	5919
SAULT STE MARIE	1313	7820	7693
MINNESOTA			
DULUTH	1398	8185	8286
INTERNATIONAL FALLS	1488	9324	9113
MINNEAPOLIS	1165	7027	7226
ROCHESTER	1185	7045	7242
ST CLOUD	1286	7813	7796
MISSISSIPPI			
JACKSON	337	2546	2220
MERIDIAN	325	2357	2302
MISSOURI			
COLUMBIA REGIONAL	803	4908	4636
KANSAS CITY	809	5005	4879
ST JOSEPH	835	5061	4979
ST LOUIS	740	4505	4365
SPRINGFIELD	685	4078	4191
MONTANA			
BILLINGS	939	5713	6189
GLASGOW	1145	7289	7808
GREAT FALLS	1004	6103	6475
HAVRE	1120	6777	7579
HELENA	1039	6644	6926
KALISPELL	990	6645	7178
MILES CITY	1026	6477	6893
MISSOULA	935	6320	6700
NEBRASKA			
GRAND ISLAND	946	5804	5740
LINCOLN	912	5642	5611
NORFOLK	966	6059	6241
NORTH PLATTE	909	5584	5918
OMAHA (EPPLEY)	987		
OMAHA (NORTH)	945	5727	5926
SCOTTSBLUFF	889	5561	5839
VALENTINE	1063	6303	6378
NEVADA			
ELKO	862	4943	6242
ELY	983	5732	6392
LAS VEGAS	328	2122	2465
RENO	813	4524	5003
WINNEMUCCA	827	4809	5524
NEW HAMPSHIRE			
CONCORD	1022	6278	6363
MT WASHINGTON OBS	1633	11037	11051
NEW JERSEY			
ATLANTIC CITY	808	4670	4407
ATLANTIC CITY U	746	4005	4063
NEWARK	802	4221	4492
TRENTON U	748	4330	4428
NEW MEXICO			
ALBUQUERQUE	577	3661	3952
CLAYTON	750	4527	4566
ROSWELL	425	3277	3492
NEW YORK			
ALBANY	974	5878	6053
BINGHAMTON	1022	6139	6281
BUFFALO	1022	5744	5945
NEW YORK U	731	4069	4324
NEW YORK KENNEDY	823	4549	4534
NEW YORK LA GUARDIA	764	4325	4365
ROCHESTER	1003	5907	5821
SYRACUSE	1007	5760	5805
NORTH CAROLINA			
ASHEVILLE	573	3710	3844
CAPE HATTERAS R	477	2621	2496
CHARLOTTE	538	3238	3039
GREENSBORO	565	3579	3563
RALEIGH	564	3401	3286
WILMINGTON	445	2534	2329
NORTH DAKOTA			
BISMARCK	1238	7739	7923
FARGO	1363	8267	8159
WILLISTON	1216	7654	8003
OHIO			
AKRON	925	5576	5465
CINCINNATI ABBE OB	756	4697	4412
CLEVELAND	967	5587	5369
COLUMBUS	855	5140	5095
DAYTON	901	5353	5049
MANSFIELD	956	5811	5143
TOLEDO	1005	5862	5622
YOUNGSTOWN	1008	5825	5607
OKLAHOMA			
OKLAHOMA CITY	572	3480	3479
TULSA	513	3373	3476
OREGON			
ASTORIA	617	3629	4130
BURNS U	918	5688	5981
EUGENE	599	3837	3876
MEDFORD	620	3645	4142
PENDLETON	728	4873	4527
PORTLAND	575	3608	3968
SALEM	627	3906	3968
SEXTON SUMMIT R	869	4657	4991
PENNSYLVANIA			
ALLENTOWN	808	4843	5163
ERIE	1045	5596	5829
HARRISBURG	799	4772	4726
PHILADELPHIA	763	4425	4376
PITTSBURGH	906	5392	5252
SCRANTON	895	5287	5535
WILLIAMSPORT	863	5261	5307
RHODE ISLAND			
BLOCK ISLAND	823	4371	4751
PROVIDENCE	857	4904	5146
SOUTH CAROLINA			
CHARLESTON	321	2142	2072
CHARLESTON U	267	1755	1852
COLUMBIA	466	2861	2503
GRNVLLE-SPRTNBRG	532	3081	2990
SOUTH DAKOTA			
ABERDEEN	1213	7312	7597
HURON	1088	6758	7134
RAPID CITY	1032	5944	6259
SIOUX FALLS	1027	6673	6947
TENNESSEE			
BRISTOL	678	4131	3938
CHATTANOOGA	526	3417	3289
KNOXVILLE	529	3386	3258
MEMPHIS	478	2980	3074
NASHVILLE	571	3591	3475
OAK RIDGE	629	3880	3647
TEXAS			
ABILENE	316	2419	2495
AMARILLO	649	4112	3817
AUSTIN	168	1616	1693
BROWNSVILLE	51	642	650
CORPUS CHRISTI	74	886	930
DALLAS FT WORTH	339	2348	2294
DEL RIO	119	1323	1507
EL PASO	331	2551	2589
GALVESTON	158	1283	1204
HOUSTON INTERCON	169	1540	1411
LUBBOCK	436	3157	3326
MIDLAND	384	2629	2523
PORT ARTHUR	151	1517	1485
SAN ANGELO	300	2360	2166
SAN ANTONIO	163	1446	1539
VICTORIA	135	1335	1212
WACO	297	2244	2002
WICHITA FALLS	460	2875	2779
UTAH			
MILFORD	884	5135	5522
SALT LAKE CITY	723	4632	5184
VERMONT			
BURLINGTON	1043	6403	6822
VIRGINIA			
LYNCHBURG	652	3988	3888
NORFOLK	564	3273	3209
RICHMOND	541	3483	3649
ROANOKE	656	3983	3923
WALLOPS ISLAND	717	3729	3793
WASHINGTON			
OLYMPIA	702	4615	4488
QUILLAYUTE	661	4233	4647
SEATTLE	554	3623	3887
SEATTLE-TACOMA	634	3923	4216
SPOKANE	809	5560	5797
STAMPEDE PASS R	1072	7263	7362
WALLA WALLA U	613	4328	4241
YAKIMA	654	5231	5211
WEST VIRGINIA			
BECKLEY	809	5122	4944
CHARLESTON	707	4399	4180
ELKINS	872	5467	5217
HUNTINGTON	708	4324	4205
PARKERSBURG U	779	4620	4369
WISCONSIN			
GREEN BAY	1165	6891	7033
LA CROSSE	1085	6597	6632
MADISON	1138	6801	6770
MILWAUKEE	1063	6105	6397
WYOMING			
CASPER	1048	6581	6351
CHEYENNE	984	6017	6036
LANDER	1000	6729	6674
SHERIDAN	1061	6493	6523

COOLING DEGREE DAYS

(Base 65°F.)

MARCH 1980

State and station	Current season: This month	Current season: Period January through this month	Normals January through this month
ALABAMA			
BIRMINGHAM U	5	8	61
BIRMINGHAM	6	10	45
HUNTSVILLE	0	0	27
MOBILE	61	80	99
MONTGOMERY	15	24	65
ALASKA			
ANCHORAGE	0	0	0
ANNETTE	0	0	0
BARROW	0	0	0
BARTER ISLAND	0	0	0
BETHEL	0	0	0
BETTLES	0	0	0
BIG DELTA	0	0	0
COLD BAY	0	0	0
FAIRBANKS	0	0	0
GULKANA	0	0	
HOMER	0	0	0
JUNEAU	0	0	0
KING SALMON	0	0	0
KODIAK	0	0	0
KOTZEBUE	0	0	0
MC GRATH	0	0	0
NOME	0	0	0
ST. PAUL ISLAND	0	0	0
TALKEETNA	0	0	0
UNALAKLEET			
VALDEZ	0	0	0
YAKUTAT	0	0	0
ARIZONA			
FLAGSTAFF	0	0	0
PHOENIX	2	7	35
TUCSON	1	5	24
WINSLOW	0	0	0
YUMA	17	54	109
ARKANSAS			
FORT SMITH	0	0	15
LITTLE ROCK	1	2	14
NO. LITTLE ROCK	0	0	18
CALIFORNIA			
BAKERSFIELD	0	6	6
BISHOP	0	0	0
BLUE CANYON	0	0	
EUREKA U	0	2	0
FRESNO	0	0	0
LONG BEACH	0	4	7
LOS ANGELES	0	12	12
LOS ANGELES U	3	67	34
MT SHASTA R	0	0	0
OAKLAND	0	0	0
RED BLUFF	0	0	0
SACRAMENTO	0	0	0
SAN DIEGO	3	18	10
SAN FRANCISCO	0	0	0
SAN FRANCISCO U	0	0	0
SANTA MARIA	0	0	0
STOCKTON	0	0	0
COLORADO			
ALAMOSA	0	0	0
COLORADO SPRINGS	0	0	0
DENVER	0	0	0
GRAND JUNCTION	0	0	0
PUEBLO	0	0	0
CONNECTICUT			
BRIDGEPORT	0	0	0
HARTFORD	0	0	0
DELAWARE			
WILMINGTON	0	0	0
DIST.OF COLUMBIA			
WASHINGTON DULLES	0	0	0
WASHINGTON NATIONAL	0	0	0
FLORIDA			
APPALACHICOLA U	27	35	92
DAYTONA BEACH	131	164	182
FORT MYERS	252	392	353
JACKSONVILLE	63	79	121
KEY WEST	340	636	706
MIAMI	296	509	478
ORLANDO	169	221	260
PENSACOLA	41	63	117
TALLAHASSEE	48	63	102
TAMPA	164	231	268
WEST PALM BEACH	218	330	394
GEORGIA			
ATHENS	1	3	14
ATLANTA	4	8	12
AUGUSTA	2	2	37
COLUMBUS	11	16	47
MACON	8	15	59
ROME	1	1	
SAVANNAH	19	35	72
HAWAII			
HILO	234	674	553
HONOLULU	317	759	678
KAHULUI	335	854	618
LIHUE	258	673	583
IDAHO			
BOISE	0	0	0
LEWISTON	0	0	0
POCATELLO	0	0	0
ILLINOIS			
CAIRO U	0	0	16
CHICAGO O HARE	0	0	0
MOLINE	0	0	0
PEORIA	0	0	0
ROCKFORD	0	0	0
SPRINGFIELD	0	0	0
INDIANA			
EVANSVILLE	0	0	11
FORT WAYNE	0	0	0
INDIANAPOLIS	0	0	0
SOUTH BEND	0	0	0
IOWA			
DES MOINES	0	0	0
DUBUQUE	0	0	0
SIOUX CITY	0	0	0
WATERLOO	0	0	0
KANSAS			
CONCORDIA	0	0	0
DODGE CITY	0	0	0
GOODLAND	0	0	0
TOPEKA	0	0	8
WICHITA	0	0	8
KENTUCKY			
COVINGTON	0	0	0
LEXINGTON	0	0	10
LOUISVILLE	0	0	10
LOUISIANA			
BATON ROUGE	40	55	85
LAKE CHARLES	31	49	104
NEW ORLEANS	70	93	118
SHREVEPORT	6	13	47
MAINE			
CARIBOU	0	0	0
PORTLAND	0	0	0
MARYLAND			
BALTIMORE	0	0	0
MASSACHUSETTS			
BLUE HILL OBS R	0	0	0
BOSTON	0	0	0
WORCESTER	0	0	0
MICHIGAN			
ALPENA	0	0	0
DETROIT	0	0	
DETROIT METRO	0	0	0
FLINT	0	0	0
GRAND RAPIDS	0	0	0
HOUGHTON LAKE	0	0	0
LANSING	0	0	0
MUSKEGON	0	0	0
SAULT STE MARIE	0	0	0
MINNESOTA			
DULUTH	0	0	0
INTERNATIONAL FALLS	0	0	0
MINNEAPOLIS	0	0	0
ROCHESTER	0	0	0
ST CLOUD	0	0	0
MISSISSIPPI			
JACKSON	11	22	68
MERIDIAN	10	26	68
MISSOURI			
COLUMBIA REGIONAL	0	0	8
KANSAS CITY	0	0	0
ST JOSEPH	0	0	0
ST LOUIS	0	0	9
SPRINGFIELD	0	0	9
MONTANA			
BILLINGS	0	0	0
GLASGOW	0	0	0
GREAT FALLS	0	0	0
HAVRE	0	0	0
HELENA	0	0	0
KALISPELL	0	0	0
MILES CITY	0	0	0
MISSOULA	0	0	0
NEBRASKA			
GRAND ISLAND	0	0	0
LINCOLN	0	0	0
NORFOLK	0	0	0
NORTH PLATTE	0	0	0
OMAHA (EPPLEY)	0	0	
OMAHA (NORTH)	0	0	0
SCOTTSBLUFF	0	0	0
VALENTINE	0	0	0
NEVADA			
ELKO	0	0	8
ELY	0	0	0
LAS VEGAS	0	0	14
RENO	0	0	0
WINNEMUCCA	0	0	0
NEW HAMPSHIRE			
CONCORD	0	0	0
MT WASHINGTON OBS	0	0	0
NEW JERSEY			
ATLANTIC CITY	0	0	0
ATLANTIC CITY U	0	0	0
NEWARK	0	0	0
TRENTON U	0	0	0
NEW MEXICO			
ALBUQUERQUE	0	0	0
CLAYTON	0	0	0
ROSWELL	0	0	0
NEW YORK			
ALBANY	0	0	0
BINGHAMTON	0	0	0
BUFFALO	0	0	0
NEW YORK U	0	0	8
NEW YORK KENNEDY	0	0	0
NEW YORK LA GUARDIA	0	0	0
ROCHESTER	0	0	0
SYRACUSE	0	0	0
NORTH CAROLINA			
ASHEVILLE	0	0	0
CAPE HATTERAS R	0	0	12
CHARLOTTE	0	0	15
GREENSBORO	0	0	11
RALEIGH	0	0	12
WILMINGTON	0	1	31
NORTH DAKOTA			
BISMARCK	0	0	8
FARGO	0	0	8
WILLISTON	0	0	8
OHIO			
AKRON	0	0	0
CINCINNATI ABBE OB	0	0	7
CLEVELAND	0	0	8
COLUMBUS	0	0	6
DAYTON	0	0	6
MANSFIELD	0	0	0
TOLEDO	0	0	8
YOUNGSTOWN	0	0	0
OKLAHOMA			
OKLAHOMA CITY	0	0	11
TULSA	0	0	10
OREGON			
ASTORIA	0	0	0
BURNS U	0	0	8
EUGENE	0	0	0
MEDFORD	0	0	0
PENDLETON	0	0	0
PORTLAND	0	0	8
SALEM	0	0	0
SEXTON SUMMIT R	0	0	0
PACIFIC AREA			
GUAM TAGUAC R	397	1122	1119
JOHNSTON	442	1219	1048
KOROR R	514	1459	1441
KWAJALEIN	576	1605	1479
MAJURO	513	1530	1446
PAGO PAGO	543	1545	1385
PONAPE R	557	1576	1414
TRUK MOEN ISLAND	527	1517	1452
WAKE	418	1144	1102
YAP R	503	1498	1407
PENNSYLVANIA			
ALLENTOWN	0	0	0
ERIE	0	0	0
HARRISBURG	0	0	0
PHILADELPHIA	0	0	0
PITTSBURGH	0	0	0
SCRANTON	0	0	0
WILLIAMSPORT	0	0	0
RHODE ISLAND			
BLOCK ISLAND	0	0	0
PROVIDENCE	0	0	0
SOUTH CAROLINA			
CHARLESTON	7	16	61
CHARLESTON U	5	14	68
COLUMBIA	0	0	30
GRNVLLE-SPRTNBRG	0	0	13
SOUTH DAKOTA			
ABERDEEN	0	0	0
HURON	0	0	0
RAPID CITY	0	0	0
SIOUX FALLS	0	0	0
TENNESSEE			
BRISTOL	0	8	9
CHATTANOOGA	0	0	18
KNOXVILLE	0	0	24
MEMPHIS	0	0	23
NASHVILLE	0	0	19
OAK RIDGE	0	0	12
TEXAS			
ABILENE	6	13	29
AMARILLO	0	0	0
AUSTIN	62	78	76
BROWNSVILLE	198	343	358
CORPUS CHRISTI	159	256	199
DALLAS FT WORTH	11	11	25
DEL RIO	81	112	118
EL PASO	0	0	6
GALVESTON	12	15	110
HOUSTON INTERCON	49	84	97
LUBBOCK	0	0	9
MIDLAND	0	0	17
PORT ARTHUR	47	82	93
SAN ANGELO	9	9	42
SAN ANTONIO	61	86	88
VICTORIA	73	112	120
WACO	25	31	44
WICHITA FALLS	0	0	22
UTAH			
MILFORD	0	0	0
SALT LAKE CITY	0	0	0
VERMONT			
BURLINGTON	0	0	0
VIRGINIA			
LYNCHBURG	0	0	0
NORFOLK	0	0	8
RICHMOND	1	1	8
ROANOKE	0	0	0
WALLOPS ISLAND	0	0	0
WASHINGTON			
OLYMPIA	0	0	0
QUILLAYUTE	0	0	0
SEATTLE	0	0	0
SEATTLE-TACOMA	0	0	0
SPOKANE	0	0	0
STAMPEDE PASS R	0	0	0
WALLA WALLA U	0	0	10
YAKIMA	0	0	0
WEST INDIES			
SAN JUAN P.R.	446	1262	960
WEST VIRGINIA			
BECKLEY	0	0	0
CHARLESTON	0	0	7
ELKINS	0	0	8
HUNTINGTON	0	0	7
PARKERSBURG U	0	0	0
WISCONSIN			
GREEN BAY	0	0	0
LA CROSSE	0	0	0
MADISON	0	0	0
MILWAUKEE	0	0	0
WYOMING			
CASPER	0	0	0
CHEYENNE	0	0	0
LANDER	0	0	0
SHERIDAN	0	0	0

STORM SUMMARY

MARCH 1980

STATE	TORNADOES					HAILSTORMS				WINDSTORMS				LIGHTNING				@HEAVY SNOWSTORMS AND BLIZZARDS				# ICE STORMS				¢ ALL OTHER			
	NUMBER	DAYS	DEATHS	INJURIES	†DAMAGE	DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE		DEATHS	INJURIES	†DAMAGE	
								PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS			PROP. ERTY	CROPS
Alabama	6	3		11	5			4			10	4 7	?			4						1	?	5		1 4	15	5 5	3
Alaska																4													
Arkansas																													
Arizona *																													
California									2			?																	
Colorado	1	1			2							?								5									
Connecticut															1	5													
Delaware												4																	
Florida	6	3	1	34	7										1														
Georgia	6	2		3	6			?		1		4												5		2		5	?
Hawaii	1	1			2																					2		*6	C
Idaho *																													
Illinois *																													
Indiana *																		1											
Iowa																													
Kansas																				6									
Kentucky												4																	
Louisiana	2	2			6							5				4												5	
Maine												5																3	
Maryland & DC										1	1	6																	
Massachusetts												4				4												6	
Michigan																				5									
Minnesota																5													
Mississippi	4	2	1	1	5						2	4														2	18	6	
Missouri *																													
Montana *																				6									
Nebraska																													
Nevada *																													
New Hampshire												5																?	?
New Jersey																													
New Mexico											1	5	3															7	
New York												4								4	?			?	?	3			
North Carolina	1	1			5							5										13	?	7					
North Dakota																										1			
Ohio												4																	
Oklahoma	3	2			3			?	?			5	?			?	?												
Oregon *																													
Pacific *																													
Pennsylvania	1	1			3			2			1	5				5				4				2				2	
Puerto Rico *																													
Rhode Island																												4	
South Carolina	1	1		6	5													1		6	6			5	5			6	6
South Dakota *																													
Tennessee	2	2		2	5			?	?			4								?	?					2	2	6	?
Texas	7	3			5			?	?			5	5			4												6	7
Utah *																													
Vermont												5																4	
Virginia												4						2						4				3	
Virgin Islands *																													
Washington *																													
West Virginia												3								3									
Wisconsin *																													
Wyoming *																													

RAWINSONDE DATA

Average monthly values

MARCH 1980

Column key for all station tables: Standard pressure surface mb. | No. of observations | Dynamic height meters | Temperature °C | Dew Point °C † | Resultant Wind: Direction tens of deg. | Resultant Wind: Speed m.p.s.

ALBANY, NY — 1006 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	86	-2.6	-6.1	31	2.8
1000	24	161	-3.7	-8.2	30	2.5
950	31	538	-3.5	-7.4	30	4.7
900	31	965	-4.4	-8.6	30	5.6
850	31	1,414	-5.5	-11.6	29	6.8
800	31	1,889	-6.7	-13.1	28	7.1
750	31	2,393	-7.9	-14.5	27	8.4
700	31	2,927	-10.1	-17.7	27	10.8
650	31	3,495	-12.9	-19.8	27	12.8
600	31	4,102	-16.3	-23.2	27	14.5
550	30	4,750	-20.0	-27.5	27	17.3
500	30	5,451	-24.5	-32.9	27	19.4
450	30	6,210	-29.5	-38.7	27	22.7
400	30	7,041	-35.1	-44.8	27	26.9
350	28	7,963	-41.3	-48.4	27	29.0
300	28	8,992	-48.0		27	31.8
250	26	10,183	-53.6		27	35.0
200	26	11,613	-54.4		27	32.7
175	25	12,474	-53.5		27	31.1
150	22	13,485	-53.9		27	27.1
125	20	14,649	-55.0		27	22.9
100	19	16,065	-57.2		27	22.3
80	17	17,469	-58.1		28	18.7
70	16	18,310	-58.9		28	16.4
60	16	19,277	-59.0		28	14.6
50	16	20,422	-58.6		28	11.3
40	15	21,824	-57.6		30	7.3
30	14	23,645	-56.9		34	3.6
25	13	24,800	-55.8		01	3.5
20	13	26,224	-54.8		34	3.1
15	12	28,069	-51.6			
10						
7						

ALBUQUERQUE, NM — 834 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	1,619	1.7	-7.5	30	.6
1000						
950						
900						
850						
800	31	1,956	2.9	-7.3	26	3.5
750	31	2,475	-.1	-8.9	27	6.6
700	31	3,024	-3.9	-11.1	27	9.0
650	31	3,605	-7.7	-17.2	26	11.4
600	31	4,224	-11.4	-23.1	27	13.4
550	31	4,885	-15.8	-29.1	26	15.2
500	31	5,597	-20.7	-34.3	26	17.9
450	31	6,368	-26.5	-39.0	27	20.4
400	31	7,208	-32.7	-45.1	27	22.9
350	31	8,139	-39.1	-48.1	27	27.8
300	31	9,176	-46.5		26	32.3
250	31	10,365	-53.7		26	36.8
200	30	11,791	-53.8		26	39.4
175	30	12,651	-53.4		26	36.7
150	30	13,639	-55.5		26	34.0
125	30	14,792	-58.6		26	30.3
100	28	16,183	-62.1		26	25.5
80	28	17,560	-62.7		26	18.2
70	28	18,383	-62.9		27	13.3
60	28	19,335	-62.0		26	9.0
50	28	20,465	-61.4		27	5.9
40	28	21,851	-60.6		28	2.5
30	28	23,653	-58.4		06	1.9
25	27	24,802	-57.4		04	2.1
20	25	26,218	-56.0		06	5.1
15	20	28,066	-52.9		06	4.1
10	13	30,703	-47.5		24	2.0
7						

AMARILLO, TX — 888 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	1,095	.7	-6.5	25	2.0
1000						
950						
900						
850	31	1,444	3.7	-7.2	26	6.2
800	31	1,937	4.0	-9.4	27	8.5
750	31	2,459	1.7	-12.3	27	10.7
700	31	3,012	-1.7	-15.3	27	12.1
650	31	3,597	-5.8	-19.0	27	12.7
600	31	4,220	-10.0	-23.8	26	13.6
550	31	4,884	-14.7	-28.9	26	16.2
500	31	5,599	-19.8	-34.1	26	18.4
450	31	6,372	-25.6	-39.5	26	20.2
400	31	7,216	-31.6	-44.7	26	23.7
350	31	8,150	-38.3	-50.1	26	28.7
300	31	9,191	-45.9		26	33.2
250	30	10,386	-52.6		26	37.5
200	29	11,817	-55.4		26	40.7
175	29	12,669	-55.5		26	38.5
150	29	13,651	-56.4		26	39.8
125	29	14,802	-58.9		26	33.8
100	29	16,192	-61.7		26	29.2
80	29	17,570	-62.5		27	20.9
70	29	18,394	-62.8		26	15.0
60	29	19,343	-62.9		26	12.7
50	28	20,468	-61.8		26	7.5
40	27	21,851	-60.5		27	3.9
30	25	23,647	-58.6		35	1.4
25	23	24,799	-57.7		03	2.3
20	22	26,212	-56.3		05	3.5
15	22	28,050	-53.7		07	4.9
10	14	30,681	-46.5		29	2.0
7						

