METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR AUGUST 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 August 1947*

STATIONS AND MEAN SURFACE PRESSURES

Standard pressure surface (mb.)	Albany, N. Y. (1,007.7 mb.)				Albuquerque, N. Mex. (839.9 mb.)				Apalachicola, Fla. (1,017.1 mb.)				Atlanta, Ga. (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	86	20.7	85	31	1,620	24.5	46	30	5	25.9	86	31	300	24.2	84
1,000	31	153	20.9	84	31	52	(*)	----	30	155	25.4	83	31	158	(*)	----
950	31	601	19.8	79	31	522	(*)	----	30	610	23.2	75	31	613	24.5	74
900	31	1,062	17.3	80	31	1,007	(*)	----	30	1,076	20.5	71	31	1,083	21.6	73
850	31	1,549	14.5	80	31	1,510	(*)	----	30	1,568	17.4	69	31	1,577	18.3	72
800	31	2,060	11.6	72	31	2,038	21.8	43	30	2,084	14.3	64	31	2,095	15.0	70
750	31	2,604	9.0	61	31	2,597	17.6	48	30	2,630	11.1	59	31	2,643	11.5	69
700	30	3,167	5.9	54	31	3,180	12.9	55	30	3,200	7.7	57	31	3,214	8.0	66
650	30	3,774	2.9	44	31	3,799	7.9	64	30	3,812	4.2	58	31	3,826	4.5	64
600	30	4,416	−.3	----	31	4,452	2.8	71	30	4,455	.5	61	31	4,470	.6	65
550	30	5,109	−4.2	----	30	5,153	−1.9	75	30	5,152	−3.2	59	31	5,167	−3.2	63
500	30	5,853	−8.9	----	30	5,905	−6.4	69	30	5,898	−7.5	51	31	5,914	−7.2	54
450	30	6,669	−14.1	----	30	6,731	−11.2	57	30	6,723	−12.2	51	31	6,735	−12.0	47
400	30	7,545	−20.3	----	30	7,618	−16.5	51	30	7,602	−17.8	43	31	7,620	−17.7	42
350	30	8,516	−27.8	----	29	8,610	−23.2	----	30	8,587	−24.7	----	30	8,606	−24.8	----
300	30	9,604	−36.1	----	29	9,721	−31.1	----	30	9,689	−33.2	----	29	9,708	−33.2	----
250	30	10,844	−45.4	----	29	10,988	−40.9	----	29	10,944	−43.1	----	29	10,961	−43.5	----
200	29	12,297	−55.5	----	27	12,472	−52.0	----	28	12,412	−55.0	----	29	12,424	−55.1	----
175	28	13,141	−59.6	----	23	13,325	−58.2	----	25	13,250	−61.4	----	26	13,265	−61.2	----
150	27	14,099	−63.3	----	15	14,291	−63.7	----	21	14,193	−66.7	----	13	14,214	−66.5	----
125	20	15,196	−64.2	----	----	----	----	----	7	15,286	−69.2	----	----	----	----	----
100	11	16,553	−61.6	----	----	----	----	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Auburn, Calif. (954.5 mb.)				Big Spring, Tex. (927.1 mb.)				Bismarck, N. Dak. (952.4 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	23.3	35	31	774	28.1	46	31	505	23.4	60
1,000	31	89	(*)	----	31	95	(*)	----	31	73	(*)	----
950	31	543	23.4	35	31	556	(*)	----	31	529	(*)	----
900	31	1,011	20.7	34	31	1,037	26.7	46	31	1,000	23.3	48
850	31	1,501	17.3	33	31	1,539	22.7	51	31	1,496	19.9	51
800	31	2,015	13.7	33	31	2,064	18.4	55	31	2,016	16.3	53
750	31	2,563	10.3	29	31	2,611	14.0	59	31	2,571	13.1	52
700	31	3,125	6.7	----	31	3,193	10.0	60	31	3,140	9.4	44
650	31	3,728	2.9	----	31	3,805	5.9	58	31	3,755	4.9	46
600	31	4,372	−1.1	----	31	4,455	1.9	56	31	4,397	.2	44
550	31	5,060	−5.6	----	31	5,153	−1.8	51	31	5,090	−4.4	37
500	31	5,800	−10.7	----	31	5,906	−5.8	41	31	5,833	−9.4	36
450	30	6,609	−16.7	----	31	6,732	−10.9	40	31	6,650	−14.9	----
400	30	7,474	−23.3	----	31	7,620	−16.8	40	31	7,521	−21.2	----
350	30	8,436	−30.7	----	31	8,609	−23.7	----	31	8,491	−28.3	----
300	30	9,512	−38.5	----	29	9,715	−31.8	----	31	9,578	−36.2	----
250	30	10,740	−47.0	----	29	10,977	−41.8	----	30	10,819	−45.1	----
200	30	12,194	−53.3	----	29	12,452	−53.3	----	24	12,297	−53.6	----
175	24	13,056	−56.2	----	24	13,299	−59.1	----	15	13,143	−56.9	----
150	21	14,024	−59.3	----	13	14,254	−64.1	----	----	----	----	----
125	16	15,155	−61.2	----	----	----	----	----	----	----	----	----
100	8	16,538	−61.8	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Boise, Idaho (911.1 mb.)				Brownsville, Tex. (1,012.6 mb.)				Buffalo, N. Y. (991.7 mb.)				Caribou, Maine (994.6 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	31	868	25.8	29	31	6	26.8	83	31	221	21.6	80	31	191	16.5	81
1,000	31	37	(*)	----	31	117	26.3	82	31	148	(*)	----	31	143	(*)	----
950	31	501	(*)	----	31	574	23.5	81	31	600	21.7	71	31	581	17.8	66
900	31	975	26.3	23	31	1,040	21.0	71	31	1,063	18.9	70	31	1,045	15.4	65
850	31	1,475	22.9	22	31	1,534	18.2	65	31	1,552	15.9	67	31	1,527	12.5	66
800	31	1,998	18.5	25	31	2,051	15.4	62	31	2,066	13.1	65	31	2,034	9.9	64
750	31	2,545	13.8	28	31	2,601	12.7	55	31	2,612	9.9	62	31	2,571	7.6	53
700	31	3,122	9.0	30	31	3,173	9.5	54	31	3,177	7.0	56	31	3,134	5.0	47
650	31	3,730	4.1	34	31	3,788	5.8	51	31	3,788	3.7	48	31	3,735	1.9	48
600	31	4,374	−.9	37	31	4,436	2.1	51	31	4,429	.0	43	31	4,377	−1.6	45
550	31	5,058	−6.2	40	30	5,134	−2.0	49	31	5,123	−3.7	----	31	5,060	−5.7	----
500	31	5,801	−11.5	35	30	5,886	−6.4	41	30	5,868	−8.2	----	31	5,805	−10.3	----
450	31	6,607	−17.0	----	30	6,710	−11.3	41	30	6,689	−13.7	----	29	6,609	−15.9	----
400	31	7,475	−23.5	----	30	7,596	−17.0	46	29	7,565	−19.9	----	29	7,484	−22.0	----
350	31	8,436	−31.2	----	30	8,585	−23.6	----	29	8,542	−26.8	----	28	8,450	−29.2	----
300	31	9,509	−39.1	----	29	9,691	−31.9	----	27	9,635	−35.1	----	28	9,533	−37.3	----
250	31	10,735	−47.5	----	29	10,953	−41.8	----	27	10,881	−44.6	----	28	10,767	−46.8	----
200	30	12,185	−53.3	----	28	12,425	−53.2	----	25	12,339	−54.7	----	27	12,217	−54.9	----
175	27	13,047	−55.2	----	21	13,275	−59.3	----	23	13,179	−59.0	----	25	13,046	−57.4	----
150	19	14,016	−57.2	----	----	----	----	----	22	14,131	−62.5	----	15	14,036	−59.0	----
125	----	----	----	----	----	----	----	----	16	15,253	−65.5	----	9	15,159	−61.6	----
100	----	----	----	----	----	----	----	----	10	16,607	−67.0	----	----	----	----	----
80	----	----	----	----	----	----	----	----	5	17,980	−64.7	----	----	----	----	----

