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METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR AUGUST 1945

AEROLOGICAL OBSERVATIONS

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidities in percent, obtained by radiosondes during August 1945*

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	Albany, N. Y. (93 m.)				Albuquerque, N. Mex. (1,620 m.)				Apalachicola, Fla. (5 m.)				Atlanta, Ga. (300 m.)				Big Spring, 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	31	1,005	18.5	82	31	840	25.8	42	31	1,015	26.3	86	31	983	23.6	81	31	927	28.0	50	28	956	20.3	63	31	913	25.0	31
500	31	958	18.4	73					31	960	24.2	77	31	961	24.1	73												
1,000	31	904	15.5	72					31	907	21.2	74	31	907	21.3	72	31	903	26.9	48	28	903	20.4	49	31	899	26.3	24
1,500	31	852	12.4	71					31	855	18.0	73	31	856	17.9	72	31	854	23.4	49	28	852	17.0	51	31	849	23.6	24
2,000	31	802	9.6	71	31	804	23.8	40	31	806	15.1	67	31	807	15.1	64	31	805	19.2	53	28	803	13.8	54	31	801	19.7	24
2,500	31	755	7.2	61	31	759	20.2	43	31	760	12.3	63	31	761	12.3	58	31	760	15.1	57	28	756	10.8	53	31	756	15.5	26
3,000	31	710	4.3	58	31	716	16.2	48	31	716	9.8	60	31	717	9.4	54	31	716	11.5	56	28	712	7.8	50	31	712	11.4	28
4,000	31	628	−1.3	57	31	636	7.8	62	31	634	4.4	55	30	635	4.1	52	31	634	5.6	47	28	630	1.7	46	31	631	3.1	35
5,000	31	553	−7.0	49	31	562	0.2	67	30	560	−0.9	48	30	560	−1.4	47	31	561	−0.3	46	27	556	−4.6	43	31	557	−4.6	40
6,000	31	486	−13.0	46	31	495	−6.1	65	30	494	−6.6	48	30	494	−7.2	46	31	494	−5.6	34	25	489	−11.3		31	489	−11.5	37
7,000	30	426	−19.3	46	31	436	−11.2	47	30	434	−12.7	45	30	434	−13.3	46	30	435	−11.7		25	428	−18.3		31	429	−18.4	
8,000	30	372	−26.5		30	382	−17.4	47	30	380	−19.4	42	30	380	−20.0	45	28	381	−18.5		24	374	−25.8		31	375	−25.4	
9,000	30	323	−33.7		30	333	−24.3		30	331	−26.5		29	331	−27.0		28	332	−25.5		24	324	−32.9		31	326	−32.3	
10,000	30	279	−40.6		29	290	−31.6		30	288	−34.0		29	289	−34.1		27	289	−32.6		22	281	−39.9		31	282	−38.9	
11,000	30	241	−47.1		29	251	−39.3		29	249	−41.9		29	249	−41.6		25	250	−40.2		22	242	−46.2		31	243	−44.6	
12,000	29	206	−52.0		29	217	−47.0		29	214	−49.8		29	214	−48.7		24	216	−47.7		22	208	−51.4		29	209	−49.7	
13,000	27	177	−55.3		28	186	−54.6		29	184	−57.4		29	183	−55.6		24	185	−55.1		20	178	−54.6		29	179	−54.3	
14,000	25	151	−58.6		24	158	−61.7		25	156	−64.1		28	156	−62.0		20	158	−62.2		19	152	−58.7		27	153	−57.9	
15,000	20	128	−59.6		15	135	−67.9		20	132	−68.3		23	133	−66.7		14	134	−68.8		14	129	−61.5		21	130	−61.0	
16,000	17	109	−59.3		10	114	−72.8		13	112	−70.3		13	113	−68.9						9	110	−61.6		12	111	−61.3	
17,000	10	93	−59.7						7	95	−69.3		7	95	−65.9						6	94	−60.6		5	94	−61.7	
18,000	9	79	−58.8						7	80	−68.5																	
19,000	7	67	−57.4																									

Altitude (meters) m. s. l.	Brownsville, Tex. (6 m.)				Buffalo, N. Y. (221 m.)				Burrwood, La. (2 m.)				Caribou, Maine (193 m.)				Charleston, S. C. (14 m.)				Clovis, N. Mex. (1,306 m.)				Denver, Colo. (1,616 m.)			
Surface	31	1,012	27.0	84	30	991	19.3	76	21	1,015	26.9	85	31	992	16.4	81	31	1,015	23.6	92	31	870	24.2	55	31	842	20.0	64
500	31	957	24.2	77	30	960	20.6	70	21	960	24.3	79	31	957	17.7	68	31	961	23.4	77								
1,000	31	904	21.9	66	30	905	16.9	66	21	906	21.3	75	31	902	15.0	69	31	908	20.6	73								
1,500	31	853	19.6	60	30	853	13.6	68	21	855	18.3	69	31	850	11.7	72	31	856	18.1	68	31	852	24.0	53				
2,000	31	804	16.6	58	30	804	10.6	61	21	806	15.8	65	31	800	8.4	73	31	807	15.4	66	31	804	20.9	52	31	805	20.1	51
2,500	31	758	13.7	56	30	757	8.1	54	21	760	13.2	60	31	754	5.4	67	31	761	12.6	65	31	758	17.1	54	31	760	16.9	49
3,000	31	714	10.4	55	30	712	5.4	53	21	716	10.5	59	31	708	2.7	61	31	717	9.9	63	31	715	13.2	57	31	716	13.5	50
4,000	30	633	4.6	51	29	629	0.0	45	21	635	5.0	56	31	626	−2.5	53	31	635	4.5	58	31	634	6.1	56	31	635	6.1	57
5,000	30	559	−1.2	52	27	555	−5.4	38	21	561	−0.7	51	30	551	−8.2	45	31	561	−1.0	55	31	561	0.3	48	30	561	−0.9	62
6,000	30	492	−7.1	52	26	488	−11.6		21	494	−6.4	53	30	484	−14.5	39	31	494	−6.5	46	30	494	−5.7	46	30	494	−7.0	61
7,000	30	433	−12.9	50	25	428	−18.2		21	434	−12.7	51	30	423	−21.7		30	434	−12.6	45	29	435	−11.2	38	29	435	−12.9	57
8,000	28	379	−19.6	44	25	374	−25.3		21	380	−19.6	55	30	368	−28.8		27	380	−19.4	48	29	381	−18.2	39	29	381	−19.5	59
9,000	26	330	−26.9		25	324	−32.6		21	332	−26.1		29	319	−36.4		26	332	−26.7		29	333	−25.1		29	332	−26.4	
10,000	26	287	−34.6		23	282	−39.8		19	289	−33.5		29	276	−43.6		26	288	−34.3		29	289	−32.4		27	288	−33.9	
11,000	26	248	−42.4		21	242	−47.2		17	249	−41.5		29	237	−49.5		26	249	−42.4		29	250	−39.9		27	249	−41.6	
12,000	25	213	−50.3		18	208	−52.7		17	215	−49.3		28	204	−53.1		25	214	−50.1		29	216	−47.6		27	215	−49.0	
13,000	24	182	−57.6		18	177	−56.0		17	184	−57.2		27	174	−54.4		24	183	−57.9		28	185	−55.1		25	184	−56.1	
14,000	24	156	−64.2		13	152	−57.7		16	156	−64.4		25	148	−56.3		20	156	−64.2		26	157	−61.7		19	156	−62.2	
15,000	17	132	−68.5		7	128	−57.4		13	132	−68.9		21	127	−56.8		18	132	−68.6		16	134	−67.7		10	133	−67.8	
16,000	11	112	−72.4		6	110	−59.1						12	109	−57.2		10	112	−70.2		6	113	−72.3					
17,000													8	93	−57.0		7	95	−70.3									
18,000													5	79	−56.1													