* ANCHORAGE, AK — 1001 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	45	-3.7	-8.1	03	.5
1000	20	90	-2.5	-8.5	04	1.2
950	31	461	-3.2	-8.5	06	.7
900	31	888	-5.1	-9.8	11	1.6
850	31	1,335	-8.1	-12.3	13	2.5
800	31	1,803	-11.4	-14.5	15	3.5
750	31	2,295	-14.2	-19.1	15	5.0
700	31	2,815	-17.7	-24.1	17	4.9
650	31	3,366	-20.9	-27.4	19	5.0
600	31	3,953	-24.6	-31.9	20	5.5
550	31	4,582	-28.7	-36.2	21	6.2
500	31	5,258	-32.9	-41.0	22	7.4
450	31	5,992	-38.0	-44.1	22	8.3
400	31	6,794	-43.3	-48.8	23	9.6
350	30	7,691	-48.6		24	12.4
300	30	8,692	-53.1		24	14.4
250	30	9,867	-51.9		25	12.2
200	30	11,326	-48.4		25	9.5
175	30	12,208	-47.1		25	9.5
150	30	13,229	-46.9		25	8.3
125	30	14,437	-47.0		25	6.5
100	30	15,915	-46.9		25	4.8
80	30	17,394	-46.7		25	3.5
70	29	18,296	-46.6		26	2.6
60	29	19,318	-47.0		29	1.0
50	29	20,526	-47.0		03	.5
40	29	22,003	-47.5		07	2.2
30	28	23,903	-47.9		07	4.6
25	27	25,105	-47.9		07	7.0
20	25	26,568	-47.6		07	8.3
15	21	28,481	-45.7		08	10.6
10	10	31,246	-42.0		09	11.8
7	5	33,841	-35.3			

* ANNETTE, AK — 1009 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	37	2.4	.1	13	1.6
1000	26	124	3.0	.2	14	2.2
950	31	519	.3	-2.2	17	3.3
900	31	950	-2.5	-5.0	19	3.9
850	31	1,402	-4.9	-9.2	21	4.6
800	31	1,876	-7.6	-12.7	23	5.0
750	31	2,376	-10.6	-16.3	24	6.0
700	31	2,904	-13.6	-20.8	25	7.2
650	31	3,464	-16.5	-23.7	26	8.1
600	31	4,063	-19.9	-27.1	26	9.9
550	31	4,703	-24.2	-31.1	27	11.0
500	31	5,391	-29.4	-35.8	27	12.7
450	31	6,135	-34.7	-37.9	26	13.3
400	31	6,947	-40.8	-43.5	26	14.8
350	30	7,846	-46.5		27	14.7
300	30	8,854	-52.1		28	16.3
250	30	10,025	-55.1		29	16.1
200	30	11,459	-51.8		29	13.7
175	30	12,328	-50.3		28	11.5
150	30	13,335	-49.8		28	9.6
125	30	14,528	-49.9		29	9.2
100	30	15,986	-50.6		29	7.8
80	30	17,441	-50.2		30	5.6
70	30	18,314	-50.1		31	4.7
60	30	19,321	-50.1		33	4.2
50	28	20,513	-50.4		01	3.2
40	26	21,973	-50.2		04	3.8
30	24	23,854	-49.7		06	6.0
25	18	25,037	-49.0		07	7.9
20	15	26,507	-48.2		08	9.4
15	12	28,421	-47.2		08	13.7
10	5	31,171	-45.3			
7						

ATHENS, GA — 987 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	246	6.5	2.6	02	.3
1000						
950	31	561	7.5	.9	20	1.3
900	31	1,007	6.9	-2.2	24	4.1
850	31	1,477	6.7	-4.4	26	7.8
800	31	1,974	5.0	-6.0	26	10.9
750	31	2,498	2.3	-9.0	26	14.2
700	31	3,053	-.3	-12.2	26	16.5
650	31	3,643	-3.6	-14.7	26	18.7
600	31	4,271	-7.4	-18.3	27	21.4
550	31	4,943	-11.4	-23.0	27	24.6
500	31	5,668	-16.0	-27.5	26	26.9
450	31	6,454	-21.4	-31.8	26	29.9
400	31	7,312	-27.4	-37.6	26	34.2
350	31	8,263	-34.0	-43.2	26	38.1
300	31	9,323	-41.7	-48.6	27	41.7
250	31	10,536	-50.5		27	47.9
200	31	11,968	-56.7		27	51.8
175	31	12,813	-57.9		27	48.1
150	31	13,781	-59.4		27	42.4
125	30	14,914	-62.2		27	35.6
100	29	16,283	-65.1		27	28.5
80	28	17,639	-66.2		27	19.6
70	28	18,449	-66.0		27	15.1
60	27	19,384	-65.2		27	12.6
50	27	20,500	-63.1		27	8.7
40	27	21,874	-62.1		29	6.5
30	26	23,665	-59.0		02	2.0
25	26	24,813	-57.6		02	1.3
20	26	26,229	-55.4		05	1.5
15	24	28,079	-52.5		28	.5
10	21	30,741	-45.4		26	7.5
7	8	33,174	-40.3			
5						

* BARROW, AK — 1019 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	8	-24.9	-29.3	06	2.7
1000	31	148	-22.2	-24.2	08	4.2
950	31	530	-17.0	-20.6	09	5.0
900	31	937	-16.0	-20.1	08	4.2
850	31	1,367	-16.2	-22.7	08	3.6
800	31	1,823	-17.4	-24.5	07	2.8
750	31	2,304	-19.5	-27.2	06	1.3
700	31	2,814	-22.3	-29.4	04	1.1
650	31	3,355	-25.5	-33.0	35	1.0
600	31	3,931	-29.1	-36.3	32	1.8
550	31	4,549	-32.7	-40.0	31	2.5
500	31	5,215	-36.7	-44.4	30	3.6
450	31	5,937	-41.3	-47.8	29	4.6
400	30	6,725	-46.3		29	5.2
350	30	7,607	-50.7		28	5.7
300	30	8,599	-54.1		28	5.2
250	29	9,770	-51.6		27	5.0
200	29	11,232	-48.0		27	5.4
175	28	12,123	-47.0		26	5.7
150	28	13,146	-46.1		26	7.3
125	24	14,374	-45.4		26	7.5
100	23	15,866	-45.2		26	7.4
80	20	17,348	-44.5		27	8.8
70	19	18,239	-43.9		28	8.4
60	18	19,294	-43.6		28	8.0
50	17	20,510	-43.4		28	8.2
40	13	22,000	-43.3		29	9.6
30	8	23,920	-42.2			
25						
20						
15						
10						
7						
5						

BARTER ISLAND, AK — 1017 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	26	15	-26.2	-34.8	12	.6
1000	25	140	-23.2	-27.6	14	1.1
950	26	516	-17.2	-21.9	13	1.2
900	26	923	-15.2	-21.3	19	.6
850	26	1,355	-15.9	-22.4	23	.8
800	26	1,810	-17.6	-24.1	25	1.4
750	26	2,291	-19.9	-26.5	26	2.0
700	26	2,800	-22.5	-29.6	27	2.2
650	26	3,341	-25.8	-32.7	28	2.5
600	26	3,917	-29.2	-35.8	27	2.9
550	26	4,534	-32.6	-39.7	26	3.4
500	26	5,200	-36.9	-43.0	27	3.3
450	25	5,923	-41.1	-42.6	27	3.6
400	25	6,715	-45.8		27	4.1
350	25	7,597	-50.8		27	4.9
300	25	8,590	-53.5		27	5.5
250	25	9,767	-51.5		28	6.9
200	25	11,228	-48.2		29	7.3
175	25	12,109	-47.4		28	7.8
150	24	13,133	-46.7		29	8.3
125	24	14,344	-46.3		29	9.1
100	24	15,828	-46.0		29	9.9
80	24	17,316	-45.1		29	10.1
70	24	18,209	-44.6		29	10.0
60	23	19,233	-44.3		30	9.2
50	23	20,456	-44.1		30	9.1
40	23	21,954	-44.0		31	8.7
30	23	23,885	-44.0		32	6.7
25	22	25,118	-43.7		33	5.3
20	22	26,618	-43.3		33	4.1
15	21	28,563	-42.6		02	3.6
10	17	31,341	-42.0		05	2.5
7	7	33,816	-39.3			
5						

BETHEL, AK — 998 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	39	-6.5	-9.6	10	2.9
1000	13	99	-10.7	-12.7	03	.9
950	31	423	-5.2	-9.3	13	5.0
900	31	847	-6.7	-11.8	15	5.5
850	31	1,292	-9.0	-14.6	16	5.7
800	31	1,759	-11.7	-17.7	17	6.2
750	31	2,251	-14.6	-22.0	17	6.3
700	31	2,770	-17.9	-25.6	16	5.5
650	31	3,321	-21.2	-29.4	17	5.4
600	31	3,907	-25.0	-32.6	18	5.4
550	31	4,534	-28.9	-36.6	19	5.0
500	31	5,210	-33.1	-40.8	20	5.5
450	31	5,944	-37.9	-42.3	19	7.3
400	31	6,746	-43.7	-42.3	20	8.3
350	31	7,636	-48.6		20	8.5
300	31	8,638	-52.1		21	9.0
250	31	9,820	-50.6		22	8.7
200	31	11,285	-47.4		22	7.3
175	31	12,170	-46.5		22	8.5
150	30	13,192	-46.2		21	6.9
125	30	14,404	-46.1		21	6.5
100	30	15,888	-46.0		21	5.1
80	30	17,371	-46.4		20	4.8
70	30	18,259	-46.2		19	4.3
60	29	19,284	-46.2		18	3.5
50	29	20,495	-46.6		15	3.3
40	29	21,976	-46.5		13	4.3
30	26	23,887	-46.9		11	6.1
25	25	25,095	-46.4		10	7.4
20	24	26,572	-46.1		09	9.9
15	18	28,503	-45.5		09	11.8
10						
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* BISMARCK, ND — 955 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	503	-8.1	-11.5	36	.6
1000						
950	26	566	-8.6	-10.8	32	.5
900	31	970	-5.5	-9.4	27	3.0
850	31	1,419	-5.8	-13.3	29	4.5
800	31	1,893	-7.2	-16.1	31	5.5
750	31	2,394	-9.4	-19.2	30	7.2
700	31	2,925	-11.7	-21.0	30	8.6
650	31	3,490	-14.9	-22.5	30	9.5
600	31	4,092	-18.2	-26.5	29	11.4
550	31	4,736	-22.5	-30.5	29	13.2
500	31	5,430	-27.0	-35.5	29	15.0
450	31	6,181	-32.2	-40.1	29	16.6
400	31	7,002	-38.6	-45.4	28	17.8
350	31	7,909	-45.3		28	19.5
300	31	8,919	-52.2		28	20.9
250	31	10,083	-57.7		28	20.1
200	31	11,495	-55.1		28	19.9
175	31	12,354	-52.7		28	18.9
150	31	13,350	-52.5		28	17.3
125	30	14,533	-53.1		28	15.9
100	29	15,968	-53.7		28	13.5
80	29	17,402	-54.1		28	10.9
70	29	18,257	-54.6		28	9.8
60	29	19,247	-53.9		28	7.7
50	27	20,418	-53.8		30	5.1
40	26	21,847	-53.8		34	2.5
30	25	23,699	-53.7		05	4.1
25	23	24,871	-53.8		05	7.4
20	23	26,306	-53.2		06	8.5
15	22	28,154	-52.3		06	9.3
10	21	30,793	-49.5		06	10.4
7	13	33,087	-46.6		04	5.7
5	9	35,358	-41.4			

BOISE, ID — 914 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	871	1.8	-2.8	15	.8
1000						
950						
900	31	991	2.8	-3.3	22	.2
850	31	1,453	1.2	-5.7	29	3.1
800	31	1,938	-2.5	-8.1	30	4.8
750	31	2,447	-6.0	-10.9	30	6.1
700	31	2,984	-9.4	-14.7	30	8.0
650	31	3,553	-12.5	-20.0	30	8.6
600	31	4,161	-16.2	-25.3	29	8.5
550	31	4,810	-20.6	-31.5	28	9.4
500	31	5,509	-25.5	-35.0	28	9.9
450	31	6,264	-31.0	-40.6	29	11.1
400	31	7,089	-37.0	-46.8	29	12.4
350	31	8,003	-43.4		30	13.5
300	31	9,022	-50.5		30	14.5
250	31	10,193	-57.0		30	16.2
200	31	11,602	-56.4		29	14.8
175	31	12,455	-53.9		29	15.1
150	31	13,448	-53.4		29	15.0
125	31	14,620	-54.1		29	13.4
100	31	16,049	-55.3		28	10.7
80	31	17,470	-56.0		29	8.6
70	31	18,318	-56.5		30	7.2
60	31	19,297	-56.5		31	5.6
50	30	20,455	-56.2		34	3.5
40	30	21,876	-55.6		01	2.4
30	27	23,717	-54.6		06	5.5
25	26	24,887	-54.3		06	7.2
20	23	26,319	-53.9		07	8.9
15	13	28,161	-53.3		07	10.8
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BOOTHVILLE, LA — 1016 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	1	15.3	13.0	04	.6
1000	31	132	16.0	12.4	15	.6
950	31	568	14.2	8.7	21	2.8
900	31	1,025	13.5	3.1	23	5.5
850	31	1,505	11.8	-.9	25	7.9
800	31	2,011	10.1	-3.5	25	10.4
750	31	2,545	7.7	-7.4	26	12.1
700	31	3,111	4.7	-10.0	26	13.3
650	31	3,712	1.6	-13.5	26	15.6
600	31	4,352	-2.6	-16.6	26	17.8
550	31	5,037	-7.1	-21.7	26	21.3
500	31	5,773	-12.1	-26.3	26	23.8
450	31	6,571	-17.1	-29.1	26	27.0
400	31	7,444	-23.0	-33.6	26	31.1
350	31	8,412	-30.3	-39.9	26	32.5
300	31	9,486	-39.0	-48.0	26	36.6
250	31	10,711	-48.2		27	38.4
200	31	12,148	-57.8		27	41.3
175	30	12,984	-60.6		27	43.4
150	30	13,938	-63.1		27	37.4
125	30	15,051	-66.4		26	34.0
100	30	16,390	-70.0		26	27.4
80	30	17,714	-70.5		26	17.1
70	30	18,508	-69.9		27	10.2
60	28	19,431	-68.3		27	7.4
50	28	20,534	-64.8		26	4.2
40	28	21,906	-61.8		33	1.6
30	24	23,693	-59.3		03	2.5
25	23	24,844	-56.9		03	2.5
20	22	26,262	-54.0		08	2.3
15	17	28,135	-49.0		22	1.2
10						
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* BROWNSVILLE, TX — 1011 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	30	7	18.5	15.8	13	1.8
1000	30	102	19.1	16.0	14	3.1
950	30	543	17.9	11.4	16	7.4
900	30	1,006	16.8	5.1	17	8.3
850	30	1,493	16.5	-.8	19	7.1
800	30	2,007	14.9	-2.7	20	6.6
750	30	2,551	12.0	-4.2	22	7.3
700	30	3,125	8.8	-7.1	24	8.9
650	30	3,734	4.7	-10.5	24	10.5
600	30	4,380	-.4	-13.2	25	13.4
550	30	5,069	-5.6	-16.6	25	16.5
500	30	5,810	-10.1	-24.1	26	19.9
450	30	6,614	-15.4	-27.9	25	24.1
400	30	7,493	-21.5	-33.1	26	28.1
350	30	8,466	-28.7	-38.9	26	31.4
300	29	9,548	-37.2	-46.0	26	34.3
250	29	10,781	-47.4		26	36.6
200	29	12,222	-57.9		27	38.6
175	29	13,055	-62.2		26	37.3
150	29	14,001	-64.6		26	34.9
125	28	15,105	-68.4		26	30.5
100	28	16,429	-72.7		26	22.8
80	24	17,727	-74.8		25	16.2
70	21	18,511	-72.4		26	11.1
60	17	19,424	-69.2		26	5.5
50	16	20,523	-65.1		24	3.7
40	14	21,893	-62.9		33	1.2
30	12	23,678	-59.9		06	3.4
25	12	24,823	-57.7		07	5.7
20	10	26,243	-54.4		08	2.6
15	7	28,087	-48.0			
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BUFFALO, NY — 990 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	218	-2.4	-6.6	24	1.2
1000	5	236	-9.3	-12.1		
950	31	544	-2.7	-7.0	26	3.4
900	31	972	-4.5	-7.9	26	5.3
850	31	1,421	-6.1	-11.4	28	7.1
800	31	1,895	-7.2	-14.4	28	8.5
750	31	2,397	-8.5	-16.9	28	10.3
700	31	2,931	-10.4	-19.2	28	12.1
650	31	3,499	-13.1	-21.5	29	13.0
600	31	4,105	-16.1	-25.4	28	13.5
550	31	4,755	-19.8	-30.7	28	17.3
500	31	5,456	-24.3	-36.1	28	20.2
450	31	6,218	-29.1	-40.6	28	23.1
400	31	7,049	-35.2	-45.8	27	24.2
350	31	7,970	-41.7	-48.6	27	25.9
300	31	8,996	-48.6		26	28.8
250	31	10,180	-53.8		26	32.2
200	31	11,613	-53.0		26	32.7
175	31	12,475	-52.8		27	30.4
150	31	13,469	-52.7		27	27.3
125	31	14,645	-53.8		27	24.3
100	30	16,075	-55.8		27	22.1
80	30	17,491	-57.1		27	18.1
70	29	18,333	-57.6		28	16.0
60	29	19,306	-57.7		28	13.3
50	29	20,458	-56.8		28	10.1
40	28	21,872	-56.9		29	4.5
30	28	23,701	-55.4		36	2.3
25	27	24,862	-55.0		02	3.0
20	27	26,290	-54.4		05	2.7
15	25	28,141	-52.2		05	2.6
10	16	30,815	-48.7		06	6.8
7						

CAPE HATTERAS, NC — 1017 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	4	8.6	5.5	32	1.5
1000	31	141	9.8	4.4	31	2.1
950	31	566	7.9	1.6	30	4.2
900	31	1,011	6.4	-1.4	29	5.9
850	31	1,478	4.4	-5.3	27	7.9
800	31	1,971	3.0	-9.5	26	11.0
750	31	2,492	1.3	-11.9	26	14.7
700	31	3,045	-1.2	-14.9	27	16.7
650	31	3,632	-4.6	-17.7	27	19.8
600	31	4,259	-8.2	-19.8	26	21.6
550	31	4,929	-12.3	-24.4	27	23.8
500	31	5,651	-16.7	-26.3	27	27.2
450	31	6,435	-21.8	-31.1	27	31.1
400	31	7,292	-27.7	-36.6	27	35.6
350	31	8,242	-34.4	-41.2	27	39.9
300	31	9,299	-42.4	-45.7	27	42.5
250	31	10,508	-50.8		28	45.3
200	31	11,940	-56.1		28	50.5
175	31	12,788	-56.6		28	46.9
150	31	13,766	-57.4		27	41.8
125	31	14,908	-60.7		27	36.1
100	31	16,289	-63.2		27	30.1
80	31	17,660	-63.6		27	22.0
70	31	18,478	-63.9		27	17.2
60	31	19,424	-63.7		28	13.1
50	31	20,547	-62.0		28	7.4
40	31	21,930	-61.2		30	3.5
30	31	23,730	-58.2		35	2.0
25	30	24,880	-57.2		01	1.4
20	29	26,303	-55.2		04	1.8
15	27	28,153	-52.2		30	2.3
10	20	30,807	-46.0		28	4.4
7						

RAWINSONDE DATA

Average monthly values

MARCH 1980

* CARIBOU, ME — 990 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m.p.s.
SFC	31	191	-7.5	-12.0	30	2.0
1000	5	206	-9.1	-14.5		
950	31	515	-7.2	-11.3	32	2.8
900	31	936	-8.5	-13.5	31	3.5
850	31	1,378	-9.6	-16.4	30	5.6
800	31	1,846	-10.7	-18.2	30	6.6
750	31	2,342	-11.4	-20.5	30	6.8
700	31	2,869	-13.2	-22.6	29	7.7
650	31	3,431	-15.7	-24.5	28	9.2
600	31	4,031	-18.8	-28.3	28	11.3
550	31	4,675	-22.5	-31.8	28	13.1
500	31	5,368	-27.2	-36.0	28	13.6
450	31	6,119	-32.4	-41.8	28	15.6
400	31	6,940	-38.1	-45.9	28	17.1
350	31	7,850	-43.7		27	20.4
300	31	8,871	-49.7		26	23.5
250	31	10,053	-53.5		27	25.8
200	30	11,491	-51.7		27	23.0
175	29	12,354	-50.8		27	20.8
150	29	13,358	-51.0		26	20.0
125	29	14,542	-52.0		27	18.3
100	29	15,982	-53.6		27	15.2
80	29	17,414	-54.8		27	12.7
70	29	18,267	-54.9		27	10.5
60	29	19,251	-55.4		28	8.7
50	28	20,418	-55.1		28	6.1
40	28	21,843	-55.3		29	4.1
30	28	23,682	-54.6		35	3.0
25	27	24,849	-54.3		01	3.0
20	27	26,281	-53.5		02	4.0
15	23	28,135	-51.3		36	4.0
10	6	30,780	-46.7			

CENTREVILLE, AL — 999 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m.p.s.
SFC	30	140	7.7	5.1	11	.1
1000	13	184	3.5	-.6	03	1.9
950	30	557	8.9	2.8	20	2.3
900	30	1,006	8.8	.3	25	5.7
850	30	1,478	7.5	-2.9	26	9.3
800	30	1,976	5.9	-6.4	26	11.3
750	30	2,502	3.1	-9.4	26	13.5
700	30	3,058	-.1	-13.6	27	15.2
650	30	3,648	-2.8	-15.9	27	17.5
600	30	4,279	-6.4	-18.2	26	20.1
550	30	4,954	-10.4	-22.7	26	23.2
500	30	5,681	-15.5	-28.2	26	26.6
450	30	6,468	-20.8	-32.0	26	30.0
400	30	7,329	-26.7	-37.0	26	33.3
350	29	8,281	-33.0	-42.9	26	39.1
300	29	9,345	-40.8	-47.1	26	45.7
250	29	10,562	-49.9		27	50.6
200	29	11,995	-56.5		27	50.3
175	29	12,838	-58.3		26	46.9
150	29	13,806	-59.6		27	45.5
125	25	14,929	-62.3		27	38.9
100	25	16,296	-65.2		26	28.7
80	25	17,651	-66.5		26	17.9
70	25	18,460	-66.1		26	13.1
60	23	19,399	-64.7		27	10.5
50	23	20,518	-62.9		27	6.5
40	23	21,896	-61.5		29	3.0
30	22	23,698	-58.5		36	1.6
25	22	24,848	-57.1		05	2.7
20	20	26,270	-55.0		05	2.2
15	18	28,111	-51.2		25	2.8
10	14	30,766	-44.3		26	6.8

CHARLESTON, SC — 1016 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m.p.s.
SFC	31	13	9.6	6.8	24	.3
1000	31	143	11.1	5.8	19	.6
950	31	571	10.4	2.1	24	2.7
900	31	1,021	9.5	.3	24	5.6
850	31	1,495	8.3	-4.2	26	9.1
800	31	1,994	6.5	-7.1	26	12.4
750	31	2,521	4.0	-9.3	26	14.9
700	31	3,079	.9	-12.2	26	17.6
650	31	3,672	-2.4	-13.4	27	19.2
600	31	4,303	-6.1	-16.8	27	21.4
550	31	4,979	-10.1	-21.5	27	24.6
500	31	5,707	-15.2	-26.0	27	27.3
450	31	6,496	-20.3	-29.6	27	29.8
400	31	7,358	-26.3	-35.3	27	32.4
350	31	8,313	-33.1	-41.5	27	36.0
300	31	9,376	-41.1	-48.4	27	40.9
250	31	10,592	-49.7		27	46.1
200	31	12,026	-57.1		27	51.4
175	31	12,868	-58.8		27	47.3
150	31	13,834	-59.6		27	42.7
125	30	14,968	-62.8		27	35.4
100	30	16,330	-66.3		27	28.9
80	30	17,681	-66.3		27	18.1
70	30	18,489	-67.0		27	13.1
60	30	19,423	-65.6		27	10.0
50	30	20,539	-63.0		28	6.4
40	30	21,920	-61.0		31	3.7
30	29	23,716	-58.2		03	2.1
25	27	24,870	-56.1		06	1.7
20	27	26,297	-53.6		10	.7
15	19	28,176	-48.5		14	.2
10						

CHATHAM, MA — 1013 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m.p.s.
SFC	30	16	.7	-2.6	34	.3
1000	27	137	1.0	-4.5	33	2.7
950	30	534	-.2	-4.6	31	2.7
900	30	966	-1.7	-7.4	29	3.9
850	30	1,420	-3.1	-10.6	29	6.2
800	30	1,900	-3.9	-12.8	29	8.6
750	30	2,408	-5.7	-14.5	28	10.3
700	30	2,947	-8.0	-17.2	28	11.8
650	30	3,519	-11.1	-20.7	27	14.0
600	30	4,130	-14.7	-23.7	27	15.7
550	30	4,784	-18.7	-27.3	27	18.7
500	30	5,488	-23.0	-31.7	27	21.1
450	30	6,252	-28.5	-36.6	27	23.7
400	30	7,086	-34.3	-43.0	27	27.0
350	30	8,010	-40.7	-46.9	27	29.9
300	30	9,041	-47.9		27	35.3
250	30	10,227	-53.4		27	38.8
200	30	11,656	-55.0		27	35.8
175	30	12,512	-53.8		27	32.0
150	30	13,503	-54.2		27	27.7
125	30	14,669	-55.5		27	26.0
100	30	16,088	-57.1		27	21.4
80	30	17,495	-58.5		27	17.1
70	30	18,334	-59.0		28	15.6
60	29	19,301	-58.8		28	12.3
50	29	20,447	-58.3		28	7.9
40	28	21,853	-58.1		29	6.0
30	27	23,666	-57.2		32	2.3
25	27	24,822	-56.5		33	1.4
20	24	26,234	-55.2		35	1.0
15	19	28,068	-52.4		29	2.6
10						