Standard pressure surface (mb.)	Charleston, S. C. (1,016.3 mb.)				Ciudad Victoria, Mexico (974.1 mb.)				Columbia, Mo. (987.5 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
Surface	31	13	23.9	93	29	335	26.4	73	30	239	27.9	63
1,000	31	155	24.8	89	29	101	(*)	----	30	127	(*)	----
950	31	608	23.0	80	29	557	24.7	70	30	588	27.6	57
900	31	1,077	20.2	77	29	1,028	21.1	74	30	1,062	24.5	61
850	31	1,569	17.2	73	29	1,521	17.4	78	30	1,561	21.1	62
800	31	2,085	14.2	69	29	2,037	14.0	79	30	2,083	17.6	60
750	31	2,628	11.0	67	29	2,584	10.8	76	30	2,634	14.2	58
700	31	3,201	7.6	63	29	3,153	7.8	69	30	3,211	10.5	55
650	30	3,811	4.1	61	29	3,764	4.4	68	30	3,829	6.6	52
600	29	4,456	.4	59	28	4,409	.9	67	30	4,478	2.9	44
550	29	5,150	−3.6	53	28	5,104	−3.0	68	29	5,181	−1.4	44
500	29	5,897	−7.8	49	28	5,854	−7.2	64	28	5,931	−6.1	39
450	27	6,723	−12.4	48	28	6,681	−11.8	61	28	6,756	−10.9	----
400	27	7,603	−18.5	----	28	7,562	−17.2	56	28	7,645	−16.6	----
350	26	8,586	−25.6	----	28	8,548	−24.5	----	28	8,633	−23.9	----
300	26	9,686	−33.8	----	28	9,652	−33.1	----	27	9,737	−32.6	----
250	26	10,938	−43.5	----	28	10,908	−43.3	----	26	10,994	−42.5	----
200	25	12,398	−54.7	----	24	12,377	−55.3	----	24	12,469	−53.5	----
175	21	13,242	−60.1	----	7	13,228	−61.3	----	22	13,319	−59.2	----
150	8	14,199	−63.6	----	----	----	----	----	21	14,273	−64.4	----
125	----	----	----	----	----	----	----	----	11	15,360	−68.3	----
100	----	----	----	----	----	----	----	----	----	----	----	----
80	----	----	----	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Dodge City, Kans. (924.6 mb.)				El Paso, Tex. (881.3 mb.)				Ely, Nev. (809.1 mb.)				Fort Worth, Tex. (989.7 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	787	26.4	52	31	1,195	27.3	45	31	1,908	20.7	32	31	211	30.4	50
1,000	31	86	(*)	----	31	59	(*)	----	31	26	(*)	----	31	118	(*)	----
950	31	547	(*)	----	31	528	(*)	----	31	495	(*)	----	31	581	28.6	51
900	31	1,026	27.4	47	31	1,015	(*)	----	31	974	(*)	----	31	1,055	24.9	54
850	31	1,529	24.0	46	31	1,515	25.5	41	31	1,475	(*)	----	31	1,554	20.8	59
800	31	2,056	20.0	50	31	2,044	21.4	46	31	2,006	21.7	30	31	2,075	16.6	64
750	31	2,610	15.7	54	31	2,602	16.7	53	31	2,565	17.7	29	31	2,626	12.9	60
700	31	3,190	11.5	52	31	3,182	11.7	62	31	3,145	12.8	32	31	3,200	9.5	53
650	31	3,808	7.3	51	31	3,800	6.7	67	31	3,760	7.4	39	31	3,816	5.7	50
600	31	4,459	3.1	47	30	4,450	2.2	71	31	4,414	1.6	49	31	4,462	1.9	46
550	31	5,163	−1.2	42	29	5,150	−2.5	69	31	5,105	−3.8	53	31	5,166	−1.7	39
500	31	5,914	−5.4	36	28	5,897	−6.9	55	31	5,853	−9.1	51	31	5,913	−6.0	35
450	31	6,739	−10.6	----	28	6,721	−11.4	48	30	6,665	−14.7	----	31	6,742	−11.1	33
400	31	7,629	−16.7	----	28	7,608	−17.1	45	30	7,542	−20.5	----	31	7,626	−17.4	39
350	30	8,621	−24.1	----	26	8,595	−24.3	----	28	8,514	−27.8	----	31	8,611	−24.8	----
300	29	9,722	−32.9	----	26	9,699	−32.6	----	28	9,604	−35.7	----	31	9,713	−33.4	----
250	29	10,978	−43.0	----	25	10,954	−43.1	----	26	10,844	−44.8	----	31	10,966	−43.5	----
200	29	12,442	−54.6	----	24	12,419	−55.0	----	24	12,303	−53.4	----	31	12,427	−55.2	----
175	22	13,288	−60.5	----	20	13,260	−61.4	----	24	13,153	−57.8	----	29	13,268	−61.7	----
150	16	14,226	−66.1	----	14	14,201	−67.8	----	21	14,128	−62.2	----	15	14,213	−68.0	----
125	5	15,334	−68.3	----	----	----	----	----	9	15,293	−65.7	----	5	15,287	−71.7	----

