METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR MARCH 1949

AEROLOGICAL OBSERVATIONS

[For description of change in Table 1 and charts, see REVIEW, January 1946, p. 6]

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meters, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during March 1949*

STATIONS AND MEAN SURFACE PRESSURES

Standard pressure surface (mb.)	Albany, N. Y. (1,004.3 mb.)				Albuquerque, N. Mex. (834.3 mb.)				Atlanta, Ga. (983.4 mb.)				Big Spring, Tex. (924.8 mb.)				Bismarck, N. Dak. (956.7 mb.)				Boise, Idaho (912.9 mb.)				Brownsville, Tex. (1,013.3 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	86	1.2	69	31	1,620	9.7	35	31	300	11.0	62	31	774	13.0	51	31	505	−4.2	82	31	868	7.2	59	31	6	19.8	86
1,000	31	120	(*)	----	31	83	(*)	----	31	160	(*)	----	31	107	(*)	----	31	151	(*)	----	31	108	(*)	----	31	119	19.7	85
950	31	537	.5	59	31	529	(*)	----	31	590	10.9	55	31	550	(*)	----	31	560	(*)	----	31	540	(*)	----	31	565	18.1	80
900	31	964	−1.7	60	31	989	(*)	----	31	1,038	8.4	53	31	1,003	14.2	46	31	984	−5.4	74	31	985	7.8	48	31	1,023	16.9	64
850	31	1,417	−3.6	60	31	1,465	(*)	----	31	1,509	6.9	47	31	1,483	12.6	38	31	1,433	−5.9	65	31	1,454	4.7	48	31	1,509	15.6	53
800	31	1,894	−5.6	56	31	1,968	8.8	33	31	2,006	5.5	43	31	1,990	10.4	33	31	1,907	−6.8	56	31	1,944	.8	54	31	2,022	13.9	44
750	31	2,405	−7.8	58	31	2,506	4.6	37	31	2,537	3.4	39	31	2,529	7.5	29	31	2,415	−8.7	51	31	2,460	−3.3	61	31	2,566	11.8	38
700	31	2,933	−10.2	61	31	3,055	.1	41	31	3,089	.6	40	31	3,088	3.4	30	31	2,942	−11.0	50	31	3,001	−7.5	66	31	3,138	8.7	30
650	31	3,507	−12.6	60	31	3,647	−4.7	43	31	3,682	−2.8	39	31	3,688	−.6	29	31	3,518	−14.1	50	31	3,575	−11.4	65	31	3,745	4.2	31
600	31	4,109	−15.6	60	31	4,267	−9.6	44	31	4,310	−6.8	35	31	4,319	−5.1	27	31	4,111	−17.5	50	31	4,183	−15.1	60	31	4,391	−.6	30
550	31	4,764	−19.3	57	31	4,936	−14.2	39	31	4,984	−11.5	32	31	4,998	−10.2	28	31	4,762	−21.1	----	31	4,837	−19.7	56	30	5,079	−5.6	30
500	31	5,463	−23.9	----	31	5,649	−19.4	35	31	5,708	−16.4	34	31	5,724	−15.7	30	30	5,459	−25.5	----	31	5,536	−24.9	----	30	5,820	−10.8	31
450	31	6,229	−29.0	----	31	6,430	−25.4	----	31	6,497	−22.0	----	31	6,514	−21.1	----	30	6,220	−31.1	----	31	6,298	−30.2	----	30	6,632	−16.4	30
400	31	7,056	−34.8	----	31	7,267	−31.3	----	31	7,348	−28.1	----	30	7,369	−27.4	----	30	7,040	−37.2	----	31	7,121	−36.3	----	30	7,497	−23.0	----
350	31	7,974	−41.5	----	31	8,201	−37.5	----	31	8,293	−34.9	----	30	8,316	−34.2	----	29	7,949	−44.1	----	31	8,033	−43.5	----	29	8,460	−30.3	----
300	30	9,007	−48.0	----	31	9,249	−44.3	----	31	9,350	−43.0	----	30	9,377	−42.1	----	27	8,965	−50.9	----	31	9,051	−51.6	----	29	9,539	−38.1	----
250	30	10,194	−52.9	----	30	10,455	−50.8	----	29	10,550	−51.9	----	29	10,595	−50.4	----	23	10,137	−55.8	----	30	10,220	−55.5	----	28	10,768	−47.5	----
200	30	11,625	−54.8	----	29	11,891	−56.0	----	28	11,979	−58.1	----	27	12,035	−56.8	----	20	11,559	−55.7	----	26	11,640	−52.7	----	25	12,207	−55.9	----
175	27	12,476	−53.3	----	28	12,740	−56.5	----	25	12,831	−58.9	----	25	12,884	−58.2	----	13	12,421	−53.8	----	25	12,503	−51.5	----	19	13,058	−60.4	----
150	25	13,468	−54.2	----	27	13,715	−56.7	----	18	13,817	−60.6	----	24	13,852	−59.5	----	6	13,408	−52.9	----	25	13,502	−52.1	----	18	14,011	−63.8	----
125	21	14,641	−55.5	----	21	14,867	−57.5	----	10	14,979	−64.0	----	23	14,989	−61.3	----	----	----	----	----	17	14,677	−53.4	----	11	15,132	−66.3	----
