TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meter, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during October 1946*—Continued

Standard pressure surface (mb.)	Tampa, Fla. (1,015.5 mb.)				Tatoosh Island, Wash. (1,012.8 mb.)				Toledo, Ohio (995.6 mb.)				Washington, D. C. (1,017.1 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	30	9	22.2	83	30	31	9.3	88	31	191	12.4	71	29	25	14.5	76
1,000	30	143	22.0	81	30	136	9.0	82	31	153	(*)	----	29	168	15.5	67
950	30	591	19.8	78	30	566	6.9	77	31	587	14.1	60	29	606	13.5	64
900	30	1,053	16.8	80	30	1,003	4.6	72	31	1,042	11.5	58	29	1,056	10.9	62
850	30	1,538	14.0	75	30	1,467	2.3	68	31	1,518	8.8	56	29	1,532	8.7	56
800	30	2,049	12.0	62	30	1,954	0.0	64	31	2,017	6.5	48	29	2,031	6.4	48
750	30	2,593	10.0	47	30	2,476	−2.6	63	31	2,547	3.8	43	29	2,565	4.2	42
700	30	3,159	7.6	36	30	3,013	−5.6	55	31	3,102	0.9	39	29	3,117	1.5	39
650	30	3,768	4.4	34	30	3,596	−9.3	53	31	3,698	−2.4	39	29	3,713	−1.4	40
600	30	4,413	0.7	34	30	4,206	−12.6	47	31	4,326	−5.9	----	29	4,345	−5.0	----
550	30	5,106	−3.2	----	29	4,860	−16.9	49	31	5,003	−9.6	----	29	5,024	−8.9	----
500	30	5,854	−7.7	----	29	5,566	−21.4	----	31	5,734	−13.7	----	29	5,756	−13.6	----
450	29	6,671	−13.1	----	29	6,344	−26.2	----	31	6,530	−19.1	----	29	6,555	−19.0	----
400	29	7,550	−19.6	----	29	7,178	−31.5	----	31	7,394	−25.1	----	28	7,418	−24.9	----
350	29	8,257	−27.1	----	29	8,111	−38.0	----	31	8,349	−32.4	----	28	8,375	−32.0	----
300	27	9,616	−35.5	----	26	9,145	−45.2	----	29	9,426	−40.2	----	27	9,446	−40.2	----
250	27	10,860	−44.8	----	21	10,374	−51.4	----	26	10,678	−48.2	----	27	10,667	−48.7	----
200	26	12,313	−55.7	----	13	11,790	−54.0	----	19	12,156	−56.8	----	25	12,108	−57.3	----
175	25	13,150	−61.4	----	8	12,616	−53.5	----	15	13,015	−60.1	----	21	12,955	−61.1	----
150	18	14,099	−66.7	----	----	------	------	----	13	13,997	−63.8	----	18	13,918	−64.3	----
125	9	15,192	−70.7	----	----	------	------	----	7	15,116	−67.1	----	9	15,084	−68.2	----

[1] Data not yet received.

*Temperature and relative humidity data for this level are not available or are available only for certain days. See note entitled "Change in Summarization of Radiosonde Data," p. 6, in the January 1946 issue of the MONTHLY WEATHER REVIEW.

NOTE.—All observations scheduled between 0300 and 0500, G. C. T. except at Mazatlan and Merida, where they are taken near 0200 G. C. T.

"Number of observations" refers to those of dynamic height only. (In a few cases temperature or humidity data may be missing for one or more standard pressure surfaces of some observations.) Relative humidity data are not published for standard pressure surfaces having a corresponding mean temperature below −20°C.

All relative humidity observations are obtained by electric hygrometer and have been adjusted to compensate for the values occurring below the operating range of the humidity element. For explanation of the adjustment see article entitled "Curve Method for Obtaining Monthly Means of Relative Humidity," p. 241, MONTHLY WEATHER REVIEW, December 1944.

