METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR SEPTEMBER 1942

[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 September 1942*

Stations and elevations in meters above sea level

Altitude (meters) m. s. l.	Albuquerque, N. Mex. (1,620 m.)				Atlanta, Ga. (300 m.)				Bismarck, N. Dak. (505 m.)				Boise, Idaho (868 m.)				Brownsville, Tex. (6 m.)				Buffalo, N. Y. (221 m.)				Caribou, Maine (191 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	29	839	20.1	43	30	984	19.9	83	30	956	11.6	74	29	914	17.3	44	30	1,014	24.1	87	30	991	15.0	80	30	994	10.8	81
500					30	961	21.2	69									30	958	22.4	85	30	959	15.4	72	30	958	12.4	69
1,000					30	907	19.3	70	30	901	12.7	62	29	900	19.9	41	30	905	19.8	79	30	904	12.7	69	30	902	10.2	65
1,500					30	856	16.8	72	30	850	10.2	60	29	849	19.3	36	30	854	17.2	74	30	852	10.0	69	30	850	7.5	67
2,000	29	803	19.4	42	30	807	14.2	67	30	799	7.3	59	29	801	15.7	36	30	804	14.7	69	30	801	7.9	62	30	799	5.4	63
2,500	29	757	16.2	42	30	760	11.5	62	30	752	4.3	54	29	754	11.9	36	30	758	12.4	65	30	754	5.8	58	30	751	3.4	57
3,000	29	713	12.6	42	30	716	8.8	56	30	707	1.6	50	29	710	8.2	38	30	714	9.9	62	30	709	3.5	54	30	706	1.2	56
4,000	29	632	5.3	44	29	634	3.7	54	30	624	−4.0	48	28	628	1.2	39	30	633	4.3	62	29	627	−0.7	52	28	623	−3.1	49
5,000	29	559	−1.5	46	29	560	−1.6	48	30	549	−10.4	49	28	554	−5.7	41	30	560	−1.3	60	29	553	−5.7	47	27	549	−8.8	46
6,000	28	492	−7.6	44	29	493	−7.6	43	29	481	−17.1	47	28	487	−12.8	40	30	493	−6.9	59	29	486	−11.8	45	26	482	−14.5	43
7,000	28	433	−14.0	43	29	433	−14.3	40	29	420	−23.8	42	28	426	−20.5	38	30	433	−13.2	54	28	426	−18.5	43	26	422	−21.1	42
8,000	28	378	−21.2	42	29	379	−21.3	37	28	365	−31.0	41	28	372	−28.0	37	30	379	−19.8	52	26	371	−25.6	44	26	368	−28.0	41
9,000	28	329	−28.1	41	29	330	−28.6	36	28	317	−38.4	43	27	323	−35.4	37	28	330	−26.8	51	25	322	−32.7	44	25	318	−34.9	40
10,000	28	286	−35.4	41	28	286	−36.3	36	24	273	−45.8		27	279	−42.6		28	287	−34.2	51	25	279	−39.6	42	25	276	−41.8	
11,000	26	248	−42.4		28	247	−43.7		20	235	−51.2		25	240	−49.4		28	249	−41.9		25	240	−46.2		24	237	−48.6	
12,000	26	213	−48.8		28	213	−50.8		15	201	−53.2		23	205	−54.1		28	214	−49.6		21	206	−52.6		24	204	−54.1	
13,000	26	183	−54.9		28	182	−57.3		11	173	−53.7		23	176	−56.8		28	183	−56.8		17	176	−57.9		24	174	−56.8	
14,000	25	156	−60.5		27	155	−63.4		8	148	−55.6		23	150	−59.2		27	156	−64.0		16	150	−61.7		24	148	−60.0	
15,000	25	133	−65.4		26	131	−68.0						22	127	−61.2		27	132	−70.5		11	127	−63.4		22	126	−61.3	
16,000	23	112	−68.8		25	111	−69.6						22	109	−62.7		25	111	−74.8		10	108	−64.8		19	108	−61.6	
17,000	20	95	−69.3		23	94	−69.1						18	92	−62.6		24	94	−75.4		9	91	−64.6		15	92	−61.3	
18,000	18	80	−67.3		16	79	−67.0						14	78	−62.0		23	79	−72.0		7	76	−63.3		11	78	−60.4	
19,000	14	68	−64.8		11	67	−64.1						11	66	−60.6		20	67	−67.6		6	65	−61.7		7	67	−59.0	
20,000	12	58	−62.6		5	57	−61.6						6	56	−59.0		15	56	−63.3									
21,000	6	49	−59.3														8	48	−59.7									

