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METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR OCTOBER 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 October 1947*

STATIONS AND MEAN SURFACE PRESSURES

Standard pressure surface (mb.)	Albany, N. Y. (1,009.9 mb.)				Albuquerque, N. Mex. (838.0 mb.)				Apalachicola, Fla. (1,015.5 mb.)				Atlanta, Ga. (983.6 mb.)				Auburn, Calif. (956.7 mb.)				Big Spring, Tex. (926.3 mb.)				Bismarck, N. Dak. (953.1 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	86	11.5	77	31	1,620	17.4	32	31	5	21.9	86	31	300	18.0	82	31	501	14.6	69	31	774	21.4	50	31	505	10.1	70
1,000	31	167	12.8	73	31	75	(*)	----	31	139	21.8	82	31	157	(*)	----	31	123	(*)	----	31	102	(*)	(*)	31	99	(*)	----
950	31	606	13.2	64	31	534	(*)	----	31	585	19.4	76	31	601	18.3	75	31	562	15.5	67	31	556	(*)	----	31	534	8.7	67
900	31	1,053	10.6	66	31	1,009	(*)	----	31	1,047	16.6	74	31	1,061	15.5	76	31	1,019	14.4	54	31	1,024	21.8	48	31	983	11.4	55
850	31	1,528	8.0	66	31	1,497	(*)	----	31	1,532	14.0	69	31	1,544	12.5	75	31	1,499	11.5	50	31	1,518	18.7	50	31	1,459	9.7	53
800	31	2,027	6.6	53	31	2,015	15.9	31	31	2,041	11.1	65	31	2,051	9.6	69	31	2,003	8.5	46	31	2,035	14.8	50	31	1,961	7.8	48
750	31	2,559	4.1	49	31	2,562	11.7	36	31	2,584	8.2	57	31	2,591	7.0	61	31	2,539	5.5	44	31	2,581	10.9	49	31	2,495	5.7	47
700	31	3,113	1.0	48	31	3,131	7.1	42	31	3,144	5.2	52	31	3,149	4.3	52	31	3,095	2.4	44	31	3,151	7.3	38	31	3,053	2.8	49
650	31	3,712	−1.9	44	31	3,739	2.3	44	31	3,751	1.9	46	31	3,753	.7	48	31	3,693	−.4	42	31	3,760	3.2	37	31	3,651	−1.0	49
600	31	4,338	−5.3	37	31	4,376	−2.3	43	31	4,388	−1.6	45	31	4,388	−2.8	40	31	4,327	−3.8	41	31	4,401	−1.1	32	31	4,283	−5.0	48
550	31	5,019	−9.5	34	31	5,061	−7.1	46	31	5,077	−5.5	36	31	5,073	−6.9	33	31	5,008	−7.8	42	31	5,088	−5.4	----	29	4,963	−9.4	46
500	31	5,745	−14.3	----	31	5,798	−11.7	41	31	5,817	−10.2	----	31	5,809	−11.8	----	31	5,745	−12.2	44	31	5,831	−10.1	----	29	5,692	−14.5	46
450	31	6,544	−20.1	----	31	6,606	−17.3	42	31	6,627	−15.6	----	31	6,614	−17.1	----	31	6,550	−17.8	46	31	6,644	−15.6	----	29	6,486	−20.0	46
400	31	7,399	−26.8	----	31	7,470	−23.5	----	29	7,495	−22.0	----	31	7,482	−23.5	----	31	7,412	−24.3	54	31	7,515	−21.9	----	29	7,345	−26.2	----
350	31	8,348	−34.2	----	31	8,432	−30.7	----	29	8,464	−28.8	----	31	8,444	−31.0	----	31	8,370	−31.6	50	31	8,483	−29.3	----	29	8,295	−33.4	----
300	31	9,408	−42.4	----	31	9,508	−39.0	----	29	9,550	−36.5	----	30	9,521	−39.3	----	30	9,441	−39.6	----	31	9,565	−37.6	----	27	9,364	−41.6	----
250	30	10,616	−51.2	----	30	10,731	−47.6	----	29	10,789	−44.9	----	29	10,748	−47.9	----	30	10,663	−48.7	----	30	10,798	−46.4	----	20	10,574	−50.5	----
200	26	12,066	−57.9	----	30	12,180	−54.6	----	28	12,251	−53.8	----	29	12,195	−55.0	----	26	12,109	−56.7	----	29	12,253	−54.1	----	9	12,009	−57.2	----
175	17	21,895	−59.1	----	28	13,036	−57.6	----	26	13,105	−58.8	----	25	13,040	−58.3	----	27	12,966	−59.8	----	28	13,096	−58.0	----	----	------	------	----
150	12	13,858	−59.4	----	22	14,011	−60.7	----	25	14,061	−63.9	----	18	14,002	−61.9	----	15	13,875	−61.0	----	25	14,053	−61.3	----	----	------	------	----
125	----	------	------	----	8	15,147	−63.0	----	12	15,190	−67.3	----	12	15,117	−65.1	----	----	------	------	----	15	15,185	−65.2	----	----	------	------	----

Standard pressure surface (mb.)	Boise, Idaho (914.0 mb.)				Brownsville, Tex. (1,013.1 mb.)				Buffalo, N. Y. (993.9 mb.)				Caribou, Maine (994.6 mb.)				Charleston, S. C. (1,015.9 mb.)				Ciudad Victoria, Mexico (974.6 mb.)				Columbia, Mo. (988.3 mb.)			
