MONTHLY WEATHER REVIEW

Editor, EDGAR W. WOOLARD

VOL. 72, No. 7
W. B. No. 1417

JULY 1944

CLOSED SEPTEMBER 5, 1944
ISSUED OCTOBER 11, 1944

METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR JULY 1944

[Climate and Crop Weather Division, J. B. KINCER in charge]

AEROLOGICAL OBSERVATIONS

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidities in percent, obtained by radiosondes during July 1944*

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	Albany, N. Y. (86 m.)				Albuquerque, N. Mex. (1,620 m.)				Apalachicola, Fla. (5 m.)				Atlanta, Ga. (300 m.)				Big Springs, Tex. (774 m.)				Bismarck, N. Dak. (505 m.)				Boise, Idaho (868 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	30	1,004	20.0	83	31	839	25.3	41	31	1,016	25.3	87	31	982	24.1	73	31	926	28.6	48	31	954	20.9	65	28	914	24.6	37
500	30	957	21.1	64	----	----	----	----	31	960	23.7	78	31	960	23.9	63	----	----	----	----	----	----	----	----	----	----	----	----
1,000	30	904	18.2	63	----	----	----	----	31	907	21.1	71	31	906	20.9	62	31	902	28.1	43	31	901	19.6	56	28	900	24.9	29
1,500	30	852	14.5	68	----	----	----	----	31	856	18.0	72	31	855	17.4	66	31	853	24.7	44	31	850	16.2	56	28	850	22.0	25
2,000	30	803	10.6	73	31	804	23.2	38	31	807	15.0	70	31	806	14.0	66	31	805	20.8	48	31	801	12.8	56	28	802	17.7	27
2,500	30	756	7.2	72	31	758	19.9	39	31	760	12.0	65	31	760	10.6	70	31	760	16.9	54	31	754	9.5	56	28	756	13.2	32
3,000	30	711	4.8	60	31	715	15.9	43	31	716	9.1	64	31	715	7.4	70	31	716	12.8	60	31	710	6.4	56	28	712	9.1	36
4,000	29	629	−0.3	44	31	634	7.5	55	31	634	3.7	58	31	633	1.8	53	31	635	5.5	55	31	628	−0.4	49	28	630	1.1	47
5,000	29	554	−6.1	42	31	561	−0.6	67	31	560	−1.7	56	30	558	−3.5	40	31	561	−1.6	53	29	554	−6.5	35	27	556	−6.7	52
6,000	28	487	−12.5	37	30	494	−7.7	72	31	493	−7.6	46	29	491	−9.3	35	31	494	−7.0	40	29	486	−13.3	34	26	488	−13.9	47
7,000	28	426	−19.4	38	30	435	−13.0	57	31	433	−14.1	48	29	431	−15.8	38	31	434	−13.4	34	29	426	−20.7	33	26	427	−21.0	44
8,000	28	372	−26.5	42	30	380	−19.5	56	31	379	−20.8	48	24	376	−23.4	45	31	379	−20.8	37	29	371	−28.5	----	26	372	−28.9	41
9,000	26	323	−34.1	----	29	331	−27.0	50	30	330	−27.9	49	24	327	−30.5	42	31	330	−28.3	44	29	321	−36.1	----	26	322	−36.6	----
10,000	26	280	−41.6	----	29	288	−34.8	----	30	287	−35.9	----	23	284	−37.9	----	31	287	−36.1	45	27	278	−43.4	----	25	279	−43.5	----
11,000	26	241	−48.7	----	29	249	−42.7	----	30	247	−44.1	----	21	244	−45.4	----	31	248	−44.4	----	26	239	−49.4	24	24	240	−49.4	----
12,000	25	206	−53.2	----	29	214	−50.6	----	29	213	−52.3	----	20	210	−51.9	----	31	213	−52.6	----	24	205	−53.1	----	23	206	−52.6	----
13,000	25	176	−55.3	----	29	183	−57.8	----	28	182	−59.4	----	18	180	−57.7	----	28	182	−60.0	----	21	175	−55.0	----	20	177	−54.2	----
14,000	23	150	−57.6	----	23	156	−63.5	----	11	156	−64.4	----	11	153	−62.0	----	21	155	−66.0	----	20	150	−56.8	----	16	152	−56.1	----
15,000	23	128	−59.2	----	10	132	−66.8	----	5	133	−67.6	----	----	----	----	----	9	131	−69.9	----	16	128	−58.3	----	8	129	−58.4	----
16,000	22	110	−60.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	14	110	−58.7	----	----	----	----	----
17,000	18	94	−58.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	12	93	−57.8	----	----	----	----	----
18,000	16	80	−57.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	9	79	−56.2	----	----	----	----	----
19,000	10	68	−56.0	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	7	68	−55.2	----	----	----	----	----