100	13	16,072	−57.1	----	10	16,256	−58.9	----	6	16,338	−66.0	----	11	16,332	−63.3	----	----	----	----	----	9	16,100	−54.0	----	7	16,465	−71.5	----
80	5	17,449	−57.6	----	5	17,643	−60.3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Buffalo, N. Y. (988.8 mb.)				Camaguey, Cuba [1] (---- mb.)				Caribou, Maine (988.2 mb.)				Charleston, S. C. (1,016.8 mb.)				Ciudad Victoria, Mex. (972.0 mb.)				Columbia, Mo. (987.9 mb.)				Dodge City, Kans. (923.3 mb.)			
Surface	31	221	0.5	74	----	----	----	----	31	191	−5.7	75	31	13	11.3	78	28	335	25.0	51	31	239	5.3	70	31	792	3.8	78
1,000	31	130	(*)	----	----	----	----	----	31	96	(*)	----	31	153	13.3	70	28	83	(*)	----	31	136	(*)	----	31	134	(*)	----
950	31	545	−.3	69	----	----	----	----	31	502	−5.4	65	31	588	12.0	63	28	537	23.4	54	31	563	5.1	63	31	559	(*)	----
900	31	972	−2.5	67	----	----	----	----	31	923	−7.1	62	31	1,036	9.7	59	28	1,005	20.0	59	31	996	3.0	60	31	999	4.4	71
850	31	1,424	−4.0	63	----	----	----	----	31	1,367	−8.2	62	31	1,509	7.6	57	28	1,496	16.8	64	31	1,458	1.8	54	30	1,461	4.7	62
800	31	1,901	−5.9	62	----	----	----	----	31	1,837	−9.3	59	31	2,007	5.5	52	28	2,010	13.6	66	31	1,946	−.1	54	30	1,954	3.4	54
750	31	2,409	−8.1	56	----	----	----	----	31	2,337	−11.0	59	31	2,538	4.0	44	28	2,559	11.4	54	31	2,470	−1.6	52	30	2,479	1.5	47
700	31	2,938	−10.4	53	----	----	----	----	31	2,862	−13.4	60	30	3,091	1.4	37	28	3,127	9.0	45	31	3,008	−3.7	48	30	3,029	−1.6	40
650	31	3,512	−12.9	53	----	----	----	----	30	3,425	−16.1	55	30	3,688	−2.1	----	27	3,738	5.1	38	31	3,600	−6.8	43	29	3,618	−5.5	38
600	31	4,113	−15.9	50	----	----	----	----	30	4,021	−18.8	54	29	4,318	−6.1	----	27	4,386	.1	36	31	4,211	−10.6	40	29	4,238	−9.8	38
550	31	4,768	−19.5	49	----	----	----	----	30	4,667	−22.5	----	29	4,995	−10.6	----	27	5,076	−5.0	35	31	4,879	−15.0	37	29	4,901	−14.6	37
500	30	5,464	−24.2	----	----	----	----	----	30	5,358	−26.5	----	29	5,720	−15.8	----	25	5,821	−9.4	----	31	5,588	−19.9	37	29	5,618	−19.9	37
450	28	6,226	−29.6	----	----	----	----	----	30	6,117	−31.5	----	28	6,516	−21.5	----	25	6,638	−15.0	----	29	6,363	−26.0	----	29	6,396	−25.6	----
400	26	7,049	−35.5	----	----	----	----	----	30	6,937	−36.7	----	28	7,369	−27.8	----	25	7,511	−21.2	----	28	7,203	−32.6	----	29	7,233	−32.3	----
350	25	7,969	−41.7	----	----	----	----	----	30	7,850	−43.1	----	28	8,315	−34.8	----	25	8,481	−29.0	----	27	8,126	−39.6	----	29	8,161	−39.5	----
300	22	8,994	−48.0	----	----	----	----	----	29	8,865	−49.3	----	28	9,373	−42.9	----	25	9,564	−37.4	----	25	9,161	−47.0	----	27	9,193	−47.2	----
250	20	10,164	−53.8	----	----	----	----	----	28	10,040	−53.5	----	27	10,583	−51.2	----	25	10,797	−47.2	----	20	10,361	−53.4	----	26	10,376	−53.5	----
200	15	11,619	−55.8	----	----	----	----	----	27	11,482	−54.6	----	24	12,017	−57.0	----	24	12,240	−56.9	----	11	11,781	−54.6	----	20	11,813	−56.6	----
175	13	12,478	−54.8	----	----	----	----	----	22	12,299	−53.0	----	21	12,867	−57.4	----	21	13,074	−60.6	----	10	12,623	−54.8	----	19	12,667	−55.6	----
150	12	13,446	−54.1	----	----	----	----	----	12	13,351	−52.3	----	18	13,849	−58.7	----	8	14,019	−63.7	----	5	13,652	−54.7	----	15	13,638	−56.4	----
125	10	14,616	−55.1	----	----	----	----	----	8	14,491	−53.8	----	10	15,044	−63.5	----	----	----	----	----	----	----	----	----	12	14,799	−59.1	----
100	5	16,002	−53.5	----	----	----	----	----	----	----	----	----	8	16,416	−65.6	----	----	----	----	----	----	----	----	----	8	16,202	−59.6	----