Standard pressure surface (mb.)	Glasgow, Mont. (936.3 mb.)				Grand Junction, Colo. (852.6 mb.)				Great Falls, Mont. (885.4 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	21.8	58	31	1,474	24.3	47	31	1,128	20.7	40
1,000	31	67	(*)	----	31	51	(*)	----	31	56	(*)	----
950	31	523	(*)	----	31	518	(*)	----	31	517	(*)	----
900	31	991	21.5	49	31	1,000	(*)	----	31	992	(*)	----
850	31	1,484	18.3	50	31	1,501	(*)	----	31	1,479	19.3	38
800	31	2,001	14.8	51	31	2,031	21.6	43	31	1,997	15.2	42
750	31	2,548	11.1	51	31	2,588	17.1	47	31	2,541	11.0	48
700	30	3,118	7.5	51	31	3,170	12.4	53	31	3,111	6.6	54
650	29	3,724	3.1	54	31	3,786	7.1	61	30	3,716	1.8	58
600	28	4,370	−1.6	58	31	4,440	1.9	64	30	4,356	−2.8	56
550	28	5,057	−6.1	51	31	5,134	−3.2	66	30	5,039	−7.8	60
500	28	5,798	−11.1	47	30	5,885	−8.1	59	30	5,773	−13.3	56
450	28	6,605	−16.4	44	29	6,706	−13.4	53	30	6,576	−18.9	48
400	27	7,474	−22.8	----	29	7,585	−19.3	48	30	7,435	−25.0	----
350	27	8,438	−29.9	----	29	8,564	−26.2	----	30	8,392	−32.1	----
300	27	9,517	−38.1	----	29	9,662	−34.1	----	30	9,462	−40.3	----
250	27	10,747	−47.4	----	29	10,914	−43.5	----	30	10,682	−48.8	----
200	26	12,195	−53.2	----	17	12,383	−53.8	----	29	12,125	−53.7	----
175	21	13,036	−54.5	----	----	----	----	----	29	12,981	−54.6	----
150	17	13,987	−55.7	----	----	----	----	----	19	13,960	−55.7	----
125	11	15,130	−56.0	----	----	----	----	----	6	15,128	−57.4	----

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 August 1947*—Continued

Standard pressure surface (mb)	Greensboro, N. C. (987.3 mb.)				Hatteras, N. C. (1,017.2 mb.)				Havana, Cuba [1] (____ mb.)				Honolulu, T. H. (1,014.7 mb.)				Huntington, W. Va. (997.5 mb.)				International Falls, Minn. (973.2 mb.)				Joliet, Ill. (995.5 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	22.7	87	31	3	25.2	87	----	----	----	----	31	3	28.1	60	31	172	23.4	90	30	360	19.0	82	31	178	23.5	80
1,000	31	161	(*)	----	31	153	24.4	85	----	----	----	----	31	132	26.0	62	31	149	(*)	----	30	123	(*)	----	31	137	(*)	----
950	31	613	22.7	78	31	609	21.8	79	----	----	----	----	31	584	22.3	68	31	605	23.8	78	30	573	20.2	71	31	595	25.3	61
900	31	1,080	19.9	78	31	1,070	19.2	73	----	----	----	----	31	1,051	19.0	72	31	1,073	21.1	75	30	1,034	17.6	70	31	1,064	22.3	63
850	31	1,572	16.6	79	31	1,561	16.6	70	----	----	----	----	31	1,541	16.0	70	31	1,566	18.0	71	30	1,521	14.9	63	31	1,560	19.2	64
800	31	2,086	13.4	76	31	2,075	13.8	68	----	----	----	----	31	2,054	13.3	65	31	2,084	14.8	71	30	2,033	13.0	55	31	2,079	15.9	62
750	31	2,631	10.1	73	31	2,619	10.7	67	----	----	----	----	31	2,602	11.2	51	31	2,631	11.3	67	30	2,580	10.1	54	31	2,630	12.7	58
700	31	3,199	6.8	69	31	3,190	7.7	62	----	----	----	----	31	3,170	9.0	34	31	3,202	7.7	68	30	3,146	7.0	49	30	3,202	9.3	55
650	31	3,809	3.5	63	31	3,801	4.4	61	----	----	----	----	31	3,784	6.3	28	31	3,813	4.1	66	30	3,751	3.4	43	30	3,819	5.6	49
600	31	4,450	−.1	56	31	4,446	.6	62	----	----	----	----	31	4,433	3.3	----	31	4,457	.3	61	30	4,396	−.6	36	30	4,463	1.8	41
550	31	5,146	−3.9	47	31	5,144	−3.2	55	----	----	----	----	31	5,135	−.4	----	31	5,154	−3.6	50	30	5,087	−4.9	35	30	5,160	−2.2	40
500	31	5,890	−8.3	43	31	5,889	−7.5	48	----	----	----	----	31	5,889	−4.9	----	31	5,899	−7.5	39	30	5,829	−9.6	33	29	5,909	−6.6	40
450	31	6,712	−13.2	44	30	6,713	−12.6	47	----	----	----	----	31	6,714	−10.8	----	31	6,723	−12.5	41	30	6,638	−14.9	36	29	6,736	−11.7	41
400	30	7,589	−18.8	49	30	7,593	−18.7	50	----	----	----	----	31	7,603	−17.2	----	30	7,605	−18.4	44	30	7,516	−21.1	----	29	7,617	−17.5	----
350	30	8,569	−26.1	----	30	8,575	−25.6	----	----	----	----	----	31	8,588	−24.8	----	29	8,590	−25.9	----	30	8,489	−28.1	----	28	8,600	−24.7	----
300	30	9,664	−34.8	----	30	9,673	−33.9	----	----	----	----	----	31	9,690	−33.2	----	29	9,688	−34.2	----	29	9,575	−36.3	----	28	9,701	−33.1	----
250	29	10,910	−44.9	----	30	10,924	−43.7	----	----	----	----	----	30	10,946	−42.9	----	28	10,937	−44.0	----	28	10,824	−45.3	----	28	10,956	−43.0	----
200	27	12,363	−55.8	----	29	12,385	−54.4	----	----	----	----	----	28	12,417	−54.1	----	28	12,398	−55.2	----	25	12,303	−53.8	----	28	12,424	−53.9	----
175	24	13,205	−60.7	----	26	13,234	−59.3	----	----	----	----	----	20	13,265	−59.8	----	26	13,240	−60.3	----	20	13,149	−56.8	----	26	13,277	−59.3	----
150	14	14,141	−63.8	----	22	14,194	−62.8	----	----	----	----	----	12	14,209	−64.9	----	26	14,195	−65.4	----	13	14,118	−58.5	----	21	14,238	−64.5	----
125	5	15,237	−66.4	----	12	15,316	−65.3	----	----	----	----	----	----	----	----	----	19	15,292	−68.5	----	8	15,254	−60.3	----	14	15,340	−65.9	----
100	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	9	16,627	−67.9	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb)	Lake Charles, La. (1,015.5 mb.)				Lander, Wyo. (829.5 mb.)				Las Vegas, Nev. (942.1 mb.)				Little Rock, Ark. (1,006.1 mb.)				Mazatlan, Mexico (1,007.7 mb.)				Medford, Oreg. (965.9 mb.)				Merida, Mexico (1,010.4 mb.)			
Surface	31	5	25.7	87	31	1,696	20.8	39	30	574	33.6	21	31	79	27.8	68	30	14	28.8	75	31	401	24.6	40	29	27	26.3	82
1,000	31	141	25.8	83	31	39	(*)	----	30	29	(*)	----	31	134	28.2	66	30	82	28.0	76	31	95	(*)	----	29	119	25.9	81
950	31	598	23.8	76	31	507	(*)	----	30	500	(*)	----	31	592	27.2	58	30	538	23.9	78	31	550	23.4	41	29	570	23.3	78
900	31	1,065	21.1	71	31	984	(*)	----	30	985	31.0	23	31	1,066	23.8	62	30	1,009	21.6	75	31	1,014	19.4	47	29	1,042	20.5	77
850	31	1,558	18.1	68	31	1,482	(*)	----	30	1,493	26.5	26	31	1,564	20.2	64	30	1,504	18.9	72	31	1,503	15.2	54	29	1,535	17.7	74
800	31	2,076	15.0	66	31	2,010	21.3	33	30	2,023	21.8	30	31	2,084	16.5	65	30	2,024	16.0	71	31	2,013	11.1	58	29	2,052	14.8	69
750	31	2,624	11.8	62	31	2,567	17.1	34	30	2,579	16.8	35	31	2,630	12.8	65	30	2,577	12.9	71	31	2,550	7.6	56	29	2,601	11.8	64
700	31	3,196	8.5	60	31	3,148	12.2	37	30	3,160	11.6	42	31	3,208	9.4	59	28	3,148	9.5	72	31	3,113	4.1	45	29	3,171	8.7	60
650	31	3,810	4.9	61	31	3,763	7.0	42	30	3,774	6.3	48	31	3,821	5.8	53	28	3,762	5.7	74	31	3,713	.7	37	29	3,785	5.0	59
600	31	4,454	1.1	56	31	4,416	1.5	50	30	4,424	1.5	49	31	4,470	1.7	55	28	4,412	1.7	75	31	4,350	−3.4	28	29	4,429	1.0	63
550	31	5,152	−3.0	50	31	5,108	−3.6	52	30	5,120	−3.2	39	27	5,172	−2.2	50	27	5,112	−2.4	74	31	5,031	−7.8	----	28	5,126	−2.8	61
500	31	5,900	−7.2	47	31	5,857	−8.8	46	30	5,867	−7.9	----	25	5,921	−6.1	----	27	5,862	−6.4	66	31	5,765	−12.9	----	28	5,873	−7.3	64
450	31	6,722	−12.2	44	31	6,672	−14.5	40	30	6,686	−13.0	----	25	6,745	−11.0	----	27	6,692	−11.2	57	31	6,564	−18.6	----	26	6,689	−12.4	62
400	31	7,606	−18.0	41	31	7,547	−20.9	----	30	7,567	−19.4	----	25	7,634	−17.0	----	27	7,577	−16.9	56	31	7,427	−25.2	----	25	7,575	−18.0	62
350	31	8,589	−25.1	----	31	8,520	−27.8	----	30	8,544	−26.9	----	24	8,621	−24.2	----	26	8,564	−24.3	----	31	8,382	−32.5	----	24	8,559	−25.3	----
300	31	9,690	−33.7	----	31	9,609	−36.1	----	30	9,638	−35.0	----	24	9,727	−32.4	----	26	9,670	−32.5	----	31	9,450	−40.2	----	20	9,657	−33.9	----
250	31	10,941	−43.9	----	30	10,846	−45.5	----	30	10,884	−44.6	----	24	10,986	−42.2	----	24	10,928	−42.6	----	30	10,669	−47.8	----	19	10,910	−43.8	----
200	31	12,402	−55.6	----	29	12,300	−54.5	----	30	12,344	−54.5	----	24	12,459	−53.2	----	23	12,399	−54.6	----	29	12,125	−52.0	----	6	12,364	−56.6	----
175	29	13,244	−61.9	----	24	13,151	−58.5	----	30	13,189	−59.1	----	20	13,312	−58.7	----	17	13,247	−61.0	----	29	12,987	−53.4	----	----	----	----	----
150	18	14,199	−67.7	----	14	14,113	−62.2	----	18	14,153	−63.4	----	7	14,297	−62.9	----	10	14,186	−68.6	----	28	13,971	−55.5	----	----	----	----	----
125	10	15,282	−72.1	----	----	----	----	----	6	15,257	−66.4	----	----	----	----	----	----	----	----	----	22	15,131	−57.4	----	----	----	----	----
100	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	10	16,540	−58.5	----	----	----	----	----

