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METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR MARCH 1947

AEROLOGICAL OBSERVATIONS

[For description of change in Table 1 and charts, see REVIEW, January 1946, p. 6]

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meters, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during March 1947*

STATIONS AND MEAN SURFACE PRESSURES

Standard pressure surface (mb.)	Albany, N. Y. (999.4 mb.)				Albuquerque, N. Mex. (834.1 mb.)				Apalachicola, Fla. (1,016.5 mb.)				Atlanta, Ga. (980.7 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	86	−0.9	78	31	1,620	9.8	34	31	5	13.1	82	31	300	7.0	67
1,000	31	80	(*)	----	31	82	(*)	----	31	143	13.3	78	31	138	(*)	----
950	31	490	−2.9	77	31	527	(*)	----	31	578	11.8	68	31	566	6.2	65
900	31	915	−5.8	82	31	987	(*)	----	31	1,025	9.9	58	31	1,002	3.9	67
850	31	1,360	−8.6	84	31	1,462	(*)	----	31	1,498	8.2	48	31	1,465	2.2	63
800	31	1,828	−11.1	82	31	1,965	7.8	36	31	1,997	6.1	45	31	1,954	.5	56
750	31	2,325	−13.4	76	31	2,496	4.0	38	31	2,528	3.7	42	31	2,474	−1.6	48
700	31	2,844	−15.7	68	31	3,050	−.4	42	31	3,081	1.3	34	31	3,017	−4.2	48
650	31	3,405	−18.3	65	31	3,641	−5.2	48	31	3,677	−1.2	35	30	3,600	−7.2	45
600	31	3,994	−21.2	----	31	4,260	−10.2	56	31	4,308	−4.9	----	30	4,216	−10.6	----
550	31	4,630	−24.9	----	31	4,928	−14.9	56	31	4,989	−9.3	----	29	4,879	−14.5	----
500	31	5,318	−28.9	----	31	5,638	−19.9	49	31	5,716	−13.7	----	29	5,594	−19.1	----
450	29	6,073	−33.3	----	31	6,417	−25.0	----	30	6,513	−18.7	----	29	6,375	−24.7	----
400	27	6,878	−38.8	----	31	7,257	−31.3	----	29	7,377	−24.8	----	28	7,216	−30.8	----
350	27	7,783	−44.2	----	30	8,185	−38.2	----	28	8,330	−31.5	----	28	8,151	−37.1	----
300	26	8,810	−49.7	----	30	9,229	−45.4	----	26	9,411	−39.2	----	26	9,198	−44.3	----
250	25	9,994	−53.3	----	27	10,436	−52.7	----	25	10,634	−48.8	----	26	10,401	−50.6	----
200	25	11,430	−53.3	----	14	11,821	−56.3	----	24	12,075	−58.3	----	25	11,833	−56.6	----
175	22	12,289	−52.5	----	9	12,690	−55.6	----	22	12,889	−60.9	----	22	12,659	−57.4	----
150	20	13,287	−52.9	----	5	13,755	−54.8	----	18	13,881	−62.3	----	16	13,625	−58.6	----
125	16	14,445	−52.8	----	----	----	----	----	9	15,022	−66.3	----	12	14,750	−60.3	----
100	6	15,838	−52.7	----	----	----	----	----	----	----	----	----	7	16,115	−62.1	----

Standard pressure surface (mb.)	Auburn, Calif. (957.4 mb.)				Big Spring, Tex. (925.8 mb.)				Bismarck, N. Dak. (957.6 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	501	11.0	76	30	774	9.9	57	31	505	−3.6	75
1,000	31	134	(*)	----	30	124	(*)	----	31	160	(*)	----
950	31	568	11.5	74	30	556	(*)	----	31	570	−4.7	75
900	31	1,017	9.7	66	30	1,008	9.8	55	31	992	−6.4	77
850	31	1,489	7.4	59	30	1,481	8.0	52	31	1,436	−9.1	82
800	31	1,986	4.0	58	30	1,980	7.2	42	31	1,904	−10.3	73
750	31	2,511	.6	56	30	2,513	4.4	38	31	2,405	−12.2	61
700	31	3,057	−2.8	51	30	3,067	.9	36	31	2,925	−14.4	54
650	31	3,642	−6.5	46	30	3,658	−3.1	36	31	3,490	−17.1	54
600	30	4,261	−10.5	43	30	4,287	−7.5	40	31	4,081	−20.0	55
550	30	4,923	−15.2	44	30	4,959	−12.0	39	31	4,720	−23.7	----
500	30	5,638	−20.4	44	30	5,681	−17.2	42	31	5,412	−28.1	----
450	30	6,413	−25.9	----	30	6,468	−22.7	----	29	6,171	−32.5	----
400	30	7,253	−32.1	----	30	7,317	−28.6	----	28	6,986	−38.3	----
350	29	8,184	−39.3	----	29	8,261	−35.0	----	25	7,897	−44.2	----
300	28	9,217	−47.3	----	28	9,321	−41.8	----	21	8,928	−50.7	----
250	26	10,410	−55.9	----	22	10,517	−49.3	----	10	10,091	−56.2	----
200	24	11,804	−61.9	----	15	11,934	−54.8	----	----	----	----	----
175	21	12,633	−61.8	----	6	12,864	−55.8	----	----	----	----	----
150	15	13,582	−58.5	----	----	----	----	----	----	----	----	----
125	11	14,728	−59.4	----	----	----	----	----	----	----	----	----
100	----	----	----	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Boise, Idaho (914.8 mb.)				Brownsville, Tex. (1,013.9 mb.)				Buffalo, N. Y. (984.2 mb.)				Caribou, Maine (984.0 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	868	7.6	64	31	6	16.9	79	30	221	−1.8	83	31	191	−4.1	83
1,000	31	122	(*)	----	31	124	16.7	79	30	93	(*)	----	31	61	(*)	----
950	31	557	(*)	----	31	566	15.1	74	30	506	−3.3	79	31	472	−3.9	72
900	31	1,002	8.9	56	31	1,018	14.3	60	30	927	−6.0	80	31	893	−6.3	74
850	31	1,474	6.1	54	31	1,500	13.3	48	30	1,372	−8.9	82	31	1,338	−9.0	75
800	31	1,967	2.3	58	31	2,009	11.9	39	30	1,839	−11.2	77	31	1,805	−11.5	67
750	31	2,485	−1.3	60	31	2.550	10.3	25	30	2,339	−13.6	73	31	2,303	−13.9	65
700	31	3,031	−5.0	60	31	3,118	7.3	24	30	2,854	−15.5	60	31	2,818	−16.5	66
650	31	3,613	−9.0	59	30	3,725	3.6	23	30	3,422	−17.8	57	31	3,379	−19.4	63
600	31	4,225	−13.0	59	30	4,367	−.8	24	30	4,007	−21.0	----	31	3,963	−23.0	----
550	31	4.884	−17.3	62	30	5,056	−5.5	----	30	4,648	−24.9	----	29	4,601	−26.3	----
500	31	5,589	−22.3	----	30	5,796	−10.7	----	30	5,332	−29.2	----	29	5,283	−30.4	----
450	31	6,361	−27.8	----	30	6,601	−16.0	----	30	6,087	−34.1	----	29	6,031	−35.1	----
400	31	7,192	−34.0	----	30	7,475	−22.1	----	30	6,893	−39.1	----	28	6,841	−40.7	----
350	31	8,111	−41.7	----	30	8,443	−29.0	----	30	7,797	−44.6	----	27	7,740	−46.3	----
300	31	9,138	−49.7	----	29	9,531	−36.8	----	29	8,812	−49.7	----	25	8,751	−51.7	----
250	31	10,309	−57.5	----	28	10,769	−45.5	----	28	9,995	−51.8	----	24	9,920	−54.3	----
200	27	11,691	−61.7	----	24	12,231	−54.8	----	21	11,406	−50.0	----	17	11,344	−54.0	----
175	10	12,438	−57.4	----	16	13,087	−58.3	----	19	12,261	−49.5	----	12	12,182	−51.7	----
150	7	13,403	−56.8	----	9	14.089	−61.7	----	17	13,255	−49.9	----	9	13,185	−50.5	----
125	----	----	----	----	5	15,231	−64.8	----	12	14,447	−49.3	----	----	----	----	----
100	----	----	----	----	----	----	----	----	5	15,902	−51.0	----	----	----	----	----