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

LATE REPORTS FOR HAVANA, CUBA

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meter, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during October 1946*—Continued

STATIONS AND MEAN SURFACE PRESSURES

Standard Pressure Surface (mb.)	January [1] (.... mb.)				February (1,013.0 mb.)				March (1,011.2 mb.)				April (1,011.8 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	----	------	------	----	27	50	22.0	84	31	50	22.3	80	30	50	23.6	78
1,000	----	------	------	----	27	163	21.4	83	31	147	21.9	79	30	152	23.1	77
950	----	------	------	----	27	613	18.4	82	31	596	19.0	75	30	601	20.6	75
900	----	------	------	----	27	1,069	15.6	81	31	1,055	16.1	74	30	1,064	18.0	68
850	----	------	------	----	27	1,552	12.9	74	31	1,540	13.7	66	30	1,552	15.3	61
800	----	------	------	----	27	2,060	11.0	56	31	2,049	11.1	55	29	2,064	12.7	54
750	----	------	------	----	27	2,601	8.8	41	31	2,591	9.2	42	29	2,604	9.9	44
700	----	------	------	----	27	3,165	6.0	36	31	3,156	6.6	31	29	3,174	6.8	40
650	----	------	------	----	27	3,769	2.9	----	31	3,762	3.2	----	29	3,784	3.5	33
600	----	------	------	----	27	4,414	−0.5	----	31	4,404	−0.8	----	28	4,424	−0.2	33
550	----	------	------	----	27	5,108	−4.5	----	31	5,097	−4.8	----	27	5,119	−3.8	----
500	----	------	------	----	27	5,847	−9.4	----	31	5,837	−9.4	----	27	5,862	−7.9	----
450	----	------	------	----	26	6,660	−15.5	----	31	6,650	−15.5	----	27	6,683	−13.2	----
400	----	------	------	----	25	7,531	−22.2	----	31	7,521	−22.5	----	27	7,562	−19.6	----
350	----	------	------	----	25	8,495	−29.6	----	31	8,485	−30.3	----	25	8,541	−27.0	----
300	----	------	------	----	25	9,574	−38.3	----	31	9,560	−39.5	----	25	9,633	−35.5	----
250	----	------	------	----	24	10,802	−47.4	----	31	10,784	−47.8	----	24	10,875	−45.3	----
200	----	------	------	----	23	12,253	−55.0	----	29	12,230	−55.7	----	22	12,330	−55.6	----
175	----	------	------	----	23	13,098	−58.5	----	26	13,080	−58.8	----	21	13,175	−60.0	----
150	----	------	------	----	16	14,064	−62.8	----	17	14,051	−63.5	----	18	14,125	−63.5	----
125	----	------	------	----	12	15,168	−69.1	----	7	15,180	−66.8	----	14	15,236	−67.5	----

Standard Pressure Surface (mb.)	May (1,009.2 mb.)				June (1,011.7 mb.)				July (1,011.4 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	50	24.6	85	29	50	24.9	88	30	50	26.0	84
1,000	31	131	24.4	84	29	152	24.8	87	30	151	25.8	82
950	31	584	22.7	77	29	606	22.6	81	30	606	23.1	78
900	31	1,050	19.8	75	29	1,073	19.7	78	30	1,073	20.4	73
850	31	1,541	16.8	73	29	1,564	16.5	78	30	1,565	17.2	74
800	31	2,056	13.7	72	29	2,079	13.7	73	30	2,081	14.0	71
750	31	2,602	10.2	71	29	2,625	10.6	67	30	2,627	10.8	65
700	31	3,170	7.3	62	29	3,193	7.2	65	30	3,196	7.5	59
650	30	3,783	4.1	57	29	3,806	3.8	68	29	3,809	4.1	54
600	30	4,424	0.7	51	29	4,446	0.2	68	29	4,450	0.3	54
550	30	5,120	−3.2	48	29	5,145	−3.5	64	29	5,148	−3.5	50
500	30	5,866	−7.8	47	29	5,889	−7.8	58	29	5,893	−7.7	50
450	30	6,684	−13.0	44	28	6,712	−12.6	59	29	6,713	−13.1	51
400	30	7,567	−18.9	52	28	7,592	−18.2	59	29	7,593	−19.1	55
350	30	8,547	−26.0	----	28	8,575	−25.4	----	29	8,573	−26.1	----
300	30	9,643	−34.4	----	28	9,673	−34.1	----	29	9,669	−34.5	----
250	30	10,892	−44.2	----	28	10,922	−44.3	----	29	10,916	−44.5	----
200	29	12,348	−55.5	----	27	12,375	−56.3	----	27	12,367	−56.5	----
175	26	13,193	−60.9	----	24	13,219	−62.2	----	24	13,203	−63.1	----
150	16	14,153	−65.8	----	15	14,158	−68.2	----	17	14,138	−68.5	----
125	7	15,248	−68.0	----	8	15,220	−72.5	----	7	15,219	−71.3	----

[1] Insufficient observations.