Standard pressure surface (mb)	Miami, Fla. (1,017.1 mb.)				Nantucket, Mass. (1,017.6 mb.)				Nashville, Tenn. (996.4 mb.)				New Orleans, La. (1,016.4 mb.)				North Platte, Nebr. (916.7 mb.)				Oakland, Calif. (1,012.7 mb.)				Ogden, Utah (863.5 mb.)			
Surface	31	4	26.3	83	27	14	18.3	95	31	180	26.2	78	31	2	25.7	88	31	849	24.2	63	31	6	18.2	73	31	1,355	22.1	49
1,000	31	154	25.7	82	27	164	18.8	91	31	148	(*)	----	31	146	25.9	85	31	73	(*)	----	31	114	17.1	74	31	51	(*)	----
950	31	607	22.8	83	27	610	18.5	76	31	605	25.9	69	31	598	23.6	77	31	536	(*)	----	31	562	16.7	58	31	517	(*)	----
900	31	1,075	20.1	78	27	1,068	16.9	61	31	1,077	22.4	71	31	1,070	20.9	72	31	1,010	26.1	54	31	1,013	17.9	34	31	996	(*)	----
850	31	1,567	17.1	74	27	1,555	15.1	51	31	1,573	18.7	74	31	1,563	18.0	69	31	1,513	24.2	47	31	1,501	16.6	27	31	1,491	23.9	35
800	31	2,082	14.0	71	27	2,066	12.7	50	31	2,092	15.4	71	31	2,080	14.8	67	31	2,041	20.5	48	31	2,014	14.0	24	31	2,019	20.7	32
750	31	2,627	11.1	65	27	2,610	10.2	42	31	2,641	12.2	65	31	2,625	11.7	63	31	2,596	16.4	50	31	2,562	11.0	----	31	2,574	16.1	36
700	31	3,198	7.7	61	27	3,177	7.1	43	31	3,213	9.0	57	30	3,200	8.4	64	31	3,177	12.1	53	31	3,127	7.8	----	31	3,153	11.2	41
650	31	3,808	4.1	60	26	3,785	4.0	40	31	3,825	5.3	55	29	3,812	4.8	63	31	3,794	7.2	57	30	3,739	4.5	----	31	3,766	5.9	48
600	31	4,453	.2	60	25	4,430	.9	----	29	4,476	1.3	57	29	4,459	1.0	60	31	4,447	2.5	54	30	4,381	.4	----	31	4,416	.6	55
550	31	5,146	−3.6	54	24	5,127	−3.2	----	28	5,172	−2.8	54	29	5,158	−2.8	55	31	5,146	−2.0	44	30	5,076	−4.1	----	31	5,110	−4.4	51
500	31	5,894	−7.8	51	24	5,872	−8.1	----	27	5,921	−7.0	51	27	5,907	−6.9	49	31	5,896	−6.6	----	29	5,822	−8.7	----	31	5,853	−9.6	47
450	31	6,710	−12.7	55	24	6,692	−13.4	----	27	6,743	−11.8	45	25	6,732	−11.6	44	31	6,716	−11.7	----	29	6,639	−14.5	----	31	6,669	−15.0	----
400	30	7,597	−18.4	57	24	7,569	−19.6	----	26	7,631	−17.4	37	25	7,618	−17.4	----	31	7,604	−17.9	----	29	7,502	−21.1	----	31	7,541	−20.7	----
350	30	8,580	−25.1	----	24	8,546	−27.0	----	26	8,616	−24.5	----	24	8,604	−24.4	----	30	8,587	−25.3	----	29	8,484	−28.4	----	30	8,514	−28.0	----
300	29	9,680	−33.4	----	24	9,638	−35.5	----	26	9,720	−32.8	----	23	9,705	−32.8	----	30	9,687	−33.7	----	28	9,581	−36.1	----	30	9,601	−36.4	----
250	29	10,934	−43.4	----	22	10,884	−45.1	----	26	10,977	−42.6	----	23	10,961	−42.7	----	30	10,938	−43.6	----	25	10,829	−44.2	----	30	10,842	−45.3	----
200	25	12,400	−55.1	----	20	12,332	−55.1	----	25	12,448	−54.0	----	23	12,427	−54.6	----	28	12,406	−55.1	----	21	12,306	−51.0	----	28	12,312	−53.9	----
175	20	13,237	−61.4	----	19	13,184	−59.2	----	25	13,292	−60.1	----	17	13,264	−61.2	----	27	13,251	−61.4	----	18	13,158	−54.3	----	26	13,160	−58.3	----
150	16	14,177	−66.1	----	14	14,123	−62.1	----	22	14,251	−65.1	----	6	14,210	−66.7	----	19	14,193	−65.5	----	6	14,178	−57.5	----	11	14,184	−62.7	----
125	9	15,280	−67.8	----	----	----	----	----	13	15,359	−68.6	----	----	----	----	----	6	15,300	−69.2	----	----	----	----	----	----	----	----	----