Altitude (meters) m. s. l.	Brownsville, Tex. (6 m.)				Buffalo, N. Y. (221 m.)				Caribou, Maine (193 m.)				Charleston, S. C.[3] (14 m.)				Denver, Colo. (1,616 m.)				Dodge City, Kans (787 m.)				El Paso, Tex. (1,195 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	30	1,013	27.2	85	31	989	20.2	74	31	991	16.8	79	29	1,015	23.4	96	31	840	20.9	54	31	925	23.6	68	31	881	28.5	37
500	30	958	24.0	82	31	958	20.9	60	31	956	17.4	68	29	960	22.9	85	----	----	----	----	----	----	----	----	----	----	----	----
1,000	30	905	22.3	62	31	904	17.8	62	31	902	14.6	70	29	907	20.7	78	----	----	----	----	31	903	24.0	58	----	----	----	----
1,500	30	854	20.0	52	31	852	14.1	65	31	850	11.4	74	29	855	17.9	74	----	----	----	----	31	853	21.3	55	31	852	27.5	32
2,000	30	805	17.5	44	31	803	10.7	61	31	800	8.3	74	29	806	14.8	72	31	803	21.0	44	31	804	18.2	54	31	804	23.6	36
2,500	30	759	14.7	42	31	756	8.0	52	31	753	5.4	70	29	760	11.9	72	31	758	17.6	44	31	758	14.7	56	31	759	19.5	42
3,000	30	716	11.6	39	31	711	5.1	48	31	708	2.5	66	29	716	9.1	68	31	714	13.7	47	31	715	11.3	53	31	716	15.3	48
4,000	30	634	5.5	32	31	628	−0.6	41	31	625	−2.7	44	29	634	3.4	62	31	633	5.7	54	31	633	3.9	51	31	636	6.7	64
5,000	30	561	−0.5	32	31	554	−6.4	34	31	551	−8.7	44	27	560	−1.8	57	31	560	−2.2	65	31	559	−3.0	47	31	562	−0.6	73
6,000	30	494	−6.6	33	31	486	−12.9	36	31	483	−15.1	45	27	493	−7.5	52	31	493	−9.8	72	31	492	−9.1	39	31	495	−6.8	66
7,000	30	434	−13.1	32	31	426	−19.7	39	31	423	−22.3	47	27	433	−14.1	49	31	433	−16.4	59	30	432	−15.2	34	31	435	−12.6	40
8,000	29	380	−20.3	----	31	371	−27.0	38	31	368	−29.8	48	27	379	−20.9	44	31	378	−23.5	40	30	377	−22.2	38	31	381	−19.4	35
9,000	29	330	−27.7	----	30	322	−34.6	----	31	319	−37.2	----	25	330	−28.1	42	30	329	−30.5	34	30	328	−29.7	----	30	328	−26.9	34
10,000	29	287	−35.5	----	30	278	−42.3	----	31	276	−44.3	----	24	286	−35.7	36	29	285	−38.0	38	29	285	−37.6	----	30	288	−34.6	----
11,000	29	248	−43.5	----	29	240	−49.6	----	31	237	−50.0	----	21	248	−43.4	----	29	246	−45.4	----	29	246	−45.2	----	29	249	−42.8	----
12,000	29	213	−51.5	----	29	205	−54.2	----	31	203	−52.9	----	21	213	−51.1	----	24	211	−51.7	----	27	212	−52.2	----	29	214	−51.2	----
13,000	29	183	−58.8	----	28	176	−55.9	----	30	174	−54.5	----	17	182	−56.9	----	19	181	−57.7	----	27	181	−59.2	----	28	184	−59.2	----
14,000	24	155	−65.0	----	22	150	−57.7	----	23	148	−54.5	----	14	156	−62.4	----	17	154	−62.9	----	26	153	−64.8	----	23	156	−66.0	----
15,000	13	132	−69.1	----	16	128	−60.0	----	16	127	−55.8	----	9	132	−66.5	----	14	130	−65.8	----	18	130	−67.3	----	8	132	−69.6	----
16,000	5	112	−71.6	----	6	109	−59.8	----	8	108	−54.9	----	5	113	−68.8	----	5	111	−68.2	----	13	110	−67.8	----	----	----	----	----
17,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	6	94	−65.8	----	----	----	----	----

See footnotes at end of table.

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TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidities in per cent, obtained by radiosondes during July 1944*—Continued

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	Ely, Nev.[2] (1,908 m.)				Glasgow, Mont. (648 m.)				Great Falls, Mont. (1,128 m.)				Greensboro, N. C. (273 m.)				Hatteras, N. C. (3 m.)				Huntington, W. Va. (172 m.)				International Falls, Minn. (343 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	809	21.0	21	31	938	21.8	52	31	887	20.6	42	31	986	21.7	83	31	1017	24.6	82	31	996	21.1	76	31	972	18.1	77
500													31	960	21.8	72	31	961	21.6	78	31	959	23.6	55	31	954	18.9	69
1,000					31	900	20.3	43					31	907	19.3	66	31	907	19.0	63	31	906	20.5	54	31	900	15.8	68
1,500					31	849	16.5	48	31	850	18.9	38	31	855	15.9	68	31	856	16.3	55	31	854	16.5	60	31	849	12.6	72
2,000	31	801	22.6	21	31	800	12.5	54	31	801	15.2	41	31	806	12.4	69	31	807	13.6	49	31	805	12.5	68	31	799	9.6	67
2,500	31	756	20.7	20	31	754	8.4	61	31	754	11.1	46	30	759	9.0	66	31	760	10.8	45	30	758	9.2	67	31	752	6.8	58
3,000	31	713	16.3	20	31	709	4.9	55	31	710	6.8	54	30	715	6.0	62	31	715	7.9	44	30	714	6.1	58	31	708	4.0	53
4,000	31	633	7.4	21	31	627	−2.2	54	31	628	−1.6	63	30	632	0.5	55	31	633	2.2	45	30	631	0.5	49	31	625	−1.7	43
5,000	31	559	−1.9	23	31	552	−8.5	42	31	553	−8.1	44	29	558	−5.2	47	31	559	−3.3	38	29	557	−4.8	40	31	550	−8.2	37
6,000	31	492	−11.1	25	31	484	−15.1	40	31	485	−15.0	37	29	490	−11.5	48	30	492	−9.3	39	29	489	−10.8	31	31	483	−14.6	38
7,000	30	432	−18.4	26	31	423	−22.3	39	31	425	−22.2	41	29	430	−17.6	44	29	432	−15.5	43	28	429	−17.3		31	423	−21.7	36
8,000	30	376	−25.9	25	31	368	−29.9		31	370	−30.0	41	29	375	−24.7	40	27	377	−22.1	48	28	375	−24.5		31	368	−29.0	
9,000	30	327	−33.4	24	29	319	−37.9		31	320	−37.7		29	326	−32.3		26	327	−29.4	56	28	326	−31.6		30	319	−36.5	
10,000	30	283	−40.6		29	276	−45.4		31	277	−45.1		28	282	−40.6		26	284	−37.2		28	282	−39.0		30	276	−43.5	
11,000	29	244	−47.3		29	237	−51.0		30	238	−51.4		28	243	−48.2		24	246	−45.0		28	244	−46.1		28	238	−49.5	
12,000	29	209	−53.3		28	203	−53.2		26	204	−54.0		28	209	−55.5		24	211	−52.8		28	209	−52.4		26	203	−52.8	
13,000	26	178	−58.4		26	174	−53.7		20	175	−54.5		25	178	−61.4		20	181	−59.4		28	178	−57.2		18	174	−53.5	
14,000	20	152	−63.8		24	149	−54.8		14	150	−55.0		19	151	−65.0		13	154	−64.6		22	153	−60.0		14	149	−54.6	
15,000	12	129	−68.3		19	127	−56.2		7	127	−55.9		12	128	−66.2						15	130	−62.6		9	128	−57.0	
16,000	5	109	−69.3		14	109	−57.1						5	109	−67.7						10	111	−64.0		5	109	−55.5	
17,000					5	93	−56.7																					