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meter, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during 1946*

Standard pressure surface (mb.)	August (1,010.6 mb.)				September (1,008.2 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	29	50	25.7	83	25	50	25.2	87
1,000	29	144	25.7	82	25	123	25.5	84
950	29	601	23.3	77	25	579	23.1	81
900	29	1,067	20.5	75	25	1,045	20.2	77
850	29	1,560	17.5	67	24	1,537	17.3	75
800	29	2,076	14.3	65	24	2,053	14.2	72
750	29	2,623	11.1	61	24	2,600	10.9	70
700	29	3,193	8.0	56	24	3,170	7.6	69
650	29	3,806	4.6	56	24	3,784	4.1	67
600	29	4,450	0.8	57	23	4,427	0.3	69
550	29	5,149	−3.3	55	23	5,121	−3.7	66

Standard pressure surface (mb.)	August (1,010.6 mb.)			September (1,008.2 mb.)				
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
500	29	5,892	−7.9	55	22	5,869	−7.7	65
450	29	6,714	−12.7	57	22	6,690	−12.4	63
400	29	7,595	−18.4	57	21	7,573	−18.1	58
350	28	8,579	−25.4	----	21	8,556	−25.2	----
300	28	9,678	−34.1	----	19	9,657	−34.0	----
250	28	10,927	−44.4	----	19	10,906	−44.1	----
200	28	12,383	−56.2	----	17	12,366	−56.3	----
175	28	13,219	−62.9	----	11	13,180	−63.9	----
150	19	14,142	−68.2	----	5	14,140	−70.1	----
125	8	15,203	−72.0	----	----	----	----	----

TABLE 2.—*Free-air resultant winds based on pilot balloon observations made near 5 p. m., E. S. T. (2200 G. C. T.), during October 1946. 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	31	173	5.4	31	219	2.6	30	74	0.7	28	287	5.1	29	279	3.3	30	312	2.2
500	----	----	----	----	----	----	30	48	1.2	----	----	----	----	----	----	----	----	----
1,000	31	181	6.0	----	----	----	30	51	1.5	----	----	----	29	281	4.3	30	310	2.8
1,500	30	193	6.4	----	----	----	28	58	1.6	28	284	7.6	23	264	7.2	30	302	3.3
2,000	28	209	7.2	31	226	4.2	26	78	1.5	26	285	8.9	22	265	8.6	30	302	3.8
2,500	27	227	7.7	31	238	5.4	25	289	1.5	23	279	9.3	21	262	8.6	29	294	4.4
3,000	26	241	8.5	31	246	7.0	24	303	1.5	23	279	10.4	20	262	11.2	29	289	5.3
4,000	24	250	12.1	29	258	13.0	24	277	4.5	19	275	10.2	17	268	13.0	26	284	9.3
5,000	23	254	14.3	26	263	17.8	22	285	6.5	16	276	10.7	14	262	12.4	20	291	12.6
6,000	22	257	15.5	24	264	20.0	20	284	7.1	14	270	10.1	11	277	12.3	18	290	11.9
8,000	16	250	19.3	19	256	21.8	16	277	12.0	10	284	11.5	----	----	----	----	----	----
10,000	11	255	23.0	16	244	27.4	11	287	11.6	----	----	----	----	----	----	----	----	----