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 August 1947*—Continued

Standard pressure surface (mb.)	Oklahoma City, Okla. (968.8 mb.)				Omaha, Nebr. (977.5 mb.)				Phoenix, Ariz. (969.0 mb.)				Pittsburgh, Pa. (974.0 mb.)				Portland, Maine (1,016.0 mb.)				Rapid City, S. Dak. (901.1 mb.)				St. Cloud, Minn. (976.2 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	391	28.2	58	31	308	28.7	62	31	339	33.0	39	30	382	23.1	80	31	20	18.2	89	31	980	22.7	54	31	317	23.5	71
1,000	31	107	(*)	----	31	103	(*)	----	31	52	(*)	----	30	150	(*)	----	31	156	19.5	85	31	56	(*)	----	31	104	(*)	----
950	31	567	29.3	49	31	566	28.4	54	31	522	33.0	35	30	608	22.3	77	31	603	19.3	69	31	518	(*)	----	31	562	23.6	64
900	31	1,046	26.4	49	31	1,041	25.7	52	31	1,003	29.3	37	30	1,070	20.0	75	31	1,063	16.8	69	31	991	(*)	----	31	1,026	21.3	62
850	31	1,548	22.5	54	31	1,542	22.2	52	31	1,509	25.2	41	30	1,562	17.0	74	31	1,549	14.2	69	31	1,492	23.4	43	31	1,519	18.7	58
800	31	3,072	18.4	58	31	2,066	18.7	53	31	2,037	20.8	47	30	2,077	13.8	71	31	2,058	11.5	61	31	2,018	19.8	44	31	2,038	16.1	51
750	31	2,625	14.5	56	31	2,617	14.6	56	31	2,595	16.2	54	30	2,625	10.6	67	31	2,599	8.9	55	31	2,574	15.6	47	31	2,592	12.9	49
700	31	2,202	10.6	56	31	3,196	10.7	49	31	3,174	11.6	60	30	3,191	7.3	62	31	3,165	6.4	44	31	3,151	11.0	50	31	3,161	9.4	47
650	30	3,820	6.6	53	31	3,816	6.9	46	31	3,795	6.9	64	30	3,806	3.9	60	31	3,770	3.1	41	31	3,767	6.5	49	31	3,776	5.6	47
600	30	4,469	2.9	47	31	4,463	2.6	45	31	4,443	2.4	63	30	4,445	.7	50	31	4,415	−.3	----	30	4,415	1.4	48	31	4,421	1.1	50
550	30	5,171	−1.0	45	31	5,165	−1.5	39	31	5,144	−2.1	61	30	5,141	−3.1	43	31	5,105	−4.3	----	29	5,108	−3.6	48	31	5,118	−3.4	48
500	29	5,922	−5.4	38	31	5,914	−6.1	39	31	5,894	−6.4	48	30	5,887	−7.6	40	31	5,851	−8.6	----	28	5,853	−8.6	43	31	5,864	−7.7	45
450	27	6,751	−10.4	----	31	6,739	−11.3	36	30	6,719	−11.2	----	30	6,711	−12.8	42	31	6,665	−14.1	----	28	6,672	−13.7	----	31	6,686	−12.9	----
400	25	7,638	−16.6	----	31	7,626	−17.4	----	30	7,606	−17.0	----	30	7,589	−18.8	45	31	7,542	−20.8	----	28	7,547	−19.8	----	31	7,566	−18.8	----
350	25	8,627	−23.8	----	31	8,611	−24.8	----	30	8,593	−24.5	----	30	8,566	−26.1	----	31	8,515	−28.0	----	28	8,524	−26.7	----	31	8,546	−26.0	----
300	22	9,742	−31.8	----	31	9,713	−33.5	----	29	9,697	−33.0	----	30	9,666	−34.3	----	31	9,603	−36.2	----	28	9,618	−34.8	----	30	9,643	−34.2	----
250	22	11,006	−41.0	----	31	10,968	−43.3	----	28	10,952	−43.0	----	30	10,916	−43.9	----	31	10,842	−45.7	----	28	10,866	−44.0	----	28	10,895	−43.5	----
200	19	12,487	−52.3	----	31	12,434	−54.4	----	27	12,419	−54.5	----	30	12,378	−54.6	----	29	12,302	−54.9	----	25	12,344	−52.8	----	26	12,366	−53.3	----
175	12	13,342	−58.9	----	30	13,277	−60.2	----	24	13,255	−60.6	----	29	13,223	−59.5	----	29	13,147	−58.9	----	19	13,175	−57.2	----	23	13,177	−58.1	----
150	----	----	----	----	28	14,229	−65.0	----	----	----	----	----	25	14,180	−63.7	----	26	14,107	−62.1	----	6	14,134	−61.0	----	11	14,205	−60.6	----
125	----	----	----	----	12	15,326	−67.8	----	----	----	----	----	15	15,300	−66.9	----	19	15,174	−63.4	----	----	----	----	----	----	----	----	----
100	----	----	----	----	----	----	----	----	----	----	----	----	7	16,660	−64.5	----	8	16,623	−61.5	----	----	----	----	----	----	----	----	----
80	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	5	18,010	−58.3	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	San Antonio, Tex. (986.4 mb.)				San Juan, P. R. (1,015.2 mb.)				Santa Maria, Calif. (1,005.2 mb.)				Sault Ste. Marie, Mich. (990.9 mb.)				Spokane, Wash. (941.7 mb.)				Swan Island, W. I. (1,013.3 mb.)				Tacubaya, Mexico (774.6 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	30	240	27.2	70	30	15	26.8	81	30	71	16.9	75	31	221	18.6	82	31	598	23.7	33	31	10	26.9	84	30	2,306	15.2	77
1,000	30	118	(*)	----	30	148	25.5	82	30	115	16.3	76	31	141	(*)	----	31	69	(*)	----	31	127	26.0	84	30	75	(*)	----
950	30	575	26.4	65	30	599	21.5	85	30	559	16.3	66	31	593	20.5	71	31	523	(*)	----	31	583	22.9	84	30	534	(*)	----
900	30	1,050	22.8	69	30	1,067	18.4	80	30	1,013	18.6	39	31	1,052	18.7	64	31	992	21.0	33	31	1,048	20.0	79	30	1,012	(*)	----
850	30	1,546	19.2	74	30	1,555	15.3	77	30	1,503	18.2	27	31	1,541	16.0	59	31	1,482	16.7	37	31	1,540	17.2	71	30	1,505	(*)	----