Altitude (meters) m. s. l.	Dodge City, Kans. (787 m.)				El Paso, Tex. (1,195 m.)				Ely, Nev. (1,908 m.)				Fort Worth, Tex. (211 m.)				Glasgow, Mont. (648 m.)				Grand Junction, Colo. (1,414 m.)				Great Falls, Mont. (1,128 m.)			
Surface	31	926	24.8	58	31	881	28.8	40	31	811	19.0	51	31	990	28.1	63	31	938	21.9	47	31	859	24.6	46	31	887	22.2	35
500													31	959	26.8	61												
1,000	31	904	25.3	52									31	906	23.6	61	31	902	21.4	43								
1,500	31	853	22.4	51	31	852	27.3	39					31	855	20.1	62	31	850	18.1	46	31	851	25.3	41	31	850	20.4	33
2,000	31	805	19.4	46	31	804	23.3	42	31	803	20.2	46	31	806	17.1	57	31	802	14.4	51	31	803	22.6	37	31	802	16.8	34
2,500	31	760	16.2	45	31	759	19.0	45	31	757	17.7	43	31	760	14.1	51	31	756	10.7	54	31	758	18.7	40	31	756	12.8	38
3,000	31	716	12.8	43	31	716	14.7	51	31	714	13.7	45	31	716	11.2	46	31	712	7.2	51	31	715	14.8	44	31	711	8.6	44
4,000	31	635	6.1	43	31	635	6.5	63	31	633	5.7	53	31	635	5.7	42	31	629	0.6	51	31	634	6.5	52	31	629	0.7	51
5,000	31	561	0.1	39	31	561	−0.1	59	31	559	−1.8	58	31	561	0.2	34	31	554	−5.7	41	31	560	−1.3	57	31	555	−6.4	48
6,000	31	495	−5.7		31	495	−5.8	53	31	492	−8.1	49	31	494	−5.7	31	30	487	−12.2	41	30	494	−7.6	60	31	487	−13.1	44
7,000	31	435	−12.0		29	435	−11.4	40	30	433	−14.3		31	435	−11.8		28	427	−19.2		30	434	−13.4	56	30	427	−20.0	
8,000	31	381	−18.5		28	382	−17.7		30	379	−20.8		31	381	−18.6		28	373	−26.2		29	380	−19.7	49	30	372	−27.3	
9,000	31	332	−25.8		27	333	−24.5		30	330	−27.8		30	332	−26.0		28	324	−33.3		29	331	−26.8		30	323	−34.6	
10,000	31	289	−33.3		27	290	−31.9		30	287	−34.6		29	289	−33.4		27	280	−40.3		29	288	−34.0		29	280	−41.4	
11,000	31	250	−41.0		27	251	−39.6		30	248	−41.8		28	250	−40.9		25	241	−46.6		28	249	−41.6		29	241	−47.4	
12,000	31	215	−48.8		26	216	−47.5		29	213	−49.0		27	215	−48.5		21	208	−50.8		28	214	−49.0		29	207	−51.7	
13,000	31	184	−56.2		26	185	−55.3		28	183	−56.2		26	184	−55.9		18	177	−54.3		27	183	−56.2		28	177	−54.8	
14,000	31	157	−63.3		22	158	−62.1		25	156	−62.1		24	157	−63.0		16	152	−56.5		24	156	−62.7		26	151	−57.6	
15,000	27	133	−69.0		17	135	−68.5		18	133	−66.5		15	133	−68.5		12	130	−58.6		13	133	−67.1		21	129	−59.3	
16,000	16	113	−72.6		7	113	−73.5		13	112	−68.4		7	112	−72.3		10	111	−59.3		7	112	−68.8		17	110	−59.9	
17,000	5	96	−71.5						8	96	−67.0						6	94	−57.6						7	94	−60.9	
18,000																									6	80	−59.7	