Altitude (meters) m. s. l.	Brownsville, Tex. (7 m.)			Buffalo, N. Y. (220 m.)			Burlington, Vt. (100 m.)			Charleston, S. C. (16 m.)			Cincinnati, Ohio (150 m.)			Denver, Colo. (1,627 m.)			El Paso, Tex. (1,198 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observation	Direction	Velocity
Surface	30	118	4.0	27	245	2.8	17	202	2.9	31	52	1.0	31	202	1.0	31	347	1.8	31	219	2.0
500	30	123	5.8	27	249	5.0	17	202	8.5	31	63	1.7	31	227	1.8	----	----	----	----	----	----
1,000	29	137	5.8	26	247	7.6	16	233	8.1	29	31	1.6	29	231	2.2	----	----	----	----	----	----
1,500	26	149	5.0	25	248	7.9	16	262	8.4	26	14	2.0	28	236	2.4	----	----	----	31	229	3.5
2,000	24	161	4.0	22	262	8.5	11	273	10.6	25	5	1.7	25	252	2.9	31	306	1.3	31	232	4.2
2,500	22	167	3.1	17	282	8.4	10	273	11.2	20	58	1.5	24	268	3.1	30	227	1.6	31	241	6.0
3,000	20	164	2.5	15	271	10.9	----	----	----	19	344	1.7	22	281	4.3	28	238	4.2	31	246	8.3
4,000	13	91	0.9	----	----	----	----	----	----	19	319	3.7	18	294	4.0	25	256	9.4	29	249	13.0
5,000	12	258	2.3	----	----	----	----	----	----	15	318	4.9	13	267	7.3	21	264	14.5	28	248	14.2
6,000	12	281	2.9	----	----	----	----	----	----	15	315	6.4	10	265	8.5	21	260	18.2	25	246	16.8
8,000	10	267	5.6	----	----	----	----	----	----	----	----	----	----	----	----	13	260	19.9	20	251	21.5
10,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	14	250	27.0

Altitude (meters) m. s. l.	Ely, Nev. (1,910 m.)			Grand Junction, Colo. (1,475 m.)			Greensboro, N. C. (271 m.)			Havre, Mont. (767 m.)			Jacksonville, Fla. (16 m.)			Joliet, Ill. (178 m.)			Las Vegas, Nev. (575 m.)		
Surface	30	333	1.1	31	300	3.6	30	38	0.8	28	268	3.8	30	41	3.7	29	202	4.0	31	142	1.2
500	----	----	----	----	----	----	30	29	1.2	----	----	----	30	51	3.9	29	212	5.2	----	----	----
1,000	----	----	----	----	----	----	30	15	0.7	28	271	5.6	25	70	1.9	29	214	6.1	31	164	1.8
1,500	----	----	----	31	298	3.5	29	31	0.6	27	275	7.6	23	162	0.3	26	228	7.6	31	207	1.9
2,000	30	311	1.1	31	272	3.2	27	34	0.1	26	280	8.3	20	274	1.3	23	233	8.1	28	241	2.5
2,500	30	287	1.7	31	245	4.1	24	301	2.8	21	272	10.3	18	267	3.1	20	234	8.3	27	275	3.5
3,000	26	279	3.0	30	232	6.5	24	284	3.7	14	280	11.0	17	265	5.2	17	250	7.0	26	293	4.7
4,000	24	289	7.6	25	247	9.0	20	277	7.2	11	279	11.3	16	280	6.1	16	257	7.4	24	281	6.8
5,000	19	293	9.8	19	248	11.2	20	283	8.8	----	----	----	15	282	6.4	14	263	7.6	24	274	9.8
6,000	18	287	13.8	17	254	15.8	19	288	9.7	----	----	----	14	286	6.8	10	272	6.5	24	269	12.9
8,000	14	296	14.9	----	----	----	13	296	15.2	----	----	----	12	287	10.7	----	----	----	21	265	15.9
10,000	13	296	16.3	----	----	----	10	297	22.4	----	----	----	----	----	----	----	----	----	19	260	20.6

