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 February 1946*—Continued

Standard pressure surface (mb.)	Tacubaya, Mexico (773.6 mb.)				Tampa, Fla. (1,020.8 mb.)				Tatoosh Island, Wash. (1,010.2 mb.)				Toledo, Ohio (992.5 mb.)				Washington, D. C. (1,015.0 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
Surface	28	2,306	14.7	52	28	3	16.2	78	28	31	6.2	85	26	191	−1.5	78	28	25	3.3	63
1,000	28	67	(*)	----	28	178	16.1	71	28	116	(*)	----	26	130	(*)	----	28	145	2.7	59
950	28	529	(*)	----	28	615	14.2	67	28	532	2.6	86	26	536	−3.1	77	28	559	1.2	58
900	28	1,002	(*)	----	28	1,068	12.2	60	28	967	−0.6	89	26	964	−4.3	73	28	992	−0.7	60
850	28	1,496	(*)	----	28	1,546	10.4	53	28	1,421	−3.8	89	26	1,414	−4.9	65	28	1,447	−2.2	58
800	28	2,021	(*)	----	28	2,049	8.8	37	28	1,898	−6.1	85	26	1,889	−6.1	60	28	1,927	−4.0	57
750	28	2,570	13.0	52	28	2,585	6.3	43	28	2,404	−9.0	75	25	2,392	−7.7	56	28	2,441	−6.0	56
700	28	3,143	8.8	56	28	3,143	3.2	40	28	2,932	−11.8	71	25	2,924	−9.6	53	28	2,973	−8.2	53
650	28	3,755	4.1	62	28	3,740	−0.6	45	28	3,497	−15.3	71	25	3,495	−12.6	52	28	3,548	−11.3	52
600	28	4,399	−1.0	69	28	4,374	−4.5	43	28	4,096	−19.0	68	25	4,100	−16.2	49	28	4,155	−14.6	51
550	28	5,085	−5.5	58	28	5,055	−8.1	41	28	4,739	−22.9	----	25	4,746	−20.4	----	28	4,811	−18.3	51
500	28	5,830	−9.7	----	28	5,789	−12.7	39	28	5,430	−27.4	----	25	5,449	−24.9	----	27	5,516	−22.8	----
450	27	6,647	−15.2	----	28	6,591	−18.2	43	27	6,190	−32.2	----	25	6,210	−30.1	----	27	6,286	−27.8	----
400	27	7,518	−21.8	----	28	7,455	−24.8	----	27	7,009	−38.0	----	25	7,037	−35.8	----	27	7,119	−33.4	----
350	23	8,483	−29.4	----	28	8,410	−32.3	----	26	7,919	−44.1	----	25	7,953	−41.8	----	27	8,042	−39.8	----
300	22	9,570	−38.0	----	28	9,477	−41.1	----	26	8,938	−50.6	----	25	8,982	−48.4	----	27	9,078	−47.2	----
250	22	10,797	−47.4	----	28	10,689	−50.5	----	23	10,106	−54.6	----	24	10,176	−53.8	----	26	10,265	−53.7	----
200	18	12,242	−56.7	----	28	12,113	−58.6	----	23	11,532	−52.8	----	24	11,602	−54.9	----	23	11,684	−56.7	----
175	11	13,079	−60.2	----	27	12,945	−61.2	----	21	12,399	−51.1	----	20	12,424	−52.1	----	19	12,543	−55.2	----
150	6	14,040	−64.4	----	26	13,898	−64.0	----	15	13,373	−51.4	----	17	13,426	−52.8	----	15	13,508	−55.7	----
125	----	-------	------	----	20	15,019	−67.8	----	12	14,550	−50.9	----	10	14,579	−54.2	----	9	14,641	−55.9	----
100	----	-------	------	----	6	16,347	−71.0	----	5	15,965	−52.4	----	---	-------	------	----	6	16,082	−58.8	----

[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 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," page 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 REPORT FOR SWAN ISLAND, WEST INDIES

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 January 1946*

STATIONS AND MEAN SURFACE PRESSURES

Standard pressure surface (mb.)	Swan Island, W. I. (1,014.8 mb.)				Standard pressure surface (mb.)	Swan Island, W. I. (1,014.8 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity		Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	10	24.7	80	500	31	5,865	−7.0	--------
1,000	31	139	23.9	81	450	31	6,685	−12.7	--------
950	31	591	20.8	81	400	31	7,566	−19.4	--------
900	31	1,054	17.8	76	350	31	8,543	−27.2	--------
850	31	1,541	14.6	75	300	30	9,632	−35.9	--------
800	31	2,052	12.4	58	250	30	10,872	−45.8	--------
750	31	2,597	9.8	56	200	29	12,982	−55.8	--------
700	31	3,162	7.6	43	175	28	13,165	−60.8	--------
650	31	3,777	5.1	--------	150	24	14,114	−65.2	--------
600	31	4,418	1.9	--------	125	15	15,207	−71.2	--------
550	31	5,115	−2.3	--------	100	7	16,495	−78.7	--------