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 August 1945*—Continued

Altitude (meters) m. s. l.	Greensboro, N. C. (273 m.)				Hatteras, N. C. (3 m.)				Havana, Cuba [1] (51 m.)				Huntington, W. Va. (172 m.)				International Falls, Minn. (343 m.)				Jackson, Miss. (97 m.)				Joliet, Ill. (178 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	986	21.4	85	28	1,017	23.8	87					29	997	20.1	85	31	974	16.8	79	29	1,004	25.1	84	31	996	19.2	83
500	31	961	22.2	78	28	962	21.7	79					29	961	23.0	67	31	957	18.1	70	29	959	24.8	74	31	960	20.9	69
1,000	31	907	19.6	73	28	908	19.1	69					29	907	20.2	66	31	902	16.0	63	29	906	21.6	73	31	906	18.0	66
1,500	31	856	16.7	69	28	856	16.4	66					29	855	16.9	66	31	850	12.5	62	29	855	18.2	72	31	854	15.1	63
2,000	31	806	13.5	68	28	806	13.6	66					29	806	13.5	65	31	801	9.4	60	29	806	15.4	63	31	804	12.5	57
2,500	31	760	10.2	67	28	760	11.0	59					29	760	10.8	57	31	754	6.6	54	29	760	13.0	55	31	758	10.3	46
3,000	31	715	7.3	61	28	716	8.2	58					29	715	8.0	53	31	709	4.0	51	29	716	10.2	55	31	713	7.7	39
4,000	31	633	2.1	55	28	634	2.7	56					29	633	3.1	40	31	626	−1.7	47	29	634	4.9	50	31	631	1.6	41
5,000	30	558	−3.4	48	28	559	−2.5	49					29	559	−2.7	46	31	552	−7.4	47	29	560	−0.6	47	31	557	−4.0	40
6,000	29	492	−9.3	46	28	492	−8.4						29	492	−8.3		31	485	−13.6	47	29	494	−6.5	46	31	490	−9.9	38
7,000	29	432	−15.7	46	28	432	−14.7						29	432	−14.6		31	425	−20.7	44	28	434	−12.8	47	31	430	−16.2	39
8,000	29	377	−22.5		28	379	−21.1						28	378	−21.5		31	370	−27.8		28	380	−19.6		31	376	−23.2	
9,000	29	328	−29.7		28	330	−28.4						28	329	−28.9		31	321	−35.0		28	331	−26.6		31	327	−30.3	
10,000	28	285	−37.1		28	286	−36.1						28	286	−36.3		31	278	−41.9		27	288	−34.1		31	283	−37.8	
11,000	28	246	−44.3		27	247	−44.0						28	246	−43.5		30	239	−48.5		27	249	−41.8		29	244	−44.6	
12,000	26	211	−51.3		27	212	−51.5						28	212	−50.2		30	205	−51.8		26	214	−49.4		29	210	−50.5	
13,000	26	181	−57.5		27	181	−58.2						28	182	−56.5		28	175	−54.1		26	183	−56.9		27	180	−55.9	
14,000	22	154	−62.9		24	154	−63.0						26	155	−61.5		26	150	−56.5		26	156	−63.5		24	154	−60.6	
15,000	18	130	−66.7		18	131	−65.7						24	132	−65.1		16	128	−56.7		20	133	−68.4		16	131	−64.4	
16,000	14	110	−67.7		11	111	−66.2						11	112	−67.0		15	109	−57.3		9	112	−71.2		13	111	−65.3	
17,000	6	94	−67.1		8	94	−66.0						8	94	−65.5		8	93	−57.5						6	94	−62.5	
18,000	5	79	−65.1														5	80	−56.8									

Altitude (meters) m. s. l.	Lake Charles, La. (5 m.)				Little Rock, Ark. (79 m.)				Louisville, Ky. (165 m.)				Mazatlan, Mexico (80 m.)				Medford, Oreg. (409 m.)				Merida, Mexico (27 m.)				Miami, Fla. (4 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	1,014	25.9	90	31	1,007	25.0	18	31	998	22.2	77	28	1,003	28.1	81	30	965	26.5	33	31	1,010	26.7	82	30	1,016	26.2	83
500	31	960	24.7	77	31	960	24.7	68	31	960	23.1	64	28	957	25.3	76	30	956	26.0	33	31	958	24.2	79	30	961	24.1	83
1,000	31	906	21.5	75	31	906	21.5	65	31	906	19.9	63	28	904	23.1	70	30	903	22.5	35	31	904	21.5	77	30	908	21.2	80
1,500	31	855	18.4	73	31	856	18.5	63	31	855	16.6	62	28	853	20.5	69	30	852	18.8	40	31	854	18.5	75	30	856	18.7	71
2,000	31	806	15.6	68	31	806	15.4	59	31	806	13.6	60	28	805	17.9	64	30	803	15.0	45	31	805	15.6	71	30	808	16.2	65
2,500	31	760	13.0	63	31	760	13.1	48	31	759	10.9	51	28	759	15.4	58	30	757	11.5	49	31	759	12.7	66	30	762	13.8	62
3,000	31	716	10.5	60	31	716	10.4	45	31	715	8.3	47	28	715	12.3	58	30	712	8.0	46	31	715	10.0	64	30	718	11.1	58
4,000	31	634	5.0	52	31	635	5.0	42	30	633	3.2	37	27	634	5.6	61	30	631	1.4	41	31	634	4.7	57	30	636	5.8	52
5,000	31	561	−0.3	41	30	561	−0.7	42	30	558	−2.5	36	25	560	−0.8	59	29	556	−5.3	38	29	559	−1.4	56	30	562	0.4	50
6,000	31	494	−6.2	46	30	494	−6.6	47	30	492	−8.7		25	494	−6.3	56	28	489	−12.0		28	493	−7.3	57	30	496	−5.3	46
7,000	31	435	−12.3	47	30	434	−12.8	44	30	432	−14.9		23	434	−12.2	54	28	428	−19.2		27	433	−13.2	53	29	436	−11.5	47
8,000	31	381	−18.8	50	30	380	−19.4	44	29	377	−21.9		23	380	−18.8	48	28	374	−26.6		27	379	−19.9	56	28	382	−18.2	52
9,000	31	332	−25.6		30	331	−26.5		29	329	−29.2		23	332	−26.1		27	325	−34.1		27	330	−26.9		27	333	−25.0	
10,000	31	289	−32.9		30	288	−34.0		29	285	−36.4		20	288	−33.6		26	281	−40.9		24	287	−34.6		26	290	−32.6	
11,000	30	250	−40.7		30	249	−41.6		28	246	−43.6		19	249	−41.4		26	242	−46.8		23	248	−42.8		26	251	−40.4	
12,000	29	215	−48.7		30	214	−49.1		28	212	−50.4		19	214	−49.6		26	208	−50.7		23	213	−50.8		26	216	−48.5	
13,000	29	184	−56.3		30	184	−56.3		28	181	−56.7		19	184	−57.6		23	178	−54.5		17	182	−59.1		26	185	−56.6	
14,000	24	157	−62.7		25	157	−62.1		23	155	−62.2		12	156	−65.5		19	152	−56.9		8	154	−67.4		23	158	−63.5	
15,000	18	133	−68.0		21	133	−67.7		20	131	−65.8		5	133	−69.6		16	129	−59.2						16	134	−68.6	
16,000	10	113	−70.1		8	113	−70.0		10	111	−65.0						13	110	−60.3						11	114	−71.8	
17,000									8	94	−63.5						8	93	−60.4									
18,000									7	80	−62.3																	
19,000									5	68	−60.5																	