Standard pressure surface (mb.)	Charleston, S. C. (1,014.4 mb.)				Ciudad Victoria, Mexico (972.5 mb.)				Columbia, Mo. (988.2 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	14	8.3	75	30	335	22.3	49	29	239	1.7	69
1,000	31	131	8.5	69	30	90	(*)	----	29	142	(*)	----
950	31	559	7.6	64	30	539	21.2	50	29	559	.8	65
900	31	1,000	5.8	60	30	1,004	17.4	55	29	988	−1.7	72
850	31	1,466	4.2	50	30	1,489	14.0	61	29	1,441	−3.9	68
800	31	1,958	2.0	46	30	1,999	11.8	58	29	1,918	−5.4	63
750	31	2,483	−.3	43	30	2,542	10.5	47	29	2,428	−7.5	61
700	31	3,025	−2.9	40	30	3,111	8.4	41	29	2,957	−9.8	60
650	29	3,613	−5.6	----	29	3,720	4.3	31	29	3,535	−12.6	56
600	29	4,231	−8.6	----	29	4,366	−.7	33	29	4,133	−15.9	52
550	29	4,902	−13.1	----	29	5,054	−5.4	33	29	4,787	−20.0	49
500	28	5,626	−17.7	----	28	5,798	−9.9	----	29	5,485	−24.5	----
450	27	6,409	−23.3	----	26	6,609	−14.7	----	28	6,257	−29.5	----
400	27	7,255	−29.4	----	25	7,490	−20.9	----	28	7,081	−35.3	----
350	28	8,196	−35.6	----	25	8,464	−28.2	----	28	7,998	−41.9	----
300	27	9,253	−42.1	----	25	9,552	−36.4	----	27	9,035	−48.1	----
250	27	10,467	−49.5	----	21	10,813	−45.6	----	21	10,243	−53.6	----
200	23	11,897	−56.8	----	12	12,300	−54.8	----	12	11,671	−54.4	----
175	17	12,736	−58.5	----	9	13,124	−59.8	----	7	12,560	−53.7	----
150	14	13,687	−59.0	----	----	----	----	----	6	13,583	−54.9	----
125	6	14,792	−59.7	----	----	----	----	----	----	----	----	----
100	----	----	----	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Dodge City, Kans. (924.0 mb.)				El Paso, Tex. (879.3 mb.)				Ely, Nev. (806.9 mb.)				Fort Worth, Tex. (991.6 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	30	787	2.9	70	31	1.195	14.3	33	31	1,908	4.0	52	31	211	10.0	63
1,000	30	136	(*)	----	31	91	(*)	----	31	121	(*)	----	31	140	(*)	----
950	30	562	(*)	----	31	542	(*)	----	31	556	(*)	----	31	570	9.1	59
900	30	999	3.4	64	31	1.004	(*)	----	31	1,008	(*)	----	31	1,012	6.3	63
850	30	1,462	1.4	64	31	1,481	13.6	31	31	1,480	(*)	----	31	1,480	5.2	56
800	30	1,949	−.2	60	31	1,987	9.5	34	31	1,979	5.0	49	31	1,974	4.1	49
750	30	2,466	−2.9	56	31	2.523	5.5	36	31	2,508	1.8	50	31	2,500	1.4	46
700	30	3,006	−5.9	51	31	3,078	1.2	37	31	3,055	−2.7	58	31	3,049	−2.2	47
650	30	3.587	−9.4	51	31	3,672	−3.2	42	31	3.637	−7.3	65	31	3,635	−5.8	47
600	30	4,197	−13.6	54	31	4.297	−7.4	38	31	4,256	−11.8	65	31	4.257	−9.6	46
550	30	4,850	−18.1	58	31	4,971	−12.1	----	31	4,918	−16.0	57	31	4,926	−13.9	43
500	30	5,558	−22.7	----	31	5,691	−17.4	----	31	5,629	−20.6	49	30	5,646	−18.2	----
450	30	6,328	−28.1	----	31	6,474	−23.2	----	31	6,404	−26.2	----	29	6,429	−23.7	----
400	30	7.157	−34.5	----	31	7,323	−29.2	----	31	7,241	−32.6	----	28	7,278	−29.6	----
350	30	8,076	−41.3	----	30	8,265	−35.8	----	31	8,168	−39.8	----	27	8,217	−36.7	----
300	29	9.107	−48.3	----	30	9,317	−43.1	----	30	9,200	−47.6	----	27	9,267	−44.0	----
250	26	10,283	−55.4	----	29	10,520	−51.3	----	29	10,387	−55.4	----	27	10,470	−51.3	----
200	23	11.700	−57.2	----	22	11,944	−57.6	----	18	11,758	−61.5	----	23	11,914	−56.4	----
175	22	12,544	−57.0	----	12	12,809	−59.9	----	11	12,558	−58.0	----	14	12,797	−58.4	----
150	18	13,517	−56.9	----	6	13,801	−59.9	----	----	----	----	----	7	13,692	−58.9	----
25	9	14,702	−58.2	----	----	----	----	----	----	----	----	----	5	14,841	−60.8	----