Standard pressure surface (mb.)	El Paso, Tex. (879.0 mb.)				Ely, Nev. (805.0 mb.)				Glasgow, Mont. (939.3 mb.)				Grand Junction, Colo. (849.0 mb.)				Great Falls, Mont (885.0 mb.)				Greensboro, N. C. (985.9 mb.)				Hatteras, N. C. (1,017.8 mb.)			
Surface	31	1,195	15.3	25	31	1,908	0.2	75	31	648	−2.6	73	31	1,474	5.4	67	31	1,128	−0.8	63	31	273	7.7	67	31	3	10.6	75
1,000	31	83	(*)	----	31	129	(*)	----	31	144	(*)	----	31	110	(*)	----	31	136	(*)	----	31	155	(*)	----	31	150	11.2	68
950	31	534	(*)	----	31	557	(*)	----	31	561	(*)	----	31	546	(*)	----	31	559	(*)	----	31	577	8.7	52	31	584	9.0	60
900	31	999	(*)	----	31	1,000	(*)	----	31	987	−1.8	64	31	995	(*)	----	31	997	(*)	----	31	1,026	5.8	55	31	1,023	6.5	57
850	31	1,479	14.8	24	31	1,466	(*)	----	31	1,441	−3.4	59	31	1,463	(*)	----	31	1,449	−1.4	53	31	1,492	3.0	55	31	1,490	4.2	53
800	31	1,988	10.8	26	31	1,959	1.6	64	31	1,918	−5.5	58	31	1,961	4.8	53	31	1,930	−3.7	52	31	1,981	.8	54	31	1,982	2.2	48
750	31	2,525	6.7	27	31	2,480	−1.4	58	31	2,424	−8.1	57	31	2,485	1.0	55	31	2,441	−6.9	55	31	2,504	−.8	46	31	2,504	2.1	40
700	31	3,083	2.8	28	31	3,022	−5.5	62	31	2,955	−10.6	53	31	3,035	−3.1	58	31	2,972	−9.7	58	31	3,047	−2.6	41	31	3,052	−2.3	39
650	31	3,680	−2.0	30	31	3,603	−9.3	59	31	3,528	−13.8	49	31	3,618	−7.5	59	31	3,548	−13.0	55	31	3,635	−5.4	39	31	3,641	−5.2	37
600	31	4,308	−6.7	28	31	4,214	−13.2	55	31	4,125	−17.4	47	31	4,235	−11.8	57	31	4,147	−16.6	48	30	4,260	−9.1	37	31	4,261	−9.0	35
550	31	4,985	−11.7	----	31	4,873	−17.5	54	31	4,774	−21.4	----	31	4,897	−16.7	58	31	4,796	−21.2	----	30	4,929	−13.1	35	31	4,930	−13.0	36
500	30	5,701	−17.0	----	31	5,579	−22.6	----	31	5,468	−26.2	----	31	5,604	−21.7	----	31	5,490	−26.5	----	30	5,648	−18.1	37	31	5,649	−17.7	37
450	30	6,490	−22.3	----	31	6,346	−28.4	----	31	6,227	−31.7	----	31	6,376	−27.4	----	31	6,248	−32.0	----	29	6,431	−23.8	----	31	6,435	−23.2	----
400	30	7,339	−28.6	----	31	7,177	−34.9	----	29	7,049	−37.8	----	31	7,208	−33.8	----	31	7,063	−38.2	----	27	7,275	−30.1	----	29	7,285	−29.6	----
350	29	8,284	−35.0	----	31	8,095	−42.0	----	29	7,956	−44.3	----	31	8,129	−40.7	----	31	7,968	−44.9	----	26	8,221	−36.9	----	28	8,226	−36.2	----
300	29	9,342	−42.8	----	29	9,114	−48.9	----	24	8,999	−51.4	----	31	9,162	−47.6	----	31	8,982	−51.7	----	25	9,279	−44.6	----	28	9,279	−43.7	----
250	29	10,551	−50.9	----	29	10,294	−54.5	----	23	10,163	−57.0	----	30	10,354	−53.1	----	31	10,150	−56.2	----	23	10,459	−52.8	----	26	10,474	−52.1	----
200	24	11,979	−56.6	----	28	11,715	−54.1	----	18	11,581	−56.1	----	25	11,773	−55.0	----	30	11,566	−54.4	----	20	11,877	−56.9	----	18	11,920	−57.9	----
175	19	12,831	−57.6	----	27	12,567	−53.0	----	16	12,432	−54.7	----	22	12,623	−52.6	----	30	12,424	−53.0	----	14	12,745	−57.4	----	18	12,762	−57.4	----
150	15	13,782	−58.1	----	26	13,557	−53.4	----	14	13,425	−53.9	----	18	13,613	−51.7	----	29	13,420	−52.6	----	8	13,714	−58.9	----	9	13,803	−58.6	----
125	7	14,892	−59.4	----	20	14,728	−54.8	----	13	14,599	−54.1	----	12	14,783	−53.9	----	28	14,593	−53.8	----	5	14,849	−59.4	----	6	15,027	−62.2	----
100	----	----	----	----	7	16,150	−56.9	----	8	16,046	−55.4	----	----	----	----	----	18	16,030	−54.0	----	----	----	----	----	----	----	----	----
80	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	7	17,491	−53.2	----	----	----	----	----	----	----	----	----