800	30	2,065	15.6	74	30	2,068	13.1	67	30	2,019	15.7	30	31	2,054	13.2	57	31	1,994	12.1	44	31	2,056	14.6	57	30	2,033	(*)	----
750	30	2,613	12.5	68	30	2,608	10.5	50	30	2,570	12.3	34	31	2,601	10.3	52	31	2,533	7.6	51	31	2,604	11.6	53	30	2,583	12.9	78
700	30	3,188	9.4	62	30	3,181	7.3	42	30	3,138	9.0	----	31	3,167	7.2	48	31	3,095	3.3	57	31	3,174	8.0	52	30	3,157	8.8	82
650	30	3,799	5.8	60	30	3,789	3.4	43	30	3,750	5.6	----	31	3,778	3.9	48	31	3,692	−.5	53	31	3,786	4.2	53	30	3,772	4.8	86
600	30	4,451	1.9	60	30	4,432	−.5	43	30	4,397	2.0	----	31	4,421	.5	45	31	4,327	−4.6	46	31	4,429	.4	49	30	4,417	.6	90
550	30	5,148	−1.9	55	30	5,121	−4.0	35	30	5,092	−2.4	----	30	5,116	−3.8	45	31	5,005	−8.8	41	31	5,123	−3.6	44	28	5,115	−3.6	88
500	30	5,901	−5.9	47	29	5,871	−8.3	----	30	5,844	−7.3	----	30	5,860	−8.2	42	31	5,738	−13.8	42	31	5,869	−8.1	44	27	5,861	−7.5	74
450	30	6,727	−10.7	43	29	6,690	−13.2	----	29	6,663	−12.9	----	30	6,677	−13.4	----	31	6,536	−19.4	42	31	6,689	−12.9	43	26	6,687	−12.2	71
400	29	7,616	−16.4	41	29	7,569	−19.3	----	29	7,544	−19.1	----	30	7,558	−19.2	----	31	7,395	−25.7	----	30	7,569	−18.7	44	26	7,568	−17.8	67
350	28	8,607	−23.5	----	29	8,548	−26.7	----	29	8,523	−26.5	----	29	8,535	−26.2	----	31	8,348	−32.8	----	30	8,550	−25.7	----	26	8,552	−25.2	----
300	27	9,714	−31.8	----	27	9,641	−35.2	----	27	9,619	−34.5	----	25	9,625	−34.5	----	30	9,412	−40.8	----	30	9,647	−34.1	----	25	9,652	−33.7	----
250	26	10,978	−41.3	----	27	10,885	−45.0	----	26	10,868	−43.3	----	13	10,918	−43.4	----	30	10,630	−48.9	----	30	10,897	−44.2	----	21	10,910	−43.7	----
200	24	12,456	−53.0	----	26	12,340	−55.9	----	15	12,336	−52.0	----	----	----	----	----	28	12,082	−51.9	----	28	12,355	−56.1	----	8	12,378	−56.0	----
175	20	13,309	−58.9	----	22	13,179	−61.5	----	6	13,198	−56.1	----	----	----	----	----	28	12,947	−51.9	----	25	13,192	−62.6	----	7	13,212	−62.9	----
150	14	14,252	−64.8	----	18	14,119	−66.6	----	----	----	----	----	----	----	----	----	25	13,944	−52.9	----	9	14,146	−68.9	----	----	----	----	----
125	----	----	----	----	6	15,209	−71.2	----	----	----	----	----	----	----	----	----	20	15,110	−54.7	----	----	----	----	----	----	----	----	----
100	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	12	16,529	−55.1	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Tampa, Fla. (1,016.8 mb.				Tatoosh Island, Wash. (1,012.8 mb.)				Toledo, Ohio (994.6 mb.)				Washington, D. C. (1,015.7 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	9	24.7	88	31	31	13.7	92	31	191	23.0	83	31	25	24.3	80
1,000	31	156	24.8	84	31	138	12.8	90	31	143	(*)	----	31	162	23.9	76
950	31	608	22.9	77	31	573	12.2	72	31	596	22.9	71	31	611	21.6	75
900	31	1,077	20.2	73	31	1,022	11.4	61	31	1,064	20.2	73	31	1,079	18.8	76
850	31	1,569	17.1	71	31	1,498	9.2	56	31	1,555	17.3	69	31	1,569	16.0	72
800	31	2,084	14.1	68	31	1,998	6.4	55	31	2,072	14.6	65	31	2,082	13.2	66
750	31	2,631	10.8	65	31	2,529	3.9	46	31	2,619	11.4	63	31	2,625	10.1	62
700	31	3,199	7.6	62	31	3,082	1.0	41	31	3,190	8.1	58	31	3,194	6.7	59
650	31	3,810	4.0	60	31	3,678	−2.0	34	31	3,803	4.4	56	31	3,800	3.2	53
600	31	4,453	.2	62	31	4,307	−5.6	32	31	4,446	.8	53	31	4,445	.0	50
550	31	5,146	−3.6	62	31	4,985	−10.0	39	31	5,140	−3.1	45	29	5,136	−3.7	48
500	31	5,894	−7.7	62	31	5,713	−14.6	39	30	5,891	−7.1	----	29	5,884	−8.2	47
450	31	6,717	−12.4	59	31	6,508	−20.1	39	29	6,717	−12.5	----	29	6,704	−13.6	49
400	31	7,599	−17.7	55	31	7,366	−26.1	----	29	7,594	−18.5	----	29	7,581	−19.5	50
350	31	8,584	−24.6	----	31	8,317	−33.3	----	29	8,576	−25.8	----	29	8,558	−26.9	----
300	31	9,686	−33.1	----	31	9,382	−41.3	----	28	9,673	−34.4	----	29	9,651	−35.3	----
250	31	10,940	−43.4	----	29	10,596	−49.3	----	27	10,922	−44.5	----	29	10,894	−45.3	----
200	31	12,400	−55.7	----	24	12,042	−52.1	----	24	12,391	−55.4	----	28	12,348	−55.2	----
175	29	13,238	−62.0	----	24	12,906	−51.7	----	22	13,236	−60.1	----	27	13,193	−60.1	----
150	17	14,182	−67.2	----	23	13,900	−52.3	----	15	14,198	−65.2	----	24	14,150	−63.9	----
125	----	----	----	----	18	15,073	−53.4	----	----	----	----	----	13	15,265	−66.4	----
100	----	----	----	----	6	16,501	−52.2	----	----	----	----	----	5	16,630	−66.5	----