Altitude (meters) m. s. l.	Nashville, Tenn. (180 m.)				North Platte, Nebr. (849 m.)				Oakland, Calif. (2 m.)				Ogden, Utah (1,355 m.)				Oklahoma City, Okla. (391 m.)				Omaha, Nebr. (308 m.)				Phoenix, Ariz. (339 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	995	24.7	74	30	919	21.4	78	31	1,013	16.5	75	30	865	22.2	51	19	970	25.1	71	30	979	24.1	76	31	970	32.5	45
500	31	960	24.4	67					31	957	17.3	58					19	958	25.5	68	30	958	23.9	70	31	953	34.0	34
1,000	31	907	21.1	68	30	903	23.1	63	31	902	21.0	28					19	905	23.0	65	30	905	21.6	65	31	901	30.5	36
1,500	31	856	17.4	69	30	852	21.2	57	31	851	19.5	22	30	851	23.9	41	19	855	20.0	60	30	854	19.0	60	31	852	26.5	39
2,000	31	806	14.4	63	30	804	18.4	55	31	802	16.9	19	30	803	21.0	38	19	806	17.5	45	30	805	16.2	56	31	804	22.3	44
2,500	31	760	11.7	54	30	759	15.4	53	31	756	14.0	18	30	758	17.0	40	19	760	14.8	39	30	759	13.5	51	31	759	18.1	48
3,000	31	716	9.3	46	30	715	12.2	52	31	712	10.8		30	714	13.0	43	19	716	12.1		30	715	10.8	45	31	716	14.3	49
4,000	31	634	4.0	39	30	634	5.2	54	31	631	4.3		29	633	5.2	49	19	635	5.7		30	634	4.2	46	31	635	7.0	48
5,000	31	560	−1.7	38	30	560	−1.7	52	31	557	−2.7		29	559	−2.2	52	19	561	−0.5		30	559	−2.4	44	31	561	−0.1	51
6,000	31	493	−7.6		30	493	−8.0	47	31	490	−9.4		29	493	−8.8	49	19	494	−6.3		30	492	−8.2	44	31	495	−5.9	41
7,000	30	433	−14.1		29	433	−13.8	51	31	430	−16.4		28	432	−15.5		19	435	−12.9		30	433	−14.3		31	436	−11.6	36
8,000	29	379	−21.0		28	379	−20.2	50	31	376	−23.4		28	378	−21.8		19	380	−20.1		30	378	−21.1		30	381	−18.2	38
9,000	29	330	−27.9		28	330	−27.0		31	327	−30.5		28	329	−28.7		19	332	−27.3		30	330	−28.2		29	333	−25.2	
10,000	28	287	−35.2		28	287	−34.0		28	284	−37.3		28	286	−35.5		19	288	−34.3		29	287	−35.3		29	290	−32.8	
11,000	28	248	−42.7		28	248	−41.5		25	246	−42.8		28	247	−42.4		19	249	−41.5		29	248	−42.4		29	250	−40.5	
12,000	28	213	−50.1		26	214	−49.0		22	212	−48.0		28	213	−49.3		19	214	−48.7		29	213	−49.5		28	216	−48.4	
13,000	27	182	−56.8		25	183	−55.9		22	182	−53.7		27	182	−55.9		18	184	−55.7		29	182	−56.4		28	185	−55.9	
14,000	23	156	−62.3		23	156	−61.9		18	155	−58.8		26	155	−61.2		18	156	−62.0		28	156	−62.1		24	158	−62.8	
15,000	16	132	−66.6		17	132	−66.7		10	132	−63.0		19	132	−64.9		16	133	−67.6		24	132	−66.8		16	134	−68.1	
16,000	11	113	−70.0		11	112	−68.4						6	113	−68.0		11	113	−71.0		12	112	−67.8		13	114	−72.1	
17,000					7	95	−67.6										7	95	−70.8		6	95	−66.4					
18,000																					5	81	−64.7					