See footnotes at end of table

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meters, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during March 1949*—Continued

Standard pressure surface (mb.)	Havana, Cuba [1] (---- mb.)				Honolulu, T. H. (1,016.0 mb.)				International Falls, Minn. (973.4 mb.)				Joliet, Ill. (995.5 mb.)				Lake Charles, La. (1,016.5 mb.)				Lander, Wyo. (824.6 mb.)				Las Vegas, Nev. (935.2 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	----	----	----	----	31	3	24.1	59	31	360	−8.1	70	31	178	2.1	76	31	5	14.8	83	31	1,696	1.3	60	31	660	12.6	39
1,000	----	----	----	----	31	141	21.8	62	31	148	(*)	----	31	140	(*)	----	31	143	14.9	75	31	113	(*)	----	31	90	(*)	----
950	----	----	----	----	31	589	18.0	68	31	550	−7.0	66	31	556	1.3	65	31	581	13.4	67	31	544	(*)	----	31	527	(*)	----
900	----	----	----	----	31	1,045	14.4	73	31	968	−9.1	66	31	988	−.7	62	31	1,032	12.3	61	31	987	(*)	----	31	983	12.8	31
850	----	----	----	----	31	1,526	11.4	71	31	1,409	−9.8	65	31	1,443	−2.2	52	31	1,511	11.1	47	31	1,450	(*)	----	31	1,459	8.9	35
800	----	----	----	----	31	2,031	9.9	50	31	1,876	−11.1	59	31	1,924	−3.8	43	31	2,015	9.3	41	31	1,940	1.8	52	31	1,957	4.8	40
750	----	----	----	----	31	2,573	8.1	31	31	2,378	−12.4	54	31	2,436	−5.2	43	31	2,558	7.0	42	31	2,465	−1.1	49	31	2,482	.6	42
700	----	----	----	----	31	3,132	5.4	----	31	2,895	−14.4	53	31	2,972	−7.4	42	30	3,113	4.4	32	31	3,005	−5.0	49	31	3,028	−3.3	39
650	----	----	----	----	31	3,732	2.1	----	31	3,465	−16.7	51	31	3,550	−10.5	44	29	3,715	.5	34	31	3,588	−9.4	51	31	3,616	−7.2	36
600	----	----	----	----	31	4,375	−1.8	----	31	4,052	−19.9	45	31	4,158	−14.3	45	29	4,349	−3.7	----	31	4,197	−13.3	50	31	4,230	−11.2	31
550	----	----	----	----	31	5,060	−6.2	----	31	4,694	−23.6	----	31	4,815	−18.4	42	29	5,032	−8.5	----	31	4,856	−17.8	47	31	4,895	−15.6	33
500	----	----	----	----	31	5,800	−11.4	----	31	5,382	−27.9	----	31	5,517	−23.0	----	29	5,763	−13.8	----	31	5,559	−23.2	----	31	5,603	−21.0	----
450	----	----	----	----	31	6,604	−17.1	----	31	6,138	−32.5	----	31	6,284	−28.2	----	28	6,562	−19.4	----	31	6,330	−29.2	----	31	6,380	−26.9	----
400	----	----	----	----	31	7,473	−23.6	----	30	6,950	−38.2	----	31	7,115	−34.7	----	28	7,419	−25.9	----	31	7,152	−35.8	----	31	7,212	−33.1	----
350	----	----	----	----	31	8,435	−30.8	----	29	7,851	−44.6	----	31	8,035	−41.2	----	28	8,372	−33.0	----	31	8,064	−43.4	----	31	8,136	−40.1	----
300	----	----	----	----	31	9,512	−38.0	----	28	8,862	−51.0	----	30	9,068	−48.1	----	27	9,439	−40.9	----	31	9,083	−51.3	----	31	9,172	−47.1	----
250	----	----	----	----	31	10,751	−43.9	----	26	10,030	−54.2	----	30	10,251	−54.5	----	26	10,655	−50.4	----	30	10,251	−56.7	----	31	10,359	−53.8	----
200	----	----	----	----	30	12,226	−51.8	----	20	11,470	−52.1	----	29	11,673	−55.6	----	25	12,086	−58.6	----	24	11,674	−56.0	----	31	11,778	−56.5	----
175	----	----	----	----	30	13,082	−56.7	----	14	12,350	−51.2	----	27	12,517	−54.3	----	23	12,924	−61.6	----	19	12,517	−53.7	----	30	12,626	−54.4	----
150	----	----	----	----	30	14,047	−61.8	----	11	13,346	−51.0	----	26	13,500	−54.5	----	23	13,877	−62.9	----	16	13,506	−53.2	----	30	13,610	−55.6	----
125	----	----	----	----	29	15,163	−67.2	----	9	14,518	−51.9	----	22	14,688	−56.3	----	17	14,991	−67.2	----	11	14,677	−54.0	----	28	14,763	−58.0	----
100	----	----	----	----	28	16,490	−71.9	----	----	----	----	----	13	16,099	−57.9	----	13	16,332	−70.2	----	6	16,116	−56.1	----	23	16,158	−59.5	----
80	----	----	----	----	25	17,797	−71.9	----	----	----	----	----	6	17,514	−57.4	----	----	----	----	----	----	----	----	----	13	17,547	−59.0	----