CHIHUAHUA, MEXICO — 855 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m.p.s.
SFC	31	1,420	9.2	-1.0	23	2.7
1000						
950						
900						
850	28	1,483	10.4	-5.3	23	2.4
800	31	1,983	10.0	-6.5	24	5.9
750	31	2,515	6.7	-9.1	25	9.3
700	31	3,079	4.0	-13.0	25	13.5
650	31	3,678	.6	-16.6	25	15.1
600	31	4,315	-4.0	-20.5	25	16.1
550	31	4,995	-8.9	-23.8	25	18.7
500	31	5,726	-13.8	-27.5	26	22.0
450	31	6,519	-18.8	-31.2	26	23.9
400	31	7,386	-25.1	-35.4	26	28.0
350	31	8,346	-31.9	-40.0	26	33.5
300	31	9,415	-39.8	-44.4	26	38.6
250	31	10,638	-48.3		26	44.1
200	31	12,075	-57.3		26	44.4
175	31	12,913	-60.0		26	41.5
150	31	13,871	-62.2		26	39.2
125	31	14,989	-65.8			
100	30	16,329	-69.5			
80	28	17,661	-69.3			
70	26	18,462	-69.1			
60	22	19,380	-68.0			
50	22	20,483	-65.2			
40	20	21,851	-62.0		34	1.8
30	18	23,643	-59.6		03	3.3
25	16	24,795	-58.3		04	3.4
20	15	26,209	-55.1		05	4.2
15	6	28,050	-48.7			
10						

* COLD BAY, AK — 995 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m.p.s.
SFC	31	30	-.1	-2.1	17	5.1
1000	11	102	-2.8	-4.4	23	1.8
950	31	397	-1.9	-4.2	19	6.6
900	31	825	-4.6	-7.1	20	7.1
850	31	1,273	-6.7	-10.8	21	7.6
800	31	1,745	-9.0	-14.0	22	8.1
750	31	2,242	-11.8	-17.7	23	8.5
700	31	2,767	-15.1	-21.3	23	9.0
650	31	3,324	-18.5	-24.5	23	10.0
600	31	3,917	-22.1	-28.5	22	10.7
550	31	4,551	-26.3	-33.2	22	11.6
500	31	5,235	-30.5	-37.5	23	12.8
450	31	5,976	-35.6	-41.1	23	14.1
400	31	6,785	-41.4	-43.9	23	14.9
350	31	7,684	-46.4		22	18.3
300	31	8,697	-50.0		23	19.7
250	31	9,886	-50.5		23	18.8
200	30	11,352	-48.2		23	15.7
175	30	12,234	-47.3		23	14.3
150	30	13,257	-46.5		23	12.2
125	30	14,465	-47.2		23	11.7
100	30	15,940	-47.9		24	8.3
80	29	17,410	-48.3		22	6.4
70	29	18,289	-48.5		22	5.1
60	28	19,312	-48.5		19	3.2
50	28	20,512	-48.7		16	2.7
40	28	21,978	-48.9		12	4.9
30	27	23,874	-49.1		10	7.5
25	27	25,071	-49.0		10	9.4
20	25	26,525	-48.8		10	11.2
15	22	28,434	-48.0		09	14.0
10	15	31,162	-46.2		09	16.6
7	8	33,567	-45.0			

DAYTON, OH — 981 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m.p.s.
SFC	31	299	-.3	-2.9	21	.4
1000						
950	31	550	.0	-3.6	23	1.8
900	31	982	-1.4	-6.7	26	4.4
850	31	1,438	-1.5	-11.5	27	6.1
800	31	1,921	-2.3	-12.5	28	7.6
750	31	2,432	-3.4	-15.4	28	9.6
700	31	2,975	-5.9	-17.0	28	11.6
650	31	3,553	-8.8	-19.5	28	13.4
600	31	4,169	-12.7	-22.1	28	15.4
550	31	4,828	-16.8	-26.5	27	16.5
500	31	5,537	-21.6	-30.4	27	18.5
450	31	6,305	-27.0	-36.4	27	21.5
400	31	7,144	-33.1	-42.7	27	24.9
350	31	8,072	-39.8	-46.3	27	27.8
300	31	9,107	-46.8		27	34.9
250	31	10,299	-52.7		27	38.8
200	31	11,729	-54.8		27	37.9
175	31	12,585	-54.0		27	38.2
150	31	13,575	-54.3		27	34.9
125	31	14,740	-55.8		27	32.8
100	31	16,153	-58.1		27	28.1
80	31	17,556	-59.2		27	25.7
70	31	18,391	-59.8		27	24.3
60	30	19,356	-59.3		27	22.4
50	30	20,499	-59.0		27	18.2
40	29	21,901	-57.9		28	10.3
30	29	23,720	-56.9		29	4.6
25	28	24,877	-56.1		32	2.2
20	27	26,299	-54.7		05	2.6
15	25	28,151	-52.5		06	3.9
10	18	30,794	-49.2		02	3.0
7	5	33,127	-45.3			

DEL RIO, TX — 977 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m.p.s.
SFC	30	314	12.6	3.7	08	1.8
1000						
950	30	550	12.8	3.0	12	2.5
900	30	1,003	11.6	.9	18	3.3
850	30	1,480	10.6	-3.3	22	4.3
800	30	1,986	10.4	-6.7	24	6.7
750	30	2,521	8.0	-10.1	25	8.3
700	30	3,086	4.3	-13.4	25	10.9
650	30	3,684	.2	-16.3	25	14.4
600	30	4,320	-4.3	-19.3	25	17.3
550	30	4,999	-9.2	-21.5	25	20.2
500	30	5,730	-14.3	-27.3	25	24.2
450	30	6,522	-19.3	-29.3	25	28.6
400	30	7,388	-25.0	-33.2	26	33.2
350	30	8,348	-31.6	-39.7	26	37.8
300	30	9,418	-39.9	-45.3	26	42.6
250	30	10,639	-48.7		26	48.2
200	30	12,076	-57.5		26	47.9
175	30	12,914	-60.1		26	45.1
150	30	13,872	-62.1		26	41.0
125	30	14,990	-65.6		26	35.6
100	29	16,335	-69.0		26	27.4
80	28	17,665	-69.7		26	20.7
70	26	18,463	-68.8		26	15.4
60	22	19,387	-67.8		26	9.7
50	20	20,487	-65.5		25	5.7
40	17	21,850	-63.0		25	1.7
30	16	23,641	-60.0		29	1.9
25	15	24,784	-58.7		32	2.2
20	14	26,186	-56.8		35	1.1
15	14	28,024	-52.9		34	1.5
10	5	30,728	-43.7			
7						

DENVER, CO — 832 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m.p.s.
SFC	31	1,611	-.4	-7.4	24	.9
1000						
950						
900						
850						
800	31	1,926	-.2	-8.3	27	2.3
750	31	2,440	-2.5	-11.1	29	3.5
700	31	2,985	-5.6	-15.0	29	5.9
650	31	3,562	-9.3	-18.3	29	8.0
600	31	4,177	-13.2	-23.3	28	9.4
550	31	4,834	-17.6	-28.4	28	10.7
500	31	5,540	-22.7	-33.8	28	11.6
450	31	6,305	-28.5	-39.5	28	12.4
400	31	7,137	-35.5	-45.5	28	12.8
350	31	8,054	-43.2		27	15.2
300	31	9,070	-51.3		27	19.1
250	31	10,240	-56.3		26	24.2
200	30	11,655	-55.2		26	25.6
175	30	12,510	-54.1		26	23.8
150	30	13,501	-54.0		27	23.0
125	29	14,666	-55.0		27	21.7
100	29	16,082	-57.9		27	18.2
80	27	17,484	-58.8		27	15.1
70	27	18,323	-58.9		27	11.7
60	25	19,296	-59.0		27	7.6
50	23	20,446	-58.7		28	4.8
40	20	21,852	-57.6		33	.8
30	19	23,666	-57.2		07	3.5
25	17	24,816	-56.2		06	5.0
20	14	26,232	-55.3		07	5.9
15	8	28,072	-52.7			
10						
7						

DESERT ROCK, NV — 899 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m.p.s.
SFC	31	1,007	5.5	-3.3	04	.9
1000						
950						
900	11	1,041	5.4	-5.8	04	2.6
850	31	1,465	5.3	-7.9	19	.6
800	31	1,957	1.9	-10.0	26	1.0
750	31	2,474	-1.8	-12.9	29	1.9
700	31	3,020	-5.1	-15.9	29	3.6
650	31	3,599	-8.5	-21.4	28	4.9
600	31	4,215	-12.4	-26.2	28	7.1
550	31	4,873	-17.0	-30.9	28	9.1
500	31	5,582	-21.6	-35.7	29	11.0
450	31	6,350	-27.1	-39.1	28	13.3
400	31	7,189	-33.4	-44.2	28	14.6
350	31	8,115	-40.6	-50.3	28	15.8
300	30	9,142	-48.6		28	17.5
250	30	10,325	-54.5		28	20.5
200	30	11,747	-55.3		27	23.9
175	30	12,602	-53.9		28	24.4
150	30	13,592	-54.3		27	23.7
125	29	14,755	-56.2		27	20.7
100	29	16,162	-59.4		27	17.2
80	29	17,555	-60.1		27	13.1
70	29	18,387	-60.9		27	10.5
60	28	19,344	-60.5		27	7.9
50	28	20,481	-59.8		28	4.0
40	27	21,879	-59.0		34	.7
30	27	23,691	-57.1		06	2.9
25	24	24,848	-56.3		08	4.4
20	21	26,275	-54.7		07	6.8
15	17	28,125	-52.8		06	6.7
10	8	30,755	-49.6			
7						

DODGE CITY, KS — 921 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m.p.s.
SFC	31	791	-.3	-3.8	34	.7
1000						
950						
900	31	976	.4	-4.7	29	1.3
850	31	1,436	2.2	-7.6	29	4.0
800	31	1,927	2.3	-10.1	29	5.5
750	31	2,446	.4	-13.9	28	6.7
700	31	2,996	-3.2	-16.5	27	8.8
650	31	3,578	-7.4	-19.0	27	9.7
600	31	4,197	-11.9	-23.1	27	11.3
550	31	4,857	-16.4	-27.4	27	13.4
500	31	5,566	-21.5	-33.4	26	15.1
450	31	6,335	-27.2	-38.8	26	17.8
400	31	7,171	-34.0	-45.2	26	19.8
350	31	8,095	-41.3	-48.0	26	22.0
300	31	9,123	-48.5		26	25.1
250	31	10,306	-54.0		26	30.9
200	31	11,734	-54.4		26	34.0
175	31	12,591	-54.1		26	32.0
150	31	13,578	-54.8		26	31.8
125	31	14,739	-57.0		26	27.1
100	31	16,143	-59.3		26	22.0
80	31	17,536	-60.6		26	16.1
70	31	18,367	-60.7		26	12.4
60	30	19,325	-61.3		26	9.3
50	28	20,457	-60.5		26	7.0
40	25	21,851	-59.3		28	3.2
30	22	23,660	-57.4		05	2.6
25	20	24,803	-57.0		05	3.6
20	20	26,220	-55.8		06	5.2
15	14	28,058	-53.4		06	4.9
10	7	30,659	-47.7			

EL PASO, TX — 879 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m.p.s.
SFC	31	1,193	7.1	-5.9	28	1.3
1000						
950						
900						
850	31	1,474	8.9	-6.4	27	3.6
800	31	1,973	5.9	-8.0	27	7.4
750	31	2,499	2.8	-10.4	26	10.9
700	31	3,053	-.5	-15.0	26	13.2
650	31	3,642	-3.9	-19.9	26	15.2
600	31	4,269	-8.1	-23.9	26	16.2
550	31	4,938	-12.8	-27.7	26	18.1
500	31	5,658	-18.2	-33.1	26	21.0
450	31	6,437	-23.4	-37.3	26	25.1
400	31	7,289	-29.1	-41.0	26	29.5
350	31	8,232	-36.1	-47.0	26	34.2
300	31	9,284	-43.6	-44.8	26	40.2
250	31	10,489	-50.7		26	44.6
200	31	11,925	-55.4		26	46.8
175	31	12,776	-56.4		26	42.9
150	31	13,751	-58.4		26	39.8
125	31	14,889	-61.9		26	35.8
100	29	16,260	-65.5		26	27.4
80	28	17,614	-66.5		26	19.7
70	27	18,424	-65.4		26	15.2
60	27	19,363	-64.6		26	11.2
50	24	20,481	-63.2		25	6.8
40	21	21,858	-61.8		27	3.2
30	18	23,660	-59.0		27	1.4
25	14	24,814	-57.2		03	.9
20	11	26,236	-55.2		30	1.6
15	8	28,097	-52.1			
10						

ELY, NV — 804 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m.p.s.
SFC	31	1,908	-3.0	-7.8	22	1.6
1000						
950						
900						
850						
800	27	1,958	-2.6	-7.9	23	1.3
750	31	2,460	-4.0	-9.8	28	1.3
700	31	3,001	-7.4	-13.5	29	3.7
650	31	3,575	-10.5	-17.3	30	5.4
600	31	4,187	-14.4	-21.8	30	6.0
550	31	4,842	-18.2	-27.5	29	7.5
500	31	5,547	-23.3	-33.1	29	9.0
450	30	6,311	-29.0	-39.1	30	10.1
400	30	7,142	-35.8	-45.2	30	11.0
350	30	8,059	-42.5		30	12.8
300	30	9,080	-49.9		29	15.0
250	30	10,254	-56.2		29	16.0
200	30	11,672	-55.2		28	18.3
175	30	12,527	-54.2		28	19.4
150	30	13,515	-54.4		28	18.7
125	30	14,682	-55.0		27	17.0
100	30	16,099	-57.4		27	14.2
80	30	17,506	-58.7		27	9.8
70	30	18,345	-59.0		27	8.3
60	30	19,312	-58.9		28	5.9
50	29	20,459	-58.3		29	2.6
40	28	21,866	-57.4		04	1.1
30	27	23,692	-55.9		07	5.0
25	24	24,855	-55.2		07	7.9
20	21	26,291	-54.5		08	9.5
15	12	28,130	-51.4		06	6.2
10						

EMPALME, MEXICO — 1011 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m.p.s.
SFC	31	12	14.7	6.4	32	1.3
1000	31	107	17.2	6.5	33	1.9
950	31	546	17.7	1.8	33	3.0
900	31	1,006	15.6	-2.1	28	2.3
850	31	1,488	12.6	-5.4	24	3.8
800	31	1,995	10.7	-10.6	25	5.0
750	31	2,530	7.9	-13.2	25	6.9
700	31	3,094	4.3	-15.9	25	9.5
650	31	3,693	.6	-18.1	25	12.2
600	31	4,331	-3.7	-21.0	25	14.7
550	31	5,012	-8.2	-23.5	26	16.8
500	31	5,745	-13.3	-27.2	26	20.9
450	31	6,539	-18.4	-30.8	26	26.1
400	31	7,408	-24.3	-34.4	26	31.5
350	31	8,371	-31.3	-40.0	26	36.2
300	31	9,442	-39.4	-44.9	26	41.1
250	31	10,667	-48.0		26	46.9
200	31	12,109	-56.2		26	49.2
175	31	12,953	-58.5		26	45.0
150	31	13,918	-61.0		26	40.6
125	31	15,041	-64.5		26	34.8
100	31	16,393	-68.0		26	26.3
80	29	17,730	-68.3		26	17.1
70	29	18,530	-68.4		26	14.5
60	27	19,457	-66.6		27	10.0
50	26	20,567	-64.0		27	5.5
40	25	21,941	-61.4		28	2.6
30	25	23,737	-59.0		08	2.4
25	22	24,892	-57.0		05	2.7
20	20	26,320	-54.3		02	2.5
15	12	28,204	-48.7		29	3.0
10						

* FAIRBANKS, AK — 992 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind: Direction tens of deg.	Resultant Wind: Speed m.p.s.
SFC	31	135	-10.8	-17.6	04	1.8
1000	5	151	-13.5	-19.6		
950	31	474	-6.9	-14.3	09	2.9
900	31	895	-8.2	-15.1	12	3.0
850	31	1,330	-9.7	-15.4	16	2.4
800	31	1,804	-12.0	-16.8	17	2.0
750	31	2,295	-15.3	-20.7	20	2.2
700	31	2,813	-18.9	-24.2	22	3.1
650	31	3,361	-22.6	-27.9	23	3.8
600	31	3,944	-26.2	-32.9	23	4.8
550	31	4,569	-29.7	-37.2	24	5.5
500	31	5,243	-34.3	-39.9	25	5.7
450	31	5,972	-39.4	-39.6	25	6.2
400	31	6,769	-44.6		25	7.2
350	31	7,656	-49.5		25	7.8
300	31	8,654	-53.3		25	8.6
250	29	9,829	-52.6		25	8.2
200	29	11,286	-48.3		26	6.6
175	29	12,160	-47.1		26	6.3
150	29	13,191	-46.5		26	6.0
125	29	14,403	-46.1		26	5.6
100	29	15,888	-45.9		26	4.7
80	29	17,376	-45.3		27	4.1
70	29	18,268	-45.1		28	3.1
60	28	19,291	-45.0		28	2.6
50	28	20,509	-45.3		31	2.5
40	26	21,982	-45.7		33	1.9
30	25	23,895	-45.8		03	3.1
25	24	25,106	-45.7		04	3.9
20	21	26,591	-44.4		05	5.2
15	17	28,536	-43.8		07	6.5
10	10	31,248	-42.2			

RAWINSONDE DATA

Average monthly values

Standard pressure surface mb.	FLINT, MI 988 MB					GLASGOW, MT 932 MB					GRAND JUNCTION, CO 848 MB					* GREAT FALLS, MT 884 MB					GREEN BAY, WI 991 MB				
					Resultant Wind					Resultant Wind					Resultant Wind					Resultant Wind					Resultant Wind	
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Direction tens of deg.	Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Direction tens of deg.	Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Direction tens of deg.	Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Direction tens of deg.	Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Direction tens of deg.	Speed m.p.s.
SFC	31	236	-3.8	-7.0	24	.4	31	696	-6.5	-8.5	05	.7	31	1,472	1.3	-3.8	12	1.5	31	1,118	-3.2	-9.3	23	2.9	31	210	-5.7	-8.3	36	1.1
1000																														
950	31	543	-3.3	-6.8	28	2.4																			31	539	-5.3	-8.7	34	1.8
900	31	970	-4.4	-9.0	29	4.1	31	968	-3.7	-8.7	29	2.3													31	963	-6.4	-11.5	32	2.8
850	31	1,419	-5.3	-13.0	30	5.8	31	1,419	-4.4	-11.6	28	4.5	12	1,509	.9	-6.2	11	1.7	31	1,428	-1.9	-9.7	25	7.2	31	1,410	-6.8	-16.2	30	4.3
800	31	1,895	-5.9	-15.9	29	7.2	31	1,895	-6.2	-13.8	29	6.2	31	1,944	.8	-6.6	17	2.7	31	1,908	-4.8	-12.1	27	6.9	31	1,863	-6.9	-19.9	30	5.6
750	31	2,399	-7.3	-18.7	29	8.3	31	2,398	-9.1	-15.7	29	7.5	31	2,460	-2.7	-9.0	23	3.0	31	2,413	-8.0	-14.8	28	6.9	31	2,385	-8.7	-22.2	29	6.7
700	31	2,935	-9.5	-22.0	29	9.8	31	2,928	-12.4	-20.3	29	8.9	31	3,003	-6.7	-12.1	25	4.6	31	2,946	-10.4	-17.4	28	8.1	31	2,918	-10.8	-24.5	28	8.2
650	31	3,505	-12.1	-23.8	29	11.7	31	3,491	-15.3	-22.8	29	10.5	31	3,578	-10.1	-16.8	26	6.7	31	3,514	-13.7	-20.9	29	9.4	31	3,485	-13.5	-26.6	28	10.7
600	31	4,113	-15.5	-27.9	29	13.1	31	4,092	-18.7	-26.0	29	12.2	31	4,191	-13.8	-22.1	26	8.0	31	4,118	-17.4	-23.5	28	11.6	31	4,090	-17.0	-28.8	28	12.6
550	31	4,765	-19.4	-31.1	28	15.4	31	4,736	-22.7	-29.9	29	13.7	31	4,847	-18.0	-28.1	26	8.9	31	4,764	-21.7	-27.9	28	12.4	31	4,737	-21.2	-30.0	28	14.7
500	31	5,467	-24.0	-35.8	28	18.2	31	5,428	-27.4	-34.8	29	15.2	31	5,552	-23.1	-32.9	26	10.9	31	5,459	-26.8	-32.7	28	13.8	31	5,434	-26.0	-33.5	27	16.1
450	31	6,228	-29.4	-39.2	28	20.7	31	6,179	-32.8	-39.6	29	17.2	31	6,315	-28.8	-36.8	26	12.1	31	6,211	-32.3	-37.8	28	15.7	31	6,188	-31.4	-38.3	27	17.7
400	31	7,058	-35.7	-43.2	27	22.5	31	6,997	-39.1	-45.1	29	19.2	31	7,147	-35.3	-43.4	25	13.9	31	7,031	-38.8	-42.5	27	17.3	31	7,013	-37.1	-43.0	27	20.2
350	31	7,976	-42.6		27	23.4	31	7,902	-46.1		29	20.9	30	8,063	-42.8		26	15.0	31	7,937	-45.6		28	18.8	31	7,926	-43.7		27	23.4
300	31	8,997	-50.1		27	25.7	31	8,907	-53.2		29	22.6	30	9,083	-50.1		26	17.0	31	8,945	-52.6		28	20.0	31	8,943	-51.1		27	25.9
250	30	10,169	-55.1		26	30.3	31	10,068	-57.4		29	21.8	29	10,261	-55.3		27	19.6	31	10,110	-56.9		29	19.1	30	10,119	-56.7		27	27.1
200	29	11,593	-53.3		27	29.8	31	11,482	-55.2		28	18.2	28	11,679	-54.5		27	22.6	31	11,524	-55.1		28	16.7	30	11,536	-54.8		27	26.9
175	29	12,455	-52.5		26	28.8	31	12,341	-52.3		29	16.3	28	12,536	-53.6		27	22.3	31	12,381	-53.0		28	14.6	30	12,394	-53.1		27	25.0
150	29	13,450	-53.0		27	26.2	31	13,340	-51.6		29	15.1	28	13,528	-53.7		27	20.6	31	13,377	-52.5		28	14.6	30	13,389	-52.9		27	24.4
125	29	14,624	-54.0		27	23.7	31	14,521	-52.4		29	13.9	28	14,697	-55.3		27	19.0	31	14,556	-52.5		29	12.9	29	14,565	-54.1		27	21.4
100	28	16,054	-55.6		26	19.7	31	15,961	-53.1		29	12.2	28	16,114	-57.6		27	16.6	31	15,995	-53.4		29	11.1	29	15,992	-55.5		27	18.6
80	27	17,470	-56.9		27	17.5	30	17,398	-53.2		29	10.0	28	17,519	-58.5		27	12.8	31	17,430	-53.6		29	9.1	29	17,412	-56.4		27	14.6
70	26	18,316	-56.9		27	15.4	30	18,259	-52.9		30	7.9	28	18,358	-59.1		27	10.1	31	18,290	-53.5		30	6.3	29	18,260	-56.2		27	12.9
60	24	19,294	-57.3		27	11.8	30	19,254	-53.0		31	6.0	27	19,325	-59.5		27	7.9	31	19,280	-54.0		33	4.7	29	19,239	-56.4		28	10.7
50	24	20,445	-57.9		28	8.2	30	20,431	-52.6		31	4.6	27	20,469	-58.5		28	4.0	30	20,449	-53.6		01	3.5	29	20,398	-55.5		28	7.4
40	22	21,853	-57.6		29	5.3	27	21,882	-52.3		36	2.6	24	21,869	-58.4		31	1.9	29	21,884	-53.3		01	3.5	29	21,819	-56.0		29	4.1
30	19	23,663	-56.5		34	2.9	25	23,738	-52.4		05	4.8	18	23,692	-56.3		06	4.7	22	23,741	-52.9		05	5.0	29	23,651	-55.4		35	2.2
25	17	24,811	-55.9		01	2.8	23	24,922	-52.4		06	7.2	18	24,851	-56.0		06	5.6	20	24,922	-52.6		06	6.4	29	24,816	-54.9		02	2.7
20	17	26,235	-54.7		03	2.9	21	26,372	-52.3		06	10.5	16	26,278	-54.9		06	5.3	17	26,366	-52.4		07	10.3	23	26,255	-53.9		05	3.9
15	13	28,088	-53.0		03	4.1	16	28,241	-52.0		07	13.0	6	28,116	-54.8				13	28,247	-51.6		08	12.4	21	28,103	-52.5		06	5.0
10	10	30,717	-49.3				5	30,893	-49.5										5	30,896	-50.7				14	30,746	-48.6		33	2.2