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 August 1945*—Continued

Altitude (meters) m. s. l.	Pittsburgh, Pa. (382 m.)				Portland, Maine (20 m.)				Rapid City, S. Dak. (981 m.)				St. Louis, Mo. (171 m.)				St. Paul, Minn. (225 m.)				San Antonio, Tex. (240 m.)				San Juan, P. R. (15 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	973	20.6	71	24	1,014	17.1	86	31	904	20.2	63	31	996	23.3	75	31	989	20.7	75	31	985	28.5	63	31	1,013	26.6	83
500	31	961	20.5	68	24	960	19.1	65	----	----	----	----	31	960	23.3	64	31	959	20.3	68	31	957	27.1	64	31	959	23.0	81
1,000	31	906	18.2	65	24	905	16.1	65	31	902	20.8	60	31	906	20.4	64	31	904	17.5	67	31	904	23.7	66	31	906	19.7	77
1,500	31	854	14.8	65	24	853	13.1	67	31	852	20.6	46	31	855	17.3	64	31	853	14.7	60	31	853	20.2	67	31	854	17.0	71
2,000	31	804	11.5	60	24	803	10.5	62	31	803	17.4	47	31	806	14.5	57	31	803	11.9	54	31	805	16.9	68	31	805	14.6	63
2,500	31	758	8.6	58	24	757	8.0	56	31	757	14.0	49	31	760	12.3	49	31	757	9.5	47	31	759	13.8	66	31	759	12.4	52
3,000	31	713	6.0	49	24	712	5.3	56	31	713	10.7	50	31	715	9.5	45	31	712	6.7	46	31	715	10.8	63	31	715	9.5	47
4,000	30	631	0.8	44	23	629	−0.3	50	30	632	3.6	47	31	634	3.6	45	31	630	0.8	49	30	634	5.3	51	31	633	3.8	41
5,000	30	556	−4.5	36	23	555	−5.9	44	30	558	−3.6	43	30	559	−2.0	40	31	555	−5.3	45	30	560	0.1	43	31	559	−1.6	39
6,000	30	489	−10.3	42	23	487	−12.2	44	30	490	−10.2	44	30	492	−8.2	37	31	488	−11.2	----	30	494	−5.2	36	31	492	−7.2	35
7,000	30	429	−16.6	----	23	427	−18.9	----	29	430	−16.6	----	29	433	−14.6	39	31	428	−17.9	----	30	435	−11.4	35	31	433	−13.4	37
8,000	30	375	−23.4	----	23	372	−25.7	----	29	376	−23.0	----	29	379	−21.1	----	31	374	−24.8	----	30	381	−18.3	38	31	379	−20.4	40
9,000	30	326	−30.6	----	23	324	−32.7	----	29	327	−30.0	----	29	330	−28.2	----	31	325	−31.9	----	30	332	−25.7	----	31	330	−28.0	----
10,000	30	283	−37.9	----	23	280	−40.0	----	29	284	−36.8	----	28	286	−35.4	----	31	282	−39.0	----	30	288	−33.0	----	30	287	−35.8	----
11,000	29	244	−44.9	----	23	242	−47.0	----	29	245	−43.5	----	26	248	−42.4	----	31	243	−45.6	----	30	250	−40.7	----	29	248	−44.1	----
12,000	29	210	−50.6	----	23	207	−53.3	----	29	211	−49.6	----	24	213	−49.7	----	30	209	−51.0	----	30	215	−48.5	----	28	213	−52.0	----
13,000	29	179	−55.3	----	22	177	−56.6	----	29	180	−55.6	----	22	182	−56.4	----	29	178	−55.8	----	29	184	−56.1	----	26	182	−59.8	----
14,000	27	153	−59.0	----	19	151	−58.4	----	26	154	−60.8	----	19	156	−62.0	----	25	152	−59.6	----	25	157	−62.7	----	23	154	−67.0	----
15,000	21	130	−62.1	----	17	129	−60.1	----	20	131	−64.2	----	14	133	−67.2	----	19	130	−62.8	----	19	134	−68.2	----	11	131	−71.0	----
16,000	14	111	−62.5	----	9	109	−59.4	----	12	111	−64.9	----	7	112	−69.5	----	15	110	−62.9	----	8	114	−72.6	----	6	111	−73.8	----
17,000	7	93	−59.4	----	6	93	−58.4	----	9	95	−64.6	----	----	----	----	----	8	94	−61.2	----	----	----	----	----	----	----	----	----
18,000	----	----	----	----	----	----	----	----	5	80	−61.2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Altitude (meters) m. s. l.	Santa Maria, Calif. (71 m.)				Sault Ste. Marie, Mich. (221 m.)				Spokane, Wash. (598 m.)				Swan Island, W. I. (10 m.)				Tacubaya, Mexico (2,306 m.)				Tampa, Fla. (3 m.)				Tatoosh Island, Wash. (31 m.)			
Surface	31	1,005	14.2	87	31	990	15.6	85	30	943	23.7	37	31	1,012	26.5	86	31	774	15.8	75	31	1,016	25.9	87	31	1,014	11.9	95
500	31	956	16.9	76	31	959	17.1	70	----	----	----	----	31	958	23.6	84	----	----	----	----	31	961	23.8	81	31	960	13.2	78
1,000	31	902	21.7	34	31	904	14.9	64	30	901	22.9	33	31	904	20.8	78	----	----	----	----	31	908	21.0	78	31	904	14.2	55
1,500	31	851	21.0	30	31	852	11.8	67	30	850	18.8	35	31	853	18.0	72	----	----	----	----	31	856	18.0	75	31	852	12.8	48
2,000	31	802	18.2	30	31	802	9.1	64	30	802	14.6	38	31	804	15.3	67	----	----	----	----	31	808	15.1	71	31	802	10.1	44
2,500	31	757	14.9	30	31	755	6.8	56	30	756	10.2	42	31	758	12.6	60	31	757	14.5	74	31	761	12.2	69	31	755	7.0	41
3,000	31	713	11.5	28	31	710	4.3	48	30	711	6.6	42	30	714	9.9	56	31	713	11.0	75	31	717	9.6	65	31	710	3.9	39
4,000	30	632	5.2	----	31	628	−0.9	48	30	629	−0.4	41	30	633	3.8	58	31	632	4.2	82	31	635	3.9	63	31	627	−2.1	37
5,000	30	558	−1.2	----	31	553	−6.7	43	30	554	−7.1	38	30	558	−2.0	54	30	558	−1.8	82	29	561	−1.8	60	31	552	−8.4	36
6,000	30	492	−7.9	----	30	486	−12.6	48	30	486	−13.6	----	29	492	−7.9	56	29	492	−7.0	74	28	494	−7.4	58	31	484	−15.1	36
7,000	30	432	−14.7	----	30	426	−19.5	52	30	426	−20.8	----	29	432	−14.0	56	29	432	−12.7	68	28	434	−13.5	58	29	424	−22.0	----
8,000	29	377	−21.7	----	30	371	−20.6	----	30	372	−28.1	----	29	378	−20.5	55	29	378	−19.2	64	28	380	−20.3	63	29	370	−29.4	----
9,000	28	329	−28.6	----	29	322	−34.4	----	30	322	−35.5	----	29	330	−27.9	----	29	330	−26.1	----	27	331	−27.4	----	29	320	−37.0	----
10,000	28	285	−35.6	----	29	279	−41.6	----	30	279	−42.4	----	28	286	−35.7	----	27	287	−33.5	----	27	287	−35.0	----	28	277	−44.2	----
11,000	27	246	−42.2	----	28	240	−48.3	----	30	240	−47.8	----	27	247	−44.3	----	29	248	−41.6	----	26	248	−43.2	----	27	238	−49.9	----
12,000	26	212	−49.2	----	27	206	−52.7	----	30	206	−51.3	----	26	212	−52.9	----	29	214	−49.8	----	26	213	−51.3	----	27	204	−52.9	----
13,000	26	182	−56.0	----	24	176	−55.3	----	30	176	−53.3	----	23	181	−61.3	----	27	183	−58.0	----	24	182	−59.2	----	26	174	−53.8	----
14,000	25	155	−61.6	----	22	150	−56.9	----	26	151	−54.8	----	18	154	−68.5	----	22	156	−65.7	----	22	155	−65.6	----	25	149	−54.2	----
15,000	23	131	−65.5	----	18	128	−58.1	----	25	129	−56.5	----	14	130	−73.5	----	10	132	−73.2	----	13	131	−69.3	----	21	128	−54.8	----
16,000	18	112	−66.9	----	14	109	−58.1	----	18	110	−57.6	----	9	110	−76.0	----	----	----	----	----	----	----	----	----	18	109	−54.9	----
17,000	13	94	−67.0	----	12	93	−57.0	----	13	94	−57.7	----	5	93	−74.8	----	----	----	----	----	----	----	----	----	10	94	−54.5	----
18,000	9	80	−65.0	----	10	79	−56.1	----	9	80	−57.2	----	----	----	----	----	----	----	----	----	----	----	----	----	8	80	−54.7	----