60	----	----	----	----	20	19,513	−65.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
50	----	----	----	----	19	20,635	−60.9	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
40	----	----	----	----	18	22,035	−56.1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
30	----	----	----	----	17	23,883	−51.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Little Rock, Ark. (1,007.4 mb.)				Mazatlan, Mex. (1,009.1 mb.)				Medford, Oreg. (966.3 mb.)				Merida, Mex. (1,010.6 mb.)				Miami, Fla. (1,017.8 mb.)				Nantucket, Mass. (1,012.9 mb.)				Nashville, Tenn. (996.7 mb.)			
Surface	31	79	10.6	72	31	14	22.3	74	31	401	8.9	66	31	27	26.5	63	31	4	20.4	75	29	14	2.4	81	31	177	9.4	66
1,000	31	140	(*)	----	31	94	21.8	69	31	115	(*)	----	31	120	25.8	64	31	157	20.5	72	29	117	4.0	74	31	149	(*)	----
950	31	570	10.3	60	31	550	23.0	36	31	543	8.6	58	31	573	23.3	63	31	601	17.7	72	29	536	3.2	68	31	574	8.0	56
900	31	1,016	8.3	59	31	1,009	21.9	29	31	986	5.4	61	31	1,042	20.6	62	31	1,059	15.0	62	29	971	1.3	64	31	1,018	5.5	56
850	31	1,487	7.2	52	31	1,502	19.2	22	31	1,450	1.9	66	31	1,533	17.2	63	31	1,541	12.5	55	29	1,430	−.7	62	31	1,484	3.7	53
800	31	1,985	5.7	49	31	2,019	15.8	22	31	1,936	−1.9	73	31	2,048	13.5	67	31	2,048	10.4	42	29	1,912	−2.8	60	31	1,976	2.4	47
750	31	2,515	3.2	52	31	2,573	12.1	23	31	2,450	−5.3	72	31	2,594	11.2	51	31	2,590	8.3	33	29	2,427	−4.9	54	31	2,499	.0	46
700	31	3,067	.2	46	31	3,136	8.1	24	31	2,984	−8.7	69	31	3,163	8.4	33	31	3,149	5.5	----	29	2,961	−7.2	52	31	3,046	−2.1	40
650	31	3,660	−3.2	41	31	3,748	3.9	23	31	3,557	−12.2	63	31	3,775	5.5	----	31	3,752	2.2	----	29	3,538	−10.3	50	31	3,636	−5.4	42
600	31	4,287	−7.1	34	31	4,388	−.5	----	31	4,162	−16.2	56	30	4,421	2.0	----	31	4,392	−1.6	----	29	4,148	−13.8	51	31	4,255	−9.4	43
550	31	4,962	−11.7	34	30	5,078	−5.4	----	31	4,811	−20.4	53	29	5,118	−2.1	----	31	5,079	−5.7	----	29	4,807	−17.8	49	31	4,921	−14.0	43
500	31	5,683	−16.7	34	29	5,822	−9.9	----	31	5,510	−25.1	----	29	5,868	−7.2	----	31	5,819	−10.2	----	29	5,511	−22.3	----	31	5,639	−18.8	43
450	31	6,474	−22.3	----	29	6,634	−15.3	----	31	6,271	−30.5	----	29	6,686	−13.1	----	31	6,629	−15.9	----	29	6,282	−27.6	----	31	6,420	−24.2	----
400	31	7,322	−28.5	----	29	7,508	−21.4	----	31	7,094	−36.9	----	29	7,566	−20.0	----	31	7,501	−22.2	----	29	7,115	−33.5	----	31	7,264	−30.3	----
350	31	8,264	−35.4	----	28	8,476	−29.0	----	31	8,004	−43.4	----	28	8,540	−28.0	----	31	8,468	−29.7	----	29	8,039	−39.9	----	31	8,199	−37.5	----
300	30	9,316	−43.2	----	28	9,559	−37.4	----	30	9,031	−49.5	----	28	9,625	−37.0	----	31	9,547	−38.2	----	28	9,084	−46.6	----	31	9,246	−44.9	----
250	29	10,519	−51.5	----	28	10,794	−46.8	----	28	10,214	−53.8	----	28	10,857	−47.2	----	30	10,776	−47.7	----	26	10,279	−53.2	----	31	10,442	−52.6	----
200	27	11,947	−57.0	----	27	12,246	−56.2	----	26	11,635	−53.1	----	28	12,299	−57.3	----	26	12,214	−56.4	----	20	11,663	−54.3	----	26	11,886	−57.5	----
175	27	12,792	−56.9	----	25	13,088	−60.6	----	24	12,497	−51.1	----	27	13,130	−61.9	----	26	13,054	−59.6	----	18	12,487	−52.9	----	23	12,719	−56.6	----
150	22	13,769	−58.2	----	25	14,040	−63.9	----	21	13,498	−51.0	----	25	14,068	−67.0	----	20	14,018	−62.4	----	15	13,467	−52.9	----	20	13,705	−58.3	----
125	12	14,928	−60.6	----	24	15,147	−68.0	----	20	14,683	−52.3	----	20	15,156	−72.1	----	15	15,133	−67.3	----	12	14,618	−53.8	----	15	14,843	−59.7	----
100	9	16,320	−62.5	----	19	16,478	−72.0	----	19	16,115	−54.1	----	13	16,449	−76.2	----	8	16,464	−72.8	----	7	16,065	−56.6	----	7	16,245	−61.7	----