Stations and elevations in meters above sea level

Altitude (meters) m. s. l.	Charleston, S. C. (14 m.)				Denver, Colo. (1,616 m.)				Detroit, Mich.* (217 m.)				El Paso, Tex. (1,193 m.)				Ely, Nev. (1,908 m.)				Great Falls, Mont. (1,128 m.)				Huntington, W. Va. (172 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	29	1,016	22.1	92	30	840	14.3	57	30	990	13.1	90	30	882	21.6	52	30	810	13.3	25	30	888	13.5	60	29	998	17.0	90
500	29	961	21.9	72					30	958	14.3	72													29	960	18.5	76
1,000	29	907	18.8	76					30	902	11.7	70													29	906	16.2	72
1,500	29	855	16.0	75					30	850	9.5	66	30	852	21.8	48					30	849	12.9	58	29	854	13.3	71
2,000	29	806	13.6	70	30	803	14.8	56	30	800	7.5	58	30	804	18.7	48	30	802	15.3	26	30	800	10.1	58	29	804	10.6	70
2,500	29	760	11.2	62	30	756	11.8	57	30	752	5.8	56	30	758	15.3	52	30	756	14.9	26	30	753	6.9	59	29	757	8.4	66
3,000	29	715	8.7	58	30	712	8.6	56	30	708	3.5	57	30	714	11.8	53	30	712	10.7	26	30	708	3.9	60	29	713	6.0	64
4,000	29	634	3.7	56	30	630	2.1	55	30	625	−.7	50	30	633	4.9	58	30	630	2.5	28	30	626	−2.5	60	29	630	1.4	59
5,000	27	560	−1.8	50	30	556	−4.8	54	30	551	−6.2	43	30	560	−1.4	63	30	556	−4.6	31	29	551	−9.4	62	29	556	−3.7	54
6,000	25	493	−7.7	48	29	489	−11.8	51	30	484	−12.3	38	29	493	−7.3	61	30	489	−11.6	29	29	483	−16.0	61	29	489	−9.8	48
7,000	24	433	−14.2	44	29	428	−18.7	47	29	424	−18.9	34	29	433	−13.6	55	30	428	−19.4	28	29	422	−23.1	58	29	429	−15.9	43
8,000	24	378	−21.0	42	29	374	−25.5	45	29	370	−25.8	33	29	379	−20.5	51	30	373	−27.0	27	28	367	−30.5	56	29	375	−22.7	41
9,000	23	329	−28.1	40	28	325	−32.8	44	29	322	−32.7	33	29	330	−27.5	49	29	324	−35.0	27	28	318	−38.1	57	28	326	−29.9	40
10,000	22	286	−35.9	38	27	281	−40.3		29	279	−39.8	31	29	287	−34.9	47	29	281	−42.0		27	275	−45.2		27	283	−37.2	38
11,000	21	247	−43.7		26	242	−47.2		29	240	−46.6		29	248	−42.2		28	242	−47.8		27	236	−51.1		27	244	−44.7	
12,000	18	213	−51.1		26	208	−53.1		26	206	−52.8		28	214	−49.5		26	207	−52.7		26	202	−54.0		25	210	−52.0	
13,000	17	182	−58.0		25	178	−57.9		21	176	−57.6		27	183	−56.5		24	177	−56.3		26	173	−55.5		24	180	−58.5	
14,000	16	155	−63.4		24	151	−62.2		19	150	−61.4		27	156	−63.1		22	151	−59.3		26	148	−56.2		21	153	−64.4	
15,000	15	131	−67.5		22	128	−64.8		18	128	−64.8		27	132	−68.5		22	128	−61.5		25	126	−57.1		19	130	−69.2	
16,000	13	112	−70.0		20	109	−66.8		13	108	−65.8		27	112	−72.2		21	109	−61.9		23	108	−57.6		17	109	−71.8	
17,000	11	94	−68.7		19	92	−66.7		10	91	−64.5		27	95	−72.4		19	93	−62.1		20	92	−57.7		15	92	−71.1	
18,000	8	79	−66.6		14	78	−65.2		8	76	−62.6		25	80	−69.1		17	78	−61.4		17	78	−56.9		14	78	−69.1	
19,000					8	66	−62.6						23	68	−65.7		9	67	−60.1		11	67	−56.4		13	66	−66.3	
20,000					6	57	−60.1						15	57	−62.1		6	56	−58.6		6	57	−56.1		7	56	−63.8	
21,000													7	49	−58.9													

*Correction: Due to surface readings from a faulty barometer, all pressures in table I for Detroit, Mich., for the month of September 1942 are about 1 mb. too low at the surface and too low in decreasing amounts at upper levels.

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidities in percent, obtained by radiosondes during September 1942*—Continued