Standard pressure surface mb.	GREENSBORO, NC 984 MB					GUADALUPE IS., MEXICO 1014 MB					* GUAM, MARIANA IS. 1000 MB					HILO, HI 1017 MB					HUNTINGTON, WV 987 MB				
					Resultant Wind					Resultant Wind					Resultant Wind					Resultant Wind					Resultant Wind	
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Direction tens of deg.	Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Direction tens of deg.	Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Direction tens of deg.	Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Direction tens of deg.	Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Direction tens of deg.	Speed m.p.s.
SFC	31	275	4.5	-1.3	33	.5	31	23	13.5	8.4	32	7.4	31	111	24.8	21.8	06	4.2	31	10	20.4	18.3	07	.7	31	246	1.9	-2.4	15	.1
1000							31	138	12.6	7.9	32	8.5	19	119	24.9	21.9	06	4.6	31	152	21.0	18.3	08	2.4						
950	31	564	4.9	-1.8	29	2.3	31	566	9.3	4.5	32	8.2	31	561	21.7	19.8	07	10.7	31	595	17.9	16.7	09	6.3	31	556	2.8	-3.2	23	2.6
900	31	1,005	4.1	-5.0	27	4.2	31	1,013	7.9	-3.4	31	6.3	31	1,030	19.0	15.7	08	10.8	31	1,057	14.9	13.8	09	6.5	31	993	1.1	-6.0	24	5.9
850	31	1,469	3.0	-6.1	27	6.7	31	1,484	5.6	-8.1	30	5.5	31	1,520	16.7	10.8	09	9.4	31	1,539	11.7	10.4	09	5.5	31	1,451	-.2	-8.1	26	8.0
800	31	1,959	1.8	-9.1	27	9.0	31	1,980	5.5	-11.5	29	6.4	31	2,036	14.6	4.1	08	8.4	31	2,045	9.2	5.2	09	4.7	31	1,935	-1.8	-11.4	27	9.1
750	31	2,479	.2	-12.9	28	11.8	31	2,506	3.7	-16.1	28	8.5	31	2,580	13.0	-3.6	08	7.7	31	2,578	6.7	-2.6	09	4.6	31	2,448	-2.9	-15.4	27	10.9
700	31	3,029	-2.1	-15.6	28	14.1	31	3,062	.9	-18.4	28	10.0	31	3,157	10.6	-9.7	08	6.5	31	3,143	4.5	-9.1	09	3.6	31	2,993	-4.8	-16.2	27	13.3
650	31	3,615	-5.1	-17.4	28	17.3	31	3,654	-2.6	-22.1	27	11.7	31	3,771	7.8	-12.4	08	5.5	31	3,744	1.4	-13.1	10	3.3	31	3,573	-7.7	-19.2	28	14.8
600	31	4,240	-8.7	-20.8	27	19.9	31	4,283	-6.7	-25.1	27	14.4	31	4,426	4.2	-16.3	08	5.0	31	4,384	-2.1	-16.4	11	2.3	31	4,192	-11.3	-22.7	28	16.9
550	31	4,909	-13.2	-25.5	27	22.2	31	4,956	-11.3	-28.3	26	15.3	31	5,128	.4	-18.9	08	5.4	31	5,070	-6.2	-20.2	05	.6	31	4,855	-15.5	-25.9	27	19.1
500	31	5,628	-18.0	-30.7	27	24.3	31	5,679	-16.4	-33.1	26	17.8	31	5,887	-3.9	-23.1	08	4.8	31	5,810	-10.3	-25.5	32	3.1	31	5,568	-20.3	-30.9	27	21.6
450	31	6,407	-23.3	-35.1	27	27.9	30	6,467	-22.0	-36.9	26	19.5	31	6,710	-8.9	-27.4	09	5.2	31	6,615	-15.3	-30.0	29	5.4	31	6,340	-25.7	-36.8	27	25.1
400	31	7,259	-29.6	-39.3	27	31.4	30	7,322	-28.5	-41.8	26	23.8	31	7,612	-14.8	-32.7	09	4.5	31	7,494	-21.5	-35.7	28	8.8	31	7,183	-31.8	-42.8	27	28.6
350	31	8,202	-36.1	-43.2	27	37.1	30	8,269	-35.0	-45.5	26	29.0	31	8,613	-21.6	-38.0	09	4.0	31	8,468	-27.9	-40.9	28	14.4	31	8,117	-36.2	-45.8	27	33.2
300	31	9,252	-43.7	-45.9	27	40.3	30	9,325	-42.5	-47.4	26	32.5	31	9,727	-30.1	-45.4	10	3.3	31	9,556	-35.1	-46.9	28	19.9	31	9,159	-45.1		27	37.0
250	31	10,455	-51.5		28	42.7	30	10,535	-50.6		26	37.3	31	10,999	-40.1	-51.4	12	2.8	31	10,806	-42.8	-54.0	28	23.0	31	10,359	-51.8		27	43.3
200	31	11,887	-55.4		27	48.0	29	11,968	-56.8		26	45.3	31	12,482	-52.3		15	5.2	31	12,282	-51.9		28	27.7	31	11,794	-54.6		27	44.9
175	31	12,738	-55.9		27	43.6	28	12,813	-57.8		26	42.8	31	13,333	-59.2		15	7.1	31	13,137	-57.4		28	25.9	31	12,650	-54.3		27	41.8
150	31	13,718	-56.6		28	37.9	28	13,779	-60.5		26	37.6	31	14,281	-67.1		13	8.0	31	14,097	-63.5		28	22.2	31	13,637	-55.1		27	38.4
125	31	14,868	-59.4		27	31.2	24	14,902	-64.0		26	29.6	31	15,361	-74.7		12	8.4	30	15,199	-69.7		29	19.4	31	14,797	-57.2		27	33.1
100	31	16,255	-62.1		27	25.7	23	16,253	-66.7		26	20.9	30	16,632	-82.3		11	9.4	26	16,505	-75.5		29	12.4	30	16,199	-59.4		27	27.1
80	31	17,630	-62.7		27	20.1	21	17,597	-68.0		27	14.7	28	17,875	-81.9		10	9.7	22	17,791	-76.8		28	5.8	29	17,590	-60.6		27	22.1
70	31	18,454	-62.9		27	13.0	21	18,401	-67.3		27	12.7	27	18,629	-78.4		09	9.7	21	18,561	-74.4		29	3.0	29	18,422	-60.6		27	18.5
60	31	19,403	-62.6		28	8.4	21	19,332	-66.5		27	9.4	27	19,520	-73.8		09	6.4	21	19,469	-70.0		29	.9	28	19,381	-60.5		28	13.6
50	31	20,530	-61.9		29	7.5	19	20,436	-64.6		27	6.6	26	20,596	-69.3		09	9.5	21	20,562	-66.6		06	.3	28	20,518	-60.4		29	8.5
40	30	21,918	-59.9		32	3.2	19	21,810	-62.0		27	2.2	26	21,940	-65.9		10	12.3	21	21,916	-65.3		08	2.7	26	21,920	-58.7		28	4.1
30	28	23,727	-57.7		06	2.8	16	23,607	-59.2		31	2.0	26	23,709	-59.3		10	7.2	21	23,688	-60.4		08	4.4	25	23,734	-57.5		01	1.7
25	27	24,881	-56.4		06	2.3	14	24,742	-57.4		03	2.6	26	24,864	-54.9		08	2.9	21	24,830	-58.4		08	4.7	25	24,889	-56.4		04	2.5
20	26	26,303	-54.5		07	3.2	9	26,113	-55.2				25	26,305	-50.7		30	2.4	21	26,247	-54.4		08	3.5	25	26,311	-55.1		06	3.4
15	24	28,155	-51.7		09	3.1	5	27,960	-52.1				23	28,198	-47.3		31	5.0	21	28,106	-50.6		07	1.8	19	28,153	-52.0		24	.9
10	17	30,845	-43.1		27	10.6							16	30,910	-44.1				13	30,777	-44.0		24	1.3	9	30,841	-45.7			
7																			5	33,214	-37.8									

Standard pressure surface mb.	* INTERNATIONAL FALLS, MN 973 MB					JACKSON, MS 1005 MB					JOHN F. KENNEDY INT. AP NY 1015 MB					JOHNSTON IS., PACIFIC AREA 1013 MB					KEY WEST, FL 1016 MB				
					Resultant Wind					Resultant Wind					Resultant Wind					Resultant Wind					Resultant Wind	
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Direction tens of deg.	Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Direction tens of deg.	Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Direction tens of deg.	Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Direction tens of deg.	Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Direction tens of deg.	Speed m.p.s.
SFC	31	359	-13.0	-17.6	23	.4	30	100	9.7	7.1	34	.1	31	5	1.1	-4.6	36	2.1	31	3	25.4	23.0	07	7.8	31	3	22.2	19.0	12	2.2
1000							24	151	8.8	5.5	04	1.0	28	149	.2	-5.2	35	2.3	31	120	24.1	21.0	07	8.9	31	145	21.6	18.2	12	3.1
950	31	538	-9.9	-13.4	27	.9	30	560	10.0	2.8	20	1.4	31	542	-.5	-7.0	35	4.1	31	568	20.4	18.7	08	10.5	31	580	18.5	15.7	14	4.1
900	31	956	-10.3	-14.9	28	2.9	30	1,010	9.8	-.9	24	5.7	31	974	-1.5	-7.2	34	4.4	31	1,034	17.4	14.9	08	10.3	31	1,052	16.6	9.2	17	2.6
850	31	1,395	-10.8	-16.0	30	4.6	30	1,484	8.9	-3.4	26	9.0	31	1,428	-3.0	-9.6	33	4.8	31	1,521	14.7	10.9	08	9.1	31	1,537	14.4	2.7	22	2.8
800	31	1,861	-11.2	-21.0	30	6.2	30	1,984	6.9	-6.2	26	10.6	31	1,908	-3.7	-14.0	32	5.1	31	2,033	12.2	6.7	08	8.2	31	2,048	2.9	-2.6	25	3.2
750	31	2,356	-12.4	-24.2	29	7.7	30	2,512	4.3	-7.7	27	11.5	31	2,416	-5.4	-15.2	29	7.1	31	2,572	9.9	-.2	08	7.2	31	2,588	10.9	-9.1	25	3.8
700	31	2,881	-14.7	-25.3	29	9.4	30	3,071	1.2	-10.3	27	14.1	31	2,955	-7.9	-18.0	28	10.6	31	3,143	7.2	-8.8	07	5.9	31	3,161	8.5	-12.7	25	5.1
650	31	3,439	-17.3	-26.0	29	10.9	30	3,663	-2.0	-14.0	27	16.5	31	3,529	-10.5	-19.8	28	13.6	31	3,749	4.3	-14.0	06	5.4	31	3,769	5.3	-15.7	26	6.2
600	31	4,035	-20.8	-27.4	29	12.3	30	4,295	-5.8	-17.1	26	19.0	31	4,142	-13.7	-22.4	28	16.3	30	4,396	1.0	-18.6	05	4.7	31	4,417	1.1	-18.7	27	7.4
550	31	4,673	-25.0	-31.4	29	13.7	30	4,972	-10.1	-23.1	26	21.5	31	4,799	-17.3	-26.2	27	18.8	30	5,091	-2.8	-21.9	02	4.5	30	5,113	-3.3	-22.3	27	9.7
500	31	5,360	-29.4	-36.9	28	15.0	30	5,700	-15.1	-25.3	26	24.3	31	5,506	-22.2	-32.8	27	20.8	30	5,840	-7.0	-25.9	35	5.7	30	5,860	-8.2	-26.8	28	12.3
450	31	6,104	-34.5	-40.0	28	17.1	30	6,489	-20.2	-29.6	26	27.7	31	6,273	-27.5	-37.2	27	22.7	30	6,654	-11.6	-30.3	34	7.7	29	6,669	-13.9	-31.3	28	14.0
400	31	6,918	-40.5	-43.0	28	19.9	30	7,351	-26.3	-35.5	26	30.9	31	7,110	-33.6	-43.0	27	24.8	30	7,547	-17.3	-34.7	33	9.7	29	7,552	-20.5	-36.7	28	15.7
350	31	7,819	-46.4		28	21.6	30	8,307	-32.6	-41.4	26	36.5	31	8,037	-40.1	-46.5	27	27.3	30	8,538	-23.6	-40.1	31	12.7	29	8,529	-27.8	-42.3	28	18.2
300	31	8,826	-52.3		28	24.1	29	9,369	-40.5	-46.2	26	43.1	31	9,069	-47.5		27	29.4	30	9,645	-31.3	-46.6	30	15.8	29	9,615	-36.3	-49.6	28	18.8
250	31	9,994	-55.9		28	24.4	29	10,586	-49.6		27	48.7	31	10,258	-52.9		27	39.4	30	10,914	-40.3	-53.9	30	18.6	29	10,853	-46.2		28	21.1
200	31	11,420	-53.5		27	21.9	29	12,022	-56.7		26	49.2	31	11,690	-54.2		27	37.2	30	12,400	-51.6		30	19.3	29	12,303	-56.1		28	24.3
175	31	12,283	-51.8		28	20.6	29	12,865	-58.5		26	46.1	31	12,547	-53.7		27	37.3	30	13,254	-57.9		30	19.0	29	13,143	-60.2		28	25.0
150	31	13,284	-51.5		28	18.8	28	13,829	-60.3		26	43.5	31	13,538	-54.2		27	30.2	30	14,209	-65.1		30	16.6	29	14,097	-63.6		28	24.7
125	31	14,467	-52.1		27	17.5	27	14,956	-63.4		26	38.6	31	14,703	-55.9		27	28.5	30	15,301	-72.6		30	14.5	29	15,205	-68.0		28	24.0
100	30	15,910	-53.2		27	14.4	23	16,317	-66.2		26	29.9	31	16,116	-57.9		27	24.0	29	16,590	-79.9		31	8.8	29	16,529	-73.1		27	19.5
80	30	17,348	-52.8		27	12.4	22	17,666	-66.4		26	20.3	31	17,521	-59.0		28	21.7	29	17,866	-80.9		36	2.8	29	17,828	-75.1		26	12.1
70	30	18,211	-52.8		28	9.9	21	18,871	-66.6		26	17.1	31	18,358	-59.2		28	14.7	29	18,603	-77.8		07	2.7	29	18,606	-73.5		27	8.4
60	30	19,207	-52.8		29	7.4	17	19,415	-66.2		26	8.8	31	19,324	-59.3		28	11.9	25	19,496	-72.9		10	3.3	29	19,515	-70.7		28	5.2
50	30	20,385	-52.4		29	5.1	16	20,528	-63.3		26	7.1	31	20,466	-59.0		29	9.8	24	20,580	-68.1		10	4.8	29	20,608	-66.2		28	5.0
40	30	21,827	-52.7		34	3.5	11	21,901	-62.2		27	3.5	31	21,870	-58.2		31	4.7	24	21,928	-65.3		09	6.8	29	21,974	-62.5		31	4.0
30	29	23,681	-53.2		03	3.7	11	23,690	-59.9		31	2.0	29	23,689	-56.9		31	4.4	24	23,698	-60.7		08	7.5	28	23,766	-58.7		01	3.1
25	28	24,856	-52.9		05	4.8	9	24,842	-58.7				27	24,846	-56.1		31	4.4	24	24,842	-57.7		08	6.3	28	24,917	-56.3		06	3.3
20	26	26,303	-52.3		06	7.4	6	26,255	-56.3				25	26,277	-54.9		35	2.9	20	26,265	-53.8		05	3.9	28	26,346	-52.8		11	1.9
15	23	28,172	-51.4		06	9.4							20	28,143	-52.9				18	28,128	-49.6		04	3.0	27	28,226	-47.7		23	3.8
10	17	30,780	-49.3		06	9.9							12	30,788	-47.3				15	30,803	-44.6		09	1.6	18	30,947	-40.5		24	8.8
7	15	33,133	-46.4		05	7.3													8	33,147	-41.9									
5	13	35,386	-43.3		03	7.8																								

RAWINSONDE DATA

Average monthly values

Standard pressure surface mb.	KING SALMON, AK 1000 MB						KOROR, CAROLINE IS. 1007 MB						KOTZEBUE, AK 1009 MB					
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	15	-3.4	-7.7	11	1.4	31	30	27.3	24.1	05	2.8	31	5	-13.2	-16.3	08	4.2
1000	18	60	-5.3	-9.2	06	.9	31	95	26.3	23.9	06	3.3	28	85	-10.5	-14.3	09	5.1
950	31	422	-3.2	-7.0	15	4.7	31	548	23.3	21.3	06	6.1	31	471	-9.5	-14.4	10	7.4
900	31	868	-5.1	-9.4	17	4.7	31	1,020	20.7	17.4	07	6.4	31	888	-10.6	-15.4	11	5.8
850	31	1,294	-7.7	-13.3	18	5.5	31	1,513	18.2	13.4	06	5.5	31	1,327	-12.0	-17.0	12	4.6
800	31	1,764	-10.4	-17.7	18	6.4	31	2,031	15.9	9.5	06	4.3	31	1,789	-13.9	-20.5	13	4.3
750	31	2,259	-13.2	-20.8	19	6.2	31	2,578	13.5	3.6	07	4.4	31	2,276	-16.8	-24.4	13	3.8
700	31	2,781	-16.5	-24.3	20	6.3	31	3,157	10.6	-2.3	07	4.1	31	2,791	-20.1	-28.0	15	3.4
650	31	3,334	-19.8	-26.4	21	6.8	31	3,771	7.2	-4.7	06	4.0	31	3,336	-23.6	-33.1	16	3.3
600	31	3,924	-23.5	-32.0	21	7.9	31	4,425	3.4	-8.7	07	4.1	31	3,917	-27.5	-36.5	16	3.4
550	31	4,555	-27.3	-34.6	21	8.5	31	5,127	-.3	-13.9	07	4.1	31	4,538	-31.5	-41.0	18	2.7
500	31	5,235	-31.6	-39.0	21	9.6	31	5,883	-4.5	-18.1	08	5.0	31	5,206	-35.7	-44.8	19	2.6
450	31	5,973	-36.7	-42.1	23	10.1	31	6,706	-8.9	-22.6	08	6.5	31	5,932	-40.2	-46.7	20	3.9
400	31	6,780	-42.2	-44.4	23	12.3	31	7,609	-14.6	-27.6	09	7.8	31	6,727	-45.3		19	5.3
350	31	7,676	-47.2		24	14.3	31	8,610	-21.3	-33.7	09	8.3	31	7,611	-50.4		19	5.6
300	31	8,683	-51.1		24	15.7	31	9,726	-29.7	-42.3	09	8.7	31	8,604	-54.2		21	5.6
250	31	9,868	-50.8		24	14.3	31	10,998	-40.1	-51.0	10	9.6	31	9,778	-51.4		21	5.6
200	31	11,332	-47.9		24	11.4	31	12,481	-52.6		11	13.1	31	11,240	-47.6		22	5.9
175	31	12,216	-46.9		24	10.2	31	13,330	-59.4		11	15.6	31	12,124	-46.8		22	6.2
150	31	13,238	-46.8		24	10.0	31	14,279	-66.7		11	17.5	31	13,148	-46.0		23	6.1
125	30	14,441	-46.9		24	9.3	31	15,362	-73.9		10	18.2	31	14,364	-45.3		23	5.7
100	30	15,919	-47.0		24	6.4	31	16,642	-79.8		09	13.8	31	15,855	-45.3		24	4.8
80	30	17,398	-47.1		22	4.5	28	17,901	-78.8		09	7.5	30	17,358	-44.3		24	4.5
70	30	18,282	-47.2		23	2.9	28	18,669	-75.1		08	6.6	29	18,250	-44.5		24	3.9
60	30	19,304	-46.8		18	2.2	28	19,571	-71.4		09	9.6	29	19,263	-44.4		24	3.3
50	29	20,511	-47.3		13	2.3	27	20,661	-67.1		09	16.0	29	20,505	-44.5		22	2.8
40	29	21,987	-47.4		10	4.1	27	22,026	-61.2		10	13.6	29	21,999	-44.7		20	2.8
30	28	23,890	-47.9		10	6.6	26	23,842	-53.7		09	1.0	28	23,923	-44.7		15	1.8
25	27	25,096	-47.5		09	7.6	25	25,027	-50.7		28	6.5	27	25,138	-44.5		12	3.0
20	26	26,573	-46.7		08	10.4	24	26,494	-47.8		27	10.2	25	26,634	-44.4		11	3.8
15	26	28,484	-46.1		09	14.2	22	28,408	-45.2		26	11.8	18	28,570	-43.0		09	3.3
10	18	31,230	-42.2		09	16.9	13	31,159	-39.1				5	31,316	-41.5			
7	9	33,659	-40.5															

Standard pressure surface mb.	LAKE CHARLES, LA 1015 MB						LANDER, WY 824 MB					
	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	5	12.9	11.2	07	.9	31	1,697	-3.0	-8.2	24	1.2
1000	31	128	13.6	9.9	10	1.1						
950	31	561	13.3	5.8	21	2.9						
900	31	1,015	11.8	1.1	24	4.9						
850	31	1,493	10.8	-2.6	25	7.0						
800	31	1,998	9.2	-4.9	26	8.5	31	1,925	-2.2	-10.2	30	.9
750	31	2,530	6.8	-8.5	26	11.0	31	2,435	-4.6	-12.5	32	2.0
700	31	3,094	3.8	-11.2	26	12.6	31	2,975	-7.8	-15.4	30	4.0
650	31	3,693	.6	-14.6	26	15.1	31	3,548	-11.1	-19.2	29	6.7
600	31	4,330	-3.5	-16.8	26	16.6	31	4,158	-14.7	-25.3	29	8.7
550	31	5,012	-8.2	-20.1	26	22.6	31	4,812	-19.1	-30.0	28	8.9
500	31	5,745	-13.4	-24.9	26	25.8	31	5,514	-24.3	-34.8	28	9.7
450	31	6,539	-18.8	-28.4	26	28.0	31	6,273	-30.1	-39.3	27	11.5
400	31	7,406	-24.6	-31.7	26	32.5	31	7,100	-36.6	-44.5	26	13.0
350	31	8,368	-31.4	-39.5	26	36.4	31	8,014	-44.0		26	14.8
300	31	9,438	-39.8	-47.2	26	39.4	31	9,027	-52.1		26	16.7
250	31	10,659	-49.2		26	44.0	31	10,188	-58.1		27	18.8
200	31	12,095	-57.3		26	47.8	31	11,596	-56.7		27	18.3
175	31	12,935	-59.6		26	45.4	30	12,450	-54.4		27	19.1
150	31	13,891	-61.5		26	42.2	30	13,441	-53.8		27	17.6
125	30	15,013	-65.0		26	35.6	30	14,612	-54.4		27	17.7
100	30	16,360	-69.1		26	29.0	30	16,036	-56.0		27	14.6
80	30	17,682	-69.9		26	20.0	30	17,452	-56.5		27	11.9
70	30	18,481	-68.8		26	13.0	30	18,299	-56.9		28	8.4
60	30	19,411	-67.5		26	11.9	28	19,278	-57.3		28	6.4
50	29	20,522	-64.5		25	6.1	27	20,433	-57.0		30	3.5
40	21	21,892	-62.4		28	5.1	25	21,849	-55.9		02	2.8
30	23	23,687	-59.7		29	2.2	20	23,681	-55.0		06	6.5
25	27	24,831	-57.8		31	2.5	17	24,846	-54.7		07	7.3
20	26	26,248	-55.3		23	.5	14	26,274	-54.2		07	11.0
15	26	28,107	-50.4				13	28,130	-53.4		08	12.2