See footnotes at end of table.

LATE REPORT FOR NORTH PLATTE, NEBR.

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 July 1947*—Continued

STATION AND MEAN SURFACE PRESSURE

Standard pressure surface (mb.)	North Platte, Nebr. (919.3 mb.)				Standard pressure surface (mb.)	North Platte, Nebr. (919.3 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity		Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	849	21.6	78	500	30	5,890	−8.6	46
1,000	31	108	(*)	----	450	30	6,710	−13.9	48
950	31	563	(*)	----	400	30	7,584	−19.6	----
900	31	1,034	23.5	62	350	30	8,562	−26.4	----
850	31	1,532	21.3	54	300	30	9,657	−34.5	----
800	31	2,055	18.2	51	250	30	10,906	−44.0	----
750	31	2,607	15.2	43	200	30	12,366	−55.1	----
700	31	3,185	10.9	45	175	29	13,210	−59.7	----
650	31	3,801	6.5	45	150	25	14,168	−64.0	----
600	31	4,450	1.6	46	125	16	15,272	−67.7	----
550	30	5,145	−3.3	44	100	7	16,624	−64.6	----

[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 August 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 (152 m.)			Denver, Colo. (1,618 m.)			El Paso, Tex. (1,196 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	157	3.8	31	230	2.5	28	179	0.2	31	10	1.2	31	200	1.1	31	318	4.2	30	117	5.6	31	283	0.6	31	206	1.3	31	138	0.6	31	315	1.1	31	91	1.4	31	161	2.9
500	---	---	---	---	---	---	28	161	.2	---	---	---	---	---	---	---	---	---	30	120	6.2	31	252	1.2	31	211	2.3	31	160	1.9	31	293	1.3	---	---	---	---	---	---
1,000	31	147	5.0	---	---	---	28	22	1.0	---	---	---	31	180	1.0	31	317	4.2	30	123	6.0	29	226	1.9	30	234	1.7	29	183	1.2	31	292	2.4	---	---	---	---	---	---
1,500	31	151	5.1	---	---	---	28	356	1.6	31	327	4.5	30	215	1.9	31	308	3.1	28	128	4.4	24	236	3.3	28	268	3.3	28	315	.4	30	289	2.4	---	---	---	31	152	3.4
2,000	31	155	4.9	31	219	2.8	28	4	2.3	31	218	2.5	29	223	4.4	31	277	2.2	27	119	4.3	23	255	4.0	26	280	4.5	27	357	.9	27	306	3.1	30	89	1.6	31	133	3.0
2,500	29	148	4.7	31	203	2.6	25	14	3.4	31	222	4.2	27	240	6.5	31	240	3.9	24	119	4.2	22	266	4.4	24	290	4.6	24	314	.6	22	296	2.2	30	107	2.0	31	119	3.4
3,000	28	150	4.5	31	194	2.9	21	12	4.5	29	232	6.5	25	245	9.0	31	223	5.4	23	115	4.3	20	270	4.8	21	301	5.7	24	358	1.0	20	325	2.2	30	128	2.0	30	117	3.8
4,000	26	142	3.4	31	183	3.5	15	359	5.4	28	242	10.9	22	257	13.0	30	223	8.4	23	109	4.4	16	274	4.7	14	306	6.7	21	6	1.3	18	332	4.4	30	215	1.7	27	121	4.1
5,000	23	122	1.4	29	196	3.7	14	13	5.5	26	250	14.7	22	257	14.8	29	228	11.8	18	124	3.7	13	300	5.8	---	---	---	11	306	.4	11	213	2.4	29	239	3.6	26	131	3.7
6,000	17	34	2.1	29	200	5.3	11	27	4.8	25	252	16.5	20	259	17.0	28	229	14.3	17	105	3.0	---	---	---	---	---	---	---	---	---	---	---	---	23	243	7.0	25	134	3.6
8,000	13	79	4.2	24	200	7.2	---	---	---	20	247	22.2	15	250	21.4	20	233	19.6	13	144	2.8	---	---	---	---	---	---	---	---	---	---	---	---	18	227	12.0	19	158	4.6
10,000	10	100	6.6	23	198	9.2	---	---	---	12	245	24.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13	232	16.2	14	125	5.4
12,000	---	---	---	18	205	8.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11	80	3.9
14,000	---	---	---	12	222	7.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11	62	4.3