Stations and elevations in meters above sea level

Altitude (meters) m. s. l.	Joliet, Ill., (178 m.)				Lake Charles, La. (5 m.)				(1) Lakehurst, N. J. (39 m.)				Medford, Oreg. (401 m.)				Miami, Fla. (4 m.)				Nashville, Tenn. (180 m.)				(1) Norfolk, Va. (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	29	996	14.0	88	30	1,015	22.4	88	25	1,013	17.9	82	30	967	20.9	41	30	1,016	25.2	89	30	997	18.9	83	27	1,018	22.4	84
500	29	959	15.1	76	30	959	21.5	75	25	959	19.4	64	30	956	21.4	41	30	960	24.8	78	30	960	19.9	71	27	961	22.3	75
1,000	29	903	12.5	72	30	905	19.2	76	25	905	17.3	65	30	902	19.4	44	30	907	22.0	75	30	906	17.1	68	27	908	19.5	71
1,500	29	851	10.1	69	30	854	17.3	70	25	854	14.8	61	30	851	15.7	48	30	856	19.0	77	30	855	14.8	73	27	856	16.9	68
2,000	29	801	8.0	65	30	805	15.2	63	25	805	12.4	58	30	802	12.3	50	30	808	16.2	73	30	805	12.7	69	27	807	14.7	62
2,500	29	754	5.8	64	30	759	12.7	60	25	758	10.3	55	30	755	9.3	48	30	761	13.5	68	30	759	10.6	63	27	761	12.0	59
3,000	29	709	3.9	60	30	715	10.2	55	25	714	8.1	54	30	711	6.6	45	30	718	10.9	63	30	714	8.2	61	27	716	9.1	57
4,000	27	626	−1.3	53	30	634	5.1	50	25	632	3.4	48	30	629	1.1	40	30	636	5.2	60	29	632	2.8	59	27	635	3.1	58
5,000	27	552	−7.3	50	30	560	−.3	44	25	559	−2.2	48	30	555	−5.0	36	30	562	−.5	58	28	558	−2.5	54	25	560	−2.3	51
6,000	25	485	−13.2	48	30	494	−6.3	45	23	492	−8.3	48	30	488	−11.7	35	30	496	−6.2	51	28	492	−8.0	49	22	493	−8.2	47
7,000	25	425	−19.6	45	30	434	−12.6	44	22	432	−14.8	35	30	428	−19.1	33	30	436	−12.3	45	28	432	−14.7	45	15	433	−14.6	46
8,000	25	370	−26.3	44	30	380	−19.2	43	22	377	−21.7	----	30	373	−26.9	33	29	381	−19.0	43	28	377	−21.6	43	----	----	----	----
9,000	24	321	−33.5	44	30	331	−26.1	41	22	328	−29.3	----	30	324	−34.5	32	29	332	−26.0	43	28	328	−28.6	41	----	----	----	----
10,000	24	279	−40.5	----	30	288	−33.3	40	21	285	−37.2	----	30	280	−41.9	----	28	289	−33.4	44	28	286	−36.1	40	----	----	----	----
11,000	24	240	−46.6	----	27	249	−40.8	----	20	246	−44.8	----	30	242	−48.4	----	26	250	−41.1	----	27	247	−43.6	----	----	----	----	----
12,000	24	206	−52.0	----	25	215	−48.3	----	19	211	−51.6	----	30	207	−53.6	----	23	216	−49.0	----	27	212	−51.1	----	----	----	----	----
13,000	24	176	−57.0	----	25	184	−55.5	----	19	181	−57.3	----	29	177	−56.6	----	21	185	−56.6	----	27	181	−57.6	----	----	----	----	----
14,000	21	150	−61.4	----	23	157	−61.9	----	17	154	−61.5	----	29	151	−58.5	----	20	157	−63.4	----	27	154	−63.4	----	----	----	----	----
15,000	21	128	−64.8	----	22	134	−67.1	----	16	132	−64.4	----	28	129	−59.9	----	18	134	−68.8	----	26	131	−67.7	----	----	----	----	----
16,000	18	108	−66.6	----	22	113	−70.1	----	13	112	−64.2	----	28	110	−60.9	----	15	113	−71.4	----	24	111	−69.8	----	----	----	----	----
17,000	16	92	−66.0	----	22	96	−71.4	----	9	94	−62.9	----	24	94	−61.1	----	14	95	−71.2	----	21	93	−70.1	----	----	----	----	----
18,000	15	77	−63.6	----	20	81	−69.5	----	6	80	−61.3	----	22	80	−60.2	----	10	80	−70.4	----	19	79	−67.8	----	----	----	----	----
19,000	12	66	−61.1	----	20	68	−66.8	----	----	----	----	----	16	68	−59.5	----	8	68	−68.6	----	13	67	−65.3	----	----	----	----	----
20,000	5	55	−59.4	----	16	58	−64.3	----	----	----	----	----	13	58	−58.7	----	6	58	−66.6	----	11	56	−63.1	----	----	----	----	----
21,000	----	----	----	----	11	49	−61.8	----	----	----	----	----	5	49	−57.8	----	----	----	----	----	5	48	−60.1	----	----	----	----	----

Stations and elevations in meters above sea level

Altitude (meters) m. s. l.	Oakland, Calif. (6 m.)				Oklahoma City, Okla. (391 m.)				Omaha, Nebr. (301 m.)				Phoenix, Ariz. (339 m.)				Portland, Maine (20 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	30	1,013	15.9	81	30	970	19.0	82	29	981	16.0	81	30	968	26.6	42	30	1,015	12.0	91	30	997	18.4	75	30	989	12.7	84
500	30	956	16.1	73	30	958	19.9	77	29	958	16.5	74	30	951	30.7	33	30	960	14.6	71	30	960	19.0	66	30	958	12.7	74
1,000	30	902	18.6	47	30	905	18.9	68	29	903	14.8	71	30	899	28.9	28	30	904	12.3	70	30	905	16.2	65	30	902	10.5	72
1,500	30	851	17.4	37	30	853	16.5	67	29	851	12.7	69	30	850	25.3	28	30	852	10.2	73	30	854	13.4	66	30	850	7.9	71
2,000	30	802	14.7	34	30	804	14.6	64	29	802	10.6	62	30	802	21.2	29	30	802	8.9	61	30	804	11.1	64	30	799	5.7	66
2,500	30	755	11.5	30	30	758	12.1	61	29	755	8.6	55	30	757	17.0	31	30	755	7.4	56	30	757	9.1	57	30	752	3.7	61
3,000	30	711	8.4	28	30	714	9.3	57	29	710	6.1	49	30	713	12.7	34	30	710	4.5	56	30	712	6.9	50	30	706	1.2	57
4,000	30	630	3.0	25	29	632	4.1	51	29	628	.5	44	30	632	4.8	41	29	628	−.7	50	29	630	1.8	47	30	623	−3.8	49
5,000	29	556	−3.1	24	27	559	−1.2	44	29	554	−5.4	40	29	559	−1.0	39	26	553	−6.1	38	28	556	−3.6	46	29	549	−9.7	46
6,000	29	489	−10.2	24	27	492	−7.3	40	29	487	−11.4	38	29	492	−6.7	31	25	486	−11.9	35	28	489	−9.4	44	29	481	−16.2	42
7,000	29	429	−18.0	24	26	432	−13.6	39	29	427	−18.0	37	28	433	−13.7	27	25	426	−18.5	31	28	430	−16.0	42	29	421	−22.8	41
8,000	28	374	−25.8	24	26	378	−20.9	39	29	373	−24.9	36	28	379	−21.0	26	24	371	−25.7	30	28	375	−23.0	40	29	366	−29.6	41
9,000	27	325	−33.5	24	26	329	−28.1	39	29	324	−32.3	32	28	329	−28.2	26	20	322	−32.9	24	27	326	−30.1	39	28	318	−36.5	41
10,000	27	282	−41.6	----	25	286	−35.6	38	29	281	−39.4	----	28	286	−35.4	25	16	279	−39.9	----	27	284	−37.1	----	27	275	−42.3	----
11,000	27	242	−47.9	----	25	247	−43.0	----	28	242	−46.0	----	28	248	−42.4	----	12	240	−46.9	----	27	245	−44.3	----	25	237	−46.7	----
12,000	27	208	−52.7	----	25	213	−50.4	----	28	208	−51.3	----	26	213	−49.3	----	11	206	−52.1	----	27	210	−51.2	----	21	204	−50.5	----
13,000	26	178	−56.3	----	23	182	−57.0	----	27	178	−55.3	----	26	182	−55.6	----	7	176	−56.1	----	27	180	−57.5	----	16	174	−54.0	----
14,000	25	152	−58.8	----	22	155	−62.7	----	24	152	−58.7	----	25	156	−61.3	----	5	150	−59.8	----	26	154	−62.3	----	11	149	−57.0	----
15,000	24	129	−61.2	----	22	132	−67.7	----	23	130	−61.5	----	25	132	−66.3	----	----	----	----	----	25	130	−66.3	----	10	128	−60.1	----
16,000	24	110	−63.1	----	21	111	−70.7	----	22	110	−63.0	----	24	112	−68.9	----	----	----	----	----	25	111	−68.6	----	9	109	−60.9	----
17,000	22	94	−63.2	----	21	94	−70.2	----	20	94	−62.5	----	24	95	−68.8	----	----	----	----	----	23	94	−68.4	----	6	94	−59.9	----
18,000	19	79	−62.0	----	19	79	−67.9	----	18	80	−60.9	----	22	80	−66.3	----	----	----	----	----	19	79	−66.3	----	----	----	----	----
19,000	13	67	−60.6	----	16	67	−64.6	----	13	68	−59.1	----	18	68	−63.4	----	----	----	----	----	15	67	−63.7	----	----	----	----	----
20,000	6	57	−58.5	----	9	57	−61.2	----	7	58	−57.0	----	12	58	−60.3	----	----	----	----	----	13	57	−61.1	----	----	----	----	----
21,000	----	----	----	----	----	----	----	----	----	----	----	----	6	49	−57.7	----	----	----	----	----	7	48	−58.9	----	----	----	----	----