Altitude (meters) m. s. l.	Jackson, Miss. (97 m.)				Joliet, Ill. (178 m.)				Lake Charles, La. (5 m.)				Lakehurst, N. J.[1] (39 m.)				Little Rock, Ark. (79 m.)				Louisville, Ky. (166 m.)				Mazatlan, Mexico (80 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	28	1,003	25.9	77	31	994	20.5	73	31	1,014	26.1	85	29	1,012	22.4	77	30	1,005	26.8	63	31	996	24.1	64	24	1,004	28.7	76
500	28	959	25.4	68	31	958	22.4	56	31	959	25.0	67	29	960	22.5	58	30	958	26.6	52	31	958	25.2	49	24	958	25.4	68
1,000	28	906	22.8	64	31	904	19.2	58	31	906	22.3	64	29	906	19.7	56	30	906	23.0	50	31	906	21.5	53	24	905	23.7	65
1,500	28	855	19.4	68	31	853	15.2	63	31	856	19.6	55	29	855	16.2	59	30	855	19.4	53	31	855	17.2	60	24	854	20.7	73
2,000	28	806	16.1	66	31	804	11.7	63	31	807	16.7	52	29	806	12.5	61	30	806	15.7	56	31	806	13.1	67	24	806	18.3	70
2,500	27	760	12.8	62	31	757	9.1	50	31	760	13.6	47	29	759	9.2	53	30	760	12.3	57	31	758	9.8	62	24	760	16.0	60
3,000	27	716	9.8	54	31	712	6.3	44	31	716	10.6	46	29	714	6.3	45	30	716	9.0	51	31	714	6.8	53	24	717	13.4	55
4,000	27	634	3.8	42	31	630	1.2	36	31	635	4.6	46	29	632	0.9	35	30	634	3.3	37	31	632	0.8	42	22	636	6.5	61
5,000	27	560	−2.0	37	29	556	−5.3	40	31	561	−1.1	44	29	557	−4.8	35	29	559	−2.5	34	31	557	−4.8	34	16	562	−0.2	62
6,000	27	493	−7.4	34	28	488	−11.5	36	31	494	−6.4	31	29	490	−10.8		29	492	−8.3	35	31	490	−10.3	26	16	496	−6.5	55
7,000	26	434	−13.5	36	28	427	−18.6	33	30	434	−13.1	35	29	430	−17.7		29	432	−14.7	34	30	430	−17.1	31	16	436	−12.4	50
8,000	26	379	−20.6	35	28	373	−26.0		30	380	−20.2	36	27	375	−23.9		29	378	−21.6		30	375	−24.3	38	13	381	−19.2	54
9,000	25	330	−28.0		28	324	−33.4		30	331	−27.5		27	326	−31.0		29	329	−28.5		30	326	31.5		13	333	−26.3	
10,000	25	287	−35.7		28	281	−40.8		30	288	−35.1		27	283	−38.5		29	286	−36.0		30	283	−38.8		11	289	−33.7	
11,000	25	248	−44.0		28	242	−47.9		29	248	−43.1		26	244	−45.6		29	247	−43.9		30	244	−46.0		10	250	−41.4	
12,000	24	213	−51.5		28	208	−52.9		28	214	−51.1		26	210	−51.8		29	212	−51.4		30	209	−52.4		10	216	−49.2	
13,000	23	182	−58.4		25	177	−56.0		24	183	−58.7		19	181	−56.5		28	181	−57.8		29	179	−57.9		8	185	−57.2	
14,000	21	155	−64.4		24	152	−59.5		23	156	−65.1		8	154	−60.8		25	155	−63.2		19	152	−61.3		6	157	−64.0	
15,000	11	132	−68.8		15	129	−61.7		15	132	−69.6						19	132	−67.4		11	129	−62.2		5	134	−69.2	
16,000					11	110	−60.7		5	112	−70.4						6	111	−69.7		6	110	−62.0					
17,000					5	93	−59.4																					

Altitude (meters) m. s. l.	Medford, Oreg.[2] (409 m.)				Miami, Fla.[2] (4 m.)				Nashville, Tenn. (180 m.)				Norfolk, Va.[1] (4 m.)				Oakland, Calif. (2 m.)				Ogden, Utah (1,355 m.)				Oklahoma City, Okla. (391 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	967	26.1	34	31	1,017	25.6	87	31	994	25.4	62	29	1,016	25.2	71	31	1,014	15.5	78	31	863	24.5	34	31	968	26.5	66
500	31	957	25.4	34	31	961	24.1	85	31	959	24.6	55	29	960	22.7	66	31	957	14.7	70					31	956	27.0	52
1,000	31	904	21.5	36	31	908	21.4	81	31	906	21.7	55	29	907	19.3	65	31	902	20.4	34					31	904	24.9	56
1,500	31	853	17.5	40	30	857	18.3	79	31	855	17.7	60	29	855	16.1	65	31	852	19.1	21	31	849	25.4	22	31	854	21.6	57
2,000	31	804	13.7	46	30	808	15.4	76	31	806	14.1	61	29	806	13.0	57	31	803	16.0	23	31	801	22.0	20	31	806	18.1	54
2,500	31	757	10.6	49	30	762	12.6	71	31	759	10.8	62	29	759	9.9	49	31	756	13.1	18	31	756	18.0	20	31	760	15.0	48
3,000	31	713	7.8	48	30	717	9.7	70	31	715	7.5	55	29	715	7.3	47	31	712	9.8	18	31	713	13.5	24	31	716	11.9	43
4,000	31	631	1.5	45	30	635	4.2	67	31	632	1.7	47	29	632	1.8	38	31	631	2.9	18	31	632	4.5	32	31	634	4.9	42
5,000	31	556	−5.4	45	30	562	−1.3	69	29	558	−3.8	38	29	558	−3.9	35	31	556	−4.6		31	558	−4.4	44	31	560	−1.6	40
6,000	31	489	−12.2	44	30	495	−6.8	64	26	491	−9.4	37	27	490	−10.5	34	30	489	−11.7		31	490	−12.5	55	31	494	−7.6	37
7,000	30	428	−19.6	42	30	435	−13.0	61	26	431	−16.1	36	26	430	−16.9	34	30	428	−19.4		31	429	−19.7	38	29	434	−13.8	38
8,000	29	373	−27.2	41	30	380	−19.7	58	26	376	−22.7	34	20	375	−24.0		30	374	−27.0		31	374	−26.9		26	379	−20.5	42
9,000	29	324	−34.9	39	30	332	−26.8	52	24	328	−30.3		20	326	−31.2		30	324	−34.6		31	325	−34.5		25	330	−27.7	43
10,000	26	281	−41.8		30	288	−34.4		22	284	−38.1		20	283	−38.9		29	281	−41.6		31	281	−41.9		25	287	−35.3	
11,000	26	242	−48.4		30	249	−42.4		22	245	−45.8		16	244	−47.2		22	242	−47.3		31	242	−48.0		24	248	−43.1	
12,000	26	207	−53.1		29	214	−50.3		21	210	−53.2		14	209	−54.2		14	208	−49.7		29	208	−52.8		24	214	−50.7	
13,000	20	177	−54.6		28	184	−57.7		17	180	−59.1		13	178	−59.5		9	177	−53.2		29	178	−56.1		23	183	−57.9	
14,000	17	152	−55.3		25	156	−64.1		12	154	−62.9		12	152	−62.8		9	151	−57.0		25	151	−59.1		22	155	−63.9	
15,000	12	130	−56.7		15	133	−68.1		8	130	−63.8		11	129	−64.1		8	130	−60.0		15	129	−61.9		14	132	−68.5	
16,000													9	109	−65.0		7	110	−63.4		7	110	−62.7		7	112	−70.1	
17,000																	6	94	−62.4									