Altitude (meters) m. s. l.	Toledo, Ohio (191 m.)				Washington, D. C. (25 m.)			
Surface	31	994	19.4	76	31	1,014	22.3	80
500	31	959	20.4	65	31	960	21.1	69
1,000	31	905	17.4	65	31	906	18.2	67
1,500	31	854	14.0	65	31	855	15.2	68
2,000	31	804	11.6	56	31	805	12.3	63
2,500	31	758	9.2	49	31	759	9.4	57
3,000	31	713	6.2	49	31	714	6.5	53
4,000	31	630	1.0	40	30	632	1.6	40
5,000	30	556	−4.5	41	30	557	−3.6	36
6,000	30	489	−10.8	45	29	491	−9.6	34
7,000	30	429	−17.5	44	29	430	−16.1	------
8,000	30	374	−24.1	------	29	376	−23.5	------
9,000	30	325	−31.4	------	29	327	−30.7	------
10,000	30	282	−38.6	------	29	284	−37.9	------
11,000	30	243	−45.1	------	29	245	−45.2	------
12,000	28	209	−50.3	------	29	210	−51.4	------
13,000	27	179	−54.1	------	29	180	−56.6	------
14,000	24	153	−57.9	------	27	153	−60.2	------
15,000	20	130	−60.6	------	20	130	−62.5	------
16,000	9	111	−60.3	------	17	111	−63.9	------
17,000	8	94	−60.7	------	7	94	−62.8	------
18,000	7	80	−59.3	------	------	------	------	------

[1] Data not yet received.

NOTE.—All observation scheduled between 10 p. m. and midnight, E. S. T. (0300 and 0500, G. C. T.), except at Mazatlan and Merida, where they are taken near 9 p. m., E. S. T. (0200, G. C. T.).

"Number of observations" refers to pressure only. (In a few cases temperature or humidity data may be missing for one or more levels of some observations.) Relative humidity data are not published for levels 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," page 241, MONTHLY WEATHER REVIEW, December 1944.

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

Raob data for Havana, Cuba, will appear in a later issue.

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 1945 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.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	30	104	3.0	31	215	1.6	30	264	0.9	31	256	0.3	31	230	1.2	31	315	3.1
500							30	290	0.2									
1,000	30	119	2.6				30	305	0.4				31	227	1.0	31	322	2.5
1,500	30	116	2.8				29	345	0.5	31	221	0.4	31	234	1.5	31	298	1.7
2,000	29	125	2.6	31	223	1.9	27	319	0.8	31	233	1.4	30	249	2.7	31	265	1.3
2,500	24	132	2.2	31	218	1.6	26	73	0.4	31	258	3.9	29	271	4.7	31	229	2.3
3,000	20	135	1.7	31	230	0.9	23	76	0.3	30	263	6.6	26	273	6.7	31	217	4.1
4,000	15	225	0.3	31	333	0.5	19	317	1.5	29	271	9.4	23	277	12.6	27	224	7.1
5,000	14	355	2.5	29	256	1.2	15	309	3.1	29	265	11.1	17	276	14.0	25	229	9.7
6,000				26	227	2.5	13	286	3.5	25	259	13.8	16	281	15.8	24	238	11.2
8,000				25	210	2.8				18	262	19.5	13	271	20.5	15	232	15.7
10,000				22	225	5.9				13	268	27.8	10	268	21.6			
12,000				17	240	7.5												
14,000				12	236	8.5												

Altitude (meters) m. s. l.	Brownsville, Tex. (7 m.)			Buffalo, N. Y. (220 m.)			Burlington, Vt. (132 m.)			Charleston, S. C. (16 m.)			Cincinnati, Ohio (152 m.)			Denver, Colo. (1,627 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
Surface	31	106	4.5	31	273	3.2	26	245	1.7	31	146	1.8	31	33	0.5	31	72	1.6	30	152	2.1
500	31	121	5.2	31	272	4.8	26	246	2.9	31	159	3.8	31	297	0.5						
1,000	31	117	3.7	30	261	5.4	26	238	2.8	29	186	2.6	31	256	1.3						
1,500	27	132	2.5	29	263	6.8	23	259	3.7	28	229	2.1	30	276	2.3				30	157	2.8
2,000	27	99	1.3	28	274	6.0	22	270	6.0	26	249	2.1	27	278	2.7	31	78	1.8	30	156	2.3
2,500	26	73	0.7	24	276	7.0	19	269	5.4	24	252	2.3	24	280	3.7	31	100	1.6	29	141	2.2
3,000	23	318	0.6	19	280	7.6	17	265	5.1	22	271	2.3	21	290	4.2	26	159	1.6	27	121	2.4
4,000	22	207	0.1	15	293	9.2	13	267	4.3	19	280	2.8	15	323	4.5	25	258	2.8	22	103	3.5
5,000	16	303	1.9							18	295	2.7	11	314	6.6	19	262	6.9	13	69	2.4
6,000	14	115	2.1							17	312	2.2				12	266	10.6			
8,000										13	1	3.6									
10,000																					
12,000																					
14,000																					

Altitude (meters) m. s. l.	Ely, Nev. (1,910 m.)			Grand Junction, Colo. (1,413 m.)			Greensboro, N. C. (271 m.)			Havre, Mont. (767 m.)			Jacksonville, Fla. (16 m.)			Joliet Ill. (178 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	31	212	3.8	31	329	2.2	28	165	0.6	30	307	0.2	31	97	3.1	31	195	0.8
500							28	177	0.8				31	123	3.0	31	218	1.4
1,000							28	186	0.8	30	324	0.6	29	160	1.8	31	247	1.8
1,500				31	328	2.2	28	262	0.6	30	260	0.5	27	217	1.4	29	275	3.1
2,000	31	212	4.0	31	304	2.4	25	332	1.2	29	237	2.9	24	246	2.6	22	274	4.6
2,500	31	203	4.2	31	277	2.7	23	5	2.2	27	251	4.0	22	253	2.1	18	285	4.6
3,000	31	200	3.6	31	248	3.3	18	342	2.8	22	261	5.6	21	266	2.2	14	276	5.5
4,000	28	209	5.7	27	240	5.8	17	320	4.2	15	279	8.0	16	206	1.4	11	297	6.2
5,000	27	226	8.5	22	241	7.0	14	319	5.2	14	268	10.3	11	300	1.8			
6,000	23	230	11.9	17	242	6.4	11	315	5.5				11	314	3.0			
8,000	17	227	19.2	12	262	9.9												
10,000	10	234	24.1															
12,000																		