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidity in percent, obtained by radiosondes during September 1942*—Continued

Stations and elevations in meters above sea level

Altitude (meters) m. s. l.	San Antonio, Tex. (242 m.)				San Diego, Calif.[1] (19 m.)				Sault Ste. Marie, Mich. (221 m.)				(1) Seattle, Wash. (27 m.)				Spokane, Wash. (598 m.)				Washington, D. C. (25 m.)				Anchorage, Alaska (42 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	29	988	22.0	78	30	1,008	18.2	83	30	989	11.2	89	29	1,014	16.1	75	30	944	16.8	48	30	1,015	19.6	80	30	1,007	12.8	76
500	29	960	22.3	76	30	954	17.9	66	30	957	11.5	80	29	959	15.5	63	----	----	----	----	30	961	18.8	70	30	953	10.8	73
1,000	29	906	19.3	76	29	901	20.2	38	30	901	9.1	79	29	904	13.5	58	30	901	18.4	44	30	906	16.0	70	30	898	7.8	73
1,500	29	855	17.0	76	28	850	19.8	21	30	848	6.4	76	29	852	11.2	57	30	850	14.9	44	30	855	13.5	72	30	844	4.6	77
2,000	29	806	15.0	74	28	802	17.4	15	30	798	3.7	74	29	802	9.3	53	30	800	11.2	47	30	805	11.4	70	30	794	1.6	79
2,500	29	760	13.0	65	28	755	14.2	17	30	750	1.2	68	29	754	5.9	51	30	754	7.7	51	30	758	9.5	66	30	746	−1.1	80
3,000	29	716	10.5	60	27	711	11.1	20	30	704	−.7	58	29	709	2.8	49	30	710	4.5	55	30	714	7.3	61	30	701	−3.2	79
4,000	29	634	5.0	57	25	630	4.7	----	29	621	−5.8	52	29	626	−3.3	41	30	626	−1.5	57	30	632	2.2	54	30	617	−8.4	75
5,000	28	560	−.9	51	25	556	−1.5	----	28	546	−11.5	48	28	551	−9.3	32	30	552	−7.5	57	30	558	−2.6	49	30	541	−14.4	72
6,000	28	494	−6.4	53	25	490	−8.3	----	28	478	−17.6	46	26	484	−15.6	31	30	485	−14.2	56	29	491	−8.3	47	30	474	−20.8	70
7,000	28	434	−12.8	48	24	430	−15.7	----	20	418	−24.1	43	26	423	−22.8	35	30	424	−21.4	54	28	431	−14.7	45	30	413	−27.2	68
8,000	28	380	−19.6	44	12	376	−23.5	----	17	363	−30.7	40	24	368	−30.3	36	28	369	−28.4	53	26	377	−21.7	41	30	359	−34.2	66
9,000	28	331	−26.5	42	12	326	−31.3	----	11	314	−38.1	----	23	318	−38.0	----	27	320	−35.8	52	23	328	−28.7	40	30	310	−41.2	----
10,000	28	288	−34.1	42	12	283	−38.4	----	10	271	−45.3	----	16	275	−46.2	----	27	277	−43.0	----	22	285	−36.1	39	30	268	−46.8	----
11,000	28	249	−41.8	----	11	245	−44.4	----	7	233	−49.1	----	12	236	−54.0	----	26	238	−49.5	----	22	246	−43.8	----	29	230	−49.4	----
12,000	27	214	−49.4	----	10	210	−51.0	----	6	201	−51.6	----	10	202	−59.3	----	24	204	−54.2	----	20	211	−51.0	----	26	197	−50.9	----
13,000	27	184	−56.3	----	10	180	−56.9	----	----	----	----	----	10	172	−61.9	----	24	175	−55.4	----	20	181	−57.4	----	24	169	−52.0	----
14,000	26	156	−63.2	----	10	153	−62.1	----	----	----	----	----	9	146	−62.8	----	23	149	−57.0	----	20	154	−62.3	----	24	144	−52.5	----
15,000	25	132	−69.4	----	8	130	−66.6	----	----	----	----	----	6	124	−62.9	----	23	127	−58.1	----	19	131	−66.0	----	24	124	−53.0	----
16,000	25	112	−73.7	----	6	109	−69.6	----	----	----	----	----	6	106	−63.0	----	22	109	−58.6	----	16	110	−68.6	----	22	106	−53.1	----
17,000	24	94	−74.9	----	----	----	----	----	----	----	----	----	----	----	----	----	20	93	−58.6	----	16	93	−68.6	----	18	91	−52.9	----
18,000	23	79	−71.8	----	----	----	----	----	----	----	----	----	----	----	----	----	17	79	−57.6	----	16	79	−66.0	----	14	77	−52.6	----
19,000	19	67	−68.1	----	----	----	----	----	----	----	----	----	----	----	----	----	12	68	−56.7	----	13	67	−64.5	----	6	66	−52.4	----
20,000	18	56	−64.3	----	----	----	----	----	----	----	----	----	----	----	----	----	8	58	−56.1	----	9	56	−62.0	----	----	----	----	----
21,000	10	48	−61.9	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	6	48	−59.6	----	----	----	----	----
22,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	6	40	−57.5	----	----	----	----	----