80	5	17,702	−63.1	----	8	17,798	−74.0	----	15	17,542	−54.8	----	5	17,716	−77.2	----	----	----	----	----	----	----	----	----	----	----	----	----
60	----	----	----	----	----	----	----	----	5	19,375	−54.3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	New Orleans, La. (1,017.5 mb.)				North Platte, Nebr. (916.5 mb.)				Oakland, Calif. (1,015.4 mb.)				Oklahoma City, Okla. (969.4 mb.)				Omaha, Nebr. (979.9 mb.)				Phoenix, Ariz. (972.4 mb.)				Pittsburgh, Pa. (971.0 mb.)			
Surface	31	2	15.4	80	31	849	1.7	76	31	6	11.6	75	31	391	9.2	69	31	308	2.9	74	31	339	16.3	33	31	382	3.7	70
1,000	31	149	16.1	72	31	136	(*)	----	31	134	10.6	75	31	129	(*)	----	31	140	(*)	----	31	98	(*)	----	31	140	(*)	----
950	31	589	13.6	68	31	560	(*)	----	31	562	7.9	70	31	561	9.5	64	31	558	1.2	69	31	541	18.2	25	31	564	3.3	65
900	31	1,038	11.9	62	31	995	2.5	70	31	1,003	5.1	70	31	1,005	7.7	65	31	991	−.1	67	31	998	14.6	26	31	995	.8	65
850	31	1,516	10.9	53	31	1,456	.7	62	31	1,467	2.3	67	31	1,475	6.3	58	31	1,448	−1.0	61	31	1,477	10.6	29	31	1,452	−1.6	63
800	30	2,022	9.6	42	31	1,941	−.9	60	31	1,955	−.4	62	31	1,972	5.5	47	31	1,931	−1.6	55	31	1,978	6.6	32	31	1,933	−3.8	57
750	30	2,559	6.9	35	31	2,459	−2.8	55	31	2,474	−3.3	55	31	2,499	2.7	41	31	2,448	−3.6	54	31	2,510	2.7	33	31	2,446	−5.9	53
700	30	3,118	3.9	34	31	2,998	−5.4	56	31	3,012	−6.3	51	31	3,051	−.1	36	31	2,986	−6.1	50	31	3,058	−1.3	31	31	2,979	−7.9	52
650	30	3,721	.3	35	31	3,581	−8.7	55	31	3,592	−9.8	49	31	3,642	−3.7	31	31	3,569	−9.3	45	31	3,645	−5.3	30	31	3,560	−10.8	51
600	30	4,353	−3.6	33	31	4,192	−12.9	54	31	4,201	−13.7	46	31	4,268	−7.6	29	31	4,177	−13.1	43	31	4,268	−8.7	----	31	4,164	−14.1	50
550	30	5,036	−8.3	----	30	4,857	−17.6	53	30	4,864	−18.3	46	31	4,942	−12.4	----	31	4,837	−17.5	38	31	4,935	−13.2	----	31	4,825	−18.1	48
500	30	5,768	−13.4	----	30	5,560	−22.8	----	30	5,565	−23.5	----	31	5,659	−17.9	----	31	5,542	−22.5	----	31	5,656	−18.6	----	31	5,525	−22.5	----
450	30	6,571	−19.0	----	30	6,329	−28.5	----	30	6,335	−29.0	----	31	6,444	−23.9	----	30	6,314	−28.2	----	31	6,436	−24.8	----	31	6,296	−28.0	----
400	30	7,428	−25.6	----	29	7,153	−35.0	----	30	7,161	−35.2	----	30	7,283	−30.7	----	29	7,143	−34.5	----	31	7,289	−30.9	----	31	7,127	−34.1	----
350	30	8,382	−32.6	----	29	8,069	−42.4	----	30	8,079	−41.4	----	29	8,213	−37.6	----	27	8,057	−41.1	----	31	8,214	−37.8	----	30	8,041	−40.6	----
300	30	9,449	−40.9	----	27	9,095	−49.6	----	27	9,107	−48.4	----	28	9,256	−45.5	----	26	9,084	−47.9	----	30	9,259	−45.2	----	29	9,080	−46.3	----
250	28	10,661	−50.3	----	27	10,273	−54.5	----	25	10,278	−54.1	----	27	10,449	−52.9	----	25	10,272	−53.6	----	28	10,457	−52.2	----	27	10,285	−52.6	----
200	25	12,087	−57.9	----	25	11,690	−54.6	----	24	11,707	−55.1	----	22	11,830	−56.3	----	18	11,689	−54.3	----	25	11,883	−57.4	----	22	11,723	−55.3	----
175	23	12,926	−60.8	----	22	12,542	−53.7	----	24	12,563	−53.6	----	17	12,726	−56.1	----	17	12,553	−53.6	----	21	12,718	−56.7	----	20	12,557	−55.2	----
150	19	13,884	−62.0	----	18	13,525	−54.3	----	22	13,555	−53.9	----	16	13,704	−57.4	----	13	13,555	−53.5	----	20	13,695	−58.0	----	15	13,491	−54.8	----
125	14	15,008	−64.7	----	11	14,696	−55.7	----	20	14,724	−55.5	----	11	14,865	−59.5	----	7	14,717	−56.3	----	13	14,825	−58.7	----	12	14,643	−56.2	----
100	12	16,350	−67.9	----	----	----	----	----	15	16,134	−57.4	----	6	16,238	−62.2	----	----	----	----	----	12	16,221	−61.3	----	----	----	----	----
80	5	17,675	−69.5	----	----	----	----	----	8	17,534	−57.7	----	----	----	----	----	----	----	----	----	8	17,598	−60.2	----	----	----	----	----
60	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	7	19,401	−59.8	----	----	----	----	----