Standard pressure surface (mb.)	Glasgow, Mont. (942.0 mb.)				Grand Junction, Colo. (849.9 mb.)				Great Falls, Mont. (886.2 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	648	−7.0	83	31	1,474	4.3	48	31	1,128	−2.6	74
1,000	31	173	(*)	----	31	112	(*)	----	31	156	(*)	----
950	31	581	(*)	----	31	553	(*)	----	31	577	(*)	----
900	31	1,003	−6.3	82	31	1,003	(*)	----	31	1,010	(*)	----
850	31	1,449	−6.9	80	31	1.472	7.3	41	31	1,459	−2.0	70
800	31	1,921	−8.4	72	31	1.970	4.9	52	31	1,939	−4.0	68
750	31	2,424	−10.7	66	31	2,493	.7	52	31	2,450	−6.3	74
700	31	2,948	−13.5	66	31	3,042	−3.8	62	31	2,981	−9.9	77
650	31	3,513	−16.2	62	31	3,623	−8.5	70	31	3,555	−13.4	77
600	31	4,107	−19.6	57	31	4,238	−13.3	69	31	4,154	−17.1	71
550	31	4,748	−23.6	----	31	4,895	−17.6	61	31	4,803	−21.4	----
500	31	5,438	−28.1	----	30	5,603	−22.6	----	31	5,497	−26.4	----
450	31	6,191	−33.0	----	29	6,381	−27.6	----	31	6,256	−32.0	----
400	30	7,008	−38.8	----	28	7.204	−34.0	----	31	7,072	−38.2	----
350	30	7,910	−45.5	----	25	8,133	−41.0	----	31	7,976	−45.1	----
300	28	8,927	−52.5	----	23	9,157	−48.4	----	31	8,990	−52.3	----
250	26	10,081	−57.3	----	21	10,335	−55.4	----	31	10,150	−58.5	----
200	21	11,507	−57.1	----	8	11,712	−56.8	----	25	11,549	−60.3	----
175	16	12.340	−53.8	----	----	----	----	----	9	12,360	−58.1	----
150	10	13,329	−53.5	----	----	----	----	----	----	----	----	----
25	8	14,534	−53.5	----	----	----	----	----	----	----	----	----

See footnotes at end of table.

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meters, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during March 1947*—Continued

Standard pressure surface (mb.)	Greensboro, N. C. (982.7 mb.)				Hatteras, N. C. (1,014.6 mb.)				Havana, Cuba (1,010.6 mb.)				Honolulu, T. H. (1,016.8 mb.)				Huntington, W. Va. (995.8 mb.)				International Falls, Minn. (974.4 mb.)				Joliet, Ill. (994.5 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	273	3.4	67	31	3	7.6	77	26	50	20.8	80	31	3	24.4	63	30	172	−0.9	71	31	360	−6.1	74	30	178	−0.9	78
1,000	31	130	(*)	----	31	122	7.4	72	26	141	20.8	79	31	149	22.5	66	30	138	(*)	----	31	154	(*)	----	30	134	(*)	----
950	31	551	3.0	58	31	547	5.4	63	26	587	17.9	78	31	596	18.7	70	30	552	.1	63	31	558	−5.9	72	30	541	−2.3	68
900	31	984	.5	59	31	983	3.0	62	26	1,046	15.5	69	31	1,055	15.3	75	30	981	−3.1	69	31	979	−8.5	77	30	969	−5.4	73
850	31	1,441	−1.7	62	31	1,444	.4	63	26	1,530	13.7	56	31	1,538	12.3	72	30	1,431	−5.6	71	31	1,420	−10.9	79	30	1,415	−7.7	72
800	31	1,922	−3.8	60	31	1,928	−1.7	57	26	2,039	12.0	42	31	2,045	10.7	56	30	1,905	−7.7	69	31	1,884	−12.6	70	30	1,885	−9.7	61
750	31	2,434	−6.2	58	31	2,445	−4.1	53	26	2,583	9.6	----	31	2,587	9.1	38	30	2,408	−9.6	64	31	2,379	−14.7	65	30	2,384	−12.0	62
700	31	2,967	−8.8	58	31	2,981	−6.6	54	25	3,147	7.2	----	31	3,150	6.4	----	30	2,935	−12.0	58	31	2,894	−17.3	56	30	2,907	−14.4	67
650	31	3,545	−11.4	53	31	3,561	−9.4	49	25	3,757	3.9	----	31	3,757	3.5	----	30	3,503	−14.6	50	31	3,455	−20.1	54	30	3,472	−17.2	67
600	31	4,149	−14.5	48	31	4,172	−13.0	46	25	4,401	.2	----	29	4,400	−.1	----	30	4,103	−17.8	51	31	4,036	−23.5	----	30	4,063	−19.9	63
550	31	4,807	−17.9	42	30	4,832	−16.5	----	25	5,091	−3.5	----	29	5,092	−4.3	----	28	4,749	−21.7	----	31	4,670	−27.4	----	30	4,705	−23.5	----
500	30	5,511	−22.5	----	30	5,541	−20.8	----	23	5,847	−7.8	----	28	5,836	−9.2	----	28	5,447	−25.6	----	31	5,347	−31.8	----	30	5,394	−27.8	----
450	30	6,282	−27.7	----	28	6,306	−26.0	----	22	6,666	−12.8	----	28	6,653	−15.0	----	28	6,204	−30.8	----	30	6,086	−36.5	----	30	6,143	−32.8	----
400	30	7,115	−33.6	----	28	7,144	−31.3	----	22	7,547	−19.4	----	27	7,526	−21.4	----	28	7,030	−36.1	----	29	6,886	−41.9	----	29	6,958	−38.6	----
350	30	8,038	−40.3	----	28	8,078	−37.2	----	22	8,525	−26.6	----	27	8,497	−28.2	----	27	7,942	−42.6	----	28	7,785	−47.3	----	28	7,860	−44.9	----
300	30	9,074	−46.6	----	27	9,126	−43.7	----	22	9,616	−35.5	----	23	9,586	−35.8	----	23	8,955	−49.1	----	26	8,789	−52.1	----	25	8,876	−50.4	----
250	29	10,268	−52.5	----	26	10,342	−50.4	----	22	10,858	−45.4	----	20	10,840	−43.7	----	20	10,137	−53.4	----	25	9,961	−54.6	----	22	10,060	−53.4	----
200	27	11,695	−57.1	----	22	11,755	−54.7	----	20	12,310	−56.3	----	12	12,346	−51.0	----	16	11,527	−53.9	----	15	11,375	−52.9	----	16	11,516	−53.3	----
175	22	12,538	−56.1	----	15	12,571	−53.7	----	18	13,154	−61.3	----	8	13,216	−54.8	----	15	12,390	−53.5	----	11	12,201	−52.8	----	8	12,403	−54.7	----
150	19	13,513	−57.1	----	10	13,538	−53.6	----	10	14,130	−66.8	----	----	----	----	----	12	13,358	−53.2	----	6	13,213	−53.9	----	----	----	----	----
125	17	14,667	−58.4	----	8	14,688	−56.6	----	----	----	----	----	----	----	----	----	9	14,526	−54.6	----	----	----	----	----	----	----	----	----
100	6	16,017	−57.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Lake Charles, La. (1,016.3 mb.)				Lander, Wyo. (826.3 mb.)				Las Vegas, Nev. (945.8 mb.)				Little Rock, Ark. (1,008.1 mb.)				Mazatlan, Mexico (1,010.5 mb.)				Medford, Oreg. (967.7 mb.)				Merida, Mexico (1,010.4 mb.)			
Surface	31	5	11.7	91	31	1,696	−0.1	65	31	574	17.7	25	30	79	6.2	67	31	14	21.5	76	31	401	11.4	67	31	27	25.6	65
1,000	31	140	12.0	75	31	134	(*)	----	31	92	(*)	----	30	145	6.7	65	31	104	20.5	74	31	126	(*)	----	31	117	24.5	66
950	31	575	10.9	68	31	562	(*)	----	31	535	(*)	----	30	569	5.7	62	31	548	20.0	50	31	559	12.1	58	31	568	21.8	65
900	31	1,019	8.9	66	31	1,005	(*)	----	31	998	16.6	25	30	1,005	3.2	62	31	1,012	18.8	41	31	1,006	9.2	57	31	1,034	19.4	64
850	31	1,492	7.5	54	31	1,467	(*)	----	31	1,480	12.6	28	30	1,467	1.9	62	31	1,501	16.5	30	31	1,477	5.6	63	31	1,524	16.3	66
800	31	1,989	5.6	45	31	1,955	.3	59	31	1,984	8.2	33	30	1,955	.3	60	31	2,014	13.6	----	31	1,969	1.9	66	31	2,038	13.7	59
750	31	2,522	3.4	40	31	2,471	−3.3	59	31	2,514	3.8	35	30	2,474	−1.8	54	31	2,556	10.5	----	31	2,489	−1.6	61	31	2,584	10.9	55
700	31	3,072	.3	39	31	3,013	−6.8	63	31	3,068	−.7	41	30	3,016	−4.6	50	31	3,124	7.0	----	31	3,032	−5.1	58	31	3,152	8.4	42
650	31	3,669	−2.2	----	31	3,588	−10.9	66	31	3,657	−5.2	43	30	3,599	−7.8	47	31	3,732	3.0	----	31	3,612	−8.6	55	31	3,765	5.3	30
600	31	4,296	−5.3	----	31	4,197	−15.1	67	31	4,279	−9.5	45	30	4,215	−11.4	47	30	4,373	−1.3	----	31	4,225	−12.6	49	31	4,411	1.6	----
550	31	4,975	−9.7	----	31	4,852	−19.2	61	31	4,947	−14.0	43	30	4,879	−15.3	----	29	5,057	−6.1	----	31	4,885	−17.4	51	30	5,108	−2.7	----
500	31	5,702	−14.6	----	30	5,549	−24.4	----	31	5,663	−18.8	----	30	5,592	−19.6	----	27	5,797	−10.7	----	31	5,589	−22.4	----	30	5,855	−7.6	----
450	31	6,502	−20.1	----	30	6,314	−30.2	----	31	6,445	−24.4	----	29	6,370	−24.9	----	27	6,607	−15.9	----	31	6,358	−27.9	----	30	6,675	−13.1	----
400	31	7,356	−26.2	----	30	7,137	−36.4	----	31	7,288	−30.8	----	28	7,207	−30.8	----	27	7,478	−21.8	----	31	7,188	−34.1	----	29	7,556	−19.2	----
350	30	8,307	−32.6	----	29	8,048	−43.5	----	31	8,221	−38.2	----	27	8,145	−36.9	----	27	8,447	−29.0	----	30	8,114	−41.2	----	28	8,535	−26.6	----
300	30	9,376	−39.8	----	27	9,060	−51.0	----	31	9,263	−46.2	----	24	9,218	−43.3	----	27	9,531	−37.0	----	30	9,143	−48.9	----	28	9,627	−35.3	----
250	29	10,604	−47.5	----	26	10,230	−57.9	----	30	10,462	−54.1	----	22	10,419	−50.6	----	21	10,771	−46.1	----	30	10,318	−56.5	----	28	10,869	−45.3	----
200	26	12,063	−55.0	----	18	11,630	−59.3	----	27	11,870	−60.4	----	15	11,886	−55.1	----	----	----	----	----	27	11,724	−61.3	----	18	12,336	−56.1	----
175	22	12,932	−57.3	----	10	12,469	−56.5	----	18	12,696	−60.4	----	6	12,728	−53.2	----	----	----	----	----	22	12,541	−59.0	----	14	13,182	−61.7	----
150	17	13,910	−60.4	----	7	13,457	−55.7	----	8	13,622	−56.7	----	----	----	----	----	----	----	----	----	14	13,493	−57.6	----	5	14,148	−66.8	----
125	5	15,111	−62.7	----	----	----	----	----	5	14,780	−58.2	----	----	----	----	----	----	----	----	----	9	14,644	−57.7	----	----	----	----	----