See footnotes at end of table.

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidities in percent, obtained by radiosondes during July 1944*—Continued

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL—Continued

Altitude (meters) m. s. l.	Omaha, Nebr. (301 m.)				Phoenix, Ariz. (339 m.)				Pittsburgh, Pa. (392 m.)				Portland, Maine[2] (20 m.)				Rapid City, S. Dak. (981 m.)				St. Louis, Mo. (171 m.)				St. Paul, Minn. (225 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	979	24.4	69	31	969	32.9	29	31	970	22.0	65	31	1,012	17.5	90	31	904	19.6	65	31	995	24.5	62	31	987	21.5	70
500	31	957	23.8	63	31	952	34.9	18	31	958	22.2	59	31	958	18.8	73	----	----	----	----	31	958	24.6	49	31	956	20.5	64
1,000	31	904	21.4	59	31	900	31.4	19	31	905	20.0	53	31	903	16.6	69	31	902	19.8	63	31	905	21.0	51	31	902	17.0	66
1,500	31	853	18.0	61	31	852	27.2	21	31	854	16.2	56	31	852	13.5	70	31	852	19.1	47	31	854	17.4	53	31	850	14.0	64
2,000	31	804	15.1	57	31	804	22.9	25	31	804	12.3	61	31	802	10.0	70	31	803	15.6	50	31	805	14.3	49	31	801	11.4	61
2,500	31	758	12.2	50	31	758	18.4	31	31	758	8.5	62	31	755	6.9	70	31	756	12.4	53	31	758	11.2	50	31	754	8.7	52
3,000	31	714	8.9	44	31	716	14.2	37	31	713	5.7	50	31	710	4.2	67	31	713	9.1	50	31	714	8.4	44	31	710	5.8	48
4,000	30	632	2.2	47	31	635	6.1	46	31	630	0.5	40	31	628	−1.0	58	31	630	1.5	52	31	632	2.3	41	31	628	−0.4	41
5,000	29	558	−4.0	33	31	561	−0.5	47	31	556	−5.2	40	30	553	−7.0	52	31	556	−5.8	51	31	558	−3.3	39	31	553	−6.4	35
6,000	29	491	−10.7	30	31	494	−7.1	45	31	488	−11.2	36	28	486	−12.8	49	31	489	−12.4	44	30	491	−9.6	28	31	486	−12.9	37
7,000	29	430	−17.3	----	31	434	−13.3	41	31	428	−18.0	38	27	426	−19.7	47	31	428	−19.3	44	29	431	−16.6	33	31	426	−19.7	40
8,000	29	375	−24.0	----	31	380	−20.4	38	30	374	−25.0	39	27	371	−26.2	46	31	373	−26.6	----	29	376	−23.7	33	31	371	−27.3	41
9,000	29	326	−31.0	----	31	331	−27.9	35	30	324	−32.4	45	26	322	−33.3	46	29	324	−33.8	----	29	327	−31.4	36	31	322	−34.5	----
10,000	29	283	−38.4	----	31	288	−35.7	----	30	282	−40.1	----	25	279	−40.4	----	28	281	−41.6	----	29	284	−39.1	----	31	279	−42.1	----
11,000	29	244	−45.5	----	31	248	−43.6	----	30	242	−47.5	----	25	240	−47.2	----	28	242	−48.6	----	29	245	−46.3	----	31	240	−48.5	----
12,000	28	210	−52.0	----	31	214	−51.1	----	30	208	−53.1	----	23	206	−53.2	----	24	207	−53.8	----	28	210	−52.9	----	31	206	−52.7	----
13,000	24	180	−57.3	----	31	183	−57.7	----	29	178	−56.8	----	21	176	−56.2	----	21	177	−56.6	----	27	179	−58.3	----	28	176	−55.6	----
14,000	20	153	−61.3	----	30	156	−63.0	----	26	152	−59.6	----	19	151	−56.6	----	14	151	−58.8	----	26	153	−62.6	----	22	150	−58.5	----
15,000	17	130	−62.9	----	16	133	−67.3	----	19	129	−60.4	----	18	129	−57.8	----	11	128	−61.1	----	25	130	−65.1	----	14	128	−59.9	----
16,000	14	111	−63.4	----	9	112	−70.2	----	16	110	−61.0	----	16	110	−59.0	----	5	109	−60.9	----	12	111	−66.3	----	5	109	−60.9	----
17,000	8	95	−60.1	----	----	----	----	----	10	93	−58.3	----	12	94	−57.2	----	----	----	----	----	7	94	−63.8	----	----	----	----	----
18,000	----	----	----	----	----	----	----	----	5	80	−56.3	----	10	80	−56.4	----	----	----	----	----	----	----	----	----	----	----	----	----
19,000	----	----	----	----	----	----	----	----	----	----	----	----	7	68	−55.1	----	----	----	----	----	----	----	----	----	----	----	----	----