See footnotes at end of table

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meters, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during March 1949*—Continued

Standard pressure (surface mb)	Portland, Maine (1,010.7 mb.)				Rapid City, S. Dak. (901.7 mb.)				St. Cloud, Minn. (978.3 mb.)				San Antonio, Tex. (987.0 mb.)				San Juan, P. R. (1,014.8 mb.)				Santa Maria, Calif. (1,008.5 mb.)				Sault Ste. Marie, Mich. (988.9 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	20	−0.4	72	31	980	−1.8	78	31	317	−3.5	78	31	240	16.1	72	31	15	23.4	81	31	71	11.2	82	31	221	−4.5	74
1,000	31	105	(*)	----	31	143	(*)	----	31	142	(*)	----	31	127	(*)	----	31	143	22.4	80	31	142	11.0	80	31	132	(*)	----
950	31	520	−.7	53	31	562	(*)	----	31	550	−4.1	71	31	569	15.9	62	31	589	19.0	82	31	573	8.9	73	31	535	−5.8	71
900	31	946	−2.6	52	31	995	(*)	----	31	973	−5.1	65	31	1,022	13.6	62	31	1,051	15.8	80	31	1,015	6.7	65	31	958	−6.9	70
850	31	1,398	−4.0	51	31	1,451	−.8	64	31	1,422	−5.8	58	31	1,503	12.2	52	31	1,534	13.0	77	31	1,482	3.9	64	31	1,403	−8.4	69
800	31	1,875	−5.9	50	31	1,934	−2.2	60	31	1,896	−6.9	48	31	2,010	10.8	35	31	2,042	10.3	72	31	1,973	1.4	56	31	1,872	−9.8	65
750	31	2,385	−7.7	49	31	2,449	−4.5	55	31	2,406	−8.7	44	31	2,547	8.9	27	31	2,583	8.4	57	31	2,495	−.9	46	31	2,373	−11.6	60
700	31	2,912	−9.9	47	31	2,986	−7.4	52	31	2,931	−10.6	42	31	3,113	5.5	26	31	3,147	6.6	41	31	3,038	−4.0	41	31	2,895	−13.6	55
650	31	3,488	−12.8	46	31	3,562	−10.9	54	31	3,505	−13.3	42	31	3,714	1.5	27	31	3,753	3.7	33	31	3,623	−7.5	41	31	3,463	−16.0	53
600	31	4,088	−16.1	50	31	4,169	−14.4	50	31	4,104	−16.5	44	31	4,353	−3.2	29	31	4,395	.0	----	31	4,238	−11.3	39	31	4,056	−19.1	51
550	31	4,743	−20.0	50	31	4,824	−18.6	46	31	4,755	−20.5	----	31	5,035	−8.2	32	31	5,086	−4.1	----	31	4,902	−15.4	38	31	4,701	−23.2	----
500	30	5,443	−24.3	----	31	5,527	−23.7	----	31	5,452	−25.0	----	31	5,767	−13.4	36	31	5,832	−8.8	----	31	5,614	−20.2	38	31	5,390	−27.6	----
450	30	6,210	−29.4	----	31	6,295	−29.1	----	31	6,216	−30.3	----	30	6,561	−18.9	38	31	6,647	−14.5	----	31	6,390	−25.8	----	31	6,145	−32.7	----
400	30	7,034	−35.5	----	30	7,124	−35.3	----	31	7,038	−36.3	----	29	7,428	−25.2	----	31	7,522	−20.9	----	31	7,229	−32.2	----	30	6,968	−38.1	----
350	30	7,950	−42.3	----	30	8,039	−42.7	----	31	7,951	−43.0	----	28	8,382	−32.3	----	31	8,494	−28.5	----	31	8,158	−39.0	----	29	7,879	−44.0	----
300	30	8,976	−49.0	----	28	9,064	−50.8	----	31	8,974	−49.7	----	27	9,451	−40.4	----	31	9,580	−36.7	----	31	9,198	−46.3	----	27	8,906	−50.1	----
250	29	10,151	−54.7	----	25	10,241	−55.8	----	31	10,152	−54.0	----	27	10,668	−49.5	----	29	10,817	−45.5	----	30	10,393	−53.6	----	20	10,117	−53.5	----
200	23	11,621	−55.5	----	16	11,680	−56.5	----	30	11,587	−53.5	----	22	12,104	−56.7	----	28	12,276	−55.8	----	30	11,814	−55.8	----	9	11,472	−52.2	----
175	20	12,472	−56.1	----	12	12,529	−54.4	----	29	12,446	−52.6	----	19	12,948	−59.5	----	26	13,116	−61.3	----	28	12,664	−54.7	----	6	12,341	−52.2	----
150	16	13,445	−55.2	----	6	13,508	−54.0	----	28	13,443	−52.3	----	15	13,904	−61.7	----	23	14,068	−66.9	----	27	13,650	−55.1	----	----	------	------	----
125	10	14,593	−57.3	----	----	------	------	----	24	14,616	−53.4	----	11	15,025	−63.9	----	20	15,160	−72.4	----	27	14,810	−56.9	----	----	------	------	----
100	----	------	------	----	----	------	------	----	24	16,047	−54.8	----	10	16,383	−67.4	----	14	16,472	−77.5	----	25	16,220	−59.4	----	----	------	------	----
80	----	------	------	----	----	------	------	----	16	17,493	−56.1	----	----	------	------	----	9	17,756	−76.6	----	20	17,614	−60.1	----	----	------	------	----
60	----	------	------	----	----	------	------	----	5	19,376	−55.7	----	----	------	------	----	----	------	------	----	13	19,406	−59.1	----	----	------	------	----