Standard pressure surface (mb.)	Miami, Fla. (1,017.2 mb.)				Nantucket, Mass. (1,007.8 mb.)				Nashville, Tenn. (995.1 mb.)				New Orleans, La. (1,016.3 mb.)				North Platte, Nebr. (917.3 mb.)				Oakland, Calif. (1,016.0 mb.)				Ogden, Utah (863.2 mb.)			
Surface	31	4	18.4	77	30	14	1.3	76	31	180	4.6	66	30	2	12.7	76	31	849	−0.3	75	31	6	13.4	77	31	1,355	6.2	59
1,000	31	150	18.8	76	30	76	(*)	----	31	139	(*)	----	30	137	13.1	69	31	146	(*)	----	31	139	12.5	76	31	128	(*)	----
950	31	590	16.5	73	30	488	−.5	63	31	560	3.3	64	30	571	11.0	64	31	565	(*)	----	31	569	10.5	76	31	564	(*)	----
900	31	1,047	14.4	62	30	917	−3.2	63	31	992	.6	66	29	1,017	9.2	62	31	1,001	−.5	73	31	1,017	9.1	59	31	1,013	(*)	----
850	31	1,529	12.7	48	30	1,367	−5.7	66	31	1,449	−1.7	65	28	1,490	7.7	49	31	1,456	−2.3	72	31	1,489	7.2	52	31	1,481	6.2	54
800	31	2,036	10.8	37	30	1,840	−8.4	70	31	1,930	−3.7	65	28	1,988	5.7	45	31	1,936	−3.9	68	31	1,985	4.8	42	31	1,976	2.9	56
750	31	2,577	8.4	38	30	2,344	−10.9	69	31	2,446	−5.3	59	28	2,519	3.5	----	31	2,449	−6.3	69	31	2,513	1.8	41	31	2,496	−1.2	63
700	31	3,139	5.8	35	30	2,866	−13.2	62	31	2,977	−7.7	53	28	3,071	1.2	----	31	2,980	−9.2	67	31	3,061	−1.6	43	31	3,040	−5.5	68
650	31	3,745	2.9	31	30	3,434	−16.2	62	31	3,558	−10.3	48	24	3,668	−2.1	----	31	3,559	−12.7	60	31	3,650	−5.3	42	31	3,620	−9.7	67
600	31	4,386	−.8	----	28	4,024	−19.3	59	30	4,164	−14.0	49	23	4,295	−5.2	----	31	4,155	−16.6	60	31	4,271	−9.4	41	31	4,231	−14.0	67
550	30	5,075	−4.9	----	28	4,668	−22.7	----	30	4,825	−17.9	47	18	4,970	−9.8	----	31	4,809	−20.9	----	31	4,938	−13.7	37	31	4,888	−18.1	61
500	30	5,817	−9.2	----	28	5,361	−26.9	----	30	5,526	−22.4	----	18	5,695	−14.5	----	30	5,500	−25.9	----	31	5,656	−18.6	----	31	5,592	−22.8	----
450	30	6,628	−14.4	----	28	6,120	−31.6	----	30	6,299	−27.7	----	15	6,485	−20.2	----	30	6,268	−31.3	----	31	6,436	−24.1	----	31	6,362	−28.2	----
400	28	7,507	−20.6	----	27	6,947	−36.4	----	29	7,134	−33.0	----	15	7,341	−25.9	----	30	7,079	−37.4	----	31	7,283	−30.3	----	31	7,191	−34.3	----
350	28	8,480	−27.7	----	26	7,860	−42.0	----	29	8,060	−39.6	----	15	8,294	−32.9	----	29	7,994	−44.6	----	30	8,217	−37.2	----	31	8,112	−41.2	----
300	25	9,577	−35.8	----	26	8,890	−47.6	----	29	9,097	−46.4	----	14	9,366	−40.3	----	29	9,009	−51.6	----	26	9,274	−44.7	----	31	9,142	−49.0	----
250	24	10,821	−45.0	----	26	10,081	−51.3	----	27	10,293	−52.6	----	11	10,569	−48.7	----	27	10,187	−57.4	----	23	10,485	−53.1	----	29	10,322	−56.3	----
200	20	12,278	−54.9	----	22	11,502	−51.4	----	23	11,731	−55.0	----	7	12,051	−56.9	----	21	11,620	−58.0	----	11	11,921	−60.5	----	22	11,705	−60.6	----
175	12	13,142	−59.9	----	17	12,374	−49.7	----	20	12,582	−54.9	----	----	----	----	----	15	12,476	−57.9	----	7	12,752	−60.7	----	17	12,553	−58.5	----
150	8	14,118	−64.2	----	10	13,394	−50.5	----	14	13,562	−55.8	----	----	----	----	----	9	13,455	−57.0	----	----	----	----	----	9	13,530	−56.2	----
125	----	----	----	----	6	14,617	−54.4	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	7	14,662	−57.1	----