TABLE 2.—*Free-air resultant winds based on pilot balloon observations made near 5 p. m., E. S. T. (2200 G. C. T.) during February 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.)			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	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	28	189	3.1	28	237	2.4	27	298	2.9	27	261	5.5	26	272	1.9	28	114	1.8	24	69	3.2	26	249	4.8	27	287	2.4	27	241	1.8	24	244	2.5	27	241	0.8	25	240	3.1
500							27	283	2.4										24	92	3.2	26	250	7.1	27	262	4.1	27	237	4.7	24	236	4.5						
1,000	28	207	4.2				27	262	3.8				26	285	5.7	28	129	1.8	19	34	2.3	18	270	9.5	25	273	6.9	25	273	5.7	22	241	8.6						
1,500	27	227	4.9				25	264	5.5	27	269	10.0	24	293	8.9	28	204	1.9	16	337	2.2	10	272	11.7	20	272	10.0	24	263	9.3	19	263	10.8				25	245	3.7
2,000	27	245	7.1	28	257	3.1	22	279	9.8	26	277	10.4	21	293	11.8	28	257	4.4	14	323	3.4				17	277	12.7	23	278	12.7	17	276	14.5	27	269	1.2	25	240	3.8
2,500	27	258	9.5	28	253	4.1	22	278	12.1	26	284	11.3	19	294	13.6	23	269	5.8	12	281	3.5				13	294	17.3	21	269	13.8	13	282	17.4	27	255	3.3	25	251	5.8
3,000	27	259	11.0	28	271	6.2	20	274	14.2	22	287	10.9	19	297	14.3	19	277	6.5	12	249	6.0				11	300	18.2	21	274	15.1	10	292	17.8	27	276	6.4	25	255	8.8
4,000	26	269	13.4	25	286	10.4	13	278	15.8	17	294	11.9	15	290	15.2	15	286	8.8	11	270	7.6				11	300	25.0	18	277	20.0				26	276	9.5	25	262	10.6
5,000	23	274	15.4	24	277	13.9				15	300	16.0	13	289	18.3	13	280	11.3	10	262	10.3							15	273	23.8				25	276	13.4	22	271	10.6
6,000	20	268	16.2	23	280	15.5				12	286	18.5	10	303	24.8	11	297	11.7										12	276	25.1				24	276	16.6	11	267	17.2
8,000	15	276	19.7	18	284	14.8				10	284	25.6																						16	262	24.4			
10,000				14	281	17.7																																	

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. (573 m.)			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.)		
	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	28	156	0.3	28	306	2.1	26	243	2.5	27	275	3.1	28	178	0.1	26	242	2.6	28	123	0.9	24	217	1.6	26	210	0.6	28	112	2.6	25	31	1.4	26	248	2.2	25	299	4.3
500							26	248	3.8				28	220	1.8	26	247	5.6				24	210	3.2	26	215	0.8	28	108	3.7	25	33	0.8	26	240	3.7	24	279	5.4
1,000							24	247	6.4	27	263	6.6	27	231	3.8	22	246	10.0	28	103	1.1	21	247	4.9	26	186	2.2	28	126	2.1	22	309	2.3	23	245	6.2	23	285	8.9
1,500				28	303	2.5	24	256	8.8	27	281	9.8	27	251	5.5	16	269	12.8	28	190	1.2	20	265	6.7	25	200	4.7	27	176	1.2	19	334	3.0	23	262	8.1	21	292	13.4
2,000	28	236	0.7	28	282	3.1	21	279	11.5	25	285	11.0	27	259	7.5	14	262	15.5	28	244	2.8	19	279	8.8	24	220	5.7	24	276	2.4	19	300	4.8	22	275	9.8	18	295	16.5
2,500	28	254	1.9	28	250	3.4	20	293	14.6	22	283	12.5	25	269	8.1	14	268	17.5	28	262	4.1	18	278	11.5	21	222	6.6	23	277	3.8	17	282	8.4	19	291	10.6	16	294	16.9
3,000	28	275	3.0	28	243	4.8	20	290	16.8	19	286	12.7	23	276	9.5	10	279	17.0	26	277	4.5	17	279	13.7	19	238	7.4	21	272	5.4	15	277	10.8	19	283	13.5	12	298	20.8
4,000	27	286	7.2	27	272	8.2	17	291	20.2	13	306	12.3	21	275	13.2				25	290	7.5	14	281	18.6	14	234	9.1	19	276	7.9	11	278	13.8	15	283	21.1			
5,000	23	281	12.8	22	289	11.1	16	284	21.6				15	279	16.3				24	287	11.1	13	275	18.7				16	277	11.0				13	282	23.3			
6,000	21	284	14.8	15	285	12.6	10	287	27.0				12	274	20.5				24	279	14.2	11	279	20.9				15	274	13.7				11	285	29.0			
8,000	15	302	17.7																18	278	17.3																		
10,000	14	311	22.2																10	290	15.7																		