Stations and elevations in meters above sea level

Altitude (meters) m. s. l.	Bethel, Alaska (7 m.)				Fairbanks, Alaska (156 m.)				Juneau, Alaska (49 m.)				Ketchikan, Alaska (26 m.)				Nome, Alaska (14 m.)				San Juan, P. R. (15 m.)				Swan Island, West Indies (10 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	24	1,006	11.5	80	30	992	12.9	62	30	1,010	12.3	83	30	1,014	14.3	76	25	1,006	9.0	84	29	1,013	25.6	88	27	1,011	26.7	86
500	24	948	8.5	82	30	952	10.7	64	30	957	11.4	80	30	959	12.5	76	25	948	6.8	88	29	959	23.6	89	27	956	23.1	90
1,000	24	892	5.3	86	30	897	7.1	68	30	902	9.2	77	30	903	10.4	72	25	892	3.7	88	29	906	20.7	88	27	903	20.4	85
1,500	24	838	2.2	87	30	844	3.7	71	30	849	7.0	76	30	851	8.3	70	25	838	1.2	86	29	855	18.0	83	27	852	17.6	80
2,000	24	788	−.4	88	30	793	.5	73	28	798	4.8	72	30	800	5.9	69	25	788	−.9	82	29	806	15.3	79	27	803	14.8	77
2,500	24	740	−2.7	85	30	745	−2.4	74	25	750	2.8	69	30	752	3.2	65	25	740	−3.3	77	28	760	12.9	74	27	757	12.3	71
3,000	24	694	−5.3	81	30	699	−4.9	71	25	705	.3	65	30	707	.8	57	25	694	−6.0	75	28	716	10.2	69	27	713	9.5	69
4,000	24	610	−11.3	74	30	615	−10.8	71	24	622	−5.3	60	30	624	−4.6	53	24	610	−11.9	73	28	634	4.5	64	26	632	4.0	68
5,000	24	535	−17.4	68	30	539	−17.0	69	20	547	−11.4	58	28	549	−10.7	48	24	535	−18.3	71	27	561	−.9	59	26	558	−1.7	70
6,000	23	468	−23.7	64	28	471	−23.4	66	19	479	−18.0	57	27	481	−17.3	47	24	467	−25.1	65	27	495	−6.8	58	26	492	−7.5	71
7,000	21	407	−30.4	63	28	410	−30.4	66	17	418	−24.9	58	27	420	−24.5	45	24	406	−32.2	61	27	435	−13.3	56	26	432	−13.4	67
8,000	21	353	−37.2	63	28	355	−37.5	63	15	364	−32.2	54	27	365	−32.0	45	24	351	−39.3	60	27	380	−20.1	55	26	378	−20.2	66
9,000	21	305	−43.5	----	28	307	−44.3	----	12	314	−39.4	----	26	316	−39.1	45	24	303	−45.9	----	27	332	−27.2	55	26	329	−27.2	65
10,000	20	262	−48.0	----	28	264	−50.0	----	12	271	−46.2	----	23	273	−45.4	----	23	260	−49.8	----	26	288	−34.7	54	25	286	−34.9	62
11,000	19	226	−48.0	----	28	227	−51.9	----	11	233	−51.7	----	22	235	−50.1	----	23	224	−50.2	----	24	249	−42.2	----	23	247	−43.2	----
12,000	19	194	−47.5	----	28	194	−52.0	----	11	199	−54.7	----	21	201	−53.7	----	23	192	−49.1	----	23	215	−49.9	----	21	213	−51.8	----
13,000	19	167	−47.3	----	26	166	−52.4	----	11	170	−55.1	----	19	172	−55.0	----	22	165	−48.2	----	23	184	−57.9	----	18	182	−60.6	----
14,000	18	144	−47.6	----	23	142	−53.1	----	11	145	−55.4	----	18	147	−55.9	----	21	141	−48.0	----	23	156	−65.3	----	15	154	−69.0	----
15,000	18	123	−47.8	----	22	122	−53.4	----	10	123	−56.6	----	16	126	−57.3	----	17	121	−48.3	----	22	133	−70.7	----	15	130	−76.8	----
16,000	15	106	−47.8	----	21	104	−53.3	----	8	105	−56.6	----	10	107	−58.3	----	15	104	−48.1	----	20	112	−72.6	----	13	109	−81.7	----
17,000	11	92	−47.7	----	14	89	−52.8	----	7	89	−56.1	----	8	92	−58.1	----	10	89	−48.0	----	18	95	−73.3	----	7	91	−82.2	----
18,000	5	79	−47.8	----	11	76	−52.4	----	----	----	----	----	6	78	−57.2	----	7	76	−47.8	----	17	80	−71.7	----	5	76	−78.9	----
19,000	----	----	----	----	6	66	−52.2	----	----	----	----	----	----	----	----	----	----	----	----	----	16	67	−68.9	----	----	----	----	----
20,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	11	57	−66.5	----	----	----	----	----
21,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	6	48	−64.0	----	----	----	----	----