	LIHUE KAUAI, HI 1015 MB						LITTLE ROCK, AR 995 MB						LONGVIEW, TX 1001 MB						MCGRATH, AK 994 MB						MAJURO, MARSHALL IS. 1010 MB					
SFC	31	36	22.1	18.9	06	6.4	31	79	5.9	1.9	33	.5	31	124	8.6	5.2	08	.3	31	103	-10.8	-14.6	04	.2	30	3	28.6	24.1	06	5.4
1000	31	162	21.4	18.0	06	8.1	9	206	.9	-5.4			15	180	5.6	-.8	06	1.6	6	134	-12.4	-16.0			30	88	27.3	23.4	06	6.5
950	31	606	17.7	16.7	07	10.9	31	552	5.5	.2	26	2.0	31	558	9.3	3.2	20	2.8	31	455	-7.2	-12.6	09	3.0	30	542	23.6	21.5	07	10.4
900	31	1,067	14.5	13.3	08	11.1	31	994	4.5	-2.7	26	5.1	31	1,007	8.9	-.2	23	6.1	31	877	-7.5	-11.8	13	3.6	30	1,014	20.7	17.3	07	10.1
850	31	1,548	11.4	9.3	08	9.8	31	1,460	4.9	-7.9	26	8.1	31	1,480	8.0	-4.5	25	8.3	31	1,321	-9.2	-13.6	15	3.8	30	1,507	17.8	13.7	07	8.8
800	31	2,054	9.2	1.6	08	8.7	31	1,954	3.8	-11.0	26	10.1	31	1,979	6.8	-7.6	25	11.3	31	1,788	-11.8	-16.6	16	4.1	30	2,025	15.8	8.1	08	6.7
750	31	2,588	7.4	-7.2	08	7.6	31	2,477	1.8	-13.4	26	12.0	31	2,507	4.5	-12.6	26	13.4	31	2,279	-14.8	-19.5	17	4.0	30	2,572	13.3	3.3	08	5.8
700	31	3,154	5.2	-11.7	08	5.6	31	3,029	-1.6	-16.3	27	14.0	31	3,066	1.5	-16.2	27	15.0	31	2,798	-18.2	-23.9	18	4.4	30	3,150	10.6	-2.1	08	5.3
650	31	3,756	2.2	-15.4	08	4.2	31	3,615	-4.9	-20.5	27	16.3	31	3,656	-2.6	-17.3	27	17.4	31	3,348	-21.5	-27.9	18	4.8	30	3,764	7.4	-5.0	08	5.0
600	31	4,397	-1.5	-19.8	08	3.0	31	4,240	-8.6	-23.9	27	18.5	31	4,288	-6.7	-21.2	27	19.6	31	3,934	-25.2	-32.0	18	5.3	30	4,419	4.0	-7.9	09	4.7
550	31	5,084	-6.1	-24.0	03	2.6	31	4,909	-13.0	-27.2	26	20.3	31	4,962	-11.2	-25.1	26	22.8	31	4,561	-29.3	-36.2	19	5.5	30	5,122	.3	-12.9	08	5.0
500	33	5,823	-11.1	-27.4	35	2.5	31	5,629	-18.1	-31.9	26	22.8	31	5,687	-16.2	-28.6	26	26.7	31	5,235	-33.0	-39.5	19	5.7	30	5,881	-3.9	-16.7	09	5.1
450	31	6,625	-16.6	-31.1	30	3.5	31	6,408	-23.5	-36.2	26	26.4	31	6,472	-21.3	-32.0	26	29.3	31	5,966	-38.7	-41.4	20	6.6	30	6,706	-8.4	-21.7	10	5.2
400	31	7,501	-21.9	-37.2	29	7.2	31	7,258	-29.7	-41.2	26	29.1	31	7,331	-27.0	-36.4	26	34.2	31	6,767	-43.8	-43.3	21	7.0	30	7,611	-13.8	-28.9	09	5.6
350	31	8,474	-28.7	-42.9	29	10.4	31	8,200	-36.3	-44.5	26	34.2	31	8,284	-33.6	-41.9	26	39.3	31	7,655	-49.2		21	8.7	30	8,616	-20.4	-33.2	10	3.4
300	31	9,558	-36.0	-47.6	29	15.9	31	9,251	-43.4	-46.8	26	41.7	31	9,344	-41.8	-48.1	26	43.7	31	8,654	-52.7		22	8.6	30	9,736	-28.7	-40.1	14	3.2
250	31	10,803	-43.9	-54.1	29	20.6	31	10,456	-51.3		26	48.9	31	10,555	-50.9		26	50.2	31	9,834	-50.9		23	8.3	30	11,014	-39.1	-49.6	16	4.1
200	31	12,277	-51.5		29	24.9	31	11,887	-55.9		26	49.5	31	11,983	-57.1		27	53.0	31	11,299	-47.4		24	7.1	30	12,502	-51.9		16	4.9
175	31	13,135	-56.5		29	25.1	31	12,735	-56.5		26	46.4	31	12,826	-57.9		27	48.9	31	12,183	-46.5		24	6.7	30	13,356	-58.8		14	4.8
150	31	14,100	-62.2		29	22.7	31	13,711	-57.9		26	42.4	31	13,794	-59.9		26	46.0	31	13,208	-46.0		24	6.9	30	14,303	-66.9		11	4.7
125	31	15,210	-68.5		29	19.5	31	14,852	-60.8		26	34.9	30	14,926	-63.0		26	38.1	31	14,422	-45.8		24	5.9	30	15,383	-75.0		08	6.4
100	31	16,526	-74.3		29	14.6	31	16,232	-62.8		26	27.4	30	16,289	-66.1		26	28.3	31	15,909	-45.8		24	5.2	30	16,652	-82.5		07	9.0
80	28	17,818	-76.1		30	7.2	28	17,602	-64.2		26	20.1	27	17,640	-67.0		26	18.1	31	17,397	-45.2		23	3.5	29	17,893	-81.5		08	9.3
70	26	18,593	-74.5		31	2.8	27	18,415	-64.2		26	15.1	25	18,444	-67.5		26	13.3	31	18,289	-45.4		23	2.7	29	18,655	-75.4		09	8.4
60	26	19,498	-70.9		33	1.0	23	19,358	-64.1		26	12.2	23	19,368	-65.6		26	10.7	31	19,318	-45.3		22	1.6	27	19,556	-72.3		09	12.0
50	26	20,588	-67.0		36	1.0	21	20,481	-61.9		27	7.4	17	20,480	-64.0		24	5.2	31	20,535	-45.6		18	1.1	27	20,643	-67.2		09	18.0
40	26	21,946	-63.8		08	1.1	21	21,865	-60.9		28	2.8	17	21,852	-62.0		27	4.0	31	22,022	-45.8		10	1.7	27	22,012	-60.1		09	14.8
30	26	23,724	-60.6		07	2.8	20	23,663	-59.0		36	1.1	17	23,643	-59.5		05	2.6	30	23,938	-45.8		08	4.3	25	23,836	-54.2		29	1.9
25	26	24,867	-58.0		07	4.1	19	24,813	-58.0		04	2.1	17	24,788	-58.2		06	3.2	30	25,152	-45.9		08	5.9	24	25,009	-51.8		27	7.0
20	25	26,283	-55.0		07	4.6	18	26,223	-56.1		02	2.0	16	26,191	-56.0		07	3.2	27	26,640	-46.0		08	6.8	21	26,461	-49.0		26	11.0
15	23	28,145	-50.8		08	3.3	16	28,072	-51.5		30	.8	13	28,032	-51.8		07	2.0	23	28,572	-45.0		08	9.8	14	28,356	-46.2		26	12.7
10	19	30,612	-44.6		04	1.3	11	30,749	-44.1		25	6.6	6	30,764	-40.5				14	31,329	-42.9			5	31,085	-39.1			
7	8	33,237	-37.9																											

	MEDFORD, OR 971 MB						MERIDA, MEXICO 1012 MB						MIDLAND, TX 914 MB						MONTERREY, MEXICO 962 MB						MONETT, MO 963 MB					
SFC	31	401	3.1	-.2	27	.7	31	11	21.4	20.1	09	1.1	31	674	4.9	-3.6	30	.3	29	423	14.5	9.0	28	.4	31	436	1.7	-1.9	14	1.1
1000							31	113	21.7	19.6	12	4.6																		
950	31	580	4.0	.6	26	.9	31	559	20.6	17.3	13	12.6							29	553	15.1	8.3	29	.1	30	552	3.3	-2.0	18	1.3
900	31	1,019	2.3	-1.2	25	1.3	31	1,027	19.5	10.6	14	9.2	31	997	7.3	-3.7	22	1.4	29	1,012	15.3	5.2	15	1.0	31	986	3.2	-3.5	24	5.6
850	31	1,479	-.7	-3.4	26	1.9	31	1,517	17.2	5.9	14	5.8	31	1,469	8.9	-6.2	25	6.0	29	1,497	15.1	1.5	18	2.7	31	1,450	2.7	-6.3	26	7.4
800	31	1,961	-3.3	-7.9	28	3.4	31	2,033	15.0	1.3	13	3.1	31	1,970	7.7	-9.0	27	9.0	29	2,010	14.2	-3.6	23	3.8	31	1,939	1.6	-10.4	27	8.7
750	31	2,469	-5.8	-12.3	28	5.0	31	2,578	13.4	-6.7	15	3.6	31	2,499	4.7	-12.7	27	10.1	29	2,551	11.6	-6.1	25	6.5	31	2,458	-.4	-13.6	27	9.7
700	31	3,007	-8.7	-17.1	29	6.7	31	3,155	10.7	-10.6	14	2.4	31	3,057	1.1	-15.6	26	12.8	29	3,125	8.3	-9.4	25	9.4	31	3,007	-2.9	-16.5	27	11.4
650	31	3,578	-11.7	-20.9	29	8.0	31	3,769	7.3	-13.3	21	.5	31	3,649	-2.9	-18.5	26	15.4	29	3,732	4.2	-12.0	25	11.5	31	3,590	-6.6	-19.5	27	13.2
600	31	4,188	-15.4	-25.5	29	9.0	31	4,422	3.1	-17.6	29	2.2	31	4,277	-7.5	-22.4	26	17.9	29	4,378	-.5	-14.7	24	14.9	31	4,211	-10.7	-23.4	26	16.3
550	31	4,840	-19.1	-29.9	29	10.2	31	5,120	-1.5	-21.6	27	3.6	31	4,949	-11.8	-26.8	26	20.5	29	5,067	-5.3	-19.6	25	17.1	31	4,875	-14.9	-28.2	26	18.1
500	31	5,543	-23.6	-34.5	29	11.7	31	5,872	-6.6	-26.3	27	5.7	31	5,673	-16.4	-31.3	26	23.6	29	5,809	-9.9	-23.6	25	20.6	31	5,588	-20.1	-32.4	26	19.9
450	31	6,305	-29.0	-39.2	30	12.7	31	6,686	-12.3	-30.7	27	6.9	31	6,456	-22.0	-34.6	26	26.3	29	6,613	-15.3	-26.8	25	23.9	31	6,361	-25.8	-37.8	26	22.3
400	31	7,136	-35.7	-44.9	30	13.4	31	7,575	-18.7	-36.2	27	8.9	31	7,313	-28.2	-40.5	26	29.8	29	7,492	-21.5	-30.8	25	26.8	31	7,203	-32.1	-43.7	26	25.3
350	31	8,053	-42.7		29	13.4	31	8,558	-26.4	-42.1	27	11.1	31	8,261	-34.8	-46.1	26	36.3	29	8,466	-28.6	-38.5	25	29.6	31	8,136	-38.8	-47.5	26	29.9
300	31	9,073	-50.4		29	15.6	31	9,649	-35.3	-49.6	26	14.2	31	9,317	-42.5	-45.4	26	43.5	29	9,548	-37.0	-45.5	26	33.0	31	9,177	-45.5		26	36.0
250	31	10,244	-57.1		30	17.0	31	10,893	-45.2		27	15.8	31	10,527	-50.5		26	49.6	29	10,782	-47.3		26	34.2	31	10,373	-52.3		26	43.1
200	31	11,648	-58.0		30	16.9	31	12,347	-56.1		26	18.2	31	11,962	-55.8		26	51.7	29	12,221	-58.3		26	34.9	31	11,806	-54.6		26	43.7
175	31	12,496	-55.5		29	16.1	31	13,187	-60.5		26	18.8	31	12,811	-56.5		26	48.0	29	13,062	-62.4		26	33.2	31	12,661	-54.7		26	40.3
150	30	13,480	-55.0		29	16.0	31	14,137	-68.9		26	16.9	31	13,784	-56.7		27	42.2	27	13,995	-65.6		26	31.8	31	13,646	-55.6		26	37.2
125	30	14,643	-55.4		29	15.0	31	15,238	-69.2		26	17.1	31	14,921	-62.0		26	36.8	27	15,096	-69.0		26	27.8	31	14,801	-58.2		26	31.8
100	29	16,068	-56.1		29	11.5	31	16,551	-75.1		26	13.2	31	16,289	-65.4		26	28.8	27	16,414	-73.4		26	21.9	31	16,201	-59.8		26	24.8
80	28	17,483	-57.0		29	8.4	31	17,834	-77.8		26	7.1	29	17,644	-66.3		26	20.1	26	17,716	-74.3		26	16.6	31	17,588	-61.7		26	19.0
70	28	18,326	-57.5		30	6.6	30	18,600	-75.1		25	3.3	28	18,454	-66.1		26	15.9	22	18,490	-73.3		26	11.8	31	18,416	-61.7		26	14.5
60	28	19,304	-57.3		31	4.3	30	19,506	-70.3		23	1.6	28	19,391	-64.9		25	10.0	19	19,397	-70.5		24	7.2	31	19,371	-61.5		26	10.4
50	27	20,457	-57.3		36	2.7	30	20,602	-66.0		27	.9	25	20,507	-63.7		25	6.3	17	20,496	-66.3		24	3.1	30	20,502	-60.6		27	7.4
40	25	21,671	-56.3		06	3.8	30	21,964	-63.5		36	1.1	23	21,880	-61.6		25	3.0	17	21,856	-63.5		26	3.6	29	21,895	-59.4		28	3.0
30	21	23,705	-55.2		07	5.3	28	23,753	-58.0		05	4.7	21	23,670	-59.3		31	1.3	16	23,642	-61.2		11	.8	28	23,707	-57.3		03	1.8
25	19	24,875	-55.0		07	7.5	27	24,911	-54.8		06	4.6	21	24,816	-58.0		05	1.6	15	24,781	-58.2		10	1.8	24	24,864	-56.3		07	3.6
20	17	26,300	-54.1		07	9.6	27	26,352	-50.7		09	2.2	21	26,228	-56.5		06	2.6	12	26,202	-55.3		10	2.7	22	26,282	-54.9		06	5.8
15	13	28,152	-52.7		07	10.7	23	28,249	-45.6		19	1.9	20	28,073	-52.8		25	.7	9	28,062	-48.5				18	28,130	-52.3		08	3.5
10							6	31,005	-39.1				15	30,739	-46.1		27	6.5						9	30,753	-48.8			
7													5	33,264	-33.2														

RAWINSONDE DATA

Average monthly values

MARCH 1980

NASHVILLE, TN — 995 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	180	4.3	.9	08	.1
1000	10	202	.0	-5.6	02	.6
950	31	555	4.9	-1.0	22	2.4
900	31	995	4.0	-3.8	25	5.2
850	31	1,461	3.8	-6.4	27	7.3
800	31	1,952	2.2	-9.2	28	9.2
750	31	2,471	.3	-11.7	28	11.5
700	31	3,022	-2.5	-14.0	27	13.5
650	31	3,607	-5.6	-17.3	27	15.1
600	31	4,230	-9.2	-21.0	27	17.6
550	31	4,898	-13.5	-26.1	27	20.9
500	31	5,616	-18.3	-31.9	26	24.0
450	31	6,395	-23.8	-35.5	26	26.1
400	31	7,245	-29.7	-40.6	26	30.3
350	30	8,182	-36.6	-44.9	26	34.7
300	30	9,231	-44.0		26	40.7
250	30	10,435	-51.2		27	47.8
200	30	11,867	-55.5		27	46.8
175	30	12,719	-55.6		27	45.5
150	30	13,698	-56.9		27	41.6
125	30	14,849	-59.0		27	35.1
100	29	16,240	-61.0		27	26.6
80	28	17,618	-62.5		26	18.4
70	28	18,441	-62.9		27	15.0
60	28	19,390	-62.6		27	12.1
50	27	20,522	-61.1		27	6.4
40	25	21,910	-60.4		29	4.1
30	25	23,714	-57.7		03	2.3
25	25	24,867	-57.0		05	2.5
20	25	26,284	-55.4		06	3.0
15	24	28,138	-51.9		07	1.8
10	18	30,790	-45.9		26	6.2
7	5	33,151	-41.7			

* NOME, AK — 1005 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	30	5	-9.0	-14.1	05	3.9
1000	18	88	-9.6	-14.1	06	3.0
950	30	439	-7.0	-12.1	10	6.0
900	30	860	-8.7	-13.7	11	6.4
850	30	1,302	-10.4	-15.1	11	5.7
800	30	1,766	-13.0	-18.1	12	5.3
750	30	2,256	-15.8	-22.8	13	4.9
700	30	2,773	-19.1	-25.8	14	4.7
650	30	3,321	-22.6	-29.8	14	4.8
600	30	3,904	-26.0	-34.4	14	4.9
550	30	4,529	-29.8	-39.0	15	4.1
500	30	5,202	-34.3	-41.8	16	3.4
450	30	5,932	-38.9	-44.2	17	3.3
400	30	6,732	-44.0		18	3.1
350	30	7,620	-49.2		20	3.2
300	30	8,619	-53.1		21	4.9
250	30	9,795	-52.0		22	5.1
200	30	11,255	-48.0		22	5.0
175	30	12,138	-47.1		22	5.5
150	29	13,155	-46.1		22	5.1
125	28	14,368	-45.8		21	5.7
100	28	15,857	-45.0		22	4.3
80	28	17,348	-45.1		21	3.8
70	28	18,240	-45.1		21	3.6
60	28	19,271	-44.7		20	3.0
50	28	20,491	-45.1		19	3.3
40	28	21,982	-45.2		16	2.6
30	25	23,914	-45.4		13	2.9
25	25	25,131	-45.2		11	3.4
20	23	26,619	-45.2		09	6.8
15	23	28,542	-44.8		09	7.9
10	5	31,249	-45.6			
7						

NORTH PLATTE, NE — 915 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	847	-2.6	-6.8	36	1.3
1000						
950						
900	31	975	-2.0	-5.7	35	1.3
850	31	1,431	-1.3	-8.4	32	2.5
800	31	1,914	-1.5	-11.7	32	4.3
750	31	2,427	-3.4	-14.0	31	6.1
700	31	2,970	-6.1	-17.9	30	6.9
650	31	3,547	-9.7	-20.7	29	8.1
600	31	4,160	-13.6	-25.4	28	9.1
550	31	4,816	-18.3	-29.7	28	9.8
500	31	5,521	-23.1	-34.2	28	11.2
450	31	6,284	-28.7	-38.6	27	12.4
400	31	7,116	-35.3	-43.8	27	13.3
350	30	8,036	-42.7		27	14.5
300	30	9,056	-50.3		27	16.4
250	30	10,229	-56.4		26	19.9
200	30	11,646	-55.2		26	23.0
175	30	12,503	-53.6		26	22.3
150	30	13,496	-52.8		27	21.4
125	29	14,673	-54.6		26	19.1
100	28	16,096	-56.5		27	16.8
80	28	17,510	-57.6		27	13.9
70	28	18,351	-58.7		27	10.7
60	26	19,322	-58.5		27	9.7
50	25	20,472	-58.2		28	7.0
40	24	21,878	-57.1		30	3.4
30	23	23,696	-56.6		01	2.2
25	22	24,851	-55.8		03	3.4
20	19	26,279	-54.7		05	4.4
15	18	28,130	-53.1		06	4.1
10	12	30,769	-48.9			
7	6	33,158	-43.4			

OAKLAND, CA — 1017 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	6	9.1	5.2	32	.8
1000	31	143	10.3	4.8	33	2.0
950	31	569	8.8	.0	34	4.4
900	31	1,014	6.4	-4.1	34	4.8
850	31	1,481	3.7	-8.5	33	5.3
800	31	1,971	1.5	-13.8	32	5.5
750	31	2,488	-1.1	-16.6	32	5.9
700	31	3,035	-4.1	-19.5	32	7.6
650	31	3,616	-7.7	-21.5	31	8.3
600	31	4,234	-11.7	-25.4	31	9.9
550	31	4,894	-16.2	-29.9	31	11.1
500	31	5,605	-21.3	-34.2	30	12.6
450	31	6,373	-27.1	-38.9	31	14.6
400	31	7,210	-33.7	-44.0	30	15.4
350	31	8,136	-40.8	-48.3	30	16.1
300	31	9,164	-48.7		31	17.6
250	31	10,342	-56.2		30	19.7
200	31	11,752	-57.3		29	20.8
175	31	12,602	-55.1		28	22.5
150	31	13,587	-54.8		28	22.2
125	31	14,749	-56.7		28	20.1
100	31	16,157	-58.8		28	16.1
80	30	17,555	-60.0		28	12.1
70	29	18,387	-60.2		28	9.4
60	29	19,350	-59.9		29	6.0
50	28	20,487	-59.5		31	3.2
40	27	21,885	-59.0		36	1.9
30	26	23,701	-57.3		06	4.2
25	25	24,860	-56.3		07	5.7
20	24	26,285	-54.5		07	6.8
15	21	28,134	-53.8		07	7.9
10	14	30,764	-48.2		08	5.6
7						

OMAHA, NE — 967 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	403	-1.9	-5.0	03	.9
1000						
950	31	539	-1.5	-5.3	35	.6
900	31	970	-1.3	-9.4	29	2.6
850	31	1,426	-1.0	-11.2	29	4.2
800	31	1,910	-1.9	-14.1	29	4.7
750	31	2,421	-4.0	-15.9	29	5.1
700	31	2,963	-6.8	-17.8	29	6.8
650	31	3,538	-9.9	-21.0	28	8.5
600	31	4,151	-13.8	-24.9	28	10.5
550	31	4,807	-18.0	-27.8	27	12.6
500	31	5,513	-23.0	-32.0	27	14.8
450	31	6,276	-28.4	-37.6	26	16.8
400	31	7,110	-35.0	-43.9	26	19.0
350	31	8,029	-42.4		26	20.9
300	31	9,050	-50.4		26	23.0
250	31	10,222	-56.5		26	26.2
200	31	11,641	-54.7		26	29.0
175	31	12,499	-53.3		26	28.9
150	31	13,491	-53.7		27	25.5
125	31	14,661	-54.5		27	22.5
100	31	16,084	-56.3		27	19.2
80	31	17,497	-57.4		27	15.8
70	31	18,340	-57.8		27	13.2
60	30	19,312	-58.2		27	10.4
50	28	20,459	-57.9		28	6.5
40	25	21,875	-56.7		31	3.4
30	20	23,687	-56.5		02	3.3
25	18	24,837	-55.8		03	3.9
20	17	26,263	-54.6		06	5.3
15	15	28,114	-52.7		06	3.5
10	9	30,738	-47.6			
7						

PAGO PAGO, AMERICAN SAMOA — 1008 MB •

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	5	29.9	25.6	05	2.6
1000	31	73	28.5	24.7	05	2.8
950	31	529	24.8	22.8	04	3.8
900	31	1,003	21.7	19.8	03	4.0
850	31	1,499	18.9	16.1	04	3.8
800	31	2,019	16.3	13.0	04	3.5
750	31	2,567	14.0	8.6	03	3.4
700	31	3,148	10.9	3.9	03	3.3
650	31	3,763	7.8	.0	04	3.0
600	31	4,420	4.0	-3.8	03	3.2
550	31	5,123	.1	-8.8	04	2.7
500	31	5,881	-4.0	-16.4	06	2.7
450	31	6,706	-8.4	-21.5	07	2.7
400	31	7,611	-14.1	-28.2	08	2.7
350	31	8,614	-20.7	-34.7	12	2.8
300	31	9,732	-29.2	-43.0	13	3.9
250	31	11,009	-39.3	-49.4	14	5.8
200	31	12,497	-51.5		15	6.7
175	31	13,351	-58.4		15	8.1
150	31	14,303	-66.2		15	8.7
125	31	15,387	-74.0		14	8.1
100	30	16,664	-81.0		12	7.6
80	30	17,913	-81.3		10	9.0
70	30	18,673	-76.1		09	11.7
60	28	19,573	-71.6		09	15.6
50	26	20,660	-66.8		09	19.9
40	25	22,021	-63.0		09	23.7
30	24	23,819	-56.6		09	23.1
25	22	24,985	-53.5		09	22.9
20	21	26,431	-49.7		09	20.9
15	18	28,330	-45.5		09	20.4
10	17	31,063	-41.6		09	22.0

* PEORIA, IL — 992 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	200	-1.3	-4.7	06	1.0
1000						
950	31	548	-.7	-5.6	28	.6
900	31	980	-1.2	-9.2	30	2.1
850	31	1,435	-1.9	-12.7	29	3.8
800	31	1,917	-2.7	-12.4	28	4.9
750	31	2,427	-4.5	-13.8	28	6.5
700	31	2,968	-7.0	-16.6	28	8.7
650	31	3,543	-9.9	-19.3	27	10.5
600	31	4,157	-13.6	-22.8	28	12.5
550	31	4,813	-17.7	-26.7	27	15.5
500	31	5,520	-22.3	-31.9	27	16.7
450	31	6,286	-27.8	-37.7	27	18.3
400	31	7,122	-34.1	-44.0	27	20.4
350	31	8,046	-41.0	-45.9	27	24.4
300	31	9,073	-49.0		26	28.9
250	31	10,252	-55.3		26	33.9
200	31	11,671	-55.2		26	35.0
175	31	12,527	-54.0		26	31.7
150	31	13,515	-54.4		26	30.7
125	31	14,681	-55.7		27	26.4
100	29	16,091	-57.4		27	22.2
80	28	17,496	-58.4		27	18.4
70	28	18,336	-58.5		27	14.7
60	28	19,305	-58.7		27	11.5
50	27	20,454	-58.1		27	7.6
40	25	21,860	-57.3		28	4.5
30	25	23,680	-56.5		01	1.5
25	23	24,829	-56.0		03	2.1
20	21	26,252	-54.4		07	3.7
15	16	28,102	-52.3		06	2.8
10	10	30,757	-47.3			

* PITTSBURGH, PA — 974 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	359	-.9	-4.8	24	.4
1000						
950	30	561	-.8	-4.5	26	2.6
900	31	986	-2.3	-5.8	26	5.4
850	31	1,439	-3.4	-8.8	27	8.2
800	31	1,918	-4.5	-11.8	28	9.6
750	31	2,425	-5.9	-13.8	28	11.0
700	31	2,964	-7.7	-17.1	28	13.5
650	31	3,538	-10.1	-19.7	29	15.8
600	31	4,152	-13.4	-22.9	28	17.7
550	31	4,809	-17.2	-26.4	28	19.7
500	31	5,517	-22.2	-32.9	28	21.6
450	31	6,282	-28.0	-37.8	28	23.3
400	31	7,118	-34.1	-43.9	27	26.2
350	31	8,043	-40.6	-44.7	27	29.6
300	31	9,074	-47.3		27	34.0
250	31	10,264	-53.1		27	38.9
200	31	11,697	-53.7		27	38.7
175	30	12,554	-53.6		27	37.3
150	30	13,544	-54.5		27	33.5
125	30	14,708	-55.8		27	29.1
100	30	16,123	-57.3		27	25.4
80	30	17,530	-58.4		27	18.5
70	30	18,368	-59.5		27	14.1
60	30	19,333	-59.7		27	11.5
50	30	20,472	-59.2		28	8.6
40	29	21,878	-57.9		29	4.1
30	29	23,694	-57.0		02	1.8
25	29	24,852	-56.0		05	2.4
20	28	26,274	-54.8		04	2.3
15	24	28,121	-52.8		02	.5
10	10	30,771	-48.6			