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.)			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.)		
	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	26	238	2.8	26	214	3.6	28	299	2.0	28	192	0.6	27	323	5.6	26	242	2.2	27	295	1.8	26	113	0.1	27	273	4.1	24	300	2.5	25	203	3.0	28	211	2.1	24	280	3.4
500	26	268	1.5	26	212	3.7	28	295	2.3	28	213	0.9				26	250	4.9	27	268	2.6	26	140	1.4	27	289	2.8	24	302	2.1	25	211	6.0				24	269	7.6
1,000	23	332	0.8	26	234	4.6	26	265	3.8	28	231	1.3	27	325	5.7	22	249	7.4	24	266	5.2	26	195	1.7	27	311	2.3	22	293	4.7	22	216	8.1	28	215	4.5	23	271	9.7
1,500	19	353	1.6	25	252	7.9	26	273	7.8	27	201	1.4	27	313	7.0	21	261	9.4	22	277	9.4	25	243	2.9	24	341	2.2	15	308	5.3	20	220	7.4	22	238	5.9	22	273	13.4
2,000	19	328	2.5	25	266	9.5	25	273	11.2	27	233	1.7	25	292	8.2	18	278	11.4	21	278	12.2	21	265	5.1	24	318	3.5	13	298	6.6	15	224	7.6	18	254	7.4	22	275	17.1
2,500	19	307	4.0	25	263	11.0	24	287	13.0	27	261	2.9	25	285	10.7	18	278	13.2	19	285	14.2	19	264	8.0	24	302	4.9	13	289	10.7	14	227	7.2	15	262	7.5	19	283	18.0
3,000	18	286	4.2	23	261	11.5	23	286	16.2	27	269	4.0	24	291	12.6	16	279	14.4	18	285	16.0	19	258	10.0	24	300	5.5	13	285	13.2	12	245	7.0				18	286	19.9
4,000	17	304	6.1	20	272	15.5	20	286	18.4	26	284	7.3	22	289	14.2	14	283	20.9	12	291	21.1	16	262	14.3	21	298	7.3				10	260	7.9				14	297	26.6
5,000	16	308	9.8	19	279	17.8	16	284	21.5	24	291	9.4	19	286	17.9	14	281	23.0	10	271	22.5	13	269	14.4	20	289	9.8										14	293	30.6
6,000	11	314	11.8	19	278	19.7	12	289	27.1	23	284	10.8	17	292	21.2	10	288	25.4				11	265	14.5	19	279	11.7										12	295	38.3
8,000										14	285	12.0													17	290	14.7												
10,000																									11	284	16.8												

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

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]	52.1	NNW.	2,277	22	Portland, Maine	64.0	WNW.	4,836	2	Toledo, Ohio	76.0	SW.	7,157	15	Portland, Maine.
East-Central [2]	53.8	SW.	1,489	14	Raleigh, N. C.	77.0	SW.	5,000	14	Huntington, W. Va.	100.0	W.	8,662	2	Huntington, W. Va.
Southeast [3]	46.0	SW.	2,142	14	Spartanburg, S. C.	61.0	WSW.	3,871 / 4,961	10	Charleston, S. C.	60.0	WNW.	8,746	3	Charleston, S. C.
North-Central [4]	46.2	NNW.	2,332	5	Rapid City, S. Dak.	59.0	NNW.	4,702	14	International Falls, Minn.	71.2	WNW.	9,222	20	Milwaukee, Wis.
Central [5]	44.6	WSW.	2,500	21	Dodge City, Kans.	48.2	WSW.	2,790	21	Dodge City, Kans.	86.8	W.	9,028	2	Goodland, Kans.
South-Central [6]	44.5	WNW.	2,200	9	Del Rio, Tex.	56.8	WNW.	4,493	6	Little Rock, Ark.	92.0	WSW.	11,749	10	Waco, Tex.
Northwest [7]	41.4	W.	2,477	23	Havre, Mont.	43.0	WSW.	5,000	27	Medford, Oreg.	84.8	WNW.	9,010	18	Billings, Mont.
West-Central [8]	36.0	W.	2,093	25	Cheyenne, Wyo.	66.0	W.	3,587	25	Cheyenne, Wyo.	66.0	W.	6,127	7	Denver, Colo.
Southwest [9]	35.3	SW.	2,278	4	Roswell, N. Mex.	41.8	W.	3,538	5	Roswell, N. Mex.	80.0	W.	13,247	2	Raton, N. Mex.

[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.