Surface	31	868	13.1	58	31	6	24.3	82	31	221	13.1	74	31	191	7.3	77	31	13	19.3	91	29	335	24.8	76	31	239	17.7	70
1,000	31	100	(*)	----	31	120	24.6	79	31	169	(*)	----	31	145	(*)	----	31	149	20.3	85	29	106	(*)	----	31	136	(*)	----
950	31	545	(*)	----	31	575	21.9	75	31	605	14.6	62	31	572	8.7	67	31	594	18.4	78	29	560	23.5	74	31	582	18.7	62
900	31	998	14.8	47	31	1,038	19.4	64	31	1,058	12.2	60	31	1,016	6.7	67	31	1,054	15.6	76	29	1,030	20.1	76	31	1,041	16.3	61
850	31	1,480	12.1	46	31	1,529	17.1	55	31	1,535	10.1	53	31	1,483	4.2	65	31	1,538	12.7	74	29	1,521	16.7	77	31	1,526	13.7	60
800	31	1,984	8.5	50	31	2,044	14.7	44	31	2,037	8.0	46	31	1,974	2.1	59	31	2,045	10.1	68	29	2,036	13.8	73	31	2,035	11.3	51
750	31	2,517	4.8	56	31	2,594	11.9	41	31	2,572	5.5	44	31	2,498	.2	58	31	2,584	7.6	61	29	2,584	10.9	66	31	2,575	8.4	47
700	31	3,073	.9	63	31	3,161	8.1	46	31	3,128	2.8	39	31	3,045	−2.1	53	31	3,146	4.4	54	29	3,151	7.9	61	31	3,138	4.9	44
650	31	3,666	−2.9	62	31	3,775	4.5	43	31	3,728	−.6	39	31	3,633	−5.3	46	31	3,746	1.1	47	29	3,762	4.1	64	30	3,745	1.6	39
600	31	4,296	−6.5	63	31	4,417	1.0	34	31	4,359	−4.5	35	31	4,256	−8.8	44	30	4,386	−2.3	43	29	4,406	.2	61	30	4,382	−2.3	38
550	31	4,970	−10.2	57	31	5,113	−3.0	----	30	5,040	−8.5	----	31	4,924	−12.9	42	30	5,070	−6.6	45	29	5,102	−3.1	52	30	5,067	−6.9	39
500	30	5,702	−14.3	52	30	5,861	−7.6	----	30	5,770	−13.4	----	31	5,644	−17.5	----	30	5,811	−11.4	----	28	5,847	−7.6	43	30	5,804	−11.7	38
450	30	6,496	−19.8	58	30	6,686	−12.7	----	30	6,573	−19.2	----	31	6,431	−22.3	----	29	6,621	−17.1	----	27	6,670	−13.0	----	30	6,612	−17.4	----
400	30	7,357	−26.0	----	30	7,561	−18.9	----	30	7,428	−25.9	----	28	7,276	−28.4	----	29	7,489	−23.2	----	27	7,549	−18.5	----	29	7,471	−24.1	----
350	30	8,308	−33.4	----	30	8,543	−25.3	----	28	8,378	−33.6	----	27	8,226	−35.4	----	29	8,453	−30.4	----	24	8,534	−25.4	----	29	8,430	−31.6	----
300	30	9,372	−41.6	----	30	9,643	−33.2	----	27	9,440	−42.0	----	27	9,278	−43.0	----	28	9,528	−38.5	----	24	9,634	−33.6	----	29	9,502	−40.0	----
250	30	10,583	−50.7	----	30	10,899	−42.6	----	26	10,659	−50.7	----	26	10,491	−50.2	----	28	10,755	−47.6	----	24	10,887	−43.5	----	29	10,722	−48.7	----
200	26	12,029	−57.6	----	30	12,370	−53.3	----	23	12,079	−58.0	----	19	11,930	−55.4	----	20	12,210	−55.0	----	22	12,354	−55.1	----	26	12,160	−55.2	----
175	18	12,894	−58.9	----	29	13,213	−59.3	----	17	12,921	−60.4	----	10	12,786	−54.1	----	10	13,076	−58.2	----	15	13,178	−61.9	----	20	12,996	−57.0	----
150	5	13,930	−62.5	----	29	14,166	−65.3	----	6	13,872	−61.4	----	5	13,758	−55.1	----	7	14,029	−62.4	----	9	14,132	−68.5	----	19	13,961	−59.8	----
125	----	------	------	----	13	15,236	−70.9	----	----	------	------	----	----	------	------	----	----	------	------	----	----	------	------	----	10	15,100	−62.2	----

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 October 1947*—Continued

Standard pressure surface (mb.)	Dodge City, Kans. (924.1 mb.)				El Paso, Tex. (880.8 mb.)				Ely, Nev. (808.5 mb.)				Fort Worth, Tex. (990.3 mb.)				Glasgow, Mont. (936.1 mb.)				Grand Junction, Colo. (852.5 mb.)				Great Falls, Mont. (884.0 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	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	787	17.4	53	30	1,195	20.5	27	31	1,908	9.5	51	31	211	22.4	64	31	648	10.4	60	31	1,474	13.4	57	31	1,128	10.4	53
1,000	31	102	(*)	----	30	78	(*)	----	31	96	(*)	----	31	125	(*)	----	31	90	(*)	----	31	101	(*)	----	31	84	(*)	----
950	31	549	(*)	----	30	539	(*)	----	31	543	(*)	----	31	580	22.8	56	31	527	(*)	----	31	553	(*)	----	31	529	(*)	----
900	31	1,013	18.8	50	30	1,013	(*)	----	31	1,005	(*)	----	31	1,043	19.6	57	31	976	12.8	49	31	1,015	(*)	----	31	984	(*)	----
850	31	1,502	16.1	50	30	1,504	21.2	26	31	1,487	(*)	----	31	1,533	15.8	60	31	1,454	10.2	49	31	1,498	(*)	----	31	1,454	10.1	50
800	31	2,015	13.2	49	30	2,024	17.0	27	31	1,997	11.5	48	31	2,045	12.5	58	31	1,956	7.4	51	31	2,010	12.3	50	31	1,955	6.8	51
750	31	2,557	9.8	47	30	2,574	12.5	31	31	2,536	8.7	46	31	2,592	9.1	53	31	2,488	4.7	48	31	2,552	8.5	52	31	2,488	3.9	53
700	31	3,124	5.6	48	30	3,143	7.9	36	31	3,100	4.2	50	31	3,152	6.1	39	31	3,044	1.5	49	31	3,114	4.2	56	31	3,040	.6	51
650	31	3,727	1.0	49	30	3,752	3.5	36	31	3,698	−.1	53	31	3,758	2.2	32	31	3,641	−1.9	52	31	3,715	−.1	57	31	3,636	−3.1	50
600	30	4,367	−3.3	42	30	4,394	−1.1	34	31	4,335	−4.1	53	31	4,398	−1.5	----	30	4,272	−5.5	53	31	4,349	−4.5	56	31	4,261	−6.7	49
550	30	5,050	−7.5	37	30	5,083	−5.5	----	31	5,015	−7.7	48	31	5,087	−6.0	----	30	4,949	−9.8	48	31	5,031	−9.0	55	31	4,938	−11.0	41
500	30	5,785	−12.6	----	30	5,823	−10.6	----	30	5,753	−11.9	40	31	5,825	−11.1	----	30	5,679	−14.5	47	31	5,761	−13.6	51	31	5,660	−15.9	46