PONAPE, CAROLINE IS. — 1005 MB •

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	39	28.6	23.9	06	3.7
1000	31	80	27.4	23.0	06	4.5
950	31	533	23.6	20.8	07	8.8
900	31	1,005	20.3	16.9	07	10.1
850	31	1,497	17.7	12.6	08	9.8
800	31	2,015	16.0	7.4	08	6.7
750	31	2,562	13.6	1.7	08	4.9
700	31	3,140	10.2	-1.5	08	4.2
650	31	3,753	7.1	-6.1	08	3.9
600	31	4,408	3.7	-8.6	08	4.9
550	31	5,110	.0	-12.8	09	6.3
500	31	5,868	-4.0	-16.8	09	7.1
450	31	6,693	-8.6	-21.5	09	8.1
400	31	7,597	-14.3	-26.7	09	8.5
350	31	8,600	-20.8	-34.0	10	7.2
300	31	9,718	-29.1	-40.9	10	7.1
250	31	10,994	-39.5	-50.8	12	7.8
200	31	12,480	-52.2		13	10.9
175	31	13,331	-59.2		12	11.6
150	31	14,278	-67.5		11	11.8
125	31	15,355	-75.5		09	13.3
100	31	16,620	-82.9		09	15.8
80	31	17,865	-80.9		10	9.0
70	31	18,628	-76.1		09	7.7
60	31	19,525	-72.1		09	11.8
50	30	20,614	-67.5		09	18.5
40	30	21,982	-59.7		09	15.4
30	30	23,806	-53.8		28	2.5
25	30	24,985	-51.7		27	8.4
20	28	26,437	-49.5		27	11.6
15	23	28,340	-45.6		26	11.2
10	8	31,110	-39.1			

PORTLAND, ME — 1013 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	20	-2.3	-7.6	36	1.2
1000	29	129	-2.0	-7.8	35	2.1
950	31	527	-2.8	-9.3	35	2.6
900	31	955	-4.2	-10.6	33	3.1
850	31	1,404	-5.8	-12.2	31	3.6
800	31	1,879	-6.8	-15.5	29	5.7
750	31	2,381	-8.2	-17.1	28	8.2
700	31	2,916	-9.6	-19.8	28	10.2
650	31	3,486	-12.3	-22.2	28	12.1
600	31	4,094	-15.9	-23.7	27	14.1
550	31	4,744	-19.9	-27.0	27	16.0
500	31	5,445	-24.7	-33.0	27	17.7
450	31	6,203	-30.3	-37.3	26	20.5
400	31	7,031	-35.9	-44.2	26	23.1
350	31	7,950	-42.0	-45.8	26	27.2
300	31	8,975	-48.6		26	29.3
250	31	10,160	-53.2		27	33.1
200	30	11,600	-53.2		27	32.2
175	30	12,462	-52.4		28	27.1
150	30	13,460	-52.6		27	25.3
125	30	14,635	-53.6		27	22.8
100	30	16,063	-55.5		28	18.8
80	30	17,482	-56.5		27	14.3
70	30	18,327	-57.7		28	12.9
60	30	19,301	-57.4		28	10.2
50	30	20,455	-56.8		29	7.6
40	29	21,865	-56.7		29	5.2
30	29	23,691	-56.1		34	2.2
25	29	24,853	-55.4		01	2.6
20	28	26,280	-54.4		05	2.9
15	25	28,139	-52.5		01	1.7
10	14	30,779	-48.0			

* QUILLAYUTE, WA — 1009 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	58	4.5	3.2	19	.5
1000	28	142	4.5	3.2	21	1.3
950	31	546	3.1	1.5	22	3.9
900	31	983	.3	-1.6	23	5.3
850	31	1,439	-2.3	-5.8	24	6.0
800	31	1,918	-4.8	-10.5	25	6.5
750	31	2,424	-7.4	-16.0	26	7.0
700	31	2,958	-10.4	-18.2	27	7.7
650	31	3,525	-14.0	-22.6	27	9.1
600	31	4,129	-17.7	-27.3	28	10.5
550	31	4,775	-21.8	-31.5	28	12.1
500	31	5,470	-26.5	-36.4	28	13.1
450	31	6,223	-31.8	-40.7	29	14.2
400	31	7,046	-37.5	-45.4	29	16.7
350	31	7,957	-44.1		28	15.9
300	31	8,972	-51.2		29	18.2
250	31	10,141	-56.9		29	20.6
200	31	11,553	-56.0		30	17.7
175	31	12,407	-54.0		29	15.7
150	31	13,401	-52.5		30	14.3
125	31	14,579	-53.4		30	10.9
100	31	16,011	-54.6		30	9.9
80	31	17,443	-53.8		30	7.5
70	31	18,301	-54.0		31	5.7
60	30	19,293	-54.1		33	4.9
50	30	20,463	-54.3		36	4.0
40	30	21,895	-53.8		04	4.8
30	27	23,748	-53.2		06	6.7
25	25	24,928	-52.8		07	7.9
20	23	26,376	-51.8		07	11.3
15	17	28,242	-51.7		07	12.4
10	7	30,824	-50.8			
7						

RAPID CITY, SD — 901 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	966	-4.2	-8.2	34	2.0
1000						
950						
900	21	1,003	-4.7	-8.3	35	1.4
850	31	1,432	-1.6	-9.5	31	3.6
800	31	1,913	-3.4	-12.1	31	5.2
750	31	2,421	-5.9	-14.0	30	6.3
700	31	2,959	-8.7	-16.8	30	7.7
650	31	3,530	-11.9	-20.2	30	9.3
600	31	4,138	-15.9	-24.6	29	11.1
550	31	4,789	-19.9	-29.4	28	12.6
500	31	5,489	-24.8	-33.9	29	13.8
450	31	6,247	-30.4	-39.8	29	15.0
400	31	7,073	-36.9	-45.7	28	16.8
350	31	7,986	-43.9		28	18.1
300	31	9,000	-51.9		28	18.7
250	31	10,163	-58.3		28	18.7
200	31	11,571	-55.8		27	19.2
175	31	12,426	-53.7		27	19.6
150	31	13,419	-53.2		27	18.2
125	31	14,592	-53.8		27	17.6
100	31	16,020	-55.1		27	15.9
80	29	17,449	-55.3		27	12.1
70	27	18,297	-56.0		27	10.0
60	27	19,278	-55.9		27	7.4
50	26	20,439	-55.6		29	5.1
40	20	21,866	-55.1		36	1.4
30	19	23,701	-55.0		05	4.5
25	15	24,870	-54.7		07	6.5
20	14	26,303	-54.7		06	8.6
15	12	28,157	-53.3		06	11.3
10						
7						

ST CLOUD, MN — 979 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	30	316	-8.4	-11.1	02	.6
1000						
950	30	551	-5.5	-8.3	15	.2
900	30	975	-5.8	-11.6	27	2.8
850	30	1,423	-6.1	-15.8	28	4.1
800	30	1,897	-7.0	-18.9	28	5.2
750	30	2,399	-8.8	-21.4	28	7.1
700	30	2,931	-11.2	-22.7	28	9.1
650	30	3,497	-14.3	-24.3	28	10.4
600	30	4,100	-17.8	-27.2	28	11.5
550	30	4,745	-21.8	-29.6	28	13.6
500	30	5,440	-26.6	-34.9	28	15.3
450	30	6,194	-31.4	-39.9	28	18.1
400	30	7,017	-37.6	-44.6	27	20.6
350	30	7,928	-44.3		27	22.5
300	29	8,938	-51.5		27	24.3
250	28	10,105	-56.0		27	24.4
200	28	11,527	-53.7		27	23.3
175	28	12,388	-52.2		27	22.6
150	28	13,386	-52.3		27	22.0
125	28	14,564	-53.2		27	19.5
100	27	15,995	-54.1		27	18.2
80	27	17,425	-54.6		27	14.1
70	27	18,278	-55.2		27	12.2
60	27	19,263	-55.0		28	9.7
50	27	20,431	-54.3		29	5.3
40	26	21,861	-54.6		32	2.8
30	26	23,700	-54.9		04	4.0
25	26	24,866	-54.7		05	5.6
20	25	26,295	-53.7		06	7.5
15	23	28,143	-52.2		06	8.8
10	17	30,769	-49.4		05	5.9
7	7	33,124	-45.0			

* ST PAUL ISLAND, AK — 994 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	10	-1.2	-3.5	10	2.7
1000	10	91	-3.5	-5.0	08	2.4
950	31	365	-3.1	-3.7	13	3.4
900	31	791	-5.3	-6.9	16	3.9
850	31	1,238	-7.4	-10.1	19	4.2
800	31	1,708	-10.0	-13.9	19	4.0
750	31	2,203	-12.9	-18.5	18	4.0
700	31	2,726	-16.3	-22.9	19	4.2
650	31	3,280	-20.0	-28.6	20	3.9
600	31	3,869	-23.8	-34.1	20	4.4
550	31	4,500	-27.6	-38.5	20	5.1
500	31	5,179	-31.8	-42.0	21	6.7
450	30	5,920	-36.8	-43.7	21	7.2
400	30	6,727	-41.9	-48.7	22	8.1
350	30	7,624	-47.0		22	9.1
300	30	8,633	-50.8		21	10.4
250	30	9,821	-50.1		21	10.0
200	30	11,288	-47.6		21	9.1
175	29	12,174	-46.5		21	9.6
150	29	13,200	-45.4		21	9.6
125	29	14,416	-45.5		21	8.5
100	29	15,902	-46.1		21	7.2
80	29	17,385	-46.4		20	5.7
70	29	18,271	-46.6		19	5.0
60	29	19,294	-47.0		17	4.4
50	28	20,498	-47.2		16	4.8
40	27	21,968	-47.3		13	4.8
30	26	23,872	-47.7		11	6.5
25	26	25,076	-47.8		10	8.0
20	26	26,551	-47.2		10	10.9
15	24	28,462	-46.2		10	13.3
10	17	31,140	-45.3		09	15.6
7	8	33,513	-45.8			

SALEM, IL — 995 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	30	174	1.2	-1.9	33	.2
1000	12	199	-3.1	-7.2	04	.6
950	30	548	1.6	-4.3	26	2.1
900	30	984	1.0	-8.2	27	3.8
850	30	1,443	.6	-11.7	28	5.6
800	30	1,929	-.7	-12.6	27	7.5
750	30	2,443	-2.3	-14.1	27	9.3
700	30	2,989	-5.1	-16.4	28	10.0
650	30	3,568	-8.1	-20.7	27	12.1
600	30	4,185	-11.5	-23.0	27	15.8
550	29	4,847	-15.8	-29.5	27	17.8
500	29	5,558	-20.7	-33.7	27	18.7
450	29	6,329	-26.1	-38.8	27	20.7
400	29	7,171	-32.5	-44.3	27	22.7
350	29	8,102	-39.4	-46.0	27	27.6
300	29	9,138	-46.9		27	34.3
250	29	10,327	-53.5		26	39.1
200	29	11,752	-55.6		26	41.5
175	29	12,606	-54.4		26	39.8
150	29	13,593	-54.9		27	37.0
125	29	14,754	-56.8		26	30.3
100	29	16,162	-58.7		27	25.4
80	29	17,558	-60.0		27	17.6
70	29	18,391	-60.7		27	14.5
60	29	19,351	-60.5		27	11.5
50	29	20,488	-59.8		27	7.1
40	29	21,886	-58.7		28	4.9
30	29	23,700	-57.3		36	1.6
25	28	24,855	-56.3		05	3.4
20	28	26,277	-55.0		07	6.1
15	28	28,126	-52.3		07	5.1
10	22	30,786	-47.3		04	2.5
7	7	33,098	-45.9			

RAWINSONDE DATA

Average monthly values

SALEM, OR — 1011 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	61	4.7	3.1	20	1.3
1000	28	162	5.6	3.2	22	1.8
950	31	570	4.4	1.6	25	3.1
900	31	1,009	1.8	-.9	25	4.1
850	31	1,467	-1.3	-4.6	26	5.4
800	31	1,949	-3.7	-10.5	27	6.5
750	31	2,456	-6.7	-15.1	27	7.2
700	31	2,992	-9.3	-17.6	28	7.6
650	31	3,562	-12.5	-22.3	28	8.4
600	31	4,169	-15.8	-25.9	29	9.4
550	31	4,819	-20.1	-29.2	28	10.5
500	31	5,520	-24.4	-33.2	29	12.4
450	31	6,280	-29.7	-38.5	29	13.3
400	30	7,113	-36.1	-45.1	29	13.6
350	30	8,029	-43.0	-51.2	30	14.9
300	29	9,041	-50.7		30	16.1
250	29	10,211	-57.2		31	16.9
200	29	11,619	-56.3		30	15.3
175	29	12,471	-54.3		30	14.1
150	29	13,462	-53.6		30	13.3
125	29	14,634	-53.9		30	12.1
100	29	16,063	-54.8		31	9.6
80	29	17,488	-55.3		31	6.7
70	29	18,341	-55.4		31	6.0
60	29	19,324	-55.3		33	4.5
50	29	20,487	-55.6		34	3.1
40	29	21,913	-54.7		05	3.7
30	27	23,751	-54.3		07	6.0
25	24	24,920	-53.7		08	7.7
20	23	26,359	-53.0		08	8.5
15	21	28,216	-52.5		08	10.0
10	9	30,818	-50.3			

SALT LAKE CITY, UT — 868 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	1,288	2.1	-2.8	17	2.4
1000						
950						
900						
850	31	1,457	2.3	-5.0	18	2.9
800	31	1,945	-.2	-7.9	22	2.9
750	31	2,458	-4.1	-9.9	27	2.9
700	31	2,998	-8.2	-12.7	28	4.8
650	31	3,570	-11.6	-16.9	26	5.4
600	31	4,179	-15.3	-22.4	28	6.2
550	31	4,831	-19.5	-28.4	27	7.9
500	31	5,532	-24.5	-33.4	27	9.0
450	30	6,286	-30.4	-38.6	27	10.5
400	30	7,113	-36.7	-44.9	27	11.6
350	30	8,027	-43.5		27	13.0
300	29	9,051	-50.7		27	14.7
250	29	10,222	-56.2		27	17.3
200	29	11,638	-55.1		27	19.0
175	28	12,501	-53.5		27	17.9
150	28	13,491	-53.7		27	17.7
125	28	14,662	-55.1		27	16.5
100	28	16,082	-56.2		27	14.2
80	28	17,494	-58.0		28	10.5
70	28	18,336	-57.9		28	8.6
60	28	19,308	-58.0		29	6.3
50	28	20,456	-58.3		30	3.5
40	23	21,863	-57.4		35	2.2
30	18	23,693	-56.3		04	4.0
25	17	24,860	-56.1		05	5.2
20	13	26,277	-55.0		06	8.7

SAN DIEGO, CA — 1000 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	23	124	11.5	7.9	13	.7
1000	13	140	12.0	7.8	09	.6
950	23	554	11.2	5.0	22	1.8
900	23	1,004	8.7	.8	25	1.7
850	23	1,475	6.6	-5.1	27	2.6
800	23	1,970	4.2	-11.4	28	4.2
750	23	2,493	2.1	-16.3	28	6.4
700	23	3,047	-1.1	-18.8	28	8.3
650	23	3,634	-4.2	-21.9	28	10.2
600	23	4,260	-8.4	-26.5	27	11.3
550	23	4,928	-13.3	-30.6	28	13.4
500	23	5,646	-18.7	-33.7	28	15.9
450	23	6,423	-24.5	-38.8	27	18.7
400	23	7,270	-30.6	-44.4	27	22.4
350	23	8,209	-37.0	-49.9	26	27.1
300	22	9,263	-45.4		26	31.3
250	21	10,453	-52.5		26	37.0
200	21	11,884	-54.7		26	42.1
175	21	12,738	-55.1		26	41.8
150	20	13,718	-56.9		27	38.8
125	18	14,869	-59.5		26	34.2
100	17	16,262	-62.6		27	25.9
80	16	17,635	-64.2		27	19.5
70	14	18,450	-63.9		27	15.6
60	14	19,398	-63.2		27	11.3
50	14	20,521	-62.0		27	8.4
40	14	21,904	-61.2		27	6.0
30	13	23,705	-58.6		26	2.5
25	12	24,859	-57.1		27	3.2
20	12	26,281	-54.5		06	4.6
15	12	28,129	-52.3		04	2.9
10	5	30,753	-50.4			

SAN JUAN, P. R. — 1017 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	6	21.6	19.5	10	1.7
1000	31	148	22.6	19.2	10	4.0
950	31	594	19.8	17.0	10	6.9
900	31	1,059	16.6	13.7	11	7.0
850	31	1,544	13.5	9.5	10	5.8
800	31	2,054	12.0	1.8	10	4.9
750	31	2,593	10.6	-5.9	09	4.5
700	31	3,166	8.7	-10.0	08	3.4
650	31	3,776	6.1	-15.2	08	2.2
600	31	4,427	2.7	-18.6	04	1.8
550	31	5,125	-1.3	-22.0	02	2.6
500	31	5,878	-6.2	-26.0	35	3.7
450	31	6,693	-12.0	-30.8	35	4.4
400	31	7,583	-18.6	-36.4	33	6.0
350	31	8,567	-25.8	-42.3	32	9.3
300	31	9,663	-34.0	-49.3	31	13.2
250	31	10,914	-43.7		30	16.9
200	31	12,379	-54.3		29	19.7
175	31	13,225	-59.3		29	20.9
150	31	14,178	-64.8		30	20.7
125	31	15,276	-70.2		30	17.7
100	31	16,585	-75.4		32	11.9
80	31	17,868	-77.2		32	7.0
70	31	18,637	-75.7		34	3.2
60	31	19,539	-71.3		03	1.8
50	30	20,633	-66.2		08	1.3
40	30	21,996	-63.4		07	4.0
30	30	23,783	-58.9		09	6.5
25	28	24,939	-55.5		10	5.4
20	26	26,370	-51.5		13	2.9
15	26	28,254	-47.6		21	2.2
10	20	30,985	-40.7		25	.8
	8	33,459	-34.8			

* SAULT STE MARIE, MI — 989 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	221	-7.5	-10.9	34	.9
1000						
950	31	537	-6.4	-9.8	35	1.3
900	31	958	-8.2	-12.2	31	2.9
850	31	1,401	-9.1	-17.2	30	4.6
800	31	1,870	-9.5	-19.7	28	6.6
750	31	2,368	-11.1	-22.4	29	8.4
700	31	2,895	-13.1	-25.5	29	9.9
650	31	3,458	-15.5	-28.1	28	11.9
600	31	4,058	-18.8	-31.5	28	13.5
550	31	4,702	-22.6	-34.2	28	15.5
500	31	5,395	-27.2	-37.9	28	17.9
450	31	6,146	-32.3	-41.6	28	20.6
400	31	6,967	-38.1	-44.8	28	23.5
350	31	7,876	-44.5		28	24.8
300	31	8,891	-50.9		27	25.7
250	30	10,066	-55.1		27	28.0
200	30	11,493	-53.4		27	26.1
175	30	12,358	-51.2		27	24.1
150	30	13,360	-51.4		27	22.5
125	30	14,543	-52.1		27	20.9
100	30	15,985	-52.8		27	18.2
80	29	17,423	-53.6		27	14.3
70	29	18,281	-53.9		27	12.6
60	29	19,271	-53.7		27	9.3
50	29	20,444	-53.7		28	6.6
40	29	21,878	-54.0		29	3.8
30	28	23,726	-53.6		35	2.1
25	27	24,890	-53.3		03	2.4
20	26	26,329	-53.0		04	4.3
15	25	28,186	-51.2		04	5.4
10	18	30,814	-48.9		36	3.0
	5	33,168	-46.5			

SPOKANE, WA — 929 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	720	.5	-1.4	20	2.1
1000						
950						
900	31	976	1.1	-3.1	23	3.8
850	31	1,434	-1.1	-5.8	25	4.8
800	31	1,916	-4.0	-8.3	26	5.5
750	31	2,422	-7.3	-11.7	26	6.1
700	31	2,956	-10.7	-15.6	27	7.6
650	31	3,523	-13.8	-21.4	27	8.9
600	31	4,127	-17.6	-26.3	28	10.6
550	31	4,773	-22.0	-30.3	28	12.2
500	31	5,468	-26.4	-34.5	28	13.8
450	31	6,222	-31.8	-39.4	28	15.2
400	31	7,043	-38.4	-44.1	28	16.4
350	31	7,951	-44.4		29	17.9
300	31	8,966	-51.0		29	20.5
250	31	10,135	-57.0		29	21.9
200	31	11,546	-55.9		29	17.3
175	31	12,402	-53.3		29	14.9
150	31	13,397	-52.7		29	13.5
125	30	14,573	-52.6		29	12.3
100	30	16,012	-53.1		29	9.9
80	30	17,447	-53.8		30	7.9
70	30	18,306	-53.8		30	6.3
60	30	19,296	-53.6		31	5.2
50	30	20,470	-53.3		34	3.7
40	30	21,908	-53.2		03	3.2
30	30	23,765	-52.8		05	5.6
25	28	24,940	-53.1		06	7.8
20	28	26,381	-52.3		06	10.7
15	27	28,244	-51.9		07	12.3
10	18	30,877	-49.8		07	15.9
7	6	33,274	-45.7			

TAMPA BAY, FL — 1016 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	13	15.8	14.0	10	.8
1000	31	150	17.1	14.2	15	1.9
950	31	588	16.1	11.3	19	4.3
900	31	1,047	15.2	5.3	22	5.3
850	31	1,530	13.2	.8	23	6.4
800	31	2,038	11.0	-4.5	25	7.5
750	31	2,575	8.7	-8.3	25	8.6
700	31	3,143	6.0	-11.4	26	11.3
650	31	3,746	2.8	-14.4	26	13.9
600	31	4,389	-1.4	-16.6	27	16.3
550	31	5,076	-6.0	-20.3	27	19.1
500	31	5,816	-10.5	-25.2	27	21.6
450	31	6,620	-15.8	-30.0	27	23.6
400	31	7,497	-21.9	-35.8	27	26.2
350	31	8,468	-29.3	-41.5	27	28.4
300	31	9,547	-37.8	-47.5	28	30.3
250	31	10,780	-47.0		27	32.7
200	31	12,226	-56.4		27	33.2
175	31	13,065	-60.1		27	34.1
150	31	14,019	-63.6		27	33.4
125	31	15,128	-67.0		27	30.7
100	31	16,464	-70.5		27	23.5
80	31	17,778	-72.9		27	17.0
70	31	18,563	-71.7		27	13.3
60	31	19,478	-69.3		27	7.1
50	31	20,575	-66.3		28	5.3
40	31	21,940	-62.9		30	4.5
30	31	23,727	-59.4		34	2.6
25	31	24,874	-57.3		01	2.3
20	30	26,294	-53.7		10	1.0
15	29	28,158	-49.9		24	3.4
10	26	30,851	-41.8		25	10.1
7	10	33,290	-33.8			

TOPEKA, KS — 983 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	268	1.2	-4.0	07	1.0
1000						
950	31	541	1.4	-4.1	19	1.0
900	31	976	1.3	-5.6	24	2.9
850	31	1,436	1.1	-8.4	26	4.5
800	31	1,923	-.3	-10.1	27	5.0
750	31	2,438	-2.3	-10.7	27	6.7
700	31	2,984	-4.8	-12.4	27	8.6
650	31	3,564	-7.9	-16.0	27	10.2
600	31	4,181	-12.0	-20.2	27	11.7
550	31	4,842	-16.4	-25.3	26	13.6
500	31	5,551	-21.7	-29.5	26	15.2
450	31	6,319	-27.4	-35.3	26	17.5
400	29	7,155	-34.1	-43.2	26	19.0
350	29	8,079	-41.3	-46.9	26	22.2
300	29	9,106	-48.6		26	28.0
250	29	10,287	-54.6		26	32.6
200	29	11,711	-54.7		26	37.6
175	28	12,567	-53.8		26	33.8
150	27	13,554	-55.1		26	32.9
125	27	14,716	-56.1		26	28.0
100	27	16,128	-57.9		26	22.7
80	25	17,532	-59.7		26	17.2
70	24	18,365	-60.2		26	14.1
60	23	19,330	-59.8		27	10.0
50	21	20,470	-59.3		27	6.4
40	18	21,875	-57.8		31	1.7
30	17	23,702	-56.9		05	3.7
25	16	24,866	-56.2		07	6.3
20	14	26,278	-55.2		08	7.1
15	14	28,123	-53.4		07	6.8
10	6	30,771	-46.4			