See footnotes at end of table.

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meters, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during March 1947*—Continued

Standard pressure surface (mb.)	Oklahoma City, Okla. (969.5 mb.)				Omaha, Nebr. (980.9 mb.)				Phoenix, Ariz. (972.5 mb.)				Pittsburgh, Pa. (967.9 mb.)				Portland, Maine (1,006.3 mb.)				Rapid City, S. Dak. (903.0 mb.)				St. Paul, Minn. (988.9 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	391	6.6	62	31	308	1.3	72	31	339	18.7	38	30	382	−0.4	72	30	20	1.0	77	31	980	−4.2	86	31	225	−1.2	70
1,000	31	134	(*)	----	31	150	(*)	----	31	97	(*)	----	30	120	(*)	----	30	70	(*)	----	31	164	(*)	----	31	135	(*)	----
950	31	557	6.9	61	31	565	−.2	72	31	545	20.2	30	30	530	−1.6	71	30	482	−1.9	71	31	576	(*)	----	31	544	−3.5	70
900	31	999	4.8	62	31	994	−3.1	77	31	1,003	16.7	31	30	959	−4.0	75	30	907	−4.8	74	31	1,005	(*)	----	31	968	−6.5	73
850	31	1,463	2.5	65	31	1,445	−5.4	78	31	1,486	12.6	34	30	1,407	−7.2	79	30	1,354	−7.7	77	31	1,455	−5.0	78	31	1,412	−9.4	76
800	31	1,952	1.1	57	31	1,919	−6.9	72	31	1,990	8.3	39	30	1,877	−9.4	76	30	1,824	−10.5	77	31	1,931	−6.5	77	31	1,876	−11.3	68
750	31	2,473	−1.1	55	31	2,429	−8.5	67	31	2,525	4.0	41	30	2,381	−11.4	66	30	2,321	−13.4	71	31	2,435	−8.0	65	31	2,376	−13.0	60
700	31	3,016	−4.0	51	31	2,954	−10.8	62	31	3,077	.4	37	30	2,901	−13.5	56	30	2,841	−15.7	68	30	2,966	−10.6	62	31	2,896	−15.1	58
650	31	3,600	−7.6	45	31	3,527	−13.9	56	31	3,674	−3.0	----	30	3,469	−16.2	52	30	3,401	−18.6	68	30	3,537	−13.9	60	31	3,461	−18.2	60
600	31	4,216	−11.4	45	31	4,125	−17.3	51	31	4,296	−7.5	----	30	4,061	−19.5	49	30	3,989	−22.0	----	30	4,137	−17.2	59	31	4,047	−21.6	----
550	31	4,880	−15.8	43	31	4,773	−21.4	----	31	4,969	−12.4	----	30	4,708	−23.0	----	30	4,627	−25.7	----	30	4,781	−21.2	----	31	4,685	−25.5	----
500	29	5,585	−20.9	----	30	5,470	−26.1	----	30	5,688	−17.7	----	30	5,395	−27.1	----	30	5,309	−30.1	----	30	5,480	−25.8	----	31	5,368	−30.0	----
450	27	6,362	−26.1	----	30	6,228	−31.3	----	30	6,477	−23.5	----	29	6,166	−31.6	----	30	6,059	−34.8	----	28	6,242	−30.8	----	31	6,115	−35.0	----
400	24	7,217	−31.1	----	29	7,045	−37.4	----	30	7,320	−29.6	----	29	6,982	−37.3	----	30	6,865	−39.9	----	28	7,064	−36.3	----	31	6,924	−40.5	----
350	22	8,158	−37.4	----	29	7,954	−43.5	----	30	8,258	−36.5	----	29	7,891	−43.3	----	30	7,765	−45.4	----	28	7,976	−43.0	----	29	7,814	−46.5	----
300	21	9,207	−44.5	----	27	8,971	−50.2	----	27	9,318	−43.5	----	28	8,912	−48.9	----	29	8,784	−50.4	----	27	9,010	−49.5	----	26	8,818	−52.1	----
250	20	10,416	−52.1	----	27	10,147	−54.9	----	23	10,538	−51.3	----	28	10,096	−52.8	----	25	9,952	−53.0	----	21	10,215	−56.0	----	24	9,986	−55.0	----
200	15	11,863	−55.2	----	17	11,560	−53.9	----	17	11,977	−58.7	----	23	11,529	−54.2	----	24	11,393	−51.5	----	12	11,630	−55.9	----	17	11,415	−51.8	----
175	9	12,660	−55.1	----	12	12,422	−52.0	----	10	12,793	−58.4	----	23	12,384	−54.6	----	22	12,254	−50.9	----	7	12,462	−52.2	----	14	12,302	−49.8	----
150	----	----	----	----	10	13,417	−52.2	----	6	13,779	−59.4	----	20	13,346	−54.1	----	21	13,241	−51.4	----	----	----	----	----	12	13,319	−50.3	----
125	----	----	----	----	6	14,584	−53.1	----	----	----	----	----	12	14,519	−53.6	----	17	14,410	−51.8	----	----	----	----	----	----	----	----	----
100	----	----	----	----	----	----	----	----	----	----	----	----	5	15,951	−52.8	----	8	15,864	−52.0	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	San Antonio, Tex. (987.3 mb.)				San Juan, P. R. (1,016.1 mb.)				Santa Maria, Calif. (1,008.2 mb.)				Sault Ste. Marie, Mich. (985.1 mb.)				Spokane, Wash. (944.3 mb.)				Swan Island, W. I. (1,013.5 mb.)				Tacubaya, Mexico (773.2 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	240	12.9	65	30	15	24.1	80	31	71	13.1	76	31	221	−4.2	78	31	598	6.3	67	31	10	25.2	79	31	2,306	17.7	37
1,000	31	132	(*)	----	30	155	23.3	78	31	140	12.8	75	31	101	(*)	----	31	124	(*)	----	31	128	24.4	80	31	35	(*)	----
950	31	567	13.1	61	30	602	20.2	76	31	577	11.6	69	31	513	−5.1	70	31	551	(*)	----	31	582	20.9	83	31	501	(*)	----
900	31	1,017	10.6	64	30	1,066	17.0	73	31	1,022	10.4	59	31	929	−7.9	72	31	992	5.6	57	31	1,044	18.3	73	31	980	(*)	----
850	31	1,493	9.4	59	30	1,552	13.8	70	31	1,496	8.1	57	31	1,371	−10.4	73	31	1,456	2.1	62	31	1,533	15.8	64	31	1,480	(*)	----
800	31	1,995	8.3	50	30	2,061	11.4	60	31	1,994	5.6	44	31	1,836	−12.0	71	31	1,943	−1.3	65	31	2,046	13.5	53	31	2,011	(*)	----