450	30	6,584	−18.4	----	30	6,630	−16.3	----	30	6,557	−17.6	41	31	6,637	−16.9	----	30	6,475	−20.0	47	31	6,560	−19.3	48	31	6,453	−21.6	----
400	30	7,449	−24.9	----	29	7,497	−23.2	----	30	7,422	−24.4	----	31	7,501	−23.4	----	29	7,335	−25.9	----	31	7,418	−25.7	----	31	7,303	−27.8	----
350	30	8,406	−31.8	----	29	8,459	−30.8	----	30	8,381	−31.9	----	31	8,463	−31.1	----	28	8,292	−32.7	----	29	8,375	−32.9	----	31	8,248	−35.0	----
300	30	9,478	−39.7	----	28	9,532	−39.4	----	29	9,449	−40.2	----	31	9,536	−39.6	----	27	9,364	−40.8	----	29	9,440	−41.3	----	31	9,305	−43.0	----
250	28	10,705	−48.3	----	24	10,765	−48.5	----	26	10,673	−48.8	----	31	10,759	−48.3	----	26	10,577	−49.2	----	25	10,656	−49.3	----	30	10,516	−50.8	----
200	22	12,170	−55.0	----	22	12,214	−56.4	----	22	12,094	−56.0	----	31	12,202	−56.0	----	25	12,013	−55.1	----	14	12,054	−54.8	----	24	11,972	−56.9	----
175	12	12,984	−56.8	----	21	13,056	−60.1	----	20	12,954	−58.6	----	27	13,049	−59.6	----	22	12,859	−56.1	----	6	12,893	−54.0	----	19	12,833	−58.1	----
150	8	13,950	−58.6	----	16	14,021	−64.5	----	13	13,893	−60.2	----	19	13,995	−63.8	----	16	13,829	−56.0	----	----	----	----	----	10	13,804	−59.4	----
125	----	----	----	----	7	15,132	−69.0	----	5	15,022	−62.3	----	10	15,118	−67.5	----	9	14,971	−57.2	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Greensboro, N. C. (988.6 mb.)				Hatteras, N. C. (1,018.5 mb.)				Havana, Cuba [1] (---- mb.)				Honolulu, T. H. (1,015.3 mb.)				Huntington, W. Va. (999.0 mb.)				International Falls, Minn. (973.4 mb.)				Joliet, Ill. (996.6 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	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	15.0	87	31	3	20.4	86	----	----	----	----	31	3	27.3	63	31	172	14.3	83	31	360	9.9	73	31	178	14.0	81
1,000	31	175	(*)	----	31	161	20.3	79	----	----	----	----	31	138	25.9	65	31	163	(*)	----	31	123	(*)	----	31	148	(*)	----
950	31	614	15.9	76	31	608	17.7	74	----	----	----	----	31	589	22.1	71	31	607	16.8	65	31	560	10.9	66	31	590	16.5	68
900	31	1,071	13.7	75	31	1,064	15.0	69	----	----	----	----	31	1,056	18.5	76	31	1,060	14.1	64	31	1,013	9.7	63	31	1,045	14.1	63
850	31	1,551	11.0	73	31	1,547	12.4	65	----	----	----	----	31	1,544	15.8	67	31	1,551	11.2	65	31	1,486	8.4	54	31	1,526	12.4	52
800	31	2,055	8.3	65	31	2,053	9.8	59	----	----	----	----	31	2,058	14.2	47	31	2,044	8.3	65	31	1,986	6.6	49	31	2,032	9.8	52
750	31	2,592	5.3	61	31	2,591	7.6	46	----	----	----	----	31	2,603	12.5	32	31	2,579	5.6	63	31	2,518	4.7	47	31	2,568	6.8	52
700	31	3,147	2.7	54	31	3,152	4.4	43	----	----	----	----	30	3,178	9.6	26	31	3,137	2.5	61	31	3,075	2.3	44	31	3,129	3.7	48
650	31	3,744	−.7	52	31	3,749	.4	42	----	----	----	----	30	3,791	6.0	----	31	3,735	−.7	59	31	3,667	−1.2	44	31	3,731	.4	43
600	31	4,379	−4.3	50	31	4,388	−3.0	42	----	----	----	----	30	4,439	2.1	----	31	4,368	−4.3	58	31	4,303	−5.1	48	31	4,365	−3.5	37
550	31	5,061	−8.2	45	31	5,072	−6.9	----	----	----	----	----	30	5,138	−2.2	----	31	5,048	−8.4	50	30	4,978	−9.3	46	31	5,048	−7.9	41
500	31	5,794	−13.0	43	31	5,809	−11.6	----	----	----	----	----	30	5,886	−7.1	----	31	5,782	−13.4	42	30	5,712	−14.1	43	31	5,781	−12.9	----
450	31	6,597	−18.4	----	31	6,618	−17.3	----	----	----	----	----	30	6,709	−12.6	----	31	6,580	−19.1	43	28	6,508	−19.5	47	31	6,583	−18.5	----
400	31	7,459	−25.0	----	31	7,482	−23.3	----	----	----	----	----	30	7,590	−18.6	----	30	7,438	−25.6	----	28	7,369	−26.0	----	31	7,445	−24.9	----
350	31	8,415	−32.5	----	30	8,442	−30.7	----	----	----	----	----	29	8,572	−25.9	----	30	8,392	−33.2	----	27	8,322	−33.2	----	31	8,401	−32.1	----
300	30	9,484	−40.8	----	30	9,516	−39.1	----	----	----	----	----	29	9,669	−34.3	----	29	9,463	−41.4	----	26	9,382	−41.5	----	29	9,495	−40.1	----
250	28	10,702	−49.8	----	30	10,740	−48.3	----	----	----	----	----	27	10,921	−43.3	----	29	10,676	−50.5	----	25	10,591	−50.7	----	25	10,715	−49.1	----
200	23	12,131	−56.7	----	23	12,176	−55.7	----	----	----	----	----	26	12,391	−53.3	----	27	12,105	−57.3	----	21	12,024	−57.1	----	22	12,155	−57.4	----
175	18	12,972	−59.3	----	15	13,015	−58.4	----	----	----	----	----	23	13,240	−58.6	----	26	12,949	−59.5	----	17	12,858	−58.5	----	19	13,006	−59.1	----
150	10	13,917	−62.6	----	8	13,992	−61.1	----	----	----	----	----	15	14,214	−62.7	----	23	13,905	−61.7	----	6	13,807	−57.7	----	13	13,951	−60.3	----
125	----	----	----	----	----	----	----	----	----	----	----	----	7	15,309	−66.0	----	10	15,005	−63.9	----	----	----	----	----	7	15,035	−63.0	----

Standard pressure surface (mb.)	Lake Charles, La. (1,015.0 mb.)				Lander, Wyo. (828.3 mb.)				Las Vegas, Nev. (945.5 mb.)				Little Rock, Ark. (1,006.9 mb.)				Mazatlan, Mexico (1,007.4 mb.)				Medford, Oreg. (967.0 mb.)				Merida, Mexico (1,009.2 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	5	21.6	82	31	1,696	10.2	53	30	574	21.2	33	31	79	18.0	83	31	14	28.2	74	31	401	14.2	70	28	27	26.0	81