+ TRUK, CAROLINE IS. — 1010 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	2	28.3	23.9	05	4.1
1000	31	96	27.3	23.3	05	5.7
950	31	549	23.7	20.8	07	8.9
900	31	1,021	20.8	16.9	07	9.7
850	31	1,514	18.0	12.2	08	8.4
800	31	2,032	16.0	7.1	08	6.5
750	31	2,580	13.6	2.5	08	6.2
700	31	3,158	10.6	-2.3	08	5.1
650	31	3,772	7.3	-5.0	09	4.8
600	31	4,427	3.9	-9.1	08	5.7
550	31	5,130	.3	-11.6	09	6.2
500	31	5,889	-3.8	-15.0	09	7.6
450	31	6,714	-8.2	-22.0	09	8.2
400	31	7,619	-14.3	-28.0	09	8.8
350	31	8,622	-20.6	-32.8	09	8.2
300	31	9,741	-28.9	-40.8	10	7.5
250	29	11,018	-39.2	-49.7	11	8.9
200	29	12,506	-51.9		12	12.1
175	29	13,357	-59.1		12	13.6
150	29	14,305	-67.0		11	14.9
125	29	15,385	-75.0		09	16.9
100	29	16,655	-81.6		09	14.9
80	29	17,907	-78.8		09	9.1
70	29	18,676	-75.0		09	6.8
60	29	19,577	-72.3		09	10.3
50	28	20,663	-66.9		09	16.9
40	26	22,038	-59.9		09	15.5
30	25	23,866	-53.3		28	2.1
25	24	25,041	-51.6		27	7.9
20	24	26,500	-47.8		27	9.9
15	23	28,414	-44.9		26	12.8
10	6	31,142	-40.1			

* TUCSON, AZ — 923 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	789	9.3	.4	15	2.3
1000						
950						
900	31	998	11.1	-.7	17	2.3
850	31	1,473	8.7	-3.0	22	3.4
800	31	1,972	5.3	-5.9	24	5.2
750	31	2,496	1.9	-11.4	24	7.3
700	31	3,049	-1.3	-16.3	25	8.7
650	31	3,636	-4.7	-20.1	25	10.5
600	31	4,261	-8.2	-24.2	26	13.3
550	31	4,932	-12.6	-28.6	26	16.0
500	31	5,651	-18.2	-32.6	26	18.7
450	31	6,430	-23.8	-37.0	26	21.3
400	31	7,279	-30.0	-42.8	26	25.8
350	31	8,220	-36.8	-48.4	26	29.4
300	31	9,267	-44.3		26	34.8
250	31	10,470	-51.4		26	40.6
200	30	11,901	-54.9		26	44.5
175	30	12,755	-54.9		26	43.0
150	29	13,732	-57.1		26	38.0
125	29	14,877	-60.6		26	32.2
100	29	16,257	-63.7		26	26.7
80	29	17,620	-65.0		26	19.1
70	29	18,435	-64.8		26	14.4
60	29	19,377	-64.0		26	10.4
50	29	20,497	-62.9		27	4.6
40	28	21,876	-61.1		26	1.4
30	26	23,675	-59.0		05	2.4
25	24	24,827	-57.9		07	3.9
20	23	26,242	-56.2		07	4.6
15	20	28,090	-52.7		01	1.6
10	10	30,757	-43.9			
7	5	33,149	-38.5			

* VANDENBERG AFB, CA — 1005 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	100	9.4	4.9	35	1.2
1000	29	144	10.2	5.3	35	2.1
950	31	566	9.9	2.1	36	4.2
900	31	1,014	7.9	-1.8	36	3.5
850	31	1,483	5.5	-6.8	35	3.3
800	31	1,977	3.2	-12.1	33	3.7
750	31	2,497	.6	-14.1	32	4.9
700	31	3,048	-2.5	-18.1	31	5.9
650	31	3,632	-6.1	-20.4	31	7.2
600	31	4,254	-9.9	-24.5	30	9.1
550	31	4,920	-14.3	-29.2	30	10.3
500	31	5,635	-19.9	-33.5	30	11.9
450	31	6,407	-25.9	-37.5	29	13.2
400	31	7,248	-32.6	-43.7	29	14.5
350	31	8,178	-39.9	-50.9	29	16.3
300	31	9,210	-47.6		28	18.5
250	31	10,397	-54.2		28	21.6
200	31	11,822	-55.2		28	25.3
175	30	12,678	-54.3		27	27.1
150	30	13,665	-55.4		27	26.6
125	30	14,822	-58.0		27	23.2
100	30	16,219	-60.7		27	17.8
80	30	17,603	-61.8		27	13.3
70	29	18,429	-62.5		28	10.8
60	29	19,381	-61.7		28	7.6
50	28	20,514	-61.1		29	4.8
40	27	21,902	-60.0		31	2.3
30	24	23,704	-57.4		07	2.6
25	23	24,857	-56.5		07	3.3
20	21	26,276	-54.6		07	3.3
15	18	28,124	-52.1		05	3.4
10	12	30,801	-46.2		04	1.0
7	7	33,133	-41.2			

VICTORIA, TX — 1010 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	33	13.2	10.3	07	1.1
1000	30	120	14.0	9.3	10	1.7
950	31	551	13.8	7.7	15	3.0
900	31	1,007	13.5	1.5	19	2.7
850	31	1,488	12.5	-2.3	22	4.5
800	31	1,996	11.2	-6.0	24	6.4
750	31	2,532	8.7	-9.0	25	8.5
700	31	3,099	5.6	-11.5	25	11.4
650	31	3,701	1.9	-13.9	26	14.2
600	31	4,341	-2.8	-15.9	25	17.1
550	31	5,025	-7.7	-19.6	25	20.6
500	31	5,759	-13.0	-23.9	25	24.1
450	31	6,555	-18.2	-27.7	26	27.9
400	31	7,425	-23.9	-31.5	26	31.3
350	31	8,390	-30.4	-38.3	26	34.8
300	31	9,465	-38.6	-44.2	26	39.8
250	31	10,692	-48.2		26	43.8
200	31	12,131	-57.3		26	47.0
175	31	12,969	-60.5		26	45.0
150	31	13,925	-62.6		26	41.3
125	31	15,042	-65.7		26	35.8
100	31	16,387	-69.1		26	27.2
80	28	17,714	-70.6		26	19.8
70	23	18,504	-69.9		26	14.3
60	22	19,426	-67.9		26	9.4
50	21	20,530	-65.1		26	5.9
40	17	21,901	-61.8		27	4.0
30	15	23,688	-59.8		02	1.5
25	15	24,831	-58.1		05	1.9
20	15	26,248	-55.2		05	1.2
15	14	28,107	-50.1		23	3.2
10	12	30,794	-42.4		23	11.4
7	7	33,264	-33.7			

* WAKE IS., PACIFIC AREA — 1016 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	5	24.4	21.1	07	5.1
1000	31	142	23.3	19.8	07	6.9
950	31	589	19.7	18.2	07	8.4
900	31	1,054	17.0	13.5	08	7.2
850	31	1,540	14.4	7.5	08	6.0
800	31	2,051	12.9	-.5	09	4.8
750	31	2,591	10.9	-5.9	08	3.4
700	31	3,164	9.0	-11.2	06	2.4
650	31	3,774	6.0	-14.3	04	.6
600	31	4,426	2.8	-17.9	30	1.9
550	31	5,125	-.5	-20.5	29	3.8
500	31	5,881	-5.1	-23.6	29	5.0
450	30	6,700	-10.5	-28.6	30	6.6
400	30	7,596	-16.0	-34.2	29	9.0
350	30	8,592	-22.9	-40.0	29	11.3
300	29	9,700	-30.9	-46.7	28	12.8
250	29	10,969	-40.5	-54.2	28	13.3
200	29	12,452	-52.0		28	13.3
175	29	13,304	-58.6		27	13.2
150	29	14,256	-66.0		28	11.5
125	29	15,342	-73.6		28	10.0
100	28	16,618	-80.5		28	5.4
80	27	17,867	-82.2		30	.8
70	25	18,617	-79.7		11	1.4
60	24	19,502	-74.7		11	3.4
50	23	20,579	-68.6		11	3.5
40	23	21,930	-64.9		10	4.6
30	23	23,704	-60.7		09	6.4
25	22	24,847	-57.5		08	5.8
20	21	26,275	-53.3		06	4.4
15	21	28,137	-50.0		06	3.0
10	16	30,829	-42.7		07	3.4
7	12	33,253	-37.1		10	4.1

* WALLOPS ISLAND, VA NASA — 1017 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	4	3.4	-.5	31	1.5
1000	31	137	4.8	-2.6	29	2.0
950	31	555	3.7	-3.6	28	4.6
900	31	994	2.3	-6.3	27	6.4
850	31	1,454	.9	-9.0	27	8.5
800	31	1,940	-.8	-11.6	27	9.9
750	31	2,455	-2.5	-14.4	27	11.6
700	31	3,000	-4.8	-17.5	27	14.2
650	30	3,583	-7.7	-19.8	27	16.2
600	30	4,201	-11.1	-23.2	27	19.2
550	30	4,865	-15.1	-26.9	27	21.5
500	30	5,579	-19.7	-31.8	27	23.2
450	30	6,354	-24.8	-36.0	27	25.4
400	30	7,200	-30.6	-41.3	27	30.0
350	30	8,139	-37.2	-45.7	27	34.7
300	30	9,185	-44.5	-45.9	27	40.7
250	30	10,386	-51.9		27	46.6
200	30	11,817	-55.1		27	47.8
175	30	12,671	-54.7		28	42.1
150	29	13,653	-56.2		28	33.9
125	29	14,807	-57.9		27	32.5
100	28	16,203	-60.0		27	26.2
80	27	17,595	-61.0		27	19.4
70	27	18,423	-62.1		28	16.8
60	26	19,376	-61.2		28	12.5
50	25	20,510	-60.7		28	9.0
40	25	21,905	-58.7		29	4.2
30	23	23,720	-57.5		36	1.8
25	21	24,873	-56.2		04	1.7
20	18	26,291	-54.4		08	1.3
15	14	28,166	-50.7			

WASHINGTON DULLES INT. AP — 1007 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	30	85	1.4	-2.8	33	1.4
1000	24	164	1.3	-4.2	32	1.7
950	30	554	1.5	-4.3	29	4.8
900	30	988	-.1	-6.6	29	7.1
850	30	1,446	-.8	-10.0	28	8.9
800	30	1,929	-1.9	-12.8	28	9.9
750	30	2,441	-3.4	-13.9	28	10.6
700	30	2,985	-5.5	-15.5	28	12.7
650	30	3,564	-8.3	-18.3	28	15.8
600	30	4,181	-11.6	-21.6	27	17.8
550	30	4,843	-15.9	-26.9	27	19.5
500	30	5,555	-20.4	-31.9	27	21.7
450	30	6,327	-25.7	-36.1	27	24.5
400	30	7,170	-31.7	-41.4	27	28.7
350	30	8,104	-38.2	-43.6	27	32.2
300	30	9,147	-45.2	-45.9	26	38.0
250	30	10,344	-52.4		27	43.4
200	30	11,774	-54.8		27	43.5
175	30	12,629	-54.1		27	39.5
150	30	13,618	-54.5		27	33.3
125	30	14,782	-56.4		27	28.4
100	30	16,188	-59.4		27	24.1
80	30	17,583	-60.4		27	19.3
70	29	18,416	-61.0		27	16.5
60	29	19,374	-60.6		28	12.9
50	28	20,511	-59.9		28	9.0
40	28	21,908	-58.7		29	5.0
30	27	23,716	-57.5		34	2.1
25	26	24,870	-56.1		04	2.2
20	26	26,294	-54.9		06	2.1
15	22	28,148	-51.6		07	2.4
10	16	30,816	-46.5		28	5.3

RAWINSONDE DATA

Average monthly values

WAYCROSS, GA — 1011 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	44	11.2	7.8	23	.6
1000	30	141	11.8	6.8	21	1.0
950	31	568	12.2	4.5	23	4.7
900	31	1,021	10.9	2.4	24	7.7
850	31	1,497	10.2	-3.2	25	10.5
800	31	2,000	8.5	-5.5	25	12.0
750	31	2,531	5.8	-8.1	26	13.6
700	31	3,092	2.8	-10.4	26	16.0
650	31	3,688	-.9	-12.5	26	18.9
600	30	4,324	-4.8	-17.2	26	21.1
550	30	5,003	-8.9	-20.3	26	24.8
500	30	5,734	-13.8	-25.1	26	27.2
450	30	6,527	-18.9	-29.4	26	30.0
400	29	7,393	-24.8	-34.3	27	32.3
350	28	8,366	-31.0	-40.3	27	35.9
300	28	9,438	-39.5	-46.0	27	38.7
250	28	10,660	-48.9		27	44.6
200	28	12,096	-57.8		27	47.1
175	28	12,932	-60.6		27	47.8
150	28	13,890	-62.1		27	43.7
125	27	15,009	-64.6		27	38.4
100	27	16,360	-67.9		27	28.9
80	27	17,696	-69.2		27	19.2
70	27	18,494	-69.1		27	14.4
60	27	19,420	-67.2		27	11.4
50	27	20,525	-64.8		27	5.1
40	27	21,895	-62.5		29	4.6
30	27	23,683	-59.3		34	2.2
25	27	24,831	-57.4		34	1.6
20	27	26,249	-54.9		35	.3
15	24	28,095	-51.0		25	3.6
10	16	30,761	-43.5		26	11.9
7						

WEST PALM BEACH, FL — 1017 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	7	18.1	15.9	19	1.1
1000	31	152	19.9	18.6	17	2.1
950	31	593	17.1	13.4	18	3.3
900	31	1,054	15.0	9.0	20	2.7
850	31	1,536	13.5	2.4	23	3.1
800	31	2,046	11.8	-2.1	26	4.7
750	31	2,583	9.6	-7.0	26	6.0
700	31	3,153	7.0	-10.2	26	8.5
650	31	3,759	3.7	-14.0	27	10.3
600	31	4,404	-.5	-16.3	27	11.8
550	31	5,093	-5.0	-20.3	27	14.6
500	31	5,836	-9.6	-24.6	28	17.8
450	30	6,645	-14.9	-29.7	28	20.6
400	30	7,524	-21.6	-34.5	28	22.8
350	30	8,498	-28.6	-40.9	28	24.9
300	30	9,581	-37.0	-47.5	28	26.5
250	29	10,820	-46.3		28	28.0
200	29	12,271	-55.8		28	30.6
175	29	13,112	-60.0		28	31.9
150	29	14,068	-63.1		28	30.5
125	29	15,181	-66.8		27	27.6
100	29	16,514	-71.4		27	21.7
80	29	17,823	-73.4		27	15.0
70	29	18,607	-71.9		27	10.4
60	29	19,521	-69.5		27	6.8
50	29	20,617	-66.3		27	6.0
40	29	21,983	-62.4		30	5.3
30	27	23,777	-58.7		34	2.6
25	26	24,925	-56.5		01	2.3
20	25	26,353	-53.1		13	.7
15	24	28,230	-48.7		22	3.2
10	19	30,942	-41.4		25	7.8
7	9	33,360	-35.9			

WINNEMUCCA, NV — 867 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	1,312	-2.3	-7.8	19	.6
1000						
950						
900						
850	31	1,472	1.5	-6.2	24	1.0
800	31	1,958	-1.0	-8.6	28	2.4
750	31	2,470	-4.9	-11.3	28	3.4
700	31	3,009	-8.4	-15.7	28	4.9
650	31	3,581	-11.4	-20.7	28	6.8
600	31	4,191	-14.6	-26.0	29	8.7
550	31	4,845	-18.9	-30.4	29	9.4
500	31	5,548	-23.6	-34.4	30	10.2
450	31	6,310	-29.0	-40.0	30	11.0
400	31	7,141	-35.7	-44.7	30	12.1
350	30	8,051	-43.4		30	13.1
300	29	9,070	-50.6		31	13.8
250	29	10,241	-56.7		31	16.1
200	29	11,654	-55.9		29	16.5
175	29	12,509	-53.5		28	16.1
150	29	13,501	-54.0		28	16.2
125	29	14,670	-55.2		28	15.2
100	28	16,088	-56.5		28	12.4
80	26	17,505	-57.5		29	8.7
70	26	18,348	-57.6		29	6.3
60	25	19,318	-58.3		30	4.5
50	25	20,466	-57.8		33	2.7
40	23	21,876	-57.0		04	3.0
30	21	23,701	-55.5		06	5.6
25	19	24,854	-55.7		06	5.1
20	17	26,271	-54.8		06	7.0
15	13	28,114	-52.8		07	7.6

WINSLOW, AZ — 848 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	1,487	.9	-3.4	19	1.5
1000						
950						
900						
850	12	1,511	1.1	-5.8	17	.6
800	31	1,961	2.5	-6.4	25	3.5
750	31	2,479	-1.0	-9.7	25	6.3
700	31	3,026	-4.3	-14.8	26	7.9
650	31	3,607	-7.7	-18.1	26	9.7
600	31	4,226	-11.5	-23.7	26	11.6
550	31	4,887	-15.9	-28.1	26	13.4
500	31	5,599	-20.9	-32.8	26	15.5
450	31	6,369	-26.6	-37.7	26	18.7
400	31	7,208	-33.0	-43.9	26	22.9
350	31	8,136	-40.2	-47.7	27	26.4
300	31	9,168	-47.5		27	29.9
250	31	10,355	-54.0		27	33.1
200	31	11,784	-53.8		27	35.9
175	31	12,643	-53.8		27	34.8
150	30	13,626	-55.3		27	30.1
125	29	14,782	-58.2		27	25.9
100	29	16,178	-60.9		26	21.5
80	26	17,559	-62.2		27	15.3
70	24	18,388	-63.1		27	11.8
60	20	19,345	-61.9		26	7.0
50	19	20,477	-61.6		29	4.6
40	18	21,862	-60.1		34	1.5
30	17	23,666	-57.7		04	3.0
25	15	24,828	-56.9		06	4.8
20	14	26,239	-56.2		07	4.1
15	9	28,083	-53.0			

YAKUTAT, AK — 1007 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	12	.4	-1.9	09	1.4
1000	25	90	1.0	-4.0	10	1.2
950	31	478	-.7	-4.8	12	4.1
900	31	907	-3.6	-6.7	14	4.7
850	31	1,356	-6.5	-10.0	15	4.5
800	31	1,828	-9.4	-13.6	16	3.9
750	31	2,324	-12.7	-17.7	18	3.5
700	31	2,847	-16.0	-22.0	20	3.0
650	31	3,403	-19.3	-25.8	23	4.2
600	30	3,996	-23.2	-30.8	25	5.7
550	30	4,628	-27.2	-35.2	26	7.5
500	30	5,308	-31.6	-39.4	26	8.8
450	30	6,046	-36.9	-43.5	26	10.4
400	30	6,851	-42.4	-42.6	26	12.6
350	30	7,745	-48.1		27	13.7
300	30	8,746	-53.2		26	15.1
250	30	9,919	-53.4		27	14.2
200	30	11,366	-49.9		27	11.5
175	29	12,240	-48.9		27	9.9
150	29	13,253	-48.5		27	9.8
125	29	14,454	-48.5		28	7.5
100	29	15,924	-48.0		28	5.9
80	28	17,393	-47.9		29	4.8
70	28	18,275	-47.5		30	3.7
60	28	19,295	-47.5		32	3.0
50	28	20,498	-48.0		35	2.6
40	27	21,965	-48.0		03	3.4
30	27	23,863	-47.9		06	5.1
25	27	25,066	-47.8		06	6.8
20	27	26,541	-47.1		07	8.1
15	26	28,454	-46.0		07	9.9
10	16	31,220	-43.1		08	15.3
7	5	33,705	-38.6			

YAP, CAROLINE IS. — 1009 MB

Standard pressure surface mb.	No. of observations	Dynamic height meters	Temperature °C	Dew Point °C †	Resultant Wind Direction tens of deg.	Resultant Wind Speed m.p.s.
SFC	31	14	27.5	23.8	06	4.7
1000	31	97	26.3	23.1	07	5.9
950	31	549	22.8	20.9	07	9.7
900	31	1,019	19.8	16.7	08	9.2
850	31	1,511	17.2	12.5	08	8.5
800	31	2,028	15.3	7.2	08	7.4
750	31	2,573	12.7	2.7	08	6.6
700	31	3,150	10.0	-1.7	08	6.0
650	31	3,764	7.0	-6.2	08	5.5
600	31	4,418	3.4	-10.3	09	5.9
550	31	5,119	-.3	-16.7	09	5.9
500	31	5,876	-4.5	-20.6	09	7.0
450	31	6,699	-9.2	-25.2	09	6.9
400	31	7,600	-15.0	-30.3	09	7.9
350	31	8,600	-21.6	-35.2	09	8.3
300	31	9,714	-30.1	-42.3	09	7.2
250	31	10,984	-40.5	-50.7	11	8.4
200	31	12,464	-52.9		12	10.3
175	31	13,313	-59.8		11	12.8
150	30	14,258	-67.6		11	15.9
125	30	15,336	-75.2		10	16.3
100	30	16,606	-81.6		09	12.8
80	30	17,858	-79.9		09	7.5
70	30	18,621	-76.7		09	6.7
60	30	19,517	-72.8		08	9.4
50	30	20,602	-67.4		09	15.6
40	30	21,967	-61.6		09	14.8
30	29	23,773	-56.4		08	3.3
25	29	24,942	-52.4		27	3.8
20	28	26,395	-49.3		26	7.1
15	25	28,291	-46.6		26	8.6
10	17	31,012	-41.3		26	6.4

SOLAR RADIATION INTENSITIES

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

MARCH 1980

Date	Sun's zenith distance								
	A.M.				*	P.M.			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	MAUNA LOA OBSERVATORY, HI								
	Air mass								
	3.34	2.67	2.01	1.34	*	1.34	2.01	2.67	3.34
2	1.24	1.31	1.39	1.51	1.61	----	----	----	----
3	1.21	1.28	1.37	1.49	1.59	----	----	----	----
4	1.22	1.30	1.38	1.49	1.57	----	----	----	----
5	1.24	1.30	1.38	1.50	----	----	----	----	----
6	1.20	1.26	1.35	1.47	----	----	----	----	----
8	1.20	1.27	1.36	1.49	----	----	----	----	----
9	1.21	1.29	1.38	1.49	----	----	----	----	----
10	1.17	1.25	1.34	1.46	----	----	----	----	----
11	1.20	1.27	1.37	1.48	----	----	----	----	----
21	1.17	1.26	1.36	1.50	----	----	----	----	----
22	1.20	1.30	1.37	1.49	1.61	----	----	----	----
27	1.11	1.18	1.31	1.42	----	----	----	----	----
29	----	----	----	----	1.60	1.49	1.38	1.29	1.21
31	1.19	1.26	1.35	1.48	----	----	----	----	----
Averages	1.20	1.27	1.36	1.48	1.60	1.49	1.38	1.29	1.21

Date	Sun's zenith distance								
	A.M.				*	P.M.			
	78.7°	75.7°	70.7°	60.0°		60.0°	70.7°	75.7°	78.7°
	TUCSON, AZ								
3	----	----	----	----	1.42	1.28	----	----	----
4	.86	.94	1.06	1.24	1.45	----	----	----	----
5	.94	1.03	1.16	1.31	1.47	1.30	1.14	1.02	.91
6	.91	1.01	1.13	1.30	----	----	----	----	----
8	.91	1.01	1.14	1.31	1.44	1.28	----	----	----
12	.85	.95	1.09	1.22	1.37	1.25	1.09	.96	.85
13	.87	.98	1.09	1.28	1.42	1.22	1.04	.09	.80
14	.82	.93	1.06	1.26	1.40	1.16	1.00	.88	.77
16	.83	.95	1.07	1.25	1.45	1.22	1.03	.89	.81
17	.96	1.08	1.19	1.33	1.50	1.31	1.15	1.01	.89
18	.93	1.04	1.15	1.31	----	----	----	----	----
21	.88	.97	1.09	1.29	1.45	1.30	1.14	1.03	.94
22	----	----	----	1.30	1.46	1.32	----	----	.92
23	----	----	1.00	1.18	1.40	1.23	1.09	.95	.83
24	----	----	----	----	----	----	1.08	----	.81
25	.70	.80	.92	1.15	1.37	1.19	----	----	----
27	----	----	----	----	----	1.17	1.05	.93	.82
28	----	----	----	1.13	1.43	1.27	1.12	.98	.86
29	.87	.97	1.10	1.26	1.46	1.27	1.11	.97	.87
30	.98	1.07	1.19	1.34	1.51	1.31	1.16	1.03	.93
31	.79	.88	.99	1.20	1.50	1.32	1.17	1.06	.97
Averages	.87	.97	1.09	1.26	1.44	1.26	1.10	.97	.87

NET RADIATION

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

MARCH 1980

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	- 37	6	16	8	- 39	12	- 26	9	- 39	- 73	- 65	- 59	- 66	- 40	- 63	- 43	- 41	- 56	- 63	- 29	- 25	- 27	- 29	- 31	35	18	8	17	25	38	M	22

OBSERVED EXTREMES OF TEMPERATURE AND PRECIPITATION -- BY STATES: Dates in the table apply to the period 24 hours prior to time of observation. In some cases the actual occurrence is on the calendar date preceding that shown. (See individual Climatological Data for times of observations).

+ And also on an earlier date or dates.
D Water equivalent of snowfall wholly or partly estimated, using a ratio of 1 inch of water equivalent to every 10 inches of snowfall.

CLIMATOLOGICAL DATA - METRIC UNITS: Data from airport unless otherwise specified.

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

Wind directions under resultant direction are in tens of degrees.

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

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

Conversion formulae to English Units are as follows:

1 foot = 0.3048 meters
$^{o}F. = \frac{9}{5} \times {}^{o}C + 32$
1 inch = 25.4 millimeters
1 mile per hour = 0.447 meters per second

HEATING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

COOLING DEGREE DAYS: Data from airport unless otherwise specified.