Altitude (meters) M. S. L.	San Antonio, Tex. (240 m.)				San Diego, Calif.[1] (19 m.)				San Juan, P. R. (15 m.)				Santa Maria, Calif. (71 m.)				S. Ste. Marie, Mich.[2] (221 m.)				Seattle, Wash.[1] (22 m.)				Spokane, Wash. (598 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	985	29.2	60	25	1,012	17.6	81	29	1,015	26.3	85	31	1,007	14.4	85	31	988	15.7	86	30	1,014	22.1	53	31	944	25.9	29
500	31	957	27.5	62	25	957	15.9	75	29	961	23.1	85	31	958	13.6	85	31	956	17.2	72	30	959	18.3	59	----	----	----	----
1,000	31	905	24.4	65	25	903	21.3	27	29	908	20.0	82	31	903	20.5	30	31	902	15.7	66	30	905	15.0	60	31	901	22.9	29
1,500	31	855	20.9	65	25	852	20.8	16	29	857	17.2	77	31	852	19.7	22	31	850	13.2	66	30	853	12.2	58	31	851	18.3	34
2,000	31	806	17.7	58	25	804	19.1	----	29	807	15.0	59	31	803	16.8	25	31	801	10.2	67	30	803	9.4	56	31	802	13.8	42
2,500	31	760	14.7	49	24	758	16.6	----	29	761	12.5	50	31	757	13.4	23	31	753	7.5	65	30	756	6.6	53	31	755	9.3	50
3,000	31	716	12.0	39	24	714	13.7	----	29	717	9.8	44	31	713	10.3	17	31	709	4.9	62	30	711	3.8	48	31	711	5.0	56
4,000	31	635	5.8	41	24	634	6.5	----	29	635	3.5	42	31	632	4.1	----	30	627	−0.3	56	30	628	−2.1	43	31	628	−2.0	48
5,000	31	561	−0.4	40	24	560	0.0	----	29	561	−2.3	48	31	558	−2.5	----	28	553	−6.1	49	30	553	−8.3	40	31	553	−8.4	32
6,000	31	494	−5.9	31	24	493	−6.5	----	29	494	−7.4	42	31	491	−9.6	----	26	486	−12.8	45	30	485	−15.1	36	30	485	−15.1	31
7,000	31	435	−12.5	30	22	434	−13.6	----	29	434	−13.7	41	31	430	−7.5	----	26	426	−19.7	41	30	425	−22.6	40	30	425	−22.3	----
8,000	30	381	−19.6	32	21	379	−21.2	----	28	379	−20.4	----	31	376	−25.1	----	26	371	−27.3	40	30	369	−30.4	----	29	370	−29.8	----
9,000	30	331	−27.0	----	21	330	−28.5	----	26	330	−28.0	----	31	326	−32.7	----	26	322	−34.7	39	30	320	−38.3	----	29	320	−37.2	----
10,000	29	288	−34.4	----	20	287	−35.8	----	25	286	−36.0	----	31	283	−39.6	----	25	278	−42.3	46	30	276	−45.6	----	29	277	−44.2	----
11,000	29	250	−42.3	----	20	248	−43.3	----	25	248	−44.4	----	31	244	−46.3	----	24	240	−48.9	----	30	238	−50.4	----	28	238	−49.4	----
12,000	29	215	−50.2	----	13	213	−49.5	----	23	213	−52.6	----	29	209	−51.9	----	22	206	−52.3	----	30	203	−54.0	----	28	204	−52.7	----
13,000	28	184	−57.0	----	10	182	−55.7	----	17	181	−60.6	----	25	179	−56.3	----	18	176	−54.0	----	30	174	−55.4	----	25	175	−53.6	----
14,000	24	157	−62.8	----	9	155	−60.6	----	8	154	−65.6	----	22	153	−60.9	----	14	151	−54.4	----	28	148	−54.9	----	19	150	−53.9	----
15,000	11	134	−68.4	----	8	132	−63.8	----	----	----	----	----	14	130	−63.2	----	11	128	−56.1	----	24	127	−54.8	----	14	128	−55.2	----
16,000	----	----	----	----	8	112	−66.1	----	----	----	----	----	6	111	−63.8	----	9	110	−56.7	----	24	109	−55.1	----	11	110	−56.1	----
17,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	17	93	−55.3	----	----	----	----	----
18,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	8	79	−55.6	----	----	----	----	----