1,000	31	135	23.4	76	31	91	(*)	----	30	82	(*)	----	31	138	19.5	78	31	80	27.5	73	31	115	(*)	----	28	109	25.4	80
950	31	587	20.8	71	31	537	(*)	----	30	530	(*)	----	31	585	19.9	64	31	538	24.5	68	31	556	14.6	63	28	560	22.3	80
900	31	1,048	17.5	73	31	998	(*)	----	30	1,001	21.3	28	31	1,046	16.6	66	31	1,008	22.7	60	31	1,006	11.6	65	28	1,028	19.4	78
850	31	1,534	14.2	73	31	1,478	(*)	----	30	1,492	17.3	31	31	1,530	13.3	66	31	1,503	19.9	57	31	1,481	8.2	70	28	1,519	16.3	77
800	31	2,044	11.5	68	31	1,986	11.3	46	30	2,005	13.0	35	31	2,038	10.4	59	31	2,025	16.8	50	31	1,979	4.8	72	28	2,033	13.4	75
750	31	2,587	8.4	52	31	2,525	7.9	44	30	2,548	8.5	40	31	2,577	7.3	56	31	2,576	13.4	48	31	2,507	2.0	71	28	2,581	10.4	69
700	31	3,147	5.5	39	31	3,087	3.7	46	30	3,109	4.6	40	31	3,138	4.5	47	31	3,149	9.4	49	31	3,058	−.4	70	28	3,147	8.3	55
650	31	3,752	2.3	33	31	3,685	−.6	49	30	3,711	.8	39	31	3,738	1.0	42	30	3,761	5.1	49	31	3,651	−3.9	66	27	3,759	5.4	47
600	31	4,392	−1.5	----	31	4,319	−4.6	49	30	4,348	−2.7	36	31	4,377	−2.8	----	30	4,408	.8	45	31	4,274	−7.2	57	27	4,406	2.3	----
550	31	5,077	−5.7	----	31	5,003	−8.8	45	30	5,032	−6.8	34	29	5,061	−6.8	----	30	5,101	−3.3	----	31	4,949	−10.9	51	26	5,103	−1.5	----
500	31	5,819	−10.8	----	31	5,731	−13.8	44	30	5,769	−12.0	36	29	5,799	−11.9	----	30	5,851	−7.9	----	31	5,675	−15.5	50	26	5,855	−6.4	----
450	31	6,628	−16.4	----	31	6,529	−19.9	49	30	6,572	−17.8	39	29	6,601	−17.7	----	30	6,673	−13.3	----	31	6,468	−21.0	----	26	6,680	−11.7	----
400	31	7,499	−22.6	----	31	7,385	−26.5	----	30	7,436	−24.4	----	29	7,465	−24.2	----	30	7,550	−18.8	----	31	7,322	−27.0	----	26	7,565	−17.5	----
350	31	8,465	−29.6	----	31	8,336	−33.4	----	30	8,394	−32.1	----	29	8,424	−31.4	----	29	8,530	−26.2	----	31	8,271	−34.2	----	26	8,550	−24.5	----
300	31	9,547	−37.5	----	31	9,400	−41.6	----	30	9,463	−40.3	----	29	9,500	−39.7	----	29	9,626	−34.3	----	31	9,333	−41.7	----	25	9,651	−33.3	----
250	31	10,782	−46.1	----	31	10,612	−50.4	----	29	10,694	−49.2	----	29	10,719	−48.2	----	28	10,880	−43.5	----	31	10,547	−49.6	----	23	10,904	−43.7	----
200	31	12,237	−54.7	----	29	12,039	−56.6	----	27	12,129	−56.8	----	27	12,173	−55.1	----	28	12,345	−54.5	----	31	11,985	−55.9	----	19	12,364	−55.8	----
175	29	13,076	−59.6	----	22	12,874	−56.8	----	27	12,970	−59.1	----	19	13,032	−58.6	----	26	13,184	−60.8	----	24	12,837	−58.9	----	11	13,205	−62.8	----
150	28	14,029	−64.7	----	14	13,807	−58.3	----	23	13,940	−61.9	----	13	13,998	−62.5	----	21	14,143	−67.1	----	12	13,859	−61.4	----	----	----	----	----
125	22	15,125	−68.9	----	----	----	----	----	17	15,049	−64.6	----	8	15,114	−66.2	----	8	15,255	−72.5	----	5	14,941	−63.2	----	----	----	----	----
100	10	16,465	−71.2	----	----	----	----	----	7	16,380	−66.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

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 October 1947*—Continued

Standard pressure surface (mb.)	Miami, Fla. (1,014.3 mb.)				Nantucket, Mass. (1,019.0 mb.)				Nashville, Tenn. (996.6 mb.)				New Orleans, La. (1,015.5 mb.)				North Platte, Nebr. (916.2 mb.)				Oakland, Calif. (1,014.4 mb.)				Ogden, Utah (863.9 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	4	24.2	84	31	14	12.3	88	30	180	18.8	74	31	2	22.7	82	31	849	13.1	68	30	6	16.6	76	31	1,355	12.1	59
1,000	31	128	23.9	83	31	172	13.8	80	30	150	(*)	----	31	136	23.2	76	31	99	(*)	----	30	128	16.1	75	31	103	(*)	----
950	31	579	21.1	83	31	609	12.9	60	30	594	18.4	68	31	585	20.7	70	31	544	(*)	----	30	570	14.7	69	31	552	(*)	----
900	31	1,043	18.3	78	31	1,058	11.3	48	30	1,054	15.3	70	31	1,048	17.3	71	31	999	16.4	58	30	1,021	13.0	55	31	1,014	(*)	----
850	31	1,532	15.3	78	31	1,533	9.3	41	30	1,537	12.5	67	31	1,534	13.9	70	31	1,485	14.6	53	30	1,501	12.1	44	31	1,491	13.8	49
800	31	2,044	12.4	75	31	2,034	7.3	41	30	2,043	9.6	64	31	2,043	11.1	61	31	1,995	11.6	54	30	2,006	9.8	40	31	2,000	10.8	48
750	31	2,584	9.5	68	31	2,567	5.2	34	30	2,579	6.7	62	31	2,583	8.7	52	31	2,536	8.1	55	30	2,547	7.1	39	31	2,539	6.8	53
700	31	3,153	6.5	60	31	3,123	2.2	34	30	3,141	3.6	59	31	3,147	5.8	42	31	3,098	4.6	51	30	3,105	4.4	41	31	3,097	2.8	56
650	31	3,756	3.1	61	30	3,719	-.9	34	29	3,743	.2	54	31	3,750	2.2	----	31	3,701	.6	49	30	3,707	1.4	36	31	3,696	-1.1	56
600	30	4,403	-.3	55	30	4,351	-4.6	----	28	4,378	-3.3	45	30	4,393	-1.4	----	31	4,335	-4.0	50	30	4,346	-2.1	38	31	4,327	-5.2	57
550	29	5,093	-4.0	51	30	5,029	-8.8	----	27	5,066	-7.1	----	30	5,079	-5.5	----	30	5,016	-8.6	48	30	5,033	-6.3	43	31	5,009	-9.5	57
500	29	5,842	-8.3	50	30	5,761	-13.9	----	27	5,802	-11.7	----	30	5,823	-10.2	----	30	5,745	-13.7	49	30	5,772	-10.9	45	31	5,736	-14.1	52