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. (410 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	196	6.4	31	275	1.9	30	183	0.8	30	260	1.6	31	94	2.6	31	177	1.4	31	170	3.0	31	151	2.5	31	310	2.1	31	113	3.4	21	182	0.9	31	304	0.7	30	134	2.1
500	---	---	---	---	---	---	30	202	1.1	---	---	---	31	106	3.3	31	188	1.6	---	---	---	31	159	3.5	31	308	2.4	31	119	4.6	21	160	1.9	31	301	1.1	29	183	1.9
1,000	---	---	---	---	---	---	30	161	.5	30	246	1.7	31	105	2.3	30	223	2.3	31	176	4.9	31	172	3.2	31	313	2.9	31	118	3.7	21	100	1.7	31	305	.9	28	267	2.0
1,500	---	---	---	31	276	1.9	30	57	.6	30	240	3.1	30	84	1.3	30	243	3.3	31	179	5.3	30	171	2.4	31	274	1.8	31	113	2.8	20	60	2.9	31	321	.7	27	316	2.2
2,000	31	200	6.8	31	280	2.2	28	8	1.6	29	235	4.2	28	45	1.1	27	270	4.0	31	187	6.2	30	176	1.1	31	228	3.4	30	109	2.7	18	74	3.4	31	349	1.4	23	324	2.5
2,500	31	199	6.8	31	265	1.6	24	17	2.6	29	237	6.3	28	38	1.6	23	272	4.5	31	196	7.1	30	216	.5	31	216	5.2	29	115	2.1	14	82	3.2	29	6	1.8	20	336	2.6
3,000	31	196	7.2	30	222	1.8	22	254	3.4	26	246	8.4	27	42	1.6	21	284	5.7	28	201	7.0	29	194	.5	29	210	5.2	28	120	2.0	14	72	3.5	26	356	2.8	17	336	3.0
4,000	30	208	8.6	30	209	3.6	18	354	4.1	24	247	12.0	22	34	.8	13	292	4.7	27	209	8.6	22	137	2.5	28	228	6.0	24	137	2.3	---	---	---	20	14	3.9	11	352	2.9
5,000	21	219	11.2	27	211	5.3	14	323	2.2	18	247	15.5	16	53	1.0	---	---	---	24	206	9.1	18	134	3.2	24	225	7.7	19	142	4.0	---	---	---	10	360	5.3	10	352	2.5
6,000	17	221	13.5	24	221	6.5	13	4	1.4	10	252	17.9	13	42	1.4	---	---	---	18	208	10.2	13	97	2.7	21	232	8.2	16	158	3.3	---	---	---	---	---	---	---	---	---
8,000	13	237	15.5	21	228	10.2	10	14	1.7	---	---	---	---	---	---	---	---	---	16	220	11.6	---	---	---	14	256	11.6	---	---	---	---	---	---	---	---	---	---	---	---
10,000	---	---	---	14	232	11.7	---	---	---	---	---	---	---	---	---	---	---	---	12	220	19.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	222	27.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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. (15 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	274	6.2	31	159	4.3	31	160	3.6	31	255	1.2	31	164	1.6	31	195	0.9	31	186	3.5	31	123	2.9	31	278	4.1	30	246	2.5	31	243	2.5	31	230	1.6	31	141	1.7
500	30	278	5.2	31	161	4.6	31	163	6.3	31	259	1.7	---	---	---	31	203	2.0	31	199	3.9	31	125	4.0	31	285	4.2	30	252	3.5	31	257	1.8	---	---	---	30	139	1.9
1,000	30	255	3.3	31	169	5.1	31	177	7.5	31	243	1.4	31	164	1.6	31	209	2.3	31	203	5.6	31	125	4.5	27	285	2.3	30	255	5.1	30	246	1.3	31	226	3.2	30	158	1.1
1,500	30	211	3.4	31	178	5.2	31	197	8.4	31	227	1.7	31	166	2.1	31	232	2.6	29	214	7.9	31	128	4.7	27	251	1.0	30	254	5.9	26	268	1.2	31	229	4.3	29	114	.1
2,000	30	202	3.6	29	191	4.4	31	211	9.6	31	210	2.0	31	183	2.6	30	243	3.1	29	229	9.8	31	130	4.6	27	206	2.1	29	265	6.4	23	266	1.6	31	226	4.7	25	330	1.2
2,500	30	196	4.4	28	205	4.3	30	223	9.7	31	188	1.6	31	210	4.3	29	257	3.5	26	241	11.0	28	137	5.0	27	193	4.4	26	281	6.7	22	260	1.7	31	228	6.0	23	343	2.2
3,000	30	200	4.8	25	206	4.5	30	231	8.7	31	181	2.0	31	235	5.2	29	266	4.1	26	245	10.7	27	134	4.4	26	192	5.9	26	283	7.7	21	248	2.5	28	234	6.9	22	335	2.4
4,000	30	201	6.1	20	209	4.3	28	240	7.2	30	153	2.8	31	254	8.0	26	282	5.1	22	264	11.6	24	129	3.5	25	189	7.6	23	282	9.4	17	262	4.2	25	238	9.3	15	322	3.6
5,000	29	209	7.2	14	163	2.8	26	255	6.8	27	168	3.7	29	253	11.1	20	292	5.8	20	274	11.5	21	122	3.4	23	200	8.5	15	284	9.5	15	276	5.1	22	242	14.1	14	298	3.7
6,000	28	211	9.0	12	124	2.3	24	260	6.8	27	180	4.3	25	255	12.4	19	308	4.2	19	268	14.0	16	100	3.2	21	204	7.6	11	283	11.4	13	264	7.7	19	246	15.4	11	288	3.4
8,000	24	223	14.4	---	---	---	23	259	8.0	22	204	5.7	16	238	17.4	16	330	3.6	---	---	---	10	87	4.7	17	216	9.1	---	---	---	10	274	9.3	10	250	15.2	---	---	---
10,000	16	234	14.5	---	---	---	19	250	8.4	11	227	10.0	---	---	---	14	305	3.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12,000	10	243	15.2	---	---	---	16	238	5.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14,000	---	---	---	---	---	---	11	211	8.6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 3.—*Maximum free-air wind velocities (m p. s.) for different sections of the United States based on pilot balloon observations during August 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]	41.2	nnw.	2,442	22	Caribou, Maine	36.2	wsw.	3,392	15	Caribou, Maine	68.5	ne.	13,102	10	Portland, Maine.
East-Central [2]	25.2	wsw.	470	16	Richmond, Va	27.0	e.	3,719	29	Raleigh, N. C	48.0	ne.	12,130	10	Nashville, Tenn.
Southeast [3]	26.5	ese.	682	18	Miami, Fla	29.6	nw.	5,000	4	Charleston, S. C	39.0	nne.	11,380	6	Charleston, S. C.
North-Central [4]	41.5	nw.	1,783	11	Rapid City, S. Dak	38.5	w.	4,992	17	Williston, N. Dak	74.0	wnw.	10,651	29	Saulte Ste Marie, Mich.
Central [5]	36.5	sw.	2,283	2	Goodland, Kans	33.2	ssw.	4,693	20	Goodland, Kans	72.0	sw.	13,058	30	Lander, Wyo.
South-Central [6]	26.5	ssw.	1,714	5	Amarillo, Tex	26.0	ne.	4,680	7	New Orleans, La	38.0	ne.	11,709	11	Little Rock, Ark.
Northwest [7]	29.4	wnw.	945	5	Ellensburg, Wash	43.0	w.	4.962	12	Burns, Oreg	77.5	sw.	11,834	9	Great Falls, Mont.
West-Central [8]	32.9	w.	2,273	12	Rock Springs, Wyo	41.0	ssw.	5,000	22	Salt Lake City, Utah	59.0	sw.	11,409	6	Red Bluff, Calif.
Southwest [9]	37.1	ssw.	2,047	5	Sandberg, Calif	29.1	ssw.	2,501	5	Sandberg, Calif	70.5	ssw.	11,580	28	Las Vegas, Nev.

[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.