Altitude (meters) m. s. l.	Little Rock, Ark. (88 m.)			Medford, Oreg. (416 m.)			Miami, Fla. (12 m.)			Mobile, Ala. (66 m.)			Nashville, Tenn. (194 m.)			New York, N. Y. (15 m.)		
Surface	31	147	2.3	31	308	1.1	31	77	2.8	31	76	1.8	30	229	0.5	31	183	1.3
500	31	165	3.2	31	300	0.9	31	67	6.9	31	61	2.4	30	219	0.3	31	226	2.8
1,000	27	169	3.5	31	293	1.0	31	55	6.2	30	54	2.3	30	190	0.8	29	270	3.6
1,500	27	194	4.0	30	274	1.4	30	57	4.8	29	31	1.6	30	217	1.8	27	276	5.0
2,000	23	212	3.7	27	301	2.1	30	52	3.6	27	310	4.9	29	228	2.3	22	288	4.8
2,500	23	219	4.8	22	341	4.3	23	122	1.3	26	307	1.3	28	248	2.9	20	283	4.7
3,000	23	227	4.9	17	335	6.1	22	143	1.8	25	296	1.6	28	262	4.2	20	273	5.2
4,000	20	261	7.2	12	342	11.3	20	193	2.4	24	295	3.7	26	271	7.0	13	319	5.2
5,000	17	265	9.8	----	----	----	16	302	1.7	20	293	5.2	22	278	9.3	12	306	4.3
6,000	15	267	12.3	----	----	----	15	273	3.9	17	287	6.8	19	286	11.7	10	303	4.9
8,000	----	----	----	----	----	----	----	----	----	----	----	----	12	286	12.1	----	----	----
10,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Altitude (meters) m. s. l.	Oakland, Calif. (8 m.)			Oklahoma City, Okla. (396 m.)			Omaha, Nebr. (306 m.)			Phoenix, Ariz. (338 m.)			Rapid City, S. Dak. (982 m.)			St. Louis, Mo. (181 m.)			St. Paul, Minn. (225 m.)		
Surface	31	275	4.3	29	197	5.6	29	190	2.8	31	219	1.0	25	337	3.2	29	166	3.0	30	215	2.4
500	31	302	4.5	29	196	6.7	29	191	4.1	31	220	1.7	----	----	----	29	179	5.1	30	220	3.7
1,000	31	332	3.6	28	193	9.1	29	196	6.4	31	226	2.3	25	334	3.1	29	194	6.8	28	212	5.6
1,500	29	345	3.9	27	205	9.1	26	206	9.0	31	217	2.2	24	318	3.6	28	210	7.4	25	228	8.8
2,000	29	343	5.2	25	215	9.7	22	229	9.6	31	219	3.1	21	294	5.1	26	217	8.2	23	240	11.0
2,500	29	344	5.4	21	230	10.4	20	242	10.3	31	228	4.3	19	267	7.1	24	224	7.7	22	243	12.6
3,000	28	344	5.9	20	243	10.5	16	253	12.0	31	236	6.3	18	260	10.0	24	236	7.9	17	249	14.6
4,000	23	319	7.0	18	250	13.5	14	261	14.5	31	248	9.9	16	254	13.1	22	258	8.0	16	254	16.7
5,000	22	310	8.0	15	258	17.6	14	254	15.6	29	244	14.1	14	262	13.0	22	272	9.0	16	256	18.2
6,000	20	310	8.9	11	256	17.9	12	263	17.1	24	248	16.8	12	256	14.1	20	277	10.4	12	261	17.2
8,000	14	311	9.6	----	----	----	10	283	20.0	17	259	14.3	----	----	----	16	277	11.2	----	----	----
10,000	11	315	9.8	----	----	----	----	----	----	10	254	20.3	----	----	----	12	290	13.6	----	----	----

Altitude (meters) m. s. l.	San Antonio, Tex. (240 m.)			San Diego, Calif. (15 m.)			Sault Ste. Marie, Mich. (225 m.)			Seattle, Wash. (116 m.)			Spokane, Wash. (603 m.)			Washington, D. C. (24 m.)		
Surface	31	123	3.2	29	278	3.7	28	240	2.4	28	257	2.4	30	220	2.4	29	210	0.7
500	31	130	3.9	29	289	4.5	28	225	4.2	28	233	2.3	----	----	----	29	201	1.4
1,000	31	143	4.3	26	288	2.8	28	231	6.6	27	243	2.8	30	232	3.2	27	228	2.3
1,500	26	159	4.3	25	6	0.9	23	254	8.6	22	263	2.3	30	243	3.8	25	278	2.9
2,000	21	183	4.8	25	20	0.3	19	257	10.0	20	241	2.3	26	252	4.0	24	301	3.4
2,500	18	203	5.0	25	340	1.5	18	268	13.8	19	296	2.6	19	263	4.0	21	312	5.1
3,000	16	216	5.0	24	306	3.6	17	270	14.1	17	301	3.8	17	282	3.4	21	307	6.7
4,000	13	235	4.7	21	292	5.7	12	270	14.2	13	333	5.8	15	327	5.3	20	295	6.7
5,000	----	----	----	18	270	7.1	----	----	----	----	----	----	11	359	8.7	20	290	7.6
6,000	----	----	----	15	282	6.1	----	----	----	----	----	----	----	----	----	16	292	9.4
8,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	11	295	6.9
10,000	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