450	29	6,659	-13.4	45	29	6,568	-19.5	----	26	6,607	-17.4	----	29	6,638	-15.7	----	30	6,544	-19.5	45	30	6,585	-16.2	49	31	6,535	-19.8	52
400	29	7,540	-19.3	57	29	7,423	-26.1	----	25	7,474	-23.8	----	29	7,507	-22.1	----	30	7,401	-26.3	----	30	7,451	-22.6	----	31	7,391	-26.0	----
350	29	8,519	-26.0	----	29	8,375	-33.5	----	24	8,438	-31.1	----	29	8,475	-28.8	----	30	8,352	-33.4	----	29	8,419	-29.8	----	31	8,342	-33.6	----
300	28	9,614	-34.4	----	27	9,447	-41.2	----	24	9,512	-39.2	----	29	9,561	-36.5	----	30	9,416	-40.9	----	28	9,497	-38.1	----	31	9,406	-41.7	----
250	25	10,866	-43.7	----	23	10,652	-50.5	----	23	10,732	-46.6	----	28	10,801	-45.3	----	30	10,632	-49.5	----	25	10,725	-47.2	----	31	10,618	-50.2	----
200	17	12,330	-54.0	----	17	12,088	-58.7	----	22	12,170	-55.9	----	24	12,257	-54.8	----	30	12,071	-55.8	----	12	12,192	-55.0	----	29	12,052	-56.5	----
175	10	13,155	-59.9	----	----	----	----	----	20	13,012	-58.6	----	17	13,107	-60.0	----	29	12,924	-57.5	----	----	----	----	----	28	12,901	-58.5	----
150	----	----	----	----	----	----	----	----	15	13,980	-61.4	----	13	14,051	-65.0	----	27	13,904	-60.6	----	----	----	----	----	19	13,875	-60.5	----
125	----	----	----	----	----	----	----	----	7	15,069	-62.5	----	7	15,131	-69.0	----	16	15,067	-64.2	----	----	----	----	----	16	15,014	-63.1	----
100	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	7	16,451	-66.2	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Oklahoma City, Okla. (969.3 mb.)				Omaha, Nebr. (978.6 mb.)				Phoenix, Ariz. (971.5 mb.)				Pittsburgh, Pa. (975.5 mb.)				Portland, Maine (1,016.8 mb.)				Rapid City, S. Dak. (901.1 mb.)				St. Cloud, Minn. (977.2 mb.)			
Surface	30	391	19.6	69	30	308	17.5	68	31	339	22.5	40	31	382	15.4	66	31	20	10.3	73	31	980	10.8	61	31	317	12.7	71
1,000	30	118	(*)	----	30	120	(*)	----	31	84	(*)	----	31	169	(*)	----	31	159	13.3	65	31	91	(*)	----	31	120	(*)	----
950	30	567	21.3	61	30	563	18.1	61	31	539	25.9	29	31	614	15.6	63	31	596	13.0	54	31	533	(*)	----	31	561	13.5	62
900	30	1,032	18.9	61	30	1,023	16.5	57	31	1,008	22.4	29	31	1,065	14.2	61	31	1,044	10.5	56	31	991	(*)	----	31	1,007	12.0	60
850	30	1,520	15.3	64	30	1,508	14.1	54	31	1,501	18.3	32	31	1,545	11.2	60	31	1,518	8.0	57	31	1,471	13.5	45	31	1,486	11.0	55
800	30	2,031	11.9	61	30	2,017	11.4	54	31	2,017	14.1	37	31	2,049	8.6	54	31	2,017	6.2	56	31	1,978	10.3	48	31	1,990	9.5	50
750	30	2,572	9.1	50	30	2,557	8.1	54	31	2,561	10.1	40	31	2,589	5.6	52	31	2,548	3.9	50	31	2,519	7.5	47	31	2,529	7.0	48
700	30	3,137	5.5	46	30	3,120	4.5	51	31	3,127	6.4	41	31	3,141	2.8	44	31	3,101	.9	47	31	3,077	4.1	49	31	3,088	3.9	46
650	30	3,739	1.7	41	30	3,721	.7	51	31	3,735	2.9	36	31	3,745	-.4	43	31	3,695	-2.3	47	31	3,679	.5	48	31	3,691	.3	48
600	30	4,380	-2.1	36	30	4,358	-3.6	47	31	4,375	-1.2	31	31	4,374	-4.0	38	30	4,326	-5.9	44	31	4,314	-3.8	50	31	4,324	-4.0	50
550	30	5,065	-6.8	37	29	5,046	-8.2	44	31	5,064	-5.7	32	31	5,061	-8.1	----	30	5,001	-10.0	40	31	4,997	-8.5	51	31	5,007	-8.5	46
500	30	5,802	-11.9	37	28	5,780	-13.4	----	31	5,804	-10.9	34	31	5,788	-13.0	----	30	5,731	-14.7	38	31	5,727	-13.6	46	31	5,737	-13.5	44
450	30	6,605	-17.5	----	28	6,581	-19.0	----	31	6,612	-17.0	36	31	6,593	-18.8	----	30	6,525	-20.2	----	27	6,524	-19.5	43	28	6,540	-18.8	----
400	29	7,471	-23.8	----	28	7,439	-25.8	----	31	7,478	-23.9	40	31	7,450	-25.4	----	29	7,378	-26.9	----	27	7,384	-25.7	----	28	7,401	-25.1	----
350	27	8,444	-30.7	----	28	8,393	-33.0	----	31	8,438	-31.3	----	31	8,403	-32.9	----	29	8,326	-34.3	----	27	8,336	-33.1	----	28	8,356	-32.4	----
300	25	9,521	-39.1	----	28	9,459	-41.1	----	31	9,511	-39.7	----	30	9,476	-41.0	----	28	9,379	-42.9	----	27	9,403	-40.8	----	28	9,425	-40.6	----
250	25	10,746	-48.0	----	28	10,674	-49.9	----	31	10,734	-48.3	----	30	10,692	-49.2	----	27	10,583	-51.4	----	24	10,625	-49.4	----	27	10,646	-49.5	----
200	24	12,197	-55.2	----	25	12,113	-56.8	----	30	12,176	-55.8	----	29	12,128	-56.6	----	26	12,007	-57.3	----	20	12,044	-55.4	----	21	12,089	-55.8	----
175	24	13,042	-58.2	----	17	12,951	-58.2	----	27	13,019	-59.1	----	26	12,975	-59.2	----	21	12,847	-59.3	----	15	12,885	-55.6	----	18	12,935	-56.7	----
150	23	14,008	-61.2	----	14	13,917	-60.6	----	10	13,986	-61.6	----	19	13,921	-61.4	----	13	13,831	-59.8	----	7	13,838	-57.6	----	10	13,906	-58.9	----
125	15	15,122	-64.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
100	5	16,452	-65.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	San Antonio, Tex. (986.3 mb.)				San Juan, P. R. (1,011.7 mb.)				Santa Maria, Calif. (1,006.4 mb.)				Sault Ste. Marie, Mich. (992.1 mb.)				Spokane, Wash. (942.8 mb.)				Swan Island, W. I. (1,010.8 mb.)				Tacubaya, Mexico (774.5 mb.)			