Altitude (meters) m. s. l.	Las Vegas, Nev. (573 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
Surface	31	172	1.7	31	144	0.5	31	319	2.0	30	130	3.9	27	172	1.2	30	274	0.8	29	197	1.2
500				31	150	1.2	31	324	2.0	30	126	6.4	27	147	1.0	30	288	1.1	29	233	2.4
1,000	31	185	3.2	30	160	0.6	31	325	2.4	30	125	5.5	22	76	1.0	30	305	0.7	28	291	2.9
1,500	31	184	4.4	30	154	0.4	31	301	2.3	30	126	4.3	19	70	1.8	30	315	0.7	27	296	4.8
2,000	31	189	4.7	29	108	0.8	31	245	2.6	28	121	3.2	15	54	1.4	30	301	0.6	25	292	4.7
2,500	31	193	5.4	27	33	1.4	31	220	3.6	27	118	2.8	13	49	1.6	27	292	1.1	25	294	5.6
3,000	31	196	6.2	25	7	2.1	31	210	3.9	23	125	2.8	12	51	1.2	27	299	1.5	21	296	5.3
4,000	26	201	7.6	21	2	1.3	30	207	4.8	19	133	3.1				23	303	2.6	16	295	7.5
5,000	23	205	8.5	15	330	2.7	29	215	6.6	15	139	4.0				19	317	4.2	15	285	8.4
6,000	21	210	7.6	10	334	3.3	27	225	9.6	13	136	4.3				15	305	6.5	14	298	8.6
8,000	18	216	10.9				21	232	11.9							14	305	8.8			
10,000	16	221	16.9				12	237	16.2							10	307	14.3			
12,000	13	231	19.4																		

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.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	31	279	4.9	31	153	3.8	31	169	1.2	31	251	1.3	31	133	1.1	30	96	0.4
500	30	278	4.0	31	157	3.9	31	171	2.4	31	251	2.1				30	107	0.3
1,000	30	250	2.3	31	164	3.9	31	178	3.5	31	245	2.4	31	135	1.0	30	216	0.5
1,500	30	222	2.8	31	177	2.4	30	212	3.0	31	238	2.1	31	293	0.2	29	249	1.5
2,000	30	198	3.3	30	199	1.6	25	240	4.7	31	218	1.7	31	225	1.2	27	262	3.0
2,500	30	191	3.4	30	236	1.4	22	262	7.0	31	183	2.0	30	247	2.8	25	270	4.2
3,000	30	203	4.0	27	254	1.2	22	270	7.8	31	156	2.7	25	257	5.3	22	287	5.1
4,000	29	213	5.5	24	285	2.0	21	292	9.3	30	162	4.7	21	264	10.2	21	302	5.4
5,000	28	219	7.2	17	311	2.3	17	304	13.6	30	166	6.9	20	270	12.9	18	296	5.9
6,000	28	226	8.5	14	337	3.1	14	299	15.4	26	165	8.1	18	270	15.0	13	300	9.0
8,000	27	228	14.6							24	172	8.3	15	268	18.8	11	299	9.8
10,000	21	228	20.3							20	182	8.9						
12,000	14	234	25.3							18	189	9.6						
14,000										16	194	12.4						
16,000										10	199	11.6						

Altitude (meters) m. s. l.	St. Paul, Minn. (225 m.)			San Antonio, Tex. (240 m.)			San Diego, Calif. (15 m.)			Saulte St. 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
Surface	31	216	1.6	30	93	2.9	30	278	3.9	28	270	4.1	30	282	1.7	31	238	1.9	29	187	1.8
500	31	236	1.9	30	93	3.4	30	283	2.6	28	262	4.9	30	308	1.1				29	220	2.4
1,000	30	254	2.8	30	90	3.3	30	231	1.4	28	268	6.3	28	302	1.2	31	227	3.1	29	249	2.8
1,500	28	267	3.2	27	88	2.7	29	201	1.6	28	269	6.7	25	268	0.7	31	221	3.2	28	274	3.7
2,000	26	279	5.3	24	90	3.4	28	182	2.4	27	276	7.3	24	220	1.3	30	232	3.4	27	294	5.1
2,500	24	281	6.4	20	80	3.8	28	170	2.5	27	277	7.2	22	208	2.1	29	251	4.6	25	297	6.4
3,000	21	278	7.6	17	60	3.9	28	188	3.0	23	289	9.0	20	220	3.4	27	244	5.6	24	300	6.8
4,000	17	284	9.2	11	45	4.8	28	198	3.8	17	307	11.4	18	233	4.5	25	242	7.4	19	301	6.7
5,000	14	288	12.5				28	198	3.9	16	310	11.5	13	243	8.3	23	245	11.4	17	293	8.6
6,000	11	293	14.4				27	202	4.0	12	305	15.5	13	240	9.7	21	244	12.5	15	286	9.3
8,000							23	195	6.9	11	313	17.3	11	244	11.1	14	246	14.1			
10,000							22	200	10.9												
12,000							18	204	12.6												
14,000							10	209	15.8												
16,000																					

TABLE 3.—*Maximum free-air wind velocities (m. p. s.) for different sections of the United States based on pilot balloon observations during August 1945*

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]	34.5	WSW.	1,476	14	Toledo, Ohio	32.6	W.	3,763	3	Binghamton, N. Y.	78.0	SW.	12,507 11,600 11,895	18	Portland, Maine.
East-Central [2]	32.5	NW.	825	26	Washington, D. C.	36.2	W.	3,029	15	Richmond, Va.	51.0	W.	11,305	17	Knoxville, Tenn.
Southeast [3]	21.8	E.	615	28	Tampa, Fla.	17.4	W.	3,222	8	Spartanburg, S. C.	31.0	NE.	15,161	1	Charleston, S. C.
North-Central [4]	32.7	WSW. SSW.	1,395 1,869	31 26	St. Paul, Minn.	55.2	W.	3,012	5	Williston, N. Dak.	69.5	NW.	12,705	3	Sault Ste. Marie, Mich.
Central [5]	32.0	SW.	2,229	31	Sioux City, Iowa	28.2	WNW.	4,981	31	Omaha, Nebr.	51.2	NW.	17,009	26	Springfield, Ill.
South-Central [6]	34.1	N.	997	25	Brownsville, Tex.	27.2	WNW.	2,747	26	Brownsville, Tex.	31.6	N.	14,358	31	Memphis, Tenn.
Northwest [7]	29.5	NW.	1,791	3	Ellensburg, Wash.	35.8	E.	3,170	12	Port Angeles, Wash.	66.2	WSW.	13,751	4	Missoula, Mont.
West-Central [8]	27.6	SSW.	2,277	26	Modena, Utah	33.5	SW.	4,879	25	Elko, Nev.	91.2	WNW.	16,197	17	Denver, Colo.
Southwest [9]	36.1	ESE.	2,242	22	Albuquerque, N. Mex.	28.6	SSW.	5,000	29	Fresno, Calif.	52.0	SSW.	12,258	30	Santa Maria, 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.