750	31	2,529	5.8	38	30	2,603	10.5	----	31	2,524	2.9	36	31	2,336	−14.2	70	31	2,458	−4.6	64	31	2,595	11.4	41	31	2,567	15.9	38
700	31	3,087	2.8	31	30	3,171	9.4	----	31	3,075	−.1	32	31	2,849	−16.9	63	31	2,994	−7.8	64	31	3,162	9.1	28	31	3,147	11.1	41
650	31	3,685	−.8	27	29	3,783	6.4	----	31	3,668	−3.6	30	31	3,410	−19.6	60	31	3,573	−11.1	61	30	3,776	6.3	----	31	3,761	6.2	46
600	31	4,319	−4.5	----	27	4,433	2.5	----	31	4,292	−7.5	----	31	3,992	−23.2	----	31	4,177	−14.9	56	29	4,424	2.7	----	31	4,411	1.0	50
550	30	5,001	−8.5	----	27	5,132	−1.9	----	30	4,967	−12.0	----	29	4,626	−26.8	----	31	4,831	−19.4	57	29	5,124	−1.3	----	31	5,105	−4.1	48
500	30	5,731	−13.9	----	27	5,881	−6.4	----	30	5,687	−16.9	----	29	5,302	−30.6	----	30	5,525	−24.5	----	29	5,875	−6.2	----	31	5,850	−8.8	41
450	29	6,524	−19.2	----	27	6,707	−12.0	----	30	6,474	−22.5	----	28	6,052	−35.4	----	29	6,291	−29.8	----	29	6,699	−11.9	----	31	6,668	−13.6	----
400	26	7,389	−25.2	----	27	7,586	−18.6	----	30	7,324	−28.6	----	28	6,852	−40.9	----	28	7,119	−35.7	----	29	7,582	−18.4	----	30	7,548	−19.1	----
350	26	8,345	−31.8	----	27	8,567	−26.3	----	28	8,264	−35.9	----	27	7,747	−46.9	----	27	8,041	−42.8	----	29	8,564	−25.6	----	30	8,527	−26.4	----
300	24	9,429	−38.3	----	27	9,662	−35.2	----	27	9,315	−43.5	----	25	8,753	−51.7	----	27	9,065	−49.7	----	29	9,662	−34.2	----	29	9,623	−34.8	----
250	22	10,660	−46.7	----	25	10,907	−44.7	----	17	10,523	−51.7	----	19	9,933	−53.7	----	27	10,239	−56.3	----	29	10,912	−44.0	----	22	10,876	−44.7	----
200	17	12,111	−55.1	----	24	12,365	−55.1	----	11	11,949	−58.2	----	10	11,400	−52.9	----	25	11,622	−60.0	----	28	12,374	−55.5	----	8	12,323	−56.0	----
175	16	12,953	−58.5	----	21	13,204	−61.2	----	9	12,766	−59.9	----	----	----	----	----	23	12,446	−57.0	----	26	13,212	−61.5	----	----	----	----	----
150	7	13,979	−61.2	----	19	14,145	−66.3	----	6	13,705	−55.6	----	----	----	----	----	17	13,410	−54.3	----	17	14,164	−67.5	----	----	----	----	----
125	----	----	----	----	12	15,230	−71.3	----	----	----	----	----	----	----	----	----	11	14,613	−54.1	----	----	----	----	----	----	----	----	----
100	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	6	16,014	−53.4	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Tampa, Fla. (1,016.6 mb.)				Tatoosh Island, Wash. (1,011.9 mb.)				Toledo, Ohio (990.4 mb.)				Washington, D. C. (1,011.5 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	9	14.9	82	31	31	7.6	87	31	191	−1.0	77	31	25	3.7	57
1,000	31	149	14.9	79	31	129	7.7	80	31	113	(*)	----	31	117	3.3	56
950	31	585	13.8	71	31	555	7.0	73	31	522	−2.4	72	31	533	1.1	59
900	31	1,037	11.6	65	31	995	5.0	67	31	948	−5.4	75	31	964	−1.9	65
850	31	1,514	10.0	48	31	1,459	2.3	63	31	1,394	−8.0	72	31	1,417	−4.8	67
800	31	2,016	8.6	36	31	1,947	−.2	58	31	1,863	−10.0	64	31	1,891	−7.4	62
750	31	2,551	6.0	36	31	2,465	−3.0	52	31	2,366	−11.9	58	31	2,394	−9.2	58
700	31	3,110	3.4	37	31	3,003	−6.0	46	31	2,884	−14.3	58	31	2,923	−11.6	56
650	31	3,707	.4	34	31	3,584	−9.6	49	31	3,450	−17.0	57	31	3,492	−14.5	55
600	31	4,345	−3.5	36	31	4,194	−13.5	48	31	4,040	−20.2	57	31	4,090	−17.8	52
550	31	5,029	−7.4	----	31	4,850	−17.6	48	31	4,681	−24.1	----	31	4,740	−21.1	----
500	31	5,764	−11.8	----	31	5,557	−22.4	----	31	5,369	−28.4	----	31	5,435	−25.4	----
450	30	6,564	−17.1	----	31	6,325	−27.8	----	30	6,129	−33.2	----	31	6,195	−30.4	----
400	29	7,434	−22.7	----	31	7,159	−33.6	----	29	6,941	−38.7	----	31	7,020	−36.0	----
350	29	8,400	−29.2	----	30	8,090	−40.1	----	28	7,851	−44.2	----	31	7,935	−41.9	----
300	29	9,483	−37.1	----	29	9,129	−47.6	----	28	8,871	−50.2	----	31	8,964	−48.0	----
250	29	10,717	−46.7	----	24	10,309	−54.8	----	27	10,056	−54.1	----	30	10,148	−52.3	----
200	29	12,161	−57.2	----	11	11,691	−58.8	----	21	11,495	−53.2	----	26	11,597	−54.6	----
175	27	12,994	−60.8	----	7	12,477	−55.7	----	17	12,346	−53.3	----	18	12,450	−53.8	----
150	23	13,952	−64.0	----	----	----	----	----	12	13,299	−51.5	----	12	13,456	−55.0	----
125	11	15,043	−66.6	----	----	----	----	----	8	14,479	−53.6	----	10	14,588	−56.4	----
100	----	----	----	----	----	----	----	----	----	----	----	----	7	16,013	−57.5	----

(*) Temperature and relative humidity data for this level are not available or are available only for certain days. See note entitled "Change in Summarization of Radiosonde Data," p. 6, in the January 1946 issue of the MONTHLY WEATHER REVIEW.