Standard pressure (surface mb)	Spokane, Wash. (929.9 mb.)				Swan Island, W. I. (1,013.6 mb.)				Tacubaya, Mex. (773.0 mb.)				Tampa, Fla. (1,017.7 mb.)				Tatoosh Island, Wash. (1,010.7 mb.)				Toledo, Ohio (993.9 mb.)				Washington, D. C. (1,014.2 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	30	721	3.2	76	31	10	24.7	77	31	2,306	18.2	39	31	9	17.4	75	31	31	7.3	79	31	191	1.1	73	31	25	7.4	60
1,000	30	125	(*)	----	31	128	24.1	78	31	31	(*)	----	31	159	18.1	69	31	116	6.6	76	31	141	(*)	----	31	141	7.0	55
950	30	548	(*)	----	31	580	20.9	82	31	498	(*)	----	31	600	16.5	58	31	538	4.7	73	31	558	1.3	66	31	565	5.3	55
900	30	986	3.4	64	31	1,043	18.1	74	31	978	(*)	----	31	1,056	14.3	50	31	975	2.2	71	31	987	−1.3	66	31	1,001	2.5	56
850	30	1,448	.8	64	31	1,531	15.4	64	31	1,477	(*)	----	31	1,537	11.5	49	31	1,434	−.7	67	31	1,442	−2.8	57	31	1,461	−.4	57
800	30	1,932	−2.3	65	31	2,044	12.8	56	31	2,008	(*)	----	31	2,042	9.0	48	31	1,916	−3.5	63	31	1,921	−4.3	50	31	1,944	−2.6	54
750	30	2,445	−5.9	67	31	2,587	10.2	44	31	2,564	16.3	39	31	2,579	6.6	38	31	2,430	−6.6	63	31	2,434	−6.1	46	31	2,462	−4.5	52
700	30	2,979	−9.1	66	31	3,155	7.8	30	31	3,146	11.7	42	31	3,137	4.0	----	31	2,959	−9.7	60	31	2,966	−8.1	41	31	2,995	−6.8	48
650	29	3,554	−12.6	62	31	3,767	5.2	24	31	3,762	6.8	48	31	3,738	.5	----	31	3,535	−12.6	57	31	3,548	−10.8	41	30	3,574	−9.9	43
600	29	4,154	−16.6	59	31	4,413	2.5	----	31	4,413	1.6	57	31	4,373	−3.5	----	31	4,135	−16.6	53	30	4,146	−15.0	42	30	4,183	−13.2	39
550	29	4,807	−20.8	----	31	5,110	−.8	----	31	5,107	−3.7	56	31	5,053	−7.8	----	31	4,789	−20.8	----	30	4,801	−19.4	40	30	4,842	−17.3	37
500	29	5,500	−25.6	----	31	5,867	−5.7	----	31	5,855	−8.2	38	31	5,790	−12.6	----	31	5,482	−25.2	----	30	5,500	−24.3	----	30	5,548	−22.1	----
450	29	6,261	−31.2	----	31	6,690	−11.6	----	30	6,678	−13.4	----	31	6,590	−18.1	----	31	6,243	−30.5	----	30	6,265	−29.5	----	30	6,317	−27.3	----
400	28	7,080	−37.4	----	31	7,577	−18.4	----	29	7,552	−19.7	----	31	7,455	−24.5	----	31	7,066	−36.5	----	29	7,082	−35.6	----	30	7,152	−33.1	----
350	28	7,989	−44.1	----	31	8,558	−25.9	----	27	8,529	−27.8	----	30	8,416	−31.7	----	30	7,979	−42.8	----	28	8,005	−41.8	----	30	8,078	−39.5	----
300	28	9,006	−51.0	----	31	9,654	−34.6	----	25	9,614	−36.7	----	29	9,487	−40.1	----	30	9,002	−49.6	----	28	9,032	−48.7	----	29	9,128	−46.1	----
250	28	10,177	−55.8	----	31	10,902	−44.3	----	23	10,852	−46.1	----	25	10,706	−49.7	----	29	10,182	−53.9	----	28	10,215	−53.9	----	29	10,321	−52.7	----
200	26	11,596	−53.5	----	31	12,363	−55.5	----	22	12,300	−56.0	----	21	12,150	−57.0	----	28	11,615	−52.7	----	28	11,640	−54.7	----	29	11,748	−55.5	----
175	25	12,458	−51.7	----	30	13,201	−60.8	----	20	13,136	−60.4	----	16	13,015	−60.3	----	27	12,479	−51.1	----	28	12,494	−54.3	----	27	12,605	−55.2	----
150	22	13,459	−51.7	----	27	14,145	−66.4	----	16	14,091	−65.1	----	12	13,989	−63.4	----	26	13,475	−50.7	----	26	13,468	−54.7	----	25	13,582	−56.6	----
125	19	14,639	−52.7	----	21	15,241	−72.1	----	14	15,184	−70.4	----	10	15,086	−68.1	----	22	14,659	−51.6	----	24	14,638	−56.8	----	23	14,720	−57.8	----
100	17	16,076	−53.9	----	11	16,522	−75.9	----	8	16,492	−75.6	----	8	16,404	−72.2	----	21	16,105	−52.7	----	15	16,047	−56.4	----	15	16,128	−59.8	----
80	12	17,506	−54.3	----	8	17,809	−75.6	----	6	17,793	−77.9	----	6	17,730	−72.6	----	16	17,548	−53.0	----	11	17,470	−57.1	----	12	17,508	−60.9	----
60	9	19,351	−54.3	----	----	------	------	----	----	------	------	----	----	------	------	----	10	19,402	−52.0	----	----	------	------	----	8	19,323	−62.4	----
50	6	20,542	−53.0	----	----	------	------	----	----	------	------	----	----	------	------	----	----	------	------	----	----	------	------	----	5	20,503	−63.0	----
40	----	------	------	----	----	------	------	----	----	------	------	----	----	------	------	----	----	------	------	----	----	------	------	----	5	21,879	−61.8	----

[1] Data not yet received.

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

NOTE.—All observations scheduled between 0300 and 0500, G. C. T. except at Ciudad Victoria, Mazatlan and Merida, where they are taken near 0200, G. C. T. "Number of observations" refers to those of dynamic height only. (In a few cases temperature or humidity data may be missing for one or more standard pressure surfaces of some observations.) Relative humidity data are not published for standard pressure surfaces having a corresponding mean temperature below −20° C.

Relative humidity data, beginning with October 1, 1948, are computed, and expressed in these tables, on the basis of the vapor pressure over water. Upper air values of relative humidity at levels with temperatures less than 0° C. have formerly been computed and expressed on the basis of the vapor pressure over ice. 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.