ESTIMATED FLOOD LOSSES AND SAVINGS FOR 1942 AND 1943 [1]

By BENNETT SWENSON

Monetary losses from floods in the United States have been estimated at about $98,500,000 during the year 1942, and nearly $200,000,000 during 1943. Lives lost as the result of floods in the 2 years total 173. The savings, as the result of the flood forecasting and warning service, are reported at about 60 million dollars.

[1] Annual flood losses and savings for previous years have been published in the MONTHLY WEATHER REVIEW as follows:

Year	Issue of REVIEW	Pages
1933	Vol. 62, No. 1, Jan. 1934	25–27
1934	Vol. 62, No. 12, Dec. 1934	465–467
1935	Vol. 63, No. 12, Dec. 1935	362–365
1936	Vol. 65, No. 1, Jan. 1937	28–31
1937	Vol. 66, No. 12, Dec. 1938	426–430
1938	Vol. 68, No. 9, Sept. 1940	262–263
1939	Vol. 68, No. 11, Nov. 1940	329–330
1940	Vol. 69, No. 7, July 1941	217–218
1941	Vol. 71, No. 11, Nov. 1943	185–186

Prior to 1933 losses and savings have been published monthly, as a rule.

Outstanding among the floods during 1942 were the disastrous flash floods in the headwater areas of the Delaware, Susquehanna, and Allegheny River basins, resulting in the loss of 45 lives; a record-breaking flood in portions of the Potomac and Rappahannock River basins in October; a major flood in the Willamette River in November; and widespread flooding in the Central West, from Minnesota to Texas, during the summer months.

The major flood event of the year 1943 was the widespread and record-breaking flood during May, covering most of 7 central states from Oklahoma to Michigan. The most destructive flood in point of loss of life, considering the small area involved, occurred in the Little Kanawha River in West Virginia during August, in which 23 lives were lost. An unusually early midwinter flood in the Ohio River began in December 1942 and continued into January 1943, reaching major proportions. Unusual also were the record-breaking floods and ice jams in the upper Missouri River in March and April, resulting from rapid melting of low altitude snow in eastern Montana and North Dakota.

ESTIMATED FLOOD LOSSES AND SAVINGS FOR 1942

River and drainage	Tangible property	Matured crops	Prospective crops	Livestock and other movable farm property	Suspension of business	Total	Lives lost	Reported savings as the result of warnings
HUDSON BAY DRAINAGE								
Red River of the North	$2,500					$2,500		
ST. LAWRENCE DRAINAGE								
Lake Michigan								
Grand River	63,575				$1,250	64,825		$185,000
Lake Huron								
Saginaw River	52,400	$5,000		$25,000	3,350	85,750		10,000
ATLANTIC SLOPE DRAINAGE								
Merrimack River	151,000		$2,000			153,000		
Connecticut River						40,000		
Hudson River	20,000					20,000		
Schuylkill River	7,200				1,250	[2] 1,084,160	4	905,100
Delaware River						11,500,000	25	
Susquehanna River	3,086,200		[1] 188,000			[3] 4,074,200	4	
Potomac River	2,686,410	275,100	436,100	56,500	17,500	3,471,610	2	253,500
Rappahannock River	1,739,490		228,140	10,300		1,977,930		
James River	183,300	86,850	21,050	13,500	27,500	332,200		197,500
Roanoke River			[4] 26,000		8,500	34,500		17,500
Neuse River	10,000	87,000	10,000		600	107,600		
Pee Dee River	5,230		780	2,400	19,150	27,560		13,000
Santee River			4,800	3,000	24,000	31,800		20,900
Savannah River					4,000	4,000		10,000
Altamaha River	12,300	1,200	22,000	13,900	20,900	70,300		89,000
EAST GULF OF MEXICO DRAINAGE								
Apalachicola River	100		150	1,000	12,000	13,250		8,500
Alabama River	39,000	2,000	20,300	5,500	1,000	67,800		42,500
Black Warrior-Tombigbee Rivers	28,200			10,500	19,000	57,700		210,000
Pascagoula River	2,500		300	3,300	7,500	13,600		8,500
Pearl River				3,000		3,000		6,000
MISSISSIPPI SYSTEM								
Upper Mississippi Basin								
Chippewa River	1,596,000	104,800	25,100	10,000	19,000	1,754,900		65,000
Root, Whitewater, and LaCrosse Rivers	24,000	20,000	122,500	6,250	10,000	182,750		7,000
Wisconsin River	2,000	3,600	7,900	200	500	[5] 37,900		5,500
Rock River	300					300		3,000
Cedar-Iowa Rivers	102,000	25,000	190,500	30,000		347,500	1	6,000
Salt River	5,000	1,000	420,000			426,000		
Mississippi River above Cairo, Illinois	663,050	54,500	1,973,106	19,650	67,100	[6] 2,842,706		483,900
Missouri Basin								
Checkerboard Creek	83,500		10,050	200		93,750		
Nemaha River	170,126	18,118		3,917		192,161		
James River	250,000		15,000			265,000		
Vermillion River (S. Dak.)	1,000		80,000			81,000		
Big Sioux River	15,000		200,000	1,000		216,000		
Floyd River	200,000		175,000	5,000		380,000		
Salt Creek	336,779		15,720	232,105	9,200	593,804	1	5,100
Solomon River	44,850	31,633	45,267			121,750		2,800
Smoky Hill River	78,300	182,683	311,067	21,500	15,500	609,050		42,000
Republican River	134,650	30,584	295,581	4,000	1,500	466,315		
Big Blue River	18,700	38,390	43,000	4,000	3,300	107,390		
Kansas River	123,000	268,500	140,720	7,000	10,000	549,220		15,000
Grand River	196,002		2,150,355	1,435		2,347,792		
Chariton River	3,335		108,905			112,240		
Osage River	69,979	5,000	288,789	7,600		371,368		
Missouri River	2,038,850		13,947,150	16,400	1,700	16,004,100		359,800

See footnotes at end of table.