Surface	31	240	24.2	61	27	15	25.9	85	31	71	15.1	81	31	221	9.8	82	31	598	10.9	77	31	10	26.6	83	30	2,306	15.6	68
1,000	31	117	(*)	----	27	117	25.3	84	31	125	15.0	80	31	153	(*)	----	31	103	(*)	----	31	105	26.3	83	30	72	(*)	----
950	31	573	24.0	61	27	572	22.5	85	31	568	15.8	62	31	590	11.7	72	31	537	(*)	----	31	561	22.9	85	30	532	(*)	----
900	31	1,040	20.8	64	27	1,038	19.5	85	31	1,019	14.7	51	31	1,035	11.3	60	31	984	9.0	74	31	1,028	20.0	81	30	1,010	(*)	----
850	31	1,532	17.0	68	27	1,529	16.5	83	31	1,501	13.2	45	31	1,511	10.0	56	31	1,456	5.7	75	31	1,520	17.2	76	30	1,504	(*)	----
800	31	2,046	13.4	68	27	2,044	13.7	78	31	2,009	11.3	38	31	2,014	8.4	56	31	1,949	2.6	77	31	2,036	14.4	70	30	2,029	(*)	----
750	31	2,588	10.7	56	27	2,592	10.9	71	31	2,551	8.5	36	31	2,551	5.9	55	31	2,474	-.2	79	31	2,585	11.4	63	30	2,581	13.7	70
700	31	3,160	7.5	46	27	3,160	8.0	61	31	3,113	5.8	32	31	3,109	2.9	53	31	3,018	-3.1	77	31	3,153	8.2	57	30	3,157	9.4	76
650	29	3,768	3.8	40	26	3,771	4.7	55	31	3,721	2.7	29	31	3,709	-.7	53	31	3,607	-6.1	69	31	3,765	4.6	57	30	3,761	5.1	83
600	29	4,413	.0	----	25	4,418	1.0	49	31	4,358	-.6	----	31	4,340	-4.4	44	31	4,226	-9.1	64	31	4,411	.9	54	30	4,419	.9	85
550	29	5,101	-4.2	----	25	5,116	-2.6	46	30	5,052	-5.0	----	30	5,020	-8.8	42	31	4,898	-12.6	64	31	5,108	-3.0	50	29	5,114	-2.6	69
500	28	5,849	-8.8	----	24	5,864	-6.8	38	30	5,791	-9.9	----	30	5,752	-13.5	41	30	5,612	-16.9	68	30	5,855	-7.1	41	28	5,867	-6.6	55
450	27	6,662	-14.6	----	23	6,690	-11.7	----	30	6,603	-15.6	----	30	6,553	-19.0	43	30	6,404	-22.1	----	28	6,680	-12.0	36	26	6,692	-11.6	46
400	27	7,535	-21.1	----	23	7,525	-17.6	----	30	7,473	-22.0	----	30	7,412	-25.3	----	30	7,252	-27.9	----	28	7,562	-17.5	36	26	7,577	-17.5	50
350	26	8,504	-28.3	----	23	8,560	-24.9	----	30	8,440	-29.5	----	28	8,362	-32.8	----	29	8,201	-34.8	----	28	8,548	-24.5	----	26	8,563	-24.5	----
300	25	9,590	-36.0	----	22	9,663	-33.4	----	27	9,524	-37.9	----	21	9,426	-41.2	----	29	9,259	-43.0	----	28	9,652	-32.9	----	26	9,667	-33.0	----
250	25	10,835	-44.2	----	19	10,916	-43.7	----	11	10,781	-47.4	----	----	----	----	----	27	10,473	-51.1	----	27	10,906	-43.0	----	24	10,923	-43.1	----
200	23	12,297	-53.4	----	19	12,383	-55.5	----	6	12,186	-56.4	----	----	----	----	----	23	11,923	-56.6	----	27	12,370	-55.1	----	----	----	----	----
175	21	13,150	-58.2	----	17	13,219	-62.1	----	5	13,007	-59.8	----	----	----	----	----	16	12,767	-56.9	----	25	13,209	-62.0	----	----	----	----	----
150	16	14,104	-63.3	----	13	14,159	-68.7	----	----	----	----	----	----	----	----	----	9	13,727	-58.1	----	21	14,147	-69.1	----	----	----	----	----
125	13	15,218	-67.5	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	5	15,206	-76.8	----	----	----	----	----

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 October 1947*—Continued

Standard pressure surface (mb.)	Tampa, Fla. (1,014.6 mb.)				Tatoosh Island, Wash. (1,006.4 mb.)				Toledo, Ohio (996.2 mb.)				Washington, D. C. (1,018.5 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	22.1	88	31	31	10.9	87	31	191	13.8	82	31	25	16.4	79
1,000	31	135	22.0	86	31	84	(*)	----	31	158	(*)	----	31	181	17.3	71
950	31	585	20.0	78	31	515	8.4	81	31	600	15.4	66	31	621	15.7	66
900	31	1,046	17.1	76	31	956	5.8	79	31	1,051	13.2	64	31	1,076	13.3	65
850	31	1,532	14.2	74	31	1,422	3.1	75	31	1,531	11.1	58	31	1,556	11.1	54
800	31	2,042	11.3	71	31	1,911	.6	70	31	2,035	8.7	53	31	2,060	8.4	54
750	31	2,587	8.3	68	31	2,431	−1.9	62	31	2,573	5.9	49	31	2,593	5.4	56
700	31	3,146	5.2	62	31	2,973	−4.7	59	31	3,128	2.8	46	31	3,151	2.6	47
650	31	3,751	1.8	55	30	3,561	−7.9	56	31	3,728	−.5	43	30	3,750	−.9	43
600	29	4,394	−1.6	45	30	4,172	−11.2	63	31	4,360	−4.2	38	30	4,382	−4.4	41
550	29	5,084	−5.2	34	30	4,840	−14.8	59	31	5,042	−8.2	----	30	5,062	−8.4	33
500	29	5,825	−9.4	----	30	5,552	−18.9	62	31	5,774	−13.4	----	30	5,796	−13.3	----
450	29	6,640	−14.8	----	30	6,335	−23.7	58	31	6,573	−19.2	----	30	6,594	−18.8	----
400	29	7,513	−20.9	----	30	7,182	−29.1	58	30	7,433	−25.9	----	30	7,458	−25.4	----
350	29	8,487	−27.4	----	29	8,125	−35.4	----	30	8,385	−33.3	----	30	8,412	−32.9	----
300	29	9,578	−35.3	----	29	9,183	−42.1	----	29	9,446	−41.4	----	30	9,478	−41.0	----
250	29	10,824	−43.9	----	27	10,408	−48.6	----	27	10,661	−50.3	----	30	10,691	−50.1	----
200	28	12,288	−54.3	----	22	11,854	−52.3	----	17	12,093	−57.3	----	28	12,129	−56.5	----
175	27	13,132	−60.0	----	14	12,672	−52.5	----	15	12,920	−59.7	----	26	12,963	−59.1	----
150	23	14,074	−65.1	----	5	13,596	−51.2	----	12	13,870	−61.5	----	23	13,927	−61.2	----
125	16	15,170	−69.7	----	----	----	----	----	6	14,996	−64.1	----	14	15,036	−62.7	----
100	7	16,475	−73.9	----	----	----	----	----	----	----	----	----	----	----	----	----

[1] Data not yet received.