Altitude (meters) m. s.l.	Swan Island, W. I.[4] (10 m.)				Tacubaya, Mexico (2,306 m.)				Tampa, Fla. (3 m.)				Tapachula, Mexico.[3] (115 m.)				Tatoosh Island, Wash. (31 m.)				Toledo, Ohio (191 m.)				Tongue Point, Oreg.[1] (21 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	----	----	----	----	30	775	16.2	73	29	1,017	26.1	84	----	----	----	----	31	1,016	12.5	92	29	992	20.5	75	22	1,020	16.2	84
500	----	----	----	----	----	----	----	----	29	961	23.4	79	----	----	----	----	31	960	13.0	79	29	957	21.7	58	22	964	13.9	80
1,000	----	----	----	----	----	----	----	----	29	907	20.3	76	----	----	----	----	31	905	12.9	62	29	904	19.0	59	22	909	13.7	64
1,500	----	----	----	----	----	----	----	----	29	856	17.3	72	----	----	----	----	31	853	11.6	52	29	853	15.3	64	22	856	12.8	48
2,000	----	----	----	----	----	----	----	----	29	807	14.5	67	----	----	----	----	31	803	8.9	47	29	803	11.7	67	22	806	11.1	42
2,500	----	----	----	----	30	758	15.1	70	29	760	11.6	65	----	----	----	----	31	756	6.5	40	29	756	8.5	61	22	759	9.0	36
3,000	----	----	----	----	30	714	11.7	71	29	716	8.7	59	----	----	----	----	31	711	3.7	36	29	712	5.5	56	22	714	6.2	32
4,000	----	----	----	----	30	633	4.4	82	27	634	3.2	58	----	----	----	----	31	628	−2.2	34	28	629	0.0	41	22	632	0.2	----
5,000	----	----	----	----	30	559	−2.1	86	26	561	−2.4	56	----	----	----	----	31	553	−8.6	37	28	554	−5.6	34	22	557	−6.3	----
6,000	----	----	----	----	29	492	−7.8	64	26	493	−8.2	55	----	----	----	----	31	485	−15.1	40	28	487	−12.2	33	22	489	−13.5	----
7,000	----	----	----	----	28	432	−13.7	62	25	434	−14.4	47	----	----	----	----	30	424	−22.6	42	28	427	−19.2	42	22	428	−21.1	----
8,000	----	----	----	----	28	378	−20.2	61	23	378	−20.9	50	----	----	----	----	30	369	−30.3	39	28	372	−26.5	----	19	372	−29.2	----
9,000	----	----	----	----	28	329	−27.5	49	23	330	−27.9	51	----	----	----	----	29	320	−38.2	----	28	323	−33.6	----	17	324	−36.4	----
10,000	----	----	----	----	28	286	−35.5	----	23	287	−35.6	----	----	----	----	----	29	276	−45.6	----	28	280	−40.6	----	15	280	−44.0	----
11,000	----	----	----	----	26	247	−44.0	----	22	247	−43.6	----	----	----	----	----	29	237	−51.5	----	27	241	−47.1	----	13	240	−50.6	----
12,000	----	----	----	----	24	213	−52.4	----	21	213	−51.7	----	----	----	----	----	28	203	−54.5	----	27	207	−51.9	----	12	205	−55.5	----
13,000	----	----	----	----	8	182	−59.7	----	18	182	−59.2	----	----	----	----	----	25	173	−54.9	----	23	177	−55.6	----	12	176	−57.2	----
14,000	----	----	----	----	----	----	----	----	15	155	−65.7	----	----	----	----	----	19	148	−53.4	----	22	151	−57.6	----	10	150	−57.7	----
15,000	----	----	----	----	----	----	----	----	6	131	−69.3	----	----	----	----	----	13	126	−53.6	----	19	129	−59.5	----	8	128	−57.5	----
16,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	6	108	−52.7	----	11	110	−60.0	----	8	109	−57.5	----
17,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	5	94	−57.5	----	6	93	−57.5	----

See footnotes at end of table.

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidities in percent, obtained by radiosondes during July 1944*—Continued

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL—Continued

Altitude (meters) m. s. l.	Washington, D. C. (25 m.) Number of observations	Pressure	Temperature	Relative humidity	Altitude (meters) m. s. l.	Washington, D. C. (25 m.) Number of observations	Pressure	Temperature	Relative humidity	Altitude (meters) m. s. l.	Washington, D. C. (25 m.) Number of observations	Pressure	Temperature	Relative humidity	Altitude (meters) m. s. l.	Washington, D. C (25 m.) Number of observations	Pressure	Temperature	Relative humidity
Surface	31	1,013	24.4	71	2,500	31	758	9.1	63	7,000	30	429	−17.7	36	12,000	28	208	−53.9	----
500	31	960	22.7	62	3,000	31	714	6.0	57	8,000	30	375	−25.0	39	13,000	26	178	−58.6	----
1,000	31	906	19.5	62	4,000	31	631	0.8	53	9,000	29	325	−32.6	----	14,000	20	152	−61.3	----
1,500	31	855	15.9	64	5,000	30	557	−4.7	41	10,000	29	282	−40.4	----	15,000	11	129	−62.5	----
2,000	31	806	12.4	63	6,000	30	490	−11.0	44	11,000	29	243	−47.9	----	16,000	5	109	−63.0	----

[1] U. S. Navy.
[2] Humidity data obtained by hair hygrometer, others using electric hygrometer.
[3] Observations discontinued July 2, 1944.
[4] Data not yet received.

NOTE.—All observations taken near 11:00 p. m. E. S. T. except at Mazatlan where they are taken near 9:00 p. m.
"Number of Observations" refers to pressure only, as temperature and humidity data are sometimes missing for some observations at certain levels. Relative humidity data are not used in daily observations when the temperature is below −40.0° C.
None of the means included in these tables are based on less than 15 surface or 5 standard level observations.
Means for observations obtained by the electric hygrometer have been adjusted to compensate for the values occurring below the operating range of the humidity element.

TABLE 2.—*Free-air resultant winds based on pilot-balloon observations made near 5 p. m. (75th meridian time) during July 1944. Direction 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. (538 m.) Observations	Direction	Velocity	Albuquerque, N. Mex. (1,630 m.) Observations	Direction	Velocity	Atlanta, Ga. (299 m.) Observations	Direction	Velocity	Billings, Mont. (1,095 m.) Observations	Direction	Velocity	Bismarck, N. Dak. (512 m.) Observations	Direction	Velocity	Boise, Idaho (870 m.) Observations	Direction	Velocity
Surface	31	150	3.2	31	245	1.5	31	142	0.5	31	42	1.0	31	261	2.6	31	311	4.5
500	---	---	---	---	---	---	31	191	0.5	---	---	---	---	---	---	---	---	---
1,000	31	154	4.1	---	---	---	31	219	0.6	---	---	---	31	282	2.7	31	312	4.7
1,500	31	167	3.8	---	---	---	31	298	0.6	31	358	0.7	31	272	3.0	31	319	3.8
2,000	31	175	3.7	31	248	1.5	31	334	2.1	31	244	0.9	29	284	5.0	31	313	2.5
2,500	30	189	4.0	31	241	1.8	28	344	2.6	30	254	2.8	26	284	7.1	31	266	2.5
3,000	29	199	3.5	31	248	1.5	25	338	3.4	28	266	4.6	25	278	9.3	31	236	4.0
4,000	29	249	2.8	30	268	2.3	19	343	5.1	27	262	9.0	21	271	11.4	31	242	6.4
5,000	26	286	3.1	27	273	3.8	13	331	5.1	23	260	12.4	19	270	11.4	30	240	9.4
6,000	20	280	3.7	24	252	4.2	---	---	---	21	266	14.1	17	271	12.2	27	239	11.8
8,000	15	277	4.0	22	246	7.5	---	---	---	17	268	16.2	11	254	14.4	20	249	10.8
10,000	11	324	3.7	21	253	13.0	---	---	---	11	260	14.7	---	---	---	10	248	12.2
12,000	---	---	---	14	245	15.9	---	---	---	---	---	---	---	---	---	---	---	---