NOTE.—All observations scheduled between 0300 and 0500, G. C. T., except at Ciudad Victoria, Mazatlan, and Merida, where they are taken near 0200, G. C. T.

"Number of observations" refers to those of dynamic height only. (In a few cases temperature or humidity data may be missing for one or more standard pressure surfaces of some observations.) Relative humidity data are not published for standard pressure surfaces having a corresponding mean temperature below −20° C.

All relative humidity observations are obtained by electric hygrometer and have been adjusted to compensate for the values occurring below the operating range of the humidity element. For explanation of the adjustment see article entitled "Curve Method for Obtaining Monthly Means of Relative Humidity," p. 241, MONTHLY WEATHER REVIEW, December 1944.

None of the means included in these tables are based on less than 15 observations at the surface or 5 observations at a standard pressure level

TABLE 2.—*Free-air resultant winds based on pilot balloon observations made near 5 p. m., E. S. T. (2200 G. C. T.) during March 1947. Directions given in degrees from north (N=360°, E=90°, S=180°, W=270°). Velocities in meters per second*

Altitude (meters) m. s. l.	Abilene, Tex. (534 m.)			Albuquerque, N. Mex. (1,630 m.)			Atlanta, Ga. (299 m.)			Billings, Mont. (1,095 m.)			Bismarck, N. Dak. (512 m.)			Boise, Idaho (868 m.)			Brownsville, Tex. (7 m.)			Buffalo, N. Y. (220 m.)			Burlington, Vt. (100 m.)			Charleston, S. C. (16 m.)			Cincinnati, Ohio (150 m.)			Denver, Colo. (1,627 m.)			El Paso, Tex. (1,198 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	29	196	0.7	31	266	2.7	26	267	3.9	31	293	2.0	31	328	3.2	31	310	2.1	31	102	3.8	27	249	5.3	29	297	1.1	25	270	3.7	31	276	2.0	30	339	1.7	31	265	3.2
500	---	---	---	---	---	---	26	284	4.5	---	---	---	---	---	---	---	---	---	31	113	3.2	27	254	7.0	29	247	2.6	25	264	5.3	31	262	3.7	---	---	---	---	---	---
1,000	29	241	1.9	---	---	---	25	277	6.0	---	---	---	30	322	4.4	31	304	2.0	24	186	1.2	23	259	8.2	23	261	3.9	23	262	7.0	27	258	4.0	---	---	---	---	---	---
1,500	28	242	4.0	---	---	---	23	275	5.2	31	290	4.2	25	309	5.4	31	292	2.4	20	297	3.2	13	256	9.4	20	264	5.4	22	265	10.4	23	257	5.1	---	---	---	31	268	4.7
2,000	25	257	5.6	31	265	3.2	20	283	8.2	30	298	5.9	12	306	7.7	30	302	3.4	18	274	6.0	---	---	---	13	279	8.4	21	272	13.6	18	283	8.0	30	306	1.6	31	272	5.4
2,500	23	268	9.8	31	275	4.7	16	284	10.2	28	294	8.3	11	304	7.6	29	294	4.4	17	264	8.2	---	---	---	---	---	---	19	277	17.7	14	291	10.4	28	307	3.1	31	276	5.7
3,000	22	271	13.0	31	283	7.3	16	288	14.4	24	296	10.4	10	311	10.7	26	304	4.7	16	259	10.6	---	---	---	---	---	---	19	277	20.6	11	285	12.1	27	299	5.7	30	271	7.6
4,000	21	278	18.6	25	284	10.5	15	277	21.6	17	305	13.1	10	304	13.7	20	313	6.2	15	266	14.5	---	---	---	---	---	---	14	280	24.2	---	---	---	23	295	11.3	28	272	12.5
5,000	19	281	22.4	23	283	15.5	---	---	---	14	316	15.4	---	---	---	19	315	10.6	11	260	18.3	---	---	---	---	---	---	---	---	---	---	---	---	19	307	14.5	25	274	14.9
6,000	15	274	25.9	21	281	21.9	---	---	---	12	331	18.9	---	---	---	18	316	11.8	10	263	20.7	---	---	---	---	---	---	---	---	---	---	---	---	16	304	16.5	23	273	19.8
8,000	---	---	---	12	292	25.6	---	---	---	---	---	---	---	---	---	16	320	14.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	294	20.0	16	274	25.7