U Indicates Urban site.
R Indicates Rural site.

STORM SUMMARY:

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

RAWINSONDE DATA (Average Monthly Values):

All observations scheduled at 1200, G.C.T. Pressures shown under station names are the average monthly station pressures for the month of record, corrected to the height of the floors of the instrument shelters used for rawinsonde purposes. "Number of observations" refers to those of dynamic height only. Although the number of temperature observations at any given pressure surface is usually the same as for height, it is possible for temperature to be missing for one or more pressure surfaces of some observations. Dew Point averages are limited to those observations with temperatures warmer than -40°C. Observations of wind speed and direction are sometimes lost due to limiting angles, i.e., elevation angles less than 6° above the horizon, or any obstruction above the horizon. The temperature and wind values are based on 15 or more observations at the surface or 5 observations at a standard pressure level for temperature and 10 for wind. Dew Point data are not published for standard pressure surfaces for which less than 5 observations are available. Dew Point data are computed and expressed on the basis of vapor pressure over water. Unless otherwise indicated, they are obtained from carbon hygristors. These average values for standard pressure surfaces were obtained by rawinsondes; dynamic height (geopotential) in units of .98 dynamic meter, temperature and dew point in degrees Celsius, and resultant winds in tens of degrees and meters per second.

* Rawinsondes at this station were equipped with hypsometers to permit more accurate evaluations of pressure, and consequently height, at pressures lower than 50 mb. These rawinsondes were carried aloft by special high altitude balloons, in an effort to consistently reach higher altitudes.
+ Observations for these stations are scheduled at 0000 G.C.T.
† Dew Point temperatures are based on a minimum of 5 observations. Therefore, due to the lesser number of Dew Point observations at the higher levels comparison with dry-bulb temperatures should be made with care. Dew Point temperatures replaced Relative Humidity January 1967.

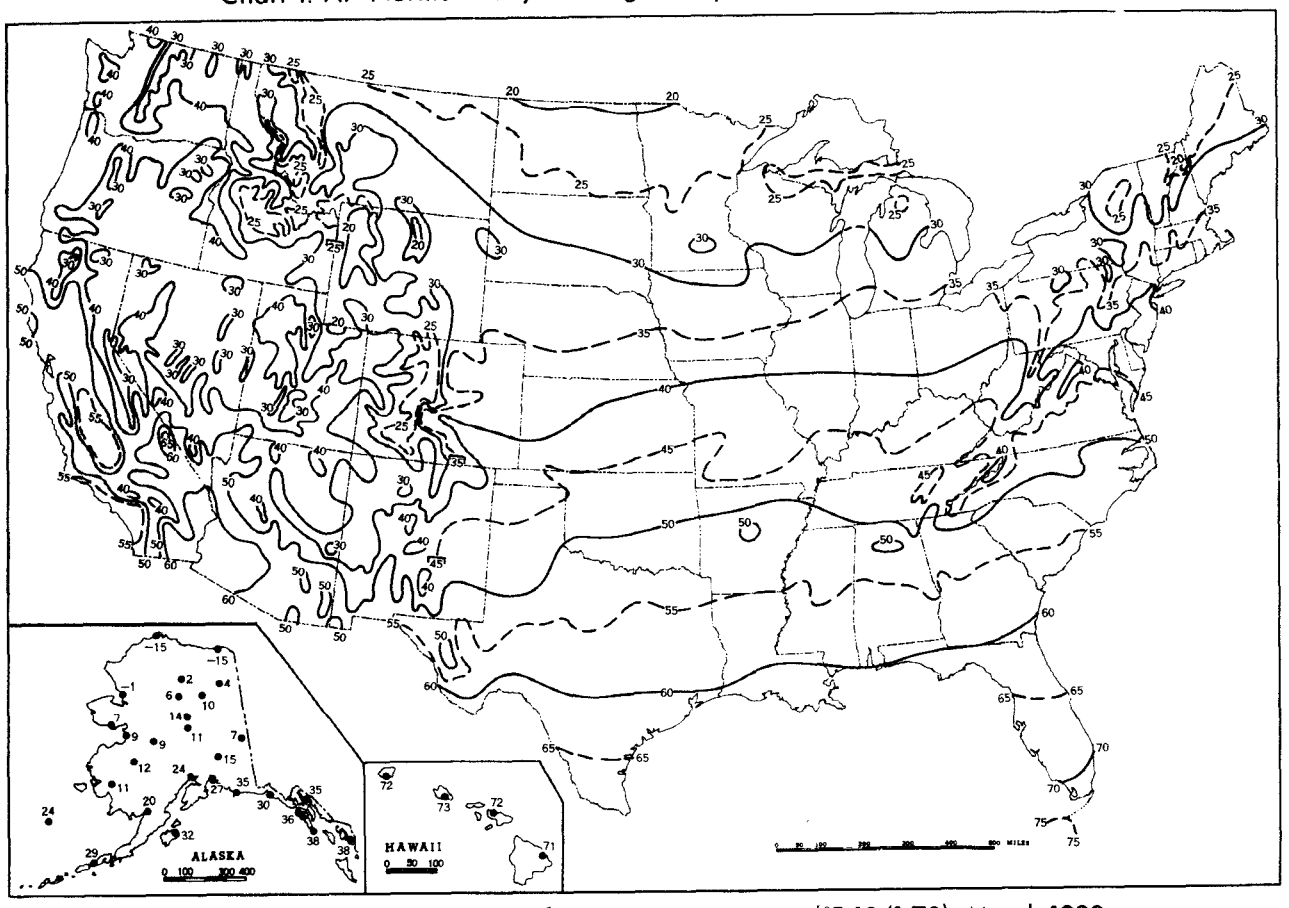
SOLAR RADIATION INTENSITIES: Langley is the unit used to denote one gram calorie per square centimeter. An explanation of the formula used in computing the air mass values for each station appears in the February 1957 issue, Vol. 8, No. 2, page 63, of this publication.

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

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

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

Chart 1. A. Normal Daily Average Temperature (°F. 1941-70), March.



B. Temperature Departure from 30 - Year Mean (°F 1941-70), March 1980

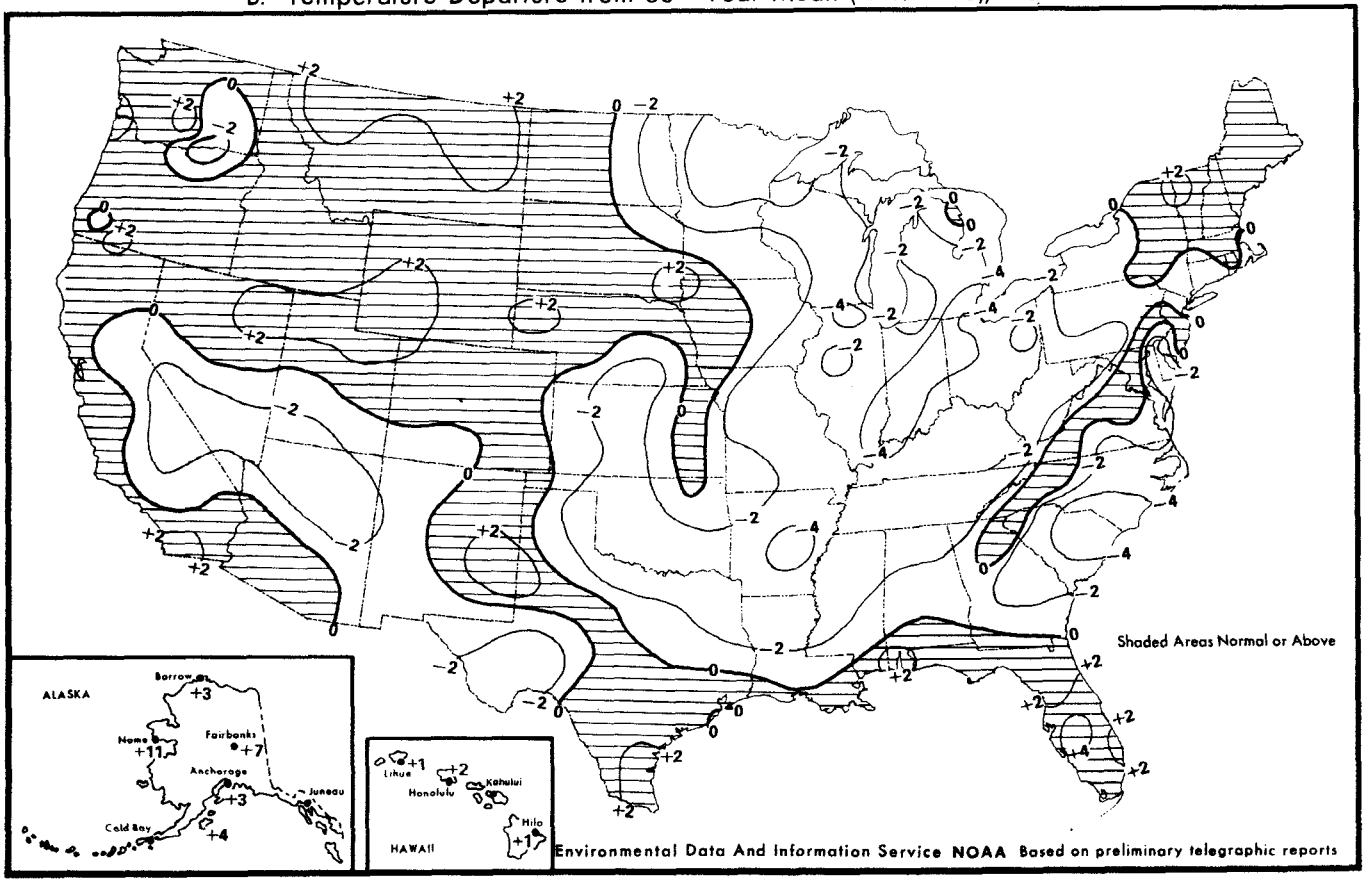
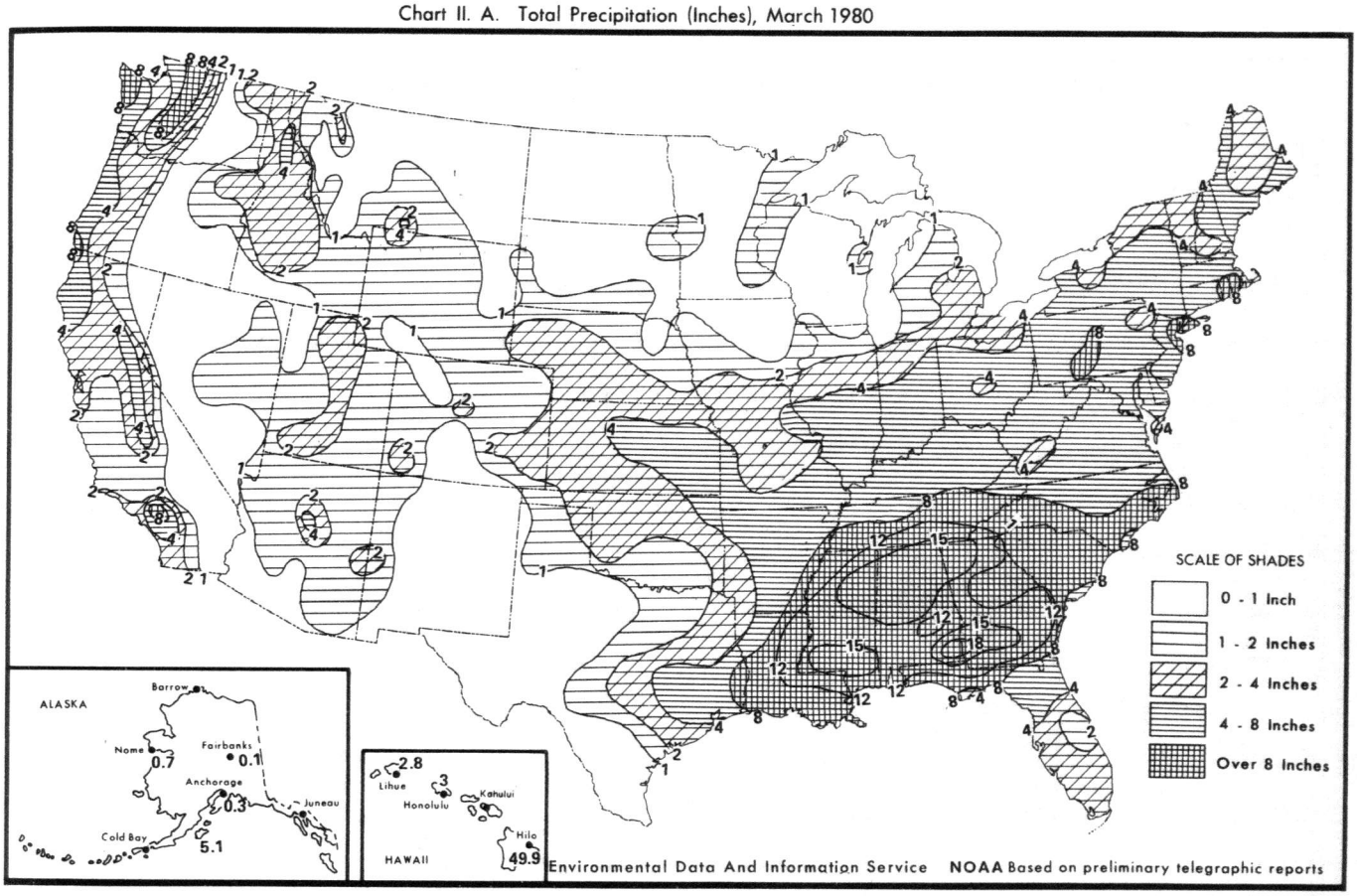


Chart II. A. Total Precipitation (Inches), March 1980



B. Percentage of Normal Precipitation, March 1980

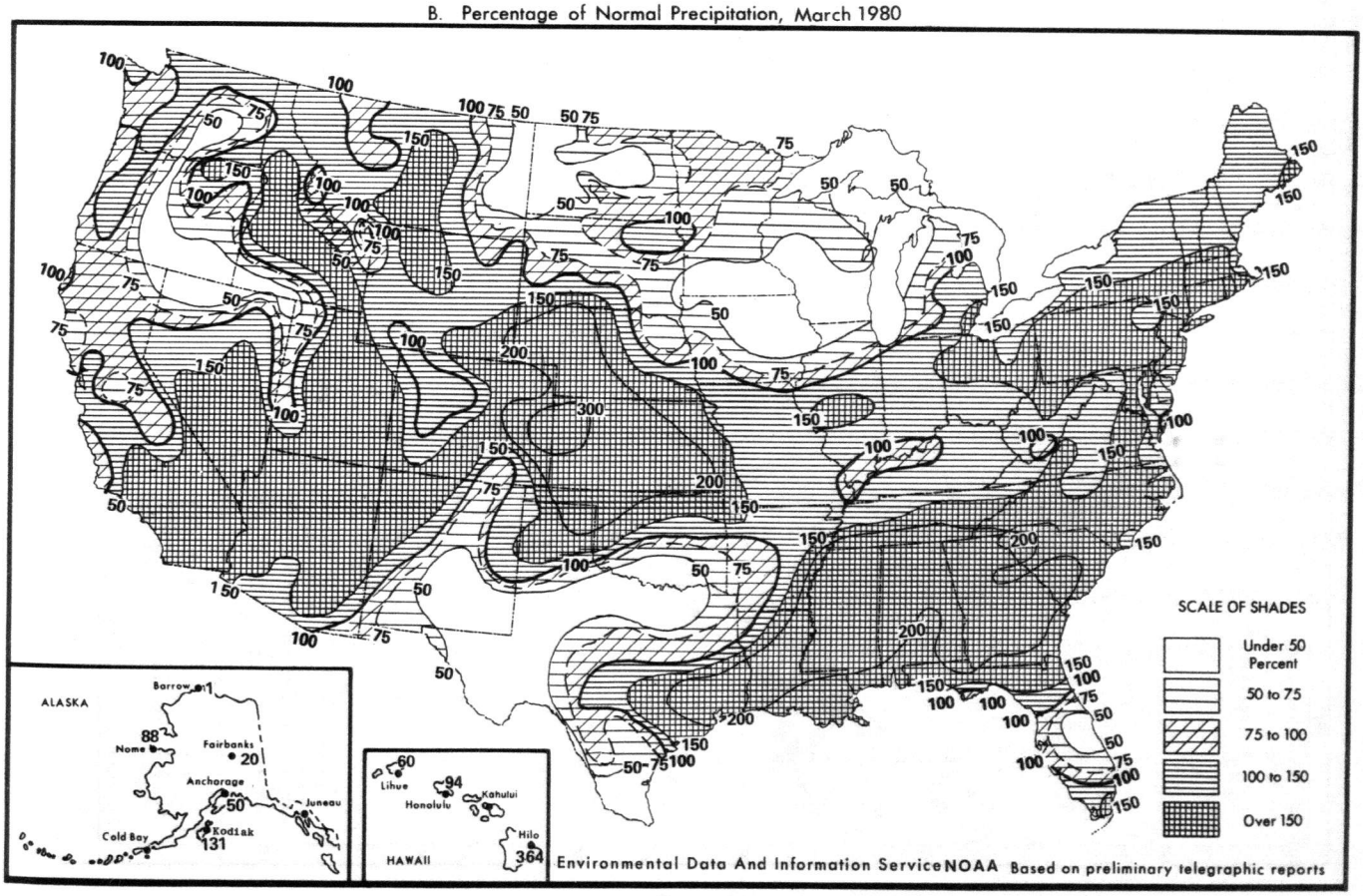
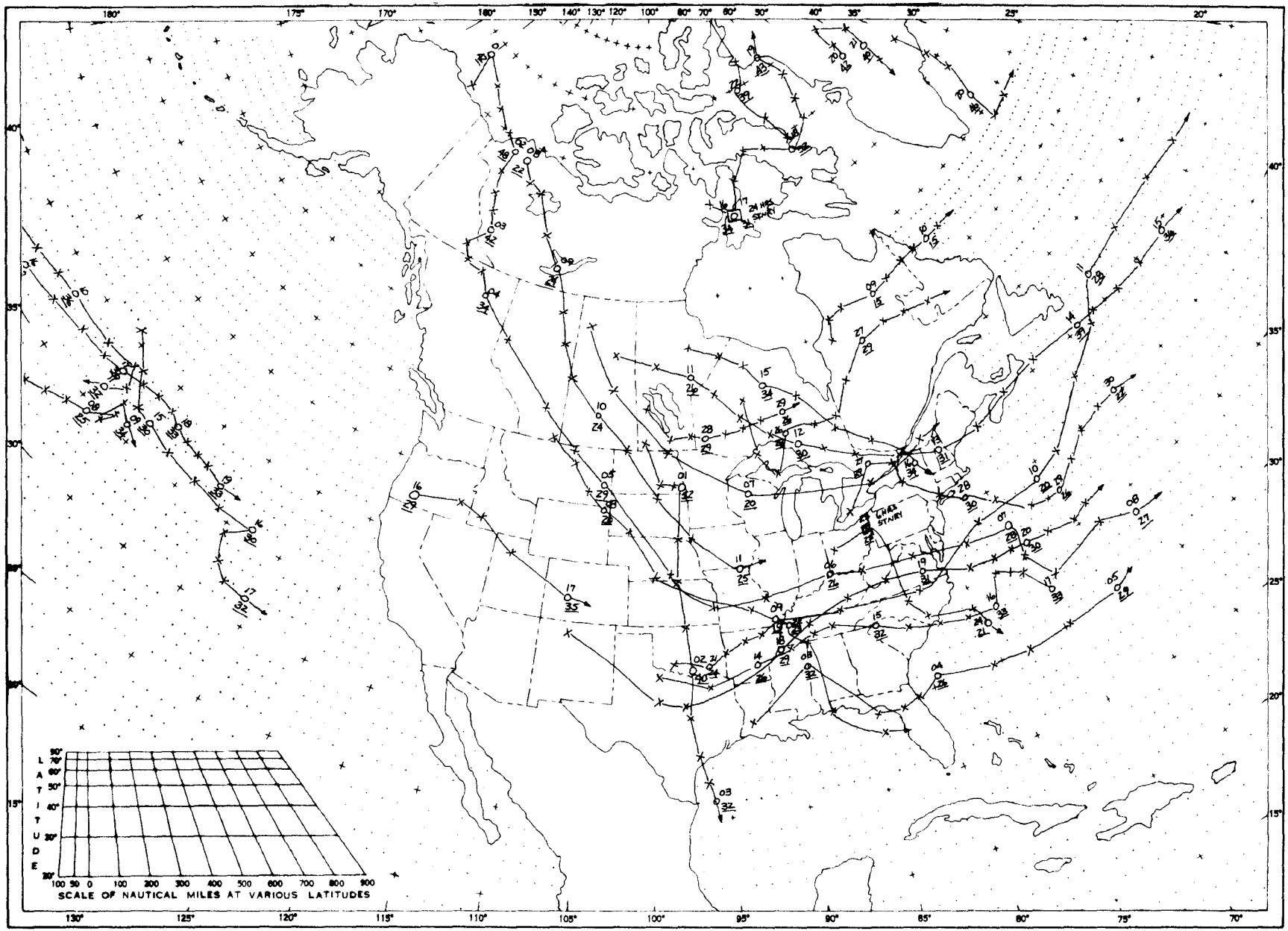
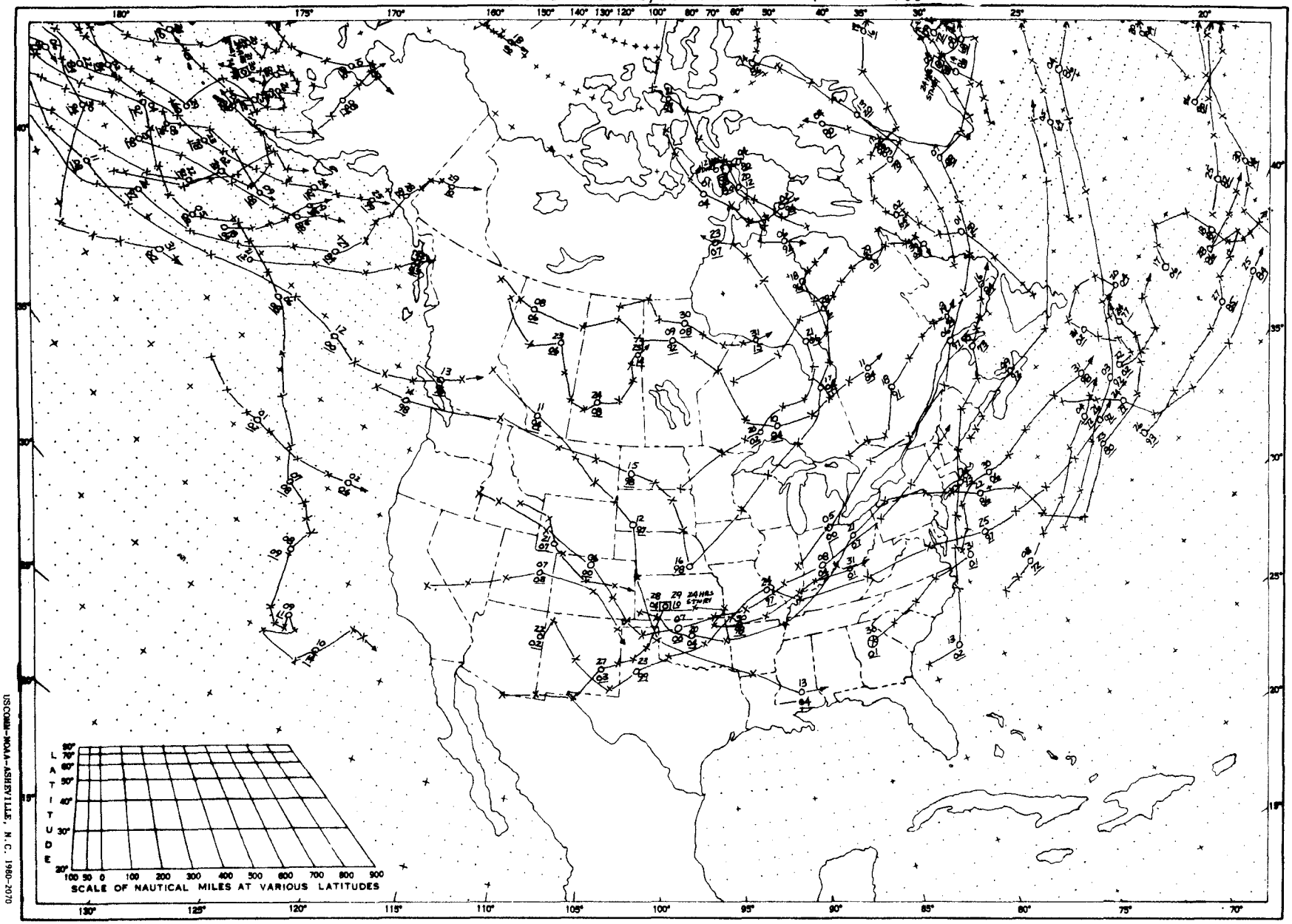


Chart III. Tracks of Centers of Anticyclones at Sea Level, March 1980



Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. X's 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 IV. Tracks of Centers of Cyclones at Sea Level, March 1980



Circle indicates position of center at 7:00 a.m. E.S.T. Figure above circle indicates date, figure below, pressure to nearest millibar. X's 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.

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