TABLE 3.—*Maximum free-air wind velocities (m. p. s.) for different sections of the United States based on pilot balloon observations during October 1946*

Section	Surface to 2,500 meters (m. s. l.)					2,501 to 5,000 meters (m. s. l.)					Above 5,000 meters (m. s. l.)				
	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station
Northeast [1]	38.4	sw.	1,917	18	Portland, Maine										
	38.4	w.	634	1	Buffalo, N. Y.	45.4	nw.	3,537	3	Portland, Maine	72.0	w.	9,317	19	Portland, Maine.
East-Central [2]	43.7	wsw.	1,856	18	Greensboro, N. C.	55.5	wsw.	5,000	18	Huntington, W. Va.	78.4	wsw.	17,726	7	Richmond, Va.
Southeast [3]	31.7	se.	1,146	8	Charleston, S. C.	28.2	w.	5,000	12	Birmingham, Ala.	57.0	w.	14,473	14	Birmingham, Ala.
North-Central [4]	35.1	sw.	606	30	Alpena, Mich.	48.4	w.	4,951	26	Sault Ste. Marie, Mich.	92.1	n.	10,033	31	Green Bay, Wis.
Central [5]	53.5	wsw.	2,500	26	Sioux City, Iowa	62.0	wsw.	2,769	26	Sioux City, Iowa	79.3	w.	14,366	2	Springfield, Mo.
South-Central [6]	36.0	ssw.	2,500	29	Amarillo, Tex.	42.0	nw.	5,000	12	Memphis, Tenn.	60.0	w.	11,423	12	Fort Worth, Tex.
Northwest [7]	34.4	wsw.	2,350	23	Pocatello, Idaho	49.0	w.	4,450	25	Tatoosh Island, Wash.	78.0	nnw.	11,051	5	Medford, Oreg.
West-Central [8]	38.7	s.	2,273	1	Rock Springs, Wyo.	43.4	sw.	5,000	29	Denver, Colo.	82.0	n.	8,942	10	Salt Lake City, Utah.
Southwest [9]	28.0	sw.	2,465	2	Las Vegas, Nev.	48.0	sw.	4,780	29	Albuquerque, N. Mex.	80.8	wsw.	10,065	31	Tucson, Ariz.

[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 FOR OCTOBER 1946

C. R. JORDAN

Precipitation during October was above normal over most of the country west of the Mississippi River except a narrow strip along western California and the southern border of the Plains, Texas, Oklahoma, Arkansas, Louisiana, and southern Missouri. It was also wetter than usual in the Carolinas and northern Georgia, and in Pennsylvania and northern New York. Accumulations were much above the usual amounts over a broad strip of the west-central portion of the Great Plains, extending from North Dakota to the Texas Panhandle and over most of Nevada and western Utah. Less than half the usual rainfall was received in west-central Texas, the central Gulf coastal area, along the middle and north Atlantic coasts, and in northern Michigan.

Unusually high floods for this season of the year occurred in Texas, Oklahoma, and Kansas. Highest stages of record were reached at a few headwater stations.

Missouri Basin—Flooding occurred along the Republican River from Bloomington, Nebr., to Clay Center, Kans.; the smaller tributaries of the Republican River; the Saline River; and the Smoky Hill River at Abilene, Kans.

At Bloomington and Guide Rock, Nebr., the Republican reached the highest stages since 1935, but overflow along the stream in Kansas was light, generally not more than a foot above bankfull. Beaver Creek, Sappa Creek, and Prairie Dog Creek, all tributaries of the Republican, overflowed moderately. Damage in the Republican Basin was estimated at $386,000, most of which was in Franklin, Webster, and Nuckolls Counties, Nebr.

Rather severe overflow of the Solomon River was reported above Beloit, Kans., with moderate flood stages extending downstream. The crest at Beloit was 8.93 feet above flood stage, on the 11th. Damage along the Solomon River was set at $66,000.

One of the highest stages of record occurred on the Saline River at Tescott, Kans., where a crest 3.35 feet