All observations taken at 11 p. m., 75th meridian time.
None of the means included in this table are based on less than 15 surface or 5 standard level observations.
Number of observations refers to pressure only, as temperature and humidity are missing for some observations at certain levels; also, the humidity data are not used in daily observations when the temperature is below −40° C.
Stations marked with the figure one (1) are Navy stations.

TABLE 1.—*Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidities in percent, obtained by radiosondes during September 1942*—Continued

LATE REPORTS FOR AUGUST 1942

Altitude (meters) m. s. l.	Stations and elevations in meters above sea level: Barrow, Alaska (6 m.)				McGrath, Alaska (100 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	31	1,009	3.9	91	31	995	15.0	73
500	31	949	3.2	79	31	949	12.4	73
1,000	31	893	3.0	70	31	894	8.9	78
1,500	31	839	1.3	69	31	841	5.5	84
2,000	31	788	−1.0	67	31	791	2.4	88
2,500	31	740	−3.6	67	31	744	−.3	90
3,000	30	694	−6.2	63	31	698	−2.9	90
4,000	29	610	−12.1	54	31	615	−8.4	86
5,000	29	535	−18.3	48	31	540	−14.4	81
6,000	29	467	−25.3	45	31	472	−20.9	78
7,000	29	406	−32.4	44	30	412	−27.6	73
8,000	28	351	−39.7	45	29	358	−34.5	71
9,000	27	302	−46.5		29	309	−41.5	
10,000	27	260	−50.1		29	266	−47.7	
11,000	26	224	−48.6		28	229	−50.2	
12,000	25	192	−45.8		27	196	−48.9	
13,000	25	165	−45.0		27	168	−47.5	
14,000	22	142	−45.0		26	144	−47.4	
15,000	20	122	−45.1		25	124	−47.2	
16,000	19	105	−44.9		21	107	−47.0	
17,000	16	90	−44.6		16	92	−46.7	
18,000	12	78	−44.3		9	79	−46.4	
19,000	7	67	−44.0		7	68	−45.9	
20,000					5	58	−45.4	

TABLE 2.—*Free-air resultant winds based on pilot-balloon observations made near 5 p. m. (75th meridian time) during September 1942. 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. (538 m.)			Albuquerque, N. Mex. (1,630 m.)			Atlanta, Ga. (299 m.)			Billings, Mont. (1,095 m.)			Bismarck, N. Dak. (512 m.)			Boise, Idaho (866 m.)			Brownsville, Tex. (7 m.)			Buffalo, N. Y. (220 m.)			Burlington, Vt. (132 m.)			Charleston, S. C. (17 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	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	29	190	2.7	30	199	2.0	30	300	0.7	28	297	0.8	29	231	1.2	28	320	4.8	30	97	4.3	30	238	2.4	28	197	1.4	29	159	1.6	28	217	1.0	28	69	2.1	30	168	1.9
500							30	304	0.6										30	96	4.8	30	245	4.1	28	229	3.5	29	178	2.2	28	218	2.6						
1,000	29	184	2.9				30	281	0.7				29	245	1.8	28	319	5.0	28	96	3.2	29	244	6.6	27	238	3.5	28	233	1.3	28	232	3.2						
1,500	29	185	3.5				27	258	1.2	28	315	1.6	27	251	3.4	28	307	3.4	25	102	2.0	25	242	8.9	26	251	6.2	26	265	1.3	27	249	4.7				30	161	1.6
2,000	28	196	3.2	30	210	2.9	26	250	1.8	28	297	2.8	26	270	4.5	28	301	2.9	23	105	1.8	22	258	7.9	21	252	9.2	26	267	2.1	26	263	6.3	28	59	2.4	30	141	1.1
2,500	25	214	2.9	30	232	2.3	25	252	1.9	26	279	4.3	20	287	6.0	28	286	3.4	23	113	2.1	17	260	7.4	16	267	8.4	25	255	2.8	23	269	9.0	27	74	1.9	30	152	0.8
3,000	25	250	2.2	30	270	2.7	23	258	3.0	26	276	6.7	19	278	7.2	28	275	3.3	21	110	1.4	13	255	8.2	10	267	9.4	25	251	3.0	21	271	10.1	27	4	0.5	28	168	0.9
4,000	24	265	3.7	29	284	5.7	22	256	3.8	22	288	9.3	15	289	8.5	27	273	3.1	18	194	0.8	10	264	10.0				23	247	4.3	14	272	10.8	25	286	5.6	28	254	1.8
5,000	24	273	4.1	29	286	6.0	16	256	5.9	19	281	9.9	13	287	9.4	24	287	4.4	16	168	1.7	10	250	11.0				18	245	5.8				25	286	9.6	26	284	1.3
6,000	22	260	3.5	27	272	6.1	13	251	7.2	18	287	11.3	12	285	11.5	23	291	6.2	14	199	2.8							16	251	6.9				20	287	13.7	25	280	1.9
8,000	18	261	4.5	24	256	10.0	11	251	11.1	13	268	12.8	12	284	16.7	20	297	7.2										9	240	7.6				18	279	17.2	22	279	5.4
10,000	15	271	8.8	23	252	13.9				12	263	16.5	10	271	18.4	13	262	8.5																18	274	20.1	21	270	10.0
12,000	15	254	10.8	17	254	17.5										10	260	6.6																16	266	30.3	20	277	14.3
14,000	12	263	11.4																																		18	274	14.0
16,000	10	276	12.0																																		18	267	7.9