Altitude (meters) m. s. l.	Brownsville, Tex. (7 m.) Observations	Direction	Velocity	Buffalo, N. Y. (220 m.) Observations	Direction	Velocity	Burlington, Vt. (132 m.) Observations	Direction	Velocity	Charleston, S. C. (17 m.) Observations	Direction	Velocity	Cincinnati, Ohio (152 m.) Observations	Direction	Velocity	Denver, Colo. (1,627 m.) Observations	Direction	Velocity	El Paso, Tex. (1,196 m.) Observations	Direction	Velocity
Surface	31	136	6.0	31	244	3.2	31	235	1.1	31	148	1.8	31	322	0.6	31	52	0.7	31	177	1.4
500	31	148	8.1	31	254	4.1	31	225	2.3	31	148	3.9	31	278	1.4	---	---	---	---	---	---
1,000	30	155	6.6	30	253	4.8	31	247	3.9	27	161	2.7	31	270	2.6	---	---	---	---	---	---
1,500	27	163	5.4	29	252	4.5	30	255	5.0	26	194	1.8	31	276	2.7	---	---	---	31	200	1.9
2,000	26	159	4.6	28	256	6.1	28	271	6.8	22	201	2.2	28	286	2.7	31	89	1.3	31	203	1.2
2,500	26	149	3.7	25	265	6.0	25	275	7.6	17	239	1.4	24	286	2.7	31	132	0.8	31	182	0.9
3,000	25	145	3.0	21	284	5.2	22	280	8.2	16	265	1.4	23	290	2.6	30	241	0.3	31	189	1.0
4,000	24	107	3.0	17	300	5.9	14	297	7.1	11	273	4.1	14	300	2.8	26	286	4.0	29	122	0.5
5,000	21	84	2.9	17	298	7.4	---	---	---	---	---	---	10	298	6.7	23	272	8.3	29	165	0.6
6,000	16	70	3.4	16	298	8.1	---	---	---	---	---	---	---	---	---	17	271	12.8	26	184	1.1
8,000	11	72	6.1	12	308	9.3	---	---	---	---	---	---	---	---	---	11	275	20.2	19	229	3.4
10,000	11	80	5.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13	225	3.6
12,000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Altitude (meters) m. s. l.	Ely, Nev. (1,910 m.) Observations	Direction	Velocity	Grand Junction, Colo. (1,413 m.) Observations	Direction	Velocity	Greensboro N. C. (271 m.) Observations	Direction	Velocity	Havre, Mont. (767 m.) Observations	Direction	Velocity	Jacksonville, Fla. (16 m.) Observations	Direction	Velocity	Joliet, Ill. (178 m.) Observations	Direction	Velocity
Surface	31	206	5.0	31	309	1.1	30	173	2.0	31	286	1.5	29	110	1.6	31	254	1.8
500	---	---	---	---	---	---	30	176	2.9	---	---	---	29	149	1.9	31	273	2.4
1,000	---	---	---	---	---	---	30	184	2.7	31	279	1.9	29	173	1.6	31	267	2.6
1,500	---	---	---	31	300	1.0	30	211	2.3	31	266	3.2	27	246	2.6	29	252	3.5
2,000	31	207	5.4	31	278	1.8	24	238	2.2	31	266	3.9	23	258	3.5	25	273	4.7
2,500	31	214	6.2	31	255	2.6	18	259	1.2	31	266	5.9	23	261	3.3	21	275	4.9
3,000	31	208	6.2	31	256	3.4	15	310	1.0	28	262	6.6	20	281	2.6	17	270	6.0
4,000	31	210	5.7	31	250	5.6	---	---	---	19	266	8.9	18	271	2.9	10	287	8.6
5,000	31	213	8.4	22	259	5.9	---	---	---	14	275	9.4	16	267	3.8	---	---	---
6,000	26	224	10.7	18	256	7.5	---	---	---	10	285	10.9	11	278	4.3	---	---	---
8,000	21	233	16.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10,000	17	233	23.3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12,000	11	244	24.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Altitude (meters) m. s. l.	Las Vegas, Nev. (573 m.) Observations	Direction	Velocity	Little Rock, Ark. (88 m.) Observations	Direction	Velocity	Medford, Oreg. (410 m.) Observations	Direction	Velocity	Miami, Fla. (15 m.) Observations	Direction	Velocity	Mobile, Ala. (66 m.) Observations	Direction	Velocity	Nashville, Tenn. (194 m.) Observations	Direction	Velocity	New York, N. Y. (15 m.) Observations	Direction	Velocity
Surface	31	199	2.4	30	121	0.9	31	305	2.4	31	139	1.8	29	209	2.3	31	284	1.2	31	182	3.6
500	---	---	---	30	129	1.2	31	308	2.7	31	140	2.5	29	215	3.5	31	286	1.5	31	229	3.9
1,000	31	193	4.4	30	94	0.3	31	319	3.4	31	162	1.6	27	246	1.9	31	304	1.3	31	258	5.0
1,500	31	193	4.8	30	287	0.8	31	322	2.6	30	222	0.9	27	328	2.5	31	298	1.2	31	266	5.8
2,000	31	196	5.6	30	301	2.0	31	294	1.5	29	271	1.2	26	334	3.7	31	306	1.9	26	280	6.4
2,500	31	199	6.1	30	313	2.5	31	261	1.4	28	258	2.1	18	321	4.8	25	316	2.5	22	288	7.6
3,000	31	204	7.0	27	312	3.1	31	237	1.8	26	278	2.6	15	319	5.4	25	319	3.3	13	298	5.4
4,000	31	218	8.3	20	324	5.9	30	242	2.4	21	224	2.7	10	312	3.9	23	330	4.6	---	---	---
5,000	30	219	10.7	18	317	8.1	27	257	4.3	16	218	3.3	---	---	---	17	318	7.3	---	---	---
6,000	30	221	10.3	17	314	9.0	22	262	5.1	14	224	2.9	---	---	---	11	323	6.9	---	---	---
8,000	25	230	16.4	13	308	10.9	17	259	10.6	10	239	4.2	---	---	---	---	---	---	---	---	---
10,000	22	233	24.6	10	304	16.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12,000	21	237	25.0	10	301	21.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 2.—*Free-air resultant winds based on pilot-balloon observations made near 5 p. m. (75th meridian time) during July 1944. Directions given in degrees from north (N=360°, E=90°, S=180°, W=270°). Velocities in meters per second*—Continued