* 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 October 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 (276 m.)			Denver, Colo. (1,618 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	30	168	3.4	31	222	1.5	29	55	2.0	31	282	2.0	30	196	1.2	31	114	1.0	31	109	4.9	30	244	1.6	29	215	1.2	31	90	1.6	31	153	1.1	30	141	1.1	31	249	2.6
500	---	---	---	---	---	---	29	62	2.9	---	---	---	---	---	---	---	---	---	31	117	6.6	30	247	3.0	29	220	3.3	31	82	3.9	31	150	1.7	---	---	---	---	---	---
1,000	30	171	4.6	---	---	---	25	56	1.5	---	---	---	30	258	1.7	31	114	1.0	31	129	4.8	29	227	4.0	29	263	4.8	29	94	4.8	29	136	1.7	---	---	---	---	---	---
1,500	30	174	5.2	---	---	---	25	13	.6	31	252	4.3	29	249	3.9	31	163	1.4	31	130	2.2	28	224	4.9	29	282	7.7	29	94	3.5	29	161	1.8	---	---	---	31	240	4.2
2,000	28	190	4.6	31	223	2.2	24	339	1.4	30	252	5.8	25	238	7.6	31	211	3.0	30	75	.8	27	247	5.1	26	287	9.1	28	96	2.3	25	178	2.5	30	154	1.3	31	244	4.5
2,500	28	203	4.2	31	242	3.2	22	323	2.6	29	252	7.0	25	240	9.3	30	229	5.7	30	21	1.0	23	259	6.2	24	295	10.6	26	152	.8	23	185	2.1	30	203	1.9	31	240	4.1
3,000	27	229	3.8	31	258	4.0	20	314	3.5	27	256	7.5	24	239	10.9	28	233	8.0	30	345	1.7	22	261	4.6	21	301	12.5	26	179	1.9	20	122	1.4	30	241	2.6	31	242	4.3
4,000	25	265	5.9	30	267	6.9	19	305	3.2	26	272	10.8	22	250	11.4	24	235	10.0	28	331	3.8	17	270	4.9	17	305	13.0	22	197	3.1	17	95	.5	28	264	5.0	29	250	6.3
5,000	24	269	6.1	28	271	8.7	16	291	4.8	23	275	13.1	21	258	14.3	21	244	11.2	25	304	5.9	15	274	5.4	11	296	13.5	16	259	6.6	16	63	2.0	26	271	7.4	29	254	7.8
6,000	23	270	6.5	27	280	9.6	16	298	4.2	20	277	12.5	21	262	15.0	16	256	14.4	21	297	8.2	12	285	5.8	---	---	---	16	258	8.8	14	57	3.1	24	273	9.5	28	259	8.5
8,000	20	272	8.7	26	281	12.8	---	---	---	10	292	8.7	15	272	8.5	---	---	---	19	282	12.7	---	---	---	---	---	---	---	---	---	10	3	4.9	18	269	8.4	27	264	11.3
10,000	18	268	11.5	21	281	11.8	---	---	---	---	---	---	12	243	8.0	---	---	---	15	272	21.4	---	---	---	---	---	---	---	---	---	---	---	---	16	270	10.8	26	272	14.2
12,000	12	266	23.1	17	283	14.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	276	9.5	21	272	18.8
14,000	---	---	---	10	268	14.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	14	256	16.5

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. (573 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.)		
Surface	31	217	2.1	30	283	1.1	26	65	2.1	29	259	2.0	29	45	2.3	30	180	1.9	31	180	0.8	31	112	1.2	30	246	0.7	30	111	2.5	29	95	1.0	30	50	0.3	31	183	1.9
500	---	---	---	---	---	---	26	77	2.1	---	---	---	29	66	2.7	30	160	2.7	---	---	---	31	108	1.1	30	246	.8	30	94	3.8	29	65	1.0	30	70	.9	31	241	2.4
1,000	---	---	---	---	---	---	25	103	1.9	29	251	4.2	25	119	1.0	28	185	3.2	31	174	1.6	30	122	.7	30	222	2.0	29	97	3.0	28	45	1.4	30	105	.8	29	269	4.2
1,500	---	---	---	30	286	1.2	23	116	1.5	29	251	6.1	22	176	.9	27	201	2.8	31	203	1.1	29	241	.4	30	216	4.8	29	127	1.9	27	10	2.0	29	130	1.4	29	293	4.3
2,000	31	219	2.1	30	288	2.0	21	121	.8	28	250	8.3	22	252	1.6	25	220	3.5	31	219	2.7	29	262	.8	27	217	6.9	28	190	1.4	22	354	2.9	28	222	1.4	27	301	4.2
2,500	31	219	2.7	30	259	2.4	19	29	1.0	26	253	10.1	21	263	3.2	24	244	2.9	30	233	3.8	24	85	.4	22	224	8.1	27	222	2.4	17	343	2.6	25	284	.4	27	300	4.9
3,000	31	225	3.2	28	234	3.6	17	348	1.2	23	259	11.2	20	258	3.5	23	243	2.5	30	241	4.7	22	306	.2	18	230	9.1	26	223	3.5	15	326	2.1	21	332	2.7	22	297	4.3
4,000	30	244	4.7	28	238	5.3	14	341	2.0	16	267	12.1	18	257	4.5	19	259	4.3	29	244	5.0	17	321	1.8	13	260	7.4	17	233	6.5	12	299	6.0	14	335	3.7	19	292	4.7
5,000	24	246	8.0	26	259	5.5	12	310	3.4	12	263	13.6	15	256	5.5	14	256	2.7	27	257	6.6	14	341	2.6	10	257	11.1	14	236	7.3	---	---	---	10	312	3.6	16	285	4.5
6,000	23	263	8.7	23	274	6.4	11	322	2.4	---	---	---	15	256	9.3	13	247	4.5	25	271	8.0	14	332	3.4	---	---	---	11	253	10.3	---	---	---	---	---	---	---	---	---
8,000	19	272	9.8	20	291	8.7	---	---	---	---	---	---	13	246	14.3	---	---	---	22	289	12.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10,000	11	324	7.5	17	285	8.7	---	---	---	---	---	---	---	---	---	---	---	---	20	281	13.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12,000	---	---	---	13	304	10.9	---	---	---	---	---	---	---	---	---	---	---	---	13	274	11.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	268	12.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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. Cloud, Minn. (318 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.)		