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.)			Las Vegas, Nev. (570 m.)			Little Rock, Ark. (88 m.)			Medford, Oreg. (410 m.)			Miami, Fla. (15 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	30	226	2.7	30	306	1.8	27	289	0.3	30	315	1.5	27	86	3.2	28	237	2.5	30	163	1.2	30	158	1.1	30	319	2.1	29	105	2.8	30	59	1.1	30	81	0.2	27	271	0.6
500							27	273	1.1				27	90	3.5	28	240	3.3				30	184	2.1	30	320	2.2	29	107	3.7	30	109	1.4	30	220	1.0	26	286	2.5
1,000							27	269	1.8	30	318	2.2	26	142	0.8	27	245	3.9	30	166	2.2	29	187	1.8	30	329	1.9	29	96	3.0	28	114	2.0	29	249	2.0	25	283	3.8
1,500							27	276	2.5	29	307	2.9	22	256	1.6	26	258	5.4	30	174	2.3	28	246	2.2	29	277	0.7	29	86	2.8	26	115	1.5	28	264	3.4	21	281	4.8
2,000	30	223	3.4	30	299	2.4	25	280	3.8	28	301	3.8	22	253	2.6	22	275	6.7	30	187	2.7	26	269	2.5	29	114	1.0	29	86	2.5	24	101	1.2	28	273	4.4	19	274	6.8
2,500	30	216	3.3	30	272	3.0	24	289	4.5	26	289	6.2	21	254	3.0	17	273	9.5	30	202	3.1	23	296	3.8	28	139	1.6	27	94	2.6	22	195	0.9	26	270	5.0	19	282	8.8
3,000	30	210	3.0	30	257	4.0	24	291	5.7	23	291	7.2	19	258	3.1	14	276	12.0	30	212	4.6	18	278	4.6	28	118	0.8	27	97	2.8	20	235	2.1	20	268	6.3	17	275	9.3
4,000	30	218	4.1	27	271	3.9	24	282	7.1	18	281	9.1	19	248	3.5	10	278	12.5	30	215	4.3	15	282	6.4	26	317	0.5	24	118	3.2	15	272	3.4	15	279	7.6	12	280	9.2
5,000	30	231	5.0	19	284	6.6	23	280	9.4	14	276	7.6	16	207	2.0				30	218	6.0	13	284	7.4	25	351	1.2	20	128	4.1	13	297	3.6	13	280	10.4	10	280	8.3
6,000	30	244	6.5	15	294	8.2	21	274	9.5	13	276	8.6	15	202	1.7				28	230	6.3	12	283	10.4	25	343	2.3	19	124	4.2	10	267	7.1	10	271	13.9			
8,000	28	255	9.1				17	271	10.5	10	263	8.8	13	189	1.2				27	246	9.2				22	237	3.9	13	90	3.9									
10,000	22	247	11.3				15	254	13.7										27	240	15.2				18	272	5.5	10	97	6.0									
12,000	19	255	14.1				12	251	17.9										23	257	21.4				18	280	5.6												
14,000	16	248	13.4																21	250	21.1				15	287	5.6												
16,000																			16	254	13.3																		