Altitude (meters) m. s. l.	Ely, Nev. (1,910 m.)			Grand Junction, Colo. (1,475 m.)			Greensboro, N. C. (271 m.)			Havre, Mont. (767 m.)			Jacksonville, Fla. (16 m.)			Joliet, Ill. (178 m.)			Las Vegas, Nev. (575 m.)			Little Rock, Ark. (88 m.)			Medford, Oreg. (416 m.)			Miami, Fla. (12 m.)			Mobile, Ala. (66 m.)			Nashville, Tenn. (194 m.)			New York, N. Y. (15 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	31	300	2.4	30	285	2.0	29	269	2.5	28	260	1.2	29	267	1.8	29	289	3.0	31	93	1.1	30	277	1.4	31	289	0.5	31	185	1.9	28	261	1.1	29	278	3.1	29	281	4.7
500	---	---	---	---	---	---	29	271	3.7	---	---	---	29	267	4.0	29	294	4.1	---	---	---	30	287	3.0	31	312	.2	31	231	1.9	28	260	2.2	29	273	3.8	29	282	6.1
1,000	---	---	---	---	---	---	28	269	5.0	28	274	2.6	26	260	6.9	25	282	4.1	31	118	1.1	26	274	3.4	31	184	1.7	28	246	3.3	21	290	3.4	27	271	4.5	29	285	7.6
1,500	---	---	---	30	284	1.9	28	275	6.8	27	276	4.7	20	266	9.7	18	280	5.2	31	86	.5	26	279	5.6	31	202	2.8	28	256	5.2	21	291	6.6	22	277	6.6	24	290	8.9
2,000	31	298	2.3	30	280	1.9	27	282	10.6	24	293	6.6	18	266	13.5	14	274	6.0	31	274	.5	24	277	7.0	27	208	2.6	26	268	8.8	20	290	10.2	21	277	7.5	19	291	10.8
2,500	31	282	2.6	30	276	3.0	22	282	14.3	23	299	8.3	17	272	14.8	11	297	8.0	31	293	2.6	21	287	9.7	22	229	2.5	24	267	10.1	19	290	14.1	20	290	10.3	16	291	12.8
3,000	31	280	2.8	29	275	4.9	20	276	15.3	19	305	10.1	14	277	17.9	11	294	10.3	30	298	3.2	19	287	12.0	17	199	1.7	24	268	13.0	18	283	16.5	19	294	14.2	12	284	12.2
4,000	30	301	5.2	25	298	8.3	16	274	20.8	12	299	13.3	13	275	22.8	---	---	---	28	307	8.1	17	288	18.9	16	289	3.0	21	273	15.3	15	283	21.7	16	289	16.4	---	---	---
5,000	22	318	8.3	19	302	10.4	11	270	20.5	---	---	---	10	275	27.9	---	---	---	26	296	8.7	14	293	24.9	12	44	2.2	20	272	18.4	---	---	---	11	289	18.0	---	---	---
6,000	20	318	10.5	16	312	13.5	---	---	---	---	---	---	---	---	---	---	---	---	25	291	12.4	12	279	29.5	---	---	---	19	266	22.6	---	---	---	---	---	---	---	---	---
8,000	15	328	13.8	14	309	15.9	---	---	---	---	---	---	---	---	---	---	---	---	22	299	17.4	---	---	---	---	---	---	10	264	31.2	---	---	---	---	---	---	---	---	---
10,000	11	324	20.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	302	15.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Altitude (meters) m. s. l.	Oakland, Calif. (8 m.)			Oklahoma City, Okla. (396 m.)			Omaha, Nebr. (306 m.)			Phoenix, Ariz. (338 m.)			Rapid City, S. Dak. (982 m.)			St. Louis, Mo. (181 m.)			St. Paul, Minn. (225 m.)			San Antonio, Tex. (240 m.)			San Diego, Calif. (13 m.)			Sault Ste. Marie, Mich. (225 m.)			Seattle, Wash. (116 m.)			Spokane, Wash. (603 m.)			Washington, D. C. (24 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	31	246	3.5	29	222	1.9	29	308	2.3	31	177	0.4	28	3	5.1	28	284	2.4	30	296	2.6	31	59	0.8	30	263	3.3	25	313	4.1	31	248	2.2	30	224	2.1	29	280	4.4
500	30	245	2.6	29	223	1.8	29	322	1.9	31	216	.8	---	---	---	28	296	3.7	30	303	3.5	31	38	.8	29	291	3.6	25	312	5.3	31	227	2.0	---	---	---	29	278	6.3
1,000	24	193	1.6	29	250	2.7	29	290	2.8	31	221	1.5	28	2	5.0	26	283	5.2	27	300	4.3	30	253	.6	28	319	2.9	23	307	4.3	27	212	2.1	30	234	2.4	28	276	6.5
1,500	23	196	2.2	26	267	5.0	21	293	5.5	31	231	1.8	28	337	6.0	21	267	6.4	24	322	4.3	27	285	3.4	26	319	2.9	21	324	4.4	26	208	2.6	28	241	3.5	28	284	8.3
2,000	18	206	1.8	26	283	7.0	14	293	8.5	31	266	2.5	23	312	8.6	21	276	9.1	18	327	7.0	26	268	6.8	25	320	3.1	17	322	5.5	21	226	2.6	26	264	4.5	27	286	11.7
2,500	16	238	1.5	23	294	9.8	11	294	12.3	31	273	3.3	18	312	11.7	20	291	7.4	15	325	8.6	23	278	9.2	24	317	4.0	16	316	6.4	20	240	2.8	22	294	4.0	21	286	14.6
3,000	15	306	2.2	22	297	12.0	---	---	---	31	274	4.6	16	305	11.9	16	290	12.6	13	315	11.6	22	278	11.1	24	308	5.1	14	298	7.8	18	247	2.6	21	287	5.7	20	284	15.9
4,000	13	296	4.1	20	293	16.8	---	---	---	31	286	7.9	11	311	15.6	13	300	15.8	---	---	---	20	285	15.6	22	292	7.3	14	294	8.7	14	264	3.1	17	306	7.9	16	284	19.8
5,000	---	---	---	17	293	23.2	---	---	---	23	285	10.4	10	315	16.2	---	---	---	---	---	---	20	280	21.3	20	294	9.3	10	304	8.8	13	276	2.9	15	325	9.8	14	278	22.1
6,000	---	---	---	13	290	26.9	---	---	---	20	295	12.8	---	---	---	---	---	---	---	---	---	17	275	25.2	18	287	11.3	---	---	---	13	272	5.1	13	329	10.5	---	---	---
8,000	---	---	---	---	---	---	---	---	---	13	287	19.4	---	---	---	---	---	---	---	---	---	---	---	---	12	296	11.3	---	---	---	---	---	---	10	318	12.7	---	---	---

TABLE 3.—*Maximum free-air wind velocities (m. p. s.) for different sections of the United States based on pilot balloon observations during March 1947*

Section	Surface to 2,500 meters (m. s. l.)					2,501 to 5,000 meters (m. s. l.)					Above 5,000 meters (m. s. l.)				
	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station
Northeast [1]	59.4	wnw.	1,576	26	Philipsburg, Pa	51.6	wsw.	4,811	15	Toledo, Ohio	78.4	w.	8,745	19	Boston, Mass.
East-Central [2]	46.4	sw.	2,306	25	Richmond, Va	61.8	wsw.	3,206	15	Richmond, Va	73.6	w.	8,786	18	Richmond, Va.
Southeast [3]	53.2	w.	1,053	25	Spartanburg, S. C	62.0	w.	4,691	25	Jacksonville, Fla	68.0	wsw.	12,032	12	Miami, Fla.
North-Central [4]	37.6	nnw.	2,500	16	Rapid City, S. Dak	53.4	nw.	4,843	29	Duluth, Minn	60.9	w.	9,151	13	Sault Ste. Marie, Mich.
Central [5]	38.0	wsw.	2,494	15	Fort Wayne, Ind	50.3	nw.	5,000	27	Dodge City, Kans	88.8	nw.	7,948	25	Goodland, Kans.
South-Central [6]	43.6	wsw.	1,438	27	Little Rock, Ark	50.4	wsw.	4,181	5	Oklahoma City, Okla	80.0	nw.	9,557	1	Amarillo, Tex.
Northwest [7]	31.2	wsw.	1,972	31	Pocatello, Idaho	42.2	nnw.	3,620	16	Glasgow, Mont	82.0	wnw.	8,648	24	Boise, Idaho.
West-Central [8]	41.5	wnw.	2,489	3	Cheyenne, Wyo	46.6	nw.	5,000	10	Oakland, Calif	76.0	nw.	9,220	8	Oakland, Calif.
Southwest [9]	29.7	nw.	2,368	10	Sandberg, Calif	49.0	nw.	5,000	1	El Paso, Tex	95.0	nw.	11,868	1	El Paso, Tex.

[1] Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, and northern Ohio.
[2] Delaware, Maryland, Virginia, West Virginia, southern Ohio, Kentucky, eastern Tennessee, and North Carolina.
[3] South Carolina, Georgia, Florida, and Alabama.
[4] Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.
[5] Indiana, Illinois, Iowa, Nebraska, Kansas, and Missouri.
[6] Mississippi, Arkansas, Louisiana, Oklahoma, Texas (except El Paso), and western Tennessee.
[7] Montana, Idaho, Washington, and Oregon.
[8] Wyoming, Colorado, Utah, northern Nevada, and northern California.
[9] Southern California, southern Nevada, Arizona, New Mexico, and extreme west Texas.