Surface	30	263	3.5	30	190	4.9	29	170	2.3	31	194	0.7	30	249	1.1	29	180	2.2	30	183	2.5	31	131	2.6	30	280	3.5	31	185	0.8	26	214	2.3	31	198	1.6	30	85	0.7
500	30	283	2.9	30	187	5.4	29	171	4.1	31	221	1.3	---	---	---	29	178	2.3	30	180	3.2	31	142	3.5	30	287	3.6	31	188	2.5	26	200	4.4	---	---	---	30	179	.7
1,000	29	285	2.1	30	186	5.8	27	188	6.5	31	211	1.6	30	250	1.1	26	187	2.5	27	182	5.1	31	134	3.7	29	274	2.0	30	229	5.5	26	206	7.0	31	199	3.7	28	195	1.4
1,500	25	259	2.1	29	189	6.0	27	205	7.6	31	200	2.0	30	248	1.9	26	200	2.2	26	201	7.2	31	146	3.7	29	260	1.3	29	243	7.1	22	213	8.4	29	210	6.1	27	228	1.6
2,000	25	241	3.2	26	201	5.2	27	221	9.4	31	210	2.6	29	241	4.1	26	210	2.8	23	221	9.4	30	149	3.2	28	286	1.8	25	256	8.6	16	206	9.8	26	228	7.2	26	258	1.9
2,500	24	256	3.0	26	215	4.3	27	225	10.3	30	219	2.8	28	256	5.8	23	211	1.7	22	227	9.7	29	175	2.2	28	296	3.4	24	265	10.1	15	217	10.2	16	232	8.9	26	287	2.7
3,000	24	266	4.6	26	233	4.4	25	234	10.8	29	245	3.2	26	253	7.5	23	233	2.1	22	233	10.4	28	231	2.1	28	291	4.7	21	272	11.2	13	224	10.3	11	229	9.9	24	285	3.4
4,000	24	277	5.3	22	268	4.2	23	241	10.2	28	253	3.9	24	251	9.2	23	250	2.0	19	248	11.0	26	293	4.7	25	273	6.1	16	277	10.8	---	---	---	---	---	---	24	272	3.8
5,000	23	277	7.5	19	287	4.2	20	242	7.7	26	262	6.5	21	254	10.2	23	272	2.4	16	261	12.7	25	290	5.9	23	274	7.1	13	281	7.7	---	---	---	---	---	---	21	280	3.4
6,000	23	282	10.3	16	264	6.6	19	239	7.9	25	264	7.1	20	266	10.5	21	306	2.9	16	251	14.5	25	281	6.2	20	273	9.7	---	---	---	---	---	---	---	---	---	20	279	3.8
8,000	14	276	7.6	---	---	---	15	267	7.2	23	276	10.6	15	267	13.1	18	293	2.1	---	---	---	19	280	11.2	18	279	10.8	---	---	---	---	---	---	---	---	---	16	299	6.2
10,000	---	---	---	---	---	---	12	257	7.7	15	293	9.2	---	---	---	16	235	1.6	---	---	---	12	271	19.2	10	303	11.1	---	---	---	---	---	---	---	---	---	---	---	---
12,000	---	---	---	---	---	---	12	264	8.2	---	---	---	---	---	---	11	299	6.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14,000	---	---	---	---	---	---	11	268	10.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 3.—*Maximum free-air wind velocities (m. p. s.) for different sections of the United States based on pilot balloon observations during October 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]	39.0	wnw.	408	23	Caribou, Maine	55.4	nnw.	2,802	24	Caribou, Maine	67.9	s.	9,472	1	Caribou, Maine
East-Central [2]	29.5	ssw.	1,154	27	Louisville, Ky	33.0	nnw.	3,200	29	Nashville, Tenn	76.8	wsw.	13,909	4	Raleigh, N. C.
Southeast [3]	35.0	ssw.	1,881	11	Key West, Fla	26.5	ene.	3,150	6	Charleston, S. C	55.0	wnw.	13,360	26	Charleston, S. C.
North-Central [4]	35.4	s.	1,010	11	Huron, S. Dak	48.8	nnw.	4,610	23	International Falls, Minn.	80.8	wsw.	14,492	7	Milwaukee, Wis.
Central [5]	36.5	sse.	1,509	15	Sioux City, Iowa	77.0	sw.	4,998	8	Lander, Wyo	59.5	nw.	10,672	1	Indianapolis, Ind.
South-Central [6]	29.5	nnw.	1,370	31	Oklahoma City, Okla.	35.1	wnw.	4,893	31	Fort Worth, Tex	59.0	wsw.	13,434	25	Big Spring, Tex.
Northwest [7]	38.0	wsw.	2,020	5	Spokane, Wash	64.8	w.	4,936	2	Ellensburg, Wash	81.5	sw.	10,313	20	Tatoosh Island, Wash.
West-Central [8]	31.0	wsw.	2,500	16	Casper, Wyo	54.3	ssw.	4,366	7	Reno, Nev	78.0	wsw.	9,700	8	Oakland, Calif.
Southwest [9]	28.3	ssw.	2,285	21	Las Vegas, Nev	50.2	ssw.	3,545	21	Las Vegas, Nev	69.0	wnw.	12,952	27	Raton, N. Mex.

[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 wes Texas.