TABLE 2.—*Free-air resultant winds based on pilot-balloon observations made near 5 p. m. (75th meridian time) during September 1942. 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.)			Saint Louis Mo. (181 m.)			Saint 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	30	273	4.4	30	188	3.9	28	227	1.3	30	65	1.1	29	327	3.3	29	206	1.4	29	251	1.0	30	107	1.7	28	277	4.1	23	273	2.4	30	278	2.4	30	234	1.6	29	318	1.1
500	30	288	2.4	30	186	4.2	28	219	1.5	30	38	0.5	---	---	---	29	212	2.0	29	266	1.6	30	110	2.4	28	296	3.3	23	273	3.5	30	271	1.1	---	---	---	28	306	2.7
1,000	25	312	1.6	30	191	4.5	28	229	2.6	30	256	0.7	29	322	3.3	28	232	2.6	27	250	2.5	30	111	2.4	26	201	1.1	23	267	5.4	25	238	1.0	30	230	1.4	27	295	3.2
1,500	25	290	.6	28	211	5.3	25	237	5.2	30	232	1.1	29	312	4.2	27	243	4.4	21	253	2.6	30	149	2.0	26	170	2.9	21	273	5.9	24	249	1.4	30	232	1.8	27	286	4.2
2,000	25	192	.8	27	231	6.0	23	250	7.7	30	226	2.5	28	303	5.4	26	270	6.1	19	286	4.6	29	163	2.0	26	167	3.7	20	280	7.9	19	187	.7	30	243	2.2	25	283	5.4
2,500	25	189	2.0	25	246	6.8	19	255	10.8	30	219	3.4	26	297	6.0	25	271	7.5	14	291	8 8	25	195	2.4	26	176	4.2	14	290	10.4	16	184	.7	28	273	3.3	24	282	7.1
3,000	25	204	.4	22	268	6.3	17	264	10.7	30	209	3.8	23	299	8.1	23	277	8.4	13	280	10.2	24	211	3.0	26	178	3.9	11	290	11.5	13	235	1.6	25	286	2.9	22	283	8.4
4,000	25	204	.9	21	281	7.2	16	277	12.6	28	205	4.2	19	301	9.9	21	281	9.7	---	---	---	21	212	1.7	25	213	4.2	---	---	---	12	296	.4	22	280	4.5	18	283	9.9
5,000	25	265	3.0	21	275	7.4	14	279	13.6	28	213	4.0	14	289	7.8	17	281	10.7	---	---	---	17	235	2.0	25	231	4.7	---	---	---	---	---	---	20	290	7.2	16	270	12.4
6,000	22	260	2.8	20	279	8.0	14	277	15.6	28	228	5.6	13	286	9.0	15	275	13.3	---	---	---	17	215	1.6	24	249	5.5	---	---	---	---	---	---	16	286	8.8	15	268	13.0
8,000	20	280	6.6	18	288	11.2	10	268	22.4	25	245	8.3	11	276	12.5	---	---	---	---	---	---	13	78	1.6	---	---	---	---	---	---	---	---	---	15	286	9.6	13	260	17.0
10,000	18	283	6.8	17	264	15.3	---	---	---	24	255	15.2	---	---	---	---	---	---	---	---	---	10	102	3.2	---	---	---	---	---	---	---	---	---	11	322	8.6	11	254	21.4
12,000	13	297	7.1	14	263	18.8	---	---	---	19	261	19.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
14,000	12	266	10.3	12	263	17.2	---	---	---	11	258	13.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
16,000	---	---	---	10	255	13.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

LATE REPORT FOR AUGUST 1942

Altitude (meters) m. s. l.	Joliet, Ill. (178 m.)			Altitude (meters) m. s. l.	Joliet, Ill. (178 m.)		
	Observations	Direction	Velocity		Observations	Direction	Velocity
Surface	31	212	2.2	2,000	25	257	4.8
500	31	227	3.2	2,500	20	272	5.1
1,000	31	240	4.3	3,000	17	279	5.3
1,500	27	246	4.2	4,000	10	299	7.2

TABLE 3.—*Maximum free air wind velocities (m. p. s.), for different sections of the United States based on pilot-balloon observations during September 1942*

Section	Surface to 2,500 meters (m. s. l.)					Between 2,500 and 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]	44.4	SSW	1,000	27	Boston, Mass	50.2	SW	5,000	28	Portland, Maine	76.4	WNW	11,200	8	Caribou, Maine.
East-Central [2]	26.8	WSW	2,040	24	Cincinnati, Ohio	37.0	WSW	5,000	24	Greensboro, N. C	64.8	WSW	10,160	28	Washington, D. C
Southeast [3]	22.5	E	910	29	Atlanta, Ga	28.4	SW	4,530	27	Atlanta, Ga	43.0	ENE	19,380	16	Miami, Fla.
North-Central [4]	37.9	NW	1,200	25	Rapid City, S. Dak	48.2	NW	4,900	28	S. Ste. Marie, Mich	65.0	W	7,870	25	Milwaukee, Wis.
Central [5]	41.8	W	2,500	30	Fort Wayne, Ind	47.5	WNW	4,960	27	Moline, Ill	61.0	WSW	8,630	19	Omaha, Nebr.
South-Central [6]	30.9	SSW	1,890 1,310	18	Abilene, Tex	32.4	NNW	4,620	27	Tulsa, Okla	55.0 55.0	SW N	12,570 8,320	15 26	Little Rock, Ark. Oklahoma City, Okla.
Northwest [7]	31.2	N	1,510	25	Billings, Mont	40.8	WNW	3,680	15	Ellensburg, Wash	64.0	SW	10,660	10	Billings, Mont.
West-Central [8]	36.9	SSW	2,500	9	Modena, Utah	59.8	SSW	2,840	9	Modena, Utah	71.0 71.0	WSW SSW	12,630 10,250	19 9	Denver, Colo. Ely, Nev.
Southwest [9]	24.4	SSW	2,460	9	Las Vegas, Nev	33.8	S	3,900	29	Las Vegas, Nev	60.0	SW	9,300	9	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.

RIVER STAGES AND FLOODS

By BENNETT SWENSON

Precipitation during September was generally well above normal in the central plains states from Texas northward to western Wisconsin. In addition to local flooding that was quite general in this area, local flooding occurred in eastern New York and in the Pecos River in New Mexico, and rather prolonged flooding with high stages in the extreme lower Rio Grande.

Notable among the local floods were the destructive floods in Pierce and Dunn Counties in western Wisconsin. The streams especially affected were the Eau Galle and Red Cedar Rivers, and Spring Valley, Wis., in a narrow flood plain of the Eau Galle River, was severely damaged. These floods resulted from unusually intense rains during the night of September 17–18 over a small area.

Atlantic Slope drainage.—General rains occurred over the entire Atlantic Slope drainage on September 26–27. The amounts were moderate to heavy. A rise resulted in most of the streams and flood stage was reached or exceeded at a few points.

In the upper Hudson River basin rains of 4.5 to 6 inches fell in a 24-hour period and caused some flooding princi-