Altitude (meters) m. s. l.	Oakland, Calif. (8 m.)			Oklahoma City, Okla. (402 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. (15 m.)			Sault Ste. Marie, Mich. (230 m.)			Seattle, Wash. (12 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	273	5.6	31	164	4.1	31	171	1.7	31	297	1.2	31	45	1.5	31	264	1.5	31	220	2.3	31	140	4.4	31	261	4.3	30	259	3.9	31	290	2.8	31	224	2.7	30	156	2.9
500	29	269	3.6	31	164	4.3	31	173	2.3	31	287	1.7	---	---	---	31	270	1.3	31	233	2.9	31	141	4.4	31	295	1.8	30	265	5.4	31	275	0.6	---	---	---	30	185	3.1
1,000	25	246	2.0	31	172	4.4	31	208	2.9	31	258	2.0	31	40	1.4	31	284	2.0	31	240	4.1	31	137	5.0	31	236	0.9	29	267	6.[illegible]	28	281	0.4	31	233	2.9	29	215	3.2
1,500	25	263	1.6	30	180	4.0	29	217	2.7	31	235	2.4	31	329	1.1	31	291	2.7	31	248	5.2	31	140	5.1	30	244	1.5	28	264	7.2	24	313	1.0	31	241	3.1	29	238	3.2
2,000	24	311	0.9	27	200	3.8	22	258	3.2	31	224	3.2	31	291	2.2	31	279	4.4	25	256	6.0	31	146	4.3	29	224	2.9	25	275	7.7	21	309	1.8	30	248	4.2	24	265	4.1
2,500	23	168	0.8	26	226	3.8	17	273	5.1	31	222	3.8	28	280	3.9	29	293	5.9	18	260	6.2	30	154	3.8	29	215	4.4	22	274	7.4	19	281	1.3	30	251	4.6	23	273	5.1
3,000	23	153	1.5	24	236	4.6	16	287	7.5	31	216	3.5	27	278	5.9	28	297	6.6	14	283	7.6	26	174	3.9	28	217	5.8	20	287	7.6	18	268	1.8	28	255	4.5	23	271	5.4
4,000	23	190	1.4	16	263	6.5	13	293	8.3	31	206	4.2	25	279	10.4	23	303	7.7	---	---	---	24	160	2.2	27	212	6.4	15	302	8.7	15	265	2.4	22	256	5.3	20	282	4.9
5,000	23	181	1.5	12	288	7.6	10	301	9.3	29	205	3.9	23	284	13.0	20	310	8.1	---	---	---	23	255	0.3	27	209	6.6	14	304	10.5	14	281	2.9	17	275	5.5	16	274	5.5
6,000	23	214	3.0	---	---	---	10	304	10.0	26	210	5.3	17	279	15.8	19	300	9.1	---	---	---	23	294	0.6	27	218	6.5	13	297	11.9	11	314	5.5	13	272	6.5	15	266	4.7
8,000	20	226	6.0	---	---	---	---	---	---	25	212	8.6	11	279	20.9	16	293	12.5	---	---	---	20	310	1.3	24	231	11.6	---	---	---	---	---	---	---	---	---	---	---	---
10,000	19	223	9.4	---	---	---	---	---	---	21	219	13.8	---	---	---	10	300	20.8	---	---	---	14	33	1.9	12	233	12.5	---	---	---	---	---	---	---	---	---	---	---	---
12,000	17	234	16.8	---	---	---	---	---	---	19	231	15.7	---	---	---	---	---	---	---	---	---	13	42	1.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14,000	13	239	17.3	---	---	---	---	---	---	17	239	12.2	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16,000	---	---	---	---	---	---	---	---	---	13	218	6.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 3.—*Maximum free-air wind velocities (m. p. s.) for different sections of the United States based on pilot-balloon observations during July 1944*

Section	Surface to 2,500 meters (m. s. l.)					Above 2,500 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]	32.2	SW.	437	12	Nantucket, Mass.	34.0	W.	4,050	26	North Truro, Mass.	54.0	WSW.	10,135	13	Portland, Maine.
East-Central [2]	28.8	WSW.	1,734	12	Washington, D. C.	29.0	SW.	4,597	29	Hatteras, N. C.	46.4	W.	11,897	4	Hatteras, N. C.
Southeast [3]	25.6	WNW.	2,088	28	Birmingham, Ala.	24.9	W.	2,628	28	Birmingham, Ala.	36.0	WNW.	10,908	21	Birmingham, Ala.
North-Central [4]	38.8	WSW.	2,094	28	Detroit, Mich.	33.2	ESE.	4,428	3	Muskegon, Mich.	45.4	N.	13,418	1	International Falls, Minn.
Central [5]	29.5	SW.	1,242	26	Indianapolis, Ind.	33.4	W.	3,269	10	Des Moines, Iowa	44.3	NW.	11,140	30	Wichita, Kans.
South-Central [6]	29.5	SSE.	1,903	30	Amarillo, Tex.	34.0	WNW.	4,318	28	Little Rock, Ark.	46.4	WNW.	11,093	21	Little Rock, Ark.
Northwest [7]	30.4	WNW.	2,421	5	Ellensburg, Wash.	30.4	WSW.	3,197	24	Havre, Mont.	65.0	WSW.	7,918	2	Great Falls, Mont.
West-Central [8]	29.0	SSW.	2,500	4	Ely, Nev.	31.8	SW.	4,340	1	Ely, Nev.	55.0	WSW.	9,484	27	Salt Lake City, Utah.
Southwest [9]	30.8	SW.	2,106	4	Mt. Laguna, Calif.	26.2	W.	3,268	24	El Paso, Tex.	47.6	SW.	10,107	26	Sandberg, Calif.

[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.